# UNITED STATES <br> SECURITIES AND EXCHANGE COMMISSION <br> Washington, D.C. 20549 

## FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d) of the
Securities Exchange Act of 1934
Date of Report
(Date of earliest event reported)
November 9, 2004

## Consolidated Edison, Inc.

(Exact name of registrant as specified in its charter)

New York
(State or Other Jurisdiction of Incorporation)

4 Irving Place, New York, New York
(Address of principal executive offices)

## 1-14514

(Commission File Number)

13-3965100
(IRS Employer Identification No.)

10003
(Zip Code)

Registrant's telephone number, including area code
(212) 460-4600

## Consolidated Edison Company of New York, Inc. <br> (Exact name of registrant as specified in its charter)

New York
(State or Other Jurisdiction of Incorporation)

1-1217
(Commission File Number)

13-5009340
(IRS Employer Identification No.)

10003
(Zip Code)

4 Irving Place, New York, New York
(Address of principal executive offices)
$\qquad$

Registrant's telephone number, including area code
(212) 460-4600

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):
$\square$ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
$\square$ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
$\square$ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

## ITEM 1.01 Entry into a Material Definitive Agreement.

On November 16, 2004, the Con Edison Retirement Plan (the "Plan") was amended and restated. The Plan covers substantially all of the employees of Consolidated Edison. Inc.'s regulated utility subsidiaries, Consolidated Edison Company of New York, Inc. ("Con Edison of New York") and Orange and Rockland Utilities, Inc., and employees of its unregulated subsidiaries that were formerly employed by Con Edison of New York. The amendments include a change to the calculation of the "final average salary" used to determine the pension benefits of many Con Edison of New York and unregulated subsidiary participants. Effective as of June 30, 2004 for participants covered by Con Edison of New York's collective bargaining agreement for whom this change is applicable and January 1, 2005 for other participants for whom this change is applicable, final average salary will be the participant's highest average salary for 48 months (instead of the 60 month period the Plan previously provided) within the final 120 consecutive months prior to retirement. See "Executive Compensation - Pension Plans" in Con Edison’s definitive proxy statement for the Annual Meeting held on May 17, 2004.

### 2.03 Creation of a Direct Financial Obligation or an Obligation under an Off-Balance Sheet Arrangement of a Registrant.

On November 9, 2004, Con Edison of New York entered into a Bond Purchase Agreement with New York State Energy Research and Development Authority ("NYSERDA") and certain underwriters (Citigroup Global Markets Inc., Morgan Stanley \& Co. Incorporated and J.P. Morgan Securities Inc.) with respect to $\$ 99,000,000$ aggregate principal amount of NYSERDA’s Facilities Revenue Bonds, Series 2004C (the "Refunding Bonds"). The Refunding Bonds were issued on November 12, 2004 under and secured by a Trust Indenture dated as of November 1, 2004 (the "Indenture") between NYSERDA and The Bank of New York, as trustee (the "Trustee"). The description in this report of the Indenture and the Refunding Bonds is subject to, and qualified in its entirety by, reference to the Indenture, a copy of which (including the form of the Refunding Bonds) is included as an exhibit to this report.

The Refunding Bonds mature on November 1, 2039 and are subject to optional redemption upon the request of Con Edison of New York at a redemption price equal to $100 \%$ of the aggregate principal amount thereof plus accrued and unpaid interest. The Refunding Bonds are subject to mandatory redemption on or after November 12, 2024 if the State of New York, upon furnishing sufficient funds therefore, requires NYSERDA to do so.

The proceeds from the sale of the Refunding Bonds are being used, together with other funds provided by Con Edison of New York to pay the redemption price of the $\$ 100,000,000$ aggregate principal amount of NYSERDA’s $71 / 8 \%$ Facilities Revenue Bonds, Series 1994 A (Consolidated Edison Company of New York, Inc. Project) (the "Prior Bonds"), which have been called for redemption on December 12, 2004. Upon the redemption of the Prior Bonds, Con Edison of New York's obligation under the promissory note it issued in connection with the Prior Bonds will be terminated.

Pursuant to a Participation Agreement, dated as of November 1, 2004 (the "Participation Agreement"), between NYSERDA and Con Edison of New York, the company issued a promissory note (the "Company Note") under which the company is obligated to pay to the Trustee amounts sufficient for, together with other amounts held by the Trustee and available under the Indenture for application to, the payment of principal of and premium, if any, and interest on the Refunding Bonds as the same become due and payable. The description in this report of the Participation Agreement and the Company Note is subject to, and qualified in its entirety by, reference to the Participation Agreement, a copy of which (including the form of the Company Note) is included as an exhibit to this report.

The Refunding Bonds initially bear interest at rates that will be determined weekly by designated remarketing agents. The initial weekly rate for the Refunding Bonds was $1.70 \%$ per annum. While the Refunding Bonds bear interest at a weekly rate, they may be tendered for purchase by the registered owners thereof. The Refunding Bonds are subject to mandatory tender for purchase in certain cases, including a change in interest rate mode or the replacement of, or failure to timely extend the term of, the irrevocable letter of credit (the "Support Facility") that has been delivered to the Trustee and will be drawn upon to pay the purchase price of tendered Refunding Bonds in the event that moneys sufficient for such purpose are not available from the proceeds of the remarketing of such bonds. The Support Facility will also be drawn upon to pay the principal or redemption price of, or interest on, the Bonds.when due. The Support Facility expires on November 12, 2009, unless extended in accordance with its terms. Con Edison of New York entered into an agreement pursuant to which it agreed to reimburse the issuer of the Support Facility for amounts it pays under the Support Facility (the "Reimbursement Agreement').

In connection with the Refunding Bonds, Con Edison of New York agreed to certain covenants with respect to the tax-exempt status of the financing, including covenants with respect to the use of the facilities financed with the proceeds of the Prior Bonds. The company also agreed to provisions for the maintenance of liquidity and credit facilities. The failure to comply with these covenants and other provisions would, except as otherwise provided, constitute an event of default. In the Reimbursement Agreement, the company agreed to certain covenants (including that its ratio of debt to total capital will not at any time exceed 0.65 to 1 ), the breach of which would constitute an event of default and the company also agreed to include as an event of default, a default in payment of other debt obligations exceeding in the aggregate $\$ 100$ million. If an event of default were to occur under the Indenture, the Participation Agreement or the Reimbursement Agreement, the principal and accrued interest on the Refunding Bonds might and, in certain circumstances would, become due and payable immediately.

## ITEM 9.01 Financial Statements and Exhibits

## (c) Exhibits

4.1 Participation Agreement, dated as of November 1, 2004, between NYSERDA and the Company.
4.2 Indenture of Trust, dated as of November 1, 2004 between NYSERDA and The Bank of New York, as Trustee.

10 The Con Edison Retirement Plan, as amended and restated, entered into November 16, 2004.

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

CONSOLIDATED EDISON, INC.

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

By: /s/ Joan S. Freilich
Joan S. Freilich
Executive Vice President and Chief Financial Officer

# NEW YORK STATE ENERGY RESEARCH 

AND DEVELOPMENT AUTHORITY
and
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

PARTICIPATION AGREEMENT

Dated as of November 1, 2004
relating to
\$99,000,000 Facilities Revenue Bonds, Series 2004C (Consolidated Edison Company of New York, Inc. Project)

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This PARTICIPATION AGREEMENT, dated as of November 1, 2004, between NEW YORK STATE ENERGY RESEARCH AND
DEVELOPMENT AUTHORITY, a body corporate and politic, constituting a public benefit corporation, established and existing under and by virtue of the laws of the State of New York (the "Authority") and CONSOLIDATED EDISON COMPANY OF NEW YORK, INC., a corporation duly organized and existing and qualified to do business as a public utility under the laws of the State of New York (the "Company"),

## WITNESSETH:

WHEREAS, pursuant to a special act of the Legislature of the State of New York (Title 9 of Article 8 of the Public Authorities Law of New York, as from time to time amended and supplemented, herein called the "Act"), the Authority has been established, as a body corporate and politic, constituting a public benefit corporation; and

WHEREAS, pursuant to the Act, the Authority is empowered to contract with any power company to participate in the construction of facilities for the furnishing of electric energy and the furnishing of gas to the extent required by the public interest in development, health, recreation, safety, conservation of natural resources and aesthetics; and

WHEREAS, pursuant to the Act, the Authority is also authorized to extend credit and make loans from bond proceeds to any person for the construction, acquisition, installation, reconstruction, improvement, maintenance, equipping, furnishing or leasing of any special energy project (as defined in the Act) including, but not limited to, facilities for the distribution of steam or for the reimbursement to any person for costs incurred in connection with a special energy project completed or not completed at the time of such credit or loan, which credits or loans may, but need not, be secured by mortgages, contracts, leases or other instruments, upon such terms and conditions as the Authority shall determine reasonable in connection with such credits or loans; and

WHEREAS, the Authority is also authorized under the Act to borrow money and issue its negotiable bonds and notes to provide sufficient monies for achieving its corporate purposes, including the refunding of its outstanding obligations; and

WHEREAS, the Authority is also authorized under the Act to enter into any contracts and to execute all instruments necessary or convenient for the exercise of its corporate powers and the fulfillment of its corporate purposes; and

WHEREAS, the Company is a public utility corporation doing business in the State of New York and provides electric energy and gas service in The City of New York and the County of Westchester, New York and provides steam service in the Borough of Manhattan; and

WHEREAS, the Company has requested that the Authority issue bonds for the purpose of refunding the Authority’s $7^{1 / 8} \%$ Facilities Revenue Bonds, Series 1994 A (Consolidated Edison Company of New York, Inc. Project), in the aggregate principal amount of \$100,000,000 (the "Prior Bonds") issued to finance a portion of the cost of acquisition, construction and installation of certain facilities for the local furnishing of gas within the Company's service area; and

WHEREAS, the Authority proposes to issue a series of such bonds in the aggregate principal amount of \$99,000,000 Facilities Revenue Bonds, Series 2004C (Consolidated Edison Company of New York, Inc. Project) (the "Bonds"), which will be used, together with Company funds, to refund the Prior Bonds, such Bonds to be issued under and secured by a Trust Indenture dated as of November 1, 2004, between the Authority and The Bank of New York, as Trustee (the "Indenture"); and

WHEREAS, the Authority, by Resolution No. 1065, adopted September 20, 2004, has determined to issue the Bonds, in an aggregate principal amount not to exceed $\$ 100,000,000$, for the purpose of refunding the Prior Bonds, all such Bonds to be issued under and secured by the Indenture;

NOW, THEREFORE, for and in consideration of the premises and of the mutual covenants and agreements hereinafter set forth, it is hereby agreed by and between the parties as follows:

## ARTICLE I

## DEFINITIONS; EFFECTIVE DATE AND DURATION OF PARTICIPATION AGREEMENT

Section 1.01. Definitions. The terms used in this Participation Agreement which are defined in the Indenture shall have the meanings, respectively, herein which such terms are given in the Indenture.

Section 1.02. Effective Date of Participation Agreement; Duration of Participation Agreement. This Participation Agreement shall become effective upon its execution and delivery, and shall continue in full force and effect until the principal of and premium, if any, and interest on the Note and Bonds have been fully paid (or provision for their payment has been made in accordance with the provisions of the Indenture), and all sums to which the Authority or the Trustee are entitled hereunder have been fully paid.

## ARTICLE II

## REPRESENTATIONS

Section 2.01. Representations and Warranties by the Authority. The Authority represents and warrants as follows:
(a) The Authority is a body corporate and politic, constituting a public benefit corporation, established and existing under the laws of the State of New York;
(b) The Authority has full power and authority to execute and deliver the Bonds, this Participation Agreement, the Tax Regulatory Agreement, the Indenture, the Bond Purchase Trust Agreement and to consummate the transactions contemplated hereby and thereby and perform its obligations hereunder and thereunder;
(c) The Authority is not in violation of or in default under any of the provisions of the laws or the Constitution of the State of New York which would affect its existence or its powers referred to in the preceding paragraph (b);
(d) The Authority has determined that its participation in the Project and the refunding of the Prior Bonds, as contemplated by this Participation Agreement, is in the public interest;
(e) The Authority has duly authorized the execution and delivery of this Participation Agreement, the Indenture, the Tax Regulatory Agreement and the Bond Purchase Trust Agreement and the execution and delivery of the other documents incidental to this transaction and all necessary authorizations therefor or in connection with the performance by the Authority of its obligations hereunder or thereunder have been obtained and are in full force and effect; and
(f) The execution and delivery by the Authority of the Bonds, this Participation Agreement, the Tax Regulatory Agreement, the Indenture, the Bond Purchase Trust Agreement and the other documents incidental to this transaction and the consummation of the transactions herein or therein contemplated will not violate or cause a default under any indenture, mortgage, loan agreement or other contract or instrument to which the Authority is a party or by which it is bound, or any judgment, decree, order, statute, rule or regulation applicable to the Authority.

Section 2.02. Representations and Warranties by the Company. The Company represents and warrants as follows:
(a) The Company is a corporation duly incorporated and in good standing under the laws of the State of New York, is duly qualified and authorized to transact business as a public utility in the State of New York and is not in violation of any provision of its Certificate of Incorporation or its By-Laws, has power to enter into, execute and deliver this Participation Agreement, the Tax Regulatory Agreement and the Note and by proper corporate action has duly authorized the execution and delivery of this Participation Agreement, the Tax Regulatory Agreement and the Note;
(b) The execution and delivery by the Company of this Participation Agreement, the Tax Regulatory Agreement and the Note and the consummation of the transactions herein and therein contemplated will not conflict with or constitute a breach of or a default under the Company's Certificate of Incorporation or By-Laws or a default in any material respect under any indenture, mortgage, loan agreement or other contract or instrument to which the Company is a party or by which it is bound, or any judgment, decree, order, statute, rule or regulation applicable to the Company;
(c) This Participation Agreement, the Tax Regulatory Agreement and the Note have been duly executed and delivered by the Company and constitute valid and legally binding obligations of the Company, enforceable against the Company in accordance with their respective terms, except as enforcement may be limited by applicable bankruptcy, insolvency, moratorium, reorganization or other laws relating to or affecting the enforcement of creditors' rights or contractual obligations generally or principles of equity or judicial discretion;
(d) The execution and delivery by the Company of this Participation Agreement and the Note in the manner and for the purposes herein set forth have been duly authorized by order of the Public Service Commission of the State of New York; and
(e) No additional authorizations for or approvals of the execution and delivery by the Company of this Participation Agreement, the Tax Regulatory Agreement and the Note need be obtained by the Company or if any such authorization or approval is necessary it has been obtained.

## ARTICLE III

## THE PROJECT; ISSUANCE OF BONDS

Section 3.01. The Project. Construction of the Project is complete. The Project is the property of the Company. In order to effectuate the purposes of this Participation Agreement, the Company, in its own name, will do or cause to be done all things requisite or proper for the fulfillment of the obligations of the Company under this Participation Agreement.

Section 3.02. Sale of Bonds and Deposit of Proceeds. In order to provide funds for the refunding of the Prior Bonds, the Authority, on the date specified in the Bond Purchase Agreement or as soon thereafter as practicable, and concurrently with the issuance and delivery to the Trustee of the Note as provided in Section 4.01 hereof, will issue, sell and deliver the Bonds, all pursuant to and as provided in the Bond Purchase Agreement and subject to the conditions set forth in Section 2.06 of the Indenture, and will deposit the proceeds of such sale including the accrued interest, if any, paid by the initial purchasers of the Bonds in the Project Fund.

Section 3.03. Disbursements from Project Fund. 1. The Authority has in the Indenture authorized and directed the Trustee to make payments from the Project Fund in accordance with Section 8.01 of the Indenture, to pay the redemption price of the Prior Bonds and costs related thereto upon receipt from time to time of letters signed by an Authorized Company Representative in accordance with Section 8.01 of the Indenture. Concurrently with the delivery by the Company of each such letter to the Trustee, the Company will deliver to the Authority a copy thereof and any attachments thereto. The Company will indemnify and save harmless the Authority and the Trustee from any liability incurred in connection with any letter so delivered and any payments made in reliance thereon.
2. All monies remaining in the Project Fund after the redemption of the Prior Bonds and payment of all costs related thereto shall, at the written direction of an Authorized Company Representative, be paid to the Company.

Section 3.04. Adequacy of Project Fund. The Company acknowledges that the monies in the Project Fund are not sufficient to pay the redemption price of the Prior Bonds and costs related thereto in full. The Company shall pay that portion of the redemption price of the Prior Bonds and costs related thereto in excess of the monies available therefor in the Project Fund with its own funds.

Section 3.05. Ownership and Possession of the Project. Issuance of the Bonds will not vest in the owners thereof, the Trustee, the Authority or any other person, ownership, or the right to possession, of the Project. The Company is entitled to sole and exclusive ownership and possession of the Project.

Section 3.06. Operation, Maintenance and Repair. The Company agrees to proceed in good faith to maintain the availability of the Project for use as an authorized project under the Act. Notwithstanding the foregoing, the Authority and the Company recognize that the Project will constitute integrated portions of gas distribution facilities of the Company and that it
is not feasible to administer the Project separately from such facilities. The Company shall operate the Project (with such changes, improvements or additions as the Company may deem desirable) as part of such facilities for the joint useful lives of the Project and such facilities and shall maintain and repair the Project and such facilities in conformity with the Company's normal maintenance and repair programs for the Project and such facilities; provided that the Company shall have no obligation to operate, maintain or repair any element or item of the Project or such facilities, the operation, maintenance or repair of which becomes uneconomic to the Company because of damage or destruction or obsolescence (including physical, functional and economic obsolescence), or change in government standards and regulations, or the termination by the Company of the operation of the Project or such facilities to which the element or item of the Project or such facilities is an adjunct.

Section 3.07. Investment of Monies in Funds Under the Indenture. Any monies held as a part of any fund created under the Indenture shall, at the direction of an Authorized Company Representative, be invested or reinvested by the Trustee as provided in Article IX of the Indenture.

## ARTICLE IV

## NOTE AND PAYMENTS

Section 4.01. Execution and Delivery of Note to Trustee. Concurrently with the authentication by the Trustee and delivery by the Authority of the Bonds and in order to evidence the obligation of the Company to the Authority to repay the Bonds, the Authority hereby directs the Company, and the Company hereby agrees, to execute and deliver to the Trustee its Note, duly and validly executed and delivered, relating to the Bonds. The Note shall be in substantially the form attached hereto as Exhibit C with only such changes to such form as may be approved by the Authority. Thereafter, the Company shall be obligated to make the Note Payments, constituting payments of principal of, and premium, if any, and interest on the Note, and the Additional Payments required by this Participation Agreement. Such obligations shall terminate on the date when the Note has been paid in full. The Note may be prepaid in accordance with Section 4.04 hereof. Upon payment or provision for payment in full of all amounts payable or to become payable under the Note, the Trustee shall cancel the Note and deliver the same to the Company. Provision for payment in full of all amounts payable or to become payable under the Note shall be deemed to have occurred upon receipt by the Trustee of written notice from the Authority acknowledging that the Company has satisfied its obligations to the Authority under the Note. The Authority agrees to deliver such written notice to the Trustee and the Bond Insurer promptly when such provision for payment in full has been made.

Section 4.02. Payments Payable; Note Payments; Additional Payments. (a) The Company covenants and agrees to pay the Payments as and when the same are due and payable in accordance with the Note and this Section 4.02 . The Company shall provide the Trustee with a written allocation of amounts paid under this Section 4.02 among the various purposes set forth in this Section 4.02.
(b) The Note Payments shall be in an aggregate amount sufficient for, together with other amounts held by the Trustee and available under the Indenture for application to, the payment in full of the Bonds consisting of (i) the total interest becoming due and payable on the Bonds to the date of payment thereof, and (ii) the total principal amount plus premium, if any, of the Bonds.
(c) The Company shall make Note Payments as set forth in Section 4.02(b) at or prior to the time the corresponding payment is due on the Bonds. Each installment of Note Payments paid by the Company shall be increased as may be necessary to make up any previous deficiency of any of the required payments and to make up any deficiency in the Bond Fund.
(d) In addition, the Company shall pay to the Registrar and Paying Agent for deposit in the Bond Purchase Fund and credit to the Company Account therein an amount sufficient to provide for the payment of the Purchase Price (as defined in the Bond Purchase Trust Agreement) of any Bond tendered for purchase pursuant to the Bond Purchase Trust Agreement to the extent that sufficient moneys are not available for the payment of such Purchase Price from the other sources described therein.
(e) The Company covenants that it shall deposit, or cause to be deposited with the Trustee, sufficient funds to assure that no default shall occur in the payment of the principal of or premium, if any, or the interest on, or the Purchase Price of, the Bonds as and when due, and that no unreasonable delay shall occur in the payment of the costs and expenses payable from Additional Payments.
(f) The Company further covenants and agrees to pay, when due and payable, as Additional Payments, certain additional amounts and costs and expenses. Each installment of Additional Payments, if any, shall be equal to the sum of the amounts set forth in clauses (i) to (iv), inclusive, below, and shall be paid directly to the persons entitled to such payments. "Additional Payments" is hereby defined to be the aggregate of the installments of the following:
(i) the reasonable fees and expenses payable to the Trustee, any Indexing Agent, the Registrar and Paying Agent, any issuer of a Support Facility and any Remarketing Agent under any Remarketing Agreement (and in the case of Auction Rate Bonds, the Auction Agent under the Auction Agency Agreement, and any Broker-Dealers under the respective Broker-Dealer Agreements), and of any counsel or agents of any of the foregoing;
(ii) all costs incurred in connection with the transfer, exchange, purchase or redemption of Bonds not otherwise paid by the holders thereof, including all charges of the Authority (and in the case of Auction Rate Bonds, the Auction Agent, any Broker-Dealer and any Remarketing Agent), the Registrar and Paying Agent and the Trustee with respect thereto, to the extent monies are not otherwise available therefor;
(iii) the reasonable fees and other costs incurred for services of such attorneys and accountants as are employed to make examinations, provide services, render opinions and prepare reports required under this Participation Agreement, the Tax Regulatory Agreement, the Bond Purchase Trust Agreement, and the Indenture; and
(iv) initial administration fees of the Authority in the amount of $\$ 247,500$ on the date of authentication and delivery of the Bonds to the initial purchasers thereof, an annual fee equal to $\$ 130$ per million dollar principal amount of the Bonds on November 1, 2005 and on November 1 of each year thereafter, based upon the amount of Bonds Outstanding as of such November 1 and for purposes of the calculation of such fee, rounding up to the nearest whole million dollars, and all reasonable expenses, disbursements, advances, taxes, assessments or impositions, not otherwise paid under this Participation Agreement or the Indenture, incurred by or imposed upon the Authority in connection with its administration and enforcement of, and compliance with, this Participation Agreement, any Auction Agency Agreement, the Bond Purchase Trust Agreement, any Remarketing Agreement and the Indenture, which amounts the Company is obligated to pay, including, but not limited to, reasonable attorneys' fees. In addition, the Company shall deliver to the Authority a check payable to
the State of New York with respect to a bond issuance charge applicable to the Bonds pursuant to Section 2976 of the Public Authorities Law of the State of New York in the amount specified by such section on the date of authentication and delivery of the Bonds.
(g) In the event that the Company shall fail to make any Payment as required by Sections 4.02(a) - (e) hereof, the Payment so in default shall continue as an obligation of the Company until the amount in default shall have been fully paid, and the Company agrees to pay the same with interest thereon, which interest shall also constitute an obligation of the Company at the maximum rate of interest payable on the Bonds pursuant to the Indenture, to the extent permitted by law, from the date of default until paid; provided, that the Company agrees in the event the Company shall fail to make any Payment during an Auction Rate Period, the Payment so in default shall continue as an obligation of the Company until the amount in default shall have been fully paid, and the Company agrees to pay the same with interest thereon, which interest shall also constitute an obligation of the Company at the Overdue Rate, to the extent permitted by law, from the date of default until paid. Nothing in this Section 4.02 shall require the Company to pay costs and expenses mentioned in clause (f)(iii) above so long as the validity or the reasonableness thereof shall be contested in good faith unless the Trustee shall receive an opinion of independent counsel that such contest jeopardizes the respective interests of the Authority and the Trustee in this Participation Agreement, any Auction Agency Agreement, the Bond Purchase Trust Agreement, the Indenture or any Remarketing Agreement, in which event the Company shall pay such costs and expenses (without prejudice to any rights of the Company to recover such costs and expenses if not valid or reasonable) to the end that the respective interests of the Authority and the Trustee, in the opinion of independent counsel, are not jeopardized.

Section 4.03. Notice to Pay; Medium of Payment; Acceleration. Failure to receive any prior notice of the due date of any Payment will not relieve the Company of its obligation to pay such Payment when it is due and payable. The Company covenants and agrees that it will pay or cause to be paid when due and payable hereunder the Payments, and every installment thereof, without notice or demand therefor and without abatement, reduction or set-off of any kind or nature whatsoever, in lawful money of the United States of America.

If pursuant to the provisions of Section 12.03 of the Indenture, the Bonds are accelerated or shall otherwise be declared due and payable immediately, then the Company shall forthwith pay or cause to be paid to the Trustee an amount sufficient with all other funds available therefor, to pay the Bonds in full and, secondly an amount which shall be sufficient, with all other funds available therefor, to pay all other obligations of the Authority or the Company incurred or to be incurred under the Indenture, this Participation Agreement, the Auction Agency Agreement, the Bond Purchase Trust Agreement or any Remarketing Agreement.

Section 4.04. Prepayment of Note Payments. The Note may be prepaid, in whole or in part, at the option of the Company in connection with an optional redemption of the Bonds pursuant to Article V of the Indenture and shall be prepaid, in whole or in part, in
connection with any mandatory redemption of the Bonds pursuant to Article V of the Indenture other than a mandatory redemption pursuant to Section 5.07 of the Indenture. Prepayment of the Note pursuant to the preceding sentence shall be with or without premium, as required to provide sufficient funds to redeem the Bonds being redeemed pursuant to Article V of the Indenture. The Note also may be prepaid in whole or in part at any time, without premium, at the option of the Company subsequent to the redemption of the Bonds with moneys furnished by the State of New York pursuant to Section 5.07 of the Indenture.

The Company shall give notice to the Trustee and the Authority of any intention to prepay the Note in whole or in part and of the principal amount to be prepaid not more than sixty (60) nor less than thirty-five (35) days prior to the date on which such prepayment is to be made on the Note. Such optional prepayment may be made not later than one (1) Business Day prior to the date of prepayment of the Bonds.

The Company may also elect to provide for the defeasance of the Bonds in accordance with Article XV of the Indenture and upon the defeasance of the Bonds, the Note will be deemed paid, in whole or in applicable part.

Section 4.05. Company’s Payments as Trust Funds. All Note Payments and Additional Payments required to be made by the Company under this Participation Agreement and the Note to the Authority, the Trustee or the Registrar and Paying Agent which under the Indenture are required to be applied in payment of or as security for the Bonds, shall be and constitute and are hereby declared to be trust funds, whether held by the Authority, the Trustee, the Registrar and Paying Agent, or any bank or trust company, designated for such purpose and shall continue to be impressed with a trust until such monies are applied in the manner provided in the Indenture.

Section 4.06. Absolute Obligation to Make Payments. The obligation of the Company to pay the Note Payments and the Additional Payments, as required by this Participation Agreement and the Note, and to satisfy any other financial liabilities incurred hereunder and thereunder shall be an absolute, direct, general obligation, and shall be unconditional and shall not be abated, rebated, set off, reduced, abrogated, waived, diminished or otherwise modified in any manner or to any extent whatsoever (other than for prior payment), regardless of any rights of set-off, recoupment or counterclaim that the Company might otherwise have against the Authority or the Trustee or any other party or parties and regardless of any contingency, act of God, event or cause whatsoever and notwithstanding any circumstance or occurrence that may arise or take place including, but without limiting the generality of the foregoing, the following:
(a) any damage to or destruction of any part or all of the Project;
(b) the taking or damaging of any part or all of the Project by any public authority or agency in the exercise of the power of eminent domain or otherwise;
(c) any assignment, novation, merger, consolidation, transfer of assets, subleasing or other similar transaction of or affecting the Company whether with or without the approval of the Trustee, except as otherwise expressly provided in this Participation Agreement;
(d) with respect solely to the obligation of the Company to pay the Additional Payments, the termination of this Agreement and payment or provision for payment in full of the amount due under the Note pursuant to the provisions hereof;
(e) any failure of any party to perform or observe any agreement or covenant, whether express or implied, or any duty, liability or obligation arising out of or in connection with this Participation Agreement, the Note, the Auction Agency Agreement, any Broker-Dealer Agreement, any Remarketing Agreement, the Bond Purchase Trust Agreement or the Indenture;
(f) any change or delay in the time of availability of the Project or any part thereof for use of the Project or any part thereof;
(g) any acts or circumstances that may constitute an eviction or constructive eviction from any part of the Project;
(h) failure of consideration, failure of title to any part of the Project or commercial frustration; and
(i) any change in the tax or other laws of the United States or of any state or other governmental authority;
provided, however, that the foregoing shall not be deemed to be a waiver of any right of recourse the Company may have against the Authority, the holder of any Bond or others, including but not limited to, the rights, causes of action or claims which may arise out of the breach of their respective obligations or the inaccuracy of their respective warranties, provided, however, that the Company may pursue any such right, claim or cause of action only by a separate proceeding or action and not by counterclaim or set-off hereunder and the bringing of such separate proceeding or action shall not affect the Company's absolute, irrevocable and unconditional obligation to make payments pursuant to this Section 4.06.

Section 4.07. Assignment of Authority's Rights. As security for the payment of the Bonds, the Authority will assign to the Trustee the Participation Agreement and the Note and all of the Authority's rights, remedies and interest under this Participation Agreement and the Note, including the right to receive payments under this Participation Agreement and the Note (except the Authority's rights with respect to (a) administrative compensation, attorney's fees and indemnification, (b) the receipt of notices, opinions, reports, copies of instruments and other items of a similar nature required to be delivered to the Authority under this Participation Agreement, (c) granting approvals and consents and making determinations when required under this Participation Agreement, (d) making requests for information and inspections in accordance with this Participation Agreement, (e) Article III and Sections $4.02(\mathrm{f}), 4.14$ and 5.09 of this Participation Agreement and, insofar as the obligations of the Company under Section 4.12 of this Participation Agreement relate to taxes and assessments imposed upon the Authority and not the Trustee, Section 4.12 thereof and (f) the right to amend this Participation Agreement) and
hereby directs the Company to make said payments directly to the Trustee or in the case of the Purchase Price to the Registrar and Paying Agent. The Company herewith assents to such assignment and will make payments under this Participation Agreement and the Note (except (i) payments made pursuant to Sections $4.02(\mathrm{f})$ and 5.09 hereof which shall be made directly to the Authority and (ii) payments of the Purchase Price, which shall be made directly to the Registrar and Paying Agent) directly to the Trustee without defense or set-off by reason of any dispute between any of the Company, the Trustee or Registrar and Paying Agent. Except as provided in the Indenture, the Authority will not sell, assign, transfer, convey or otherwise dispose of its interest in this Participation Agreement during the term of this Participation Agreement.

Section 4.08. Actions with Respect to or by or on behalf of the Authority under the Indenture. The Authority hereby grants the right to the Company to request the Authority to take certain actions under the Indenture and/or to perform or undertake certain actions as specified under the Indenture. The Company agrees to request the Authority to take action or undertake or perform any action solely in compliance with or after complying with the requirements and provisions of the Indenture.

Section 4.09. Agreements of Company relating to Support Facilities. The Company agrees not to request that the interest rate mode applicable to the Bonds be adjusted to another Adjustable Rate or a Fixed Rate unless the Bonds to be converted will be rated at least "A" by S\&P or "A2" by Moody's or "A" by Fitch or an equivalent rating by any nationally recognized rating agency.

The Company further agrees that it will maintain a Liquidity Facility issued by a financial institution rated not less than "A" by at least one nationally recognized rating agency in effect with respect to the Bonds at all times, except with respect to Bonds bearing interest at an Auction Rate, a Fixed Rate or a Term Rate for a Calculation Period in excess of thirteen months.

## Section 4.10. Compensation of Trustee and Paying Aggents. The Company agrees:

(1) to pay to the Trustee from time to time such compensation for all services rendered by it in any capacity under the Indenture as shall from time to time be agreed in writing (which compensation shall not be limited by any provision of law in regard to the compensation of a trustee of an express trust);
(2) except as otherwise expressly provided herein, to reimburse the Trustee upon its request for all reasonable expenses, disbursements and advances incurred by the Trustee under the Indenture (including the reasonable compensation and the expenses and disbursements of its agents and counsel), except any such expense, disbursement or advance as may be attributable to its negligence or bad faith; and
(3) to pay to the Registrar and Paying Agent, if other than the Trustee, reasonable compensation for all services rendered by it as Registrar and Paying Agent under the Indenture and reimburse it for its reasonable expenses incurred under the Indenture, except any such expense as may be attributable to its negligence or bad faith.

Section 4.11. Project not Security for Bonds. It is expressly recognized by the parties that none of the Project or any of its gas distribution facilities will constitute any part of the security for the Bonds. The principal security for the Bonds shall be the Note and the absolute, irrevocable and unconditional obligation of the Company to make the Note Payments.

Section 4.12. Payment of Taxes and Assessments; No Liens or Charges. The Company will (a) pay, when the same shall become due and payable, all taxes and assessments, including income, profits, property or excise taxes, if any, or other municipal or governmental charges, imposed, levied or assessed by the Federal, state or any municipal government upon the Authority or the Trustee in respect of any payments (other than payments made pursuant to Section 4.10) made or to be made pursuant to this Participation Agreement or the Notes and (b) pay or cause to be discharged, within sixty (60) days after the same shall accrue, any lien or charge upon any such payment (except as aforesaid) made or to be made under this Participation Agreement; provided that the Company shall not be required to pay any such tax, assessment or charge so long as (i) the Company at its expense contests by appropriate legal proceedings conducted in good faith and with due diligence the amount, validity or application of any such tax, assessment or charge, (ii) such proceedings shall have the effect of suspending the collection thereof from the Authority and the Trustee, and (iii) the Company shall indemnify and hold the Authority and the Trustee harmless from any losses, costs, charges, expenses (including reasonable attorneys' fees and disbursements), judgments and liabilities arising in respect of such tax, assessment or charge and the nonpayment thereof.

Section 4.13. Company to Pay Attorneys' Fees and Disbursements. If the Company shall default under any of the provisions of this Participation Agreement and the Authority or the Trustee or both shall employ attorneys or incur other expenses for the collection of payments due under this Participation Agreement or the Note or for the enforcement of performance or observance of any obligation or agreement on the part of the Company contained in this Participation Agreement, the Company will on demand therefor reimburse the reasonable fees of such attorneys and such other reasonable disbursements so incurred.

Section 4.14. No Abatement of Administration Fees and Other Charges. It is understood and agreed that so long as any Bonds are outstanding under the Indenture, the Administration Fees and other charges payable to the Authority pursuant to this Participation Agreement or the Note shall continue to be payable at the times and in the amount herein specified, whether or not the Project, or any portion thereof, shall have been destroyed by fire or other casualty, or title thereto or the use thereof shall have been taken by the exercise of the power of eminent domain, and that there shall be no abatement of any such Administration Fees and other charges by reason thereof.

## ARTICLE V

## SPECIAL COVENANTS

Section 5.01. No Warranty as to Suitability of Project. The Authority makes no warranty, either express or implied, with respect to actual or designed capacity of the Project, as to the suitability of the Project for the purposes specified in this Participation Agreement, as to the condition of the Project, or that the Project will be suitable for the Company's purposes or needs.

Section 5.02. Authority's Right to Inspect Project. The Authority shall have the right at all reasonable times to examine and inspect the Project.
Section 5.03. Company Consent to Amendment of Indenture. The Authority and the Trustee shall not enter into any indenture supplemental to or amendatory of the Indenture which affects the rights or obligations of the Company without the prior consent of the Company as evidenced by a certificate in writing signed by an Authorized Company Representative.

Section 5.04. Tax Covenant. Notwithstanding any other provision hereof, the Company covenants and agrees that it will not take or authorize any action or permit any action within its reasonable control to be taken, or fail to take any action within its reasonable control, with respect to the Project, or the proceeds of any series of the Bonds, including any amounts treated as proceeds of the Bonds for any purpose of Section 103 of the Code, which will result in the loss of the exclusion of interest on any series of Bonds from gross income for Federal income tax purposes under Section 103 of the Code (except for any Bond during any period while any such Bond is held by a person referred to in Section 147(a) of the Code). This provision shall control in case of conflict or ambiguity with any other provision of this Participation Agreement. In furtherance of such covenant and agreement as it relates to the Bonds, the Authority and the Company have entered into the Tax Regulatory Agreement and the Company hereby covenants and agrees to comply with the provisions thereof.

Section 5.05. Company Agrees to Perform Obligations Imposed by Indenture. The Company agrees to perform such obligations as may be required of it by the provisions of the Indenture.

Section 5.06. Authority Agrees to Take Certain Actions at Direction of Company. The Authority agrees to exercise any option to redeem the Bonds pursuant to Section 5.01 of the Indenture at the direction of the Company. The Authority agrees to exercise its rights under Article XV of the Indenture upon the request of the Company.

Section 5.07. Certificates as to Defaults. The Company shall file with the Trustee and the Support Facility, on or before November 15 of each year, commencing on November 15, 2004, a certificate signed by an Authorized Company Representative stating that, to the best of his or her knowledge, information and belief, the Company has kept, observed, performed and fulfilled each and every one of its covenants and obligations contained in this Participation Agreement, the Tax Regulatory Agreement and in the Note and, to the best of his knowledge, information and belief, there does not exist at the date of such certificate any Event
of Default hereunder or other event which, with notice or the lapse of time specified in Section 7.01 hereof, or both, would become an Event of Default or, if any such Event of Default or other event shall so exist, specifying the same and the nature and status thereof.

Section 5.08. Recording and Filing. The Company hereby covenants that it will cause all financing statements related to the Indenture and all supplements thereto and this Participation Agreement and all supplements thereto, as well as such other security agreements, financing statements and all supplements thereto and other instruments as may be required from time to time to be kept, to be recorded and filed in such manner and in such places as may from time to time be required by law in order to preserve and protect fully the security of Holders of the Bonds and the rights of the Trustee hereunder, and to take or cause to be taken any and all other action necessary to perfect the security interest created by the Indenture and shall, within ten (10) days after such filing, cause there to be furnished to the Trustee and the Bond Insurer an opinion of counsel as to the adequacy and details of such filing and specifying any re-filing to be effected in the future.

Section 5.09. Limited Obligation of Authority; Indemnification of Authority, Registrar and Paying Agent, Auction Agent and Trustee. The Bonds shall not be general obligations of the Authority, and shall not constitute an indebtedness of or a charge against the general credit of the Authority or give rise to any pecuniary liability of the Authority. The liability of the Authority under the Bonds shall be enforceable only to the extent provided in the Indenture, and the Bonds shall be payable solely from the Note Payments and any other funds held by the Trustee under the Indenture and available for such payment. The Bonds shall not be a debt of the State of New York, and the State of New York shall not be liable thereon.

No member, officer, agent or employee of the Authority shall be personally liable for the payment of the Bonds or any money or damages hereunder or related hereto. Notwithstanding the fact that it is the intention of the parties hereto that the Authority and all officers and employees thereof shall not incur pecuniary liability by reason of the terms of this Participation Agreement, or the undertakings required of the Authority hereunder or any officer or employee thereof, by reason of the issuance of the Bonds, the execution and delivery of any document, including, but not limited to, the Indenture, the Tax Regulatory Agreement, this Participation Agreement, the Note, any Auction Agency Agreement, any Remarketing Agreement, the Bond Purchase Trust Agreement, any Broker-Dealer Agreement or any final official statement, or by reason of the performance or non-performance of any act required of it by this Participation Agreement or any such other agreement, or the performance or non-performance of any act requested of it by the Company, including all claims, liabilities or losses arising in connection with the violation of any statutes or regulations pertaining to the foregoing; nevertheless, if the Authority (including any person at any time serving as an officer or employee of the Authority) should incur any such pecuniary liability, then in such event the Company shall indemnify and hold harmless the Authority (including any person at any time serving as an officer or employee of the Authority) against all claims by or on behalf of any person, firm or corporation or other legal entity, arising out of the same, and all costs and expenses incurred in connection with any such claim or in connection with any action or proceeding brought thereon.

The Company releases the Authority (including any person at any time serving as an officer or employee of the Authority), the Registrar and Paying Agent, the Auction Agent and the Trustee (including any person at any time serving as an officer or employee of the Trustee, the Registrar and Paying Agent or any Auction Agent) from, agrees that the Authority (including any person at any time serving as an officer or employee of the Authority), the Registrar and Paying Agent, any Auction Agent and the Trustee (including any person at any time serving as an officer or employee of the Trustee, the Registrar and Paying Agent or any Auction Agent) shall not be liable for, and agrees to indemnify and hold the Authority (including any person at any time serving as an officer or employee of the Authority) and the Trustee, any Auction Agent, the Registrar and Paying Agent (including any person at any time serving as an officer or employee of the Trustee, any Auction Agent or the Registrar and Paying Agent) harmless, to the fullest extent permitted by law from any losses, costs, charges, expenses (including reasonable attorneys' and agents' fees and expenses), by reason of (i) any liability for any loss or damage to property or any injury to, or death of, any person that may be occasioned by any cause whatsoever arising out of the construction or operation of the Project, or (ii) any action, suit or proceeding instituted or threatened in connection with the transactions contemplated by this Participation Agreement, the Indenture and the Note, provided, however, that the Company shall not be liable as the result of the negligence of the Authority, the Trustee, the Registrar and Paying Agent, any Remarketing Agent or any Auction Agent or bad faith or wilful misconduct of the Authority, the Trustee, the Registrar and Paying Agent, any Remarketing Agent or any Auction Agent (including any person at any time serving as an officer or employee of the Authority or the Trustee, the Registrar and Paying Agent, any Remarketing Agent or any Auction Agent). If any such claim is asserted, the Authority, any individual indemnified herein, the Trustee, the Registrar and Paying Agent, any Remarketing Agent or any Auction Agent, as the case may be, shall give prompt notice to the Company and permit the Company to participate in the defense thereof at its own expense. The Company will reimburse the indemnified parties for any legal or other expenses reasonably incurred by the indemnified parties in investigating or defending against any such claim, provided that the Company shall not be required to reimburse any of the indemnified parties for fees and expenses of counsel other than one counsel selected by the Trustee in its sole discretion for all indemnified parties in which proceedings are brought or threatened to be brought unless and to the extent there are actual or potential conflicts of interest between or among indemnified parties or defenses available to some indemnified parties that are not available to other indemnified parties in which case, the Company will reimburse the indemnified parties for any legal or other expenses reasonably incurred by the indemnified parties in investigating or defending against any such claim by each counsel of each of the indemnified parties affected. The obligation of the parties hereto under this Section shall survive the termination of this Participation Agreement and the Indenture.

Section 5.10. Provision of Information. The Company shall provide the Trustee with the forms of any notices required to be sent to holders of Bonds in connection with any redemption of Bonds, a change in an Auction Period, the Interest Period or Change in the Interest Rate Mode pursuant to Articles III, IV and V of the Indenture or the establishment of a Fixed Rate on the Bonds pursuant to Section 4.02 of the Indenture.

Section 5.11. Ratings. During any Auction Rate Period, the Company shall take all reasonable action necessary to enable at least two nationally recognized, statistical rating organizations (as that term is used in the rules and regulations of the Commission under the Exchange Act) to provide ratings for the Auction Rate Bonds.

Section 5.12. Notices. During any Auction Rate Period, the Company on behalf of the Authority shall provide the Trustee and, so long as no Event of Default has occurred and is continuing and the ownership of any Auction Rate Bonds is maintained in book-entry form by the Securities Depository, the Auction Agent, with notice of any change in (a) the Statutory Corporate Tax Rate under the Indenture, (b) the Applicable Percentage, or (c) the maximum rate permitted by law on the Bonds. There is currently no such maximum rate.

Section 5.13. Maintenance of Office or Agency. So long as the Note remains outstanding and unpaid, the Company will at all times keep, in New York, New York, or another location in the State of New York, an office or agency where notices and demands with respect to the Note may be served, and will, from time to time, give written notice to the Trustee of the location of such office or agency; and, in case the Company shall fail so to do, notices may be served and demands may be made at the principal office of the Trustee.

Section 5.14. Maintenance of Properties. So long as the Note remains outstanding and unpaid, the Company will at all times make or cause to be made such expenditures for repairs, maintenance and renewals, or otherwise, as shall be necessary to maintain its properties in good repair, working order and condition as an operating system or systems to the extent necessary to meet the Company's obligations under the Public Service Law of the State of New York and the Participation Agreement.

Section 5.15. Insurance. So long as the Note remains outstanding and unpaid, the Company will keep or cause to be kept its properties that are of an insurable nature, insured against loss or damage by fire or other risks, the risk of which in the opinion of an Authorized Company Representative (who shall be an officer or employee of the Company responsible for the management of such risks) is customarily insured against by companies similarly situated and operating like properties, to the extent that property of similar character is, in such Authorized Company Representative's opinion, customarily insured against by such companies, either (a) by reputable insurers or (b) in whole or in part in the form of reserves or of one or more insurance funds created by the Company, whether alone or with other Corporations.

Section 5.16. Proper Books of Record and Account. So long as the Note remains outstanding and unpaid, the Company will at all times keep or cause to be kept proper books of record and account, in which full, true and correct entry will be made of all dealings, business and affairs of the Company, including proper and complete entries to capital or property accounts covering property worn out, obsolete, abandoned or sold, all in accordance with the requirements of any system of accounting or keeping accounts or the rules, regulations or orders prescribed by a regulatory commission with jurisdiction over the rates of the Company giving rise to at least fifty-one percent (51\%) of the Company's gross revenues, or if there are no such requirements or rules, regulations or orders, then in compliance with generally accepted accounting principles.

Section 5.17. Compliance with Laws. So long as the Note remains outstanding and unpaid, the Company agrees to use its best efforts to comply in all material respects with all
applicable laws, rules and regulations and orders of any governmental authority, non-compliance with which would have a material adverse effect on its business, financial condition or results of operations (to the extent the Company deems it can reasonably comply while maintaining its public utility operations) or would materially adversely affect the Company's ability to perform its obligations hereunder or under the Participation Agreement, except laws, rules, regulations or orders being contested in good faith or laws, rules, regulations or orders which the Company has applied for variances from, or exceptions to.

Section 5.18. Consolidation, Merger or Sale of Assets. So long as the Note remains outstanding and unpaid, the Company will not consolidate with or permit itself to be merged into any other corporation or corporations, or sell, lease, transfer or otherwise dispose of all or substantially all of its properties and assets, except in the manner and upon the terms and conditions set forth in this Section 5.18.

Nothing contained herein or in the Note shall prevent (and the Note shall be construed as permitting and authorizing, without acceleration of the maturity of the Note) any lawful consolidation or merger of the Company with or into any other corporation or corporations lawfully authorized to acquire and operate the properties of the Company, or a series of consolidations or mergers, or successive consolidations or mergers, in which the Company or its successor or successors shall be a party, or any sale of all or substantially all the properties of the Company as an entirety to a corporation lawfully authorized to acquire and operate the same; provided that, upon any consolidation, merger or sale, the corporation formed by such consolidation, or into which such merger may be made if other than the Company, or making such purchase shall execute and deliver to the Trustee an instrument, in form reasonably satisfactory to the Trustee, whereby such corporation shall effectually assume the due and punctual payment of the principal of and premium, if any, and interest on the Note according to its tenor and the due and punctual performance and observance of all covenants and agreements to be performed by the Company pursuant to the Note and the Participation Agreement on the part of the Company to be performed and observed; and, thereupon, such corporation shall succeed to and be substituted for the Company hereunder, with the same effect as if such successor corporation had been named herein as obligor.

Every such successor corporation shall possess, and may exercise, from time to time, each and every right and power hereunder of the Company, in its name or otherwise; and any act, proceeding, resolution or certificate by any of the terms of the Note required or provided to be done, taken and performed or made, executed or verified by any board or officer of the Company shall and may be done, taken and performed or made, executed and verified with like force and effect by the corresponding board or officer of any such successor Company.

If consolidation, merger or sale or other transfer is made as permitted by this Section, the provisions of this Section shall continue in full force and effect and no further consolidation, merger or sale or other transfer shall be made except in compliance with the provisions of this Section.

Section 5.19. Financial Statements of Company. The Company agrees to have an annual audit made by independent accountants and to furnish the Trustee with a balance sheet and statements of income, retained earnings and cash flow showing the financial condition of the

Company and its consolidated subsidiaries, if any, at the close of each fiscal year, and the results of operations of the Company and its consolidated subsidiaries, if any, for each fiscal year, as audited by said accountants, on or before the last day of the third month following the close of the fiscal year or as soon thereafter as they are reasonably available. The Company further agrees to furnish to the Trustee, the Authority and to any owner of Bonds if requested in writing by such owner all financial statements which it sends to its shareholders. The delivery of such financial statements to the Trustee is for informational purposes only and the Trustee's receipt of such shall not constitute constructive notice of any information contained therein, including the Company's compliance with any of its covenants hereunder.

Section 5.20. Information to Support Facility Issuer. (a) To the extent that the Company has entered into a continuing disclosure agreement with respect to the Bonds, any Support Facility Issuer shall be included as party to be notified.
(b) The Company shall immediately notify any Support Facility Issuer if at any time there are insufficient moneys to make any payments of principal and/or interest as required and immediately upon the occurrence of any Event of Default hereunder.

## ARTICLE VI

## REDEMPTION OF BONDS

Section 6.01. Redemption of Bonds. If the Company is not in default in making Note Payments, the Authority and the Trustee, at the request of the Company, at any time the aggregate monies in the Bond Fund are sufficient to effect a redemption of Bonds and if the same are then redeemable under the provisions of the Indenture and the Bonds, shall forthwith take all steps that may be necessary under the applicable redemption provisions of Article V of the Indenture to effect redemption of all or part of the then Outstanding Bonds as may be specified by the Company on such redemption date.

## ARTICLE VII

## EVENTS OF DEFAULT AND REMEDIES

Section 7.01. Events of Default Defined. The following shall be an "Event of Default" under this Participation Agreement and the term "Event of Default" shall mean, whenever it is used in this Participation Agreement, any one or more of the following events:
(a) Failure by the Company to pay or cause to be paid, when due and payable, any installment of Note Payments and, in the case of failure to pay any installment of interest on the Note, continuance of such failure for one (1) Business Day.
(b) Failure by the Company to observe and perform any covenant, condition or agreement in this Participation Agreement or the Note on its part to be observed or performed, other than as referred to in subsection (a) of this Section 7.01 (and other than failure to pay the amounts due under Sections 4.02(f), 4.13 and 5.09 of this Participation Agreement), for a period of ninety (90) days after written notice, specifying such failure and requesting that it be remedied, has been given to the Company unless the Trustee (with any required consent of Bondholders under the provisions of the Indenture) shall agree in writing to an extension of such time prior to its expiration, provided that if any such failure shall be such that it cannot be cured or corrected within such ninety-day period, it shall not constitute an Event of Default hereunder if curative or corrective action is instituted within such period and diligently pursued until the failure of performance is cured or corrected
(c) The dissolution or liquidation of the Company or the filing by the Company of a voluntary petition in bankruptcy, or failure by the Company promptly to discharge or cause to be discharged any execution, garnishment or attachment of such consequence as will impair its ability to carry on its operations generally or the commission by the Company of any act of bankruptcy, or adjudication of the Company as a bankrupt, or assignment by the Company for the benefit of its creditors, or the entry by the Company into an agreement of composition with its creditors, or the approval by a court of competent jurisdiction of a petition applicable to the Company in any proceeding for its reorganization instituted under the provisions of the federal bankruptcy laws or the Company becomes insolvent or is unable to pay its debts as they become due. The term "dissolution or liquidation of the Company", as used in this subsection, shall not be construed to include the cessation of the corporate existence of the Company resulting either from a merger or consolidation of the Company into or with another corporation or a dissolution or liquidation of the Company following a transfer of all or substantially all of its assets as an entirety, under the conditions permitting such action with respect to the Company contained in Section 5.18 hereof.
(d) The occurrence of an Event of Default as defined in Section 12.01 of the Indenture.

Subsection (b) of this Section 7.01 is subject to the following limitations: Except for the obligations of the Company contained in Article IV hereof, if by reason of force majeure
the Company is unable in whole or in part to carry out the agreements on its part herein contained, the Company shall not be deemed in default during the continuance of such inability. The term "force majeure" as used herein shall include the following: acts of God; strikes, lockouts or other industrial disturbances; acts of public enemies; orders of any kind of the government of the United States or of the State of New York or any of their departments, agencies, or officials, or any civil or military authority; insurrections; riots; epidemics; landslides; lightning; earthquake; fire; typhoons; storms; floods; washouts; droughts; arrests; civil disturbances; explosions; breakage or accident to machinery, transmission pipes or canals; partial or entire failure of utilities; or any other cause or event not reasonably within the control of the Company. The Company agrees, however, to remedy with all reasonable dispatch the cause or causes preventing the Company from carrying out its agreements; provided, that the settlement of strikes, lockouts and other industrial disturbances shall be entirely within the discretion of the Company, and the Company shall not be required to make settlement of strikes, lockouts and other industrial disturbances by acceding to the demands of the opposing party or parties when such course is in the judgment of the Company unfavorable to the Company.

Section 7.02. Remedies on Default. In the event any of the Bonds shall at the time be Outstanding and unpaid and provision for the payment thereof shall not have been made in accordance with the provisions of the Indenture, whenever any Event of Default referred to in Section 7.01 hereof shall have happened and be subsisting, the Authority, with respect to those rights not assigned to the Trustee, or the Trustee, following acceleration of the Bonds in accordance with provisions of Section 12.03 of the Indenture where so provided, may take any one or more of the following remedial steps:
(a) The Trustee as provided in the Indenture may, at its option, or shall, to the extent required by the Indenture, declare all payments payable under clauses (a) - (e) of Section 4.02 hereof and the Note for the remainder of the term of this Participation Agreement to be immediately due and payable, whereupon the same shall become immediately due and payable.
(b) The Authority, with respect to those rights not assigned to the Trustee, or the Trustee may take whatever action at law or in equity that may appear necessary or desirable to collect the amounts then due and thereafter to become due, or to enforce performance and observance of any obligation, agreement or covenant of the Company under this Participation Agreement or the Note whether for specific performance of any covenant or agreement contained herein or therein or in aid of the execution of any power herein granted.

Any amounts collected pursuant to action taken under this Section 7.02 shall be paid into the Bond Fund and applied in accordance with the provisions of the Indenture.

If any such declaration of acceleration of the Bonds shall have been annulled pursuant to the terms of the Indenture and if, at any time after such declaration, but before all the Bonds shall have matured by their terms, all arrears of interest upon the Note, and interest on overdue installments of interest (to the extent enforceable under applicable law) at the rate or rates per annum specified for the Note and the principal of and premium, if any, on the Note which shall have become due and payable otherwise than by acceleration, and all other sums
payable hereunder, except the principal of, and interest on, the Note which pursuant to such declaration shall have become due and payable, shall have been paid by or on behalf of the Company or provision satisfactory to the Trustee shall have been made for such payment, then such acceleration of the Note shall ipso facto be deemed to be rescinded and any such Event of Default and its consequences shall ipso facto be deemed to be annulled, but no such annulment shall extend to or affect any subsequent Event of Default or impair or exhaust any right or remedy consequent thereon.

Section 7.03. No Remedy Exclusive. No remedy herein conferred upon or reserved to the Authority or to the Trustee is intended to be exclusive of any other available remedy or remedies, but each and every such remedy shall be cumulative and shall be in addition to every other remedy given under this Participation Agreement or now or hereafter existing at law or in equity or by statute. No delay or omission to exercise any right or power accruing upon any Event of Default shall impair any such right or power or shall be construed to be a waiver thereof, but any such right and power may be exercised from time to time and as often as may be deemed expedient. In order to entitle the Authority or the Trustee to exercise any remedy reserved to it in this Article, it shall not be necessary to give any notice, other than such notice as may be herein expressly required. Such rights and remedies as are given the Authority hereunder shall also extend to the Trustee and, the Trustee and the Holders of the Bonds issued under the Indenture shall be deemed third party beneficiaries of all covenants and agreements herein contained.

In case the Trustee (as assignee of the Authority under the Indenture) or the Authority shall have proceeded to enforce its rights under this Participation Agreement and such proceedings shall have been discontinued or abandoned for any reason or shall have been determined adversely to the Trustee or the Authority, then and in every such case, the Company, the Authority and the Trustee shall be restored respectively to their several positions and rights hereunder, and all rights, remedies and powers of the Company, the Authority and the Trustee shall continue as though no such proceeding had been taken.

The Company covenants that, in case an Event of Default shall occur with respect to any Note Payments payable under Sections 4.02(a) - (e) hereof and the Note, then, upon demand of the Trustee (as assignee of the Authority under the Indenture) the Company will pay to the Trustee the whole amount that then shall have become due and payable under said Sections, with interest (to the extent permitted by law) on said amount at the rate of interest then borne by the Bonds pursuant to the Indenture, but not exceeding the maximum rate permitted by law, until paid, and in addition thereto, such further amounts as shall be sufficient to cover the costs and expenses of collection, including reasonable compensation to the Trustee, its agents, attorneys, and counsel, and any other expenses or liabilities incurred by the Trustee other than those incurred through bad faith or negligence.

In case the Company shall fail forthwith to pay such amounts upon such demand, the Authority, with respect to those rights not assigned to the Trustee, or the Trustee (as assignee of the Authority under the Indenture) shall be entitled and empowered to institute any action or proceeding at law or in equity for the collection of the sums so due and unpaid, and may prosecute any such action or proceeding to judgment or final decree, and may enforce any such judgment or final decree against the Company and collect, in the manner provided by law out of the property of the Company, the monies adjudged or decreed to be payable.

In case there shall be pending proceedings for the bankruptcy or for the reorganization of the Company under the Federal bankruptcy laws or any other applicable law, or in case a receiver or trustee shall have been appointed for the property of the Company or in the case of any other similar judicial proceedings relative to the Company or to the creditors or property of the Company, the Trustee shall be entitled and empowered, by intervention in such proceedings or otherwise, to file and provide a claim or claims for the whole amount owing and unpaid pursuant to this Participation Agreement and, in case of any judicial proceedings, to file such proofs of claim and other papers or documents as may be necessary or advisable in order to have the claims of the Holders and the Trustee allowed in such judicial proceedings relative to the Company, its creditors, or its property, and to collect and receive any monies or other property payable or deliverable on any such claims, and to distribute the same after the deduction of its charges and expenses; and any receiver, assignee or trustee in bankruptcy or reorganization is hereby authorized to make such payments to the Trustee, and to pay to the Trustee any amount due it for compensation and expenses, including reasonable counsel fees and expenses incurred by it up to the date of such distribution.

Nothing herein contained shall be construed to prevent the Authority from enforcing directly any of its rights under Sections 4.02(f), 4.13 and 5.09 hereof; provided that, in case the Company shall have failed to pay amounts required to be paid under Sections $4.02(\mathrm{f}), 4.13$ and 5.09 hereof which event shall have continued for a period of thirty (30) days after the date on which written notice of such failure, requiring the Company to remedy the same, shall have been given to the Company by the Authority or the Trustee, the Authority or the Trustee may take whatever action at law or in equity as may appear necessary or desirable to enforce performance or observance of any obligations or agreements of the Company under Sections 4.02(f), 4.13 and 5.09 hereof.

Section 7.04. No Additional Waiver Implied by One Waiver. In the event any agreement contained herein or in the Note should be breached by any party and thereafter waived by the other party, such waiver shall be limited to the particular breach so waived and shall not be deemed to waive any other breach hereunder.

## ARTICLE VIII

## MISCELLANEOUS

Section 8.01. Disposition of Amounts after Payment of Bonds. Any amounts remaining in the funds created under the Indenture after payment in full of principal of and premium, if any, and interest on all the Bonds, or provision for payment thereof having been made in accordance with the provisions of the Indenture, and payment of all the fees, charges and expenses of the Authority, the Trustee, any Auction Agent, any Remarketing Agent, and the Registrar and Paying Agent and any other paying agent in accordance with the Indenture and this Participation Agreement, shall belong to and be promptly paid to the Company by the Trustee in accordance with the provisions of the Indenture.

Section 8.02. Notices. All notices, certificates, requests or other communications between the Authority, the Company and the Trustee required to be given under this Participation Agreement or under the Indenture shall be sufficiently given and shall be deemed given when delivered by hand or first class mail, postage prepaid, addressed as follows: if to the Authority, at 17 Columbia Circle, Albany, New York 12203-6399, Attention: President; if to the Company, at 4 Irving Place, New York, New York 10003, Attention: Secretary; and if to the Trustee or the Registrar and Paying Agent, at The Bank of New York, 101 Barclay Street - 21W, New York, New York 10286, Attention: New York Municipal Finance Unit. A duplicate copy of each notice, certificate, request or other communication given hereunder to the Authority, the Company or the Trustee shall also be given to the others. The Company, the Authority and the Trustee may, by notice given hereunder, designate any further or different addresses to which subsequent notices, certificates, requests or other communications shall be sent.

Section 8.03. Successors and Assigns. This Participation Agreement shall inure to the benefit of and shall be binding upon the Authority, the Company, the Trustee and their respective successors and assigns.

Section 8.04. Amendment of Participation Agreement. This Participation Agreement may not be amended except by an instrument in writing signed by the parties and upon compliance with the provisions of Sections 14.06 and 14.07 of the Indenture.

Section 8.05. Participation Agreement Supersedes Any Prior Agreements. This Participation Agreement and the Bond Purchase Agreement supersede any other prior agreements or understandings, written or oral, between the parties with respect to the transactions contemplated hereby and thereby.

Section 8.06. Further Assurances and Corrective Instruments. The Authority and the Company agree that they will, from time to time, execute, acknowledge and deliver, or cause to be executed, acknowledged and delivered, such supplements hereto and such further instruments as may reasonably be required for correcting any inadequate or incorrect description of the Project or for carrying out the expressed intention of this Participation Agreement in accordance with the provisions of the Indenture.

Section 8.07. Counterparts. This Participation Agreement may be executed in any number of counterparts, each of which when so executed and delivered shall be an original; but such counterparts shall together constitute but one and the same Participation Agreement.

Section 8.08. Severability. If any clause, provision or section of this Participation Agreement is held illegal, invalid or unenforceable by any court or administrative body, this Participation Agreement shall be construed and enforced as if such illegal or invalid or unenforceable clause, provision or section had not been contained in this Participation Agreement. In case any agreement or obligation in this Participation Agreement be held to be in violation of law, then such agreement or obligation shall be deemed to be the agreement or obligation of the Authority or the Company, as the case may be, to the full extent permitted by law.

Section 8.09. Delegation of Duties by Authority. It is agreed that under the terms of this Participation Agreement and also under the terms of the Indenture the Authority has delegated certain of its duties hereunder to the Company. The fact of such delegation shall be deemed a sufficient compliance by the Authority to satisfy the duties so delegated and the Authority shall not be liable in any way by reason of acts done or omitted by the Company or any Authorized Company Representative. The Authority shall have the right at all times to act in reliance upon the authorization, representation or certification of an Authorized Company Representative unless such reliance is in bad faith.

Section 8.10. Survival of Representations, Warranties and Covenants. The respective agreements, representations, warranties and covenants set forth herein will remain in full force and will survive the execution and delivery of this Participation Agreement.

Section 8.11. NEW YORK LAW TO GOVERN. THE LAW OF THE STATE OF NEW YORK SHALL GOVERN THE CONSTRUCTION OF THIS PARTICIPATION AGREEMENT.

IN WITNESS WHEREOF, the parties hereto have caused this Participation Agreement to be duly executed as of the day and year first written above.

## NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY

(SEAL)
By:
President
Attest:

## Assistant Secretary

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
By:
Executive Vice President and
Chief Financial Officer

## EXHIBIT A

(To Participation Agreement,
dated as of November 1, 2004,
between New York State Energy Research and Development Authority and Consolidated Edison Company of New York, Inc.)

DESCRIPTION OF PROJECT
EXEMPT FACILITIES
[A copy of Exhibit A to the Participation Agreement
entered into in connection with the Prior Bonds will be inserted at this place]

## EXHIBIT A

(To Third Supplemental Participation Agreement, dated as of December 1, 1994,
between New York State Energy Research and Development Authority
and Consolidated Edison Company of New York, Inc.)
DESCRIPTION OF SERIES 1994 A PROJECT

## EXEMPT FACILITIES

The following facilities are as further described in the Series 1994 A Tax Regulatory Agreement between the Authority and the Corporation dated the date of the initial delivery of the Series 1994 A Bonds. All terms used in this Exhibit A and not otherwise defined are used as defined in the above-referenced Third Supplemental Participation Agreement.

The Series 1994 A Project Exempt Facilities will consist of the following facilities which have been or are to be acquired, constructed and installed within the City of New York and the County of Westchester, New York by the Corporation as part of the Corporation's gas distribution system:

1. Gas Mains
2. Gas Measuring and Regulating Station Equipment
3. Gas Services
4. Gas Meters
5. Gas Meter Installations
6. House Regulators
7. House Regulator Installations
8. Liquefied Natural Gas Storage Projects
9. Gas Distribution Plant Structures and Improvements

The Series 1994 A Project Exempt Facilities shall also include (i) such instrumentation, controls, structures and all other facilities, equipment, devices and the like necessary to support the facilities herein described, (ii) such necessary land improvements and (iii) such additional or substituted facilities for the furnishing of gas within the Corporation's gas service area which because of changes in technology, environmental standards, cost or the like, the Corporation determines shall be added to or substituted for said facilities.

Provided, however, that the Series 1994 A Project Exempt Facilities shall not include: (i) facilities placed in service more than 18 months prior to the issuance of the Series 1994 A Bonds; and (ii) facilities for which the Cost of Construction was expended by the Corporation prior to December 13, 1991.

## EXHIBIT B

(To Participation Agreement
dated as of November 1, 2004,
between New York State Energy Research and Development Authority and Consolidated Edison Company of New York, Inc.)

DESCRIPTION OF OTHER PROJECT FACILITIES
[A copy of Exhibit B to the Participation Agreement entered into in connection with the Prior Bonds will be inserted at this place]

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## EXHIBIT B

(To Third Supplemental Participation Agreement
dated as of December 1, 1994,
between New York State Energy Research and Development Authority and Consolidated Edison Company of New York, Inc.)

## DESCRIPTION OF OTHER SERIES 1994 A PROJECT FACILITIES

Any facilities which would be described in the preceding Exhibit A but for the proviso thereto.

## EXHIBIT C

(To Participation Agreement dated as of November 1, 2004 between New York State Energy Research and Development Authority and Consolidated Edison Company of New York, Inc., relating to Series 2004C Bonds)

## CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

\$<br>$\qquad$<br>PROMISSORY NOTE<br>FOR<br>FACILITIES REVENUE BONDS, SERIES 2004C<br>(CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. PROJECT)

## New York, New York <br> November 12, 2004

FOR VALUE RECEIVED, Consolidated Edison Company of New York, Inc., a New York corporation (the "Company"), promises to pay to the order of The Bank of New York, as trustee (the "Trustee") under the hereinafter referred to Indenture, in lawful money of the United States, moneys that are in the aggregate sufficient for, together with other amounts held by the Trustee and available under the Indenture (as defined below) for application to, the payment of the principal sum of $\$ 99,000,000$, together with interest thereon at such rate or rates applicable to, and with such redemption premiums, if any, becoming due and payable on, the Facilities Revenue Bonds, Series 2004C (Consolidated Edison Company of New York, Inc. Project) (the "Bonds"), issued by New York State Energy Research and Development Authority (the "Authority") in the aggregate principal amount of \$99,000,000 pursuant to a Trust Indenture (the "Indenture") dated as of November 1, 2004, between the Authority and the Trustee, and at such times as provided in the Indenture. This Note is being delivered pursuant to and in accordance with the Participation Agreement dated as of November 1, 2004, between the Company and the Authority (the "Participation Agreement"), the terms and provisions of which are incorporated herein by reference and made a part hereof. All terms used and not otherwise defined herein are used as defined in the Indenture.

In the event the Company should fail to make any payment required by this Note, the Company's obligation to make such payment shall continue as an obligation of the Company until the amount in default shall have been fully paid, and the Company agrees to pay the same with interest thereon at the rate of interest borne by the Bonds, to the extent, but not exceeding the maximum rate, permitted by law, until paid.

This Note, unless paid earlier as permitted by the Participation Agreement, shall mature on November 1, 2039.

This Note is subject to optional and mandatory prepayment and to acceleration as provided in the Participation Agreement.
All payments hereunder shall be payable at the principal corporate trust office of the Trustee in New York, New York.
The obligation of the Company to make payments under this Note shall be an absolute, direct, general obligation, and shall be unconditional and shall not be abated, rebated, set off, reduced, abrogated, waived, diminished or otherwise modified in any manner or to any extent whatsoever (other than for prior payment).

The Company hereby waives presentment for payment, demand, demand and protest and notice of protest, demand and dishonor and nonpayment of this Note.

THIS NOTE SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAW OF THE STATE OF NEW YORK.
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

By:
Executive Vice President and
Chief Financial Officer

## TRUST INDENTURE

BETWEEN

# NEW YORK STATE ENERGY RESEARCH 

AND DEVELOPMENT AUTHORITY
AND
THE BANK OF NEW YORK, as Trustee

Dated as of November 1, 2004
-relating to-
\$99,000,000 Facilities Revenue Bonds, Series 2004C (Consolidated Edison Company of New York, Inc. Project)

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THIS TRUST INDENTURE, made and dated as of the first day of November, 2004, by and between New York State Energy Research and Development Authority (the "Authority"), a body corporate and politic, constituting a public benefit corporation, and The Bank of New York, as trustee (the "Trustee"), a New York banking corporation with its principal corporate trust office located in The City of New York.

## WITNESSETH THAT:

WHEREAS, pursuant to a special act of the Legislature of the State of New York (Title 9 of Article 8 of the Public Authorities Law of New York, as from time to time amended and supplemented, herein called the "Act"), the Authority has been established, as a body corporate and politic, constituting a public benefit corporation; and

WHEREAS, pursuant to the Act, the Authority is empowered to contract with any power company to participate in the construction of facilities for the furnishing of electric energy and the furnishing of gas to the extent required by the public interest in development, health, recreation, safety, conservation of natural resources and aesthetics; and

WHEREAS, pursuant to the Act, the Authority is also authorized to extend credit and make loans from bond proceeds to any person for the construction, acquisition, installation, reconstruction, improvement, maintenance, equipping, furnishing or leasing of any special energy project (as defined in the Act) including, but not limited to, facilities for the distribution of steam or for the reimbursement to any person for costs incurred in connection with a special energy project completed or not completed at the time of such credit or loan, which credits or loans may, but need not, be secured by mortgages, contracts, leases or other instruments, upon such terms and conditions as the Authority shall determine reasonable in connection with such credits or loans; and

WHEREAS, the Authority is also authorized under the Act to borrow money and issue its negotiable bonds and notes to provide sufficient moneys for achieving its corporate purposes, including the refunding of its outstanding obligations; and

WHEREAS, the Authority is also authorized under the Act to enter into any contracts and to execute all instruments necessary or convenient for the exercise of its corporate powers and the fulfillment of its corporate purposes; and

WHEREAS, the Consolidated Edison Company of New York, Inc. (the "Company") has requested that the Authority issue bonds for the purpose of refunding the Authority's $7^{1 / 1 / 8 \%}$ Facilities Revenue Bonds, Series 1994 A (Consolidated Edison Company of New York, Inc. Project), in the aggregate principal amount of $\$ 100,000,000$ (the "Prior Bonds") issued to finance a portion of the cost of the acquisition, construction and installation of certain facilities for the local furnishing of gas within the Company's service area; and

WHEREAS, pursuant to Resolution No. 1065, adopted September 20, 2004, the Authority has determined to issue the Bonds, in an aggregate principal amount not to exceed $\$ 99,000,000$, for the purpose of refunding the Prior Bonds, all such Bonds to be issued under and secured by this Trust Indenture; and

WHEREAS, contemporaneously with the execution hereof, the Company and the Authority have entered into a Participation Agreement of even date herewith (herein referred to as the "Participation Agreement"); and

WHEREAS, the bonds to be issued will be in the aggregate principal amount of $\$ 99,000,000$ and will be designated as Facilities Revenue Bonds, Series 2004C (Consolidated Edison Company of New York, Inc. Project) (the "Bonds"), which will be used, together with Company funds, to refund the Prior Bonds, such Bonds to be issued under and secured by this Trust Indenture; and

WHEREAS, simultaneously with the issuance and delivery of such bonds, the Company will execute and deliver a promissory note dated the date of issuance of such bonds (the "Note") as evidence of its obligation to make payments required by the Participation Agreement; and

WHEREAS, all acts, conditions and things necessary or required by the Constitution and statutes of the State of New York, or otherwise, to exist, happen, and be performed as prerequisites to the passage of this Indenture, do exist, have happened, and have been performed; and

WHEREAS, the Trustee has accepted the trusts created by this Trust Indenture and in evidence thereof has joined in the execution hereof;

## NOW, THEREFORE, THIS TRUST INDENTURE WITNESSETH:

That in order to declare the terms and conditions upon which the Bonds are authenticated, issued and delivered, and in consideration of the premises and the acceptance by the Trustee of the trusts hereby created and of the purchase and acceptance of the Bonds by the Holders thereof, and for other good and valuable consideration, the receipt of which is hereby acknowledged, and in order to secure payment of the principal of and premium, if any, and interest on the Bonds according to their tenor and effect and the performance and observance by the Authority of all covenants, agreements and conditions herein and in the Bonds contained, the Authority has acknowledged, executed, signed and delivered this Indenture and hereby assigns, confirms, pledges with and sets over and entrusts to the Trustee hereunder, its successors in trust and assigns, subject to the provisions of this Indenture (the following being called the "Trust Estate"): (1) the Revenues (as hereinafter defined); (2) the Participation Agreement and the Note and all rights, remedies and interest of the Authority under the Participation Agreement and the Note, and any other agreement relating to the Project (exclusive of the Authority's rights with respect to (a) administrative compensation, attorneys' fees and indemnification, (b) the receipt of notices, opinions, reports, copies of instruments and other items of a similar nature required to be delivered to the Authority under the Participation Agreement, (c) granting approvals and consents and making determinations when required under the Participation Agreement, (d) making requests for information and inspections in accordance with the Participation Agreement,
(e) Article III and Sections 4.02(f), 4.14 and 5.09 of the Participation Agreement and, insofar as the obligations of the Company under Section 4.12 relate to taxes and assessments imposed upon the Authority and not the Trustee, Section 4.12 thereof, and ( f ) the right to amend the Participation Agreement); (3) the Tax Regulatory Agreement (as hereinafter defined), and all rights, remedies and interest of the Authority thereunder, subject to the provisions of the Tax Regulatory Agreement relating to the amendment thereof and to a reservation by the Authority of the right to enforce the obligations of the Company thereunder independently of the Trustee; (4) all other moneys, rights and properties held by the Trustee or other depositary under this Indenture including, but only for the benefit of the persons specified herein, the proceeds of any draw, borrowing or payment under any Credit Facility (as hereinafter defined), and the securities (and the interest, income and profits therefrom) in which such moneys may from time to time be invested (exclusive of the proceeds of a Liquidity Facility (as hereinafter defined) or the Project Fund (as hereinafter defined)); and (5) any and all other real or personal property of every nature from time to time hereafter by delivery or by writing of any kind specially mortgaged, pledged, or hypothecated, as and for additional security hereunder, by the Company in favor of the Trustee or the Authority which are hereby authorized to receive any and all such property at any and all times and to hold and apply the same subject to the terms hereof.

TO HAVE AND TO HOLD, all and singular of said Trust Estate unto the Trustee, its successors in trust and assigns, forever, in trust, nevertheless, to inure to the use and benefit of the Holders of all the Bonds, for the securing of the observance or performance of all the terms, provisions and conditions therein and herein contained and for the equal and proportionate benefit and security of all and singular the present and future Holders of the Bonds, without preference, priority, prejudice or distinction as to lien or otherwise of any Bond over any other Bond, to the end that each Holder of a Bond shall have the same rights, privileges and lien under and by virtue of this Trust Indenture, except as hereinafter otherwise specifically provided;

AND UPON THE CONDITION THAT, if the Authority shall cause to be paid fully and promptly and indefeasibly when due all of its indebtedness, liabilities, obligations and sums at any time secured hereby, including interest, the Trustee's fees and reasonable expenses (including reasonable attorneys' fees and expenses), and shall promptly, faithfully and strictly keep, perform and observe, or cause to be kept, performed and observed, all of its covenants, obligations, warranties and agreements contained herein, then and in such event, this Trust Indenture shall be and become void and of no further force and effect, otherwise the same shall remain in full force and effect.

THIS TRUST INDENTURE FURTHER WITNESSETH, and it is expressly declared, that all Bonds issued and secured hereunder are to be issued, authenticated and delivered and all said income and Revenues hereby pledged are to be dealt with and disposed of under, upon and subject to the terms, conditions, stipulations, covenants, agreements, trusts, uses and purposes as hereinafter expressed, and the Authority has agreed and covenanted, and does hereby agree and covenant, with the Trustee and with the respective Holders, from time to time, of the said Bonds, or any part thereof, as follows (provided that in the performance of the agreements of the Authority herein contained any obligation it may thereby incur for the payment of money shall never constitute a general or moral obligation of the State of New York or any political subdivision thereof within the meaning of any state constitutional provision or drawings under the Credit Facility, if any, and other moneys, rights and properties of the Trust Estate), that is to say:

## ARTICLE I

## DEFINITIONS; COMPUTATIONS; CERTIFICATES

## AND OPINIONS; EVIDENCE OF ACTION BY AUTHORITY

Section 1.01. Definitions of Specific Terms. Unless the context shall clearly indicate some other meaning or may otherwise require, the terms defined in this Section shall, for all purposes of this Indenture and of any indenture, resolution or other instrument amendatory hereof or supplemental hereto and of any certificate, opinion, instrument or document herein or therein mentioned, have the meanings herein specified, with the following definitions to be equally applicable to both the singular and plural forms of any terms herein defined and vice versa.
"Act" shall mean the New York State Energy Research and Development Authority Act, Title 9 of Article 8 of the Public Authorities Law of the State of New York, as from time to time amended and supplemented.
"Additional Payments" shall mean the Additional Payments as defined in Section 4.02(f) of the Participation Agreement.
"Adjustable Rate" shall mean any of the following types of interest rates: a Commercial Paper Rate, an Auction Rate, a Daily Rate, a Weekly Rate, a Monthly Rate, a Semi-annual Rate and a Term Rate.
"Administration Fees" shall mean the amounts payable by the Company to the Authority pursuant to Section 4.02(f) of the Participation Agreement to defray a portion of the expenses incurred by the Authority in conducting and administering its special energy project programs and the amount payable as state bond issuance charge pursuant to Section 4.02(f) of the Participation Agreement.
"Affiliate" shall mean any person known to the Auction Agent to be controlled by, in control of or under common control with the Company; provided that no Broker-Dealer controlled by, in control of or under common control with the Company shall be an Affiliate nor shall any corporation or any person controlled by, in control of or in common control with such corporation be an Affiliate solely because a director or executive officer of such Broker-Dealer is also a director of the Company.
"After-Tax Equivalent Rate" on any date of determination shall mean with respect to Auction Rate Bonds, the interest rate per annum equal to the product of (x) Commercial Paper/Treasury Rate on such date and (y) 1.00 minus the Statutory Corporate Tax Rate on such date.
"Aggent Member" shall mean a member of, or participant in, the Securities Depository.
"All Hold Rate" shall mean for any subseries of Bonds on any date of determination with respect to Auction Rate Bonds the rate per annum equal to 85\% (as such
percentage may be adjusted pursuant to Section 3.10) of the lesser of (i) the BMA Index on such date and (ii) the After-Tax Equivalent Rate on such date provided, however, that in no event shall such All Hold Rate exceed the Maximum Allowed Rate.
"Alternate Support Facility." shall mean any Support Facility obtained pursuant to the provisions of Section 6.02 in replacement of an existing Support Facility.
"Applicable Percentage" on any date of determination shall mean the percentage determined as set forth below (as such percentage may be adjusted for Auction Rate Bonds pursuant to Section 3.10) based on the prevailing long-term rating of the Auction Rate Bonds in effect at the close of business on the Business Day immediately preceding such date of determination:

| Prevailing Rating | Applicable <br> Percentage |
| :--- | :--- |
| "AAA/Aaa" | $175 \%$ |
| "AA/A"" | $175 \%$ |
| "A/A" | $175 \%$ |
| "BBB/Ba"" | $200 \%$ |
| Below "BBB/Baa" | $265 \%$ |

For purposes of this definition, the "prevailing rating" of the Auction Rate Bonds will be (a) "AAA/Aaa," if the Auction Rate Bonds, have a rating of "AAA" or better by S\&P and a rating of "Aaa" or better by Moody's, or the equivalent of such ratings by a substitute rating agency or agencies selected as provided below, (b) if not "AAA/Aaa," then "AA/Aa" if the Auction Rate Bonds have a rating of "AA-" or better by S\&P and a rating of "Aa3" or better by Moody's, or the equivalent of such ratings by a substitute rating agency or agencies selected as provided below, (c) if not "AAA/Aaa" or "AA/Aa," then "A/A" if the Auction Rate Bonds have a rating of "A-" or better by S\&P and a rating of "A3" or better by Moody's, or the equivalent of such ratings by a substitute rating agency or agencies selected as provided below, (d) if not "AAA/Aaa," "AA/Aa" or "A/A," then "BBB/Baa," if the Auction Rate Bonds have a rating of BBB- or better by S\&P and a rating of "Baa3" or better by Moody's, or the equivalent of such ratings by a substitute rating agency or agencies selected as provided below, and (e) if not "AAA/Aaa," "AA/Aa", "A/A" or "BBB/Baa," then below "BBB/Baa," whether or not the Auction Rate Bonds are rated by any securities rating agency.

If ( $x$ ) the Auction Rate Bonds, are rated by a rating agency or agencies other than Moody's or S\&P and (y) the Company has delivered on behalf of the Authority to the Trustee and the Auction Agent an instrument designating one or two of such rating agencies to replace Moody's or S\&P, or both, then for purposes of the definition of "prevailing rating" Moody's or S\&P, or both, will be deemed to have been replaced in accordance with such instrument; provided, however, that such instrument must be accompanied by the consent of the applicable Market Agent. For purposes of this definition, S\&P's rating categories of "AAA," "AA-," "A-" and "BBB-," and Moody's rating categories of "Aaa," "Aa3," "A3" and "Baa3," refer to and include the respective rating categories correlative thereto in the event that either or both of such rating agencies have changed or modified their generic rating categories. If the prevailing ratings for the Bonds are split between the categories set forth above, the lower rating will determine the prevailing rating.
"Auction" shall mean each periodic implementation of the Auction Procedures for Auction Rate Bonds.
"Auction Agency Agreement" shall mean the Auction Agency Agreement to be entered into between the Company and the Auction Agent with respect to the Auction Rate Bonds, as from time to time amended and supplemented.
"Auction Agent" shall mean any entity appointed as such pursuant to Section 11.21 and its successors and assigns.
"Auction Date" shall mean with respect to each Auction Period, the last Thursday of the immediately preceding Auction Period (or such other day that the applicable Market Agent shall establish as the Auction Date therefor pursuant to Section 3.05); provided, that if such day is not a Business Day, the Auction Date shall be the next succeeding Business Day.
"Auction Period" shall mean for any subseries of Bonds after a Change in the Interest Rate Mode to an Auction Rate, until the effective date of a Change in the Interest Rate Mode or the Stated Maturity, each period from and including the last Interest Payment Date for the immediately preceding Auction Period or Calculation Period, as the case may be, to and including the next succeeding Auction Date or, in the event of a Change in the Interest Rate Mode, to but excluding the effective date of such change, provided, if any day that would be the last day of any such period does not immediately precede a Business Day, such period shall end on the next day which immediately precedes a Business Day.
"Auction Procedures" shall mean with respect to the Auction Rate Bonds the procedures set forth in Sections 3.03 through 3.10.
"Auction Rate" shall mean with respect to Auction Rate Bonds and each Auction Period for such Auction Rate Bonds (other than an initial Auction Period after a Change in the Interest Rate Mode to an Auction Rate Period), the rate of interest per annum determined for the Bonds pursuant to Article III.
"Auction Rate Bonds" shall mean with respect to an Auction Rate Period, any Bonds or subseries of Bonds which bear interest at the Auction Rate.
"Auction Rate Bonds Period Record Date" shall mean, with respect to each Interest Payment Date during an Auction Rate Period, the Business Day immediately preceding such Interest Payment Date.
"Auction Rate Period" shall mean any period during which the Auction Rate Bonds bear interest at an Auction Rate determined pursuant to the implementation of Auction Procedures established under Article III, which period shall commence on the effective date of a Change in the Interest Rate Mode to an Auction Rate and shall extend through the day immediately preceding the earlier of (a) the effective date of a Change in the Interest Rate Mode or (b) the Stated Maturity.
"Authority" shall mean New York State Energy Research and Development Authority, the public benefit corporation created by the Act, and its successors and assigns.
"Authorized Company Representative" shall mean any officer or other employee of the Company at the time designated to act on behalf of the Company by written certificate furnished to the Authority and the Trustee containing the specimen signature of such person and signed on behalf of the Company by its Chairman, President or a Vice President and its Secretary or an Assistant Secretary.
"Authorized Officer" shall mean the Chair, Vice-Chair, President, Vice President, Treasurer, Assistant Treasurer or Secretary of the Authority.
"Available Auction Rate Bonds" shall mean with respect to the Auction Rate Bonds, Available Auction Rate Bonds as defined in Section 3.08.
"Bid" shall mean with respect to the Auction Rate Bonds, Bid as defined in Section 3.06.
"Bidder" shall mean with respect to the Auction Rate Bonds, Bidder as defined in Section 3.06.
"BMA Index" shall mean, as of any date of determination, The Bond Market Association Municipal Swap Index that is most recently released by Municipal Market Data to its subscribers prior to such date of determination; provided, however, that if the BMA Index is unavailable for a period of over twentyone (21) days preceding such date of determination, references to the BMA Index shall be replaced by the After-Tax Equivalent Rate.
"Bond Counsel" shall mean an attorney or firm or firms of attorneys, satisfactory to the Authority, nationally recognized and experienced in matters relating to tax exemption of interest on bonds issued by states and their political subdivisions.
"Bond Fund" shall mean the special trust fund of the Authority designated as "Consolidated Edison Company of New York, Inc. Project Bond Fund" created and established under, and to be held and administered by the Trustee as provided in, Section 9.01 and, unless the context shall clearly indicate otherwise, shall include the "Interest Account," the "Principal Account," the "Redemption Account" and the "Acceleration Account" created and established therein.
"Bond Purchase Agreement" shall mean the Bond Purchase Agreement, dated November 9, 2004, among the Authority, the Company and the underwriters named therein
"Bond Purchase Fund" shall mean the Bond Purchase Fund established pursuant to the Bond Purchase Trust Agreement.
"Bond Purchase Trust Agreement" shall mean the Bond Purchase Trust Agreement dated as of the date hereof between the Authority and the Registrar and Paying Agent, as from time to time amended or supplemented.
"Bond Year" shall have the meaning set forth in the Tax Regulatory Agreement.
"Bondholder", "Holder of a Bond" or "Holder" shall mean any registered owner of a Bond.
"Bonds" shall mean, the "Facilities Revenue Bonds, Series 2004C (Consolidated Edison Company of New York, Inc. Project)" issued as authorized in Section 2.02 at any time Outstanding.
"Broker-Dealer" shall mean any broker-dealer (as defined in the Securities Exchange Act), commercial bank or other entity permitted by law to perform the functions required of a Broker-Dealer set forth in the Auction Procedures (i) that is an Agent Member (or an affiliate of an Agent Member), (ii) that has been selected by the Auction Agent and the Company with the consent of the Authority, and (iii) that has entered into a Broker-Dealer Agreement with the Auction Agent and the Company that remains effective.
"Broker-Dealer Agreement" shall mean each agreement applicable to the Auction Rate Bonds, between a Broker-Dealer, the Company and the Auction Agent pursuant to which the Broker-Dealer, among other things, agrees to participate in Auctions as set forth in the Auction Procedures, as from time to time amended and supplemented.
"Business Day." shall mean any day other than a Saturday, Sunday or other day on which the New York Stock Exchange or banks are authorized or obligated by law or executive order to close in New York, New York, or any city in which is located the principal corporate trust office of the Trustee or the office of an issuer of a Support Facility at which demands for a draw on, or borrowing or payment under, the Support Facility will be made.
"Calculation Period" shall mean (a) during any Commercial Paper Rate Period, following a Change in the Interest Rate Mode to a Commercial Paper Rate Period, the period from and including the effective date of the Change in the Interest Rate Mode to a Commercial Paper Rate Period to but not including any day not more than 270 days thereafter which is a day immediately preceding a Business Day established by the applicable Remarketing Agent pursuant to Section 3.02 and, thereafter, any Calculation Period established by the Remarketing Agent pursuant to Section 3.02 which shall end on a day not later than 270 days from the commencement thereof; (b) during any Daily Rate Period, the period from and including a Business Day to but not including the next succeeding Business Day; (c) during the first Weekly Rate Period, the period from and including the date of issuance of the Bonds to and including the following Tuesday, and thereafter the period from and including Wednesday of each week to and including the following Tuesday and during any other Weekly Rate Period following a Change in the Interest Rate Mode to a Weekly Rate, the period from and including the effective date of the Change in the Interest Rate Mode to and including the following Tuesday, and, thereafter, the period from and including Wednesday of each week to and including the following Tuesday; (d) during any Monthly Rate Period, following a Change in the Interest Rate Mode to a Monthly Rate, the period from and including the effective date of the Change in the Interest Rate Mode to but excluding the first Business Day of the following month, and thereafter, each period from and including the first Business Day of the month to but excluding the first Business Day of the following month; (e) during any Semi-annual Rate Period, following a Change in the Interest

Rate Mode to a Semi-annual Rate, the period from and including the effective date of the Change in the Interest Rate Mode to but excluding the next succeeding Interest Payment Date and, thereafter, each period from and including the day following the end of the last Calculation Period to but excluding the next succeeding Interest Payment Date; (f) during any Term Rate Period, any period of not less than 365 days from and including the effective date of the Change in the Interest Rate Mode to a Term Rate to and including any day (established by the Authority at the request of the Company pursuant to Section 4.01 .1 ) not later than the day prior to the Stated Maturity; and (g) during any Fixed Rate Period following a Change in the Interest Rate Mode to a Fixed Rate, the period from and including the effective date of the Change in the Interest Rate Mode through the day immediately preceding the Stated Maturity.
"Change in the Interest Rate Mode" shall mean any change in the type of interest rate borne by the Bonds or a subseries of the Bonds pursuant to Section 4.01 or Section 4.02 .
"Change of Preference Law" shall mean any amendment to the Code or other statute enacted by the Congress of the United States or any temporary, proposed or final regulation promulgated by the United States Treasury, after the date hereof which (a) changes or would change any deduction, credit or other allowance allowable in computing liability for any federal tax with respect to, or (b) imposes, or would impose, reduces or would reduce, or increases or would increase any federal tax (including, but not limited to, preference or excise taxes) upon, any interest earned by any holder of bonds the interest on which is excluded from federal gross income under Section 103 of the Code.
"Closing Date" shall mean the date on which the Note becomes legally effective, the same being the date on which the Bonds are paid for by and delivered to the original purchasers thereof.
"Code" shall mean the Internal Revenue Code of 1986, as amended from time to time. Each reference to a section of the Code herein shall be deemed to include the United States Treasury Regulations proposed or in effect thereunder and applied to the Bonds or the use of proceeds thereof, and also includes all amendments and successor provisions unless the context clearly requires otherwise.
"Commercial Paper Dealers" means the commercial paper dealers specified by the Authority at the request of the Company at the time of any Change in the Interest Rate Mode to an Auction Rate or their respective affiliates or successors, provided that any such entity is a commercial paper dealer.
"Commercial Paper Period Record Date" shall mean, with respect to each Interest Payment Date during a Commercial Paper Rate Period, the Business Day next preceding such Interest Payment Date.
"Commercial Paper Rate" shall mean with respect to each Calculation Period during a Commercial Paper Rate Period, a rate or rates of interest equal to the rate or rates of interest per annum established and certified to the Trustee (with a copy to the Authority, the Registrar and Paying Agent and the Company) by a Remarketing Agent no later than 12:00 noon (New York City time) on and as of the Determination Date as the minimum rate or rates of
interest per annum which, in the opinion of such Remarketing Agent, would be necessary on and as of such day to remarket the applicable Bonds in a secondary market transaction at a price equal to the principal amount thereof; provided that such rate or rates of interest shall not exceed the lesser of $110 \%$ of the Commercial Paper Rate Index on and as of such date and the Maximum Allowed Rate.
"Commercial Paper Rate Index" shall mean with respect to the Determination Date of each Calculation Period during a Commercial Paper Rate Period, the average of yield evaluations at par, determined by the Indexing Agent, of securities (whether or not actually issued) all of which shall have a term as near as practicable to such Calculation Period or which are subject to optional or mandatory tender by the owner thereof at the end of a term as near as practicable to such Calculation Period, the interest on which is not included in gross income for federal income tax purposes, of no fewer than ten Component Issuers selected by the Indexing Agent, including issuers of commercial paper, project notes, bond anticipation notes and tax anticipation notes, computed by the Indexing Agent on and as of such day. If the Bonds are rated by a Rating Agency in its highest note or commercial paper rating category or one of its two highest long-term debt rating categories, each Component Issuer must (a) have outstanding securities rated by a Rating Agency in its highest note or commercial paper rating category or (b) not have outstanding notes or commercial paper rated by a Rating Agency but have outstanding securities rated by a Rating Agency in one of its two highest long-term debt rating categories. If the Bonds are rated by a Rating Agency in a rating category that is lower than its highest note or commercial paper rating category or its two highest long-term debt rating categories (and the Bonds are not rated in one of such categories by the other Rating Agency), each Component Issuer must (a) have outstanding securities rated by a Rating Agency in its note or commercial paper rating category which is the same or correlative, in the Indexing Agent's judgment, to the note or commercial paper rating category or the long-term debt rating category of the Bonds or (b) have outstanding securities rated by a Rating Agency in the same long-term debt rating category as the Bonds are rated by that Rating Agency and not have any outstanding notes or commercial paper rated by such Rating Agency. The Indexing Agent may change the Component Issuers from time to time in its discretion, subject to the foregoing requirements. In addition, at the request of the Company and upon delivery to the Trustee of an Opinion of Bond Counsel that such action will not adversely affect the exclusion of interest on the Bonds from gross income of the owners thereof for federal income tax purposes, the Authority, with the consent of the Company, may designate a new method of setting the Commercial Paper Rate Index in the event any of the above-described methods are determined by the Authority to be unavailable, impracticable or unrealistic in the market place.
"Commercial Paper Rate Period" shall mean any period during which the Bonds bear interest at a Commercial Paper Rate or Rates, which period shall commence on the effective date of a Change in the Interest Rate Mode to a Commercial Paper Rate or Rates, as the case may be, and extend through the day immediately preceding the earlier of (a) the effective date of another Change in the Interest Rate Mode or (b) the Stated Maturity.
"Commercial Paper/Treasury Rate" on any date of determination shall mean with respect to Auction Rate Bonds (i) in the case of any Auction Period of less than forty-nine (49) days, the interest equivalent of the 30 -day rate, (ii) in the case of any Auction Period of forty-nine (49) days or more and but less than seventy (70) days, the interest equivalent of the 60-day
rate, (iii) in the case of any Auction Period of seventy (70) days or more but less than eighty-five (85) days, the arithmetic average of the interest equivalent of the 60 -day and 90 -day rates, (iv) in the case of any Auction Period of 85 days or more but less than ninety-nine ( 99 ) days, the interest equivalent of the 90 -day rate; (v) in the case of any Auction Period of ninety-nine (99) days or more but less than 120 days, the arithmetic average of the interest equivalent of the 90 -day and 120-day rates, (vi) in the case of any Auction Period of 120 days or more but less than 141 days, the interest equivalent of the 120 -day rate, (vii) in the case of any Auction Period of 141 days or more but less than 162 days, the arithmetic average of the interest equivalent of the 120 -day and 180-day rates, (viii) in the case of any Auction Period of 162 days or more but less than 183 days, the interest equivalent of the 180 -day rate, and (ix) in the case of any Auction Period of 183 days or more, the Treasury Rate for such Auction Period. The foregoing rates shall in all cases, except with respect to the Treasury Rate, be rates on commercial paper placed on behalf of issuers whose corporate bonds are rated "AA" by S\&P, or the equivalent of such rating by Moody's, as made available on a discount basis or otherwise by the Federal Reserve Bank of New York for the Business Day immediately preceding such date of determination, or in the event that the Federal Reserve Bank of New York does not make available any such rate, then the arithmetic average of such rates, as quoted on a discount basis or otherwise, by the Commercial Paper Dealers, to the Auction Agent for the close of business on the Business Day immediately preceding such date of determination.

If any Commercial Paper Dealer does not quote a commercial paper rate required to determine the Commercial Paper/Treasury Rate, the Commercial Paper/Treasury Rate shall be determined on the basis of a commercial paper quotation or quotations furnished by the remaining Commercial Paper Dealer or Commercial Paper Dealers and any Substitute Commercial Paper Dealer or Substitute Commercial Paper Dealers selected by the Authority at the request of the Company to provide such quotation or quotations not being supplied by any Commercial Paper Dealer or Commercial Paper Dealers, as the case may be, or if the Authority does not select any such Substitute Commercial Paper Dealer or Substitute Commercial Paper Dealers, by the remaining Commercial Paper Dealer or Commercial Paper Dealers. For purposes of this definition, the "interest equivalent" of a rate stated on a discount basis (a "discount rate") for commercial paper of a given day's maturity shall be equal to the product of (A) 100 times (B) the quotient (rounded upwards to the next higher one-thousandth (.001) of 1\%) of (x) the discount rate (expressed in decimals) divided by (y) the difference between (1) 1.00 and (2) a fraction the numerator of which shall be the product of the discount rate (expressed in decimals) times the number of days in which such commercial paper matures and the denominator of which shall be 360 . In no event shall the Commercial Paper/Treasury Rate be greater than the lesser of $15 \%$ or the maximum rate permitted by applicable law.
"Commission" shall mean the Securities and Exchange Commission.
"Company"" shall mean Consolidated Edison Company of New York, Inc., and any surviving, resulting or transferee corporation as provided in Section 5.18 of the Participation Agreement.
"Company Account" shall mean the account created pursuant to Section 2.01(a) of the Bond Purchase Trust Agreement.
"Component Issuers" shall mean issuers of securities, the interest on which is excluded from gross income for federal income tax purposes, selected by the Indexing Agent.
"Computation Date" shall mean each date which is one (1) Business Day prior to any Determination Date.
"Computation Period" shall have the meaning set forth in the Tax Regulatory Agreement.
"Credit Facility" shall mean any Support Facility which provides for the payments referred to in clause (ii) of the definition thereof.
"Credit Facility Issuer" shall mean any bank or banks or other financial institution or institutions, having issued any Credit Facility.
"Current Adjustable Rate" shall mean the interest rate borne by Bonds immediately prior to a Change in the Interest Rate Mode.
"Daily Period Record Date" shall mean, with respect to each Interest Payment Date during a Daily Rate Period, the Business Day next preceding such Interest Payment Date.
"Daily Rate" shall mean with respect to each Calculation Period during a Daily Rate Period, a rate of interest equal to the rate of interest per annum established and certified to the Trustee (with a copy to the Authority, the Registrar and Paying Agent and the Company) by a Remarketing Agent no later than 12:00 noon (New York City time) on and as of the Determination Date as the minimum rate of interest per annum which, in the opinion of such Remarketing Agent, would be necessary on and as of such day to remarket the applicable Bonds in a secondary market transaction at a price equal to the principal amount thereof plus accrued interest thereon; provided that such rate of interest shall not exceed the lesser of $110 \%$ of the Daily Rate Index on and as of such day and the Maximum Allowed Rate.
"Daily Rate Index" shall mean with respect to the Determination Date of each Calculation Period during a Daily Rate Period, the average of one-day yield evaluations at par, determined by the Indexing Agent, of securities (whether or not actually issued), the interest on which is not included in gross income for federal income tax purposes, of no fewer than ten Component Issuers selected by the Indexing Agent and which have redemption or tender provisions comparable to the then applicable provisions of the Bonds, computed by the Indexing Agent on and as of the Determination Date. If the Bonds are rated by a Rating Agency, each Component Issuer must have outstanding securities rated by a Rating Agency in a short-term debt rating category which is the same as the short-term debt rating category in which the Bonds are rated. The specific issuers included in the Component Issuers may be changed from time to time by the Indexing Agent in its discretion and shall be issuers whose securities, in the judgment of the Indexing Agent, have characteristics similar to the Bonds. In addition, at the request of the Company and upon delivery to the Trustee of an Opinion of Bond Counsel that such action will not adversely affect the exclusion of interest on the Bonds from gross income of the owners thereof for federal income tax purposes, the Authority, with the consent of the Company, may designate a new method of setting the Daily Rate Index in the event any of the above-described methods are determined by the Authority to be unavailable, impracticable or unrealistic in the market place.
"Daily Rate Period" shall mean any period during which Bonds bear interest at a Daily Rate which period shall commence on the effective date of the Change in the Interest Rate Mode to a Daily Rate and shall extend through the earlier of (a) the day immediately preceding the effective date of a Change in the Interest Rate Mode or (b) the Stated Maturity.
"Determination Date" shall mean, for any Calculation Period, the first Business Day occurring during such Calculation Period; provided, however, with respect to Bonds which bear interest at the Weekly Rate, for the Calculation Period commencing on the Closing Date, the Determination Date shall mean the Business Day immediately preceding such Closing Date, and thereafter, each Wednesday or, if such Wednesday is not a Business Day, the Business Day next preceding such Wednesday.
"Direct-Pay Credit Facility" shall mean any Credit Facility which by its terms permits the Trustee to draw moneys thereunder for deposit in the Bond Fund.
"Event of Default" shall mean Event of Default as defined in Section 12.01.
"Existing Holder" shall mean with respect to Auction Rate Bonds a person that is listed as the beneficial owner of Auction Rate Bonds in the records of the Auction Agent.
"Fiscal Year" shall mean the fiscal year of the Company as established from time to time by the Company which as of the Closing Date is the twelve-month period commencing on January 1 of each calendar year and ending on December 31 of the next calendar year.
"Fitch" shall mean Fitch Ratings and its successor or successors, and if such corporation shall for any reason no longer perform the functions of a securities rating agency or shall be replaced by some other nationally recognized rating agency by the Authority at the request of the Company, "Fitch" shall be deemed to refer to such other nationally recognized rating agency designated by the Authority at the request of the Company.
"Fixed Rate" shall mean, with respect to a Fixed Rate Period, the rate of interest per annum established and certified to the Trustee (with a copy to the Authority, the Registrar and Paying Agent and the Company) by a Remarketing Agent no later than 12:00 noon (New York City time) on and as of the Determination Date as the minimum rate of interest per annum which, in the opinion of such Remarketing Agent, would be necessary on and as of such date to remarket the applicable Bonds in a secondary market transaction at a price equal to $100 \%$ of the Outstanding principal amount thereof; provided that such rate of interest shall not exceed the lesser of $110 \%$ of the Fixed Rate Index on and as of such date and $18 \%$ per annum;
"Fixed Rate Conversion Date" shall have the meaning set forth in Section 4.02.
"Fixed Rate Index" shall mean with respect to a Fixed Rate Conversion Date, the average of the yield evaluations (on the basis of full coupon securities trading at par with a term approximately equal to the Fixed Rate Period) of securities (whether or not actually issued), the interest on which is not included in gross income for federal income tax purposes, of no fewer
than ten Component Issuers selected by the Indexing Agent and which have a long-term rating by a Rating Agency in the same rating category as the Bonds are rated at the time by such Rating Agency or, if no such bonds are so rated, shall be debt which, in the judgment of the Indexing Agent, is of credit quality comparable to that of the Bonds, computed by the Indexing Agent on and as of the Fixed Rate Conversion Date. In the event that the Indexing Agent fails to compute the Fixed Rate Index and no other qualified municipal securities evaluation service can be appointed Indexing Agent by the Authority, the Fixed Rate Index shall be determined by the applicable Remarketing Agent and shall be $90 \%$ of the average yield shown for the most recent calendar month for United States Treasury notes or bonds having the same number of years to maturity as the number of 12-month periods (or months if the Fixed Rate Period is less than one year) in the Fixed Rate Period, as published in the Federal Reserve Bulletin in the last issue before the Fixed Rate Conversion Date. If that issue does not contain such a yield, the Fixed Rate Index will be determined by linear interpolation between the yields shown in that issue for United States Treasury notes and bonds having the next shorter and next longer number of years (or months) to maturity. In addition, at the request of the Company and upon delivery to the Trustee of an Opinion of Bond Counsel that such action will not adversely affect the exclusion of interest on the Bonds from gross income of the owners thereof for federal income tax purposes, the Authority, with the consent of the Company, may designate a new method of setting the Fixed Rate Index in the event any of the abovedescribed methods are determined by the Authority to be unavailable, impracticable or unrealistic in the market place.
"Fixed Rate Period" shall mean any period during which Bonds bear interest at a Fixed Rate, which period shall commence on the effective date of a Change in the Interest Rate Mode to a Fixed Rate, and shall extend through the day immediately preceding the Stated Maturity.
"Fixed Rate Record Date" shall mean, with respect to each Interest Payment Date during a Fixed Rate Period, the fifteenth day of the month next preceding such Interest Payment Date, or, if such day shall not be a Business Day, the next preceding Business Day.
"Governmental Obligations" shall mean any of the following which are non-callable:
(a) direct general obligations of, or obligations the payment of the principal of and interest on which is unconditionally guaranteed by, the United States of America; and
(b) bonds, debentures or notes issued by Government National Mortgage Association, Federal Financing Bank, Federal Farm Credit Bank, Federal Land Bank, Federal Home Loan Bank, Farmers Home Administration, Federal Home Mortgage Association or any other comparable federal agency hereafter created to the extent that said obligations are unconditionally guaranteed by the United States of America.
"Hold Order" shall mean with respect to the Auction Rate Bonds, Hold Order as defined in Section 3.06.
"Indenture" shall mean this Trust Indenture dated as of November 1, 2004 between the Authority and the Trustee, as the same may be amended or supplemented.
"Indexing Agent" shall mean the Indexing Agent appointed in accordance with Section 11.24.
"Initial Support Facility" shall mean the Letter of Credit dated November 12, 2004 issued by the Initial Support Facility Issuer. The Initial Support Facility shall constitute a Liquidity Facility, a Credit Facility and a Direct-Pay Credit Facility within the meaning of this Indenture.
"Initial Support Facility Issuer" shall mean Citibank, N.A
"Interest Payment Date" shall mean:
(a) during each Commercial Paper Rate Period, the Business Day immediately succeeding the last day of any Calculation Period;
(b) during an Auction Rate Period (i) for an Auction Period of 91 days or less, the Business Day immediately succeeding such Auction Period and (ii) for an Auction Period of more than 91 days, each 13th Thursday after the first day of such Auction Period or the next Business Day if such Thursday is not a Business Day, and the Business Day immediately succeeding the last day of each such Auction Period;
(c) during each Daily Rate Period, the first Business Day of each month thereof;
(d) (i) during the initial Weekly Rate Period, on December 1, 2004 and on the first Business Day of each month thereafter, and (ii) during each Weekly Rate Period other than the initial Weekly Rate Period, the first Business Day of each month thereof;
(e) during each Monthly Rate Period, the first Business Day of each month thereof;
(f) during each Semi-annual Rate Period, (i) the first Business Day of the sixth calendar month following the month in which the first day of such Semi-annual Rate Period occurred, (ii) each anniversary of the date so determined, and (iii) each anniversary of the first day of the first month of such Semi-annual Rate Period;
(g) during each Term Rate Period, the November 1 or May 1 next succeeding the first day of a Calculation Period and each November 1 or May 1 thereafter; provided, however, that if the November 1 or May 1 next succeeding the first day of a Calculation Period occurs less than twenty-one (21) days after the first day of such Calculation Period, the first Interest Payment Date shall be the second such date following the first day of such Calculation Period;
(h) the November 1 or May 1 next succeeding a Fixed Rate Conversion Date and each November 1 or May 1 thereafter; provided, however, that if the November 1 or May 1 next succeeding a Fixed Rate Conversion Date occurs less than twenty-one (21) days after such Fixed Rate Conversion Date, the first Interest Payment Date shall be the second such date following the first day of the Fixed Rate Period;
(i) a Fixed Rate Conversion Date;
(j) any day on which Bonds are subject to mandatory tender for purchase pursuant to Section 5.04, 5.08 or 5.09 or redemption in whole pursuant to Section 5.01, 5.05, 5.06 or 5.07; and
(k) the Stated Maturity;
provided, however, that if any such date determined in any of the foregoing clauses is not a Business Day, the Interest Payment Date shall be the next succeeding day which is a Business Day.
"Investment Securities" shall mean any of the following which at the time are legal investments under the laws of the State of New York for the moneys held hereunder:
(a) Governmental Obligations;
(b) any obligation issued or guaranteed by, or backed by the full faith and credit of, the United States of America (including any certificates or any other evidence of an ownership interest in any such obligation or in specified portions thereof, which may consist of specified portions of the principal thereof or the interest thereon);
(c) deposit accounts in, or certificates of deposit issued by, and bankers acceptance of, any bank, trust company or national banking association which is a member of the Federal Reserve System (which may include the Trustee), having capital stock and surplus aggregating not less than $\$ 50,000,000$;
(d) deposit accounts in, or certificates of deposit issued by and bankers acceptances of, any bank or trust company having capital stock and surplus aggregating not less than $\$ 50,000,000$ and whose obligations are rated not less than "A" or equivalent by Moody's or S\&P;
(e) obligations issued or guaranteed by any person controlled or supervised by and acting as an instrumentality of the United States of America pursuant to the authority granted by the Congress of the United States;
(f) commercial paper rated in the highest investment grade or next highest investment grade by Moody's or S\&P;
(g) obligations rated not less than "A" or equivalent by Moody's or S\&P issued or guaranteed by any state of the United States or the District of Columbia, or any political subdivision, agency or instrumentality of any such state or District, or issued by any corporation;
(h) obligations of a public housing authority fully secured by contracts with the United States;
(i) repurchase agreements with any bank or trust company organized under the laws of any state of the United States of America or any national banking association (including the Trustee) or any government bond dealer reporting to, trading with and recognized as a primary dealer by, the Federal Reserve Bank of New York with respect to any of the foregoing obligations or securities. Any repurchase agreement entered into pursuant to this Indenture shall, by its terms, permit the Trustee to sell the related obligations or securities if the other party to such repurchase agreement shall fail to repurchase promptly such obligation or security on the day required by the repurchase agreement. All such repurchase agreements shall also provide for the delivery of the related obligations or securities to the Trustee or a depositary of the Trustee;
(j) money market or bond mutual funds, which funds have a composite investment grade rated not less than "A" or equivalent by Moody's or S\&P; or
(k) investment agreements with any bank or trust company organized under the laws of any state of the United States of America or any national banking association (including the Trustee) or any governmental bond dealer reporting to, trading with and recognized as a primary dealer by, the Federal Reserve Bank of New York, which has, or the parent company of which has, long-term debt rated at least "A" or its equivalent by S\&P or Moody's, with respect to any of the obligations or securities specified in (a), (d), (e), (f) and (g) above. Any investment agreement entered into pursuant to this Indenture shall, by its terms provide that (i) the invested funds are available for withdrawal without penalty or premium, at any time upon not more than seven (7) days' prior notice (which notice may be amended or withdrawn at any time prior to the specified withdrawal date), and (ii) the investment agreement is the unconditional and general obligation of, and is not subordinated to any other obligation of, the provider thereof.

Any such Investment Securities may be held by the Trustee in book entry form, whereby certificated securities are held by an independent custodian and the Trustee is the beneficial owner of all or a portion of such certificated securities.
"Liquidity_Facility." shall mean a Support Facility which provides for the payments referred to in clause (i) of the definition thereof.
"Liquidity Facility Issuer" shall mean any bank or banks or other financial institution or institutions, having issued any Liquidity Facility.
"Market Agent" shall mean a firm or group of firms appointed pursuant to Section 11.14 to perform certain duties and obligations hereunder with respect to the Bonds of a subseries while Bonds of such subseries are in an Auction Rate Period.
"Market Agent Agreement" shall mean any agreement among the Company and a Market Agent and any similar agreement or agreements entered into between the Company and one or more successor Market Agents, as from time to time amended, pursuant to which the applicable Market Agent undertakes to perform its duties and obligations hereunder while Bonds of a subseries are in an Auction Rate Period.
"Maximum Allowed Rate" shall mean as of any date the lesser of $15 \%$ per annum or the maximum interest rate payable under the Support Facility then in effect, provided, however, that such Maximum Allowed Rate shall not exceed the maximum rate, if any, permitted by applicable law.
"Maximum Auction Rate" shall mean on any date of determination with respect to Auction Rate Bonds, the lesser of the Maximum Allowed Rate and the following: (i) in all cases other than as provided in (ii) or (iii) below, the interest rate per annum equal to the Applicable Percentage of the higher of the After-Tax Equivalent Rate determined on such date with respect to a Standard Auction Period and the BMA Index, (ii) with respect to any change in an Auction Period and/or the Standard Auction Period pursuant to Section 3.04, including any automatic reversion to a Standard Auction Period pursuant to Section 3.03, the interest rate per annum equal to the highest of (a) the Applicable Percentage of the higher of the After-Tax Equivalent Rate determined on such date with respect to a Standard Auction Period, and the BMA Index, (b) the Applicable Percentage of the higher of the After-Tax Equivalent Rate determined on such date with respect to the Auction Period which is proposed to be established and the BMA Index, and (c) the Applicable Percentage of the higher of the After-Tax Equivalent Rate determined on such date with respect to the Auction Period in effect immediately prior to such proposed change in the Auction Period and the BMA Index, or (iii) with respect to any Change in the Interest Rate Mode from an Auction Rate pursuant to Section 4.01 or any change from an Auction Rate to a Fixed Rate pursuant to Section 4.02, the interest rate per annum equal to the higher of (a) the Applicable Percentage of the higher of the After-Tax Equivalent Rate determined on such date with respect to a Standard Auction Period and the BMA Index, and (b) the Applicable Percentage of the higher of the After-Tax Equivalent Rate determined on such date with respect to the Auction Period in effect immediately prior to such proposed change and the BMA Index.
"Monthly Period Record Date" shall mean, with respect to each Interest Payment Date during a Monthly Period, the Business Day next preceding such Interest Payment Date.
"Monthly Rate" shall mean with respect to each Calculation Period during a Monthly Rate Period, a rate of interest equal to the rate of interest per annum established and certified to the Trustee (with a copy to the Authority, the Registrar and Paying Agent, and the Company) by a Remarketing Agent no later than 12:00 noon (New York City time) on and as of the Determination Date as the minimum rate of interest per annum which, in the opinion of such Remarketing Agent, would be necessary on and as of such day to remarket the applicable Bonds in a secondary market transaction at a price equal to the principal amount thereof; provided that such rate of interest shall not exceed the lesser of $110 \%$ of the Monthly Rate Index on and as of such date and the Maximum Allowed Rate.
"Monthly Rate Index" shall mean with respect to the Determination Date of each Calculation Period during a Monthly Rate Period, the average of 30-day yield evaluations at par, determined by the Indexing Agent, of securities (whether or not actually issued), the interest on which is not included in gross income for federal income tax purposes, of no fewer than ten Component Issuers selected by the Indexing Agent, including issuers of commercial paper, project notes, bond anticipation notes and tax anticipation notes, computed by the Indexing Agent on and as of such day. If the Bonds are rated by a Rating Agency in its highest note or
commercial paper rating category or one of its two highest long-term debt rating categories, each Component Issuer must (a) have outstanding securities rated by a Rating Agency in its highest note or commercial paper rating category or (b) not have outstanding notes or commercial paper rated by a Rating Agency but have outstanding securities rated by a Rating Agency in one of its two highest long-term debt rating categories. If the Bonds are rated by a Rating Agency in a rating category that is lower than its highest note or commercial paper rating category or its two highest long-term debt rating categories (and the Bonds are not rated in one of such categories by the other Rating Agency), each Component Issuer must (a) have outstanding securities rated by a Rating Agency in its note or commercial paper rating category which is the same or correlative, in the Indexing Agent's judgment, to the note or commercial paper rating category or the longterm debt rating category of the Bonds or (b) have outstanding securities rated by a Rating Agency in the same long-term debt rating category as the Bonds are rated by that Rating Agency and not have any outstanding notes or commercial paper rated by such Rating Agency. The Indexing Agent may change the Component Issuers from time to time in its discretion, subject to the foregoing requirements. In addition, at the request of the Company and upon delivery to the Trustee of an Opinion of Bond Counsel that such action will not adversely affect the exclusion of interest on the Bonds from gross income of the owners thereof for federal income tax purposes, the Authority, with the consent of the Company, may designate a new method of setting the Monthly Rate Index in the event any of the above-described methods are determined by the Authority to be unavailable, impracticable or unrealistic in the market place.
"Monthly Rate Period" shall mean any period during which Bonds bear interest at a Monthly Rate which period shall commence with the effective date of the Change in the Interest Rate Mode to a Monthly Rate and shall extend through the day immediately preceding the earlier of (a) the effective date of another Change in the Interest Rate Mode or (b) the Stated Maturity.
"Moody's" shall mean Moody's Investors Service, Inc., a corporation organized and existing under the laws of the State of Delaware and its successor or successors, and if such corporation shall for any reason no longer perform the functions of a securities rating agency or if Moody's shall be replaced, subject to the definition of "prevailing rating" in the definition of Applicable Percentage, by some other nationally recognized rating agency by the Authority at the request of the Company, "Moody's" shall be deemed to refer to such other nationally recognized rating agency designated by the Authority at the request of the Company.
"Note" shall mean the promissory note of the Company executed by the Company and delivered to the Trustee, to evidence the obligations of the Company to repay the loan to be made by the Authority pursuant to the Participation Agreement.
"Note Payments" shall mean the portion of the Payments required to be made pursuant to Section 4.02 of the Participation Agreement and the Note to be applied to the payment of principal of, premium, if any, and interest on the Bonds.
"Notice of Election to Tender" shall mean the notice given by a Holder of Bonds pursuant to Section 5.03.
"Opinion of Bond Counsel" shall mean a written opinion of Bond Counsel.
"Option to Convert" shall mean the Authority's right and option to convert the rate of interest payable on the Bonds from an Adjustable Rate to a Fixed Rate as provided in Section 4.02.
"Order" shall mean with respect to Auction Rate Bonds, an Order as defined in Section 3.06.
"Outstanding", whether appearing in upper or lower case, when used with respect to any Bond shall mean, as of any date, any Bond theretofore or thereupon being authenticated and delivered pursuant to this Indenture, except:

1. a Bond cancelled by the Trustee or delivered to the Trustee for cancellation at or prior to such date;
2. a Bond in lieu of or in substitution for which another Bond shall have been issued under Sections 5.10, 5.11, 7.03, 7.04 or 7.05 ; and
3. a Bond or portion thereof deemed to have been paid in accordance with Section 15.01;
provided, however, that with respect to Auction Rate Bonds for the purposes of the Auction Procedures on any Auction Date, Auction Rate Bonds as to which the Company or any person known to the Auction Agent to be an Affiliate of the Company is the Existing Holder thereof shall be disregarded and deemed not to be Outstanding.
"Overdue Rate" shall mean on any date of determination $265 \%$ of the higher of the After-Tax Equivalent Rate determined on such date with respect to a Standard Auction Period and the BMA Index on such date of determination; provided that in no event shall the Overdue Rate exceed the Maximum Allowed Rate.
"Participation Agreement" shall mean the Participation Agreement dated as of the date hereof, between the Authority and the Company, as amended and supplemented by Supplemental Participation Agreements from time to time.
"Payments" shall mean collectively the Note Payments and the Additional Payments.
"Payment Default" shall mean the receipt by the Auction Agent of a notice from the Trustee of (i) failure to make payments of principal of and premium, if any, or interest on any subseries of the Bonds when the same shall become due and payable and (ii) the occurrence of a default by the Credit Facility Issuer under the Credit Facility applicable to such subseries of the Bonds.
"Potential Holder" shall mean a person, including any Existing Holder, who may be interested in acquiring a beneficial interest in Auction Rate Bonds in addition to Auction Rate Bonds currently owned by such person, if any.
"Principal Corporate Trust Office" shall mean the office of the Trustee at which at any particular time its corporate trust business shall be principally administered, which office at the date hereof is located at 101 Barclay Street - 21W, New York, New York 10286.
"Project" shall mean any acquisition, purchase, construction, reconstruction, improvement, betterment, extension and equipping, as described in Exhibit A and Exhibit B to the Participation Agreement as the same may be revised from time to time to reflect any changes or substitutions therein, additions thereto, or deletions therefrom permitted by the Participation Agreement.
"Project Fund" shall mean the special trust fund designated as "Consolidated Edison Company of New York, Inc. Series 2004C Project Fund" created and established under, and to be held and administered by the Trustee as provided in, Section 8.01.
"Purchase Price" shall mean the purchase price of Bonds tendered or deemed tendered for purchase pursuant to Section 5.03, 5.04, 5.08 or 5.09, consisting of the principal amount of such Bonds together with any accrued and unpaid interest plus, in the event Bonds bearing interest at a Term Rate or a Fixed Rate are subject to tender for purchase pursuant to Section 5.04, any premium which would have been required to be paid as part of redemption price on any date on which such Bonds are subject to tender for purchase if such Bonds were subject to optional redemption pursuant to Section 5.01 on such date. With respect to Bonds tendered for purchase on an Interest Payment Date, Purchase Price shall include any accrued interest on such Bonds which is not otherwise being paid pursuant to Section 9.03(1)(a).
"rate index" means the Daily Rate Index, the Fixed Rate Index, the Commercial Paper Rate Index, the Monthly Rate Index, the Semi-annual Rate Index, the Term Rate Index, or the Weekly Rate Index.
"Rating Agency" means Moody's, if the Bonds are then rated by Moody's, S\&P, if the Bonds are then rated by S\&P, and Fitch, if the Bonds are then rated by Fitch.
"rating category" shall mean one of the generic rating categories of a Rating Agency, without regard to any refinement or gradation of such rating category by a numerical modifier, plus or minus sign, or otherwise.
"Record Date", at any time, shall mean each Commercial Paper Period Record Date during a Commercial Paper Rate Period, each Auction Rate Bonds Period Record Date during an Auction Rate Period, each Daily Period Record Date during a Daily Rate Period, each Weekly Period Record Date during a Weekly Rate Period, each Monthly Period Record Date during a Monthly Rate Period, each Semi-annual Period Record Date during a Semi-annual Rate Period, each Term Period Record Date during a Term Rate Period and each Fixed Rate Record Date during a Fixed Rate Period.
"Registrar and Paying Agent" shall mean The Bank of New York in its separate capacity as Registrar and Paying Agent for the Bonds, or its successors or assigns.
"Reimbursement Agreement" shall mean the Agreement for Letter of Credit, dated November 12, 2004, between the Company and Citibank, N.A.
"Remarketing Agent" shall mean the Remarketing Agent or Remarketing Agents appointed pursuant to Section 11.14, its or their successors or assigns, including without limitation any Market Agent appointed in connection with Auction Rate Bonds.
"Remarketing Agreement" shall mean the Remarketing Agreement among the Company and the Remarketing Agents dated the Closing Date and any similar agreement or agreements between the Company and one or more successor Remarketing Agents, as from time to time amended, including without limitation any Market Agent Agreement, pursuant to which the applicable Remarketing Agent undertakes to perform its duties and obligations hereunder during a period of time specified in such agreement.
"Responsible Officer" shall mean, when used with respect to the Trustee, any officer within the corporate trust department of the Trustee, including any vice president, assistant vice president, assistant secretary, assistant treasurer, trust officer or any other officer of the Trustee who customarily performs functions similar to those performed by the persons who at the time shall be such officers, respectively, or to whom any corporate trust matter is referred because of such person's knowledge of and familiarity with the particular subject and who shall have direct responsibility for the administration of this Indenture.
"Revenues" shall mean and include all income, revenues and moneys derived by the Authority under the Participation Agreement and the Note (except administrative compensation and indemnification payable under the Participation Agreement), and, without limiting the generality of the foregoing, shall include to the extent provided in this Indenture, earnings on the investment of moneys held under this Indenture and the proceeds of the sale of any such investments. The term "Revenues" shall not include moneys received as proceeds from the sale of the Bonds or any other bonds, notes or evidences of indebtedness or as grants or gifts.
"S\&P" shall mean Standard \& Poor’s, a division of The McGraw-Hill Companies and its successor or successors, and if such corporation shall for any reason no longer perform the functions of a securities rating agency or if S\&P shall be replaced, subject to the definition of "prevailing rating" in the definition of Applicable Percentage, by some other nationally recognized rating agency by the Authority at the request of the Company, "S\&P" shall be deemed to refer to such other nationally recognized rating agency designated by the Authority at the request of the Company.
"Securities Depository" shall mean The Depository Trust Company and its successors and assigns or if (i) the then Securities Depository resigns from its functions as depository of the Bonds or (ii) the Authority discontinues use of the then Securities Depository pursuant to Section 2.03 , any other securities depository, which agrees to follow the procedures required to be followed by a Securities Depository in connection with the Bonds and which is selected by the Authority, with the consent of the Company, the Trustee, the Auction Agent and the applicable Market Agent or Remarketing Agent pursuant to Section 2.03.
"Securities Exchange Act" shall mean the Securities Exchange Act of 1934, as amended.
"Sell Order" shall mean with respect to Auction Rate Bonds, Sell Order as defined in Section 3.06.
"Semi-annual Period Record Date" shall mean, with respect to each Interest Payment Date during a Semi-annual Rate Period, the fifteenth day of the calendar month next preceding such Interest Payment Date.
"Semi-annual Rate" shall mean with respect to each Calculation Period during a Semi-annual Rate Period, a rate of interest equal to the rate of interest per annum established and certified to the Trustee (with a copy to the Authority, the Registrar and Paying Agent and the Company) by a Remarketing Agent no later than 12:00 noon (New York City time) on and as of the Determination Date as the minimum rate of interest per annum which, in the opinion of such Remarketing Agent, would be necessary on and as of such day to remarket the applicable Bonds in a secondary market transaction at a price equal to the principal amount thereof; provided that such rate of interest shall not exceed the lesser of $110 \%$ of the Semi-annual Rate Index on and as of such date and the Maximum Allowed Rate.
"Semi-annual Rate Index" shall mean with respect to the Determination Date of each Calculation Period during a Semi-annual Rate Period, the average of six-month yield evaluations at par, determined by the Indexing Agent, of securities (whether or not actually issued), the interest on which is not included in gross income for federal income tax purposes, of no fewer than ten Component Issuers selected by the Indexing Agent, including issuers of commercial paper, project notes, bond anticipation notes and tax anticipation notes, computed by the Indexing Agent on and as of such day. If the Bonds are rated by a Rating Agency in its highest note or commercial paper rating category or one of its two highest long-term debt rating categories, each Component Issuer must (a) have outstanding securities rated by a Rating Agency in its highest note or commercial paper rating category or (b) not have outstanding notes or commercial paper rated by a Rating Agency but have outstanding securities rated by a Rating Agency in one of its two highest long-term debt rating categories. If the Bonds are rated by a Rating Agency in a rating category that is lower than its highest note or commercial paper rating category or its two highest long-term debt rating categories (and the Bonds are not rated in one of such categories by the other Rating Agency), each Component Issuer must (a) have outstanding securities rated by a Rating Agency in its note or commercial paper rating category which is the same or correlative, in the Indexing Agent's judgment, to the note or commercial paper rating category or the long-term debt rating category of the Bonds or the other debt obligations supported by support facilities issued by the issuer of a Support Facility or (b) have outstanding securities rated by a Rating Agency in the same long-term debt rating category as the Bonds are rated by that Rating Agency and not have any outstanding notes or commercial paper rated by such Rating Agency. The Indexing Agent may change the Component Issuers from time to time in its discretion, subject to the foregoing requirements. In addition, at the request of the Company and upon delivery to the Trustee of an Opinion of Bond Counsel that such action will not adversely affect the exclusion of interest on the Bonds from gross income of the owners thereof for federal income tax purposes, the Authority, with the consent of the Company, may designate a new method of setting the Semi-annual Rate Index in the event any of the above-described methods are determined by the Authority to be unavailable, impracticable or unrealistic in the market place.
"Semi-annual Rate Period" shall mean any period during which Bonds bear interest at a Semi-annual Rate, which period shall commence on the effective date of a Change in the Interest Rate Mode to a Semi-annual Rate, and shall extend through the day immediately preceding the earlier of (a) the effective date of another Change in the Interest Rate Mode, or (b) the Stated Maturity.
"Standard Auction Period" initially shall mean an Auction Period of thirty-five (35) days, and after the establishment of a different Standard Auction Period pursuant to Section 3.04, shall mean such different Standard Auction Period.
"State" shall mean any state of the United States of America.
"Stated Maturity," with respect to each series of Bonds shall mean November 1, 2039, provided that, subject to the next sentence, in any case where the date of maturity of, or payment of premium on, interest on, or principal of, the Bonds or the date fixed for redemption of any Bonds shall be on a day other than a Business Day, then payment of interest, principal and premium, if any, need not be made on such date but may be made (without additional interest) on the next succeeding Business Day, with the same force and effect as if made on the date of maturity or the date fixed for redemption. Notwithstanding anything in this Indenture to the contrary, in no event shall the final maturity date of the Bonds extend beyond 35 years from the Closing Date, and the length of any Auction Period shall be reduced at the discretion of the Authority to the extent necessary to ensure compliance with the provisions of this sentence.
"Statutory Corporate Tax Rate" shall mean as of any date of determination the highest tax rate bracket (expressed in decimals) now or hereafter applicable in each taxable year on the taxable income of every corporation as set forth in Section 11 of the Code or any successor section without regard to any minimum additional tax provision or provisions regarding changes in rates during a taxable year, which on the date hereof is . 35 . Any change in the Statutory Corporate Tax Rate shall be evidenced by a certificate of the Company.
"Submission Deadline" shall mean 1:00 p.m., New York City time, on any Auction Date or such other time on any such Auction Date by which Broker-Dealers are required to submit Orders to the Auction Agent as specified by the Auction Agent from time to time.
"Submitted Bid" shall mean with respect to Auction Rate Bonds, Submitted Bid as defined in Section 3.08.
"Submitted Hold Order" shall mean with respect to Auction Rate Bonds, Submitted Hold Order as defined in Section 3.08.
"Submitted Order" shall mean with respect to Auction Rate Bonds, Submitted Order as defined in Section 3.08.
"Submitted Sell Order" shall mean with respect to Auction Rate Bonds, Submitted Sell Order as defined in Section 3.08.
"Substitute Commercial Paper Dealers" shall mean the commercial paper dealers specified by the Authority at the request of the Company at the time of any Change in the Interest Rate Mode to an Auction Rate or their respective affiliates or successors.
"Substitute U.S. Government Securities Dealer" shall mean the dealer or dealers in U.S. government securities specified by the Authority at the request of the Company.
"Sufficient Clearing Bids" shall mean with respect to Auction Rate Bonds, Sufficient Clearing Bids as defined in Section 3.08.
"Supplemental Indenture" shall mean any indenture between the Trustee and the Authority entered into pursuant to and in compliance with the provisions of Article XIV hereof amending or supplementing the provisions of this Indenture as originally executed or as theretofore amended or supplemented.
"Supplemental Participation Agreement" shall mean an agreement supplementing or amending the Participation Agreement entered into pursuant to and in compliance with the provisions of Article XIV.
"Support Facility" shall mean any instrument satisfactory to the Authority entered into or obtained in connection with the Bonds, such as a letter of credit, committed line of credit, insurance policy, surety bond or standby bond purchase agreement, or any combination of the foregoing, and issued by a bank or banks, insurance company, other financial institution or institutions, or any combination of the foregoing which provides for the payment of (i) the Purchase Price on Bonds tendered for purchase pursuant to the provisions hereof and the Bond Purchase Trust Agreement and/or (ii) principal of and interest on all Bonds coming due and payable during the term thereof.
"Support Facility Issuer" shall mean any bank or banks, or other financial institution or institutions which is the issuer of any Support Facility.
"Support Facility Issuer Default" means the occurrence and continuance of one or more of the following events: (a) the failure of the issuer of the Support Facility to pay principal of or interest on the Bonds or the Purchase Price of the Bonds when and to the extent required by a Support Facility; (b) the issuance of an order of liquidation or dissolution of an issuer of the Support Facility; (c) the commencement by an issuer of the Support Facility of a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself or its debts under any bankruptcy, insolvency or other similar law now or hereafter in effect including, without limitation, the appointment of a trustee, receiver, liquidator, custodian or other similar official for itself or any substantial part of its property; (d) the consent of an issuer of the Support Facility to any relief referred to in the preceding clause (c) in an involuntary case or other proceeding commenced against it; (e) the making by an issuer of the Support Facility of an assignment for the benefit of creditors; (f) the failure of an issuer of the Support Facility to generally pay its debts as they become due; (g) a default by an issuer of the Support Facility under a Support Facility; (h) repudiation of the Support Facility by the issuer of the Support Facility or (i) the initiation by an issuer of the Support Facility of any actions to authorize any of the foregoing.
"Tax Regulatory Agreement" shall mean the Tax Regulatory Agreement, dated the Closing Date, between the Authority and the Company, and any and all modifications, alterations, amendments and supplements thereto.
"Term Period Record Date" shall mean, with respect to each Interest Payment Date during a Term Rate Period, the fifteenth day of the month next preceding such Interest Payment Date.
"Term Rate" shall mean with respect to each Calculation Period during a Term Rate Period, a rate of interest equal to the rate of interest per annum established and certified to the Trustee (with a copy to the Authority, the Registrar and Paying Agent and the Company) by a Remarketing Agent no later than 12:00 noon (New York City time) on and as of the Determination Date as the minimum rate of interest per annum which, in the opinion of such Remarketing Agent, would be necessary on and as of such day to remarket the applicable Bonds in a secondary market transaction at a price equal to the principal amount thereof; provided that such rate of interest shall not exceed the lesser of $110 \%$ of the Term Rate Index on and as of such date and the Maximum Allowed Rate.
"Term Rate Index" shall mean with respect to the Determination Date of each Calculation Period during a Term Rate Period, the average of the yield evaluations at par, determined by the Indexing Agent, of securities (whether or not actually issued), having a term approximately equal to the Term Rate Period or which are subject to optional or mandatory tender by the owner thereof at the end of a term approximately equal to the Term Rate Period, the interest on which is not included in gross income for federal income tax purposes, of no fewer than ten Component Issuers selected by the Indexing Agent, computed by the Indexing Agent on and as of such day. If the Bonds are rated by a Rating Agency in one of its two highest long-term debt rating categories, each Component Issuer must have outstanding securities rated by a Rating Agency in one of its two highest long-term debt rating categories. If the Bonds are rated by a Rating Agency in a rating category that is lower than its two highest long-term debt rating categories (and the Bonds are not rated in one of the two highest such categories by the other Rating Agency), each Component Issuer must have outstanding securities rated by a Rating Agency in the same long-term debt rating category as the Bonds are rated by that Rating Agency. The Indexing Agent may change the Component Issuers from time to time in its discretion, subject to the foregoing requirements. In addition, at the request of the Company and upon delivery to the Trustee of an Opinion of Bond Counsel that such action will not adversely affect the exclusion of interest on the Bonds from gross income of the owners thereof for federal income tax purposes, the Authority, with the consent of the Company, may designate a new method of setting the Term Rate Index in the event any of the above-described methods are determined by the Authority to be unavailable, impracticable or unrealistic in the market place.
"Term Rate Period" shall mean any period during which Bonds bear interest at a Term Rate which period shall commence with the effective date of the Change in the Interest Rate Mode to a Term Rate and shall extend through the day immediately preceding the earlier of (a) the effective date of another Change in the Interest Rate Mode or (b) the Stated Maturity.
"Terminating Event" shall mean:
(a) Any event or events under the terms of a Support Facility or any agreement providing for the issuance of such Support Facility which would cause the termination of such Support Facility but would also specifically allow for the mandatory tender of Bonds pursuant to Section 5.09 with a draw on or borrowing or payment under such Support Facility prior to such termination; or
(b) Receipt by the Trustee of written notice from the financial institution providing any Support Facility following a draw on or borrowing or payment under such Support Facility for payment of interest on the Bonds that the amount so drawn, borrowed or paid has not been reinstated in the amount of such drawing.
"Treasury Rate" on any date, shall mean (i) the yield, calculated in accordance with prevailing industry convention, of the rate on the most recently auctioned direct obligations of the U.S. Government having a maturity at the time of issuance of 364 days or less with a remaining maturity closest to the length of such Auction Period, as quoted in The Wall Street Journal on such date for the Business Day next preceding such date; or (ii) in the event that any such rate is not published in The Wall Street Journal, then the bond equivalent yield, calculated in accordance with prevailing industry convention, as calculated by reference to the arithmetic average of the bid price quotations of the most recently auctioned direct obligation of the U.S. Government having a maturity at the time of issuance of 364 days or less with a remaining maturity closest to the length of such Auction Period, based on bid price quotations on such date obtained by the Auction Agent from a U.S. Government Securities Dealer. If any U.S. Government Securities Dealer does not quote a rate required to determine the Treasury Rate, the Treasury Rate shall be determined on the basis of the quotation or quotations furnished by the remaining U.S. Government Securities Dealer or Dealers and any Substitute U.S. Government Securities Dealer or Dealers selected by the Authority at the request of the Company to provide such rate or rates not being supplied by any U.S. Government Securities Dealer or U.S. Government Securities Dealers, as the case may be, or, if the Authority does not select any such Substitute U.S. Government Securities Dealer or Substitute U.S. Government Securities Dealers, by the remaining U.S. Government Securities Dealer or U.S. Government Securities Dealers.
"Trust Estate" shall mean the meaning assigned to such term in the first paragraph following the recitals herein.
"Trustee" shall mean the corporation having trust powers appointed by the Authority as Trustee hereunder and serving as such hereunder, and any surviving, resulting or transferee corporation as provided in Section 11.13. References to principal office of the Trustee shall mean the Principal Corporate Trust Office of the Trustee.
"U.S. Government" shall mean the federal government of the United States of America.
"U.S. Government Securities Dealers" shall mean the Market Agents for any Auction Rate Bonds, or, in lieu of any thereof, their respective affiliates or successors, provided that any such entity is a U.S. Government securities dealer.
"Weekly Period Record Date" shall mean, with respect to each Interest Payment Date during a Weekly Rate Period, the Business Day next preceding such Interest Payment Date.
"Weekly Rate" shall mean with respect to each Calculation Period during a Weekly Rate Period, a rate of interest equal to the rate of interest per annum established and certified to the Trustee (with a copy to the Authority, the Registrar and Paying Agent and the Company) by a Remarketing Agent no later than 12:00 noon (New York City time) on and as of the Determination Date as the minimum rate of interest per annum which, in the opinion of such Remarketing Agent, would be necessary on and as of such day to remarket the applicable Bonds in a secondary market transaction at a price equal to the principal amount thereof plus accrued interest thereon; provided that such rate of interest shall not exceed the lesser of $110 \%$ of the Weekly Rate Index on and as of such date and the Maximum Allowed Rate; provided further that the rate for the Calculation Period from and including the Closing Date to and including the following Tuesday shall be the rate set forth in the second sentence of Section 3.01.2.
"Weekly Rate Index" shall mean with respect to the Determination Date of each Calculation Period during a Weekly Rate Period, the average of 30day yield evaluations at par, determined by the Indexing Agent, of securities (whether or not actually issued), the interest on which is not included in gross income for federal income tax purposes, of no fewer than ten Component Issuers selected by the Indexing Agent, including issuers of commercial paper, project notes, bond anticipation notes and tax anticipation notes, computed by the Indexing Agent on and as of such day. If the Bonds are rated by a Rating Agency in its highest note or commercial paper rating category or one of its two highest long-term debt rating categories, each Component Issuer must (a) have outstanding securities rated by a Rating Agency in its highest note or commercial paper rating category or (b) not have outstanding notes or commercial paper rated by a Rating Agency but have outstanding securities rated by a Rating Agency in one of its two highest long-term debt rating categories. If the Bonds are rated by a Rating Agency in a rating category that is lower than its highest note or commercial paper rating category or its two highest long-term debt rating categories (and the Bonds are not rated in one of such categories by the other Rating Agency), each Component Issuer must (a) have outstanding securities rated by a Rating Agency in its note or commercial paper rating category which is the same or correlative, in the Indexing Agent's judgment, to the note or commercial paper rating category or the long-term debt rating category of the Bonds or (b) have outstanding securities rated by a Rating Agency in the same long-term debt rating category as the Bonds are rated by that Rating Agency and not have any outstanding notes or commercial paper rated by such Rating Agency. The Indexing Agent may change the Component Issuers from time to time in its discretion, subject to the foregoing requirements. In addition, at the request of the Company and upon delivery to the Trustee of an Opinion of Bond Counsel that such action will not adversely affect the exclusion of interest on the Bonds from gross income of the owners thereof for federal income tax purposes, the Authority, with the consent of the Company, may designate a new method of setting the Weekly Rate Index in the event any of the above-described methods are determined by the Authority to be unavailable, impracticable or unrealistic in the market place.
"Weekly Rate Period" shall mean any period during which the Bonds bear interest at a Weekly Rate; the first such period shall commence on the date of initial issuance of the Bonds and shall extend through the day immediately preceding the earlier of (a) the effective date of a Change in the Interest Rate Mode or (b) the Stated Maturity.
"Winning Bid Rate" shall mean with respect to Auction Rate Bonds, Winning Bid Rate as defined in Section 3.08.
Section 1.02. Definitions of General Terms. Whenever in this Indenture any governmental unit including the Authority or any official, officer, director or department of a governmental unit, is defined or referred to, such definition or reference shall be deemed to include the governmental unit or official, officer, board, agency, commission, body or department succeeding to or in whom or in which is vested, the functions, rights, powers, duties and obligations of such governmental unit, official, officer, director or department, as the case may be, encompassed by this Indenture.

Unless the context shall clearly indicate otherwise or may otherwise require, in this Indenture words importing persons include firms, partnerships, associations, corporations (public and private), public bodies and natural persons, and also include executors, administrators, trustees, receivers or other representatives.

Unless the context shall clearly indicate otherwise or may otherwise require computation on other than an annual basis, in this Indenture whenever any interest rate or rate of interest is defined or referred to, such rate shall be a rate per annum.

Unless the context shall clearly indicate otherwise or may otherwise require, in this Indenture: (i) references to articles, sections and other subdivisions, whether by number or letter or otherwise, are to the respective or corresponding articles, sections and subdivisions of this Indenture, as such articles, sections or subdivisions may be amended from time to time; (ii) the terms "herein," "hereunder," "hereby," "hereto," "hereof," and any similar terms, refer to this Indenture and to this Indenture as a whole and not to any particular article, section or subdivision hereof; and (iii) the word "heretofore" means before the time of effectiveness of this Indenture; and the word "hereafter" means after the time of effectiveness of this Indenture.

## ARTICLE II

## AUTHORIZATION OF BONDS

Section 2.01. Limitation on Issuance of Bonds. No Bonds may be issued under the provisions of this Indenture except in accordance with the provisions of this Article.

Section 2.02. Authorization of Bonds. 1. There is hereby created and established under this Indenture one issue of revenue bonds of the Authority, limited to $\$ 99,000,000$ in aggregate principal amount, of "Facilities Revenue Bonds, Series 2004C (Consolidated Edison Company of New York, Inc. Project)". In order to distinguish between Bonds which are subject to different interest rate determination methods and other features and to distinguish the portion of the Bonds to be offered or remarketed by any particular Remarketing Agent, the Bonds may be designated and redesignated from time to time by the Authority in such a way as to identify one or more subseries of the Bonds. Such subseries may be designated as subseries C-1, subseries C-2, or subseries C-3, as the case may be, or may be further redesignated as subseries C-1-1, subseries C-2-1, or subseries C-3-1, as the case may be, and so forth. Each Bond shall bear upon the face thereof such designation or redesignation, if any. In the event any series of Bonds is designated as one or more subseries, all references to a series of the Bonds in this Indenture shall refer to each such subseries unless the context otherwise requires. The Bonds, upon original issuance, shall be issued in three separate subseries designated as "2004C-1" in the principal amount of \$33,000,000 (the "Series 2004C-1 Bonds"), "2004C-2" in the principal amount of $\$ 33,000,000$ (the "Series 2004C-2 Bonds") and "2004C-3" in the principal amount of \$33,000,000 (the "Series 2004C-3 Bonds").
2. The Bonds shall be secured by the Trust Estate. The lien, pledge, charge and assignment of the Trust Estate created hereby shall be valid and binding from the time of the effectiveness of this Indenture, as set forth in Section 17.11, and the Note Payments made under the Note and the Participation Agreement shall be immediately subject thereto upon receipt by the Trustee.
3. The Bonds are limited obligations of the Authority payable solely from payments to be made by the Company pursuant to the Note and the Participation Agreement and the other moneys, rights and properties pledged hereunder including the proceeds of the Support Facility, if any, hereafter obtained with respect thereto and secured by a pledge from the Authority to the Trustee of the Participation Agreement and the Note. The Bonds shall not be a debt of the State of New York, and the State of New York shall not be liable thereon.
4. The covenants and agreements herein set forth to be performed by the Authority shall be for the benefit, security and protection of any Holder of the Bonds.
5. Neither the Trustee nor any Holder of the Bonds shall be required to see that the moneys derived from such Bonds are applied to the purpose or purposes for which such Bonds are issued.
6. The Bonds shall be issued under this Indenture for the purpose of paying a portion of the redemption price of the Prior Bonds.
7. The Bonds bearing a Commercial Paper Rate, a Daily Rate, a Weekly Rate or a Monthly Rate shall be fully registered Bonds in the denomination of $\$ 100,000$ or any integral multiple thereof. The Bonds bearing an Auction Rate shall be fully registered Bonds in the denomination of $\$ 25,000$ or any integral multiple thereof. The Bonds bearing a Semi-annual Rate, a Term Rate or a Fixed Rate shall be fully registered Bonds in the denomination of $\$ 5,000$ or any integral multiple thereof.
8. The Bonds shall be numbered consecutively from "2004C- [insert " 1,2 or 3 ", as appropriate]-1" upwards as issued, or as otherwise provided by the Registrar and Paying Agent. If the Bonds are redesignated to identify one or more additional subseries, the Bonds shall be numbered in accordance with their subseries designation. The Bonds shall mature on the Stated Maturity.
9. The Bonds shall be initially issued in fully registered form, without coupons, and dated their date of first authentication and delivery.
10. Upon any partial Change in the Interest Rate Mode for a subseries of Bonds from an Auction Rate for an Auction Rate Period, there shall be Outstanding an aggregate principal amount of not less than $\$ 10,000,000$ of Auction Rate Bonds for such subseries and in the applicable denominations set forth in Section 2.02.7.

Section 2.03. Global Form; Securities Depository. 1. Except as otherwise provided in this Section 2.03, the Bonds in the form of one separate global bond for each subseries shall be registered in the name of the Securities Depository or its nominee and ownership thereof shall be maintained in book entry form by the Securities Depository for the account of the Agent Members thereof.

Except as provided in subsections (3) and (4) of this Section 2.03, the Bonds of any subseries may be transferred, in whole but not in part, only to the Securities Depository or a nominee of the Securities Depository, or to a successor Securities Depository selected or approved by the Authority, with the consent of the Company, the Trustee, the Auction Agent (if any) and the applicable Remarketing Agent for such subseries, or to a nominee of such successor Securities Depository. Each global certificate for the Bonds shall bear a legend substantially to the following effect: "Except as otherwise provided in Section 2.03 of the Indenture, this global bond may be transferred, in whole but not in part, only to the Securities Depository as defined in the Indenture or a nominee of the Securities Depository or to a successor Securities Depository or to a nominee of a successor Securities Depository."
2. The Authority, the Company, the Trustee, the Registrar and Paying Agent, the Auction Agent (if any) and the applicable Remarketing Agent shall have no responsibility or obligation with respect to:
(a) the accuracy of the records of the Securities Depository or any Agent Member with respect to any beneficial ownership interest in the Bonds;
(b) the delivery to any Agent Member, beneficial owner of the Bonds or other person, other than the Securities Depository or its nominee as registered owner, of any notice with respect to the Bonds;
(c) the payment to any Agent Member, beneficial owner of the Bonds or other person, other than the Securities Depository or its nominee as registered owner, of any amount with respect to the principal or premium, if any, or interest on the Bonds;
(d) its acceptance of any consent given by the Securities Depository or other action taken by the Securities Depository as registered owner; or
(e) the selection by the Securities Depository or any Agent Members of any beneficial owners to receive payment in the event of a partial redemption of Bonds, except for the Trustee's obligations under Section 5.12.

So long as the certificates for the Bonds of any subseries issued under the Indenture are not issued pursuant to subsection (4) of this Section 2.03 , the Authority, the Company, the Trustee, the Auction Agent (if any), the applicable Remarketing Agent and the Registrar and Paying Agent may treat the Securities Depository as, and deem the Securities Depository to be, the absolute owner of such series or subseries of Bonds for all purposes whatsoever, including without limitation:
(a) the payment of principal and premium, if any, and interest on such series or subseries of the Bonds;
(b) giving notices of redemption and other matters with respect to such series or subseries of the Bonds; and
(c) registering transfers with respect to such series or subseries of the Bonds.

Payment by the Trustee of principal or redemption price, if any, of and premium, if any, and interest on such Bonds to or upon the order of the Securities Depository or its nominee during any period when it is the registered owner of such Bonds shall be valid and effective to satisfy and discharge fully the Authority's obligation with respect to the amounts so paid.
3. (a) The Authority may discontinue the use of a Securities Depository for the Bonds at the time of a Change in the Interest Rate Mode.
(b) Registered ownership of the Bonds may be transferred on the registration books of the Authority maintained by the Registrar and Paying Agent and the Bonds may be delivered in physical form to the following: (i) any successor Securities Depository or its nominee; or (ii) any person, upon (A) the resignation of the Securities Depository or (B) the termination by the Authority of the use of the Securities Depository from its functions as depository as set forth in this section, or (C) upon any Change in the Interest Rate Mode to any Adjustable Rate other than an Auction Rate.
(c) Upon any Change in the Interest Rate Mode to an Auction Rate, the Registrar and Paying Agent shall register the Auction Rate Bonds in the name of the Securities Depository or its nominee and on the effective date of such change provide the Company with a list of the Existing Holders of the Auction Rate Bonds.
4. If at any time the Securities Depository notifies the Authority and the Company that it is unwilling or unable to continue as Securities Depository with respect to the Bonds or if at any time the Securities Depository shall no longer be registered or in good standing under the Securities Exchange Act or other applicable statute or regulation and a successor Securities Depository is not appointed by the Authority with the consent of the Company, the Trustee, the Auction Agent (if any) and the applicable Remarketing Agent, within ninety (90) days after the Authority and the Company receive notice or become aware of such condition, as the case may be, this Section shall no longer be applicable and the Authority shall execute and the Trustee shall authenticate and deliver certificates representing the Bonds of such series or subseries as provided below. In addition, the Authority may determine at any time, at the request of the applicable Remarketing Agent, that the Bonds shall no longer be represented by global bonds and that the provisions of subsections (1) and (2) above shall no longer apply to such series or subseries of Bonds. In any such event the Authority shall execute and the Trustee shall authenticate and deliver certificates representing the Bonds of such series or subseries as provided below. Certificates for the Bonds of any series or subseries issued in exchange for a global bond pursuant to this subsection shall be registered in such names in authorized denominations as the Securities Depository, pursuant to instructions from the Agent Members or otherwise, shall instruct the Authority and the Trustee. The Trustee shall deliver such certificates representing the Bonds of such series or subseries to the persons in whose names such Bonds are so registered on the Business Day immediately preceding the first day of an Auction Period (with respect to Auction Rate Bonds during any Auction Rate Period), or the effective date of a Change in the Interest Rate Mode (with respect to any other Change in the Interest Rate Mode), as the case may be.
5. The Authority and the Trustee are hereby authorized to enter into any arrangements determined necessary or desirable with any Securities Depository in order to effectuate this Section and both of them shall act in accordance with this Indenture and any such agreement. Without limiting the generality of the foregoing, any such arrangements may alter the manner of effecting delivery of Bonds and the transfer of funds for the payment of Bonds to the Securities Depository.

Section 2.04. Limitations on Transfer. So long as the ownership of the Auction Rate Bonds is maintained in book-entry form by the Securities Depository, a beneficial owner or an Existing Holder may sell, transfer or otherwise dispose of Auction Rate Bonds only pursuant to a Bid or Sell Order placed in an Auction or to a Broker-Dealer, provided, however, that (a) sale, transfer or other disposition of Auction Rate Bonds from a customer of a Broker-Dealer who is listed on the records of that Broker-Dealer as the holder of such Auction Rate Bonds to that Broker-Dealer or another customer of that Broker-Dealer shall not be deemed to be a sale, transfer or other disposition for purposes of this Section 2.04 if such Broker-Dealer remains the Existing Holder of the Auction Rate Bonds so sold, transferred or disposed of immediately after such sale, transfer or disposition and (b) in the case of all transfers other than pursuant to Auctions such Broker-Dealer to whom such transfer is made shall advise the Auction Agent of such transfer.

Section 2.05. Application of Bond Proceeds. The proceeds of sale of the Bonds shall be deposited with the Trustee for deposit in the Project Fund to be paid out in accordance with Section 8.01.

Section 2.06. Delivery of the Bonds. The Bonds shall be executed by the Authority substantially in the form prescribed by Section 16.01 and in the manner herein set forth and shall be deposited with the Trustee for authentication, but before the Bonds shall initially be delivered by the Trustee, there shall be filed with the Trustee the following:
(a) an order executed by an Authorized Officer directing the authentication and delivery of the Bonds to or upon the order of the Securities Depository or its nominee, upon payment to the Trustee of the purchase price therein set forth;
(b) a fully executed counterpart of this Indenture;
(c) a fully executed counterpart of the Participation Agreement;
(d) a fully executed counterpart of the Remarketing Agreement;
(e) the fully executed Initial Support Facility;
(f) a fully executed counterpart of the Bond Purchase Trust Agreement;
(g) the fully executed Note;
(h) a fully executed counterpart of the Tax Regulatory Agreement;
(i) an opinion of counsel to the Company, addressed to the Underwriters (as defined in the Bond Purchase Agreement), with reliance letter addressed to the Authority, the Trustee and the Initial Support Facility Issuer, substantially to the effect, and dated as, required by Section 7(d)(8)(ii) of the Bond Purchase Agreement;
(j) opinions of special counsel and internal counsel to the Initial Support Facility Issuer, addressed to the Initial Support Facility Issuer and the Company, which opinions authorize the Underwriters (as defined in the Bond Purchase Agreement), the Authority, the Company, and the Trustee, the Registrar and Paying Agent and the Rating Agencies to rely thereon as though such opinions were addressed to them, substantially to the effect required by Section 7(d)(8)(iv) and Section 7(d)(8)(v) of the Bond Purchase Agreement, respectively;
(k) Opinion of Bond Counsel to the Authority and the Trustee (i) as to the validity of the Bonds and (ii) that all conditions precedent to the issuance of the Bonds have been met.

When the documents mentioned in clauses (a) to (k), inclusive, of this Section shall have been filed with the Trustee, and when the Bonds shall have been executed and authenticated as required by this Indenture, the Trustee shall deliver the Bonds to the Securities Depository, but only upon payment to the Trustee of the purchase price of the Bonds specified in said order.

## ARTICLE III

## INTEREST ON BONDS

Section 3.01. Interest on Bonds-General. 1. Interest accruing on Bonds bearing interest at a Commercial Paper Rate, a Daily Rate, a Weekly Rate, a Monthly Rate or a Semi-annual Rate, shall be computed on the basis of a 365- or 366-day year, as applicable, for the number of days actually elapsed. Interest accruing on Bonds bearing interest at a Term Rate or a Fixed Rate shall be computed on the basis of a 360-day year, consisting of twelve (12) thirty (30) day months. Interest accruing on Bonds bearing interest at an Auction Rate during an Auction Period of 180 days or less shall be computed on the basis of a 360-day year for the number of days actually elapsed. Interest accruing on Bonds bearing interest at an Auction Rate during an Auction Period of over 180 days shall be computed on the basis of a 360-day year, consisting of twelve (12) thirty (30) day months. Bonds shall bear interest from the date of issuance thereof payable in arrears on each Interest Payment Date. The Bonds issued upon registration of transfers or exchanges of Bonds shall bear interest from the Interest Payment Date next preceding their date of authentication, unless the date of authentication is an Interest Payment Date in which case such Bonds shall bear interest from such date, or unless the date of authentication is after the Record Date next preceding the next succeeding Interest Payment Date, in which case such Bonds shall bear interest from such next succeeding Interest Payment Date.
2. The Bonds shall initially bear interest at a Weekly Rate during a Weekly Rate Period. Each subseries of Bonds shall bear interest at $1.70 \%$ for the period from and including the Closing Date to and including the following Tuesday. From and after any Change in the Interest Rate Mode pursuant to Section 4.01 or 4.02 , the Bonds with respect to which such change is effective shall bear interest determined in accordance with the provisions of this Indenture pertaining to the new Adjustable Rate or the Fixed Rate, as the case may be. Bonds shall bear interest for each Calculation Period, Auction Period or Fixed Rate Period, as the case may be, at the rate of interest per annum for such Calculation Period, Auction Period or Fixed Rate Period established in accordance with this Indenture. Interest shall be payable on each Interest Payment Date by check mailed to the registered owner at his or her address as it appears on the registration books kept by the Registrar and Paying Agent pursuant to the Indenture at the close of business on the applicable Record Date; provided, that (i) while the Securities Depository is the registered owner of the Bonds, all payments of principal of, premium, if any, and interest on the Bonds shall be paid to the Securities Depository or its nominee by wire transfer, (ii) prior to and including a Fixed Rate Conversion Date, interest on the Bonds shall be payable to any registered owner of at least one million dollars $(\$ 1,000,000)$ in aggregate principal amount of Bonds by wire transfer, upon written notice received by the Registrar and Paying Agent at least five (5) days prior to the applicable Record Date, from such registered owner containing the wire transfer address (which shall be in the continental United States) to which such registered owner wishes to have such wire directed and (iii) during a Commercial Paper Rate Period, interest shall be payable on the Bonds only upon presentation and surrender thereof to the Registrar and Paying Agent upon purchase thereof pursuant to Section 5.03 and if such presentation and surrender is made by 2:00 p.m. (New York City time) such payment shall be by wire transfer. If and to the extent that there shall be a default in the payment of the interest due on any Interest Payment Date, such interest shall cease to be payable to the person in whose
name each Bond of such series was registered on such applicable Record Date and shall be payable, when and if paid to the person in whose name each Bond of such series is registered at the close of business on the record date fixed therefor by the Trustee, which shall be the fifth Business Day next preceding the date of the proposed payment. Except as provided above, payment of the principal of and premium, if any, on all Bonds shall be made upon the presentation and surrender of such Bonds at the principal office of the Registrar and Paying Agent as the same shall become due and payable. The principal of and premium, if any, and interest on the Bonds shall be payable in lawful money of the United States of America.
3. Not less than one Business Day prior to each Computation Date and two (2) Business Days prior to a Fixed Rate Conversion Date, the Indexing Agent shall establish and provide to the applicable Remarketing Agent the related rate index as set forth in the definition of such rate index in Section 1.01; provided that, for each Calculation Period during a Daily Rate Period, the Indexing Agent shall establish and provide the related rate index to the applicable Remarketing Agent on each Determination Date; and provided further that, for each Calculation Period during a Monthly Rate Period, the Indexing Agent shall establish and provide the related rate index to the applicable Remarketing Agent not later than each Computation Date. Notwithstanding the foregoing, in the event that the applicable Remarketing Agent, in its sole judgment, shall determine on a Determination Date that any Daily Rate Index, Weekly Rate Index or any Commercial Paper Rate Index so established is sufficiently non-representative of current market conditions that the Bonds may not be remarketed at par if such rate is set at a rate not greater than $110 \%$ of the applicable rate index, the applicable Remarketing Agent may establish a new rate index on a Determination Date in accordance with the procedures and standards described in the definition of such rate index and for purposes of such rate index so established, all references to Indexing Agent in this Indenture shall be deemed to refer to the applicable Remarketing Agent. On any date when any Weekly Rate Index or any Commercial Paper Rate Index is established by a Remarketing Agent pursuant to this paragraph, such rate index shall have the respective meaning set forth in Section 1.01 (except as otherwise provided in the preceding sentence); provided that for any Commercial Paper Rate Index, the applicable Remarketing Agent shall select securities (whether or not actually issued) having a term approximately equal to the applicable Commercial Paper Rate Period or which are subject to optional or mandatory tender by the owner thereof at the end of a term approximately equal to (or as close thereto as is practicably available) the applicable Commercial Paper Rate Period.
4. By 12:00 noon (New York City time) on each Determination Date or by 3:00 p.m. (New York City time) on each Auction Date, as the case may be, the applicable Remarketing Agent or the Auction Agent, as the case may be, shall make available to the Authority, the Trustee, the Registrar and Paying Agent, any issuer of a Support Facility, the Company, any Broker-Dealer or any registered owner of a Bond the interest rate or rates determined on such Determination Date or Auction Date.
5. If for any reason on any Determination Date (A) any rate of interest for a Calculation Period is not determined by the applicable Remarketing Agent, (B) no Remarketing Agent is serving as such hereunder or (C) the rate so determined is held to be invalid or unenforceable by a final judgment of a court of competent jurisdiction, (i) during any Daily Rate Period, the interest rate for the next succeeding Calculation Period shall be the last interest rate in effect, or, if a Daily Rate is not determined by the applicable Remarketing Agent hereunder for
five or more consecutive Business Days on the next and each succeeding Determination Date, the Daily Rate shall be a rate per annum equal to $80 \%$ of the latest 30-day dealer taxable commercial paper rate published by the Federal Reserve Bank of New York on or immediately before such Determination Date, (ii) during any Weekly Rate Period, the interest rate for the next succeeding Calculation Period shall be the last interest rate in effect, or, if a Weekly Rate is not determined by the applicable Remarketing Agent for two or more consecutive Calculation Periods, the Weekly Rate shall be equal to $85 \%$ of the latest 30 -day dealer taxable commercial paper rate published by the Federal Reserve Bank of New York on or before the day next preceding such Determination Date, (iii) during any Monthly Rate, Semi-annual Rate or Term Rate Period, the interest rate per annum for the next succeeding Calculation Period shall be equal to $85 \%$ of the rate listed in the table most recently circulated by the United States Treasury Department known as "Table [applicable dates shown on the most recent Table], Maximum Interest Rate Payable on United States Treasury Certificates of Indebtedness, Notes and Bonds-State and Local Government Series Subscribed for During Period [applicable dates shown on the most recent Table]" or any substantially equivalent table circulated by the United States Treasury Department for the maturity most closely approximating the Calculation Period, and (iv) during any Commercial Paper Rate Period, the next succeeding Calculation Period shall be a Calculation Period which shall consist of the period from and including the prior Interest Payment Date to but excluding the first Business Day of the following calendar month and the Commercial Paper Rate shall be equal to $85 \%$ of the interest rate applicable to 90 -day United States Treasury Bills determined on the basis of the average per annum discount rate at which such 90-day Treasury Bills shall have been sold at the most recent Treasury auction within the thirty (30) days next preceding such Calculation Period, or if there shall have been no such auction within the thirty (30) days next preceding such Calculation Period, the Commercial Paper Rate shall be equal to the rate of interest borne by such Bond during the next preceding Calculation Period for such Bond. The rate of interest or Calculation Period and related Commercial Paper Rate shall be established pursuant to this subsection 5 until the applicable Remarketing Agent again determines the rates of interest or Calculation Periods and related Commercial Paper Rates in accordance with this Indenture. The Trustee shall, upon the direction of the Company, select any person otherwise meeting the qualifications of Section 11.14 to obtain, calculate and prepare any of the information required by this subsection 5 .
6. The determination of any rate of interest for a subseries of Bonds by a Remarketing Agent in accordance with this Indenture or by the Auction Agent in accordance with the Auction Procedures applicable to Auction Rate Bonds, or the establishment of Calculation Periods or Auction Periods by a Remarketing Agent as provided in this Indenture shall be conclusive and binding upon the Authority, the Company, the Trustee, the Registrar and Paying Agent, such Remarketing Agent, the Auction Agent, any issuer of a Support Facility, the Broker-Dealers for such subseries of Bonds and the registered or beneficial owners of such subseries of Bonds. Failure of such Remarketing Agent, the Trustee, the Registrar and Paying Agent, the Auction Agent or the Securities Depository or any Securities Depository participant to give any of the notices described in this Indenture, or any defect therein, shall not affect the interest rate to be borne by any of the Bonds nor the applicable Calculation Period or Auction Period nor in any way change the rights of the registered owners of the Bonds to tender their Bonds for purchase or to have them redeemed in accordance with this Indenture.
7. No transfer or exchange of Bonds shall be required to be made by the Registrar and Paying Agent after a Record Date until the next succeeding Interest Payment Date.
8. Except as otherwise provided in this subsection 8, the Trustee shall calculate and notify the Registrar and Paying Agent of the amount of interest due and payable on each Interest Payment Date or date on which a Bond is subject to purchase by 10:00 a.m. (New York City time) on the Business Day next preceding such Interest Payment Date or date set for purchase, as the case may be, unless such date is a date on which the interest rate is determined, in which case the amount of interest due and payable shall be calculated by 12:15 p.m. (New York City time) on such date. In preparing such calculation the Trustee may conclusively rely on calculations or other services provided by the Auction Agent, the applicable Remarketing Agent, the Company or any person or persons selected by the Trustee in its discretion. During a Commercial Paper Rate Period, the applicable Remarketing Agent shall notify the Trustee, the Registrar and Paying Agent and the Company of the amount of interest due and payable on each Interest Payment Date by 10:00 a.m. (New York City time) on the Business Day next preceding such Interest Payment Date.
9. Anything herein to the contrary notwithstanding, in no event shall the interest rate borne by any Bond exceed the Maximum Allowed Rate.
10. Notwithstanding anything in this Indenture to the contrary, if Bonds have been in a Term Rate Period and there has been a failure to pay the Purchase Price of such Bonds on the Business Day immediately following a Calculation Period, such Bonds shall continue, to the extent permitted by applicable law, to bear interest at the then-existing Term Rate until such Purchase Price has been paid

Section 3.02. Commercial Paper Rate. 1. During any Commercial Paper Rate Period, at or prior to 12:00 noon (New York City time) on each Determination Date, each Remarketing Agent shall establish Calculation Periods and related Commercial Paper Rates. In determining Calculation Periods, each Remarketing Agent shall take the following factors into account: (i) existing short-term taxable and tax-exempt market rates and indices of such short-term rates, (ii) the existing market supply and demand for short-term tax-exempt securities, (iii) existing yield curves for short-term and long-term tax-exempt securities or obligations having a credit rating that is comparable to the Bonds, (iv) general economic conditions, (v) economic and financial factors present in the securities industry that may affect or that may be relevant to the Bonds and (vi) any information available to such Remarketing Agent pertaining to the Company regarding any events or anticipated events which could have a direct impact on the marketability of or interest rates on the Bonds. Each Remarketing Agent shall select the Calculation Periods and the applicable Commercial Paper Rates that, together with all other Calculation Periods and related Commercial Paper Rates, in the sole judgment of the applicable Remarketing Agent, will result in the lowest overall borrowing cost on the Bonds or are otherwise in the best financial interests of the Company, as determined in consultation with the Company. Any Calculation Period established hereunder may not extend beyond the second Business Day next preceding the expiration date of the Support Facility or the day prior to the Stated Maturity.
2. The Authority, at the request of the Company, may place such limitations upon the establishment of Calculation Periods pursuant to subsection 1 hereof as may be set forth
in a written direction from the Authority, which direction must be received by the Trustee and the applicable Remarketing Agent prior to 10:00 a.m. (New York City time) on the day prior to any Determination Date to be effective on such date, but only if the Trustee receives an Opinion of Bond Counsel to the effect that such action is authorized by this Indenture, is permitted under the Act and will not have an adverse effect on the exclusion of interest on the Bonds from gross income for federal income tax purposes.

Section 3.03. Auction Rate Period - Auction Rate: Auction Period - General. 1. During any Auction Rate Period, the Auction Rate Bonds shall bear interest at the Auction Rate determined as set forth in this Section 3.03 and Sections 3.04 through 3.10. The initial Auction Period for each subseries of the Bonds immediately after any Change in the Interest Rate Mode to an Auction Rate, shall be a period from and including the effective date of such Change in the Interest Rate Mode to and including the initial Auction Date which shall be determined by the Authority, with notice to the Trustee, on or prior to the effective date of the Change in the Interest Rate Mode. The Auction Rate for any initial Auction Period immediately after any Change in the Interest Rate Mode to an Auction Rate, shall be the rate of interest per annum determined by the applicable Remarketing Agent, with notice to the Trustee, the Authority, the Registrar and Paying Agent and the Company, on a date not later than the effective date of such Change in the Interest Rate Mode as the minimum rate of interest which, in the opinion of such Remarketing Agent, would be necessary as of such date to market Auction Rate Bonds in a secondary market transaction at a price equal to the principal amount thereof; provided that such interest rate shall not exceed the Maximum Allowed Rate. For any other Auction Period, the Auction Rate shall be the rate of interest per annum that results from implementation of the Auction Procedures. If on any Auction Date, the Auction Agent shall fail to determine, or for any reason fail to timely provide, a rate of interest pursuant to the Auction Procedures, the Auction Rate for the next succeeding Auction Period shall be extended at the same rate and such Auction Period and each succeeding Auction Period shall be a seven-day Auction Period until an Auction Period for which the Auction Agent shall determine and timely provide the rate of interest pursuant to the Auction Procedures; provided, that, after three such periods during which such failure occurs, the Auction Rate shall become the Maximum Auction Rate until an Auction Period for which the Auction Agent shall determine and timely provide the rate of interest pursuant to the Auction Procedures. Determination of an Auction Rate pursuant to the Auction Procedures shall be suspended upon a Change in the Interest Rate Mode or the occurrence of a Payment Default. The Auction Rate for any Auction Period or remaining portion thereof following the occurrence of a Payment Default shall be equal to the Overdue Rate as determined on and as of the immediately preceding Auction Date. Upon the occurrence of a Payment Default that has not been waived or cured on or prior to any Auction Date, no Auction will be held, all Submitted Bids and Submitted Sell Orders shall be rejected, the existence of Sufficient Clearing Bids shall be of no effect and the Auction Rate for the next succeeding Auction Period shall equal the Overdue Rate on and as of such Auction Date. In the event of the suspension of the Auction Procedures due to a Payment Default, the Auction Procedures shall resume two (2) Business Days after the date on which the Auction Agent receives notice from the Trustee that the Payment Default has been cured, with the next Auction to occur on the next regularly scheduled Auction Date occurring thereafter. The Overdue Rate shall be determined by the Trustee on each succeeding Auction Date.
2. Auction Periods may be established pursuant to Section 3.04 at any time unless a Payment Default has occurred and has not been cured or waived. Each Auction Period shall be a Standard Auction Period unless a different Auction Period is established pursuant to Section 3.04 and each Auction Period which immediately succeeds a non-Standard Auction Period shall be a Standard Auction Period unless a different Auction Period is established pursuant to Section 3.04.

Section 3.04. Auction Rate Period - Auction Rate Bonds: Change of Auction Period by Authority. 1. During an Auction Rate Period the Authority, at the request of the Company, may change the length of a single Auction Period or the Standard Auction Period by means of a written notice delivered at least ten (10) days prior to the Auction Date for such Auction Period to the Trustee, the applicable Market Agent, the Auction Agent and the Company in substantially the form furnished to the Trustee and the Auction Agent at the time of a Change in the Interest Rate Mode to an Auction Rate. Any Auction Period or Standard Auction Period established by the Authority pursuant to this Section 3.04 may not exceed 365 days in duration. If such Auction Period will be of less than twentyeight (28) days, such notice shall be effective only if it is accompanied by a written statement of the Registrar and Paying Agent, the Trustee, the applicable Market Agent and the Auction Agent to the effect that they are capable of performing their duties hereunder and under the related Market Agreement and the Auction Agency Agreement with respect to such Auction Period. If such notice specifies a change in the length of the Standard Auction Period, such notice shall be effective only if it is accompanied by the written consent of such Market Agent to such change. The length of an Auction Period or the Standard Auction Period may not be changed pursuant to this Section 3.04 unless Sufficient Clearing Bids existed at both the Auction immediately preceding the date the notice of such change was given and the Auction immediately preceding such changed Auction Period or Standard Auction Period or if a Payment Default has occurred and has not been cured.
2. The change in length of an Auction Period or the Standard Auction Period by the Authority at the request of the Company shall take effect only if (A) the Trustee, any Credit Facility Issuer and the Auction Agent receive, by 11:00 a.m. (New York City time) on the Business Day immediately preceding the Auction Date for such Auction Period, a certificate from the Authority, on behalf of the Company, by telecopy or similar means in substantially the form furnished to the Trustee and the Auction Agent at the time of a Change in the Interest Rate Mode to an Auction Rate authorizing establishment of and specifying the length of the new Auction Period or the Standard Auction Period, which shall be specified in such certificate, and confirming that Bond Counsel expects to be able to give an Opinion of Bond Counsel on the first day of the Auction Period for which such change is being required, (B) the Trustee shall not have delivered to the Auction Agent by 12:00 noon (New York City time) on the Auction Date for such Auction Period notice that a Payment Default has occurred, (C) Sufficient Clearing Bids exist at the Auction on the Auction Date for such Auction Period, and (D) the Trustee, any Credit Facility Issuer and the Auction Agent receive by 9:30 a.m. (New York City time) on the first day of such Auction Period, an Opinion of Bond Counsel to the effect that the change in the Auction Period or the Standard Auction Period is authorized by this Indenture, is permitted under the Act and will not have an adverse effect on the exclusion of interest on such Bonds from gross income for federal income tax purposes. If the condition referred to in (A) above is not met, the Auction Rate for the next succeeding Auction Period shall be determined pursuant to the Auction Procedures and the next succeeding Auction Period shall be a Standard Auction Period. If any of
the conditions referred to in (B), (C) or (D) above is not met, the Auction Rate for the next succeeding Auction Period shall equal the Maximum Auction Rate as determined as of such Auction Date and the next succeeding Auction Period shall be a seven day Auction Period.
3. On the Auction Date immediately preceding the effective date of any change in the length of an Auction Period or the Standard Auction Period, any Auction Rate Bonds which are not the subject of a specific Order shall be deemed to be subject to a Sell Order.
4. In the event of a Change in the Interest Rate Mode to an Auction Rate, the Authority, at the request of the Company, shall determine the length of the initial Auction Period and may change the length of a single or the Standard Auction Period by means of a written notice delivered on or prior to the effective date of such Change in the Interest Rate Mode to an Auction Rate to the Trustee, the applicable Market Agent, the Auction Agent and the Credit Facility Issuer. Notwithstanding anything to the contrary in paragraphs 1 and 2 of this Section 3.04, the determination of the initial Auction Period shall take effect on the effective date of such Change in the Interest Rate Mode to an Auction Rate. Notwithstanding anything to the contrary in paragraphs 1 and 2 of this Section 3.04, the change in the length of a single Auction Period or the Standard Auction Period shall take effect only if the Trustee, the Credit Facility Issuer and the Auction Agent receive on the effective date of such Change in the Interest Rate Mode to an Auction Rate, an Opinion of Bond Counsel to the effect that the change in the Auction Period or the Standard Auction Period is authorized by this Indenture, is permitted under the Act and will not have an adverse effect on the exclusion of interest on such Bonds from gross income for federal income tax purposes.

Section 3.05. Auction Rate Period - Auction Rate Bonds: Change of Auction Date by Market Agent. During an Auction Rate Period the Market Agent for a subseries of Bonds, with the written consent of the Company, may change, in order to conform with then-current market practice with respect to similar securities or to accommodate economic and financial factors that may affect or be relevant to the day of the week constituting an Auction Date, the Auction Date for all future Auction Periods relating to the applicable subseries of Bonds to a different day, so long as the first such Auction Date will be a Business Day in the calendar week in which the next succeeding Auction Date is then scheduled to occur. If a change in an Auction Date is undertaken in conjunction with a change in an Auction Period and the conditions for the establishment of such change in Auction Period are not met, the Auction Date may be, and the next succeeding Auction Period may be adjusted to end on, a Business Day in the calendar week in which such Auction Date was scheduled to occur and such Auction Period was scheduled to end to accommodate the change in the Auction Date. Such Market Agent shall communicate its determination to change an Auction Date by means of a written notice delivered at least ten (10) days prior to the Auction Date immediately preceding such Auction Date, or with respect to a Change in the Interest Rate Mode to an Auction Rate on or prior to the effective date of such Change in the Interest Rate Mode, to the Authority, the Trustee, the Auction Agent and the Company which shall state (i) the determination of such Market Agent to change the Auction Date, (ii) the new Auction Date and (iii) the date on which such Auction Date shall be changed. If as a result of any proposed change in the Auction Date any Auction Period would be less than twenty-eight (28) days in duration, such notice shall be effective only if it is accompanied by a written statement of the Auction Agent, the Registrar and Paying Agent and the Trustee to the effect that they are capable of performing their duties hereunder and under the Auction Agency Agreement with respect to any such Auction Period. each Auction Date during the Auction Rate Period, the following orders may be submitted:
(i) each Existing Holder may submit to the Broker-Dealer by telephone or otherwise information as to:
(A) the principal amount of Auction Rate Bonds, if any, held by such Existing Holder which such Existing Holder desires to continue to hold without regard to the Auction Rate for the next succeeding Auction Period;
(B) the principal amount of Auction Rate Bonds, if any, held by such Existing Holder which such Existing Holder offers to sell if the Auction Rate for the next succeeding Auction Period shall be less than the rate per annum specified by such Existing Holder and/or
(C) the principal amount of Auction Rate Bonds, if any, held by such Existing Holder which such Existing Holder offers to sell without regard to the Auction Rate for the next succeeding Auction Period;
(ii) one or more Broker-Dealers may contact Potential Holders by telephone or otherwise to determine the principal amount of Auction Rate Bonds which each such Potential Holder offers to purchase if the Auction Rate for the next succeeding Auction Period shall not be less than the interest rate per annum specified by such Potential Holder.

For the purposes hereof, the communication to a Broker-Dealer of information referred to in clause (i)(A), (i)(B) or (i)(C) or clause (ii) above is hereinafter referred to as an "Order" and collectively as "Orders" and each Existing Holder and each Potential Holder placing an Order is hereinafter referred to as a "Bidder" collectively as "Bidders"; an Order containing the information referred to in clause (i)(A) above is hereinafter referred to as a "Hold Order" and collectively as "Hold Orders"; an Order containing the information referred to in clause (i)(B) or clause (ii) above is hereinafter referred to as a "Bid" and collectively as "Bids"; and an Order containing the information referred to in clause (i)(C) above is hereinafter referred to as a "Sell Order" and collectively as "Sell Orders". The submission by a Broker-Dealer of an Order to the Auction Agent shall likewise be referred to herein as an "Order" and collectively as "Orders".

Orders may be submitted in principal amounts of $\$ 25,000$ or any integral multiple thereof.
(b) (i) Subject to the provisions of Section 3.07, a Bid by an Existing Holder shall constitute an irrevocable offer to sell:
(A) the principal amount of Auction Rate Bonds specified in such Bid if the Auction Rate determined on such Auction Date shall be less than the interest rate per annum specified therein; or
(B) such principal amount or a lesser principal amount of Auction Rate Bonds to be determined as set forth in subsection (a)(iv) of Section 3.09 if the Auction Rate determined on such Auction Date shall be equal to the interest rate per annum specified therein; or
(C) such principal amount or a lesser principal amount of Auction Rate Bonds to be determined as set forth in subsection (b)(iii) of Section 3.09 if such specified rate shall be higher than the Maximum Auction Rate and Sufficient Clearing Bids do not exist.
(ii) Subject to the provisions of Section 3.07, a Sell Order by an Existing Holder shall constitute an irrevocable offer to sell:
(A) the principal amount of Auction Rate Bonds specified in such Sell Order; or
(B) such principal amount or a lesser principal amount of Auction Rate Bonds as set forth in subsection (b)(iii) of Section 3.09 if Sufficient Clearing Bids do not exist.
(iii) Subject to the provisions of Section 3.07, a Bid by a Potential Holder shall constitute an irrevocable offer to purchase:
(A) the principal amount of Auction Rate Bonds specified in such Bid if the Auction Rate determined on such Auction Date shall be higher than the rate specified therein; or
(B) such principal amount or a lesser principal amount of Auction Rate Bonds as set forth in subsection (a)(v) of Section 3.09 if the Auction Rate determined on such Auction Date shall be equal to such specified rate.

Section 3.07. Auction Rate Period - Auction Rate Bonds: Submission of Orders by Broker-Dealers to Auction Agent. (a) During an Auction Rate Period each Broker-Dealer shall submit in writing to the Auction Agent prior to the Submission Deadline on each Auction Date, all Orders obtained by such Broker-Dealer, and shall specify with respect to each such Order:
(i) the name of the Bidder placing such Order;
(ii) the aggregate principal amount of Auction Rate Bonds that are subject to such Order;
(iii) to the extent that such Bidder is an Existing Holder:
(A) the principal amount of Auction Rate Bonds, if any, subject to any Hold Order placed by such Existing Holder;
(B) the principal amount of Auction Rate Bonds, if any, subject to any Bid placed by such Existing Holder and the rate specified in such Bid; and
(C) the principal amount of Auction Rate Bonds, if any, subject to any Sell Order placed by such Existing Holder; and
(iv) to the extent such Bidder is a Potential Holder, the principal amount of Auction Rate Bonds subject to any Bid placed by such Potential Holder and the rate specified in such Bid.
(b) If any rate specified in any Bid contains more than three figures to the right of the decimal point, the Auction Agent shall round such rate up to the next highest one thousandth (.001) of $1 \%$.
(c) If an Order or Orders covering all Auction Rate Bonds held by an Existing Holder is not submitted to the Auction Agent prior to the Submission Deadline, the Auction Agent shall deem a Hold Order to have been submitted on behalf of such Existing Holder covering the principal amount of Auction Rate Bonds held by such Existing Holder and not subject to Orders submitted to the Auction Agent; provided, however, that if there is a change in the length of the Auction Period or Standard Auction Period in accordance with Section 3.04 hereof or an amendment or supplement to the Indenture or the Participation Agreement in accordance with Section 14.02 or 14.07 hereof, as the case may be, and Orders have not been submitted to the Auction Agent prior to the Submission Deadline covering the aggregate principal amount of Auction Rate Bonds that are subject to such change in the length of the Auction Period or Standard Auction Period or amendment or supplement, as the case may be, the Auction Agent shall deem a Sell Order to have been submitted on behalf of such Existing Holder covering the principal amount of Auction Rate Bonds subject to such change or amendment or supplement and not subject to Orders submitted to the Auction Agent.
(d) Neither the Authority, the Company, the Trustee nor the Auction Agent shall be responsible for any failure of a Broker-Dealer to submit an Order to the Auction Agent on behalf of any Existing Holder or Potential Holder.
(e) If any Existing Holder submits through a Broker-Dealer to the Auction Agent one or more Orders covering in the aggregate more than the principal amount of Auction Rate Bonds held by such Existing Holder, such Orders shall be considered valid as follows and in the following order of priority:
(i) all Hold Orders shall be considered valid, but only up to and including the principal amount of Auction Rate Bonds held by such Existing Holder, and, if the aggregate principal amount of Auction Rate Bonds subject to such Hold Orders exceeds the aggregate principal amount of Auction Rate Bonds held by such Existing Holder, the aggregate principal amount of Auction Rate Bonds subject to each such Hold Order shall be reduced pro rata to cover the aggregate principal amount of Auction Rate Bonds held by such Existing Holder;
(ii) (A) any Bid shall be considered valid up to and including the excess of the principal amount of Auction Rate Bonds held by such Existing Holder over the aggregate principal amount of Auction Rate Bonds subject to any Hold Orders referred to in paragraph (i) above;
(B) subject to clause (A) above, if more than one Bid with the same rate is submitted on behalf of such Existing Holder and the aggregate principal amount of Auction Rate Bonds subject to such Bids is greater than such excess, such Bids shall be considered valid up to and including the amount of such excess, and, the principal amount of Auction Rate Bonds subject to each Bid with the same rate shall be reduced pro rata to cover the principal amount of Auction Rate Bonds equal to such excess;
(C) subject to clauses (A) and (B) above, if more than one Bid with different rates is submitted on behalf of such Existing Holder, such Bids shall be considered valid in the ascending order of their respective rates until the highest rate is reached at which such excess exists and then at such rate up to and including the amount of such excess; and
(D) in any such event, the aggregate principal amount of Auction Rate Bonds, if any, subject to any portion of Bids not valid under this paragraph (ii) shall be treated as the subject of a Bid by a Potential Holder at the rate therein specified; and
(iii) all Sell Orders shall be considered valid up to and including the excess of the principal amount of Auction Rate Bonds held by such Existing Holder over the aggregate principal amount of Auction Rate Bonds subject to valid Hold Orders referred to in paragraph (i) of this subsection (e) and valid Bids referred to in paragraph (ii) of this subsection (e).
(f) If more than one Bid for Auction Rate Bonds is submitted on behalf of any Potential Holder, each Bid submitted shall be a separate Bid for Auction Rate Bonds with the rate and principal amount therein specified.
(g) Any Bid or Sell Order submitted by an Existing Holder covering an aggregate principal amount of Auction Rate Bonds not equal to $\$ 25,000$ or an integral multiple thereof shall be rejected and shall be deemed a Hold Order. Any Bid submitted by a Potential Holder covering an aggregate principal amount of Auction Rate Bonds not equal to $\$ 25,000$ or an integral multiple thereof shall be rejected.

Section 3.08. Auction Rate Period - Auction Rate Bonds: Determination of Sufficient Clearing Bids, Winning Bid Rate and Auction Rate. (a) During an Auction Rate Period not earlier than the Submission Deadline on each Auction Date, the Auction Agent shall assemble all valid Orders submitted or deemed submitted to it by the Broker-Dealers (each such

Order as submitted or deemed submitted by a Broker-Dealer being hereinafter referred to as a "Submitted Hold Order," a "Submitted Bid" or a "Submitted Sell Order," as the case may be, or as a "Submitted Order") and shall determine:
(i) the excess of the total principal amount of Auction Rate Bonds over the aggregate principal amount of Auction Rate Bonds subject to Submitted Hold Orders (such excess being hereinafter referred to as the "Available Auction Rate Bonds"); and
(ii) from the Submitted Orders whether the aggregate principal amount of Auction Rate Bonds subject to Submitted Bids by Potential Holders specifying one or more rates equal to or lower than the Maximum Auction Rate exceeds or is equal to the sum of:
(A) the aggregate principal amount of Auction Rate Bonds subject to Submitted Bids by Existing Holders specifying one or more rates higher than the Maximum Auction Rate; and
(B) the aggregate principal amount of Auction Rate Bonds subject to Submitted Sell Orders
(in the event of such excess or such equality (other than because the sum of the principal amounts of Auction Rate Bonds in clauses (A) and (B)
above is zero because all of the Auction Rate Bonds are subject to Submitted Hold Orders), such Submitted Bids by Potential Holders are hereinafter referred to collectively as "Sufficient Clearing Bids"); and
(iii) if Sufficient Clearing Bids exist, the lowest rate specified in the Submitted Bids (the "Winning Bid Rate") which if:
(A) (I) each Submitted Bid from Existing Holders specifying such lowest rate and (II) all other Submitted Bids from Existing Holders specifying lower rates were rejected, thus requiring such Existing Holders to continue to hold the principal amount of Auction Rate Bonds that are the subject of such Submitted Bids; and
(B) (I) each Submitted Bid from Potential Holders specifying such lowest rate and (II) all other Submitted Bids from Potential Holders specifying lower rates were accepted, would result in such Existing Holders described in clause (A) above continuing to hold an aggregate principal amount of Auction Rate Bonds which, when added to the aggregate principal amount of Auction Rate Bonds to be purchased by such Potential Holders described in clause (B) above, would equal not less than the Available Auction Rate Bonds.
(b) Promptly after the Auction Agent has made the determinations pursuant to subsection (a) of this Section 3.08, the Auction Agent, by telecopy confirmed in writing, shall advise the Company, the Trustee and the Broker-Dealers of the Maximum Auction

Rate and the components thereof on the Auction Date and, based on such determinations, the Auction Rate for the next succeeding Auction Period as follows:
(i) if Sufficient Clearing Bids exist, the Auction Rate for the next succeeding Auction Period therefor shall be equal to the Winning Bid Rate so determined;
(ii) if Sufficient Clearing Bids do not exist (other than because all of the Auction Rate Bonds are the subject of Submitted Hold Orders), the Auction Rate for the next succeeding Auction Period therefor shall be equal to the Maximum Auction Rate; and
(iii) if all of the Auction Rate Bonds are subject to Submitted Hold Orders, the Auction Rate for the next succeeding Auction Period therefor shall be equal to the All Hold Rate.

Section 3.09. Auction Rate Period - Auction Rate Bonds: Acceptance and Rejection of Submitted Bids and Submitted Sell Orders and Allocation of Auction Rate Bonds. During an Auction Rate Period Existing Holders shall continue to hold the principal amounts of Auction Rate Bonds that are subject to Submitted Hold Orders, and, based on the determinations made pursuant to subsection (a) of this Section 3.09, the Submitted Bids and Submitted Sell Orders shall be accepted or rejected, and the Auction Agent shall take such other actions as are set forth below:
(a) If Sufficient Clearing Bids exist, all Submitted Sell Orders shall be accepted and, subject to the provisions of paragraphs (e) and (f) of this Section 3.09, Submitted Bids shall be accepted or rejected as follows in the following order of priority:
(i) Existing Holders' Submitted Bids specifying any rate that is higher than the Winning Bid Rate shall be accepted, thus requiring each such Existing Holder to sell the aggregate principal amount of Auction Rate Bonds subject to such Submitted Bids;
(ii) Existing Holders’ Submitted Bids specifying any rate that is lower than the Winning Bid Rate shall be rejected, thus requiring each such Existing Holder to continue to hold the aggregate principal amount of Auction Rate Bonds subject to such Submitted Bids;
(iii) Potential Holders' Submitted Bids specifying any rate that is lower than the Winning Bid Rate shall be accepted, thus requiring each such Potential Holder to purchase the aggregate principal amount of Auction Rate Bonds subject to such Submitted Bids;
(iv) each Existing Holder's Submitted Bid specifying a rate that is equal to the Winning Bid Rate shall be rejected, thus requiring such Existing Holder to continue to hold the aggregate principal amount of Auction Rate Bonds subject to such Submitted Bid, unless the aggregate principal amount of Auction Rate Bonds subject to all such Submitted Bids shall be greater than the principal
amount of Auction Rate Bonds (the "remaining principal amount") equal to the excess of Available Auction Rate Bonds over the aggregate principal amount of the Auction Rate Bonds subject to Submitted Bids described in paragraphs (ii) and (iii) of this subsection (a), in which event such Submitted Bid of such Existing Holder shall be rejected in part, and such Existing Holder shall be entitled to continue to hold the principal amount of Auction Rate Bonds subject to such Submitted Bid, but only in an amount equal to the principal amount of Auction Rate Bonds obtained by multiplying the remaining principal amount by a fraction, the numerator of which shall be the principal amount of Auction Rate Bonds held by such Existing Holder subject to such Submitted Bid and the denominator of which shall be the sum of the principal amounts of Auction Rate Bonds subject to such Submitted Bids made by all such Existing Holders that specified a rate equal to the Winning Bid Rate; and
(v) each Potential Holder's Submitted Bid specifying a rate that is equal to the Winning Bid Rate shall be accepted but only in an amount equal to the principal amount of Auction Rate Bonds obtained by multiplying the excess of the Available Auction Rate Bonds over the aggregate principal amount of Auction Rate Bonds subject to Submitted Bids described in paragraphs (ii), (iii) and (iv) of this subsection (a) by a fraction the numerator of which shall be the aggregate principal amount of Auction Rate Bonds subject to such Submitted Bid of such Potential Holder and the denominator of which shall be the sum of the principal amount of Auction Rate Bonds subject to Submitted Bids made by all such Potential Holders that specified a rate equal to the Winning Bid Rate.
(b) If Sufficient Clearing Bids do not exist (other than because all of the Auction Rate Bonds are subject to Submitted Hold Orders), subject to the provisions of subsection (e) of this Section 3.09, Submitted Orders shall be accepted or rejected as follows in the following order of priority:
(i) Existing Holders' Submitted Bids specifying any rate that is equal to or lower than the Maximum Auction Rate shall be rejected, thus requiring each such Existing Holder to continue to hold the aggregate principal amount of Auction Rate Bonds subject to such Submitted Bids;
(ii) Potential Holders' Submitted Bids specifying any rate that is equal to or lower than the Maximum Auction Rate shall be accepted, thus requiring each such Potential Holder to purchase the aggregate principal amount of Auction Rate Bonds subject to such Submitted Bids; and
(iii) each Existing Holder’s Submitted Bid specifying any rate that is higher than the Maximum Auction Rate and the Submitted Sell Order of each Existing Holder shall be accepted, thus requiring each Existing Holder that submitted any such Submitted Bid or Submitted Sell Order to sell the Auction Rate Bonds subject to such Submitted Bid or Submitted Sell Order, but in both cases only in an amount equal to the aggregate principal amount of Auction Rate Bonds obtained by multiplying the aggregate principal amount of Auction Rate

Bonds subject to Submitted Bids described in paragraph (ii) of this subsection (b) by a fraction, the numerator of which shall be the aggregate principal amount of Auction Rate Bonds held by such Existing Holder subject to such Submitted Bid or Submitted Sell Order and the denominator of which shall be the aggregate principal amount of Auction Rate Bonds subject to all such Submitted Bids and Submitted Sell Orders.
(c) If all Auction Rate Bonds are subject to Submitted Hold Orders, all Submitted Bids shall be rejected.
(d) If (i) the Auction Agent shall fail to determine, or for any reason fail to timely provide, an interest rate pursuant to the Auction Procedures or (ii) the conditions set forth in subsection 2 of Section 3.04 to effect a change in the Auction Period are not met, all Submitted Bids and Submitted Sell Orders shall be rejected and the existence of Sufficient Clearing Bids shall be of no effect.
(e) If, as a result of the procedures described in subsection (a) or (b) of this Section 3.09, any Existing Holder would be required to sell, or any Potential Holder would be required to purchase, a principal amount of Auction Rate Bonds that is not equal to $\$ 25,000$ or an integral multiple thereof, the Auction Agent shall, in such manner as, in its sole discretion, it shall determine, round up or down the principal amount of such Auction Rate Bonds to be purchased or sold by any Existing Holder or Potential Holder so that the principal amount purchased or sold by each Existing Holder or Potential Holder shall be equal to $\$ 25,000$ or an integral multiple thereof.
(f) If, as a result of the procedures described in subsection (a) of this Section 3.09, any Potential Holder would be entitled or required to purchase less than $\$ 25,000$ in aggregate principal amount of Auction Rate Bonds, the Auction Agent shall, in such manner as, in its sole discretion, it shall determine, allocate Auction Rate Bonds for purchase among Potential Holders so that only Auction Rate Bonds in principal amounts of $\$ 25,000$ or an integral multiple thereof are purchased by any Potential Holder, even if such allocation results in one or more of such Potential Holders not purchasing any Auction Rate Bonds.
(g) Based on the results of each Auction, the Auction Agent shall determine the aggregate principal amounts of Auction Rate Bonds to be purchased and the aggregate principal amounts of Auction Rate Bonds to be sold by Potential Holders and Existing Holders on whose behalf each Broker-Dealer submitted Bids or Sell Orders and, with respect to each Broker-Dealer, to the extent that such aggregate principal amount of Auction Rate Bonds to be sold differs from such aggregate principal amount of Auction Rate Bonds to be purchased, determine to which other Broker-Dealer or Broker-Dealers acting for one or more purchasers or Auction Rate Bonds such Broker-Dealer shall deliver, or from which other Broker-Dealer or Broker-Dealers acting for one or more sellers of Auction Rate Bonds such Broker-Dealer shall receive, as the case may be, Auction Rate Bonds.
(h) None of the Authority, the Company or any Affiliate thereof may submit an Order in any Auction except as set forth in the next sentence. Any Broker-Dealer that is an Affiliate of the Company may submit Orders in an Auction but only if such Orders are not for its own account, except that if such affiliated Broker-Dealer holds Auction Rate Bonds for its own account, it must submit a Sell Order on the next Auction Date with respect to such Auction Rate Bonds.

Section 3.10. Auction Rate Period - Auction Rate Bonds: Adjustment in Percentage. 1. During an Auction Rate Period, the Market Agent for a subseries of Bonds may adjust the percentage used in determining the All Hold Rate and the Applicable Percentages used in determining the Maximum Auction Rate for such subseries of Bonds if any such adjustment is necessary, in the judgment of such Market Agent, to reflect any Change of Preference Law such that the All Hold Rate and Maximum Auction Rate shall have substantially equal market values before and after such Change of Preference Law. In making any such adjustment, such Market Agent shall take the following factors, as in existence both before and after such Change of Preference Law, into account: (i) short-term taxable and tax-exempt market rates and indices of such short-term rates, (ii) the market supply and demand for short-term tax-exempt securities, (iii) yield curves for short-term and long-term tax-exempt securities or obligations having a credit rating that is comparable to the Bonds, (iv) general economic conditions and (v) economic and financial factors present in the securities industry that may affect or that may be relevant to the Bonds.
2. A Market Agent shall communicate its determination to adjust the percentage used in determining the All Hold Rate and the Applicable Percentages used in determining the Maximum Auction Rate pursuant to Subsection 1 hereof by means of a written notice delivered at least ten days prior to the Auction Date on which such Market Agent desires to effect the change to the Authority, the Trustee, the Auction Agent and the Company. Such notice is required to state the determination of such Market Agent to change such percentage and the date such adjustment is proposed to take effect (which date shall be an Auction Date). Such notice shall be effective only if it is accompanied by the form of opinion that Bond Counsel expects to be able to give on such Auction Date to the effect that such adjustment is authorized by this Indenture, is permitted under the Act and will not have an adverse effect on the exclusion of interest on the Auction Rate Bonds from gross income for federal income tax purposes. The Auction Agent is required to mail notice thereof to the Existing Holders within two Business Days of receipt thereof.
3. An adjustment in the percentage used in determining the All Hold Rate and the Applicable Percentages used in determining the Maximum Auction Rate shall take effect on an Auction Date only if (A) the Trustee, any Credit Facility Issuer and the Auction Agent receive, by 11:00 a.m. (New York City time) on the Business Day immediately preceding such Auction Date, a certificate from the applicable Market Agent by telecopy or similar means, (i) authorizing the adjustment of the percentage used in determining the All Hold Rate and the Applicable Percentages used in determining the Maximum Auction Rate which shall be specified in such authorization, and (ii) confirming that Bond Counsel expects to be able to give an opinion on such Auction Date to the effect that the adjustment in the percentage used in determining the All Hold Rate and the Applicable Percentages used in determining the Maximum Auction Rate is authorized by this Indenture, is permitted under the Act and will not
have an adverse effect on the exclusion of interest on the Auction Rate Bonds from gross income for federal income tax purposes, and (B) the Trustee, any Credit Facility Issuer and the Auction Agent receive by 9:30 a.m. (New York City time) on such Auction Date, an Opinion of Bond Counsel to the effect that the adjustment in the percentage used in determining the All Hold Rate and the Applicable Percentages used in determining the Maximum Auction Rate is authorized by this Indenture, is permitted under the Act and will not have an adverse effect on the exclusion of interest on the Auction Rate Bonds from gross income for federal income tax purposes. If the condition referred to in (A) above is not met, the existing percentage used in determining the All Hold Rate and the Applicable Percentages used in determining the Maximum Auction Rate shall remain in effect and the Auction Rate for the next succeeding Auction Period shall be determined pursuant to the Auction Procedures. If the condition referred to in (B) above is not met, the existing percentage used in determining the All Hold Rate and the Applicable Percentages used in determining the Maximum Auction Rate shall remain in effect and the Auction Rate for the next succeeding Auction Period shall equal the Maximum Auction Rate as determined on such Auction Date and the Auction Period shall be a seven-day Auction Period.

## ARTICLE IV

## CHANGES IN THE INTEREST RATE MODE

Section 4.01. Optional Conversion to an Adjustable Rate by Authority. 1. (A) At the times specified below, the Bonds of any subseries, in whole or in part, shall cease to bear interest at the Adjustable Rate then borne by the Bonds and shall bear interest at such Adjustable Rate to be specified as hereinafter provided by the Authority, at the written request of the Company, in a written notice delivered at least thirty (30) days prior to the proposed effective date of the Change in the Interest Rate Mode to the Trustee, the applicable Remarketing Agent, any Support Facility Issuer for such Bonds, the Registrar and Paying Agent and the Company (and to the Auction Agent, Market Agent and the Securities Depository if such Change in the Interest Rate Mode is to or from an Auction Rate) in substantially the form attached hereto as, or containing substantially the information contained in Exhibit A hereto. The written notice of the Authority must further state that the Indenture provides that the conversion is conditioned on the Bonds being rated no less than "A" by S\&P, "A2" by Moody's or "A" by Fitch as of the effective date of the Change in the Interest Rate Mode. A Change in the Interest Rate Mode may only be effected on a day on which the affected Bonds may be redeemed at the option of the Authority.
(B) [Intentionally Omitted]
(C) In the case of any Change in the Interest Rate Mode to a Term Rate, at least 15 days prior to the proposed effective date of the Change in Interest Rate Mode, the Authority, at the written request of the Company, shall notify the Trustee of the length of the Calculation Period and, unless otherwise specified, such Calculation Period shall thereafter apply to the Bonds until a Change in the Interest Rate Mode effected pursuant to Section 4.01 or Section 4.02 . Notwithstanding the foregoing, no Calculation Period shall be established during a Term Rate Period unless the Trustee shall receive by 2:00 p.m., New York City time, on the first day of such Calculation Period, evidence satisfactory to it that the Bonds shall be rated at least "A" by S\&P or "A2" by Moody's or "A" by Fitch or an equivalent rating by any nationally recognized rating agency on such date. Any change in the Calculation Period during a Term Rate Period shall be deemed an optional conversion pursuant to this Section 4.01 and may not be made unless all the requirements of a conversion pursuant to this Section 4.01 are met.
2. The Trustee shall mail, or cause the Registrar and Paying Agent to mail, the notice received pursuant to clause (A) of this Section 4.01 .1 the Holders at least 15 days prior to the proposed effective date of the Change in the Interest Rate Mode.
3. A Change in the Interest Rate Mode to an Adjustable Rate shall be effective pursuant to Subsection 1 of this Section 4.01 only if
(A) with respect to any Change in the Interest Rate Mode from an Auction Rate, the Trustee and the Auction Agent (if any) shall receive:
(i) a certificate of an Authorized Company Representative by no later than the tenth day prior to the effective date of such Change in the Interest Rate Mode
stating that a written agreement between the Company and the applicable Remarketing Agent to remarket the Bonds on such effective date at a price of $100 \%$ of the principal amount thereof has been entered into, which agreement (i) may be subject to such reasonable terms and conditions imposed by such Remarketing Agent which in the judgment of that Remarketing Agent reflect the current market standards regarding investment banking risk and (ii) must include a provision requiring payment by such Remarketing Agent in same-day funds for any Bond tendered or deemed tendered; and if a Liquidity Facility is required by Section 4.01.3(D), a Liquidity Facility, meeting the requirements of this Indenture and the Participation Agreement, has or will be obtained by the Company with respect to the Bonds and by its terms, be in effect on or prior to the effective date of such Change in the Interest Rate Mode;
(ii) by 11:00 a.m. (New York City time) on the second Business Day prior to the effective date of such Change in the Interest Rate Mode by telecopy or other similar means, a certificate in substantially the form attached hereto as, or containing substantially the information contained in, Exhibit B hereto, from the Authority on behalf of the Company (y) authorizing the establishment of the new Adjustable Rate and (z) confirming that Bond Counsel has advised the Authority that it expects to be able to give an opinion on the effective date of such Change in the Interest Rate Mode to the effect that such Change in the Interest Rate Mode is authorized by this Indenture, is permitted under the Act and will not have an adverse effect on the exclusion of interest on the affected Bonds from gross income for federal income tax purposes; and
(B) with respect to any Change in the Interest Rate Mode, the Trustee (and the Auction Agent in the case of any Change in the Interest Rate Mode to an Auction Rate), shall receive by $4: 00$ p.m., New York City time, on the effective date of such Change in the Interest Rate Mode, a certificate in substantially the form attached hereto as, or containing substantially the information contained in, Exhibit C hereto, from an Authorized Company Representative that all of the Bonds tendered or deemed tendered have been purchased at a price equal to the principal amount thereof plus premium, if any, plus any accrued and unpaid interest with funds provided from the remarketing of such Bonds in accordance with the Remarketing Agreement, from the proceeds of a Support Facility, or from funds deposited with the Trustee or the Registrar and Paying Agent;
(C) with respect to any Change in the Interest Rate Mode, the Trustee (and the Auction Agent in the case of any Change in the Interest Rate Mode to or from an Auction Rate) shall receive, by 9:30 a.m. (New York City time) on the effective date of such Change in the Interest Rate Mode, an Opinion of Bond Counsel to the effect that such Change in the Interest Rate Mode is authorized by this Indenture, is permitted under the Act and will not have an adverse effect on the exclusion of interest on such Bonds from gross income for federal income tax purposes;
(D) with respect to any Change in the Interest Rate Mode to an Adjustable Rate (other than to an Auction Rate or a Term Rate for a Calculation Period in excess of thirteen months), the Trustee shall receive a Liquidity Facility meeting the requirements of this Indenture and the Participation Agreement on or prior to the effective date of such Change in the Interest Rate Mode which is, by its terms, in effect on or prior to such effective date; and
(E) with respect to any Change in the Interest Rate Mode to an Adjustable Rate, the Trustee shall receive by 2:00 p.m. (New York City time), on the effective date of such Change in the Interest Rate Mode, evidence satisfactory to it that the Bonds to be converted shall be rated at least "A" by S\&P or "A2" by Moody's or "A" by Fitch or an equivalent rating by any nationally recognized rating agency on the effective date of such Change in the Interest Rate Mode.

If any of the conditions referred to in (A)(i) or (ii) above is not met with respect to any Change in the Interest Rate Mode from an Auction Rate, the Auction Rate for the next succeeding Auction Period shall be determined pursuant to the Auction Procedures applicable to the Auction Rate Bonds. If any of the conditions referred to in (B), (C), (D) or (E) above is not met with respect to any Change in the Interest Rate Mode from an Auction Rate, the Auction Rate for the next succeeding Auction Period shall equal the Maximum Auction Rate as determined on such Auction Date and the Auction Period shall be a seven-day Auction Period. If any of the conditions referred to in (B), (C), (D) or (E) above is not met with respect to any Change in the Interest Rate Mode from a Term Rate, the Bonds shall continue to bear interest at the current Term Rate, and be subject to the provisions of this Indenture applicable thereto while the Bonds bear interest at such current Term Rate. If any of the conditions referred to in (B), (C), (D) or (E) above is not met with respect to any Change in the Interest Rate Mode from an Adjustable Rate (other than an Auction Rate or a Term Rate), the Bonds shall continue to bear interest at the Current Adjustable Rate and be subject to the provisions of this Indenture applicable thereto while the Bonds bear interest at such Current Adjustable Rate; provided, however, that notwithstanding the failure to meet such conditions, the Bonds shall remain subject to mandatory tender for purchase on the date that would have been the effective date of the new interest rate mode if all of such conditions were met on such date. If any of the foregoing conditions for a Change in the Interest Rate Mode from a Term Rate is not met, the Trustee shall mail, or cause the Registrar and Paying Agent to mail to the Authority, the Company and the Holders notice thereof in substantially the form attached hereto as, or containing substantially the information contained in, Exhibit D hereto within three (3) Business Days after the failure to meet any of such conditions.

Section 4.02. Optional Conversion to a Fixed Rate. 1. The Authority reserves the right, at the request of the Company, to fix the rate of interest per annum which Bonds will bear, in whole or in part, for the balance of the term thereof or until the effective date of a Change in the Interest Rate Mode; provided however, that the Authority shall not exercise such right and the Company shall not request the Authority to exercise such right except on a day on which the affected Bonds may be redeemed at the option of the Authority. In the event the Authority, at the request of the Company, as herein provided, exercises its Option to Convert, the Bonds so converted shall cease to bear interest at the Adjustable Rate then borne by the Bonds and shall bear interest at a Fixed Rate until maturity, subject to the terms and conditions hereof (the date on which a Fixed Rate shall take effect being herein called a "Fixed Rate Conversion Date"). The Option to Convert may be exercised at any time through a written notice given by the Authority, at the direction of the Company, not less than thirty (30) nor more than forty-five (45) days prior to the proposed Fixed Rate Conversion Date to the Trustee, the Registrar and Paying Agent, the applicable Remarketing Agent, any Support Facility Issuer (and the Auction Agent and the Securities Depository in the case of any change to a Fixed Rate from an Auction Rate), in substantially the form attached hereto as, or containing substantially the information
contained in, Exhibit A hereto. A notice of conversion to a Fixed Rate shall be effective only if it is accompanied by the form of opinion that Bond Counsel expects to give on the Fixed Rate Conversion Date to the effect that the establishment of a Fixed Rate is authorized by this Indenture, is permitted under the Act and will not have an adverse effect on the exclusion of interest on such Bonds from gross income for federal income tax purposes.
2. The Trustee shall mail, or cause the Registrar and Paying Agent to mail, the notice received pursuant to Subsection 1 of this Section 4.02 to the Holders at least 15 days prior to the proposed effective date of the Change in the Interest Rate Mode.
3. A Fixed Rate shall take effect only if
(A) with respect to a change to a Fixed Rate from an Auction Rate, the Trustee and the Auction Agent shall receive:
(i) a certificate of an Authorized Company Representative by no later than the tenth day prior to a Fixed Rate Conversion Date stating that a written agreement has been entered into by the Company and the applicable Remarketing Agent to remarket the Bonds affected on a Fixed Rate Conversion Date at a price of $100 \%$ of the principal amount thereof, which written agreement (i) may be subject to reasonable terms and conditions imposed by such Remarketing Agent which in the judgment of that Remarketing Agent reflect current market standards regarding investment banking risk and (ii) must include a provision requiring payment by such Remarketing Agent in same-day funds for any Auction Rate Bonds tendered or deemed tendered; and
(ii) by 11:00 a.m. (New York City time) on the second Business Day prior to a Fixed Rate Conversion Date, by telecopy or other similar means, a certificate on behalf of the Company in substantially the form attached hereto as, or containing substantially the information contained in, Exhibit B hereto, from the Authority (y) authorizing the establishment of a Fixed Rate and (z) confirming that Bond Counsel has advised the Authority that it expects to be able to give an opinion on a Fixed Rate Conversion Date to the effect that the change to a Fixed Rate is authorized by this Indenture, is permitted under the Act and will not have an adverse effect on the exclusion of interest on the Bonds from gross income for federal income tax purposes; and
(B) with respect to any change to a Fixed Rate the Trustee (and the Auction Agent in the case of any change to a Fixed Rate from an Auction Rate) receives on a Fixed Rate Conversion Date:
(i) by 9:30 a.m. (New York City time) an Opinion of Bond Counsel to the effect that the conversion to a Fixed Rate is authorized by this Indenture, is permitted under the Act and will not have an adverse effect on the exclusion of interest on such Bonds from gross income for federal income tax purposes;
(ii) by 4:00 p.m. (New York City time) a certificate in substantially the form attached hereto as, or containing substantially the information contained in, Exhibit C hereto, from an Authorized Company Representative that all of the Bonds tendered or
deemed tendered have been purchased at a price equal to the principal amount thereof plus premium, if any, plus any accrued and unpaid interest with funds provided from the remarketing of such Bonds in accordance with the Remarketing Agreement, from the proceeds of a Support Facility, or from funds deposited with the Trustee or the Registrar and Paying Agent; and
(iii) by 2:00 p.m. (New York City time) evidence satisfactory to it that the Bonds to be converted shall be rated at least "A" by S\&P or "A2" by Moody's or "A" by Fitch or an equivalent rating by any nationally recognized rating agency on the Fixed Rate Conversion Date.

If any of the conditions referred to in (A)(i) or (A)(ii) above is not met with respect to any Change in the Interest Rate Mode from an Auction Rate to a Fixed Rate, the Auction Rate for the next succeeding Auction Period shall be determined pursuant to the Auction Procedures applicable to the Auction Rate Bonds. If any of the conditions referred to in (B) above is not met with respect to any Change in the Interest Rate Mode from an Auction Rate to a Fixed Rate, the Auction Rate for the next succeeding Auction Period shall be equal to the Maximum Auction Rate as determined as of such Auction Date and the Auction Period shall be a seven-day Auction Period. If any of the conditions referred to in (B) above is not met with respect to any Change in the Interest Rate Mode from a Term Rate to a Fixed Rate, the Bonds shall continue to bear interest at the current Term Rate and be subject to the provisions of this Indenture applicable thereto while the Bonds bear interest at such current Term Rate. If any of the conditions referred to in (B) above is not met with respect to any other Change in the Interest Rate Mode from an Adjustable Rate (other than an Auction Rate or a Term Rate) to a Fixed Rate, the Bonds shall continue to bear interest at the Current Adjustable Rate and be subject to the provisions of this Indenture applicable thereto while the Bonds bear interest at such Current Adjustable Rate; provided, however, that notwithstanding the failure to meet such conditions, the Bonds shall remain subject to mandatory tender for purchase on the date that would have been the effective date of the Fixed Rate if all of such conditions were met on such date. If any of the foregoing conditions for a Change in the Interest Rate Mode from a Term Rate to a Fixed Rate is not met, the Trustee shall mail, or cause the Registrar and Paying Agent to mail to the Authority, the Company and the Holders notice thereof in substantially the form attached hereto as, or containing substantially the information contained in, Exhibit D hereto within three (3) Business Days after the failure to meet any of such conditions.

Section 4.03. Conversion Generally. 1. In the event of a Change in the Interest Rate Mode on less than all the Bonds of a subseries to or from an Auction Rate, the minimum aggregate principal amount of Bonds of a subseries that continue to bear, or are adjusted to bear interest at an Auction Rate for an Auction Rate Period, shall not be less than $\$ 10,000,000$ for such Auction Rate Bonds.
2. Upon any Change in the Interest Rate Mode, the Authority and the Trustee, shall take all steps necessary to comply with any agreement entered into with a Securities Depository or its nominee pursuant to Section 2.03(5) with respect to such Change in the Interest Rate Mode, including, without limitation, the purchase and designation of sufficient CUSIP numbers to comply with the requirements of such Securities Depository following any such Change in the Interest Rate Mode.
3. If the interest rate on less than all Bonds of any subseries is to be converted to a new Adjustable Rate pursuant to Section 4.01 or to a Fixed Rate pursuant to Section 4.02, the particular Bonds of such subseries to be converted shall be chosen by the Trustee by lot, or the Trustee shall direct the Registrar and Paying Agent to so choose by lot; provided, however, that the portion of any Bond to be converted shall be in the principal amount of $\$ 100,000$ or any integral multiple of such amount during a Commercial Paper Rate Period, a Daily Rate Period, a Weekly Rate Period or a Monthly Rate Period, $\$ 25,000$ or any integral multiple thereof during an Auction Rate Period, or $\$ 5,000$ or any integral multiple thereof at any other time and that, in selecting Bonds for conversion, the Trustee or Registrar and Paying Agent shall treat each Bond as representing that number of Bonds which is obtained by dividing the principal amount of such registered Bond in excess of $\$ 100,000$ by $\$ 100,000$ during a Commercial Paper Rate Period, a Daily Rate Period, a Weekly Rate Period or a Monthly Rate Period, $\$ 25,000$ during an Auction Rate Period, and $\$ 5,000$ at any other time (such amounts being hereinafter referred to as the "applicable units of principal amount"). If it is determined that one or more, but not all of the $\$ 100,000, \$ 25,000$ or $\$ 5,000$ units of principal amount represented by any such Bond is to be converted, then upon notice of intention to convert such $\$ 100,000, \$ 25,000$ or $\$ 5,000$ unit or units pursuant to Sections 4.01 or 4.02 , as the case may be, the Holders of such Bonds shall forthwith surrender such Bonds to the Registrar and Paying Agent for (1) payment of the purchase price (including the premium, if any, and accrued and unpaid interest to the date fixed for conversion) of the $\$ 100,000, \$ 25,000$ or $\$ 5,000$ unit or units of principal amount called for conversion and (2) exchange for a new Bond or Bonds of the same subseries in the aggregate principal amount of the balance of the principal of such Bonds not subject to conversion. If the Holders of any such Bond of a denomination greater than $\$ 100,000, \$ 25,000$ or $\$ 5,000$ shall fail to present such Bond to the Registrar and Paying Agent, for payment and exchange as aforesaid, such Bond shall, nevertheless, become due and payable on the date fixed for conversion to the extent of the $\$ 100,000$, $\$ 25,000$ or $\$ 5,000$ unit or units of principal amount subject to such conversion (and to that extent only).
4. Notwithstanding anything in this Article IV to the contrary, the Authority may not effect a Change in the Interest Rate Mode pursuant to Section 4.01 or 4.02 if such action would require the payment of a premium as part of the Purchase Price upon purchase of Bonds pursuant to Section 5.04 unless there shall have been deposited the full amount of such premium in trust with the Trustee prior to any notification of a Change in the Interest Rate Mode pursuant to Section 4.01 or 4.02.

## ARTICLE V

## REDEMPTION AND PURCHASE OF BONDS

Section 5.01. Optional Redemption. The Bonds shall be subject to redemption, in whole or in part, at the option of the Authority upon the request of the Company, from related payments made by the Company pursuant to Section 6.01 of the Participation Agreement and any other moneys held by the Trustee and available to be applied to the redemption of Bonds as provided in this Section 5.01 and Section 9.03 hereof:
(a) During any Commercial Paper Rate Period, such Bonds shall be subject to redemption on each Interest Payment Date, as a whole or in part, at the principal amount thereof, at a redemption price equal to $100 \%$ of the principal amount.
(b) During any Auction Rate Period, Auction Rate Bonds shall be subject to redemption on the Business Day immediately succeeding each Auction Date, as a whole or in part, at a redemption price equal to $100 \%$ of the principal amount thereof plus accrued and unpaid interest to the date fixed for redemption.
(c) During any Daily Rate Period, such Bonds shall be subject to redemption on any Business Day, as a whole or in part, at the principal amount thereof, plus accrued and unpaid interest to the date fixed for redemption, if any.
(d) During any Weekly Rate Period, such Bonds shall be subject to redemption on any Business Day, as a whole or in part, at the principal amount thereof, plus accrued and unpaid interest to the date fixed for redemption, if any.
(e) During any Monthly Rate Period, such Bonds shall be subject to redemption on each Interest Payment Date, as a whole or in part, at the principal amount thereof.
(f) During any Semi-annual Rate Period, such Bonds shall be subject to redemption on each Interest Payment Date, as a whole or in part, at the principal amount thereof.
(g) During any Term Rate or Fixed Rate Period, such Bonds shall be subject to redemption in whole or in part at any time as follows: after the NoCall Period shown below, which shall begin on the first day of the Calculation Period applicable to such Bonds or on a Fixed Rate Conversion Date, as the case may be, and end on the enumerated anniversary thereof, at a redemption price equal, initially, to the principal amount thereof, plus a premium equal to the percentage of the principal amount to be redeemed shown in the Initial Premium column, plus accrued and unpaid interest if paid on a Business Day other than an Interest Payment Date. The premium percentage, if any, shall decline by the percentage shown in the Reduction in Premium column on each anniversary of the date on which such Bonds are first redeemable until the Bonds shall be redeemable without premium.

Calculation Period or Period to Maturity
Applicable to Subject Bonds

| Equal to or Greater Than | But Less Than | No-Call Period | Initial Premium | Reduction in Premium |
| :---: | :---: | :---: | :---: | :---: |
| 18 years | N/A | 8 Years | $1^{1 / 2 \%}$ | 1/2\% |
| 12 years | 18 Years | 6 Years | 1 | $1 / 2$ |
| 7 Years | 12 |  |  |  |
|  | Years | 3 Years | 0 | 0 |
| 5 Years | 7 Years | 2 Years | 0 | 0 |
| 4 Years | 5 Years | 2 Years | 0 | 0 |
| 3 Years | 4 Years | 2 Years | 0 | 0 |
| 0 Years | 3 Years | Not callable |  |  |

If upon establishment of a Term Rate Period or a Fixed Rate Period, as the case may be, the applicable Remarketing Agent certifies to the Trustee, Bond Counsel and the Authority in writing that the foregoing schedule is not consistent with then-prevailing market conditions, the Authority at the request of the Company may revise the foregoing Initial Premium, Reductions in Premium and No-Call Periods with respect to Bonds for which a Term Rate Period or Fixed Rate Period is then being established without the approval of the Holders to reflect then-prevailing market conditions, upon receipt of an Opinion of Bond Counsel to the effect that any revisions pursuant to this paragraph, either by itself or in conjunction with the establishment of a Calculation Period for a Term Rate Period or a Fixed Rate Period, as the case may be, are made in accordance with this Indenture, is permitted under the Act and will not adversely affect the exclusion of interest on the Bonds from gross income for Federal income tax purposes.

## Section 5.02. [Reserved]

Section 5.03. Tender for and Purchase upon Election of Holder. 1. During any Daily Rate Period or Weekly Rate Period, any Bond or portion thereof in a principal amount equal to an authorized denomination (so long as the principal amount not purchased is an authorized denomination) shall be purchased on the demand of the Holder thereof on any Business Day at the Purchase Price, upon delivery to the Registrar and Paying Agent and the applicable Remarketing Agent at their respective principal offices, by the close of business on any Business Day of a Notice of Election to Tender in substantially the form attached hereto as, or containing substantially the information contained in, Exhibit E hereto; provided, however, that the substance of such Notice of Election to Tender must also be given telephonically to the applicable Remarketing Agent prior to or simultaneously with delivery of such written Notice of Election to Tender to such Remarketing Agent. The date on which such Bond shall be purchased, at the request of the Holder thereof (i) if the Bond then bears interest at a Daily Rate, shall be the date of delivery of such Notice of Election to Tender if such Notice of Election to Tender is delivered to the Registrar and Paying Agent and the applicable Remarketing Agent by 10:00 a.m.(New York City time) on such date or may be any Business Day thereafter, and (ii) if the Bond then bears interest at a Weekly Rate, shall be a Business Day not prior to the 7th day next succeeding the date of the delivery of such Notice of Election to Tender to the Registrar and Paying Agent and the Remarketing Agent.
2. During any Monthly Rate Period or Semi-annual Rate Period, any Bond or portion thereof in a principal amount equal to an authorized denomination (so long as the principal amount not purchased is an authorized denomination) shall be purchased on the demand of the Holder thereof on the first Business Day following each Calculation Period at the Purchase Price, upon delivery to the Registrar and Paying Agent and the applicable Remarketing Agent, at their respective principal offices of a Notice of Election to Tender in substantially the form attached hereto as or containing substantially the information contained in Exhibit E on or prior to a Business Day which is not less than ten (10) days, in the case of Bonds bearing interest at a Semi-annual Rate, or seven (7) days, in the case of Bonds bearing interest at a Monthly Rate, prior to the proposed date of purchase; provided, however, that the substance of such Notice of Election to Tender must also be given telephonically to the applicable Remarketing Agent prior to or simultaneously with delivery of such written Notice of Election to Tender to such Remarketing Agent.
3. Immediately upon receipt of a Notice of Election to Tender delivered pursuant to the provisions of this Section 5.03, the Registrar and Paying Agent shall notify, or cause to be notified, the Trustee, the Company, the Authority and the applicable Remarketing Agent, by telephone, promptly confirmed in writing, of such receipt, specifying the contents thereof.
4. Any Notice of Election to Tender shall be irrevocable. If a Holder fails to deliver the Bonds referred to in such notice to the Registrar and Paying Agent, such Bonds shall nevertheless be deemed to have been purchased on the date established for the purchase thereof, no interest shall accrue on such Bonds from and after the date of purchase and such Holder shall have no rights hereunder thereafter as the owner of such Bonds except the right to receive the purchase price of such Bonds.
5. A Holder may not tender a Bond to the Registrar and Paying Agent pursuant to this Section while such Bond bears interest at an Auction Rate, Commercial Paper Rate, Term Rate or Fixed Rate.

Section 5.04. Mandatory Tender for Purchase upon Change in the Interest Rate Mode or on Business Day Following Certain Calculation Periods. 1. Upon a Change in the Interest Rate Mode, the Bonds shall be subject to mandatory tender for purchase in accordance with the terms hereof, on the effective date of such Change in the Interest Rate Mode at the Purchase Price.
2. During any Term Rate Period or Commercial Paper Rate Period, the Bonds shall be subject to mandatory tender for purchase in accordance with the terms hereof on the Business Day immediately following each Calculation Period, each at a price equal to the Purchase Price.
3. Notice of mandatory tender for purchase upon a Change in the Interest Rate Mode shall be in substantially the form attached hereto as, or contain substantially the information contained in, Exhibit A hereto.
4. Any such notice of mandatory tender for purchase required by this Section 5.04 shall be given by the Trustee, in the name of the Authority, or the Trustee shall cause the Registrar and Paying Agent to give such notice (with copies thereof to be given to the Remarketing Agent, the Registrar and Paying Agent, the Company, and in the case of Auction Rate Bonds, the Auction Agent and the Authority) by first-class mail to the Holders of the Bonds subject to purchase at their addresses shown on the books of registry.
5. Bonds held by or for the account of the Company or the issuer of a Support Facility are not subject to mandatory tender for purchase pursuant to this Section 5.04

Section 5.05. Extraordinary Optional Redemption. During any Term Rate Period or Fixed Rate Period, the Bonds are also subject to redemption prior to maturity in whole at any time at the option of the Authority, exercised at the direction of the Company, upon notice given as provided in the Indenture, at a redemption price equal to the principal amount thereof, together with unpaid interest accrued thereon to the date fixed for redemption, in any of the following events:
(i) All or substantially all of the Project shall have been damaged or destroyed or title to, or the temporary use of, all or a substantial portion of the Project shall have been taken under the exercise of the power of eminent domain by any governmental authority, or person, firm or corporation acting under governmental authority, as in each case renders the Project unsatisfactory to the Company for its intended use;
(ii) Unreasonable burdens or excessive liabilities shall have been imposed upon the Authority or the Company with respect to all or substantially all of the Project, including without limitation the imposition of federal, state or other ad valorem property, income or other taxes other than ad valorem taxes in effect on the date of original issuance of the Bonds levied upon privately owned property used for the same general purpose as the Project; or
(iii) Any court or regulatory or administrative body shall enter or adopt, or fail to enter or adopt, a judgment, order, approval, decree, rule or regulation, as a result of which the Company elects to cease operation of all or substantially all of the Project.

Section 5.06. Special Tax Redemption Provisions. 1. During any Semi-annual Rate Period, Term Rate Period or Fixed Rate Period, the Bonds shall be subject to mandatory redemption as a whole (provided, however, that the Bonds shall be redeemed in part if the Company obtains an Opinion of Bond Counsel to the effect that, by redeeming such portion of the Bonds, the interest on the remaining Bonds will not be included for federal income tax purposes in the gross income of any owner of the Bonds (other than an owner who is a "substantial user" of the Project or a "related person" within the meaning of Section 147(a)(1) of the Code)) at any time at a redemption price equal to $100 \%$ of the principal amount thereof, together with unpaid interest accrued thereon to the redemption date, if, in a published or private ruling of the Internal Revenue Service or in a final, nonappealable judicial decision by a court of competent jurisdiction (provided that the Company has been afforded the opportunity to participate at its own expense in the proceeding resulting in such ruling or in the litigation
resulting in such decision, as the case may be), it is determined that, as a result of a failure by the Company to observe any covenant, agreement or representation in the Participation Agreement or the Tax Regulatory Agreement, interest on the Bonds is included for federal income tax purposes in the gross income (as defined in Section 61 of the Code) of any owner of a Bond (other than a "substantial user" of the Project or a "related person" within the meaning of Section 147(a)(1) of the Code), and, in such event, the Bonds shall be subject to such mandatory redemption not more than 180 days after receipt by the Trustee of notice of such published or private ruling or judicial decision and a demand for redemption of the Bonds. The occurrence of an event requiring the redemption of the Bonds under this paragraph does not constitute an event of default under the Note or under the Indenture and the sole obligation in such event shall be for the Company to prepay the Note in an amount sufficient to redeem the Bonds to the extent required by this paragraph.
2. During any Semi-annual Rate Period, Term Rate Period or Fixed Rate Period, the Bonds may be redeemed in whole or in part at any time at a redemption price equal to $100 \%$ of the principal amount thereof, together with accrued and unpaid interest thereon to the redemption date, if the Company has determined, on the basis of the advice of Bond Counsel that, as a result of any action taken or expected to be taken, or a failure to take action, a reasonable risk exists that interest on the Bonds will not be excludable from gross income for federal tax purposes. Such conclusion and certification shall be evidenced by delivery to the Trustee of a written certificate of an Authorized Company Representative to the effect that the Company has reached such conclusion, together with a copy of such advice of Bond Counsel. The occurrence of an event permitting the redemption of the Bonds under this paragraph does not constitute an event of default under the Note or under the Indenture and the sole obligation in such event shall be for the Company to prepay the Note in an amount sufficient to redeem the Bonds to the extent required by this paragraph.
3. During any Semi-annual Rate Period, Term Rate Period or Fixed Rate Period, the Bonds will also be subject to mandatory redemption at a redemption price equal to one hundred three percent (103\%) of the principal amount thereof plus unpaid interest accrued thereon to the redemption date if the Company reasonably concludes and certifies to the Trustee that the business, properties, condition (financial or otherwise), operations or business prospects of the Company will be materially and adversely affected unless the Company takes or omits to take a specified action and that the Company has been advised in writing by Bond Counsel that the specified action or omission would cause the use of the Project to be such that, pursuant to Section 150 of the Code, the Company would not be entitled to deduct the interest on the Bonds for purposes of determining the Company's federal taxable income, for a period of not less than ninety (90) consecutive or nonconsecutive days during a twelve-month period. Such conclusion and certification shall be evidenced by delivery to the Trustee of a written certificate of an Authorized Company Representative to the effect that the Company has reached such conclusion, together with a certified copy of a resolution of the Board of Trustees of the Company authorizing such certificate and a copy of such advice of Bond Counsel. In the event that the Bonds become subject to redemption as provided in this paragraph, the Bonds will be redeemed in whole unless redemption of a portion of the Bonds outstanding would, in the Opinion of Bond Counsel, have the result that interest payable on the Bonds remaining outstanding after such redemption would be deductible for purposes of determining the federal taxable income of the Company, and, in such event, the Bonds to be redeemed shall be selected
(in the principal amount of $\$ 5,000$ or any integral multiple thereof) by lot, in such amount as is necessary to accomplish that result. The occurrence of an event requiring the redemption of the Bonds under this paragraph does not constitute an event of default under the Note or under the Indenture and the sole obligation in such event shall be for the Company to prepay the Note in an amount sufficient to redeem the Bonds to the extent required by this paragraph.

Section 5.07. Redemption at Demand of the State of New York. Under the provisions of Section 1864 of the Act, the State of New York may, upon furnishing sufficient funds therefor, require the Authority to redeem, prior to maturity, as a whole, the Bonds on any Interest Payment Date not less than twenty years after the Closing Date at a redemption price of $105 \%$ of their face value and accrued interest or at such lesser redemption price as may be provided for a redemption at that time pursuant to Section 5.01 hereof. The Authority shall deposit any such funds received by it with the Trustee. During any period during which no Direct-Pay Credit Facility is in effect, the Trustee shall deposit any such funds in the Bond Fund and, upon notice published in the manner provided in Section 1864 of the Act, shall apply such funds to the redemption of the Bonds. During any period in which a Direct-Pay Credit Facility is in effect, the Trustee shall deposit any such funds received by it in a segregated sub-account in the Bond Fund, and upon notice published in the manner provided in Section 1864 of the Act, shall draw moneys under the related Credit Facility pursuant to Article IX and apply such payment to the redemption of the Bonds at the price and in the manner specified in the preceding sentence. Upon the application of such Credit Facility payments, the Trustee shall pay the funds furnished by the State of New York to the issuer of the Credit Facility with instructions to apply such funds to the reimbursement of the issuer of the Credit Facility for such Credit Facility payment. Upon such redemption and notwithstanding anything to the contrary in this Indenture, the Trustee shall assign the Note relating to the Bonds to or as directed by the Authority.

Section 5.08. Mandatory Tender for Purchase Upon Expiration of any Support Facility or Upon Delivery of an Alternate Support Facility. 1. Except as otherwise set forth in the last sentence of this subsection 1, on the second Business Day next preceding the date of expiration of any Support Facility, the Bonds to which such Support Facility applies shall be subject to mandatory purchase at the Purchase Price, unless on or prior to the 35th day prior to such date of expiration the Company on behalf of the Authority has furnished to the Trustee an extension of such Support Facility. The Bonds shall also be subject to mandatory purchase at the Purchase Price, on the date there is delivered an Alternate Support Facility relating to such Bonds meeting the requirements of Section 6.02. No tender for purchase of any Bonds shall be required pursuant to this Section 5.08 during an Auction Rate Period or a Fixed Rate Period.
2. Notice of the mandatory tender for purchase pursuant to this Section 5.08 shall be given on or prior to the 30th day before the expiration date of the expiring Support Facility or on or prior to the 30th day before the delivery of any Alternate Support Facility, as the case may be, by the Trustee in the name of the Authority (with copies thereof given to the Authority, the Remarketing Agent, the issuer of a Support Facility, the Company and the Registrar and Paying Agent) by first-class mail to the Holders of the Bonds subject to mandatory tender for purchase at their addresses shown on the books of registry. Such notice shall be in substantially the form attached hereto as, or contain substantially the information contained in, Exhibit $\mathbf{F}$ hereto.
3. Bonds held by or for the account of the Company or the issuer of a Liquidity Facility are not subject to mandatory tender for purchase pursuant to this Section 5.08.

Section 5.09. Mandatory Tender Upon Occurrence of any Terminating Event. 1. Except as otherwise set forth in the last sentence of this subsection 1, upon the occurrence of any Terminating Event with respect to the Bonds, the Bonds shall be subject to mandatory tender for purchase at the Purchase Price on a Business Day selected by the Trustee; provided, however, that (i) such mandatory tender shall not occur later than the 5th day after receipt of notice of the Terminating Event by the Trustee and (ii) such mandatory tender date shall be a Business Day. Bonds will not be subject to mandatory tender for purchase pursuant to this Section 5.09 during any Auction Rate Period or any Fixed Rate Period.
2. Notice of the mandatory tender for purchase required by this Section 5.09 shall be in substantially the form attached hereto as, or contain substantially the information contained in, Exhibit F hereto and shall be given to the Holders of the applicable subseries of Bonds subject to mandatory tender for purchase at their addresses shown on the books of registry on or before the first Business Day after receipt of notice of a Terminating Event from the issuer of the applicable Support Facility by the Trustee, in the name of the Authority, or the Trustee shall cause the Registrar and Paying Agent to give such notice, by firstclass mail to the Holders of the Bonds subject to purchase at their address shown on the books of registry (with copies thereof given to the Authority, the applicable Remarketing Agent, the Company and the Registrar and Paying Agent).
3. Bonds held by or for the account of the Company or the issuer of a Liquidity Facility are not subject to mandatory tender for purchase pursuant to this Section 5.09.

Section 5.10. General Provisions Applicable to Mandatory and Optional Tenders for Purchase of Bonds. 1. If interest has been paid on the Bonds, or an amount sufficient to pay interest thereon has been deposited in the Bond Fund, or an amount sufficient to pay accrued interest thereon, if any, has been set aside in the Bond Purchase Fund held under the Bond Purchase Trust Agreement, and the Purchase Price shall be available in the Bond Purchase Fund for payment of Bonds subject to tender for purchase pursuant to Section 5.03, 5.04, 5.08 or 5.09 , and if any Holder fails to deliver or does not properly deliver the Bonds to the Registrar and Paying Agent for which a Notice of Election to Tender has been properly filed or which are subject to mandatory tender for purchase on the purchase date therefor, such Bonds shall nevertheless be deemed tendered and purchased on the date established for the purchase thereof, no interest shall accrue on such Bonds from and after the date of purchase and such former Holders shall have no rights hereunder as the registered owners of such Bonds, except the right to receive the Purchase Price of and interest to the purchase date, if any, on such Bonds upon delivery thereof to the Registrar and Paying Agent in accordance with the provisions hereof. The purchaser of any such Bonds remarketed by the Remarketing Agent, or the issuer of any Support Facility, to the extent Bonds are purchased with the proceeds of a draw on, or borrowing or payment under, the Support Facility, shall be treated as the registered owner thereof for all purposes of the Indenture. The payment of the Purchase Price of Bonds pursuant to Section 5.03 shall be subject to delivery of such Bonds duly endorsed in blank for transfer or accompanied by an instrument of transfer thereof in form satisfactory to the Registrar and Paying Agent executed in blank for transfer at the principal office of the Registrar and Paying Agent at or prior to 10:00
a.m. (11:30 a.m. for Bonds bearing interest at the Weekly Rate and 12:00 noon, for Bonds bearing interest at the Daily Rate) (New York City time), on a specified purchase date. The Registrar and Paying Agent may refuse to make payment with respect to any Bonds tendered for purchase pursuant to Sections 5.03, 5.04 , 5.08 or 5.09 not endorsed in blank or for which an instrument of transfer satisfactory to the Registrar and Paying Agent has not been provided.
2. The Purchase Price of Bonds subject to tender for purchase pursuant to Section 5.03, 5.04, 5.08 or 5.09 in an aggregate principal amount of at least one million dollars $(\$ 1,000,000)$ shall be payable in immediately available funds or by wire transfer upon written notice from the Holder thereof containing the wire transfer address (which shall be in the continental United States) to which such Holder wishes to have such wire directed, if such written notice is received by the Registrar and Paying Agent not less than five (5) days prior to the related purchase date.
3. Bonds subject to mandatory tender for purchase pursuant to Sections 5.08 or 5.09 shall not be remarketed unless and until an Alternate Support Facility meeting the requirements of Section 6.02 of the Indenture is in full force and effect with respect to such Bonds; provided, however, that Bonds may be remarketed and no such Alternate Support Facility is required to be in effect if, at the time the Bonds are sought to be remarketed, such Bonds bear interest at an Auction Rate or a Fixed Rate.
4. In the event Bonds tendered for purchase pursuant to Section 5.03 or 5.04 shall be paid from a drawing under a Liquidity Facility, such Bonds shall not be remarketed unless and until the Trustee or the Registrar and Paying Agent has been notified by the Liquidity Facility Issuer and, upon receipt of such notice, the Trustee or the Registrar and Paying Agent has notified the applicable Remarketing Agent that the amount available for a drawing under such Liquidity Facility has been restored.

Section 5.11. Selection of Bonds to be Redeemed. A redemption of Bonds shall be a redemption of the whole or of any part of the Bonds from any funds available for that purpose in a principal amount equal to an authorized denomination (so long as the principal amount not redeemed is an authorized denomination). If less than all Bonds of any subseries shall be redeemed, the particular Bonds to be redeemed shall be chosen by the Trustee, or the Trustee shall direct the Registrar and Paying Agent to so choose, as hereinafter provided. If less than all the Bonds of any subseries shall be called for redemption under any provision of this Indenture permitting such partial redemption, the particular Bonds or portions of Bonds to be redeemed shall be selected (a) first, from Bonds held or owned by or for the issuer of a Support Facility pursuant to any Support Facility, (b) second, from Bonds for which the Registrar and Paying Agent has received, prior to such selection, a Notice of Election to Tender requiring the Registrar and Paying Agent to purchase such Bonds on the date on which the Bonds being selected are to be redeemed and (c) third, from all other Bonds then Outstanding, by lot by the Trustee or, upon direction of the Trustee, by lot by the Registrar and Paying Agent; provided, however, that the portion of any Bond to be redeemed shall be in the principal amount of $\$ 100,000$ or any integral multiple thereof during a Commercial Paper Rate Period, a Daily Rate Period, a Weekly Rate Period or a Monthly Rate Period, $\$ 25,000$ or any integral multiple thereof during an Auction Rate Period, or $\$ 5,000$ or any integral multiple thereof at any other time and that, in selecting Bonds for redemption, the Trustee or Registrar and Paying Agent shall treat
each Bond as representing that number of Bonds which is obtained by dividing the principal amount of such registered Bond in excess of $\$ 100,000$ by $\$ 100,000$ during a Commercial Paper Rate Period, a Daily Rate Period, a Weekly Rate Period or a Monthly Rate Period, $\$ 25,000$ during an Auction Rate Period, and $\$ 5,000$ at any other time (such amounts being hereinafter referred to as the "applicable units of principal amount"). If it is determined that one or more, but not all of the $\$ 100,000, \$ 25,000$ or $\$ 5,000$ units of principal amount represented by any such Bond is to be called for redemption, then upon notice of intention to redeem such $\$ 100,000, \$ 25,000$ or $\$ 5,000$ unit or units, the Holders of such Bonds shall forthwith surrender such Bonds to the Registrar and Paying Agent for (1) payment of the redemption price (including the redemption premium, if any, and accrued interest to the date fixed for redemption) of the $\$ 100,000, \$ 25,000$ or $\$ 5,000$ unit or units of principal amount called for redemption and (2) exchange for a new Bond or Bonds of the same subseries of the aggregate principal amount of the unredeemed balance of the principal of such Bonds. If the Holders of any such Bond of a denomination greater than $\$ 100,000, \$ 25,000$ or $\$ 5,000$ shall fail to present such Bond to the Registrar and Paying Agent, for payment and exchange as aforesaid, such Bond shall, nevertheless, become due and payable on the date fixed for redemption to the extent of the $\$ 100,000, \$ 25,000$ or $\$ 5,000$ unit or units of principal amount called for redemption (and to that extent only).

Section 5.12. Notice of Redemption. 1. Notice of redemption shall be given by the Trustee by mailing a copy of the redemption notice by first-class mail at least thirty (30) days prior to the date fixed for redemption to the Holders of the Bonds to be redeemed at the addresses shown on the registration books maintained by the Registrar and Paying Agent. A copy of such notice of redemption shall be given by the Trustee to the Support Facility Issuer and the Auction Agent at least thirty (30) days prior to the date fixed for redemption. Any redemption may be conditioned on the receipt of moneys by the Registrar and Paying Agent sufficient to pay the redemption price on the redemption date of Bonds called for redemption, if the notice of redemption so states.
2. The Registrar and Paying Agent shall not be required to transfer or exchange Bonds during any period beginning at the opening of business fifteen (15) days before the day of mailing of a notice of redemption and ending at the close of business on the day fixed for redemption; provided, however, that the foregoing shall not apply during a Daily Rate Period, a Weekly Rate Period, a Commercial Paper Rate Period or an Auction Rate Period.
3. Each notice of redemption shall state: (i) the full title of the Bonds, the redemption date, the place of redemption and the redemption price payable upon such redemption; (ii) that the interest on the Bonds, or on the principal amount thereof to be redeemed, shall cease to accrue from and after such redemption date and (iii) that on said date there will become due and payable on the Bonds the principal amount thereof to be redeemed and the interest accrued on such principal amount to the redemption date, if any, and the premium, if any, thereon. Each notice of redemption mailed to the Holder of the Bonds shall, if less than the entire principal sum thereof is to be redeemed, also state the principal amount thereof and the distinctive numbers of the Bonds to be redeemed and that such Bonds must be surrendered to the Trustee in exchange for the payment of the principal amount thereof to be redeemed and the issuance of a new Bond of the same subseries equaling in principal amount that portion of the principal sum not to be redeemed of the Bonds to be surrendered. The failure to give notice to any Holder of a Bond or any defects in such notice shall not affect the proceedings for the redemption of the Bonds for which notice has been properly given.

Section 5.13. Bonds Purchased for Account of Liquidity Facility Issuer. Bonds subject to purchase pursuant to Section 5.03, 5.04, 5.08 or 5.09 shall be deemed to be purchased by the Company except to the extent the Liquidity Facility expressly provides that the Bonds are to be purchased by the issuer of the Liquidity Facility in which event such Bonds shall be deemed to be purchased by the issuer of the Liquidity Facility in a principal amount equal to the amount of a draw on, or borrowing or payment under, the Liquidity Facility for the payment of Bonds subject to purchase, upon the deposit with the Registrar and Paying Agent of the proceeds of such draw on, or borrowing or payment under, the Liquidity Facility in an amount equal to the principal of such Bonds plus accrued interest thereon to the purchase date, and such Bonds shall not be deemed paid and shall remain outstanding hereunder until the issuer of the Liquidity Facility has been reimbursed for such draws on, or borrowings or payments under, the Liquidity Facility to pay such principal and interest. Unless the issuer of any Liquidity Facility shall otherwise direct, any Bonds purchased by the issuer of the Liquidity Facility shall be immediately registered in the name of the Company except to the extent the Liquidity Facility expressly provides that the Bonds are to be purchased by the issuer of the Liquidity Facility in which event such Bonds shall be registered in the name of the issuer of the Liquidity Facility as a Holder and the issuer of the Liquidity Facility shall have all rights of a Holder of Bonds under this Indenture.

Section 5.14. Effect of Redemption. If the Bonds have been duly called for redemption and notice of the redemption thereof has been duly given or provided for as hereinbefore provided and if moneys for the payment of the Bonds (or of the principal amount thereof to be redeemed) and the interest to accrue to the redemption date on the Bonds (or of the principal amount thereof to be redeemed), if any, and the premium, if any, thereon are held for the purpose of such payment by the Trustee, then the Bonds (or the principal amount thereof to be redeemed) shall on the redemption date designated in such notice, become due and payable and interest on the Bonds (or the principal amount thereof to be redeemed) so called for redemption shall cease to accrue from such date and the Holder thereof shall thereafter have no rights hereunder as the Holder of such Bonds (or the principal amount thereof to be redeemed) except to receive the principal amount thereof and premium (if any) thereon and interest to the redemption date.

Section 5.15. Cancellation of Redeemed Bonds. Any Bonds surrendered or redeemed pursuant to the provisions of this Article shall be cancelled by the Registrar and Paying Agent.

## ARTICLE VI <br> SUPPORT FACILITY

Section 6.01. Support Facility - General. (1) Pursuant to the Participation Agreement, the Company has agreed not to request that the interest rate mode applicable to the Bonds be adjusted to an Adjustable Rate or a Fixed Rate unless on the effective date of the applicable Change in the Interest Rate Mode the Bonds to be converted shall be rated at least "A" by S\&P or "A2" by Moody's or "A" by Fitch or an equivalent rating by any nationally recognized rating agency. Subject to the requirements of the Participation Agreement, such rating of the Bonds may, but is not required to, be achieved by obtaining a Support Facility which meets the requirements of this Article VI. The Company has further agreed to maintain a Liquidity Facility meeting the requirements of the Participation Agreement with respect to the Bonds at all times, except with respect to Bonds bearing interest at an Auction Rate, a Fixed Rate or a Term Rate for a Calculation Period in excess of thirteen months. A Liquidity Facility also must be in effect on or prior to the effective date of any Change in the Interest Rate Mode from an Auction Rate to another Adjustable Rate (other than a Change in the Interest Rate Mode to an Auction Rate or to a Term Rate Period in excess of thirteen months). The Trustee shall be furnished with a certified copy of any Support Facility obtained pursuant to this Section 6.01.

Any Support Facility Issuer not located in New York State shall provide the Trustee with a list of holidays on which it is closed through the next succeeding January 1 at the beginning of the term of such Support Facility and by January 1 of each year thereafter.
(2) Notwithstanding any other provision in this Indenture, upon the occurrence of an Event of Default and so long as no Support Facility Issuer Default has occurred and is continuing, then, in all such events, the Credit Facility Issuer shall be deemed to be the sole Holder of the Bonds the payment of which such Credit Facility supports when the approval, consent, direction or any other action of the Holders of such Bonds is required or may be exercised under this Indenture (except with respect to approvals, consents, directions or other actions requiring the consent of all Holders set forth in Section 14.02 and Section 14.07), including, without limitation, (i) the right to control and direct the declaration of principal of and accrued interest on all the Bonds then Outstanding to be due and payable immediately pursuant to Section 12.03, and (ii) the right to rescind and annul any such declaration in clause (i) of this paragraph and its consequences pursuant to Section 12.03.
(3) The Trustee shall not make a draw or borrowing under the Initial Support Facility to pay principal of, premium, if any, or interest on Bonds or to pay the Purchase Price of Bonds that bear interest at an Auction Rate, a Commercial Paper Rate, a Semi-annual Rate, a Term Rate or a Fixed Rate.
(4) The Trustee shall deliver to the Company written notice of any draw on or borrowing or payment under a Support Facility.

Section 6.02. Alternate Support Facility. (1) At any time, the Authority may, at the request of the Company, provide for the delivery to the Trustee of an Alternate Support Facility for a subseries of Bonds. The termination date of such Alternate Support Facility shall
be a date not earlier than 364 days from its date of issuance, and may be subject to earlier termination upon the occurrence of (i) a Terminating Event or another event of default under the related reimbursement agreement or other corresponding agreement relating to such Alternate Support Facility, (ii) the issuance of a subsequent Alternate Support Facility for the applicable subseries of Bonds, (iii) payment in full of the Outstanding Bonds or (iv) a Change in the Interest Rate Mode of the applicable subseries of Bonds. Any such Alternate Support Facility shall specifically allow, in the case of the occurrence of any event or events which under the terms of such Alternate Support Facility or any agreement providing for the issuance thereof would cause the termination or expiration of such Alternate Support Facility, for the mandatory tender of the applicable Bonds pursuant to Section 5.09 with a draw on or borrowing or payment under such Alternate Support Facility prior to such termination or expiration. On or prior to the date of the delivery of an Alternate Support Facility to the Trustee, the Company shall furnish to the Trustee on behalf of the Authority (a) an Opinion of Bond Counsel stating that the delivery of such Alternate Support Facility to the Trustee is authorized under this Indenture and complies with the terms hereof and (b) confirmation from S\&P, if the Bonds are then rated by S\&P, from Moody's, if the Bonds are then rated by Moody's, from Fitch, if the Bonds are then rated by Fitch, or another rating agency, if the Bonds are then rated by such rating agency, to the effect that such rating agency has reviewed the proposed Alternate Support Facility and that the substitution of the proposed Alternate Support Facility for the Support Facility will not, by itself, result in a reduction or withdrawal of its long or short-term rating of the applicable Bonds below the rating category of S\&P, Moody's or Fitch or such other rating agency, as the case may be, then in effect with respect to such Bonds. Nothing contained herein shall prevent the Authority, at the request of the Company, from delivering an Alternate Support Facility in substitution for a Support Facility which will result in a decline in the short-term or long-term rating or both assigned to the applicable Bonds by Moody's, S\&P or Fitch or such other rating agency as a result of the Alternate Support Facility; provided, that the Opinion of Bond Counsel referred to in the preceding sentence is obtained; provided that such opinion shall also be to the effect that delivery of such Alternate Support Facility will not adversely affect the exclusion from gross income of interest on the applicable Bonds for federal income tax purposes.
(2) On the date there is delivered an Alternate Support Facility, all Bonds of the applicable subseries that are Outstanding are subject to mandatory tender for purchase pursuant to Section 5.08. The Authority, or the Company on behalf of the Authority, shall deliver notice to the Trustee of the substitution of an Alternate Support Facility at least forty-five (45) days before the date of substitution. The Trustee shall deliver notice to the registered owners of the substitution at least thirty (30) days before the date of substitution.

Section 6.03. Trustee not Responsible for Enforcement of Support Facility. The Trustee shall have no responsibility with respect to the enforcement of any Support Facility obtained hereunder.

Section 6.04. Qualification of Support Facility Issuer's Right to Consent. A Support Facility Issuer's right to consent pursuant to the provisions of this Indenture shall not exist when a Support Facility Issuer Default has occurred and is continuing.

## ARTICLE VII

## GENERAL TERMS AND PROVISIONS OF BONDS

Section 7.01. Execution and Authentication of Bonds. The Bonds shall be executed on behalf of the Authority by the manual or facsimile signature of its Chair, Vice-Chair, President, Treasurer or any Vice President and shall be sealed with the seal of the Authority, or in lieu thereof shall bear a lithographed, engraved or otherwise reproduced facsimile of such seal attested by the manual or facsimile signature of its Vice President, Treasurer, Secretary or an Assistant Secretary.

Bonds bearing the manual signature of the officer of the Authority authorized to execute such Bonds in office on the date of such manual signing thereof and Bonds bearing the facsimile signature of the officer of the Authority authorized to execute such Bonds in office on the date of the reproducing of such facsimile signature on such Bonds, shall be valid and binding obligations in accordance with their terms, notwithstanding that before the delivery thereof and payment therefor the person whose signature appears thereon shall have ceased to be such officer.

Only Bonds having endorsed thereon a certificate of authentication substantially in the form set forth in Article XVI, duly executed by the Trustee shall be entitled to any right or benefit under this Indenture. No Bonds shall be valid or obligatory for any purpose unless and until such certificate of authentication shall have been duly executed by the Trustee, and such certificate of the Trustee upon a Bond shall be conclusive evidence that such Bond has been duly authenticated and delivered under this Indenture and that the Holder thereof is entitled to the benefits of this Indenture. The Trustee's certificate of authentication on any Bond shall be deemed to have been duly executed if signed by an authorized officer of the Trustee.

Section 7.02. Books of Registry. The Registrar and Paying Agent shall keep or cause to be kept at its principal office books (herein referred to as the "books of registry" or "registration books") for the registration and transfer of the Bonds. Upon presentation at its principal office for such purpose the Registrar and Paying Agent, under such reasonable regulations as it may prescribe, shall register or transfer, or cause to be registered or transferred, on said books of registry, the Bonds as hereinafter set forth. The books of registry shall at all times during business hours be open for inspection by the Authority, the Company and the Trustee or their duly authorized agents or representatives.

Section 7.03. Transfer, Registration and Exchange of Bonds. The transfer of the Bonds may be registered only upon the books of registry required to be kept pursuant to Section 7.02 upon surrender thereof to the Registrar and Paying Agent, together with an assignment duly executed by the Holder thereof or his or her duly authorized agent and accompanied by a guarantee of signature, each in such form as shall be satisfactory to the Registrar and Paying Agent. Upon any such registration of transfer the Authority shall execute and the Trustee shall authenticate and deliver in exchange for such Bonds a new Bond or Bonds registered in the name of the transferee or transferees for a like aggregate principal amount, of any denomination or denominations authorized by this Indenture. No transfer of any Bond shall be effective until entered on the books of registry.

Any Bond surrendered in any such registration of transfer shall forthwith be cancelled by the Trustee. Any Bonds registered and transferred to a new Holder pursuant to this Section shall be delivered to the Holder at the principal office of the Registrar and Paying Agent or sent by first-class mail to the Holder at his or her request, risk and expense.

Bonds, upon surrender thereof at the principal corporate trust office of the Registrar and Paying Agent, together with an assignment duly executed by the Holder or his or her authorized agent and accompanied by a guarantee of signature, each in such form as shall be satisfactory to the Registrar and Paying Agent, may, at the option of the Holder thereof, be exchanged for an equal aggregate principal amount of Bonds of any denomination or denominations authorized by this Indenture and in the same form as the Bonds surrendered for exchange. All Bonds so surrendered pursuant to this Section shall be cancelled by the Trustee.

Any Bonds to be delivered to the Holder upon any such exchange shall be delivered to the Holder at the principal office of the Registrar and Paying Agent or sent by first-class mail to the Holder thereof at his or her request, risk and expense.

Any taxes or other governmental charges required to be paid with respect to the registration of transfer or exchange of the Bonds shall be paid by the Holder requesting registration of such transfer or exchange, as a condition precedent to the exercise of such privilege. The Authority or the Registrar and Paying Agent, or both, may charge the Company for every registration of transfer or exchange sufficient to reimburse it for any and all costs required to be paid in respect thereof.

Section 7.04. Mutilated, Lost, Stolen, or Destroyed Bonds. In the event any Bond shall be lost, stolen, destroyed, wholly or in part, or so defaced as to impair its value to the Holder, the Trustee shall, upon compliance with the terms provided by law, authenticate and deliver a new Bond of like subseries or series, date and tenor in exchange or replacement therefor against delivery for cancellation of such mutilated Bond, or in lieu of and in replacement of a destroyed, stolen or lost Bond, and upon payment by the Holder of the reasonable expenses of the Registrar and Paying Agent and the Authority and the reasonable charges of the Trustee and Registrar and Paying Agent in connection therewith and, in the event that the Bond is destroyed, stolen or lost, the Holder's filing with the Registrar and Paying Agent of evidence satisfactory to it that the Bond was destroyed, stolen or lost, of the Holder's ownership thereof, and furnishing the Registrar and Paying Agent such security and indemnity as is satisfactory to it which shall name the Authority as an additional indemnified party. Any replacement Bond issued under the provisions of this Section in exchange or substitution for the defaced, mutilated or partly destroyed Bond or in substitution for the allegedly lost, stolen or wholly destroyed Bond shall be entitled to the identical benefits under this Indenture as was the original Bond in lieu of which such replacement Bond is issued. Each such replacement Bond shall be prepared in substantially the same manner as the original.

Notwithstanding the foregoing provisions of this Section, if the lost, stolen, destroyed, defaced or mutilated Bond has matured or been called for redemption and the date fixed for redemption thereof has arrived, at the option of the Authority, payment of the amount due thereon may be made without the issuance of any replacement Bond upon receipt of like evidence, indemnity, security and payment of expenses and the surrender for cancellation of the defaced or mutilated or partly destroyed Bond and upon such other conditions as the Trustee may prescribe.

Except as provided in this sentence and as permitted in the following paragraph, any replacement Bond shall be in the form of the Bond being replaced, and be dated the date of its issuance and bear such number as shall be assigned thereto by the Registrar and Paying Agent, with such subseries designation, if any, as may be deemed appropriate by the Registrar and Paying Agent. The Registrar and Paying Agent shall make an appropriate notation in the books of registry that a replacement Bond has been issued in exchange or substitution for the defaced, mutilated, lost, stolen, or wholly or partly destroyed Bond.

There may be imprinted or affixed on the face and the panel portion of any duplicate Bond a mark to identify such Bond as a replacement Bond.
Prior to arranging for the preparation or printing of a replacement Bond, the Trustee and the Registrar and Paying Agent may require a deposit by the Holder to secure the Trustee, the Registrar and Paying Agent and the Authority for costs and expenses incurred by them in the preparation, printing, execution and issuance of such replacement Bond.

Any amount of such deposit received by the Registrar and Paying Agent in excess of the amount required to reimburse the Registrar and Paying Agent, the Trustee or the Authority for costs and expenses shall be returned to the party which made the deposit.

Any defaced, mutilated or partly destroyed Bond surrendered to the Registrar and Paying Agent in substitution for a new Bond pursuant to this Section shall be cancelled by the Trustee

Section 7.05. Temporary Bonds. Pending the preparation of definitive Bonds, interim receipts or certificates (herein referred to as "temporary Bonds") may initially be issued, exchangeable for definitive Bonds when the latter are ready for delivery. Such temporary Bonds may be printed, lithographed or typewritten, shall be of such denomination or denominations as may be determined by the Authority and may contain such references to any of the provisions of this Indenture as may be appropriate. If temporary Bonds are issued, the Authority will cause to be furnished duly executed definitive Bonds without delay, and thereupon the temporary Bonds may be surrendered for cancellation at the principal office of the Trustee in exchange for definitive Bonds and without charge for such exchange, and the Registrar and Paying Agent shall deliver in exchange for such temporary Bonds so surrendered an equal aggregate principal amount of definitive duly executed Bonds, of authorized denominations. Until so exchanged, the temporary Bonds shall be entitled to the same benefits under this Indenture as definitive Bonds.

Nothing in this Indenture shall prevent the Authority from delivering, and the Authority is hereby expressly permitted to deliver, Auction Rate Bonds in typewritten form to the Securities Depository as registered owner thereof.

Section 7.06. Disposition of Bonds. Any Bond surrendered to the Registrar and Paying Agent for payment shall be cancelled upon such payment by the Trustee. The Trustee shall dispose of any cancelled Bond which has been paid and which bears any date two (2) years

## ARTICLE VIII

## ESTABLISHMENT OF THE PROJECT FUND

Section 8.01. Project Fund. 1. There is hereby created and established a special trust fund to be designated "Consolidated Edison Company of New York, Inc. Series 2004C Project Fund" (hereinafter referred to as the "Project Fund") to be held by the Trustee. All income or gain on moneys deposited in the Project Fund shall be retained therein.
2. There shall be deposited into the Project Fund the proceeds of the Bonds issued hereunder.
3. The moneys on deposit from time to time in the Project Fund shall be held under and subject to this Indenture, but shall not be subject to the liens, pledges, charges, assignments and trusts created hereby for the security and benefit of the Holders of the Bonds and shall not be available for the payment of Bonds within the meaning of the Indenture, and shall be used and applied solely for the purpose of refunding the Prior Bonds in accordance with the remaining provisions of this Section.
4. The Trustee is authorized and directed to make payments from the Project Fund to pay the redemption price of the Prior Bonds or costs incurred in connection therewith, upon receipt of a letter or letters signed by an Authorized Company Representative so directing.

## ARTICLE IX

## CREATION OF SPECIAL FUNDS AND ACCOUNTS; APPLICATION AND INVESTMENT OF REVENUES

Section 9.01. Creation of Funds and Accounts. (a) The following fund and the following accounts therein, which shall be a special fund and accounts to be held by the Trustee, are hereby created and designated as set forth below:

Bond Fund
(a) Interest Account
(b) Principal Account
(c) Redemption Account
(d) Acceleration Account

The designation of each fund and account set forth above shall include the term "Consolidated Edison Company of New York, Inc. Series 2004C," which term shall precede the designation as set forth above. Such fund and each such account is, however, sometimes referred to herein as set forth above.

Separate funds and accounts shall be maintained, pursuant to the provisions of this Article IX, for subseries of Bonds that bear interest at interest rate modes not covered by a Liquidity Facility.
(b) The Bond Fund and the accounts therein shall be held in the custody of the Trustee. All moneys required to be deposited with or paid to the Trustee under any provision of this Indenture shall be held by the Trustee in trust and applied only in accordance with the provisions of this Indenture and shall be trust funds for the purposes specified in this Indenture.

Section 9.02. Deposit of Note Payments. The Trustee shall deposit the Note Payments or other money set forth below in the Bond Fund and credit the Accounts set forth below in the order set forth below:

The Company shall pursuant to Sections $4.02,4.03$ and 4.04 of the Participation Agreement deposit, or cause to be deposited, the following in immediately available funds with the Trustee as the Note Payments become due or are declared to be immediately due and payable under the Participation Agreement and the Note unless sufficient amounts are then available in such Accounts to make the required payments therefrom:
(a) No later than 12:00 noon (New York City time) on the Business Day next preceding each Interest Payment Date, into the Bond Fund for credit to the Interest Account an aggregate amount of funds available on the next Business Day in The City of New York equal to the aggregate amount required for the payment of the interest payable on the Bonds, on such Interest Payment Date.

In the event a Direct-Pay Credit Facility is in place, amounts required to be deposited in the Bond Fund for credit to the Interest Account shall be derived solely from the following sources of funds in the priority indicated and shall be so deposited and credited to the Interest Account on the date indicated:
(I) First, on each Interest Payment Date, the proceeds of a draw, borrowing or payment under the Direct-Pay Credit Facility in respect of interest payable on such Interest Payment Date; and
(II) Second, on each Interest Payment Date, any other moneys provided by the Company pursuant to the preceding paragraph for such purpose.

The Trustee shall deposit the proceeds of a draw, borrowing or payment under a Direct-Pay Credit Facility in a segregated sub-account of the Interest Account in the Bond Fund and such proceeds shall not be commingled with moneys in any other Account or sub-account or derived from any other source.
(b) (i) During an Auction Rate Period, no later than 12:00 noon (New York City time) on the second Business Day next preceding each Auction Date, into the Bond Fund for credit to the Redemption Account an aggregate amount of funds available on the next Business Day in The City of New York equal to the aggregate amount required to pay the principal of and premium, if any, and accrued interest on any Auction Rate Bonds, called for redemption; provided, however if the scheduled date of such deposit to the Redemption Account by the Company is not a Business Day then the date for such deposit to the Redemption Account by the Company shall be the first Business Day immediately preceding the scheduled date of such deposit to the Redemption Account by the Company.
(ii) Other than during an Auction Rate Period, on the last Business Day prior to the day on which any redemption is to occur or on the last Business Day prior to the Stated Maturity, into the Bond Fund for credit to the Redemption Account or the Principal Account, as appropriate, the amount required to pay principal of and premium, if any, and accrued interest on any Bonds called for redemption or at the Stated Maturity, the amount required to pay the principal of the Bonds.

In the event a Direct-Pay Credit Facility is in place, amounts required to be deposited in the Bond Fund for credit to the Redemption Account or the Principal Account, as appropriate, shall be derived solely from the following sources of funds in the priority indicated and shall be so deposited and credited in the Redemption Account or the Principal Account, as appropriate, on the date indicated:
(I) First, on the date any redemption is scheduled to occur and on the Stated Maturity, the proceeds of a draw, borrowing or payment under the Direct-Pay Credit Facility in respect of the amounts described in the preceding paragraph; and
(II) Second, on the date any redemption is scheduled to occur and on the Stated Maturity, any other moneys provided by the Company pursuant to the preceding paragraph for such purpose.

The Trustee shall deposit the proceeds of a draw, borrowing or payment under a Direct-Pay Credit Facility in a segregated sub-account of the Redemption Account or Principal Account, as the case may be, in the Bond Fund and such proceeds shall not be commingled with moneys in any other Account or sub-account or derived from any other source.

If other moneys are received by the Trustee as advance payments of Note Payments to be applied to the redemption of all or a portion of the Bonds, such moneys shall be deposited in the Bond Fund for credit to the Redemption Account therein.
(c) Immediately following the declaration of principal of and accrued interest on the Bonds then Outstanding to be immediately due and payable pursuant to Section 12.03, into the Bond Fund for credit to the Acceleration Account, the amount required to pay principal of and accrued interest on such Bonds.

In the event a Direct-Pay Credit Facility is in place, amounts required to be deposited in the Bond Fund for credit to the Acceleration Account shall be derived solely from the following sources of funds in the priority indicated and shall immediately be so deposited and credited in the Acceleration Account:
(I) First, the proceeds of a draw, borrowing or payment under the Direct-Pay Credit Facility in respect of principal of and accrued interest on the Bonds; and
(II) Second, any other moneys provided by the Company pursuant to the preceding paragraph for such purpose.

The Trustee shall deposit the proceeds of a draw, borrowing or payment under a Direct-Pay Credit Facility in a segregated sub-account of the Acceleration Account in the Bond Fund and such proceeds shall not be commingled with moneys in any other Account or sub-account or derived from any other source.

Notwithstanding anything in this Section 9.02 to the contrary, the Trustee may not draw under a Direct-Pay Credit Facility to pay amounts due in respect of (i) Bonds held by the Support Facility Issuer, the Authority or the Company, or (ii) Bonds not covered by the Direct-Pay Credit Facility.

Section 9.03. Application of Moneys in the Bond Fund and the Bond Purchase Fund. 1. The Bond Fund shall be used for the purpose of making scheduled payments of principal of and interest on the Bonds, of making payments of principal of and premium, if any, and accrued interest on Bonds then subject to redemption in the manner herein provided and of making payments of principal of and accrued interest on the Bonds then Outstanding that have been declared to be immediately due and payable pursuant to Section 12.03. The moneys in the Bond Fund shall be applied as follows:
(a) Interest Account. Subject to the succeeding sentence, on each Interest Payment Date, the Trustee shall apply the amount of moneys then credited to the Interest Account equal to the interest then payable on the Bonds to the payment of such interest on such Interest Payment Date. In the event a Direct-Pay Credit Facility is in place, the Trustee shall request a draw, borrowing or payment under the Direct-Pay Credit Facility in accordance with the terms thereof in an amount equal to the amount required to pay the interest payable on the Outstanding Bonds on such Interest Payment Date and shall notify the Company of the amount and date of such request. If sufficient funds are not available under Section 9.02(a)(I) to pay such interest, the Trustee shall apply funds, if any, available pursuant to Section 9.02(a)(II), to the extent necessary, to such payment of interest. If the interest on the Bonds has been paid in full when due and all payments required under the Direct-Pay Credit Facility have been made, the Trustee shall apply remaining funds, if any, available pursuant to Section 9.02(a)(II) in an amount not to exceed the amount of the draw or borrowing under the Direct-Pay Credit Facility to reimburse the Credit Facility Issuer for such draw or borrowing after such draw or borrowing has been honored by the Credit Facility Issuer.
(b) Principal Account. Subject to the succeeding sentence, on the Stated Maturity, the Trustee shall apply the amount of moneys then credited to the Principal Account equal to the principal amount of Bonds then payable to the payment of such principal on such date. In the event a Direct-Pay Credit Facility is in place, the Trustee shall request a draw, borrowing or payment under the Direct-Pay Credit Facility in accordance with the terms thereof in the amount required, to pay such principal amount and shall notify the Company of the amount and date of such request. If sufficient funds are not available under Section 9.02(b)(I) to pay such principal, the Trustee shall apply funds, if any, available pursuant to Section 9.02(b)(II), to the extent necessary, to such payment. If the principal of the Bonds has been paid in full when due and all payments required under the Direct-Pay Credit Facility have been made, the Trustee shall apply remaining funds, if any, available pursuant to Section 9.02 (b)(II) in an amount not to exceed the amount of the draw or borrowing under the Direct-Pay Credit Facility to reimburse the Credit Facility Issuer for such draw or borrowing after such draw or borrowing has been honored by the Credit Facility Issuer.
(c) Redemption Account. The Trustee shall redeem on the date set for the redemption thereof, as provided in Article V of this Indenture, a principal amount of Bonds then subject to redemption. Subject to the following sentence, the Trustee shall apply an amount credited to the Redemption Account equal to the principal amount and premium, if any, of Bonds then subject to redemption, together with accrued interest thereon to the redemption date, to the payment of such Bonds on the redemption date from funds described in Section 9.02(b).

In the event a Direct-Pay Credit Facility is in place, the Trustee shall request a draw under the Direct-Pay Credit Facility in accordance with the terms thereof, in an amount equal to the amount required to pay the principal amount and premium, if any, of Bonds then to be redeemed, together with accrued interest thereon to the date set for redemption and shall notify the Company of the date and amount of such request. If sufficient amounts to make such payment are not available under Section 9.02(b)(I), the Trustee shall apply amounts, if any, available pursuant to Section 9.02 (b)(II), to the extent necessary, to such payment. Such redemption shall be made pursuant to the provisions of Article V. If the redemption price of the Bonds equal to the principal amount of Bonds then to be redeemed, together with premium, if
any, and accrued interest thereon has been paid in full on the redemption date and all payments required under the Direct-Pay Credit Facility have been made, the Trustee shall apply remaining funds, if any, available pursuant to Section 9.02(b)(II) in an amount not to exceed the amount of the draw or borrowing under the Direct-Pay Credit Facility to reimburse the Credit Facility Issuer for such draw or borrowing after such draw or borrowing has been honored by the Credit Facility Issuer.

Upon the retirement of any portion of the Bonds by redemption pursuant to the provisions of this Section 9.03, the Trustee shall file with the Authority and the Company a statement stating the amounts of the Bonds so redeemed and setting forth the date of their redemption and the amount paid as principal, premium and interest thereon. The expenses in connection with the redemption of the Bonds shall be paid by the Company as Additional Payments.

All moneys in the Redemption Account on the last Business Day prior to the Stated Maturity shall be transferred to the Principal Account.
(d) Acceleration Account. The Trustee shall immediately apply an amount credited to the Acceleration Account equal to the principal amount of and accrued interest on the Bonds then Outstanding that have been declared to be immediately due and payable pursuant to Section 12.03 from funds described in Section 9.02(c).

In the event a Direct-Pay Credit Facility is in place, the Trustee shall request a draw under the Direct-Pay Credit Facility in accordance with the terms thereof, in an amount equal to the amount required to pay the principal amount of and accrued interest of the Bonds then Outstanding that have been declared to be immediately due and payable pursuant to Section 12.03 and shall notify the Company of the date and amount of such request. If sufficient amounts to make such payment are not available under Section 9.02(c)(I), the Trustee shall apply amounts, if any, available pursuant to Section 9.02(c)(II), to the extent necessary, to such payment. If the principal of and interest on the Bonds has been paid in full after such Bonds have been declared to be immediately due and payable and all payments required under the Direct-Pay Credit Facility have been made, the Trustee shall apply remaining funds, if any, available pursuant to Section 9.02(c)(II) in an amount not to exceed the amount of the draw or borrowing under the Direct-Pay Credit Facility to reimburse the Credit Facility Issuer for such draw or borrowing after such draw or borrowing has been honored by the Credit Facility Issuer.
2. Bond Purchase Fund. Pursuant to Section 4.02(d) of the Participation Agreement, the Company has agreed that the Company shall, to the extent not paid from a draw or payment under a Liquidity Facility, provide funds to the Trustee for payment to, or provide funds directly to, the Registrar and Paying Agent for deposit in the Bond Purchase Fund and credit to the Company Account therein established under the Bond Purchase Trust Agreement to be applied to the payment of the Purchase Price of any Bond pursuant to the Bond Purchase Trust Agreement to the extent not otherwise provided from the sources described in the Bond Purchase Trust Agreement.

In the event sufficient funds are not available under Section 2.03(a)(i) of the Bond Purchase Trust Agreement to pay such Purchase Price on the date of purchase of any Bonds
pursuant to Section 5.03, 5.04, 5.08 or 5.09 hereof, the Registrar and Paying Agent on or prior to the time specified in the Bond Purchase Trust Agreement shall direct the Trustee to request a draw or payment under the Liquidity Facility in accordance with the terms thereof in the amount required, together with amounts, if any, available under Section 2.03(a)(i) of the Bond Purchase Trust Agreement, to pay the Purchase Price of such Bonds on such date of purchase. The Trustee shall on or prior to the time specified in the Bond Purchase Trust Agreement request such draw or payment under the Liquidity Facility in accordance with the terms thereof and shall on or prior to the time specified in the Bond Purchase Trust Agreement transfer the proceeds of such draw or payment to the Registrar and Paying Agent, who shall cause the proceeds of such draw or payment to be deposited in the Bond Purchase Fund under the Bond Purchase Trust Agreement and credited to the Liquidity Facility Proceeds Account therein. The Registrar and Paying Agent shall notify the Company of the amount and date of such request. The Registrar and Paying Agent shall promptly notify the Company in the event that it has not received any amounts requested under a Support Facility prior to the time specified in the Bond Purchase Trust Agreement on any date a Purchase Price is due.

The Remarketing Agent for a subseries of Bonds shall notify the Registrar and Paying Agent and the Trustee, at or prior to 11:00 a.m. (New York City time) on a specified purchase date, of the amount of the proceeds of the related remarketing, and shall specify whether remarketing proceeds (excluding any such proceeds from the Company, the Authority or an affiliate of either) equal to the full amount of the Purchase Price payable on such purchase date are held by such Remarketing Agent and will be available on such purchase date for the payment of such Purchase Price, and, if the amount of such remarketing proceeds that will be available on such purchase date for the payment of such Purchase Price shall not be equal to the full amount of the Purchase Price payable on such purchase date, such notice shall specify the amount of the deficiency. By 11:30 a.m. (New York City time) on such purchase date, the Remarketing Agent shall pay to the Registrar and Paying Agent, for deposit in the Bond Purchase Fund and credit to the Remarketing Proceeds Account, an aggregate amount of such remarketing proceeds equal to the amount stated in such notice to be available on such purchase date for the payment of such Purchase Price.

Notwithstanding anything in this Section 9.03 to the contrary, the Trustee may not draw under a Direct-Pay Credit Facility to pay amounts due in respect of (i) Bonds held by the Support Facility Issuer, the Authority or the Company, or (ii) Bonds not covered by the Direct-Pay Credit Facility.

Section 9.04. Investment of Funds. Moneys in the Bond Fund and the accounts in such fund shall be invested and reinvested by the Trustee, at the written direction of the Company, so long as the Company is not in default hereunder or under the Participation Agreement, to the extent reasonable and practicable in Investment Securities selected by the Company and maturing in the amounts and at the times as determined by the Company so that the payments required to be made from such funds and accounts may be made when due and subsequent to the occurrence of an Event of Default hereunder or under the Participation Agreement, the Trustee shall hold moneys in the Bond Fund uninvested. Investment earnings shall be considered on deposit in any Fund or Account as of the date they are actually received by the Trustee. Notwithstanding the foregoing, so long as a Direct-Pay Credit Facility is in effect, moneys in the Bond Fund, except for proceeds of refunding bonds, shall be held uninvested.

Moneys on deposit in the Project Fund shall be invested and reinvested by the Trustee at the express direction of the Company, promptly confirmed in writing (which may be provided by telecopy), so long as the Company is not in default under the Participation Agreement, to the extent reasonable and practicable, in Investment Securities maturing in such amounts and at such times as it is anticipated by the Company that such moneys will be required to pay the redemption price of the Prior Bonds.

The Trustee, with the consent of the Company, shall be authorized to sell any investment when necessary to make the payments to be made from the funds and accounts therein. All earnings on and income from moneys in said funds and accounts (other than the Project Fund) created hereby shall be considered to be Revenues and shall be held in the respective account in the Bond Fund for use and application as are all other moneys deposited in such accounts. The Trustee shall, in the statement required by Section 11.07, set forth the Investment Securities held separately in, and the earnings realized on investment for, each fund and account hereunder. The Trustee shall not be liable for any depreciation in the value of the Investment Securities acquired hereunder or any loss suffered in connection with any investment of funds made by it in accordance herewith, including, without limitation, any loss suffered in connection with the sale of any investment pursuant hereto.

The Trustee may make any such investments through its own investment department upon written direction of the Company.
All Investment Securities shall constitute a part of the respective fund and accounts therein from which the investment in Investment Securities was made.

## ARTICLE X

## PARTICULAR COVENANTS OF THE AUTHORITY

Section 10.01. Payment of Principal of and Interest and Redemption Premium on Bonds. The Authority will promptly pay solely from the Note Payments and other moneys held by the Trustee and available therefor, the principal of, and the interest on, every Bond issued under and secured by the Indenture and any premium required to be paid for the retirement of said Bonds by redemption, at the places, on the dates and in the manner specified in this Indenture and in said Bonds according to the true intent and meaning thereof, subject, however, to the provisions of Section 2.02.3.

Section 10.02. Performance of Covenants. The Authority will faithfully perform at all times all covenants, undertakings, stipulations and provisions contained in the Indenture, in any and every Bond and in all proceedings of the Authority pertaining thereto.

Section 10.03. Further Instruments. The Authority will from time to time execute and deliver such further instruments and take such further action as may be reasonable and as may be required to carry out the purpose of the Indenture; provided, however, that no such instruments or actions shall pledge the credit of the Authority or the State of New York or the taxing power of the State of New York or otherwise be inconsistent with the provisions of Section 2.02.3.

Section 10.04. Inspection of Project Books. All books and documents in the possession of the Authority relating to the Project or the Participation Agreement shall at all times be open to inspection by such accountants or other agents as the Trustee may from time to time designate.

Section 10.05. No Extension of Time of Payment of Interest. In order to prevent any accumulation of claims for interest after maturity, the Authority will not directly or indirectly extend or assent to the extension of the time of payment of any claims for interest on, any of the Bonds and will not directly or indirectly be a party to or approve any such arrangement by purchasing such claims for interest or in any other manner. In case any such claim for interest shall be extended in violation hereof, such claim for interest shall not be entitled, in case of any default hereunder, to the benefit or security of the Indenture except subject to the prior payment in full of the principal of, and premium, if any, on, all Bonds issued and outstanding hereunder, and of all claims for interest which shall not have been so extended or funded.

Section 10.06. Trustee's, Auction Agent's, Remarketing Agent's, Broker-Dealers' Registrar and Paying Agent's and Indexing Agent's Fees, Charges and Expenses. Pursuant to the provisions of Section 4.02 of the Participation Agreement, the Company has agreed to pay the fees and the expenses (including, in the case of the Trustee, the Registrar and Paying Agent and the Remarketing Agents, the reasonable fees and expenses of counsel and accountants) of the Trustee, the Registrar and Paying Agent, Indexing Agent, Remarketing Agents and in the case of Auction Rate Bonds, the Auction Agent and Broker-Dealers, in the amounts set forth more fully therein, and the Authority shall have no liability for the payment of any fees or expenses of the Trustee, the Registrar and Paying Agent, Indexing Agent, Remarketing Agents and in the case of Auction Rate Bonds, the Auction Agent and Broker-Dealers.

Section 10.07. Agreement of the State of New York. In accordance with the provisions of subdivision 11 of Section 1860 of the Act, the Authority, on behalf of the State of New York, does hereby pledge to and agree with the Bondholders that the State of New York will not limit or alter the rights and powers vested by the Act in the Authority to fulfill the terms of any contract made with Bondholders, or in any way impair the rights and remedies of such Bondholders, until the Bonds, together with the premium and interest thereon, with (to the extent permitted by law) interest on any unpaid installments of interest, and all costs and expenses in connection with any action or proceeding by or on behalf of such Bondholders, are fully met and discharged.

Section 10.08. Recording and Filing. Pursuant to the Participation Agreement, the Company covenants that it will cause all financing statements related to this Indenture and all supplements thereto and the Participation Agreement and all supplements thereto, as well as such other security agreements, financing statements and all supplements thereto and other instruments as may be required from time to time to be kept, to be recorded and filed in such manner and in such places as may from time to time be required by law in order to preserve and protect fully the security of Holders and the rights of the Trustee hereunder, and to take or cause to be taken any and all other action necessary to perfect the security interest created by this Indenture. The Company is obligated under Section 5.08 of the Participation Agreement to file all such financing statements and other security agreements. The Trustee is hereby authorized to file all financing statements in the event that the Company does not file them.

Section 10.09. Rights Under the Participation Agreement and the Note. The Participation Agreement, a duly executed counterpart of which has been filed with the Trustee, sets forth the covenants and obligations of the Authority and the Company and reference is hereby made to the same for a detailed statement of said covenants and obligations of the Company thereunder. Subsequent to the issuance of Bonds and prior to their payment in full or provision for payment thereof in accordance with the provisions hereof, neither the Participation Agreement nor the Note may be effectively amended, changed, modified, altered or terminated except in accordance with the provisions of Article XIV hereof. The Authority agrees that the Trustee, in its name or in the name of the Authority, may enforce all rights of the Authority and all obligations of the Company under and pursuant to the Participation Agreement and the Note for and on behalf of the Holders, whether or not the Authority is in default hereunder. The Note heretofore delivered to the Trustee evidences the obligations of the Company to make certain specified payments under the Participation Agreement. Nothing herein contained shall be construed to prevent the Authority from enforcing directly any or all of its rights to administrative compensation or indemnification under the Participation Agreement.

## ARTICLE XI

## CONCERNING THE TRUSTEE; APPOINTMENT OF REGISTRAR AND PAYING AGENT, REMARKETING AGENT, AUCTION AGENT AND INDEXING AGENT

Section 11.01. Appointment of Trustee. The Bank of New York is hereby appointed the Trustee hereunder and by the execution of this Indenture accepts such appointment and without further act, deed or conveyance, shall be fully vested with all the estate, properties, rights, powers, trusts, duties and obligations of the Trustee hereunder.

The Trustee shall set up suitable accounts for the deposit of the Note Payments and for the payment of the Bonds and the interest thereon and for all other payments provided or required by this Indenture, including, without limiting the generality of any of the foregoing, setting up of the Funds created by Articles VIII and IX.

Section 11.02. Indemnification of Trustee as Condition for Remedial Action. The Trustee shall be under no obligation to institute any suit, or to take any remedial proceeding under this Indenture, or to enter any appearance or in any way defend in any suit in which it may be made defendant, or to take any steps in the execution of the trusts hereby created or in the enforcement of any rights and powers hereunder, until it shall be indemnified to its satisfaction against any and all costs and expenses, outlays and counsel fees and other reasonable disbursements, and against all liability; the Trustee may, nevertheless, begin suit, or appear in and defend suit, or do anything else in its judgment proper to be done by it as such Trustee, without indemnity, and in such case the Trustee shall be reimbursed from the Additional Payments required to be made pursuant to the Participation Agreement for all costs and expenses, outlays and counsel fees and other reasonable disbursements incurred in connection therewith. If the Company shall fail to make such reimbursement, the Trustee may reimburse itself from any moneys in its possession under the provisions of this Indenture and shall be entitled to a preference over the Bonds; provided, however, that the proceeds of a Support Facility or of remarketing of Bonds shall be applied solely as set forth elsewhere herein and in such Support Facility and shall not be applied to the reimbursement set forth in this Section 11.02. Notwithstanding the foregoing, the Trustee shall make all payments of principal of and premium, if any, and interest on the Bonds then Outstanding when due, when called for redemption or when declared to be immediately due and payable pursuant to this Indenture and of the Purchase Price of the Bonds in accordance with this Indenture.

Section 11.03. Trustee Not Liable for Failure of the Authority or Company to Act. The Trustee shall not be liable or responsible because of the failure of the Authority or the Company or any of their employees or agents to make any collections or deposits or to perform any act herein required of the Authority or the Company. The Trustee shall not be responsible for the application of any of the proceeds of the Bonds or any other moneys deposited with it and paid out, withdrawn or transferred hereunder if such application, payment, withdrawal or transfer shall be made in accordance with the provisions of this Indenture. The immunities and exemptions from liability of the Trustee hereunder shall extend to its directors, officers, employees and agents.

Section 11.04. Certain Duties and Responsibilities of the Trustee. (a) Except during the continuance of an Event of Default specified in Section 12.01 of which the Trustee has been notified or is deemed to have notice as provided in Section 11.08,
(1) the Trustee shall undertake to perform such duties and only such duties as are specifically set forth in this Indenture, and no implied covenants or obligations shall be read into this Indenture against the Trustee; and
(2) in the absence of bad faith on its part, the Trustee may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon certificates or opinions furnished to the Trustee and conforming to the requirements of this Indenture; but in the case of any such certificates or opinions which by any provision hereof are specifically required to be furnished to the Trustee, the Trustee shall be under a duty to examine the same to determine whether or not they conform to the requirements of this Indenture (but need not confirm or investigate the accuracy of mathematical calculations or other facts stated therein).
(b) In case an Event of Default specified in Section 12.01 has occurred and is continuing of which the Trustee has been notified or is deemed to have notice as provided in Section 11.08, the Trustee shall exercise such of the rights and powers vested in it by this Indenture, and use the same degree of care and skill in such exercise, as a prudent person would exercise or use under the circumstances in the conduct of his or her own affairs.
(c) None of the provisions of this Indenture shall be construed to relieve the Trustee from liability for negligent action, negligent failure to act, or willful misconduct, except that
(1) this subsection (c) shall not be construed to limit the effect of subsection (a) of this Section;
(2) the Trustee shall not be liable for any error of judgment made in good faith by any one of its officers, unless it shall be proved that the Trustee was negligent;
(3) in the absence of bad faith on its part, the Trustee shall be protected and shall incur no liability in acting or proceeding or in not acting or not proceeding upon any resolution, order, notice, telegram, request, consent, waiver, certificate, statement, affidavit, voucher requisition, bond or other paper or document which the Trustee shall believe to be genuine and to have been adopted or signed by the proper board or person or to have been prepared and furnished pursuant to any of the provisions of this Indenture, or upon the written opinion of any attorney, engineer, accountant or other expert believed by the Trustee to be qualified in relation to the subject matter, and the Trustee shall be under no duty to make any investigation or inquiry as to any statements contained or matters referred to in any such instrument but may accept and rely upon the same as conclusive evidence of the truth and accuracy of such statements;
(4) the Trustee shall not be liable with respect to any action taken or omitted to be taken by it in good faith in accordance with the direction of the Holders of not less
than a majority in aggregate principal amount of the Outstanding Bonds relating to the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred upon the Trustee, under the provisions of this Indenture; and
(5) no provision of this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur any financial liability in the performance of its duties hereunder, or in the exercise of any of its rights or powers, if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it.
(d) Notwithstanding anything contained elsewhere in this Indenture, the Trustee shall have the right to reasonably require, in respect of the payment or withdrawal of any moneys or the taking of any action whatsoever within the purview of this Indenture, any showings, certificates, opinions, appraisals or other information, or corporate action or evidence thereof, in addition to that required by the terms hereof as a condition of such action by the Trustee.
(e) The Trustee may execute any of the trusts or powers hereof and perform any of its duties by or through attorneys, agents or receivers, and shall not be responsible for any negligence or misconduct on the part of any such attorney, agent or receiver appointed by it if the Trustee shall have exercised due care and diligence in appointing or selecting such person, and shall be entitled to the advice of counsel of its selection concerning all matters of the trusts hereof and the duties hereunder, and may in all cases pay such reasonable compensation to all such attorneys, agents and receivers as may reasonably be employed in connection with the trusts hereof. The Trustee may act upon the opinion or advice of any attorney or attorneys (who may be the attorney or attorneys for the Authority or the Company), approved by the Trustee in the exercise of reasonable care, and the Trustee shall not be responsible for any loss or damage resulting from any action or nonaction in good faith in reliance upon such opinion or advice.
(f) Whenever in the administration of this Indenture the Trustee shall deem it desirable that a matter be proved or established prior to taking, suffering or omitting any action hereunder, the Trustee (unless other evidence be herein specifically prescribed) may, in the absence of bad faith on its part, conclusively rely upon a certificate of an Authorized Company Representative or an Authorized Officer.
(g) The Trustee shall not be accountable for the use by the Company of any proceeds of the Bonds authenticated or delivered hereunder.
(h) The Trustee shall not be required to give any bonds or surety in respect of the execution of its trusts and powers hereunder.
(i) The Trustee may treat and deem the Holder of any Bonds as set forth in the books of the registry hereunder as the absolute owner thereof
(j) Notwithstanding any other provision of this Indenture, in determining whether the rights of the Holders will be adversely affected by any action taken pursuant to the terms and provisions of this Indenture, the Trustee shall consider the effect on the Holders as if there were no Credit Facilities.

Section 11.05. Limitations on Obligations and Responsibilities of Trustee. The Trustee shall be under no obligation to effect or maintain insurance or to renew any policies of insurance or to inquire as to the sufficiency of any policies of insurance carried by the Company, or to report, or make or file claims or proof of loss for, any loss or damage insured against or which may occur, or to keep itself informed or advised as to the payment of any taxes or assessments, or to require any such payment to be made. The Trustee, except as to the acceptance of the trusts by its execution of this Indenture and the performance of its responsibilities hereunder, shall have no responsibility in respect of the validity, sufficiency, due execution or acknowledgment of this Indenture, or in respect of the validity of the Bonds or the due execution or issuance thereof. The Trustee shall be under no obligation to see that any duties herein or in the Participation Agreement, the Remarketing Agreement, the Auction Agency Agreement, the Broker-Dealer Agreement or any Support Facility imposed upon the Authority, the Company, the issuer of any Support Facility, or any party other than itself in its capacity as Trustee, or any covenants herein contained on the part of any party other than itself in its capacity as Trustee to be performed, shall be done or performed, and the Trustee shall be under no obligation for failure to see that any such duties or covenants are so done or performed.

Section 11.06. Compensation and Indemnification of Trustee. The Company has agreed in the Participation Agreement (1) to pay to the Trustee from time to time such compensation for all services rendered by it hereunder or shall from time to time be agreed in writing (which compensation shall not be limited by any provision of law in regard to the compensation of a trustee of an express trust); (2) except as otherwise expressly provided herein, to reimburse the Trustee upon its request for all reasonable expenses, disbursements and advances incurred or made by the Trustee in accordance with any provision of this Indenture (including the reasonable compensation and the expenses and disbursements of its agents and counsel), except any such expense, disbursement or advance as may be attributable to its negligence or bad faith; and (3) to indemnify the Trustee for, and to hold it harmless against, any loss, liability or expense incurred without negligence or bad faith on its part, arising out of or in connection with the acceptance or administration of this trust, including the costs and expenses of defending itself against any claim or liability in connection with the exercise or performance of any of its powers or duties hereunder.

Section 11.07. Statements from Trustee. It shall be the duty of the Trustee, on or about the fifteenth (15th) day of each month, and at such other reasonable time or times as may be determined by the Authority or the Company, to file with the Authority, upon the written request thereof, and the Company a statement setting forth in respect of the preceding calendar month:
(a) the amount withdrawn or transferred by it and the amount received by it and held on account of each Fund under the provisions of this Indenture;
(b) the amount on deposit with it at the end of such calendar month to the credit of each such Fund or Account;
(c) a monthly account of reconciliation and income which includes a brief description of all obligations held by it as an investment of moneys in each such Fund or Account;
(d) the amount applied to the redemption of the Bonds under the provisions of Article V and Section 9.03 and the amount of the Bonds remaining Outstanding; and
(e) any other information which the Authority or the Company may reasonably request.

All records and files pertaining to the Bonds and the Company in the custody of the Trustee shall be open at all reasonable times upon prior notice to the inspection of the Authority, the Company and their agents and representatives.

Section 11.08. Notice of Default. Except upon the happening of any Event of Default specified in clauses (a) through (d), inclusive, of Section 12.01 , the Trustee shall not be obliged to take notice or be deemed to have notice of any Event of Default hereunder, unless a Responsible Officer of the Trustee shall have actual knowledge thereof or be specifically notified in writing of such Event of Default by the issuer of any Support Facility, any Remarketing Agent, the Auction Agent or the Holders of not less than twenty-five percent (25\%) in aggregate principal amount of the Bonds Outstanding and such written notice shall state that it is a "notice of default."

Section 11.09. Trustee May Deal in Bonds. The bank or trust company acting as Trustee under this Indenture, and its directors, officers, employees or agents, may in good faith buy, sell, own, hold and deal in the Bonds issued under and secured by this Indenture, and may join in the capacity of a Holder of a Bond in any action which any Holder of a Bond may be entitled to take with like effect as if such bank or trust company were not the Trustee under this Indenture.

Section 11.10. Trustee Not Responsible For Recitals. The recitals, statements and representations contained herein and in the Bonds shall be taken and construed as made by and on the part of the Authority, and not by the Trustee, and the Trustee assumes, and shall be under, no responsibility for the correctness of the same or for the recording or re-recording or filing or refiling of the Indenture or any supplements thereto or any instruments of further assurance (including financing statements) except as otherwise provided herein. The Trustee makes no representations as to the value of any property pledged hereunder to the payment of Bonds or as to the title of the Authority or the Company thereto or as to the validity, sufficiency or adequacy of the security afforded thereby or hereby or as to the validity of this Indenture, the Note, the Participation Agreement, any Support Facility or of the Bonds.

Section 11.11. Qualification of the Trustee. There shall at all times be a Trustee hereunder which shall be a trust company or bank in good standing located in or incorporated under the laws of the State of New York, duly authorized to exercise trust powers and subject to examination by Federal or State authority, and having reported capital and surplus of not less than $\$ 75,000,000$. The Trustee hereunder shall not be required to maintain, and any successor Trustee shall not be required to have, an office in the city in which the principal corporate trust office of the initial Trustee hereunder is located.

If at any time the Trustee shall cease to be eligible in accordance with the provisions of this Section 11.11, it shall resign immediately in the manner and with the effect specified in Section 11.12.

Section 11.12. Resignation and Removal of Trustee. (a) No resignation or removal of the Trustee and no appointment of a successor Trustee pursuant to this Article shall become effective until the acceptance of appointment by the successor Trustee under Section 11.13.
(b) The Trustee may resign at any time by giving written notice thereof to the Authority, any Credit Facility Issuer and the Company. If an instrument of acceptance by a successor Trustee shall not have been delivered to the Trustee within thirty (30) days after the giving of such notice of resignation, the retiring Trustee, at the expense of the Company, may petition any court of competent jurisdiction for the appointment of a successor Trustee.
(c) The Trustee may be removed at any time by demand of the Holders of a majority in principal amount of the Bonds then Outstanding, signed in person by such Holders or by their attorneys, legal representatives or agents and delivered to such Trustee, the Authority and the Company (such demand to be effective only when received by the Trustee, the Authority and the Company).
(d) If at any time:
(1) the Trustee shall cease to be eligible under Section 11.11 and shall fail to resign after written request by the Authority or by a Holder who shall have been a bona fide Holder for at least six months,
(2) the Trustee shall become incapable of acting or shall be adjudged a bankrupt or insolvent or a receiver of the Trustee or of its property shall be appointed, or any public officer shall take charge or control of the Trustee or of its property or affairs for the purpose of rehabilitation, conservation or liquidation, or
(3) the Trustee shall breach any trust or obligation hereunder,
then, in any such case, (i) the Authority may remove, and the Company may, so long as no Event of Default shall have occurred and be continuing, direct the Authority to remove, the Trustee, or (ii) any Holder who has been a bona fide Holder for at least six months may, on behalf of herself and all other similarly situated, petition any court of competent jurisdiction for the removal of the Trustee and the appointment of a successor.
(e) If the Trustee shall resign, be removed or become incapable of acting, or if a vacancy shall occur in the office of the Trustee for any cause, the Authority shall promptly appoint a successor; the Company or the issuer of any Support Facility or both of them, having the right to request the appointment of a particular qualified institution as such successor. Within one year after such resignation, removal or incapability, or the occurrence of such vacancy, a
successor Trustee may be appointed by an instrument or concurrent instruments in writing executed by the Holders of a majority in principal amount of the Bonds then Outstanding delivered to the Authority and the retiring Trustee, and, upon such delivery, the successor Trustee so appointed shall, forthwith upon its acceptance of such appointment, become the successor Trustee and supersede the successor Trustee appointed by the Authority.
(f) The Authority shall give notice to the Trustee, the Company, the applicable Remarketing Agents, the Registrar and Paying Agent, the Auction Agent and the Bondholders of each resignation and each removal of a Trustee and each appointment of a successor Trustee in the manner set forth in Section 17.03 with respect to Bondholders and Section 17.09 with respect to the Company, the Auction Agent and the applicable Remarketing Agents. Each notice shall include the name and address of the Principal Corporate Trust Office of the successor Trustee.
(g) The Trustee at any time other than during the continuance of an Event of Default and for any reason may be removed by an instrument in writing, executed by an Authorized Officer, appointing a successor, filed with the Trustee so removed.

Section 11.13. Successor Trustee. Every successor Trustee appointed hereunder shall execute, acknowledge and deliver to its predecessor, and also to the Authority and the Company, an instrument in writing accepting such appointment hereunder, and thereupon such successor Trustee, without any further act, shall become fully vested with all the rights, immunities, powers and trusts and subject to all the duties and obligations, of its predecessor; but such predecessor shall, nevertheless, on written request of its successor or of the Authority and upon payment of expenses, charges and other disbursements of such predecessor which are payable pursuant to the provisions of Sections 11.02 and 11.06, execute and deliver an instrument transferring to such successor Trustee all the rights, immunities, powers and trusts of such predecessor hereunder; and every predecessor Trustee shall deliver all property and moneys held by it hereunder to its successor, subject, nevertheless, to its first lien and preference provided for in Sections 11.02 and 11.06 . Should any instrument in writing from the Authority be required by any successor Trustee for more fully vesting in such Trustee the rights, immunities, powers and trusts hereby vested or intended to be vested in the predecessor Trustee, any such instrument in writing shall and will, on request, be executed, acknowledged and delivered by the Authority.

Every successor Trustee appointed pursuant to this Section shall be a trust company or bank in good standing located in or incorporated under the laws of the State of New York, duly authorized to exercise trust powers and subject to examination by Federal or State authority, having a reported capital and surplus of not less than $\$ 75,000,000$.

Notwithstanding any of the foregoing provisions of this Article, any bank or trust company having power to perform the duties and execute the trusts of this Indenture and otherwise qualified to act as Trustee hereunder with or into which the bank or trust company acting as Trustee may be converted, merged or consolidated, or to which the corporate trust business assets as a whole or substantially as a whole of such bank or trust company may be sold, shall be deemed the successor of the Trustee.

Section 11.14. Appointment of Remarketing Agents. Citigroup Global Markets Inc., Morgan Stanley \& Co. Incorporated and J.P. Morgan Securities Inc. are hereby appointed by the Authority as the initial Remarketing Agents to serve as such under the terms and provisions hereof and of the Remarketing Agreement for the Series 2004C-1 Bonds, the Series 2004C-2 Bonds and the Series 2004C-3 Bonds, respectively. The Remarketing Agent for any subseries, including any successor appointed pursuant hereto, shall be a member of the National Association of Securities Dealers, Inc. having capitalization of at least $\$ 25,000,000$, and be authorized by law to perform all the duties imposed upon it by this Indenture, the Bond Purchase Trust Agreement and the Remarketing Agreement. The Remarketing Agent for any subseries of Bonds may be removed at any time by the Authority, upon thirty (30) days' notice, acting at the written direction of the Company by an instrument signed by the Authority and filed with the Trustee, the Registrar and Paying Agent, the Remarketing Agent and the Company. If there shall not be at least one Remarketing Agent serving as such for any subseries of Bonds following the effective date of a proposed removal of a Remarketing Agent for such subseries, no such removal shall take effect until the appointment of a successor Remarketing Agent for such subseries of Bonds. The Remarketing Agent for any subseries of Bonds may resign upon thirty (30) days written notice delivered to the Company, the Authority, the Trustee, the Registrar and Paying Agent and the issuer of any Support Facility. The Company shall use its best efforts to cause the Authority to appoint a successor Remarketing Agent that is a qualified institution, effective as of the effectiveness of any such resignation or removal. Each successor Remarketing Agent shall be a qualified institution selected and appointed by the Authority, upon the written request and with the approval of the Company. If there shall be more than one Remarketing Agent serving as such for a subseries of Bonds, the Authority, at the request of the Company, shall designate one such Remarketing Agent as "Remarketing Representative" to act on behalf of all Remarketing Agents for such subseries, and each other Remarketing Agent shall agree in writing to accept the determinations of such Remarketing Representative.

Section 11.15. Appointment of Registrar and Paying Agent. The Bank of New York in New York, New York is hereby appointed by the Authority to serve as the Registrar and Paying Agent hereunder. The Company shall have the right to request the appointment of an institution meeting the requirements of Section 11.19 to serve as successor thereto in the event of the removal or resignation of such Registrar and Paying Agent.

The Trustee hereby appoints any Registrar and Paying Agent appointed hereunder as authenticating agent.

## Section 11.16. General Provisions Regarding Registrar and Paying Agent.

(a) The Registrar and Paying Agent shall:
(i) hold all Bonds delivered to it for purchase hereunder in trust for the benefit of the respective Bondholders which shall have so delivered such Bonds until moneys representing the purchase price of such Bonds shall have been delivered to or for the account of or to the order of such Holders and deliver said Bonds in accordance with the provisions of this Indenture;
(ii) hold all moneys delivered to it for the purchase of Bonds, in trust for the benefit of the person or entity who has delivered such moneys until the Bonds purchased with such moneys have been delivered to or for the account of such person or entity as provided in this Indenture;
(iii) maintain the books of registry and keep such books and records as shall be consistent with prudent industry practice and make such books and records available for inspection by the Trustee, the Remarketing Agent, the Authority and the Company at all reasonable times;
(iv) perform the duties and undertake the obligations assigned to them in Sections 7.02 through 7.06;
(b) The Registrar and Paying Agent may deem and treat the Holder of any Bonds as set forth in the books of registry hereunder as the absolute owner thereof;
(c) The Registrar and Paying Agent may in good faith hold any other form of indebtedness issued by the Authority or any security issued by the Company, or any affiliate of the Company; own, accept or negotiate any drafts, bills of exchange, acceptances or obligations thereof; and make disbursements therefor and enter into any commercial or business arrangement therewith; all without any liability on the part of such Registrar and Paying Agent for any real or apparent conflict of interest by reason of any such actions; and
(d) The Registrar and Paying Agent agrees to cooperate with the Trustee and the Company in preparing and conveying information necessary for drawings under any Support Facility. To the extent that any other certificate to be submitted by the Trustee to an issuer of a Support Facility in connection with a drawing under the Support Facility requires the Trustee to state that the Registrar and Paying Agent has certified certain information to the Trustee, the Registrar and Paying Agent agrees to provide such certification to the Trustee to the extent such information is known to it.

Section 11.17. Payment of Registrar and Paying Agent; Indemnification. The Authority will cause the Company to agree in the Participation Agreement to pay all reasonable fees, charges and expenses of the Registrar and Paying Agent for acting under and pursuant to this Indenture. In addition, the Authority will cause the Company to agree in the Participation Agreement to indemnify the Registrar and Paying Agent and its directors, officers and employees against and save them harmless from any and all losses, costs, charges, expenses, judgments and liabilities incurred while carrying out the transactions contemplated by this Indenture, except that said indemnity does not apply to the extent that they are caused by the negligent action, negligent failure to act or willful misconduct of the Registrar and Paying Agent or its directors, officers, employees or agents.

Section 11.18. Registrar and Paying Agent's Performance; Duty of Care. The duties and obligations of the Registrar and Paying Agent shall be determined solely by the provisions of this Indenture. None of the provisions of this Indenture shall be construed to relieve the Registrar and Paying Agent from liability for negligent action, negligent failure to act or willful misconduct, except that (a) the Registrar and Paying Agent shall not be liable except
for the performance of such duties and obligations as are specifically set forth in this Indenture, and, in the absence of bad faith on the part of the Registrar and Paying Agent, the Registrar and Paying Agent may conclusively rely, as to the truth of the statements expressed therein, upon any document furnished to the Registrar and Paying Agent and conforming to the requirements of this Indenture and the Registrar and Paying Agent may conclusively rely and shall be protected in acting upon any document believed by it to be genuine and to have been signed or presented by the proper party or parties, provided that, in the case of any such document which by any provision of this Indenture is specifically required to be furnished to the Registrar and Paying Agent, the Registrar and Paying Agent shall be under a duty to examine the same to determine whether or not it conforms to the requirements of this Indenture, and (b) no provisions of this Indenture shall require the Registrar and Paying Agent to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder. The Registrar and Paying Agent may act upon the opinion or advice of any attorney or attorneys (who may be the attorney or attorneys for the Authority or the Company), approved by the Trustee in the exercise of reasonable care, and the Registrar and Paying Agent shall not be responsible for any loss or damage resulting from any action or nonaction in good faith in reliance upon such opinion or advice.

Section 11.19. Qualifications of Registrar and Paying Agent. The Registrar and Paying Agent, including any successor appointed pursuant to this Indenture, shall be a bank with trust powers and a corporation duly organized under the laws of the United States of America or any state or territory thereof, having a combined capital and unimpaired surplus of at least $\$ 50,000,000$ and authorized by law to exercise trust powers and perform all the duties imposed upon it by this Indenture. Unless the Bonds bear an Auction Rate, or a Fixed Rate, the Registrar and Paying Agent shall have an office or agency in New York, New York capable of performing its obligations hereunder.

Section 11.20. Resignation or Removal of Registrar and Paying Agent and Successor to Registrar and Paying Agent; Termination of Registrar and Paying Agent's Obligations. The Registrar and Paying Agent may at any time resign and be discharged of the duties and obligations created hereunder and under the Bond Purchase Trust Agreement by giving at least sixty (60) days' notice to the Authority, the Company, the Trustee, the Credit Facility Issuer and the Remarketing Agent. The Registrar and Paying Agent may be removed at any time upon and pursuant to the request of the Company by an instrument, signed by the Authority and filed with the Trustee, the Credit Facility Issuer and the Registrar and Paying Agent and the Company, provided that such removal shall not take effect until the appointment of a successor Registrar and Paying Agent. The Authority at the request of the Company shall appoint a successor Registrar and Paying Agent effective as of the effectiveness of any such resignation or removal. Each successor Registrar and Paying Agent shall be a qualified institution selected by the Company and, so long as a Credit Facility is in effect and no Support Facility Issuer Default has occurred and is continuing, the issuer of a Support Facility, and approved and appointed by the Authority.

In the event of the resignation or removal of the Registrar and Paying Agent, the Registrar and Paying Agent shall pay over and deliver any moneys and Bonds held by it in such capacity to its successor or, if there is no successor, to the Trustee. In the event that there is no successor to the Registrar and Paying Agent on the effective date of its resignation, the entity
acting as Trustee shall perform the functions of the Registrar and Paying Agent; provided that moneys held by the Trustee pursuant to this paragraph shall not be deemed to be held by the Trustee in its capacity as Trustee.

Section 11.21. Appointment of Auction Agent;Qualifications of Auction Agent,Resignation; Removal. (1) On or before the effective date of a Change in the Interest Rate Mode to an Auction Rate, an Authorized Officer of the Authority upon the written direction of an Authorized Company Representative shall appoint an Auction Agent for the Bonds. The Auction Agent shall evidence its acceptance of such appointment by entering into an Auction Agency Agreement with the Company. The Auction Agent shall be (a) a bank or trust company duly organized under the laws of the United States of America or any state or territory thereof having its principal place of business in the Borough of Manhattan, in The City of New York and having a combined capital stock, surplus and undivided profits of at least $\$ 25,000,000$ or (b) a member of the National Association of Securities Dealers, Inc., having a capitalization of at least $\$ 25,000,000$ and, in either case, authorized by law to perform all the duties imposed upon it under the Auction Agency Agreement. The Auction Agent may at any time resign and be discharged of the duties and obligations created by this Indenture by giving at least ninety ( 90 ) days' notice to the Trustee, the Company, the Authority, and in the case the Auction Agent is also serving as Trustee, to any Remarketing Agent. During the Auction Rate Period, the Auction Agent may be removed at any time by the Authority acting at the request of the Company by an instrument signed by the Authority and filed with the Company, the Auction Agent, any Remarketing Agent and the Registrar and Paying Agent upon at least ninety (90) days' notice; provided that if required by a Remarketing Agent, an agreement shall be entered into with a successor Auction Agent.

If the Auction Agent shall fail to determine, or for any reason fail to timely provide, a rate of interest pursuant to the Auction Procedures for three consecutive Auction Periods, the Authority shall use its best efforts to remove the then-existing Auction Agent and appoint a successor Auction Agent in accordance with this Indenture and the then-existing Auction Agency Agreement.

Section 11.22. Appointment of Broker-Dealers. Prior to any change in the Interest Rate Mode to an Auction Rate Period, the Company with the approval of the Authority shall appoint an initial Broker-Dealer and any additional initial Broker-Dealers. Thereafter, the Company may select, with the approval of the Authority, from time to time one or more additional persons to serve as Broker-Dealers under Broker-Dealer Agreements. Notwithstanding anything in this Indenture or the Auction Agency Agreement to the contrary, the Authority may substitute any Broker-Dealer for a subseries with a new Broker-Dealer in a written direction, provided at the request of the Company, to the Auction Agent and to the Broker-Dealer to be substituted at any time not less than thirty (30) days in advance of the date of substitution.

Section 11.23. Appointment of Additional Paying Agents; Each Paying Agent to Hold Money in Trust. The Authority may at the request of the Company appoint an additional Paying Agent or Paying Agents for the Bonds. Each such Paying Agent shall hold in trust subject to the provisions of the Indenture for the benefit of the Holders all sums held by such Paying Agent for the payment of the principal of, premium, if any, and interest on the Bonds. Any such Paying Agent may be any person or corporation authorized to perform such functions, including to the extent permitted by law, the Company.

Section 11.24. Appointment and Duties of Indexing Agents. Kenny Information Systems, Inc. is hereby appointed as Indexing Agent for the Bonds for the purpose of calculating each rate index defined in Section 1.01. The Authority may, with the approval of the Company, appoint additional or successor Indexing Agents, subject to the conditions set forth in this Section. There may be separate Indexing Agents for the purpose of calculating each rate index defined in Section 1.01. The Indexing Agent shall designate to the Trustee its principal office and signify its acceptance of the duties and obligations imposed upon it hereunder by a written instrument of acceptance delivered to the Authority, the Trustee, the Company and the Remarketing Agent under which the Indexing Agent will agree, particularly:
(a) to compute the Daily Rate Index, the Commercial Paper Rate Index, the Weekly Rate Index, the Monthly Rate Index, the Semi-annual Rate Index, the Term Rate Index or the Fixed Rate Index, as the case may be, pursuant to and in accordance with Section 3.01, and to give notice to the Trustee, the Registrar and Paying Agent, the Remarketing Agent and the Company of such rate index on the date of the computation thereof in accordance with Section 3.01; and
(b) to keep such books and records as shall be consistent with prudent industry practice and to make such books and records available for inspection by the Authority, the Trustee, the Registrar and Paying Agent, the Remarketing Agent and the Company at all reasonable times.

The Indexing Agent will perform the duties provided for in Section 3.01. Whenever the Indexing Agent makes a computation under that Section, it will promptly notify the Trustee, the Registrar and Paying Agent, the Authority, the Remarketing Agent (and during any Auction Rate Period, the Auction Agent), and the Company of the results and date of computation. The Indexing Agent will keep adequate records pertaining to the performance of its duties and allow the Trustee, any Credit Facility Issuer, Registrar and Paying Agent, the Authority, the Remarketing Agent and the Company (and, if appropriate, the Auction Agent) to inspect the records at reasonable times.

Section 11.25. Qualifications of Indexing Agents. Each Indexing Agent shall be a commercial bank, a member of the National Association of Securities Dealers, Inc. or a nationally recognized municipal securities evaluation service authorized by law to perform all the duties imposed upon it by the Indenture. Any Indexing Agent may at any time resign and be discharged of the duties and obligations created by the Indenture by giving at least sixty (60) days’ notice to the Authority, the Company, the Remarketing Agent and the Trustee. The Indexing Agent may be removed at any time, at the written direction of the Company, by an instrument, signed by the Authority, filed with the Company, the Indexing Agent, the Remarketing Agent, the Trustee, any Credit Facility Issuer and the Registrar and Paying Agent.

## ARTICLE XII

## EVENTS OF DEFAULT; REMEDIES UPON OCCURRENCE THEREOF

Section 12.01. Events of Default. Each of the following is hereby defined as and declared to be and shall constitute an "Event of Default":
(a) Payment of the principal of and premium, if any, on any Bond (whether by maturity, proceedings for redemption, purchase in accordance with Article V hereof or the Remarketing Agreement, or otherwise) shall not be made when the same shall become due and payable; or
(b) Payment of any installment of interest on any Bond shall not be made when the same shall become due and payable and such nonpayment shall continue for one (1) Business Day; or
(c) Receipt by the Trustee of written notice from the Support Facility Issuer of the occurrence of a Terminating Event under the Support Facility, if applicable, or the agreement providing for the issuance thereof; or
(d) Receipt by the Trustee of written notice from the Support Facility Issuer following a draw on or borrowing or payment under such Support Facility for the payment of interest on the Bonds that the Support Facility has not been reinstated in the amount so drawn, borrowed or paid; or
(e) Failure by the Authority in the due and punctual performance of any of the covenants, conditions, agreements, provisions or obligations, other than as set forth in (a) and (b) above, contained in the Bonds or in this Indenture or in any Supplemental Indenture on the part of the Authority to be performed, and such failure shall continue for ninety (90) days after written notice specifying such failure and requiring the same to be remedied shall have been given to the Authority, the Company, the Governor, the Comptroller and the Attorney General of the State of New York, by the Trustee or to the Trustee, the Authority and the Company by the Holders of not less than twenty-five percent (25\%) in aggregate principal amount of the Bonds then Outstanding as provided for in Section 12.08; provided that if any such failure shall be such that it cannot be cured or corrected within such ninety (90) day period, it shall not constitute an Event of Default hereunder if curative or corrective action is instituted within such period and diligently pursued until the failure of performance is cured or corrected; or
(f) The occurrence of an event of default as defined in Section 7.01 of the Participation Agreement.

Section 12.02. Notice to Holders and Others Upon Occurrence of an Event of Default or a Payment Default. 1. The Trustee shall give notice to the Bondholders of all Events of Default within sixty (60) days after the Trustee has been notified thereof or is deemed to have notice thereof as provided in Section 11.08, unless the Event of Default shall have been cured before the giving of such notice or unless the Trustee shall deem it in the best interest of the

Holders to defer or withhold notice under this Section; provided, however, that if a notice of an Event of Default is given to any Bondholder, the Trustee shall concurrently therewith cause a copy to be provided to all beneficial owners.
2. So long as ownership of the Auction Rate Bonds is maintained in book-entry form by the Securities Depository, upon the occurrence of an Event of Default, the Trustee shall immediately send a notice thereof in substantially the form required by the Auction Agency Agreement to the Auction Agent and to the registered Holders of each series of Bonds by telecopy or similar means.
3. So long as the ownership of the Auction Rate Bonds is maintained in book-entry form by the Securities Depository, the Trustee shall immediately send a notice in substantially the form required by the Auction Agency Agreement to the Auction Agent and to the registered Holders of each series of Bonds by telecopy or similar means if an Event of Default has been cured or waived in accordance with this Article XII.
4. Upon the occurrence of a Payment Default, or in the event such Payment Default is cured, the Trustee shall give the Auction Agent the notices referred to in Section 9.02(a)(i) or (b)(i) hereof, as the case may be.

Section 12.03. Declaration of Principal and Interest As Due. Notwithstanding the pendency of a mandatory tender under Section 5.09, upon the occurrence of an Event of Default specified in clause (c) or (d) of Section 12.01 of which the Trustee has been notified by the Support Facility Issuer, then the Trustee shall upon the written request or direction of such Support Facility Issuer, unless a Support Facility Issuer Default has occurred and is continuing, declare the principal of and accrued interest on all the Bonds then Outstanding (if not then due and payable) to be due and payable immediately, and upon such declaration the same shall become due and be immediately due and payable. Upon the occurrence and continuation of any Event of Default, except for an Event of Default specified in clause (c) or (d) of Section 12.01, of which the Trustee has been notified or is deemed to have notice as provided in Section 11.08, then and in every case the Trustee by a notice in writing to the Authority, the Company and (to addresses then specified by the Authority) the Governor, the Comptroller and the Attorney General of the State of New York may with the written consent of the Credit Facility Issuer, (such consent, however, not being required if a Support Facility Issuer Default has occurred and is continuing) if any, and upon the written request or direction of the Credit Facility Issuer, if any, or, if a Credit Facility is not in effect or a Support Facility Issuer Default has occurred and is continuing, upon the written request or direction of the Holders of not less then twenty-five percent ( $25 \%$ ) in principal amount of the Bonds then Outstanding (determined in accordance with the provisions of Section 13.03) shall, declare the principal of and accrued interest on all the Bonds then Outstanding (if not then due and payable) to be due and payable immediately, and upon such declaration the same shall become due and be immediately due and payable, anything contained in the Bonds or in this Indenture to the contrary notwithstanding. If, however, at any time after the principal of the Bonds shall have been so declared to be due and payable, and before the entry of final judgment or decree in any suit, action or proceeding instituted on account of such Event of Default, or before the completion of the enforcement of any other remedy under this Indenture, moneys shall have accumulated in the Bond Fund sufficient to pay the principal of and any premium (or redemption price) on all Bonds (or portions of the principal
amount thereof) then or theretofore required to be redeemed pursuant to any provisions of this Indenture (excluding principal not then due except by reason of the aforesaid declaration) and all arrears of interest and interest then due, if any, upon Bonds then Outstanding and if the fees, compensation, expenses, disbursements, advances and liabilities of the Trustee and all other amounts then payable by the Company under the Participation Agreement and the Note shall have been paid or a sum sufficient to pay the same shall have been deposited with the Trustee, and every other Event of Default known to the Trustee in the observance or performance of any covenant, condition or agreement contained in the Bonds or in this Indenture (other than default in the payment of the principal of such Bonds then due only because of a declaration under this Section) shall have been remedied to the satisfaction of the Trustee or the Company shall be taking, or shall be causing to be taken, appropriate action in good faith to effect its cure, and all Events of Default have been rescinded and annulled by the Trustee (or in the case of an Event of Default specified in clause (c) or (d) of Section 12.01, by any Support Facility Issuer), and to the extent a Liquidity Facility is in effect, the issuer of such Liquidity Facility has delivered to the Trustee a written notice to the effect that any amounts drawn, borrowed or paid under such Liquidity Facility to pay accrued interest on the Bonds have been reinstated in the amount of such draw, borrowing or payment, then and in every such case the Trustee may, with the written consent of the Liquidity Facility Issuer, if any, unless a Support Facility Issuer Default has occurred and is continuing, and upon the written request or direction of the Liquidity Facility Issuer, if any, unless a Support Facility Issuer Default has occurred and is continuing, or, if a Liquidity Facility is not in effect or a Support Facility Issuer Default has occurred and is continuing upon the written request or direction of the Holders of not less than a majority in aggregate principal amount of the Bonds (determined in accordance with the provisions of Section 13.03) then Outstanding shall, by written notice to the Authority, rescind and annul such declaration and its consequences; provided, however, that notwithstanding any such rescission and annulment during an Auction Rate Period, the Bonds shall continue to bear interest at the Overdue Rate for the applicable period of time determined pursuant to Article III. No such rescission or annulment pursuant to the next preceding sentence shall extend to or affect any subsequent default or impair any right consequent thereto.

Section 12.04. Action by Trustee Upon Occurrence of Event of Default. Upon the occurrence and continuation of an Event of Default the Trustee (i) for and on behalf of the Holders of the Bonds, shall have the same rights hereunder which are possessed by any Holders of the Bonds; (ii) shall be authorized to proceed, in its own name and as trustee of an express trust; (iii) may pursue any available remedy by action at law or suit in equity to enforce the payment of the principal of and interest and premium, if any, on the Bonds; (iv) may file such proofs of claim and other papers or documents as may be necessary or advisable in order to have the claims of such Trustee and of the Bondholders allowed in any judicial proceedings relative to the Company, its creditors, its property or the Bonds; and (v) may, and upon the written request or direction of the Credit Facility Issuer, so long as no Support Facility Issuer Default has occurred and is continuing, or of Holders of not less than twenty-five percent (25\%) in principal amount of the Bonds then Outstanding (determined in accordance with the provisions of Section 13.03), with the prior written consent of the Credit Facility Issuer, unless a Support Facility Issuer Default has occurred and is continuing, shall proceed to protect and enforce all rights of the Holders and the Trustee under and as permitted by this Indenture and the laws of the State of New York, by such means or appropriate judicial proceedings as shall be suitable or deemed by
it most effective in the premises, including the appointment of temporary trustees and any actions, suits or special proceedings at law or in equity or in bankruptcy or by proceedings in the office of any board or officer having jurisdiction, or otherwise, whether for the specific enforcement of any covenant or agreement contained in this Indenture, or in aid of execution of any power granted in this Indenture or to enforce any other legal or equitable right or remedy vested in the Holders of the Bonds or the Trustee by this Indenture or by such laws, or for the appointment of a receiver. All rights of action (including the right to file proofs of claim) under this Indenture or under any of the Bonds may be enforced by the Trustee without the possession of any of the Bonds or the production thereof in any trial or other proceedings relating thereto. Any such suit or proceeding instituted by the Trustee shall be brought in its name and as trustee of an express trust without the necessity of joining as plaintiffs or defendants any Holders of the Bonds, and any recovery or judgment shall be for the equal benefit of the Holders of the Outstanding Bonds.

In the enforcement of any remedy under this Indenture the Trustee shall be entitled to sue for, enforce payment of and receive any and all amounts, then or during any Event of Default becoming, and at any time remaining, due from the Company and unpaid under the Participation Agreement and the Note for principal, premium, interest or otherwise under any of the provisions of this Indenture or of the Bonds, with interest on overdue payments if such interest then is permitted by the laws of the State of New York, together with any and all costs and expenses of collection and of all proceedings hereunder and under such Bonds, without prejudice to any other right or remedy of the Trustee or of the Holders, and to recover and enforce judgment or decree against the Company which is in default of its respective obligations under the Participation Agreement and the Note, but solely as provided herein and in such Bonds, for any portion of such amounts remaining unpaid, with interest, costs and expenses, and to collect in any manner provided by law, the moneys adjudged or decreed to be payable. Any such judgment shall be recovered by the Trustee, in its own name and as trustee of an express trust.

Section 12.05. Powers of Trustee With Respect to Participation Agreement and Other Agreements. If the payments required to be paid to the Trustee under the Participation Agreement and the Note or other agreement pledged and assigned hereunder, as the case may be, are not paid when due or upon the happening and continuance of an Event of Default set forth in clause (a) or (b) of Section 12.01, the Trustee, in its own name and as trustee of an express trust, shall be entitled and empowered to institute any action or proceedings at law or in equity for the collection of all payments due and unpaid under the Participation Agreement and the Note or other agreement, as the case may be, and required to be paid to the Trustee and may prosecute any such action or proceedings to judgment or final decree, and may enforce any such judgment or final decree against the Company or the obligor under any other agreement, as the case may be, and collect in the manner provided by law out of the property of the Company or such obligor wherever situated, the moneys adjudged or decreed to be payable.

In case there shall be pending proceedings for the bankruptcy or for the reorganization of the Company under the Participation Agreement or an obligor under any other agreement pledged and assigned hereunder, as the case may be, under the Federal Bankruptcy Act or any other applicable law, or in case a receiver or trustee shall have been appointed for the property of the Company under the Participation Agreement and the Note or an obligor under
any other agreement pledged and assigned hereunder, as the case may be, the Trustee, regardless of whether the principal of the Bonds shall then be due and payable as therein expressed or by declaration or otherwise and regardless of whether the Trustee shall have made any demand pursuant to the power vested in it by this Indenture, shall be entitled and empowered, by intervention in such proceedings or otherwise, to file and prove a claim or claims for the whole amount owing and unpaid under the Participation Agreement and the Note by the Company or under such other agreement by such obligor, as the case may be, and to file such other papers or documents as may be necessary or advisable in order to have the claims of the Trustee (including any claim for reasonable compensation to the Trustee, its agents, attorneys and counsel, and for reimbursement of all expenses and liabilities incurred, and all advances made, by the Trustee except as a result of its negligence or bad faith) and of the Holders allowed in any such judicial proceedings relative to the Company or other obligor, as the case may be, or to the creditors or property of the Company or other obligor, as the case may be, and to collect and receive any moneys or other property payable or deliverable on such claims, and to distribute in accordance with the provisions hereof all amounts received with respect to the claims of the Holders and of the Trustee on their behalf, and any receiver, assignee or trustee in bankruptcy or reorganization is hereby authorized to make such payments to the Trustee.

Nothing herein contained shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Holders any plan of reorganization, arrangement, adjustment or composition of the Authority or the Company affecting the Bonds or the rights of any Holder thereof, or to authorize the Trustee to vote in respect of the claim of any Holders in any such proceeding. In the event of any such reorganization, arrangement, adjustment, composition or liquidation, the Credit Facility Issuer shall have the right to vote on behalf of all Holders who hold such Bonds unless a Support Facility Issuer Default has occurred and is continuing.

The provisions of this Section shall not be construed as in any way limiting the powers of the Trustee, with respect to defaults by the Authority or by the Company under the Participation Agreement and the Note, or an obligor under any other agreement pledged and assigned hereunder, as the case may be, whether such powers be expressly or implicitly granted to the Trustee elsewhere in this Indenture or in the Participation Agreement or the Note or other agreement, as the case may be, or as a denial that the Trustee has any such other powers, but the powers granted to the Trustee by this Section shall be supplemental, additional and cumulative to all other powers possessed by the Trustee with respect to defaults under this Indenture or under the Participation Agreement, the Note or other agreement pledged and assigned hereunder, as the case may be.

Section 12.06. Disposition of Moneys in Event of Insufficiencies in Funds and Accounts. All moneys (other than proceeds of any Support Facility) received by the Trustee pursuant to any right given or action taken under the provisions of this Article, after payment of the costs and expenses of the proceedings resulting in the collection of such moneys and of the expenses, fees and advances incurred or made by the Trustee hereunder, shall be deposited in the Bond Fund. If at any time the moneys in the Bond Fund shall not be sufficient to pay the interest or principal or premium, if any (or the redemption price), of the Bonds as the same become due and payable (whether at maturity or upon proceedings for the redemption thereof or by acceleration or otherwise), the moneys in such fund, together with any other moneys then
available or thereafter becoming available for such purpose, whether through the exercise of the remedies provided for in this Article XII or otherwise, shall be applied as follows:
(a) Unless the principal of all the Bonds shall have become due and payable or shall have been declared due and payable pursuant to the provisions of Section 12.03, all such moneys shall be applied:

First: to the payment to the persons entitled thereto of all installments of interest then due, in the order of the maturity of the installments of such interest, and if the amount available shall not be sufficient to pay in full any particular installment, then to the payment ratably, according to the amounts due on such installment, to the persons entitled thereto, without any discrimination or preference; and

Second: to the payment of the premium, if any, on and the principal of the Bonds, to the purchase and retirement of Bonds and to the redemption of Bonds, all in accordance with the provisions of this Indenture.
(b) If the principal of all the Bonds shall have become due and payable or shall have been declared due and payable pursuant to the provisions of Section 12.03, all such moneys shall be applied to the payment of the principal and interest then due and unpaid, with interest on such principal as aforesaid, without preference or priority of principal over interest or of interest over principal, or of any installment of interest over any other installment of interest, or of any Bond over any other Bond, according to the amounts due respectively for principal and interest, to the persons entitled thereto without any discrimination or preference except as to any difference in the respective rates of interest specified in the Bonds.
(c) If the principal of all the Bonds shall have been declared due and payable pursuant to the provisions of Section 12.03, and if such declaration shall thereafter have been rescinded and annulled pursuant to the provisions of such Section 12.03, then, subject to the provisions of subparagraph (b) above of this paragraph in the event that the principal of all the Bonds shall later become due and payable or be declared due and payable pursuant to the provisions of Section 12.03, the moneys then held in the Bond Fund shall be applied to the payment of the principal of and premium (or redemption price) on all matured Bonds and all Bonds (or portions of the principal amount thereof) then or theretofore required to be redeemed pursuant to any provisions of this Indenture (excluding principal not then due except by reason of such declaration) and all arrears of interest and interest then due, if any, upon all Bonds then Outstanding, and any moneys thereafter deposited in the Bond Fund shall be applied in accordance with the provisions of Article IX.

Whenever moneys are to be applied by the Trustee pursuant to the provisions of subparagraphs (a) and (b) of this Section, (i) such moneys shall be applied by the Trustee at such times, and from time to time, as the Trustee in its sole discretion shall determine, having due regard to the amount of such moneys available for application and the likelihood of additional moneys becoming available for such application in the future; (ii) the deposit of such moneys, in trust for the proper purpose, shall constitute proper application by the Trustee; and (iii) the Trustee shall incur no liability whatsoever to the Authority, to any Holder or to any other person for any delay in applying any such moneys, so long as the Trustee acts with reasonable diligence,
having due regard to the circumstances, and ultimately applies the same in accordance with such provisions of this Indenture as may be applicable at the time of application by the Trustee. Whenever the Trustee shall exercise such discretion in applying such moneys, it shall fix the date (which shall be an Interest Payment Date unless the Trustee shall deem another date more suitable) upon which such application is to be made and upon such date interest on the amounts of principal to be paid on such date shall cease to accrue. The Trustee shall give such notice as it may deem appropriate of the fixing of any such date, and shall not be required to make payment to the Holder of any unpaid Bond until such Bond shall be surrendered to the Trustee for appropriate endorsement, or for cancellation if fully paid.

Section 12.07. Effect of Delay or Omission; Waiver of Default; Direction of Remedial Proceedings by the Holders. No delay or omission of the Trustee or of any Holder of the Bonds to exercise any right or power accruing upon any default or Event of Default shall impair any such right or power or shall be construed to be a waiver of any such default or acquiescence therein.

Anything in this Indenture to the contrary notwithstanding, but subject to Section 6.01(2), the Holders of not less than a majority in principal amount of the Bonds at the time Outstanding (determined in accordance with the provisions of Section 13.03) with, so long as no Support Facility Issuer Default has occurred and is continuing, the prior written consent of the Credit Facility Issuer, shall be authorized and empowered and have the right, by an instrument or concurrent instruments in writing delivered to the Trustee on behalf of the Holders of the Bonds then Outstanding to consent to the waiver of any Event of Default or its consequences, and the Trustee shall waive any Event of Default and its consequences upon the written request of the Holders of such majority with the prior written consent of the Credit Facility Issuer, so long as no Support Facility Issuer Default has occurred and is continuing; provided, however, that there shall not be waived (i) any default in payment of principal or premium when due or (ii) any default in payment when due of interest unless, in either case, prior to such waiver all arrears in principal, premium, if any, and interest, with additional interest, to the extent permitted by law, at the rate then borne by the Bonds (which, in the case of a Payment Default with respect to Auction Rate Bonds shall be the Overdue Rate), and all fees and expenses of the Trustee shall have been paid or provided for; provided, however, that notwithstanding any such waiver, any Auction Rate Bonds shall continue to bear interest at the Overdue Rate until such Payment Default is cured. No such waiver shall extend to or affect any other existing or subsequent default or Event of Default or impair any rights or remedies consequent thereon.

Anything in this Indenture to the contrary notwithstanding, the Holders of not less than twenty-five percent (25\%) in principal amount of the Bonds at the time Outstanding (determined in accordance with the provisions of Section 13.03) with, so long as no Support Facility Issuer Default has occurred and is continuing, the prior written consent of the Credit Facility Issuer, shall be authorized and empowered and have the right, by an instrument or concurrent instruments in writing delivered to the Trustee to direct the time and method of conducting any proceeding for any remedy to be taken by the Trustee or available to the Trustee or available to the Holders of the Bonds, or exercising any trust or power conferred upon the Trustee hereunder provided: (1) such direction shall not be in conflict with any rule of law or with this Indenture or expose the Trustee to personal liability, or be unduly prejudicial to Holders not joining therein, and (2) the Trustee may take any other action deemed proper by the Trustee which is not inconsistent with such direction.

Section 12.08. Suits or Actions by Holders; Any Holder May Enforce Overdue Payment of His or Her Bond or Interest Thereon. No Holder of any of the Bonds shall have any right to institute any suit, action or proceeding in equity or at law for the execution of any trust hereunder or for any other remedy hereunder unless there shall have occurred an Event of Default of which the Trustee has been notified or is deemed to have notice as provided in Section 11.08, and such Holder previously shall have given to the Trustee written notice of the Event of Default on account of which such suit, action or proceeding is to be instituted, and unless also the Holders of not less than twenty-five percent ( $25 \%$ ) in principal amount of the Bonds then Outstanding, with the consent of the Credit Facility Issuer, so long as no Support Facility Issuer Default has occurred and is continuing, shall have made written request of the Trustee after the right to exercise such powers or right of action, as the case may be, shall have accrued, and shall have afforded the Trustee a period of sixty (60) days either to proceed to exercise the powers hereinabove granted or to institute such action, suit or proceeding in its or their name, the Trustee shall have been indemnified by Holders against the costs, expenses and liabilities to be incurred in compliance with such request, and shall not have received an inconsistent direction from the Credit Facility Issuer, unless a Support Facility Issuer Default has occurred and is continuing, or from the Holders of not less than twenty-five percent ( $25 \%$ ) in principal amount of the Bonds and the Trustee shall have refused or neglected to comply with such request within a reasonable time. It is understood and intended that no one or more Holders of the Bonds hereby secured shall have any right in any manner whatever by the action of such Holder or Holders to affect, disturb or prejudice the security of this Indenture, or to enforce any right hereunder except in the manner herein provided; that all proceedings at law or in equity shall be instituted, had and maintained in the manner herein provided and for the benefit of all Holders of such Outstanding Bonds; and that any individual rights of action or other right given to one or more of such Holders by law are restricted by this Indenture to the rights and remedies herein provided. Notwithstanding the foregoing and subject to Section 11.02, the Trustee shall be under no obligation to exercise any of the rights or powers vested in it by this Indenture at the request or direction of any of the Holders, unless such Holders shall have offered to the Trustee reasonable security or indemnity against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction.

Notwithstanding any other provision of this Indenture, the right of any Holder of a Bond to receive payment of the principal of, premium, if any, and interest on such Bond, on or after the respective due dates expressed in such Bond, or to institute suit for the enforcement of any such payment on or after such respective dates, shall not be impaired or affected without the consent of such Holder, except that no Holder of any such Bond shall have the right to institute any such suit, if and to the extent that the institution or prosecution thereof or the entry of judgment therein would, under applicable law, result in the surrender, impairment, waiver, or loss of the lien of this Indenture.

Section 12.09. Remedies Not Exclusive. No remedy by the terms of this Indenture conferred upon or reserved to the Trustee, any Credit Facility Issuer or the Holders of the Bonds is intended to be exclusive of any other remedy so conferred or reserved or to be exclusive of other remedies now or hereafter existing at law or in equity or by statute, and each
and every such remedy shall be cumulative and shall be in addition to any other remedy given hereunder to the Trustee, any Credit Facility Issuer or to the Holders of the Bonds or now or hereafter existing at law or in equity or by statute. Every such right, power and remedy given hereunder or by law or in equity or by statute may be exercised from time to time and as often as may be deemed expedient.

Section 12.10. Effect of Abandonment of Proceedings on Default. In case any proceeding taken by the Trustee or the Holders of the Bonds on account of any Event of Default shall have been discontinued or abandoned for any reason, then and in every such case the Authority, the Trustee and the Holders shall be restored to their former positions and rights hereunder, respectively, and all rights, remedies, powers and duties of the Trustee shall continue as though no such proceeding had been taken.

Section 12.11. Interest on Overdue Amounts. To the extent permitted by law all amounts which are due and payable but which have not been so paid under this Indenture shall bear interest at the then current rate of interest on the Bonds until paid; provided, however, that upon the occurrence of a Payment Default during any Auction Rate Period all amounts which are due and owing but unpaid hereunder shall bear interest at the Overdue Rate until paid.

## ARTICLE XIII

## EXECUTION OF INSTRUMENTS BY BONDHOLDERS AND <br> OWNERSHIP OF BONDS; EXCLUSION OF BONDS OWNED BY THE AUTHORITY OR THE COMPANY

Section 13.01. Execution of Requests, Directions and Consents and Other Instruments and Proof of Same; Ownership of Bonds and Proof of Same. Any request, direction, consent or other instrument required by this Indenture to be signed or executed by Holders of Bonds may be signed or executed by such Holders in person or by agent or agents duly appointed in writing, and may be in any number of concurrent writings of substantially similar tenor. Proof of the execution of any such request, direction, consent or other instrument or of a writing appointing any such agent, and of the holding or ownership of Bonds, shall be sufficient for any purpose of this Indenture and shall be conclusive in favor of the Trustee hereunder with regard to any action taken by it under such request, direction, consent or other instrument or of a writing appointing any such agent, if made in the following manner:
(a) the fact and date of the execution by any person of any such request, direction, consent or other instrument in writing may be proved in any reasonable manner which the Trustee deems sufficient;
(b) the ownership of Bonds shall be proved by the books of registry kept under the provisions of this Indenture.

Any request, direction, consent or vote of the Holder of any Bond shall bind and be conclusive upon the Holder of such Bond giving such request, direction or consent or casting such vote and upon every future Holder of the same Bond in respect of anything done or suffered to be done by the Trustee or otherwise, or by the Holders of other Bonds, in pursuance of such request, direction, consent or vote, and whether or not such future Holder has knowledge of or information as to such request, direction, consent or vote; provided that any request, direction, consent or vote of the Holder of a Bond required by any of the provisions hereof may be revoked by the Holder giving such request, direction, consent or vote or by a subsequent Holder if such revocation in writing is filed with the Trustee, prior to the time when the request, direction, consent or vote of the percentage of the Holders of the Bonds required by such provision shall have been given and action taken by the Trustee or otherwise, or by the Holders of other Bonds, under authority of such request, direction, consent or vote.

The payment of or on account of principal to or upon the order of the person in whose name the Bonds shall at the time be registered on said books of registry and the payment of interest to or upon the order of any person in whose name the Bonds shall at the time be registered on said books of registry, shall be valid and effectual fully to satisfy and discharge all liability hereunder or upon the Bonds to the extent of the sum or sums so paid.

The Authority at the request of the Company may establish a record date for the taking of any action by the Holders.

Section 13.02. Meetings of Holders. The Trustee or the Holders of not less than twenty percent (20\%) in principal amount of the Bonds then Outstanding may at any time call a meeting of the Holders of the Bonds for the purpose of the consenting to, the approving, the requesting, or the directing by the Holders of the Bonds of any action required to be consented to or approved by them hereunder or which they may request or direct hereunder to be taken, or for the making by the Holders of any appointments they may make hereunder, or for the purpose of taking any other action which the Holders may take hereunder, or for any other purpose concerning the payment and security of the Bonds hereunder. Every such meeting shall be held at such place in The City of New York, State of New York, as may be specified in the notice calling such meeting. Written notice of such meeting, stating the place and time of the meeting and in general terms the business to be submitted, shall be mailed to the Holders whose names and addresses then appear upon the books of registry by the Registrar and Paying Agent or the Holders calling such meeting, not less than twenty (20) days nor more than sixty (60) days before such meeting. Any meeting of Holders shall, however, be valid without notice if the Holders of all Bonds then Outstanding are present in person or by proxy or if notice is waived before or within thirty (30) days after the meeting by those not so present.

Attendance and voting by Holders at meetings thereof may be in person or by proxy. Holders of Bonds may, by an instrument in writing under their hands, appoint any person or persons, with full power of substitution, as their proxy to attend and vote at any meeting for them.

Persons named by the Trustee, or elected by the Holders of a majority in principal amount of the Bonds represented at the meeting in person or by proxy in the event the Trustee is not represented at such meeting, shall act as temporary chairman and temporary secretary of any meeting of Holders. A permanent chairman and a permanent secretary of such meeting shall be elected by the Holders of a majority in principal amount of the Bonds represented at such meeting in person or by proxy. The permanent chairman of the meeting shall appoint two (2) inspectors of votes who shall count all votes cast at such meeting, except votes on the election of chairman and secretary as aforesaid, and who shall make and file with the secretary of the meeting and the Trustee their verified report of all such votes cast at the meeting.

The Holders of not less than the principal amount of the Bonds required by the provisions hereof to consent to, approve, request or direct any action to be taken at a meeting of Holders, or required by the provisions hereof to make any appointments to be made at such meeting, or required by the provisions hereof to take any other action to be taken at such meeting, must be present at such meeting in person or by proxy in order to constitute a quorum for the transaction of such business. Less than a quorum, however, shall have power to adjourn the meeting from time to time without notice of such adjournment other than the announcement thereof at the meeting; provided, however, that if such meeting is adjourned by less than a quorum for more than ten (10) days, notice of such adjournment shall be given by the Trustee at least five (5) days prior to the adjourned date of the meeting.

Any Holder of a Bond shall be entitled in person or by proxy to attend and vote at such meeting as Holder of the Bond or Bonds registered in his or her name without producing such Bond or Bonds. Such persons and their proxies shall, if required, produce such proof of personal identity as shall be satisfactory to the Secretary of the meeting.

All proxies presented at such meeting shall be delivered to the Inspector of Votes and filed with the Secretary of the meeting. The right of a proxy for a Holder to attend the meeting and act and vote thereat may be proved (subject to the Trustee's right to require additional proof) by a written proxy executed by such Holder as aforesaid.

The officers or nominees of the Trustee may be present or represented at such meeting and take part therein, but shall not be entitled to vote thereat, except for such officers or nominees who are Holders or proxies for Holders (including the Trustee).

The vote at any such meeting of the Holder of any Bond, or his or her proxy, entitled to vote thereat shall be binding upon such Holder and upon every subsequent Holder of such Bond (whether or not such subsequent Holder has notice thereof).

Section 13.03. Exclusion of Bonds Held by or for the Authority, the Company and of Bonds No Longer Deemed Outstanding Hereunder. In determining whether the Holders of the requisite aggregate principal amount of Bonds have concurred in any demand, request, direction, consent, vote or waiver under this Indenture, any Bonds which are owned by or on behalf of or for the account of the Authority, the Company and, except for the purposes of Section 15.01, any Bonds which are deemed no longer Outstanding hereunder shall be disregarded and not included for the purpose of any such determination, and such Bonds shall not be entitled to vote upon, consent to or concur in any action provided in this Indenture, except that for the purposes of determining whether the Trustee shall be protected in relying on any such demand, request, direction, consent, vote or waiver only Bonds which a Responsible Officer of the Trustee knows are owned as aforesaid shall be disregarded. The Trustee may require each Holder of a Bond or Bonds, before such Holder's demand, request, direction, consent, vote or waiver shall be deemed effective, to reveal if the Bonds as to which such demand, request, direction, consent, vote or waiver is made, granted, cast or given are disqualified as provided in this Section.

## ARTICLE XIV

## AMENDING AND SUPPLEMENTING THE INDENTURE, THE PARTICIPATION AGREEMENT, THE REMARKETING AGREEMENT, AUCTION AGENCY AGREEMENT, BROKER-DEALER AGREEMENTS, BOND PURCHASE TRUST AGREEMENT

Section 14.01. Amending and Supplementing Indenture Without Consent of Holders. The Authority and the Trustee, from time to time and at any time and without the consent or concurrence of any Holder, may enter into a Supplemental Indenture, (i) to make any changes, supplements, amendments or deletions to this Indenture that may be required to permit the Indenture to be qualified under the Trust Indenture Act of 1939 of the United States of America or (ii) for any one or more of the following purposes:
(a) (x) to make any changes or corrections in this Indenture or any Supplemental Indenture as to which the Authority shall have been advised by counsel that the same are required for the purpose of curing or correcting any ambiguity or defective or inconsistent provision or omission or mistake or manifest error contained in this Indenture or Supplemental Indenture, or (y) to insert in this Indenture such provisions clarifying matters or questions arising under this Indenture as are necessary or desirable if such provisions shall not materially and adversely affect the rights of the Holders;
(b) to add additional covenants and agreements of the Authority for the purpose of further securing the payment of the Bonds;
(c) to surrender any right, power or privilege reserved to or conferred upon the Authority by the terms of this Indenture;
(d) to confirm as further assurance any lien, pledge or charge, or the subjection to any lien, pledge or charge, created or to be created by the provisions of this Indenture or any Supplemental Indenture;
(e) to grant to or confer upon the Holders any additional rights, remedies, powers, authority or security that lawfully may be granted to or conferred upon them, or to grant to or to confer upon the Trustee for the benefit of the Holders any additional rights, duties, remedies, power or authority;
(f) to provide for the issuance of Bonds in book entry or coupon form, if at the time permitted by applicable law;
(g) to provide for the substitution of rating agencies;
(h) to provide for any new administrative or procedural provisions made necessary or desirable by the issuance of a Support Facility or an Alternate Support Facility, other credit, liquidity or support facility, including, but not limited to, any amendment necessary to obtain a rating on the Bonds based upon such facility; and
(i) to modify, amend or supplement the Indenture in such manner as to permit the qualification of the Bonds for deposit with a Securities Depository, and, in connection therewith, if they so determine, to add to the Indenture, such other terms, conditions and provisions as may be required to permit such qualification.

No Supplemental Indenture shall be entered into unless in the Opinion of Bond Counsel which shall be delivered to the Trustee (which opinion may be combined with the opinion required by Section 14.04) the execution of such Supplemental Indenture is permitted by the foregoing provisions of this Section and the provisions of such Supplemental Indenture do not materially and adversely affect the rights of the Holders of the Bonds and the Trustee may rely on any such opinion.

Section 14.02. Amending and Supplementing Indenture with Consent of Holders. With the consent of the Holders of a majority in principal amount of the Bonds then Outstanding (determined in accordance with the provisions of Section 13.03), the Authority and the Trustee, with the consent of the Support Facility Issuer (so long as no Support Facility Issuer Default has occurred and is continuing), from time to time and at any time may enter into a Supplemental Indenture for the purpose of adding any provisions to, or changing in any manner or eliminating any of the provisions of, this Indenture, or modifying or amending the rights and obligations of the Authority hereunder, or modifying or amending in any manner the rights of the Holders; provided that, without the specific consent of the Holders of all Bonds Outstanding which would be affected thereby and the Support Facility Issuer, so long as no Support Facility Issuer Default has occurred and is continuing, no Supplemental Indenture amending or supplementing the provisions hereof shall: (a) change the fixed maturity date for the payment of the principal of any Bond, or the dates for the payment of interest thereon or the terms of the purchase or redemption thereof, or reduce the principal amount of any Bond or the rate of interest thereon or the method of calculating the same except as otherwise provided in this Indenture; or (b) reduce the aforesaid percentage of Bonds, the Holders of which are required to consent to any Supplemental Indenture amending or supplementing the provisions of this Indenture; or (c) give to any Bond any preference over any other Bond secured hereby; or (d) authorize the creation of any pledge of payments under the Participation Agreement or Note Payments prior or superior to the pledge of a lien and charge thereon assigned herein for the payment of the Bonds; or (e) effect any change in the purchase or redemption provisions relating to the Bonds; or (f) deprive any Holders in any material respect of the security afforded by this Indenture. A supplement or amendment of the provisions of Article IX hereof with respect to the Bond Fund or any other Funds or Accounts established thereby shall not be deemed a change in the terms of payment; provided that no such supplement or amendment shall, except upon the consent of the Holders of all Bonds Outstanding affected thereby, reduce the amount or amounts required to be deposited in the Bond Fund. Nothing in this paragraph contained, however, shall be construed as making necessary the approval of the Holders of the execution of any Supplemental Indenture authorized by the provisions of Section 14.01 .

The proof of the giving of any consent by any Holder required by this Section and of the holding of the Bonds for the purpose of giving consents shall be made in accordance with the provisions of Article XIII. It shall not be necessary that the consent of the Holders approve the particular form of wording of the proposed supplemental amendment or supplement, but it shall be sufficient if such consent approves the substance of the proposed amendment or
supplement. After the Holders of the required percentage of Bonds shall have filed their consents to the amending or supplementing hereof pursuant to this Section, the Authority shall mail a copy of notice of such consent, postage prepaid, to each Holder at his or her address as it appears upon the books of registry and to the Trustee. Nothing in this paragraph contained, however, shall be construed as requiring the giving of notice of any amending or supplementing of this Indenture authorized by this Section. A record of the consents shall be filed with the Trustee, and shall be proof of the matters therein stated until the contrary is proved. No action or proceeding to set aside or invalidate such Supplemental Indenture or any of the proceedings for its adoption shall be instituted or maintained unless such action or proceeding is commenced within sixty (60) days after the mailing of the notice required by this paragraph.

Notwithstanding anything in this Indenture to the contrary, the consent of the Holders of the required amount of Bonds shall be deemed given with respect to a Supplemental Indenture if:
(a) (i) the Supplemental Indenture takes effect on a date on which all of the Bonds that are affected by such Supplemental Indenture are subject to mandatory tender for purchase in accordance with this Indenture, (ii) any supplement or amendment effected thereby is consented to in writing by the Remarketing Agent, if any, for such Bonds on or prior to such effective date and is disclosed in the official statement or other disclosure document pursuant to which such Bonds are remarketed and (iii) the Bonds so tendered are purchased;
(b) (i) not less than thirty (30) days before the effective date of the Supplemental Indenture, the Trustee sends a notice of the proposed supplement or amendment to the Holders of the Bonds that are affected by such Supplemental Indenture and the Holders of such Bonds have the right to tender their Bonds for purchase pursuant to Section 5.03 hereof before such effective date, (ii) the Remarketing Agent for such Bonds consents in writing to the proposed supplement or amendment on or prior to such effective date and (iii) the Bonds so tendered are purchased; or
(c) (i) not less than thirty (30) days before the Auction Date for the Auction Period during which any supplement or amendment to this Indenture shall become effective, the Trustee sends a notice of the proposed supplement or amendment to the Holders of the Auction Rate Bonds that are affected by such supplement or amendment, (ii) the Auction Rate determined for such Auction Rate Bonds at the Auction immediately preceding the effective date of the supplement or amendment is a Winning Bid Rate, and (iii) any supplement or amendment effected thereby is consented to in writing by the BrokerDealer(s) for such Bonds on or prior to such effective date and is disclosed in the official statement or other disclosure document delivered by the BrokerDealer(s) to Potential Holders prior to the Auction immediately preceding such effective date; provided, however, that, notwithstanding anything to the contrary in this Indenture, any Auction Rate Bonds that are not the subject of a specific Hold Order or Bid shall be deemed to be subject to a Sell Order at the Auction immediately preceding such effective date.

Section 14.03. Notation upon Bonds; New Bonds Issued upon Amendments. The Bonds delivered after the effective date of any action taken as provided in this Article, if any, may and shall if required by the Trustee bear a notation as to such action, by endorsement or otherwise and in form approved by the Authority. In that case, upon demand of any Holder at such effective date and upon presentation of Bonds at the principal office of the Trustee or other transfer agent or registrar hereunder for such Bonds, and at such additional offices, if any, as the Authority may select and designate for that purpose, a suitable notation shall be made on the Bonds.

Section 14.04. Effectiveness of Supplemental Indentures. Upon the execution pursuant to this Article by the Authority and the Trustee of any Supplemental Indenture amending or supplementing the provisions of this Indenture and the delivery to the Trustee of an Opinion of Bond Counsel that such Supplemental Indenture is permitted by the provisions of this Article XIV and has been duly executed in accordance with the provisions hereof and applicable law and that the provisions thereof are valid (upon which opinion the Trustee, subject to the provisions of Section 11.04 , shall be fully protected in relying), or upon such later date as may be specified in such Supplemental Indenture, (i) this Indenture and the Bonds shall be modified and amended in accordance with such Supplemental Indenture; (ii) the respective rights, limitations of rights, obligations, duties and immunities under this Indenture of the Authority, the Trustee, and the Holders shall thereafter be determined, exercised and enforced under this Indenture subject in all respects to such supplements and amendments; and (iii) all of the terms and conditions of any such Supplemental Indenture shall be a part of the terms and conditions of the Bonds and of this Indenture for any and all purposes.

Section 14.05. Supplemental Indenture Affecting Support Facility Provider. No Supplemental Indenture affecting the rights or obligations of the Support Facility Issuer which takes effect while any Support Facility is in effect may, so long as no Support Facility Issuer Default shall have occurred and be continuing in respect to the Support Facility Issuer, be entered into by the Authority and the Trustee or be consented to by the Holders without written consent of each Support Facility Issuer.

Section 14.06. Supplemental Participation Agreements Not Requiring the Consent of the Holders. The Authority and the Company may, with the written consent of the Trustee but without notice to or consent of any Holder, from time to time and at any time, agree to such supplemental agreements supplementing the Participation Agreement or amendments to the Participation Agreement as shall not be inconsistent with the terms and provisions of the Participation Agreement or this Indenture and, in the opinion of the Authority, shall not be detrimental to the interests of the Holders (which Supplemental Participation Agreements shall thereafter form a part of the Participation Agreement):
(a) to cure any ambiguity or formal defect or omission in the Participation Agreement or in any supplemental agreement;
(b) to grant to or confer upon the Trustee for the benefit of the Holders any additional rights, remedies, powers, authority or security that may lawfully be granted to or conferred upon the Holders or the Trustee;
(c) to provide for any new administrative, security or procedural provisions necessitated by the issuance of an Alternate Support Facility; or
(d) to provide for or add any further changes or corrections that are necessary or desirable to comply with any Supplemental Indenture entered into pursuant to Section 14.01;
provided that no such Supplemental Participation Agreement which takes effect while a Credit Facility is in effect shall, so long as no Support Facility Issuer Default has occurred and is continuing, be effective prior to the receipt by such parties of the written consent of each Credit Facility Issuer.

Section 14.07. Notice and Consent for Supplemental Participation Agreements Requiring the Consent of the Holders. Except for Supplemental Participation Agreements or amendments provided for in Section 14.06, neither the Authority nor the Trustee shall agree or consent, as the case may be, to any Supplemental Participation Agreement or amendment to the Participation Agreement unless notice of the proposed execution of such Supplemental Participation Agreement or amendment shall have been given and the Holders, and, so long as no Support Facility Issuer Default has occurred and is continuing, the Support Facility Issuer shall have consented to and approved the execution thereof in the same manner and form as provided for in Section 14.02 in the case of Supplemental Indentures; provided that no such Supplemental Participation Agreement which materially and adversely affects any issuer of a Support Facility (so long as such Support Facility is in effect) shall be effective prior to the receipt by such parties of the written consent of the issuer of such Support Facility, so long as no Support Facility Issuer Default has occurred and is continuing.

Notwithstanding anything in this Indenture to the contrary, the consent of the Holders of the required amount of Bonds shall be deemed given with respect to any Supplemental Participation Agreement or amendment to the Participation Agreement if:
(a) (i) the Supplemental Participation Agreement or amendment to the Participation Agreement takes effect on a date on which all of the Bonds that are affected by such Supplemental Participation Agreement or amendment to the Participation Agreement are subject to mandatory tender for purchase in accordance with this Indenture, (ii) any supplement or amendment effected thereby is consented to in writing by the Remarketing Agent, if any, for such Bonds on or prior to such effective date and disclosed in the official statement or other disclosure document pursuant to which such Bonds are remarketed and (iii) the Bonds so tendered are purchased;
(b) (i) not less than thirty (30) days before the effective date of the Supplemental Participation Agreement or amendment to the Participation Agreement, the Trustee sends a notice of the proposed supplement or amendment to the Holders of the Bonds that are affected by such supplement or amendment and the Holders of such Bonds have the right to tender their Bonds for purchase pursuant to Section 5.03 hereof before such effective date, (ii) the Remarketing Agent for such Bonds consents in writing to the proposed supplement or amendment on or prior to such effective date and (iii) the Bonds so tendered are purchased; or
(c) (i) not less than thirty (30) days before the Auction Date for the Auction Period during which any supplement or amendment to the Participation Agreement shall become effective, the Trustee sends a notice of the proposed supplement or amendment to the Holders of the Auction Rate Bonds that are affected by such supplement or amendment, (ii) the Auction Rate determined for such Auction Rate Bonds at the Auction immediately preceding the effective date of the supplement or amendment is a Winning Bid Rate, and (iii) any supplement or amendment effected thereby is consented to in writing by the Broker-Dealer(s) for such Bonds on or prior to such effective date and is disclosed in the official statement or other disclosure document delivered by the Broker-Dealer(s) to Potential Holders prior to the Auction immediately preceding such effective date; provided, however, that, notwithstanding anything to the contrary in this Indenture, any Auction Rate Bonds that are not the subject of a specific Hold Order or Bid shall be deemed to be subject to a Sell Order at the Auction immediately preceding such effective date.

Section 14.08. Effectiveness of Supplemental Participation Agreement. Upon the execution pursuant to this Article and of applicable law by the Authority and the Company of any Supplemental Participation Agreement amending or supplementing the provisions of the Participation Agreement and the delivery to the Trustee of an Opinion of Bond Counsel that such Supplemental Participation Agreement is in due form, has been duly executed in accordance with the provisions hereof and applicable law and that the provisions thereof are valid (upon which opinion the Trustee, subject to the provisions of Section 11.04 , shall be fully protected in relying), or upon such later date as may be specified in such Supplemental Participation Agreement, (i) the Participation Agreement shall be modified and amended in accordance with such Supplemental Participation Agreement; (ii) the respective rights, limitations of rights, obligations, duties and immunities thereunder of the Authority and the Company shall thereafter be determined, exercised and enforced thereunder subject in all respects to such supplements and amendments; and (iii) all of the terms and conditions of any such Supplemental Participation Agreement shall be a part of the terms and conditions thereof for any and all purposes.

Section 14.09. Amending and Supplementing the Remarketing Agreement, Auction Agency Agreement, Broker-Dealer Agreements or Bond Purchase Trust Agreement. Amendments of or supplements to the Remarketing Agreement, the Auction Agency Agreement, any Broker-Dealer Agreement or the Bond Purchase Trust Agreement shall be made only in accordance with the terms thereof.

Section 14.10. Supplemental Participation Agreement Affecting Support Facility Provider. No Supplemental Participation Agreement or amendments to the Participation Agreement affecting the rights or obligations of the Support Facility Issuer which take effect while any Support Facility is in effect may, so long as no Support Facility Issuer Default has occurred and is continuing, be entered into by the Authority and the Company or be consented to by the Holders without written consent of each Support Facility Issuer.

## ARTICLE XV

## DEFEASANCE; MONEYS HELD FOR PAYMENT OF DEFEASED BONDS

Section 15.01. Discharge of Liens and Pledges; Bonds No Longer Deemed to be Outstanding Hereunder. Bonds purchased pursuant to Section 5.03 , 5.04 , 5.08 or 5.09 shall continue to be Outstanding hereunder until such Bonds shall be cancelled in accordance with Section 5.15 or paid at maturity or redeemed pursuant to Article V or otherwise defeased. The obligations of the Authority under this Indenture and the liens, pledges, charges, trusts, covenants and agreements of the Authority, herein made or provided for, shall be, subject to the terms of Section 15.02, fully discharged and satisfied as to the Bonds or portion thereof and the Bonds shall no longer be deemed to be Outstanding hereunder:
(a) when the Bonds shall have been cancelled, or shall have been surrendered for cancellation and are subject to cancellation, or shall have been redeemed by the Trustee from moneys held by it under this Indenture, or
(b) if the Bonds have not been cancelled or so surrendered for cancellation or subject to cancellation, or so redeemed, when (1) payment of the principal of and premium, if any, on the Bonds, plus interest on such principal to the due date thereof (whether such due date be by reason of maturity or upon redemption or prepayment, or otherwise) and of any Purchase Price which is or may become due on such Bonds either (i) shall have been made or caused to be made in accordance with the terms thereof, or (ii) shall have been provided for by irrevocably depositing with the Trustee in trust, and irrevocably appropriating and setting aside exclusively for such payments (A) moneys sufficient to make such payment, or (B) Governmental Obligations maturing as to principal and interest in such amounts and at such times as will insure the availability of sufficient and timely moneys to make such payments when due, or (C) a combination of both such moneys and Governmental Obligations, whichever the Authority deems to be in its best interest, (2) there shall have been delivered to the Trustee (x) a letter addressed to the Trustee from a nationally recognized firm of independent public accountants verifying the mathematical accuracy of the sufficiency of the deposit made pursuant to (1)(ii) above, (y) an Opinion of Bond Counsel to the effect that upon the provision of payment on the Bonds as described in (1)(ii) above, the Bonds are no longer deemed to be Outstanding under the Indenture and $(\mathrm{z})$ in the case of Bonds bearing interest at a Daily Rate, a Weekly Rate, an Auction Rate, a Monthly Rate and a Semi-annual Rate, written confirmation from S\&P, if the Bonds are then rated by S\&P, to the effect that the deposit made pursuant to (1)(ii) above will not, by itself, result in a reduction or withdrawal of its short-term or long-term rating of the Bonds below the rating category of S\&P then in effect with respect to the Bonds.

In addition, all necessary and proper fees, compensation and expenses of the Authority, Trustee and Registrar and Paying Agent pertaining to such Bonds shall have been paid or the payment thereof provided to the satisfaction of the Trustee.

At such time as the Bonds shall be deemed to be no longer Outstanding hereunder, as aforesaid, such Bonds shall cease to accrue interest from the due date thereof (whether such due date occurs by reason of maturity, or upon redemption or prepayment or
otherwise) and, except for the purposes of any such payment from such moneys or Governmental Obligations and except, in the case of Auction Rate Bonds, to the extent provided in the definition of Outstanding in Article I shall no longer be secured by or entitled to the benefits of this Indenture.

Any such moneys so deposited with the Trustee as provided in this Section may at the written direction of the Company also be invested and reinvested in Governmental Obligations, maturing in the amounts and times as hereinbefore set forth, and all income from all Governmental Obligations in the hands of the Trustee pursuant to this Section which is not required for the payment of the Bonds and interest thereon with respect to which such moneys shall have been so deposited shall be paid to the Company or if any Bonds are then Outstanding, be deposited in the Bond Fund and credited to the Principal Account as and when realized and collected, for use and application as are other moneys credited to such Account.

Anything in Article XV to the contrary notwithstanding, if moneys or Governmental Obligations have been deposited or set aside with the Trustee pursuant to this Section for the payment of the Bonds, the Bonds shall be deemed to have been paid in full. No amendment to the provisions of this Article shall be made without the consent of the Holders of the Bonds affected thereby.

The Trustee shall promptly surrender any Support Facility (if appropriate for the type of instrument or instruments then serving as Support Facility) to the issuer of such Support Facility for cancellation or shall otherwise take appropriate action to terminate the Support Facility following any such defeasance.

Section 15.02. Release of Indenture, Termination of Right, Title and Interest of Trustee. When the Bonds shall be deemed to be paid in accordance with the provisions of Section 15.01, then and in the case all right, title and interest of the Trustee under this Indenture shall thereupon cease, determine and become void, and the Trustee in such case shall release this Indenture, shall execute such documents to evidence such release as may be reasonably required by the Authority and furnish the Authority with the same, and shall turn over to the Company any surplus moneys and balances remaining in any of the Funds and Accounts created in or held under this Indenture, other than moneys and Governmental Obligations held by it pursuant to Section 15.01 or the provisions of Section 15.03 for the redemption, payment or prepayment of the Bonds; otherwise, this Indenture shall be, continue and remain in full force and effect.

Notwithstanding the satisfaction and discharge of this Indenture, the rights of the Trustee and the Registrar and Paying Agent under Sections 11.02, 11.06 and 11.17 shall survive defeasance of the Bonds hereunder.

Section 15.03. Bonds Not Presented for Payment When Due; Moneys Held for the Bonds after Due Date of Bonds. Subject to the provisions of the next sentence of this paragraph, if the Bonds shall not be presented for payment when the principal thereof shall become due, whether at maturity or at the date fixed for the redemption thereof, or otherwise, and if moneys or Governmental Obligations shall at such due date be held by the Trustee in trust for that purpose sufficient and available to pay the principal of and premium, if any, on the Bonds, together with all interest due on such principal to the due date thereof or to the date fixed for
redemption thereof, all liability of the Authority and the Company for such payment shall forthwith cease, determine and be completely discharged, and thereupon it shall be the duty of the Trustee to hold said moneys or Governmental Obligations without liability to the Holders for interest thereon, in trust for the benefit of the Holders, which thereafter shall be restricted exclusively to said moneys or Governmental Obligations for any claim of whatever nature on its part on or with respect to the Bonds, including for any claim for the payment thereof. Notwithstanding anything to the contrary in Section 9.04, any moneys or Governmental Obligations held by the Trustee for the Holders after the principal of and premium, if any, and interest on the Bonds or any portion thereof with respect to which such moneys or Governmental Obligations have been so set aside has become due and payable (whether at maturity or upon redemption or prepayment or otherwise) shall be either held uninvested as cash or at the written direction of the Company invested and reinvested in Governmental Obligations which mature on the next Business Day. Any such moneys or Governmental Obligations held by the Trustee for the Holders after the principal of and premium, if any, and interest on the Bonds or any portion thereof with respect to which such moneys or Governmental Obligations have been so set aside has become due and payable (whether at maturity or upon redemption or prepayment or otherwise) shall be deemed abandoned property when such moneys or Governmental Obligations shall have remained unpaid or undelivered to the Holder or Holders entitled thereto for three years from the date the principal of and premium, if any, and interest on the Bonds or any portion thereof has become due and payable and shall be subject to the laws of the State of New York relating to disposition of unclaimed property.

## AND ENDORSEMENT AND ASSIGNMENT PROVISIONS

Section 16.01. Form of Bonds and Endorsement and Assignment Provisions. The form of Bond, the form of the certificate of authentication thereof, the form of endorsement to appear thereon and the form of assignment thereof shall be substantially in the form set forth in Appendix A hereto.

## ARTICLE XVII

## MISCELLANEOUS

Section 17.01. Benefits of Indenture Limited to Authority, Company, Trustee, Registrar and Paying Agent, Support Facility Issuer, Auction Agent and Holders of the Bonds. With the exception of rights or benefits herein expressly conferred, nothing expressed or mentioned in or to be implied from this Indenture or the Bonds is intended or should be construed to confer upon or give to any person other than the Authority, the Company, the Trustee, the Registrar and Paying Agent, the Support Facility Issuer, the Auction Agent and the Holders of the Bonds any legal or equitable right, remedy or claim under or by reason of or in respect to this Indenture or any covenant, condition, stipulation, promise, agreement or provision herein contained. Unless otherwise expressly set forth herein, this Indenture and all of the covenants, conditions, stipulations, promises, agreements and provisions hereof are intended to be and shall be for and inure to the sole and exclusive benefit of the Authority, the Company, the Trustee, the Registrar and Paying Agent, any Support Facility Issuer, the Auction Agent and the Holders of the Bonds as herein and therein provided.

Section 17.02. Indenture a Contract; Indenture Binding Upon Successors or Assigns of the Authority. In consideration of the acceptance of the Bonds by any person who shall hold the same from time to time, each of the obligations, duties, limitations and restraints imposed by this Indenture upon the Authority or any employee thereof shall be deemed to be a covenant between the Authority and every Holder and this Indenture and every provision and covenant hereof shall be a contract by the Authority with the Holders of the Bonds issued hereunder to secure the full and final payment of the principal of, premium, if any, of and the interest on the Bonds executed and delivered hereunder. The provisions of the Act shall be a contract by the Authority with the Holders and the duties of the Authority and any employee thereof under the Act shall be enforceable by the Holders. This Indenture shall be enforceable by the Holders, by mandamus or other appropriate suit, action or proceeding in any court of competent jurisdiction. The covenants and agreements herein set forth to be performed by the Authority and any employee thereof, shall be for the benefit, security and protection of the Holders. All the terms, provisions, conditions, covenants, warranties and agreements contained in this Indenture shall be binding upon the assigns of the Authority, and shall inure to the benefit of the Trustee, its successors or substitutes in trust and assigns, and the Holders.

Section 17.03. Notice to Holders of Bonds. Except as is otherwise provided in this Indenture, any provision for the mailing of a notice or other paper to the Holders shall be fully complied with if it is mailed postage prepaid, to the Holder of the Bonds at such Holder's address appearing upon the books of registry kept pursuant to Article VII. The Trustee shall furnish a copy of any notice to a Holder upon a request by the Holder that a copy of such notices be provided directly to the Holder; provided, however, that any failure to provide such a notice to a Holder shall not effect the validity of the provision of the notice in the preceding sentence.

Section 17.04. Waiver of Notice. Whenever in this Indenture the giving of notice by mail, publication, or otherwise is required, the giving of such notice may be waived by the person entitled to receive such notice, and in any case the giving or receipt of such notice shall
not be a condition precedent to the validity of any action taken in reliance upon such waiver. Trustee shall furnish a copy of any notice to a Holder upon a request by the Holder that a copy of such notices be provided directly to the Holder; provided, however, that any failure to provide such a notice to a Holder shall not effect the validity of the provision of the notice in the preceding sentence.

Section 17.05. Effect of Saturdays, Sundays and Non-Business Days. Except as otherwise specifically provided herein, whenever this Indenture requires any action to be taken on a Saturday, Sunday or other day which is not a Business Day, such action shall be taken on the first Business Day occurring thereafter. Except as otherwise specifically provided herein, whenever in this Indenture the time within which any action is required to be taken or within which any right will lapse or expire shall terminate on a Saturday, Sunday or other day which is not a Business Day, such time shall continue to run until midnight on the next succeeding Business Day.

Section 17.06. Partial Invalidity. If any one or more of the covenants or agreements or portions thereof provided in this Indenture on the part of the Authority or the Trustee to be performed should be determined by a court of competent jurisdiction to be contrary to law, then such covenant or covenants, or such agreement or agreements, or such portions thereof, shall be deemed severable from the remaining covenants and agreements or portions thereof provided in this Indenture and the invalidity thereof shall in no way affect the validity of the other provisions of this Indenture or of the Bonds, but the Holders shall retain all the rights and benefits accorded to them hereunder and under any applicable provisions of law.

If any provisions of this Indenture shall be held or deemed to be or shall, in fact, be inoperative or unenforceable or invalid in any particular case in any jurisdiction or jurisdictions or in all jurisdictions, or in all cases because it conflicts with any constitution or statute or rule of public policy, or for any other reason, such circumstances shall not have the effect of rendering the provision in question inoperative or unenforceable or invalid in any other case or circumstance, or of rendering any other provision or provisions herein contained inoperative or unenforceable or invalid to any extent whatsoever.

Section 17.07. Law and Place of Enforcement of Indenture. This Indenture shall be construed and interpreted in accordance with the laws of the State of New York and all suits and actions arising out of this Indenture shall be instituted in a court of competent jurisdiction in the State of New York.

Section 17.08. Requests, Approvals and Directions of Authority. Whenever in this Indenture a request, approval, direction or other action is required of the Authority, such request, approval, direction or other action shall be in the form of and evidenced by a certificate of an Authorized Officer of the Authority unless otherwise provided herein.

Section 17.09. Notices, Demands; Requests. Except as otherwise set forth herein, all notices, demands, directions and requests to be given to or made hereunder by the Company, the Authority, the Trustee, the Remarketing Agent, the Auction Agent and the Registrar and Paying Agent shall be given or made in writing and shall be deemed to be properly given or made if sent by first class United States mail, postage prepaid, addressed as follows:

| As to the Company | 4 Irving Place <br> New York, New York 10003 <br> Attention: Secretary |
| :--- | :--- |
| As to the Authority | 17 Columbia Circle <br> Albany, New York 12203-6399 <br> Attention: President |
| As to the Trustee | 101 Barclay Street - 21W <br> New York, New York 10286 <br> Attention: New York Municipal Finance Unit |
| As to the Auction Agent | at the address specified in the Auction Agency Agreement |
| As to the Remarketing Agents | at the address specified in the Remarketing Agreement |
| As to the Registrar and Paying Agent | 101 Barclay Street - 21W <br> New York, New York 10286 <br> Attention: Corporate Trust Administration |
| As to the Support Facility Issuer | Citibank, NA <br> 388 Greenwich St., 21st Floor <br> New York, NY 10013 |

Any such notice, demand, direction or request may also be transmitted to the appropriate above-mentioned party by telegram, telecopy, telex or similar means and shall be deemed to be properly given or made at the time of such transmission if, and only if, such transmission of notice shall be in writing and sent as specified above.

Any notice, demand, direction or request given or transmitted to the Trustee or the Authority shall be effective only upon receipt.
Any of such addresses may be changed at any time upon written notice of such change sent by first-class United States mail, postage prepaid, to the other parties by the party affecting the change.

If the Bonds shall be rated by Moody’s, the Trustee shall furnish to Moody's at 99 Church Street, New York, New York, Attention: Corporate Department Structured Finance

Group or such other office as Moody's may designate to the Trustee, if the Bonds shall be rated by S\&P, the Trustee shall furnish to S\&P at 55 Water Street, New York, New York 10041, Attention: Letter of Credit Surveillance Group, and if the Bonds shall be rated by Fitch, the Trustee shall furnish to Fitch Ratings at One State Street Plaza, New York, New York 10004, Attention: Municipal Structured Finance Group (i) a copy of each amendment to the Indenture, Participation Agreement, Bond Purchase Trust Agreement, and each Support Facility of which it has knowledge, (ii) notice of the termination, extension or expiration of any Support Facility, (iii) notice of the payment of all the Bonds (iv) notice of a Change in the Interest Rate Mode, (v) notice of any successor Trustee, Registrar and Paying Agent or Remarketing Agent, and (vi) any information that the rating agencies may reasonably request in order to maintain the rating on the Bonds; provided, however, that failure by the Trustee to so notify Moody's, S\&P or Fitch shall not result in any liability on the part of the Trustee or affect the validity of such documents or actions.

Section 17.10. Effect of Article and Section Headings and Table of Contents. The heading or titles of the several Articles and Sections hereof, and any table of contents appended hereto or to copies hereof, shall be solely for convenience of reference and shall not affect the meaning, construction, interpretation or effect of this Indenture.

Section 17.11. Indenture May be Executed in Counterparts; Effectiveness of Indenture. This Indenture may be simultaneously executed in counterparts. Each such counterpart so executed shall be deemed to be an original, and all together shall constitute but one and the same instrument. This Indenture shall take effect immediately upon the execution and delivery hereof. Notwithstanding the actual date hereof, for convenience and purposes of reference this Indenture shall be dated as of November 1, 2004 and may be cited and referred to as the "Indenture dated as of November 1, 2004".

Section 17.12. Liability of Authority Limited to Revenues. Notwithstanding anything in this Indenture or in the Bonds contained, the Authority shall not be required to advance any moneys derived from any source other than the Revenues and other assets pledged under this Indenture for any of the purposes in this Indenture mentioned, whether for the payment of the principal or redemption price of or interest on the Bonds or for any other purpose of this Indenture. Pursuant to Section 5.09 of the Participation Agreement, the Company has agreed to indemnify and hold harmless the Authority and the Trustee from all liability arising hereunder.

SECTION 17.13 Waiver of Personal Liability. No member, officer, agent or employee of the Authority shall be individually or personally liable for the payment of the principal of or premium, if any, or interest on the Bonds or be subject to any personal liability or accountability by reason of the issuance thereof; but nothing herein contained shall relieve any such member, officer, agent or employee from the performance of any official duty provided by law or by this Indenture.

IN WITNESS WHEREOF, the Authority has caused this Indenture to be executed by its President, Vice President or Treasurer and its corporate seal to be hereunto affixed and attested by its Assistant Secretary, and the Trustee has caused this Indenture to be executed by its authorized officer, all as of the date first above written.

## NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY

## By

$\qquad$
President
(SEAL)
Attest:

Assistant Secretary
THE BANK OF NEW YORK
as Trustee,

By
[Signature Page of Indenture]

Unless this certificate is presented by an authorized representative of The Depository Trust Company, a New York corporation ("DTC"), to the Authority or its agent for registration of transfer, exchange, or payment, and any certificate issued is registered in the name of Cede \& Co. or in such other name as is requested by an authorized representative of DTC (and any payment is made to Cede \& Co. or to such other entity as is requested by an authorized representative of DTC), ANY TRANSFER, PLEDGE, OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL inasmuch as the registered owner hereof, Cede \& Co., has an interest herein.

## NEW YORK STATE ENERGY RESEARCH AND <br> DEVELOPMENT AUTHORITY <br> Facilities Revenue Bonds, Series 2004 C

(Consolidated Edison Company of New York, Inc. Project)
(Subseries 2004[C-1, C-2 or C-3])

No. C[-1, -2 or -3$]$ -
\$
INTEREST RATE OR INTEREST RATE MODE ON DATE OF AUTHENTICATION

MATURITY ORIGINAL
DATE

November 1, 2039
ISSUE DATE

November 12, 2004

## REGISTERED OWNER:

## PRINCIPAL SUM:

NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY (the "Authority"), a body corporate and politic, constituting a public benefit corporation, organized and existing under and by virtue of the laws of the State of New York, for value received, hereby promises to pay, but solely from the revenues, income and other moneys hereinafter specified and not otherwise, to the registered owner named above or registered assigns, the principal amount specified above on the maturity date specified above (subject to the right of prior redemption hereinafter described), upon presentation and surrender of this Bond, and to pay interest on such principal amount, but solely from such revenues, income and other moneys hereinafter specified and not otherwise, from the Original Issue Date, or if thereafter,
from the date of authentication hereof, or if such date shall not be an Interest Payment Date from the next preceding Interest Payment Date or, if the date of authentication is after the Record Date next preceding the next succeeding Interest Payment Date, from the next succeeding Interest Payment Date until the payment of such principal amount in full, at the rate of interest per annum specified above, such interest being payable on each Interest Payment Date in each year, by check mailed to the registered owner hereof at his or her address as it appears on the registration books kept by the Registrar and Paying Agent pursuant to the Indenture hereinafter mentioned; provided, that (i) while the Securities Depository is the registered owner of the Bonds, all payments of principal of and premium, if any, and interest on the Bonds shall be paid to the Securities Depository by wire transfer, (ii) prior to and including any Fixed Rate Conversion Date, interest on the Bonds shall be payable, at the option of any registered owner of at least one million dollars $(\$ 1,000,000)$ in aggregate principal amount of the Bonds, by wire transfer upon written notice received by the Registrar and Paying Agent from such registered owner at least five days prior to the Record Date, containing the wire transfer address (which shall be in the continental United States) to which such registered owner wishes to have such wire directed, and (iii) during a Commercial Paper Rate Period, interest on this Bond shall be payable only upon presentation and surrender hereof to the Registrar and Paying Agent upon purchase thereof pursuant to the Indenture, and if such presentation and surrender is made by 2:00 p.m. (New York City time) such payment shall be by wire transfer. If interest is in default it shall be paid to the person in whose name this Bond is registered as of a special record date as set forth in the Indenture. Except as set forth above, principal of and premium, if any, on this Bond are payable at the principal office of The Bank of New York, in New York, New York, as Registrar and Paying Agent of the Bonds. Principal of and premium, if any, and interest on this Bond are payable in lawful money of the United States of America.

This Bond is one of a duly authorized issue of Bonds of the Authority designated as "Facilities Revenue Bonds, Series 2004C (Consolidated Edison Company of New York, Inc. Project)", issued in the aggregate principal amount of Ninety-Nine Million Dollars (\$99,000,000), referred to herein as the "Bonds." In order to distinguish between Bonds which are subject to different interest rate determination methods and other features and to distinguish the portion of the Bonds to be remarketed by any particular Remarketing Agent, the Bonds may be designated and redesignated from time to time by the Authority in such a way as to identify one or more subseries of the Bonds pursuant to Article II of the Indenture. Pursuant to the Indenture, the Series 2004C Bonds are being issued in three subseries, designated Subseries 2004C-1, Subseries 2004C-2 and Subseries 2004C-3, in principal amounts of $\$ 33,000,000, \$ 33,000,000$ and $\$ 33,000,000$, respectively. This Bond and the issue of which it is one are authorized to be issued and are issued under, pursuant to and in full compliance with the Constitution and statutes of the State of New York, including particularly the New York State Energy Research and Development Authority Act, Title 9 of Article 8 of the Public Authorities Law of the State of New York, as amended (the "Act"), a resolution of the Authority adopted on September 20, 2004 and a Trust Indenture dated as of November 1, 2004 between the Authority and The Bank of New York, as Trustee (herein, as it may be amended from time to time, called the "Indenture"). The Bonds are issued for the purpose of refunding certain outstanding bonds of the Authority issued to finance a portion of the cost of acquisition, construction and installation of certain facilities of Consolidated Edison Company of New York, Inc. (the "Company") for the local furnishing of gas within the Company's service area in The City of New York and the County of Westchester, New York (all of said facilities being referred to herein as the "Project")

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pursuant to a Participation Agreement, dated as of November 1, 2004, between the Authority and the Company (hereinafter, as it may be amended or supplemented from time to time, called the "Participation Agreement"). Under the Participation Agreement and the promissory note delivered to the Trustee (the "Note"), the Company is required to make payments to the Trustee for deposit to the Bond Fund established pursuant to the Indenture in an amount sufficient to pay principal of and premium, if any, and interest on the Bonds when due. The Participation Agreement also imposes on the Company certain obligations respecting the use and operation of the Project. A copy of the Participation Agreement is on file at the principal office of the Trustee, and reference is hereby directed to the Participation Agreement for the provisions thereof.

The terms and provisions pertaining to Bonds bearing an Auction Rate are set forth in separate bond certificates.
A copy of the Indenture is on file at the principal office of the Trustee. Reference is hereby directed to the Indenture for the provisions, among others, with respect to the custody and application of the proceeds of the Bonds; the collection and disposition of revenues; a description of the nature and extent of the security for the Bonds, the funds and moneys pledged for the payment of the principal of and premium, if any, and interest on the Bonds; the nature and extent and manner of enforcement of the pledge; the rights and remedies of the registered owners of Bonds with respect thereto; the conditions for and the permissible extent of alteration, supplement and amendment of the Indenture or Participation Agreement; the terms and conditions upon which this Bond and the issue of which it is one are issued; the rights, duties and obligations of the Authority and the Trustee thereunder; the terms and provisions upon which the liens, pledges, charges, trusts and covenants made therein may be discharged at or prior to the maturity, purchase or redemption of this issue and pursuant to which this Bond thereafter will no longer be secured by the Indenture, or be deemed to be outstanding thereunder, if sufficient moneys or certain specified securities shall have been deposited with the Trustee and held in trust solely for the payment thereof; and for all other terms and provisions thereof. The provisions of the Act and the Indenture shall be a contract with the registered owner of this Bond, and the duties of the Authority and any employee thereof under said Act and the Indenture shall be enforceable by the registered owner hereof, by mandamus or other appropriate suit, action or proceeding, in any court of competent jurisdiction in the State of New York.

The Bonds are not general obligations of the Authority, and shall not constitute indebtedness of or a charge against the general credit of the Authority or give rise to any pecuniary liability of the Authority. The liability of the Authority under the Bonds shall be enforceable only to the extent provided in the Indenture, and the Bonds shall be payable solely from the moneys and revenues received from the payments made by the Company pursuant to the Participation Agreement and the Note, or the income from the temporary investment thereof, and from amounts held under the Indenture including the proceeds of a DirectPay Credit Facility, if any, and not from any other fund or source. Pursuant to the Indenture, the Authority has pledged and assigned to the Trustee its right, title and interest (with certain exceptions) in and to the Note and the Participation Agreement to secure the payment of the principal of and premium, if any, and interest on the Bonds. The Bonds are and shall be secured by a prior and paramount lien and charge on said moneys and revenues. The Bonds shall not be a debt of the State of New York, and the State of New York shall not be liable thereon. The Bonds are payable solely from the moneys and revenues pledged under the Indenture to the payment

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thereof. Neither the Authority nor the State of New York is obligated to provide for the payment of the Purchase Price of tendered Bonds or payment of principal, premium, if any, or interest on the Bonds.

This Bond shall not be entitled to any security, right or benefit under the Indenture or become valid or obligatory for any purpose until it shall have been authenticated by the Trustee by its execution of the certificate of authentication endorsed hereon.

No covenant or agreement contained in this Bond or the Indenture shall be deemed to be a covenant or agreement of any member, agent or employee of the Authority in his or her individual capacity, and neither the members of the Authority nor any officer thereof executing this Bond shall be liable personally on this Bond or be subject to any personal liability or accountability by reason of the issuance of this Bond.

It is hereby certified, recited and declared that all acts, conditions and things required by the Constitution and laws of the State of New York and the Indenture to exist, to have happened and to have been performed precedent to and in the issuance of this Bond and the issue of which this Bond is a part, do exist, have happened and have been performed in due time, form and manner as required by such Constitution, laws and the Indenture; that the amount of this Bond and the issue of which this Bond is a part does not exceed any constitutional or statutory limitations of indebtedness; and that provision has been made for the payment of the principal of and premium, if any, and interest on this Bond and the series of which it is a part as provided in the Indenture.

## EXCEPT AS OTHERWISE PROVIDED IN SECTION 2.03 OF THE INDENTURE, THIS GLOBAL BOND MAY BE TRANSFERRED, IN WHOLE BUT NOT IN PART, ONLY TO A NOMINEE OF THE SECURITIES DEPOSITORY OR TO A SUCCESSOR SECURITIES DEPOSITORY OR TO A NOMINEE OF A SUCCESSOR SECURITIES DEPOSITORY.

## Interest Rate Provisions

The Bonds will bear interest at one of the following interest rates: a "Commercial Paper Rate", an "Auction Rate", a "Daily Rate," a "Weekly Rate," a "Monthly Rate," a "Semi-annual Rate", a "Term Rate" (each of the foregoing referred to as an "Adjustable Rate") or a "Fixed Rate". Except with respect to the Weekly Rate for the initial Calculation Period which shall be $1.70 \%$, each Adjustable Rate other than an Auction Rate shall be an adjustable rate which, with respect to the first day of each Calculation Period applicable to such Adjustable Rate, shall be equal to the rate or rates of interest per annum established and certified to the Trustee by the Remarketing Agent no later than 12:00 noon (New York City time) on and as of the Determination Date as the minimum rate of interest per annum which, in the opinion of the Remarketing Agent, would be necessary on and as of the date of such certification to remarket Bonds in a secondary market transaction at a price equal to the principal amount thereof plus accrued interest thereon, if any, except as otherwise provided in the Indenture; provided that such rate of interest shall not exceed the lesser of (i) $18 \%$ and (ii) $110 \%$ of the rate index for such rate on the applicable Determination Date. Anything in the Indenture to the contrary notwithstanding, in no event shall the interest rate borne by any Bond exceed the maximum rate
allowable by applicable law. The term "Business Day" means any day other than a Saturday, Sunday or other day on which the New York Stock Exchange or banks are authorized or obligated by law or executive order to close in New York, New York, or any city in which is located the principal corporate trust office of the Trustee or the office of an issuer of a Support Facility, at which demands for a draw on, or borrowing or payment under, the Support Facility will be made.

During any Commercial Paper Rate Period, at or prior to 12:00 noon (New York City time) on each Determination Date, the Remarketing Agent shall establish Calculation Periods and related Commercial Paper Rates. In determining Calculation Periods, the Remarketing Agent shall take into account certain factors set forth in the Indenture. The Remarketing Agent shall select the Calculation Periods and the applicable Commercial Paper Rates that, together with all other Calculation Periods and related Commercial Paper Rates, in the sole judgment of the Remarketing Agent, will result in the lowest overall borrowing cost on the Bonds or are otherwise in the best financial interests of the Company, as determined in consultation with the Company. Any Calculation Period established under the Indenture may not extend beyond the second Business Day next preceding the expiration date of the Support Facility or the day prior to the maturity date of the Bonds. The Authority, at the request of the Company, may place limitations upon the establishment of the Calculation Periods in accordance with the Indenture.

The term "Calculation Period" means (a) during any Commercial Paper Rate Period, following a Change in the Interest Rate Mode to a Commercial Paper Rate Period, the period from and including the effective date of the Change in the Interest Rate Mode to a Commercial Paper Rate Period to but not including any day not more than 270 days thereafter which is a day immediately preceding a Business Day established by the Remarketing Agent pursuant to the Indenture and, thereafter, any Calculation Period established by the Remarketing Agent pursuant to the Indenture which shall end on a day not later than 270 days from the commencement thereof; (b) during any Daily Rate Period, the period from and including a Business Day to but not including the next succeeding Business Day; (c) during the first Weekly Rate Period, the period from and including the date of issuance of the Bonds to and including the following Tuesday, and thereafter the period from and including Wednesday of each week to and including the following Tuesday and during any other Weekly Rate Period following a Change in the Interest Rate Mode to a Weekly Rate, the period from and including the effective date of the Change in the Interest Rate Mode to and including the following Tuesday, and, thereafter, the period from and including Wednesday of each week to and including the following Tuesday; (d) during any Monthly Rate Period, following a Change in the Interest Rate Mode to a Monthly Rate, the period from and including the effective date of the Change in the Interest Rate Mode to but excluding the first Business Day of the following month, and thereafter, each period from and including the first Business Day of the month to but excluding the first Business Day of the following month; (e) during any Semi-annual Rate Period, following a Change in the Interest Rate Mode to a Semi-annual Rate, the period from and including the effective date of the Change in the Interest Rate Mode to but excluding the next succeeding Interest Payment Date and, thereafter, each period from and including the day following the end of the last Calculation Period to but excluding the next succeeding Interest Payment Date; (f) during any Term Rate Period, any period of not less than 365 days from and including the effective date of the Change in the Interest Rate Mode to a Term Rate to and including any day (established by the Authority

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at the request of the Company pursuant to the Indenture) not later than the day prior to the Stated Maturity; and (g) during any Fixed Rate Period following a Change in the Interest Rate Mode to a Fixed Rate, the period from and including the effective date of the Change in the Interest Rate Mode through the day immediately preceding the Stated Maturity.

The term "Interest Payment Date" means (a) during each Commercial Paper Rate Period, the Business Day immediately succeeding the last day of any Calculation Period; (b) during each Daily Rate Period, the first Business Day of each month thereof; (c) (i) during the initial Weekly Rate Period, on December 1, 2004 and on the first Business Day of each month thereafter, and (ii) during each Weekly Rate Period other than the initial Weekly Rate Period, on the first Business Day of each month thereof; (d) during each Monthly Rate Period, the first Business Day of each month thereof; (e) during each Semi-annual Rate Period, (i) the first Business Day of the sixth calendar month following the month in which the first day of such Semi-annual Rate Period occurred, (ii) each anniversary of the date so determined, and (iii) each anniversary of the first day of the first month of such Semi-annual Rate Period; (f) during each Term Rate Period, the November 1 or May 1 next succeeding the first day of a Calculation Period and each November 1 or May 1 thereafter; provided, however, that if the November 1 or May 1 next succeeding the first day of a Calculation Period occurs less than twenty-one (21) days after the first day of such Calculation Period, the first Interest Payment Date shall be the second such date following the first day of such Calculation Period; (g) the November 1 or May 1 next succeeding a Fixed Rate Conversion Date and each November 1 or May 1 thereafter; provided, however, that if the November 1 or May 1 next succeeding a Fixed Rate Conversion Date occurs less than twenty-one (21) days after such Fixed Rate Conversion Date, the first Interest Payment Date shall be the second such date following the first day of the Fixed Rate Period; (h) a Fixed Rate Conversion Date; (i) any day on which Bonds are subject to mandatory tender for purchase or redemption in whole pursuant to the Indenture; and (j) the Stated Maturity; provided, however, that if any such date determined in any of the foregoing clauses is not a Business Day, the Interest Payment Date shall be the next succeeding day which is a Business Day.

While the Bonds bear interest at a Commercial Paper Rate, a Daily Rate, a Weekly Rate, a Monthly Rate or a Semi-annual Rate, interest accrued on such Bonds shall be computed on the basis of a 365 or 366 -day year, as applicable, for the number of days actually elapsed. While the Bonds bear interest at a Term Rate or a Fixed Rate, interest accrued on such Bonds shall be computed on the basis of a 360-day year, consisting of twelve (12) thirty (30) day months.

As used herein, the term "Record Date" means (a) with respect to each Interest Payment Date during a Commercial Paper Rate Period, a Daily Rate Period, a Weekly Rate Period or a Monthly Rate Period, the Business Day next preceding such Interest Payment Date; (b) with respect to each Interest Payment Date during a Semi-annual Rate Period or a Term Rate Period, the fifteenth day of the calendar month next preceding such Interest Payment Date; and (c) with respect to each Interest Payment Date during a Fixed Rate Period, the fifteenth day of the month next preceding such Interest Payment Date, or, if such day is not a Business Day, the next preceding Business Day.

As used herein, the term "Remarketing Agent" shall mean Citigroup Global Markets Inc. with respect to the Subseries 2004C-1 Bonds, Morgan Stanley \& Co. Incorporated with respect to the Subseries 2004C-2 Bonds, and J.P. Morgan Securities Inc. with respect to the Subseries 2004C-3 Bonds or their respective successors or assigns or such other Remarketing Agents or their respective successors or assigns as shall be appointed from time to time pursuant to the Indenture and the Remarketing Agreement.

The Bonds shall cease to bear interest at the Adjustable Rate then borne by the Bonds and shall bear interest at such different Adjustable Rate or Fixed Rate as shall be specified by the Authority, at the written request of the Company.

If any condition to any Change in the Interest Rate Mode is not met on any date, then the Bonds shall continue to bear interest at the Adjustable Rate then borne by the Bonds and be subject to all provisions of the Indenture applicable thereto while the Bonds bear interest at such Adjustable Rate. Notwithstanding the failure to meet such conditions, the Bonds shall remain subject to mandatory tender for purchase in accordance with the Indenture.

Fixed Rate. On a Fixed Rate Conversion Date, the Bonds shall cease to bear interest at the Adjustable Rate then borne by the Bonds and shall bear interest at a Fixed Rate upon the election by the Authority, at the written request of the Company, to exercise its Option to Convert. Fixed Rate means the rate of interest per annum established and certified to the Trustee by the Remarketing Agent no later than 12:00 noon (New York City time) on and as of such date as the minimum rate of interest per annum which, in the opinion of the Remarketing Agent, would be necessary on and as of such date to remarket the Bonds in a secondary market transaction at a price equal to $100 \%$ of the outstanding principal amount thereof; provided that such rate of interest shall not exceed the lesser of (i) $18 \%$ and (ii) $110 \%$ of the Fixed Rate Index on and as of such date. A Fixed Rate shall be established in accordance with the terms and subject to the conditions set forth in the Indenture. Anything in the Indenture to the contrary notwithstanding, in no event shall the interest rate borne by any Bond exceed the maximum rate allowable by applicable law.

## Redemption Provisions

Optional Redemption. The Bonds shall be subject to redemption at the option of the Authority upon the request of the Company:
(a) During any Commercial Paper Rate Period, the Bonds shall be subject to redemption on each Interest Payment Date, as a whole or in part, at the principal amount thereof, at a redemption price equal to $100 \%$ of the principal amount.
(b) During any Daily Rate Period, the Bonds shall be subject to redemption on any Business Day, as a whole or in part, at the principal amount thereof, plus accrued and unpaid interest to the date fixed for redemption, if any.
(c) During any Weekly Rate Period, the Bonds shall be subject to redemption on any Business Day, as a whole or in part, at the principal amount thereof, plus accrued and unpaid interest to the date fixed for redemption, if any.

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(d) During any Monthly Rate Period, the Bonds shall be subject to redemption on each Interest Payment Date, as a whole or in part, at the principal amount thereof
(e) During any Semi-annual Rate Period, the Bonds shall be subject to redemption on each Interest Payment Date, as a whole or in part, at the principal amount thereof.
(f) During any Term Rate or Fixed Rate Period, the Bonds shall be subject to redemption in whole or in part at any time as follows: after the No-Call Period shown below, which shall begin on the first day of the Calculation Period applicable to such Bonds or on a Fixed Rate Conversion Date, as the case may be, and end on the enumerated anniversary thereof, at a redemption price equal, initially, to the principal amount thereof, plus a premium equal to the percentage of the principal amount to be redeemed shown in the Initial Premium column, plus accrued and unpaid interest if paid on a Business Day other than an Interest Payment Date. The premium percentage, if any, shall decline by the percentage shown in the Reduction in Premium column on each anniversary of the date on which such Bonds are first redeemable until the Bonds shall be redeemable without premium.

| Calculation Period or Period to Maturity |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Equal to or Greater Than | But Less Than | No-Call <br> Period | Initial Premium | Reduction in Premium |
| 18 years | N/A | 8 Years | $1^{1} / 2 \%$ | 1/2\% |
| 12 years | 18 Years | 6 Years | 1 | 1/2 |
| 7 Years | 12 Years | 3 Years | 0 | 0 |
| 5 Years | 7 Years | 2 Years | 0 | 0 |
| 4 Years | 5 Years | 2 Years | 0 | 0 |
| 3 Years | 4 Years | 2 Years | 0 | 0 |
| 0 Years | 3 Years | Not callabl |  |  |

If upon establishment of a Term Rate Period or a Fixed Rate Period, as the case may be, the applicable Remarketing Agent certifies to the Trustee, Bond Counsel and the Authority in writing that the foregoing schedule is not consistent with then-prevailing market conditions, the Authority at the request of the Company may revise the foregoing Initial Premium, Reductions in Premium and No-Call Periods with respect to Bonds for which a Term Rate Period or Fixed Rate Period is then being established without the approval of the Holders to reflect then-prevailing market conditions, upon receipt of an Opinion of Bond Counsel to the effect that any revisions pursuant to this paragraph, either by itself or in conjunction with the establishment of a Calculation Period for a Term Rate Period or a Fixed Rate Period, as the case may be, are made in accordance with the Indenture, is permitted under the Act and will not adversely affect the exclusion of interest on the Bonds from gross income for federal income tax purposes.

Extraordinary Optional Redemption. During any Term Rate Period or Fixed Rate Period, the Bonds are also subject to redemption prior to maturity in whole at any time at the option of the Authority, exercised at the direction of the Company, upon notice given as provided in the Indenture, at a redemption price equal to the principal amount thereof, together

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with unpaid interest accrued thereon to the date fixed for redemption, in any of the following events:
(1) All or substantially all of the Project shall have been damaged or destroyed or title to, or the temporary use of, all or a substantial portion of the Project shall have been taken under the exercise of the power of eminent domain by any governmental authority, or person, firm or corporation acting under governmental authority, as in each case renders the Project unsatisfactory to the Company for its intended use;
(2) Unreasonable burdens or excessive liabilities shall have been imposed upon the Authority or the Company with respect to all or substantially all of the Project, including without limitation the imposition of federal, state or other ad valorem property, income or other taxes other than ad valorem taxes in effect on the date of original issuance of the Bonds levied upon privately owned property used for the same general purpose as the Project; or
(3) Any court or regulatory or administrative body shall enter or adopt, or fail to enter or adopt, a judgment, order, approval, decree, rule or regulation, as a result of which the Company elects to cease operation of all or substantially all of the Project.

Special Tax Redemption Provisions. 1. During any Semi-annual Rate Period, Term Rate Period, or Fixed Rate Period, the Bonds shall be subject to mandatory redemption as a whole (provided, however, that the Bonds shall be redeemed in part if the Company obtains an opinion of Bond Counsel to the effect that, by redeeming such portion of the Bonds, the interest on the remaining Bonds will not be included for federal income tax purposes in the gross income of any owner of the Bonds (other than an owner who is a "substantial user" of the Project or a "related person" within the meaning of Section 147(a)(1) of the Code)) at any time at a redemption price equal to $100 \%$ of the principal amount thereof, together with unpaid interest accrued thereon to the redemption date, if, in a published or private ruling of the Internal Revenue Service or in a final, nonappealable judicial decision by a court of competent jurisdiction (provided that the Company has been afforded the opportunity to participate at its own expense in the proceeding resulting in such ruling or in the litigation resulting in such decision, as the case may be), it is determined that, as a result of a failure by the Company to observe any covenant, agreement or representation in the Participation Agreement or the Tax Regulatory Agreement, interest on the Bonds is included for federal income tax purposes in the gross income (as defined in Section 61 of the Code) of any owner of a Bond (other than a "substantial user" of the Project or a "related person" within the meaning of Section 147(a)(1) of the Code), and, in such event, the Bonds shall be subject to such mandatory redemption not more than one hundred eighty (180) days after receipt by the Trustee of notice of such published or private ruling or judicial decision and a demand for redemption of the Bonds. The occurrence of an event requiring the redemption of the Bonds under this paragraph does not constitute an event of default under the Note or under the Indenture and the sole obligation in such event shall be for the Company to prepay the Note in an amount sufficient to redeem the Bonds to the extent required by this paragraph.
2. During any Semi-annual Rate Period, Term Rate Period, or Fixed Rate Period, the Bonds may be redeemed in whole or in part at any time at a redemption price equal to $100 \%$ of the principal amount thereof, together with accrued and unpaid interest thereon to the redemption date, if the Company has determined, on the basis of the advice of Bond Counsel that, as a result of any action taken or expected to be taken, or a failure to take action, a reasonable risk exists that interest on the Bonds will not be excludable from gross income for federal tax purposes. Such conclusion and certification shall be evidenced by delivery to the Trustee of a written certificate of an Authorized Company Representative to the effect that the Company has reached such conclusion, together with a copy of such advice of Bond Counsel. The occurrence of an event permitting the redemption of the Bonds under this paragraph does not constitute an event of default under the Note or under the Indenture and the sole obligation in such event shall be for the Company to prepay the Note in an amount sufficient to redeem the Bonds to the extent required by this paragraph.
3. During any Semi-annual Rate Period, Term Rate Period, or Fixed Rate Period, the Bonds will also be subject to mandatory redemption at a redemption price equal to one hundred three percent (103\%) of the principal amount thereof plus unpaid interest accrued thereon to the redemption date if the Company reasonably concludes and certifies to the Trustee that the business, properties, condition (financial or otherwise), operations or business prospects of the Company will be materially and adversely affected unless the Company takes or omits to take a specified action and that the Company has been advised in writing by Bond Counsel that the specified action or omission would cause the use of the Project to be such that, pursuant to Section 150 of the Code, the Company would not be entitled to deduct the interest on the Bonds for purposes of determining the Company's federal taxable income, for a period of not less than ninety (90) consecutive or nonconsecutive days during a twelve-month period. Such conclusion and certification shall be evidenced by delivery to the Trustee of a written certificate of an Authorized Company Representative to the effect that the Company has reached such conclusion, together with a certified copy of a resolution of the Board of Trustees of the Company authorizing such certificate and a copy of such advice of Bond Counsel. In the event that the Bonds become subject to redemption as provided in this paragraph, the Bonds will be redeemed in whole unless redemption of a portion of the Bonds outstanding would, in the opinion of Bond Counsel, have the result that interest payable on the Bonds remaining outstanding after such redemption would be deductible for purposes of determining the federal taxable income of the Company, and, in such event, the Bonds to be redeemed shall be selected (in the principal amount of $\$ 5,000$ or any integral multiple thereof) by lot, in such amount as is necessary to accomplish that result. The occurrence of an event requiring the redemption of the Bonds under this paragraph does not constitute an event of default under the Note or under the Indenture and the sole obligation in such event shall be for the Company to prepay the Note in an amount sufficient to redeem the Bonds to the extent required by this paragraph.

Mandatory Redemption Upon State Furnishing Funds. Under the provisions of Section 1864 of the Act, the State of New York may, upon furnishing sufficient funds therefor, require the Authority to redeem, prior to maturity, as a whole, the Bonds on any Interest Payment Date not less than twenty years after their date of original issuance at a redemption price of $105 \%$ of their face value and accrued interest or at such lesser redemption price as may be applicable to an optional redemption at that time.

Purchase Upon Election of Holder. During any Daily Rate Period or Weekly Rate Period, any Bond or portion thereof in a principal amount equal to an authorized denomination (so long as the principal amount not purchased is an authorized denomination) shall be purchased on the demand of the registered owner thereof, on any Business Day at the Purchase Price, upon delivery to the Registrar and Paying Agent and the Remarketing Agent at their respective principal offices, by the close of business on any Business Day of a Notice of Election to Tender (the substance of which notice must also be given telephonically to the Remarketing Agent prior to or simultaneously with such notice). The date on which such Bond shall be purchased at the request of the registered owner, (i) if the Bond then bears interest at a Daily Rate, shall be the date of delivery of such notice if such notice is delivered to the Registrar and Paying Agent and the Remarketing Agent by 10:00 a.m. (New York City time) on such date or may be any Business Day thereafter, and (ii) if the Bond then bears interest at a Weekly Rate, shall be a Business Day not prior to the 7th day next succeeding the date of the delivery of such notice to the Registrar and Paying Agent and the Remarketing Agent.

During any Monthly Rate Period or Semi-annual Rate Period, this Bond or portion hereof in a principal amount equal to an authorized denomination (so long as the principal amount not purchased is an authorized denomination) shall be purchased on the demand of the registered owner thereof on the first Business Day following each Calculation Period at the Purchase Price, upon delivery to the Registrar and Paying Agent and the applicable Remarketing Agent, at their respective principal offices of a Notice of Election to Tender (the substance of which notice must also be given telephonically to the Remarketing Agent prior to or simultaneously with the delivery of such notice) on or prior to a Business Day which is not less than ten (10) days, in the case of Bonds bearing interest at a Semi-annual Rate, or seven (7) days, in the case of Bonds bearing interest at a Monthly Rate, prior to the proposed date of purchase.

Mandatory Tender for Purchase Upon a Change in the Interest Rate Mode. Upon a Change in the Interest Rate Mode, the Bonds shall be subject to mandatory tender for purchase in accordance with the Indenture, on the effective date of such Change in the Interest Rate Mode at the Purchase Price.

Mandatory Tender for Purchase on Business Day following Calculation Periods. Bonds bearing a Commercial Paper Rate or a Term Rate shall be subject to mandatory tender for purchase in accordance with the Indenture on the Business Day immediately following each Calculation Period at a price equal to the Purchase Price.

Mandatory Tender For Purchase Upon Expiration of any Support Facility or Upon Delivery of an Alternate Support Facility. On the second Business Day next preceding the date of expiration of any Support Facility, the Bonds shall be subject to mandatory purchase at the Purchase Price, unless on or prior to the 35th day prior to such date of expiration the Company on behalf of the Authority has furnished to the Trustee an agreement to extend such Support Facility. The Bonds shall also be subject to mandatory purchase at the Purchase Price, on the date there is delivered an Alternate Support Facility meeting the requirements of the Indenture. No tender for purchase of any Bonds shall be required if a Fixed Rate Conversion Date shall have occurred with respect to such Bonds or if such Bonds have been converted to bear interest at an Auction Rate on a date prior to such date of expiration.

Mandatory Tender Upon Occurrence of any Terminating Event. Upon the occurrence of any Terminating Event, the Bonds shall be subject to mandatory tender for purchase at the Purchase Price on a Business Day selected by the Trustee; provided, however, that (i) such mandatory tender shall not occur later than the 5th day after the receipt of notice thereof by the Trustee, and (ii) such mandatory tender date shall be a Business Day. The Bonds will not be subject to such mandatory tender for purchase during any Auction Rate Period or any Fixed Rate Period.

Procedure for Redemption. In the event any of the Bonds are called for redemption, the Trustee shall give notice, of the redemption of such Bonds in accordance with the Indenture.

Notice of redemption shall be given by mailing a copy of the redemption notice by first-class mail at least thirty (30) days prior to the date fixed for redemption to the registered owners of the Bonds to be redeemed at the addresses shown on the registration books maintained by the Registrar and Paying Agent; provided, however, that failure to give notice or any defects in such notice shall not affect the proceedings for the redemption of the Bonds for which notice has been properly given. Any redemption may be conditioned on the receipt of moneys by the Registrar and Paying Agent sufficient to pay the redemption price on the redemption date of Bonds called for redemption, if the notice of redemption so states.

General Provisions Applicable to Mandatory and Optional Tenders for Purchase of Bonds. If interest has been paid on the Bonds, or an amount sufficient to pay interest thereon has been deposited in the Bond Fund, or an amount sufficient to pay accrued interest thereon, if any, has been set aside in the Bond Purchase Fund under the Bond Purchase Trust Agreement, and the Purchase Price shall be available under the Bond Purchase Fund for payment of Bonds subject to tender for purchase in accordance with the Indenture and if a registered owner fails to deliver or does not properly deliver the Bonds to the Registrar and Paying Agent for which a Notice of Election to Tender has been properly filed or which are subject to mandatory tender for purchase on the purchase date therefor, such Bonds shall nevertheless be deemed tendered and purchased on the date established for the purchase thereof, no interest shall accrue on such Bonds from and after the date of purchase and such former registered owners shall have no rights under the Indenture as the registered owners of such Bonds, except the right to receive the Purchase Price of and accrued and unpaid interest to the purchase date, if any, on such Bonds upon delivery thereof to the Registrar and Paying Agent in accordance with the provisions of the Indenture. The purchaser of any such Bonds remarketed by the Remarketing Agent, or the issuer of any Support Facility, to the extent Bonds are purchased with the proceeds of a draw on, or borrowing or payment under, the Support Facility, shall be treated as the registered owner thereof for all purposes of the Indenture. The payment of the Purchase Price of the Bonds tendered shall be subject to delivery of such Bonds duly endorsed in blank for transfer or accompanied by an instrument of transfer thereof in form satisfactory to the Registrar and Paying Agent executed in blank for transfer at the principal office of the Registrar and Paying Agent at or prior to 10:00 a.m. (11:30 a.m. for Bonds bearing interest at the Weekly Rate and 12:00 noon, for Bonds bearing interest at the Daily Rate) (New York City time), on a specified purchase date. The Registrar and Paying Agent may refuse to make payment with respect to any Bonds tendered for purchase pursuant to the Indenture not endorsed in blank or for which an instrument of transfer satisfactory to the Registrar and Paying Agent has not been provided.

The Purchase Price of Bonds subject to tender for purchase pursuant to the Indenture in an aggregate principal amount of at least one million dollars $(\$ 1,000,000)$ shall be payable in immediately available funds or by wire transfer upon written notice from the registered owner thereof containing the wire transfer address (which shall be in the continental United States) to which such registered owner wishes to have such wire directed, if such written notice is received by the Registrar and Paying Agent not less than five (5) days prior to the related purchase date.

The transfer of the Bonds may be registered only upon the books of registry required to be kept pursuant to the Indenture upon surrender thereof to the Registrar and Paying Agent, together with an assignment duly executed by the Holder thereof or his or her duly authorized agent and accompanied by a guarantee of signature, each in such form as shall be satisfactory to the Registrar and Paying Agent. Upon any such registration of transfer the Authority shall execute and the Trustee shall authenticate and deliver in exchange for such Bonds a new Bond or Bonds of the same subseries registered in the name of the transferee or transferees for a like aggregate principal amount, of any denomination or denominations authorized by this Indenture. No transfer of any Bond shall be effective until entered on the books of registry.

All terms used herein which are defined in the Indenture and not otherwise defined herein shall have the respective meanings set forth in the Indenture.

This Bond shall be governed by and construed in accordance with laws of the State of New York.
IN WITNESS WHEREOF, the Authority has caused this Bond to be signed in its name and on its behalf by the manual or facsimile signature of its President, Vice President or Treasurer and its seal or a facsimile thereof to be impressed, imprinted or otherwise reproduced hereon and attested by the manual or facsimile signature of its Secretary or an Assistant Secretary, as of the date set forth in the Certificate of Authentication.

# NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY 

Attest:

## CERTIFICATE OF AUTHENTICATION

This Bond is one of an issue described in the Indenture mentioned herein.
The Bank of New York,
as Trustee

By:

## Authorized Officer

## Date of Authentication:

$\qquad$ hereby sells, assigns and transfers unto $\qquad$ the within mentioned Bond and hereby irrevocably constitutes and appoints $\qquad$ , Attorney, to transfer the same on the registration books in the office of the Registrar and Paying Agent with full power of substitution in the premises. Dated: $\qquad$
I hereby certify that the above signature is true and genuine.

## [Form of Bond Bearing an Auction Rate]

Unless this certificate is presented by an authorized representative of The Depository Trust Company, a New York corporation ("DTC"), to the Authority or its agent for registration of transfer, exchange, or payment, and any certificate issued is registered in the name of Cede \& Co. or in such other name as is requested by an authorized representative of DTC (and any payment is made to Cede \& Co. or to such other entity as is requested by an authorized representative of DTC), ANY TRANSFER, PLEDGE, OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL inasmuch as the registered owner hereof, Cede \& Co., has an interest herein.

NEW YORK STATE ENERGY RESEARCH AND<br>DEVELOPMENT AUTHORITY<br>Facilities Revenue Bonds, Series 2004C<br>(Consolidated Edison Company of New York, Inc. Project)<br>(Subseries 2004[C-1, C-2 or C-3])

No. C[-1, -2 or -3]R-

> MATURITY DATE
original issue date
cUSIP
November 1, 2039
November 12, 2004

## REGISTERED OWNER:

## PRINCIPAL SUM:

NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY (the "Authority"), a body corporate and politic, constituting a public benefit corporation, organized and existing under and by virtue of the laws of the State of New York, for value received, hereby promises to pay, but solely from the revenues, income and other moneys hereinafter specified and not otherwise, to the registered owner named above or registered assigns, the principal amount specified above on the maturity date specified above (subject to the right of prior redemption hereinafter described), upon presentation and surrender of this Bond, and to pay interest on such principal amount, but solely from such revenues, income and other moneys hereinafter specified and not otherwise, from the date of authentication hereof, or if such date shall not be an Interest Payment Date from the next preceding Interest Payment Date, or if the date of authentication is after the Record Date next preceding the next succeeding Interest Payment Date from the next succeeding Interest Payment Date until the payment of such principal amount in full, at the Auction Rate hereinafter described, such interest being payable on each Interest Payment Date in each year, by check mailed to the registered owner hereof at such owner's address as it appears on the registration books kept by the Registrar and Paying Agent pursuant to the Indenture hereinafter mentioned; provided, that (i) while the Securities

Depository is the registered owner of the Bonds, all payments of principal of and premium, if any, and interest on the Bonds shall be paid to the Securities Depository by wire transfer, (ii) prior to any Fixed Rate Conversion Date, interest on the Bonds shall be payable, at the option of any registered owner of at least one million dollars ( $\$ 1,000,000$ ) in aggregate principal amount of the Bonds, by wire transfer upon written notice received by the Registrar and Paying Agent from such registered owner at least five days prior to the Record Date, containing the wire transfer address (which shall be in the continental United States) to which such registered owner wishes to have such wire directed, all as set forth in such registration books at the close of business on the appropriate Record Date preceding an Interest Payment Date. If interest is in default it shall be paid to the person in whose name this bond is registered as set forth on the registration books as of the record date as set forth in the Indenture. Except as set forth above, principal of and premium, if any, on this Bond are payable at the corporate trust office of The Bank of New York, in New York, New York, as Registrar and Paying Agent of the Bonds. Principal of and premium, if any, and interest on this Bond are payable in lawful money of the United States of America.

This Bond is one of a duly authorized issue of Bonds of the Authority designated as "Facilities Revenue Bonds, Series 2004C (Consolidated Edison Company of New York, Inc. Project)", issued in the aggregate principal amount of Ninety-Nine Million Dollars ( $\$ 99,000,000$ ), referred to herein as the "Bonds." In order to distinguish between Bonds which are subject to different interest rate determination methods and other features and to distinguish the portion of the Bonds to be remarketed by any particular Remarketing Agent, the Bonds may be designated and redesignated from time to time by the Authority in such a way as to identify one or more subseries of the Bonds pursuant to Article II of the Indenture. Pursuant to the Indenture, the Series 2004C Bonds are being issued in three subseries, designated Subseries 2004C-1, Subseries 2004C-2 and Subseries 2004C-3, in principal amounts of $\$ 33,000,000, \$ 33,000,000$ and $\$ 33,000,000$, respectively. This Bond and the issue of which it is one are authorized to be issued and are issued under, pursuant to and in full compliance with the Constitution and statutes of the State of New York, including particularly the New York State Energy Research and Development Authority Act, Title 9 of Article 8 of the Public Authorities Law of the State of New York, as amended (the "Act"), a resolution of the Authority adopted on September 20, 2004 and a Trust Indenture dated as of November 1, 2004 between the Authority and The Bank of New York, as Trustee (herein, as it may be amended from time to time, called the "Indenture"). The Bonds are issued for the purpose of refunding certain outstanding bonds of the Authority issued to finance a portion of the cost of acquisition, construction and installation of certain facilities of Consolidated Edison Company of New York, Inc. (the "Company") for the local furnishing of gas within the Company's service area in The City of New York and the County of Westchester, New York (all of said facilities being referred to herein as the "Project") pursuant to a Participation Agreement, dated as of November 1, 2004, between the Authority and the Company (hereinafter, as it may be amended or supplemented from time to time, called the "Participation Agreement"). Under the Participation Agreement and the promissory note delivered to the Trustee (the "Note"), the Company is required to make payments to the Trustee for deposit to the Bond Fund established pursuant to the Indenture in an amount sufficient to pay the portion of principal of and premium, if any, and interest on the Bonds when due. The Participation Agreement also imposes on the Company certain obligations respecting the use and operation of the Project. A copy of the Participation Agreement is on file at the principal office of the Trustee, and reference is hereby directed to the Participation Agreement for the provisions thereof.

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A copy of the Indenture is on file at the principal office of the Trustee. Reference is hereby directed to the Indenture for the provisions, among others, with respect to the custody and application of the proceeds of the Bonds; the collection and disposition of revenues; a description of the nature and extent of the security for the Bonds, the funds and moneys pledged for the payment of the premium, if any, and interest on and the principal of the Bonds; the nature and extent and manner of enforcement of the pledge; the rights and remedies of the registered owners of Bonds with respect thereto; the conditions for and the permissible extent of alteration, supplement and amendment of the Indenture or Participation Agreement; the terms and conditions upon which this Bond and the issue of which it is one are issued; the rights, duties and obligations of the Authority and the Trustee thereunder; the terms and provisions upon which the liens, pledges, charges, trusts and covenants made therein may be discharged at or prior to the maturity, purchase or redemption of this issue and pursuant to which this Bond thereafter will no longer be secured by the Indenture, or be deemed to be outstanding thereunder, if sufficient moneys or certain specified securities shall have been deposited with the Trustee and held in trust solely for the payment thereof; and for all other terms and provisions thereof. The provisions of the Act and the Indenture shall be a contract with the registered owner of this Bond, and the duties of the Authority and any employee thereof under said Act and the Indenture shall be enforceable by the registered owner hereof, by mandamus or other appropriate suit, action or proceeding, in any court of competent jurisdiction in the State of New York.

The Bonds are not general obligations of the Authority, and shall not constitute indebtedness of or a charge against the general credit of the Authority or give rise to any pecuniary liability of the Authority. The liability of the Authority under the Bonds shall be enforceable only to the extent provided in the Indenture, and the Bonds shall be payable solely from the money and revenues received from the payments made by the Company pursuant to the Participation Agreement and the Note or the income from the temporary investment thereof, and from amounts held under the Indenture including the proceeds of a Direct-Pay Credit Facility, if any, and not from any other fund or source. Pursuant to the Indenture, the Authority has pledged and assigned to the Trustee its right, title and interest (with certain exceptions) in and to the Participation Agreement and the Note to secure the payment of the principal of and premium, if any, and interest on the Bonds. The Bonds are and shall be secured by a prior and paramount lien and charge on said moneys and revenues. The Bonds shall not be a debt of the State of New York and the State of New York shall not be liable thereon. The Bonds are payable solely from the moneys and revenues pledged under the Indenture to the payment thereof. Neither the Authority nor the State of New York is obligated to provide for the payment of the Purchase Price of tendered Bonds or payment of principal, premium, if any, or interest on the Bonds.

This Bond shall not be entitled to any security, right or benefit under the Indenture or become valid or obligatory for any purpose until it shall have been authenticated by the Trustee by its execution of the certificate of authentication endorsed hereon.

No covenant or agreement contained in this Bond or the Indenture shall be deemed to be a covenant or agreement of any member, agent or employee of the Authority in his or her individual capacity, and neither the members of the Authority nor any officer thereof executing this Bond shall be liable personally on this Bond or be subject to any personal liability or accountability by reason of the issuance of this Bond.

It is hereby certified, recited and declared that all acts, conditions and things required by the Constitution and laws of the State of New York and the Indenture to exist, to have happened and to have been performed precedent to and in the issuance of this Bond and the issue of which this Bond is a part, do exist, have happened and have been performed in due time, form and manner as required by such Constitution, laws and the Indenture; that the amount of this Bond and the issue of which this Bond is a part does not exceed any constitutional or statutory limitations of indebtedness; and that provision has been made for the payment of the principal of and premium, if any, and interest on this Bond and the series of which it is a part as provided in the Indenture.

## EXCEPT AS OTHERWISE PROVIDED IN SECTION 2.03 OF THE INDENTURE, THIS GLOBAL BOND MAY BE TRANSFERRED, IN WHOLE BUT NOT IN PART, ONLY TO A NOMINEE OF THE SECURITIES DEPOSITORY OR TO A SUCCESSOR SECURITIES DEPOSITORY OR TO A NOMINEE OF A SUCCESSOR SECURITIES DEPOSITORY.

## Interest Rate Provisions

THE AUCTION PERIOD, THE AUCTION RATE, THE SELECTION OF THE METHOD OF DETERMINING THE AUCTION RATE AND DATES OF PAYMENT OF INTEREST ON THE BONDS AND THE AUCTION PROCEDURES RELATED THERETO WILL BE DETERMINED UPON THE TERMS AND CONDITIONS, INCLUDING REQUIRED NOTICES THEREOF TO THE OWNERS, DESCRIBED IN THE INDENTURE, TO WHICH PROVISIONS SPECIFIC REFERENCE IS HEREBY MADE AND ALL OF WHICH PROVISIONS ARE HEREBY SPECIFICALLY INCORPORATED HEREIN BY REFERENCE.

During any Auction Rate Period, the Bonds shall bear interest at the Auction Rate determined as set forth in the Indenture. The initial Auction Period for each subseries of the Bonds immediately after any Change in the Interest Rate Mode to an Auction Rate, shall be a period from and including the effective date of such Change in the Interest Rate Mode to and including the initial Auction Date which shall be determined by the Authority, with notice to the Trustee, on or prior to the effective date of the Change in the Interest Rate Mode. The Auction Rate for any initial Auction Period immediately after any Change in the Interest Rate Mode to an Auction Rate, shall be the rate of interest per annum determined by the Remarketing Agent, with notice to the Trustee, the Authority, the Registrar and Paying Agent and the Company, on a date not later than the effective date of such Change in the Interest Rate Mode as the minimum rate of interest which, in the opinion of the Remarketing Agent, would be necessary as of such date to market Auction Rate Bonds in a secondary market transaction at a price equal to the principal amount thereof, provided that such interest rate shall not exceed the Maximum Allowed Rate. For any other Auction Period, the Auction Rate shall be the rate of interest per annum that results
from implementation of the Auction Procedures. The Auction Procedures are set forth in Article III of the Indenture. If on any Auction Date, the Auction Agent shall fail to determine, or for any reason fail to timely provide, a rate of interest pursuant to the Auction Procedures, the Auction Rate for the next succeeding Auction Period shall be extended at the same rate and such Auction Period and each succeeding Auction Period shall be a seven-day Auction Period until an Auction Period for which the Auction Agent shall determine and timely provide the rate of interest pursuant to the Auction Procedures; provided, that, after three such periods during which such failure occurs, the Auction Rate shall become the Maximum Auction Rate until an Auction Period for which the Auction Agent shall determine and timely provide the rate of interest pursuant to the Auction Procedures. Determination of an Auction Rate pursuant to the Auction Procedures shall be suspended upon a Change in the Interest Rate Mode or the occurrence of a Payment Default. The Auction Rate for any Auction Period or remaining portion thereof following the occurrence of a Payment Default shall be equal to the Overdue Rate as determined on and as of the immediately preceding Auction Date. Upon the occurrence of a Payment Default that has not been waived or cured on or prior to any Auction Date, no Auction will be held, all Submitted Bids and Submitted Sell Orders shall be rejected, the existence of Sufficient Clearing Bids shall be of no effect and the Auction Rate for the next succeeding Auction Period shall equal the Overdue Rate on and as of such Auction Date. In the event of the suspension of the Auction Procedures due to a Payment Default, the Auction Procedures shall resume two (2) Business Days after the date on which the Auction Agent receives notice from the Trustee that the Payment Default has been cured, with the next Auction to occur on the next regularly scheduled Auction Date occurring thereafter. The Overdue Rate shall be determined by the Trustee on each succeeding Auction Date.

The Bonds may also bear interest at one of the following interest rates at the times and in the manner set forth in the Indenture: a "Commercial Paper Rate," a "Daily Rate," a "Weekly Rate," a "Monthly Rate," a "Semi-annual Rate", a "Term Rate" or a "Fixed Rate".

## Redemption Provisions

Optional Redemption. The Bonds shall be subject to redemption, at the option of the Authority upon the request of the Company, on the Business Day immediately succeeding each Auction Date, as a whole or in part, at a redemption price equal to $100 \%$ of the principal amount thereof plus accrued interest to the date fixed for redemption.

Mandatory Redemption Upon State Furnishing Funds. Under the provisions of Section 1864 of the Act, the State of New York may, upon furnishing sufficient funds therefor, require the Authority to redeem, prior to maturity, as a whole, the Bonds on any Interest Payment Date not less than twenty years after their date of original issuance at a redemption price of $105 \%$ of their face value and accrued interest or at such lesser redemption price as may be applicable to an optional redemption at that time.

Procedure for Redemption. In the event any of the Bonds are called for redemption, the Trustee shall give notice of the redemption of such Bonds in accordance with the Indenture.

Notice of redemption shall be given by mailing a copy of the redemption notice by first-class mail at least thirty (30) days prior to the date fixed for redemption to the registered owners of such Bonds to be redeemed at the addresses shown on the registration books maintained by the Registrar and Paying Agent; provided, however, that failure to give notice to any Holder of a Bond or any defects in such notice shall not affect the proceedings for the redemption of the Bonds for which notice has been properly given. Any redemption may be conditioned on the receipt of moneys by the Registrar and Paying Agent sufficient to pay the redemption price on the Redemption Date of Bonds called for redemption, if the notice of redemption so states.

Mandatory Tender for Purchase Upon a Change in the Interest Rate Mode. Upon a Change in the Interest Rate Mode, the Bonds shall be subject to mandatory tender for purchase in accordance with the Indenture, on the effective date of such Change in the Interest Rate Mode at the Purchase Price.

General Provisions Applicable to Mandatory Tenders for Purchase of Bonds. If interest has been paid on the Bonds, or an amount sufficient to pay interest thereon has been deposited in the Bond Fund, or an amount sufficient to pay accrued interest thereon, if any, has been set aside in the Bond Purchase Fund held under the Bond Purchase Trust Agreement, and the Purchase Price shall be available under the Bond Purchase Fund for payment of Bonds subject to tender for purchase in accordance with the Indenture and if a registered owner fails to deliver or does not properly deliver such Bonds to the Registrar and Paying Agent on the purchase date therefor, such Bonds shall nevertheless be deemed tendered and purchased on the date established for the purchase thereof, no interest shall accrue on such Bonds from and after the date of purchase and such former registered owners shall have no rights under the Indenture as the registered owners of such Bonds, except the right to receive the Purchase Price of and interest to the purchase date, if any, on such Bonds upon delivery thereof to the Registrar and Paying Agent in accordance with the provisions of the Indenture. The purchaser of any such Bonds remarketed by the Remarketing Agent, or the issuer of any Support Facility, to the extent Bonds are purchased with the proceeds of a draw on, or borrowing or payment under, the Support Facility, shall be treated as the registered owner thereof for all purposes of the Indenture. The payment of the Purchase Price of the Bonds tendered shall be subject to delivery of such Bonds duly endorsed in blank for transfer or accompanied by an instrument of transfer thereof in form satisfactory to the Registrar and Paying Agent executed in blank for transfer at the principal office of the Registrar and Paying Agent at or prior to 10:00 a.m. (New York City time), on a specified purchase date. The Registrar and Paying Agent may refuse to make payment with respect to any Bonds tendered for purchase pursuant to the Indenture not endorsed in blank or for which an instrument of transfer satisfactory to the Registrar and Paying Agent has not been provided.

The Purchase Price of Bonds subject to tender for purchase pursuant to the Indenture in an aggregate principal amount of at least one million dollars $(\$ 1,000,000)$ shall be payable in immediately available funds or by wire transfer upon written notice from the registered owner thereof containing the wire transfer address (which shall be in the continental United States) to which such registered owner wishes to have such wire directed, if such written notice is received by the Registrar and Paying Agent not less than five (5) days prior to the related purchase date.

Registered owners of Auction Rate Bonds subject to mandatory tender for purchase upon a Change in the Interest Rate Mode shall have no right to retain such Bonds and shall be required to tender such Auction Rate Bonds on the date established for the mandatory tender for purchase thereof.

The transfer of the Bonds may be registered only upon the books of registry required to be kept pursuant to the Indenture upon surrender thereof to the Registrar and Paying Agent, together with an assignment duly executed by the Holder thereof or his or her duly authorized agent and accompanied by a guarantee of signature, each in such form as shall be satisfactory to the Registrar and Paying Agent. Upon any such registration of transfer the Authority shall execute and the Trustee shall authenticate and deliver in exchange for such Bonds a new Bond or Bonds of the same subseries registered in the name of the transferee or transferees for a like aggregate principal amount, of any denomination or denominations authorized by this Indenture. No transfer of any Bond shall be effective until entered on the books of registry.

All terms used herein which are defined in the Indenture and not otherwise defined herein shall have the respective meanings set forth in the Indenture.

This Bond shall be governed by and construed in accordance with laws of the State of New York.
IN WITNESS WHEREOF, the Authority has caused this Bond to be signed in its name and on its behalf by the manual or facsimile signature of its President, Vice President or Treasurer and its seal or a facsimile thereof to be impressed, imprinted or otherwise reproduced hereon and attested by the manual or facsimile signature of its Secretary or an Assistant Secretary, as of the date set forth in the Certificate of Authentication.

# NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY 

[SEAL]
By:
President

Attest:

## CERTIFICATE OF AUTHENTICATION

This Bond is one of an issue described in the Indenture mentioned herein.

# The Bank of New York, <br> as Trustee 

By:
Authorized Officer

## Date of Authentication:

For value received $\qquad$ hereby sells, assigns and transfers unto $\qquad$ the within mentioned Bond and hereby irrevocably constitutes and appoints $\qquad$ Attorney, to transfer the same on the registration books in the office of the Registrar and Paying Agent with full power of substitution in the premises. Dated: $\qquad$
I hereby certify that the above signature is true and genuine.
Authorized Officer
$\qquad$ Bank

## EXHIBIT A

(For use in change in the Interest Rate Mode)

## NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY FACILITY REVENUE BONDS, SERIES 2004C (SUBSERIES 2004C-[ ]) (CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. PROJECT) CUSIP NO.

## NOTICE OF CHANGE IN THE INTEREST RATE MODE

Notice is hereby given to the Trustee, Remarketing Agent, [Market Agent,] Registrar and Paying Agent, the Company, the Support Facility Issuer, [the Auction Agent] and the registered owners of \$ $\qquad$ of the above-captioned issue (the "Bonds") of New York State Energy Research and Development Authority (the "Authority") that:

1. In accordance with the Trust Indenture relating to the Bonds (the "Indenture"), dated as of November 1, 2004 between the Authority and The Bank of New York (the "Trustee"), subject to the conditions hereinafter set forth, if any, the interest rate on the Bonds (or such lesser principal amount thereof as may be specified in an attachment hereto) will be changed to a different Interest Rate Mode on $\qquad$ (the "Effective Date"). Capitalized terms used herein and not otherwise defined herein shall have the meanings given to such terms in the Indenture. The following statements are summaries of certain provisions of the Indenture which do not purport to be complete and are qualified in their entirety by reference to the Indenture.
2. Upon delivery of this notice to the registered owners of the Bonds, the Bonds are subject to mandatory tender on the Effective Date at a purchase price equal to the principal amount thereof [plus premium in the amount of $\qquad$ ] (the "Purchase Price"). Accrued interest on the Bonds is anticipated to be paid separately in accordance with Section 9.03 (a) of the Indenture. In the event the interest is not so paid, the Purchase Price shall include an amount equal to the accrued and unpaid interest.
3. The proposed Change in the Interest Rate Mode shall take effect only if the applicable conditions set forth in Article IV of the Indenture have been satisfied. The Indenture provides that the proposed Change in the Interest Rate Mode is conditioned on the Bonds being rated no less than "A" by S\&P, "A2" by Moody's or "A" by Fitch as of the effective date of the Change in the Interest Rate Mode..
4. Registered owners of Bonds are required to deliver their Bonds to the Registrar and Paying Agent at The Bank of New York, 101 Barclay Street 21W, New York, New York 10286, Attention: Corporate Trust Trustee Administration, no later than [Registrar and Paying Agent to insert proper time], New York City time, on the Effective Date at the office of the Registrar and Paying Agent referred to above, endorsed in blank by the registered owner thereof or accompanied by an instrument of transfer thereof in form satisfactory to the Registrar
and Paying Agent executed for transfer in blank by the registered owner thereof (the Registrar and Paying Agent being able to refuse to make payment with respect to any such Bond not endorsed in blank or for which an instrument of transfer satisfactory to it has not been provided).
5. Each registered owner of Bonds who has properly tendered such Bonds in accordance with the above provisions will be paid the Purchase Price therefor on the Effective Date, and if such Purchase Price is paid, such registered owner shall have no further rights with respect to said Bonds.
6. Holders of Bonds subject to mandatory tender shall have no right to retain such Bonds and shall be required to tender such Bonds on the date established for the mandatory tender for purchase thereof.
7. With respect to any registered owner of Bonds who has not properly tendered such Bonds in accordance with the above provisions of this notice, (A) such registered owner's Bonds will be deemed tendered and purchased on the Effective Date at the Purchase Price, (B) such registered owner will be paid interest on such Bonds on the Effective Date as provided in the Indenture and will be paid such Purchase Price for such Bonds upon the tender of such Bonds to the Registrar and Paying Agent and (C) interest on such Bonds shall cease to be payable to such registered owner from and after the Effective Date, and after the Effective Date such registered owner will have no rights with respect to such Bonds except to receive payment of the Purchase Price upon tender of such Bonds to the Registrar and Paying Agent.

Dated: $\qquad$

## NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY

By: The Bank of New York, as Trustee

## EXHIBIT B

## NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY <br> FACILITIES REVENUE BONDS, SERIES 2004C (SUBSERIES 2004C-[ ]) (CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. PROJECT) <br> CUSIP NO. <br> CERTIFICATE PURSUANT TO SECTION [4.01.3(A)(ii) or 4.02.3(A)(ii)] OF THE INDENTURE

NOTICE IS HEREBY GIVEN to the Trustee [and the Auction Agent] that New York State Energy Research and Development Authority (the "Authority") at the written request of Consolidated Edison Company of New York, Inc. (the "Company") hereby authorizes the establishment of a $\qquad$ Rate.

Notice is also HEREBY GIVEN that the Authority has obtained confirmation on behalf of the Company that Bond Counsel had advised the Authority that it expects to be able to give its opinion on the effective date of the Change in the Interest Rate Mode to the effect that the change to the $\qquad$ Rate is authorized by the Indenture referred to below, is permitted under the Act and will not have an adverse effect on the exclusion of interest on the Bonds from gross income for federal income tax purposes.

Capitalized terms used herein and not otherwise defined herein shall have the meanings given to such terms in the Trust Indenture relating to the above-captioned Bonds, dated as of November 1, 2004, by and between the Authority and The Bank of New York, as Trustee.

## NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY

By:
Authorized Representative

## EXHIBIT C

## NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY <br> FACILITIES REVENUE BONDS, SERIES 2004C (SUBSERIES 2004C-[ ]) (CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. PROJECT) CUSIP NO. <br> CERTIFICATE PURSUANT TO SECTION [4.01.3(B) or 4.02.3(B)(ii)] OF THE INDENTURE

NOTICE IS HEREBY GIVEN to the Trustee [and the Auction Agent] that with respect to a Change in the Interest Rate Mode pursuant to Section 4.01 or 4.02 of the Indenture referred to below all of the Bonds referred to above tendered or deemed tendered have been purchased at a price equal to the principal amount thereof plus premium, if any, plus any accrued and unpaid interest with funds provided from the remarketing of such Bonds in accordance with the Remarketing Agreement, from the proceeds of a Support Facility, or from other funds deposited with the Trustee or the Registrar and Paying Agent.

Capitalized terms used herein and not otherwise defined herein shall have the meanings given to such terms in the Trust Indenture relating to the above-captioned Bonds, dated as of November 1, 2004 by and between the New York State Energy Research and Development Authority and The Bank of New York, as Trustee.

# CONSOLIDATED EDISON COMPANY OF NEW YORK, INC 

By:
Authorized Company Representative

## EXHIBIT D

## NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY <br> FACILITIES REVENUE BONDS, SERIES 2004C (SUBSERIES 2004C-[ ]) <br> (CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. PROJECT) <br> CUSIP NO.

## NOTICE OF FAILURE OF CONDITIONS

NOTICE IS HEREBY GIVEN to the Authority, the Company and the registered owners of the above captioned issue that the conditions for effecting a Change in the Interest Rate Mode to a $\qquad$ Rate have not been met.

The above-captioned Bonds will therefore continue to bear interest at the current $\qquad$ Rate and be subject to the provisions of the Indenture referred to below applicable while such Bonds bear interest at the current $\qquad$ Rate.

Capitalized terms used herein and not otherwise defined herein shall have the meanings given to such terms in the Trust Indenture relating to the above-captioned Bonds, dated as of November 1, 2004 by and between the New York State Energy Research and Development Authority and The Bank of New York, as Trustee.

THE BANK OF NEW YORK, as Trustee By: Title:
$\qquad$

## EXHIBIT E

## NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY <br> FACILITIES REVENUE BONDS, SERIES 2004C (SUBSERIES 2004C-[ ]) <br> (CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. PROJECT)

## NOTICE OF ELECTION TO TENDER

Note: The substance of this Notice must be given to the Registrar and Paying Agent and the Remarketing Agent by telephone at (212) $\qquad$ and
$\qquad$ respectively, at or prior to the time this Notice must be delivered.

1. The undersigned, $\qquad$ owner of the following Bonds:
Cusip Number ${ }^{1} \quad$ Principal Amount
hereby notifies you of its election to tender such Bonds for purchase on [ $\qquad$ ], (which date shall be a Business Day). If this Bond bears interest at a Daily Rate as defined in the Indenture referred to below, the date of purchase shall be the date of delivery of this Notice to the Registrar and Paying Agent and the Remarketing Agent if received by 10:00 a.m., New York City time, or may be any Business Day thereafter. If this Bond bears interest at a Weekly Rate as defined in the Indenture the date of purchase shall be a Business Day not prior to the seventh (7th) day immediately following the date of delivery of this Notice to the Registrar and Paying Agent and the Remarketing Agent.
2. If only a portion of a Bond is being tendered, both the tendered portion and untendered portion must be authorized denominations (\$100,000 or any integral multiple thereof) for Bonds bearing a Daily Rate or Weekly Rate.
3. After its execution and delivery by the undersigned, this notice will be irrevocable.
4. The person or persons to whom or to whose order the proceeds of the purchase of the above-referenced Bonds are to be paid, such person's or persons' taxpayer identification number or numbers and the address or addresses of such payee or payees is $\qquad$ ; which information the undersigned, under the penalties of perjury, certifies to be true, correct and complete.
5. The undersigned hereby undertakes to deliver the Bonds to The Bank of New York (the "Registrar and Paying Agent") no later than 11:30 a.m., New York City time, for Bonds bearing interest at the Weekly Rate, and 12:00 noon, New York City time, for Bonds bearing interest at a Daily Rate, at the office of the Registrar and Paying Agent located at 101 Barclay Street - 21W, New York, New York 10286, Attention: Corporate Trust Trustee
[^0]Exhibit F-3

Administration, endorsed in blank for transfer or accompanied by an instrument of transfer executed in blank for transfer and acknowledges that any instrument of transfer must be in a form satisfactory to the Registrar and Paying Agent and that the Registrar and Paying Agent may refuse to make payment with respect to any Bond not endorsed in blank or for which an instrument of transfer satisfactory to the Registrar and Paying Agent has not been provided.
6. The undersigned hereby also assigns and transfers and directs the Registrar and Paying Agent to transfer the Bonds delivered in connection herewith to the appropriate party under the terms and conditions contained in the Indenture.
7. The undersigned acknowledges that in the event of a failure to deliver the Bonds or in the event such Bonds are not properly delivered, such Bonds shall nevertheless be deemed tendered and purchased on the date referred to in (1) above, no interest shall accrue thereon to the undersigned from and after such date of purchase and that the undersigned shall have no rights under the Bonds or under the Indenture except the right to receive the purchase price of the Bonds.
8. Capitalized terms used herein and not otherwise defined herein shall have the meanings given to such terms in the Trust Indenture relating to the above-captioned Bonds, dated as of November 1, 2004, by and between the New York State Energy Research and Development Authority and The Bank of New York, as Trustee (the "Indenture"). The statements contained herein are summaries of certain provisions of the Indenture which do not purport to be complete and are qualified in their entirety by reference to the Indenture.

Dated: $\qquad$
Name of Owner as it is written on the face of the above-listed Bonds in every particular, without alteration, enlargement or any change whatsoever

## Witness

Exhibit F-4

## EXHIBIT F

## NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY <br> FACILITIES REVENUE BONDS, SERIES 2004C (SUBSERIES 2004C-[]) <br> (CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. PROJECT) <br> NOTICE OF MANDATORY TENDER UPON EXPIRATION OF ANY SUPPORT FACILITY, UPON DELIVERY OF AN ALTERNATE SUPPORT FACILITY OR UPON OCCURRENCE OF ANY TERMINATING EVENT

Notice is hereby given to the registered owners of the above-captioned issue (the "Bonds") of New York State Energy Research and Development Authority (the "Authority") that:

1. In accordance with the Trust Indenture relating to the Bonds (the "Indenture") dated as of November 1, 2004, between the Authority and The Bank of New York (the "Trustee"), notice is hereby given that [the Support Facility issued by $\qquad$ with respect to the Bonds (the "Support Facility") will expire on $\qquad$ , an Alternate Support Facility will be substituted therefor on $\qquad$ , or a Terminating Event with respect to a Support Facility has occurred] and that all Bonds, other than Bonds held by or for the account of the Company or the Liquidity Facility Issuer, are subject to mandatory tender under the circumstances set forth in [Section 5.08 or 5.09] of the Indenture as hereinafter set forth at a purchase price equal to the principal amount thereof [plus premium in the amount of $\qquad$ ] (the "Purchase Price"). Accrued interest on the Bonds is anticipated to be paid separately in accordance with Section 9.03.1(a) of the Indenture. In the event the interest is not so paid, the Purchase Price shall include an amount equal to the accrued and unpaid interest.
2. The Bonds are subject to mandatory tender for purchase on $\qquad$ (the "Mandatory Tender Date").
3. From and after the Mandatory Tender Date the Bonds will [continue to] bear interest [insert information on interest rate to be effective after mandatory tender date, including method of determining interest rate and Interest Payment Dates]. [Insert information whether any letter of credit, line of credit, insurance policy, surety bond, standby bond purchase agreement or other instrument will be available for the payment of the principal or purchase price of, or interest on, such Bonds and, if so, describing such instrument].
4. On and after the Mandatory Tender Date, the [short-term] [long term] rating on the Bonds by [Registrar and Paying Agent to insert, as appropriate: (i) Moody's and/or S\&P will be $\qquad$ and/or (ii) Moody's and/or S\&P and/or Fitch may be reduced or withdrawn].
5. Registered owners of Bonds are required to deliver their Bonds to the Registrar and Paying Agent on the Mandatory Tender Date at the office of the Registrar and Paying Agent located at The Bank of New York, 101 Barclay Street - 21W, New York, New

Exhibit F-5

York 10286, Attention: Corporate Trust Trustee Administration, endorsed in blank by the registered owner thereof or accompanied by an instrument of transfer thereof in form satisfactory to the Registrar and Paying Agent executed in blank by the registered owner thereof (the Registrar and Paying Agent being able to refuse to make payment with respect to any such Bond not endorsed in blank or for which an instrument of transfer satisfactory to it has not been provided).
6. Each registered owner of Bonds who has properly tendered such Bonds in accordance with the above provisions will be paid the Purchase Price, and if such Purchase Price is paid, such registered owner shall have no further rights with respect to said Bonds.
7. Holders of Bonds subject to mandatory tender for purchase on the Mandatory Tender Date shall have no right to retain their Bonds and shall be required to tender such Bonds no later than the Mandatory Tender Date as provided herein.
8. With respect to any registered owner of Bonds who has not properly tendered such Bonds in accordance with the above provisions of this notice (A) such registered owner's Bonds will nevertheless be deemed tendered and purchased on the Mandatory Tender Date at the Purchase Price, (B) such registered owner will be paid interest on such Bonds on the Mandatory Tender Date as provided in the Indenture and will be paid such Purchase Price for such Bonds upon the tender of such Bonds to the Registrar and Paying Agent and (C) interest on such Bonds shall cease to be payable to such registered owner from and after the Mandatory Tender Date, and after the Mandatory Tender Date such registered owner will have no rights with respect to such Bonds except to receive payment of the Purchase Price upon tender of such Bonds to the Registrar and Paying Agent.
9. Capitalized terms used herein and not otherwise defined herein shall have the meanings given to such terms in the Indenture. The statements contained herein are summaries of certain provisions of the Indenture which do not purport to be complete and are qualified in their entirety by reference to the Indenture.

Dated: $\qquad$
NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY

## THE CONSOLIDATED EDISON

RETIREMENT PLAN

## Part I

Effective as of January 1, 2001
Favorable Determination Letter Issued
April 9, 2003
Subject to the Following Amendments and Clarifications:

- Clarified on May 2, 2002
- Amended December 13, 2001
- Amended April 2003 In Accordance with IRS Issuance of Favorable Determination Letter;
- Amended August 2004 for

2004 Agreement Between Local Union 503 of the International Brotherhood of Electrical Workers, AFL-CIO ;

- Amended August 2004, for O\&R Management Employees Changes Concurrent with O\&R Hourly Employees;
- Amended August 2004 for Agreement Between Local 1-2 of the Utility Workers Union of America, AFL-CIO;
- Amended July 2004 for Updated Factors for O\&R Optional Forms; and
- Amended and Restated November 2004 for Miscellaneous Changes
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## INTRODUCTION

Effective August 1, 1975, Consolidated Edison Company of New York, Inc. ("CECONY") adopted The Consolidated Edison Pension and Benefits Plan (the "Weekly Plan") to provide retirement benefits to its employees and their eligible surviving spouses. Effective January 1, 1983, CECONY adopted The Consolidated Edison Retirement Plan for Management Employees (the "Management Plan"), which established the bases upon which certain benefits, including benefits for service prior to January 1, 1983, would be provided to employees of CECONY on the management payroll of CECONY on or after December 31, 1982, to employees who retired prior to that date as management employees and to eligible surviving spouses of such management employees. Effective January 1, 1983, CECONY amended the Weekly Plan, which had theretofore included as participants the employees to be covered by the Management Plan, to avoid duplication of benefits and coverage. The Management Plan and the Weekly Plan, as amended, made provision for employees who transferred from the management to the weekly payroll, and vice versa.

The Management Plan and the Weekly Plan were subsequently amended and/or restated from time to time.
Effective January 1, 1998, Consolidated Edison, Inc. ("CEI"), a holding company, was formed, and CECONY became its wholly-owned subsidiary. From time to time, wholly-owned affiliates were formed, which became members of the same controlled group of which CEI is a member. In July 1999, CEI acquired Orange and Rockland Utilities, Inc. ("O\&R"), which became a wholly-owned subsidiary of CEI.

Effective January 1, 2001, the Weekly Plan is being amended and renamed the Consolidated Edison Retirement Plan (the "Plan") to take into account, among other things, the impact the formation of the new controlled group has on the Plan; namely, that CEI is referred to throughout and serves as the Company, CECONY is the Plan Sponsor and an Employer and certain affiliates are, or will become, Participating Employers. Furthermore, effective January 1, 2001, the Management Plan and the Employees’ Retirement Plan of Orange and Rockland Utilities, Inc. are being merged into the Plan as a single plan, as that term is defined in the Internal Revenue Code of 1986, as amended, (the "Code") Section 414(l).

The Plan takes into account:
(a) the transfers, from time to time, of CECONY employees to O\&R and vice versa;
(b) the acquisition of certain power generation facilities of Western Massachusetts Electric Company by Consolidated Edison Energy Massachusetts, Inc. and the participation of certain employees of Consolidated Edison Energy Massachusetts, Inc. in the Plan;
(c) the divestiture of CECONY's fossil fueled electricity generation facilities in New York City and certain rights and entitlements afforded those employees who transferred directly to the buyers of the divested generation facilities;
(d) benefit formulas of the merged plans that take into account the provision of the collective bargaining agreements effective June 25, 2000, between CECONY and Local 1-2, Utility Workers Union of America, AFL-CIO, effective June 1, 2000, between O\&R and
(e) a special increase in Pension Allowance, effective April 1, 2001, for certain CECONY Participants and their surviving spouses.

Each provision has its own effective date that is stated in the Plan.
On April 9, 2003, the Internal Revenue Service made a favorable determination on the Plan and issued a favorable determination letter. In accordance with the favorable determination letter, the Plan was amended to take into account changes required by the IRS. In particular, aspects related to the cash balance formula were further defined and clarified in accordance with the IRS' requests. The favorable determination letter considered the changes made by the Uruguay Round Amendments Act, Publ.103-465, the Small Business Job Protection Act of 1996. Pub. L. 104-188, the Uniformed Services Employment and Reemployment Rights Act of 1994, Pub. L. 103-353, the Taxpayer Relief Act of 1997, Pub. L. 105-34, the Internal Revenue Service Restructuring and Reform Act of 1998, Pub. L. 105-206, and the Community Renewal Tax Relief Act of 2000, Pub. L. 106-554.

In August, 2004, the Retirement Plan was amended to provide for the changes made on account of: (i) the collective bargaining agreement effective June 27, 2004, between CECONY and Local 1-2, Utility Workers Union of America, AFL-CIO; (ii) the collective bargaining agreement effective June 1, 2004, between O\&R and Local 503, International Brotherhood of Electrical Workers, AFL-CIO; (iii) changes made to the benefit structure for O\&R Management Employees that are concurrent with the changes made to the O\&R Hourly Employees; (v) changes to the factors used by O\&R to determine actuarial equivalents for optional forms of benefits.

The Retirement Plan also is amended to provide that, effective January 1, 2005, for retirements on and after January 1, 2005, the definition of Final Average Pay for CECONY Management Participants will change from a $60-$ month high to a 48 -month high.

Also, the Retirement Plan is amended, effective March 28, 2005, in accordance with Section 401(a)(31)(B)(i) of the Internal Revenue Code added as part of the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA). The required amendment reduces involuntary distributions the value of which previously was $\$ 5,000$ to involuntary distributions only of those vested accrued benefits of $\$ 1,000$ or less.

Except as otherwise specifically provided herein, the rights and benefits of any Participant who retires or whose employment is terminated are determined in accordance with the provisions of the Plan as in effect and operative at the time of such retirement or termination.

## ARTICLE I

## Definitions

1.01 Accredited Service means service recognized for purposes of computing the amount of any Pension Allowance and is determined as provided in Section 3.02. Effective January 1, 2001, wherever the term "Accredited Service" appears, "Accredited Service" also means "Credited Service" as that term is applied to determine a benefit for an O\&R Participant. For an O\&R Participant, a Year of Credited Service is a Year of Vesting Service during the period of Plan participation.
1.02 Accumulated Contributions means the sum of an O\&R Participant's contributions to the $O \& R$ Plan plus interest at the rate per annum, compounded annually, of $2^{1 / 2}$ per centum prior to January 1, 1963; 3 per centum after December 31, 1962, and prior to January 1, 1976; 5 per centum after December 31, 1975, and prior to January 1, 1981; 6 per centum after December 31, 1980, and prior to January 1, $1986 ; 7$ per centum after December 31, 1985, and prior to January 1, 1988, and after December 31, 1987, the interest rate determined pursuant to the provisions of Code Section 411(c)(2)(C) as in effect from time to time thereafter.
1.03 Actuarial Equivalent means equivalent value determined on the basis of the applicable factors set forth in
(a) Appendix A, Section A-1 for CECONY Participants,
(b) in Appendix A, Section A-2 for O\&R Participants and
(c) in Appendix A, Section A-3 for CEI Participants, except as otherwise specified in the Plan.
1.04 Adjusted IRS Interest Rate means, for a CECONY Participant, the rate of interest used in conjunction with the IRS Interest Rate in the calculation of the present value of benefits, to take account of prospective cost of living adjustments, pursuant to Section 11.02, which shall be determined by:
(a) dividing the IRS Interest Rate, as determined for a Participant's Annuity Starting Date, by 100;
(b) adding 1.0000 to the amount determined under (a);
(c) dividing the amount determined in (b) by the lesser of (x) the sum of (A) 0.9694 , plus (B) the product of 0.7194 and the amount determined in (a), or (y) 1.0300;
(d) subtracting 1.0000 from the amount determined in (c); and
(e) multiplying the amount determined in (d) by 100, provided, however, that in no event shall the Adjusted IRS Interest Rate exceed the IRS Interest Rate as of any date of determination.
1.05 Affiliate means any company which is a member of a controlled group of corporations (as defined in Code Section 414(b)), which also includes as a member the Company, any trade or business under common control (as defined in Code Section 414(c)), with the Company, any organization (whether or not incorporated) which is a member of an affiliated service group (as defined in Code Section 414(m)), which includes the Company, and any other entity required to be aggregated with the Company pursuant to regulations under Code Section 414(o). Notwithstanding the foregoing sentence, for purposes of determining the Maximum Benefit Limitation, as provided in Section 4.09 of the Plan, the definitions in Code Sections 414(b) and (c) shall be modified as provided in Code Section 415(h).

### 1.06 Annual Basic Straight-Time Compensation means:

(a) for a CECONY Weekly Employee, his or her regular stated rate of pay in his or her last pay period in each calendar year, determined prior to any PreTax Contributions, on which overtime and other premium payments are based, and, except as set forth in the definition of Final Average Pay, shall not include premium, overtime payments, or similar payments. In the case of an hourly-paid CECONY Weekly Employee, Annual Basic Straight-Time Compensation will be determined by multiplying the CECONY Weekly Employee's hourly rate by his or her regular weekly schedule of hours multiplied by fifty-two (52); and
(b) for a CECONY Management Participant and a CECONY Transferred Participant, his or her regular stated annual rate of salary in his or her last pay period in each calendar year, determined prior to any Pre-Tax Contributions, excluding premium pay, overtime pay, payments under deferred compensation, incentive, or other Employer benefit or compensation plans, and all other forms of special pay.
1.07 Annual Compensation means:
(a) for a CECONY Weekly Employee, his or her Annual Basic Straight-Time Compensation;
(b) for a CECONY Management Participant and a CECONY Transferred Participant, for Plan Years commencing prior to January 1, 1999, his or her Annual Basic Straight-Time Compensation;
(c) for a CECONY Management Participant, a CECONY Transferred Participant, and a CEI Participant, for Plan Years commencing on and after January 1, 1999, the sum of his or her Annual Basic Straight-Time Compensation and Annual Variable Pay Award;
(d) for an O\&R Management Employee, his or her Annual O\&R Management Compensation; and
(e) for an O\&R Hourly Employee, his or her Annual Rate of Compensation.

Commencing with the Plan Year beginning in 1994, Annual Compensation taken into account for any purpose under the Plan, including the determination of Final Average Salary and Final Average Pay, shall not exceed $\$ 150,000$, or for Plan Years on and after 2002, $\$ 200,000$ (as adjusted from time to time by the Secretary of the Treasury in accordance with Code Section 401(a)(17)(B)). Effective January 1, 1997, the compensation limit shall be applied without regard to the family aggregation provisions of Code Section 414(q)(6), as in effect prior to amendment by the Small Business Job Protection Act of 1996, in determining benefit accruals for Plan Years beginning on and after January 1, 1997, and, to the extent permissible under the IRS rules or regulations, for any earlier Plan Year.
1.08 Annual O\&R Management Compensation means the regular remuneration paid to an O\&R Management Employee on the basis of his or her regular workweek, determined prior to any Pre-Tax Contributions, and any awards paid to such O\&R Management Employee after January 1, 1997, under the Orange and Rockland Utilities, Inc. Annual Team Incentive Plan ("ATIP") (such ATIP awards shall be credited to Annual O\&R Management Compensation in the year in which paid). Annual O\&R Management Compensation excludes any bonuses (other than ATIP awards), overtime, or other special pay and O\&R's cost for any public or private employee benefit plan including the Plan. An O\&R Management Employee receiving credit for Vesting Service and Credited Service on the basis of receipt of long-term disability benefits under the plan of such benefits sponsored by O\&R shall be credited with Annual O\&R

Management Compensation for that period at the same rate he or she had been receiving when last actively at work. Notwithstanding anything to the contrary in this definition: (i) ATIP awards will only be considered as Annual O\&R Management Compensation if paid in a year in which the O\&R Management Employee is on the active payroll of the Company or an Affiliate; (ii) if the final day on which an O\&R Management Employee is on such active payroll is prior to the ATIP award payment date in the year which contains such final day on the active payroll, the ATIP award paid to such O\&R Management Employee in such year shall be deemed to have been received during his or her Credited Service for the purpose of determining his or her Pension Allowance; and (iii) when determining an O\&R Management Employee's rate of Annual O\&R Management Compensation as of a particular date for the purpose of determining his or her deemed Annual O\&R Management Compensation during a period of deemed Credited Service, the ATIP component of that Annual O\&R Management Compensation rate shall be based upon the ATIP award paid to the O\&R Management Employee in the year which contains the last date on which such O\&R Management Employee is on the active payroll of the Company or an Affiliate.
1.09 Annual Rate of Compensation means, for an O\&R Hourly Employee paid at an hourly or weekly rate, the regular remuneration paid to an O\&R Hourly Employee on the basis of his or her regular workweek, determined prior to any Pre-Tax Contributions, and excluding any bonuses, overtime, or special pay, O\&R's cost for any public or private employee benefit plan including the Plan, for the last regular work week immediately preceding the date the Annual Rate of Compensation is being computed multiplied by 52. An O\&R Hourly Employee receiving credit for Vesting Service and Credited Service on the basis of receipt of
long-term disability benefits under the plan of such benefits sponsored by O\&R shall be credited with Annual O\&R Hourly Compensation for that period at the same rate he or she had been receiving when last actively at work.
1.10 Annual Variable Pay Award means the amount awarded, if any, to a Participant in a Plan Year under CECONY's variable pay compensation plan or O\&R's ATIP. For an Employer other than CECONY or O\&R, Annual Variable Pay Award means the amount awarded, if any, to a Participant in a Plan Year under the Employer's short-term incentive compensation plan that has been approved by the Plan Administrator. Effective November 15, 2001, the amount of any award to be counted under this Plan for a CECONY Participant or a CEI Participant shall not exceed $25 \%$ of the Participant's rate of base annual salary or pay in effect as of January 1 of the Plan Year in which the award is made. Any awards under a long-term incentive compensation plan shall not be includible in any "Annual Variable Pay Award." Commissions paid by an Employer also shall be considered to have been awarded pursuant to a short-term incentive compensation plan and shall be subject to the overall aggregate limit of $25 \%$ of base annual salary (exclusive of commissions).
1.11 Annuity Starting Date means, unless the Plan expressly provides otherwise, the first day of the first period in or for which an amount is due as an annuity or any other form.
1.12 Approved Leave of Absence means, for an O\&R Employee, an absence from employment, granted to and approved by O\&R in a uniform and nondiscriminatory manner; it also means an absence for service in the Armed Forces or other governmental agency, provided that, and only so long as, reemployment rights are protected by law.
1.13 Beneficiary means the person, persons, or entity named by a Participant by written designation filed with the Plan Administrator to receive payments after the Participant's death.
1.14 Board means the Board of Trustees of CECONY, as from time to time constituted, or its delegate.
1.15 Break in Service means a Plan Year in which an Employee completes 500 or fewer Hours of Service.
1.16 Cash Balance Account means a hypothetical bookkeeping account to which is credited the allocations and interest credits on behalf of a CEI Participant pursuant to Article IV. The benefit attributable to a CEI Participant’s Cash Balance Account payable upon an Annuity Starting Date shall be equal to the Cash Balance Account at such Annuity Starting Date projected to Normal Retirement Date at the IRS Interest Rate and discounted back to the Annuity Starting Date at the IRS Interest Rate and assuming no mortality factor. For purposes of the projection described in the foregoing sentence, the applicable interest rate will be equal to four times the interest rate taken into account pursuant to Section 4.02(b)(2), "Interest Credits to Cash Balance Account" of the Plan, in the determination of interest credits allocated to the Participant's Cash Balance Account for the quarter that includes the Annuity Starting Date.
1.17 Cash Balance Single Sum Payment means a lump sum payment in the amount of the Participant's Cash Balance Account at the Participant's Annuity Starting Date, or, if greater the Participant's Cash Balance Account determined as of the Annuity Starting Date without regard to any projection or discount.
1.18 Cash Out means a lump sum distribution of the Actuarial Equivalent of $100 \%$ of the Participant's nonforfeitable accrued Pension Allowance, as more fully described in Section 5.02(b)(4).
1.19 CECONY means the Consolidated Edison Company of New York, Inc., and any successor by merger, purchase or otherwise.
1.20 CECONY Management Participant means a participant in the CECONY Management Plan on or before December 31, 2000, a transferred O\&R Management Participant, who by the terms and operation of Appendix C, becomes a CECONY Management Participant, and an Affected IP Employee (as defined in Appendix J) hired on or after January 1, 2001, on the management payroll of CECONY and who, but for this provision, would have been a CEI Participant.
1.21 CECONY Management Plan means the Consolidated Edison Retirement Plan for Management Employees, as in effect on December 31, 2000.
1.22 CECONY Participant means a CECONY Weekly Participant, a CECONY Management Participant and a CECONY Transferred Participant. CECONY Participant also means a former employee and/or retiree of CECONY who, as of December 31, 2000, had a vested right to a Pension Allowance from the CECONY Management Plan or the CECONY Weekly Plan.
1.23 CECONY Retiree Health Program means The Consolidated Edison Retiree Health Program as from time to time in effect.

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1.24 CECONY Transferred Participant means a CECONY Management Participant who transfers directly, without a break in employment, from the payroll of CECONY to the payroll of O\&R, a CEI Affiliate or another Employer.
1.25 CECONY Weekly Employee means an Eligible Employee employed by and on the weekly payroll of CECONY who is a member of the collective bargaining unit represented by Local 1-2 of the Utility Workers' Union of America, AFL-CIO, a member of the collective bargaining unit represented by Local 3 of the International Brotherhood of Electrical Workers, AFL-CIO. A CECONY Weekly Employee in all cases, includes, unless explicitly set forth otherwise, a CECONY Weekly Employee - 1 .
1.26 CECONY Weekly Participant means a CECONY Weekly Employee who was a participant in the CECONY Weekly Plan or becomes a Participant in this Plan. A CECONY Weekly Participant in all cases includes, unless explicitly set forth otherwise, a CECONY Weekly Participant - 1.
1.27 CECONY Weekly Participant $\mathbf{- 1}$ means a CECONY Weekly Employee -1 who is a Participant in the Plan..
1.28 CECONY Weekly Plan means the Consolidated Edison Pension and Benefits Plan as in effect on December 31, 2000.
1.29 CEI Participant means an Eligible Employee of CECONY or O\&R, hired on or after January 1, 2001, who is neither a CECONY Weekly Employee nor an O\&R Hourly Employee nor an Affected IP Employee (as defined in Appendix J). CEI Participant also means an Eligible Employee of a CEI Affiliate, other than a CECONY Transferred Participant (without regard to his or her hire date), for whom the CEI Affiliate has elected to extend participation in the Plan, as set forth in Appendix B. CEI Participant also means an Eligible Employee of an Affiliate that becomes an Employer on or after January 1, 2001, and for whom such Employer, with the consent of CECONY, extends participation.
1.30 CEI Affiliate or CEI Affiliates means one, more than one, or all, as the context indicates, of Consolidated Edison Communications, Inc. ("CEC"); Consolidated Edison Solutions, Inc. ("CES"); Consolidated Edison Energy, Inc. ("CEE"); Consolidated Edison Development, Inc. ("CED") Consolidated Edison Energy Massachusetts, Inc. ("CEEM"), and CED Operating Company, L.P. ("CEDOC"). Effective as of January 1, 2004, a CEI Affiliate includes Competitive Shared Services ("CSS"). Beginning July 2004, a CEI Affiliate will be the current CEI Affiliates and, thereafter, those entities referred to in the Appendices.
1.31 Code means the Internal Revenue Code of 1986, as amended from time to time.
1.32 Company means Consolidated Edison, Inc. or any successor by merger, purchase or otherwise.
1.33 Consolidated RPA ' 94 Lump Sum Conversion Factors means, effective January 1, 1997, the table of actuarial factors used to convert an immediate or deferred annuity, determined in accordance with or by reference to Section 4.02, into an actuarially equivalent lump sum. Such factors shall be based on the IRS Mortality Table and shall take into account the IRS Interest Rate for the period prior to a Participant’s Normal Retirement Date and the Adjusted IRS Interest Rate for the period subsequent to the Participant's Normal Retirement Date. The enrolled actuary shall provide to the Plan Administrator tables of Consolidated RPA '94 Lump Sum Conversion Factors determined on the basis of the IRS Interest Rate in effect in each "lookback month" as that term is defined in the definition of IRS Interest Rate.
1.34 Credited Service means each Plan Year in which the O\&R Participant has earned or is credited with a Year of Vesting Service during Plan participation. Effective on and after January 1, 2001, in this Plan, Credited Service means Accredited Service.
1.35 Disability means a total and permanent disability, which qualifies the Participant to receive Social Security disability benefits.
1.36 Effective Date means (i) August 1, 1975, for the CECONY Weekly Plan; (ii) January 1, 1983, for the CECONY Management Plan; (iii) February 1, 1954, for the O\&R Plan; and (iv) January 1, 2001, for this Plan.
1.37 Eligible Employee means, in the case of CECONY and O\&R, unless otherwise excluded, an Employee. In the case of each CEI Affiliate, an Eligible Employee is a CECONY Transferred Participant and any other Employee to whom such CEI Affiliate has elected or elects, with the approval of CECONY, to extend participation in the Plan, as set forth in Appendix B. In the case of any other Employer, an Eligible Employee is only the person(s) to whom such Employer specifically elects or elected, with the approval of CECONY, to extend participation in this Plan, as set forth in Appendix B. An Eligible Employee does not mean a person working on a temporary or seasonal basis. An Eligible Employee is not a Leased Employee or a person who has entered into a written contract that provides he or she (a) is an independent contractor and not an Employee and/or (b) waives participation in the Plan. An independent contractor shall not be eligible to participate in the Plan during the period the written contract is in effect without regard to whether such person is reclassified as an Employee for such period by the Internal Revenue Service for tax withholding purposes. Effective January 1, 2001, an Eligible Employee does not include an employee or individual receiving a Pension Allowance unless he or she is in a Non-Suspendible Month.
1.38 Employee means any individual who is employed by and a common law employee of the Company, an Employer, or an Affiliate or who is a Leased Employee. An Employee means a person who is receiving compensation other than a pension, severance pay, a retainer, or fee under contract.
1.39 Employer or Employers means one, more than one, or all, as the context so indicates, of CECONY, O\&R, each CEI Affiliate, and each Affiliate to the extent that it has elected or elects, in the future, to participate in the Plan with the consent of CECONY as provided in Section 10.03.
1.40 ERISA means the Employee Retirement Income Security Act of 1974, as amended from time to time.
1.41 Final Average Pay means, for purposes of a CECONY Weekly Employee, the average of Annual Basic Straight-Time Compensation, calculated to the nearest whole dollar, for the sixty ( 60 ) consecutive calendar months, or, effective for retirements on and after June 27, 2004, forty eight (48) consecutive calendar months out of the last one hundred twenty (120) months of his or her Accredited Service which produce the highest average. If he or she has less than sixty (60) or for retirements on and after June 27, 2004, forty eight (48), consecutive calendar months, Final Average Pay means the highest average of his or her Annual Basic Straight-Time Compensation during all months of Accredited Service. For a Local 3 Weekly Employee who has an effective retirement date after August 31, 1997 and before December 1, 2001, fifty percent (50\%), and for a Local 1-2 Weekly Employee who has
an effective retirement date after November 30, 2000 and for a Local 3 Weekly Employee who has an effective retirement date after November 30, 2001, one hundred percent ( $100 \%$ ), of the aggregate amount of such CECONY Weekly Employee's pay attributable exclusively to Sunday premium pay and night shift and midnight shift differential premium pay during a calendar year shall be added to such Employee's Annual Basic Straight-Time Compensation for such calendar year for purposes of determining such Employee's Final Average Pay under the Final Average Pay pension benefit formula only. Solely for purposes of this Section, months of Accredited Service separated by a Break in Service shall be deemed consecutive.
1.42 Final Average Salary means, for purposes of a CECONY Management Participant, the average of Annual Basic Straight-Time Compensation and the Annual Variable Pay Awards added together and each calculated to the nearest whole dollar, during the sixty ( 60 ) consecutive calendar months, or, effective for retirements on and after January 1, 2005, forty eight (48) consecutive calendar months in the last one hundred twenty (120) months of his or her Accredited Service which produce the highest average, or during all of the months of his or her Accredited Service if less than sixty ( 60 ), or for retirements on and after January 1, 2005, forty eight (48) consecutive calendar months, in the ten-year period ending on the CECONY Management Participant's termination of employment during which such average is the highest. Solely for the purpose of this Section, months of Accredited Service separated by a Break in Service shall be deemed consecutive. The determination of Final Average Salary shall be subject to the provisions of Code Section 401(a)(17).
1.43 FMLA means the Family and Medical Leave Act of 1993, as amended from time to time.
1.44 Highly Compensated Employee means any Employee, who, during the preceding Plan Year received compensation, as defined in Code Section 415(c), in excess of $\$ 80,000$, adjusted by the cost-of-living adjustment, as defined in Code Section 415 , and was in the "top paid group." An Employee will be in the "toppaid group" if he or she is one of the $20 \%$ highest paid Employees.

### 1.45 Hour of Service means:

(a) Each hour for which the Employee is paid or entitled to payment for the performance of duties for the Company or an Affiliate.
(b) An Hour of Service also is each hour for which an Employee is paid, or entitled to payment, by the Company or an Affiliate on account of a period of time during which no duties are performed (irrespective of whether the employment relationship has terminated) due to vacation, holiday, illness, incapacity (including disability), layoff, jury duty, military duty or leave of absence.
(c) Notwithstanding subsection (b), no more than 501 Hours of Service are required to be credited to an Employee on account of any single continuous period during which the Employee performs no duties (whether or not such period occurs in a single computation period).
(d) An hour for which an Employee is directly or indirectly paid, or entitled to payment, on account of a period during which no duties are performed is not required to be credited to the Employee if such payment is made or due under a plan maintained solely for the purpose of complying with applicable workers' compensation, or unemployment compensation or disability insurance laws.
(e) Hours of Service are not required to be credited for a payment which solely reimburses an Employee for medical or medically related expenses incurred by the Employee.
(f) A payment shall be deemed to be made by or due from the Company or an Affiliate regardless of whether such payment is made by or due from the Company or an Affiliate directly, or indirectly through, among others, a trust fund, or insurer, to which the Company or an Affiliate contributes or pays premiums and regardless of whether contributions made or due to the trust fund, insurer or other entity are for the benefit of particular Employees or are on behalf of a group of Employees in the aggregate.
(g) An Hour of Service is each hour for which back pay, irrespective of mitigation of damages, is either awarded or agreed to by the Company or an Affiliate. The same Hours of Service shall not be credited both under subsection (a) or subsection (b), as the case may be, and under this subsection (g). Crediting of Hours of Service for back pay awarded or agreed to with respect to periods described in subsection (b) shall be subject to the limitations set forth in that paragraph.
(h) With regard to an Employee for whom a record of his or her Hours of Service is not maintained, (i) one day of employment equals 10 Hours of Service, (ii) one week of employment equals 45 Hours of Service, and (iii) one month of employment equals 190 Hours of Service.
(i) Hours of Service shall be determined and calculated in accordance and compliance with the Department of Labor Regulations set forth in 29 CFR 2530.

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1.46 IRS Interest Rate means, effective January 1, 1997, the annual rate of interest on 30-year Treasury Securities as specified by the Commissioner of Internal Revenue for the second full calendar month preceding the applicable Stability Period. Such second full calendar month preceding the applicable Stability Period shall be deemed the "Lookback Month." Effective January 1, 2001, for purposes of determining the interest credits that will be allocated to a Participant’s Cash Balance Account, in accordance with Section 4.02(b)(2), the IRS Interest Rate means the annual rate of interest on 30-year Treasury Securities as specified by the Commissioner of Internal Revenue for the second full calendar month immediately preceding the calendar quarter in which the Interest Rate is credited.
1.47 IRS Mortality Table means, effective January 1, 1997, the mortality table prescribed by Secretary of the Treasury under Code Section 417(e)(3)(A)(ii)(I) as in effect on the first day of the applicable Stability Period.
1.48 Layoff means an Employee's separation from the active payroll of an Employer for lack of work or such other reason, in no way the fault of the Employee, as may be determined by the Employer.
1.49 Leased Employee means any person as so defined in Code Section 414(n).

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1.51 Named Fiduciary means the person or persons designated in accordance with Section 7.01 to serve as named fiduciaries, within the meaning of ERISA Section 4.02(a), with respect to the Plan.
1.52 Non-Suspendible Month means a calendar month beginning either on or after (i) a Participant’s Normal Retirement Date or (ii) a Participant has begun receiving a Pension Allowance during which the Participant does not complete at least 40 Hours of Service, as the term "Hours of Service" is defined in 29 CFR 2530.200b-2(a)(1) and (2).
1.53 Normal Retirement Age means an Eligible Employee’s 65th birthday or, if later, the fifth anniversary of the date he or she becomes a Participant. Normal Retirement Age, for an O\&R Management Employee who was hired on or before December 31, 2000, or for an O\&R Hourly Employee, means his or her 65th birthday.
1.54 Normal Retirement Date means the first day of the calendar month immediately following an Employee's Normal Retirement Age.
1.55 O\&R means Orange and Rockland Utilities, Inc. and its affiliates, Rockland Electric Company and Pike County Light and Power Company.
1.56 O\&R Early Retirement Date means, the date of an O\&R Participant's termination of employment from the Company or an Affiliate after the Participant attains his or her 55th birthday and completes ten (10) years of Vesting Service.
1.57 O\&R Employee means an Employee employed by and on the active payroll of O\&R.
1.58 O\&R Hourly Employee means an Employee who is employed by and on the active payroll of O\&R and a member of the collective bargaining unit represented by Local Union 503, International Brotherhood of Electrical Workers, AFL-CIO. An O\&R Hourly Employee also includes by reference, unless explicitly set forth otherwise, an O\&R Hourly Employee -1.
1.59 O\&R Hourly Employee -1 means an O\&R Hourly Employee who is hired on or after January 1, 2005.
1.60 O\&R Management Employee means an O\&R Employee on the management payroll of O\&R as of December 31, 2000.
1.61 O\&R Participant means an O\&R Management Employee and an O\&R Hourly Employee who have met the participation requirements of Section 2.01, and any former O\&R Employee who, as of December 31, 2000, has a vested Pension Allowance in the O\&R Plan.
1.62 O\&R Plan means the Employees’ Retirement Plan of Orange and Rockland Utilities, Inc. as in effect on December 31, 2000.
1.63 Parental Leave means a period in which the Employee is absent from work immediately following his or her active employment because of the Employee's pregnancy, the birth of the Employee's child, the placement of a child with the Employee in connection with the adoption of that child by the Employee, or for purposes of caring for that child for a period beginning immediately following birth or placement.
1.64 Participant means a CECONY Participant, O\&R Participant, CEI Participant and any other person included in the participation of the Plan.
1.65 Pension Allowance means a Participant's accrued benefit payable in the form of monthly payments as provided in Article 5. A Pension Allowance may be payable as a Normal Retirement Pension Allowance, an Early Retirement Pension Allowance, a Disability Pension Allowance or a Vested Pension Allowance. Pension Allowance also means a Cash-Out or a Cash Balance Single Sum Payment in those instances in which a Participant elects or is deemed to elect his or her Pension Allowance in the form of a lump-sum payment.
1.66 Plan means The Consolidated Edison Retirement Plan, as set forth in this document, and as amended from time to time. The Consolidated Edison Retirement Plan is the renamed and amended CECONY Weekly Plan into which the CECONY Management Plan and the O\&R Plan were merged.
1.67 Plan Administrator means the person or persons designated by the Named Fiduciaries to administer and supervise the Plan as provided in Article 7.
1.68 Plan Year means the calendar year.
1.69 Pre-Tax Contribution means any pre-tax contributions to (a) a qualified "cash or deferred arrangement," as defined in Code Section $401(\mathrm{k})$, (b) a "cafeteria plan," as defined in Code Section 125, or (c) a "transportation reimbursement plan," as defined in Code Section 132.
1.70 Prior Plan or Prior Plans mean one or more, as the context indicates, of the CECONY Weekly Plan, the CECONY Management Plan and the O\&R Plan, as in effect on December 31, 2000.
1.71 Rule of 75 Participant means a CECONY Participant whose years of age and Accredited Service (each rounded to the nearest whole number) total at least 75 ("75 points") on the Annuity Starting Date.
1.72 Rule of 85 Participant means an O\&R Participant whose years of age and Vesting Service (on the Plan Year measurement basis only) total at least 85 on the O\&R Participant's Early Retirement Date.
1.73 Social Security Retirement Age means age 65 with respect to a Participant who was born before January 1, 1938; age 66 with respect to a Participant who was born after December 31, 1937, and before January 1, 1955; and age 67 with respect to a Participant who was born after December 31, 1954.
1.74 Social Security Taxable Wage Base means the taxable wage base in effect under Section 230 of the Social Security Act at the beginning of the Plan Year in which occurs the Participant's termination of employment from the Company or an Affiliate.
1.75 Spousal Consent means written consent given by a Participant's spouse to an election made by the Participant of a specified optional form of Pension Allowance or a designation of a specified Beneficiary as provided in Article 5 . Spousal Consent shall be duly witnessed by a notary public and shall acknowledge the effect on the spouse of the Participant's election. The requirement for Spousal Consent may be waived by the Plan Administrator in the event that the Participant establishes to the Plan Administrator's satisfaction that he or she has no spouse, that such spouse cannot be located, or under such other circumstances as may be permitted under applicable Treasury Department regulations. Spousal Consent shall be applicable only to the particular spouse who provides such consent. Spousal Consent shall be
applicable only to the specific optional form of Pension Allowance elected or the specific Beneficiary designated pursuant thereto, provided, however, that only the spouse of an O\&R Participant may expressly waive his or her the right to consent to future changes.
1.76 Stability Period means the calendar month in which occurs the Annuity Starting Date for the distribution.
1.77 Surviving Spouse means, for a CECONY Participant or a CEI Participant, the lawful spouse married to the Participant on the Participant's Annuity Starting Date. Surviving Spouse means, for an O\&R Participant, the lawful spouse who has been married to the Participant throughout the one-year period ending on the Annuity Starting Date and surviving at the Participant's date of death.
1.78 Total Salary means the aggregate amount of Annual Compensation, of a CECONY Participant, for his or her years of Accredited Service, calculated to the nearest whole dollar, not to exceed the last 30 years of Accredited Service. Total Salary equals the sum of a CECONY Participant's Annual Compensation (1) in the year of retirement and/or termination from employment, plus (2) in each of the 14 Plan Years before retirement and/or termination from employment, plus (3) Annual Compensation for each earlier year of Accredited Service, not to exceed 16 years, at the Annual Compensation rate for the $14^{\text {th }}$ calendar year prior to the calendar year of his or her retirement and/or termination from employment ("Pivot Year Compensation").

The CECONY Participant's Pension Allowance for up to 30 years is then determined, as set forth in more detail in Appendix F, by applying $2.2 \%$ to the CECONY Participant's Total Salary (the "Base Pension Allowance"). For each month of Accredited Service in excess of 360 months of Accredited Service, the Base Pension Allowance shall be increased by an amount that is equal to $.0125 \%$ per month of the Base Pension Allowance.
1.79 Trustee means the trustee or trustees by whom the funds of the Plan are held, as provided in Article 8.
1.80 Transferred O\&R Management Participant means an Employee described in Appendix C of the Plan.
1.81 Vesting Service means service recognized for purposes of determining a Participant's non-forfeitable right to a Pension Allowance under the Plan. Vesting Service is computed based on the Plan Year.
1.82 Year of Accredited Service means 12 months of consecutive or non-consecutive Accredited Service. A Participant earns or is credited with a month of Accredited Service for each month he or she is on an active payroll, receives Annual Compensation in that month, is an Eligible Employee and a Participant in the Plan.

## ARTICLE II

## Participation

### 2.01 Participation Requirements

(a) Each person who, on December 31, 2000, was a participant in a Prior Plan shall continue to be a Participant in the Plan.
(b) An Eligible Employee, other than an O\&R Hourly Employee, who is hired on or after December 31, 2000, becomes either a CEI Participant, or in the case of a CECONY Weekly Employee, a CECONY Weekly Participant, as of the date he or she first completes an Hour of Service.
(c) An O\&R Management Employee and an O\&R Hourly Employee shall become a Participant on the first day of the month following the earlier of:
(1) the first anniversary date of his or her employment if he or she completes 1,000 Hours of Service within the 12-month period measured from the date on which he or she first completes an Hour of Service; or
(2) the end of the first Plan Year occurring immediately subsequent to the Plan Year in which he or she first completes an Hour of Service during which he or she completes 1,000 Hours of Service.

### 2.02 Events Affecting Participation

A Participant's participation in the Plan shall end when he or she is no longer employed by an Employer, the Company or an Affiliate and not entitled to a vested Pension Allowance. Participation shall continue while on an approved leave of absence or during a period while he or she is not an Eligible Employee but is in the employ of the Company or an Affiliate. Such Employee's benefit shall be determined in accordance with the provisions of the Plan in effect on the date he or she ceases to be an Eligible Employee.

### 2.03 Participation Upon Reemployment

If the participation of a CECONY Participant or a CEI Participant ends and he or she again becomes an Eligible Employee without incurring a Break in Service, he or she shall again become a Participant as of his or her date of restoration to service as an Eligible Employee. If an O\&R Participant's participation ends, and he or she again becomes an Eligible Employee, her or she shall not forfeit any benefits in which he or she was previously vested and he or she again becomes a Participant as of his or her date of restoration to service as an Eligible Employee once he or she has again met the participation requirements set forth in Section 2.01.

## ARTICLE III

## Service

### 3.01 Vesting Service

(a) Special Vesting Rules
(1) Vesting Service credited to an Employee under a Prior Plan as of December 31, 2000, shall be credited as Vesting Service under this Plan. Vesting Service shall not include any service that would have been disregarded under the break in service provisions of the Employee's Prior Plan.
(2) Effective on the specific date set forth below, each of the following Participants shall be $100 \%$ vested in and have a nonforfeitable right to his or her Pension Allowance:
(i) pursuant to the "change in control" provision in the O\&R Plan, only each O\&R Participant who was on the payroll of O\&R on August 20, 1998, (the date the shareholders of O\&R approved the acquisition of O\&R by the Company) shall be $100 \%$ vested as of August 20, 1998;
(ii) each "WMECO Participant," as defined in Appendix D, who was employed at the WMECO Facilities on July 19, 1999 shall be 100\% vested as of July 19, 1999;
(iii) each "CECONY Participant at Divested Operations," as defined in Appendix H, shall be $100 \%$ vested as described in Appendix H; and
(iv) each "Affected IP Employee," as defined in Appendix J, shall be $100 \%$ vested on the date of the closing of the sale of Indian Point.
(b) General Vesting Rules
(1) Effective on and after January 1, 2001, except as otherwise provided in the Plan, Vesting Service begins on the date the Employee first completes an Hour of Service and ends on the Employee's termination of employment from the Company or an Affiliate.
(2) A Participant, other than an O\&R Participant, will be credited with a Year of Vesting Service in each Plan Year in which he or she is credited with 1000 Hours of Service or six months of service. An O\&R Participant shall be credited with a year of Vesting Service in each Plan Year in which he or she is credited with 1000 Hours of Service. In determining an Employee's years of Vesting Service, if it should result in a grant of Vesting Service more favorable to the Employee, the equivalencies for determining Hours of Service shall be used, provided that such equivalencies are consistently applied.
(3) An O\&R Management Employee hired on or after August 20, 1998 and an O\&R Hourly Employee who completes 1000 Hours of Service during the 12 months commencing with the month in which he or she first completes an Hour of Service and also during the Plan Year following the Plan Year in which he or she completed his or her first Hour of Service, shall be credited with two years of Vesting Service as of the end of the Plan Year following the Plan Year in which he or she completed his or her first Hour of Service.
(c) Break in Service Rules. Solely for purposes of determining if a Break in Service for participation and vesting purposes has occurred, an Employee who is absent from work
because of Parental Leave or a leave under the FMLA shall receive credit for the number of Hours of Service that the Employee would normally have received but for such absence, or where such Hours cannot be determined, eight (8) Hours of Service for each day of absence, subject to a maximum of 501 Hours of Service for any one such absence. The Hours of Service will be credited to the Plan Year in which the absence began if the Employee would otherwise incur a Break in Service in such Plan Year, or if not, in the immediately following Plan Year. In order to receive Hours of Service credit for such absence, the Employee shall be required to provide such information or certification as to the nature of the absence as may be required by the Plan Administrator.
(d) Notwithstanding any provision of this Plan to the contrary, contributions, benefits, and service credit with respect to qualified military service will be provided in accordance with Code Section 414(u). If an Employee is absent because of service in the uniformed services of the United States and if he or she has returned to the service of the Company or an Affiliate or applied to return while his or her reemployment rights were protected by law, then, in that event, that absence shall not count as a Break in Service, but instead shall be counted as Vesting Service to the extent required by law.
(e) A period of absence due to a paid sick leave granted by the Company or an Affiliate, other than O\&R, and one period up to a maximum of six months during a Participant's aggregate period of employment with the Company or an Affiliate, during which a Participant is on an approved leave of absence granted for any other reason will be considered Vesting Service.
(f) The first six months of a Parental Leave or an FMLA Leave for maternity or paternity reasons will constitute Vesting Service if the Participant returns to active employment for a period equal to the lesser of (i) the Parental Leave or FMLA Leave or (ii) six months.
(g) O\&R shall credit an Approved Leave of Absence as Vesting Service, provided that upon conclusion of such "Approved Leave of Absence," the O\&R Participant returns to employment with O\&R or an Affiliate or is eligible to retire on a Normal Retirement Date or an Early Retirement Date.

### 3.02 Accredited Service

(a) Accredited Service and Credited Service credited to a Participant under a Prior Plan as of December 31, 2000, shall be treated as Accredited Service under this Plan. Accredited Service shall not include any service that would have been disregarded under the provisions of the applicable Prior Plan.
(b) Except as provided below, only active service with and on the payroll of an Employer as an Eligible Employee shall be Accredited Service under the Plan. Subject to the provisions below, a period between a Break in Service and a reemployment date, whether or not counted as Vesting Service, shall not be counted as Accredited Service. A Participant who has five years of Vesting Service or who becomes $100 \%$ vested, on account of operation of another provision in the Plan, will receive Accredited Service for all of his or her years and months of active service after becoming fully vested regardless of a subsequent Break in Service.
(c) Accredited Service shall include, to the extent required by law, any period of absence from service with the Company or an Affiliate due to a period of service in the uniformed services of the United States which is counted in a Participant's Vesting Service as provided in Section 3.01(b). The Participant shall be deemed to have earned Annual Compensation
during the period of absence at the rate he or she would have received had he or she remained employed as an Eligible Employee for that period or, if such rate is not reasonably certain, on the basis of the Participant's rate of compensation during the 12-month period immediately preceding such period of absence (or if shorter, the period of employment immediately preceding such period).
(d) Accredited Service for a CECONY Participant shall include a period of absence due to a paid sick leave granted by CECONY. Effective July 1, 1996, Accredited Service for a CECONY Participant and a CEI Participant shall include one period, of up to a maximum of six months, during which a CECONY Participant or a CEI Participant is on an approved leave of absence granted for any reason other than sick leave. The first six months of such a Parental Leave or an FMLA leave granted for maternity or paternity reasons shall constitute Accredited Service, if the Participant returns to active employment for a period equal to the lesser of (i) the Parental Leave or FMLA Leave or (ii) six months .
(e) Unless otherwise explicitly set forth in the Plan, Accredited Service shall not be credited for any period in which a Participant is not actively employed as an Eligible Employee. Any person, who enters into a written contract, that provides that he or she is an independent contractor and not an Employee, and waives participation in the Plan, shall not receive any Accredited Service for the period such written contract is in effect.
(f) An O\&R Participant who has less than the normal number of Hours of Service for full-time employment in the first Plan Year of participation and in the Plan Year in which employment terminates, the fraction of each such Plan Year that will be recognized for Accredited Service shall not be less than the fraction, the numerator of what is the number of Hours of Service as a Participant and the denominator of which is the normal number of Hours of Service in a Plan Year for normal employment.
(g) Union Officer Service for O\&R Hourly Participant. To the extent not already counted as Vesting Service and Accredited Service above-
(1) The local union President of the union at O\&R who on or after January 1, 1983 is absent from work at $O \& R$ without pay for proper union business, who would otherwise have been scheduled to work, with proper notification to O\&R, shall be entitled to both Vesting Service and Accredited Service at the rate of eight (8) hours per day or 40 hours per week, not to exceed 100 days per calendar year for such periods of absence.
(2) The local union Vice Presidents, Recording Secretaries, Financial Secretaries, Treasurers and the Unit Chairman, Unit Vice Chairman and Unit Recorder at O\&R who on or after January 1, 1983 are absent from work, without pay for proper union business, who would otherwise have been scheduled to work, with proper notification to O\&R, shall be entitled to both Vesting Service and Accredited Service at the rate of eight (8) hours per day or 40 hours per week, not to exceed 40 days per calendar year for such periods of absence.
(3) Any other bargaining unit member at O\&R who on or after January 1, 1983 is absent from work without pay and who is participating in a recognized O\&R-union activity, with proper notification to O\&R, shall be entitled to both Vesting Service and Accredited Service at the rate of eight (8) hours per day or 40 hours per week, not to exceed five (5) days per calendar year for such periods of absence.

### 3.03 Re-employment of Participant-Suspension of Benefits and Break in Service Rules

(a) Suspension of Benefits. Effective January 1, 2001, any Participant who is receiving a Pension Allowance and restored to service with the Company or an Affiliate as an Employee, whether or not as an Eligible Employee, shall have the following apply:
(1) The Participant's Pension Allowance shall be suspended for each month in which the Participant completes at least 40 Hours of Service.
(2) Any Vesting Service to which the Participant was entitled when he or she retired or terminated service shall be restored to him or her.
(3) If the Participant is employed by an Employer as an Eligible Employee, upon later retirement or termination, he or she shall be entitled to an additional Pension Allowance based on his or her initial benefit formula applicable to the Participant prior to re-employment and his or her Annual Compensation and Accredited Service credited to the person beginning after his or her re-employment date. The additional Pension Allowance, if any, shall be equal to the greater of:
(i) an amount determined in accordance with the benefit formula applicable to the re-employed Participant as if the Participant's date of re-employment were his or her first day of employment as an Eligible Employee. (His or her Accredited Service prior to the date of reemployment shall not be taken into account in determining his or her number of Years of Accredited Service but shall be taken into account in determining the applicable percentage of the Participant's Final Average Salary or the Participant's Annual Compensation); or
(ii) an amount equal to the excess, if any, of (I) a Pension Allowance determined in accordance with the applicable benefit formula on the basis of his or her Accredited Service and Final Average Salary or Annual Compensation, each aggregated to include the periods before and after the date of restoration to service, over (II) the "Offset Amount," as defined herein. The Offset Amount is the Pension Allowance payments received prior to his or her re-employment and, if applicable, during the period of reemployment, converted into an annuity based on the IRS Mortality Table and the Adjusted IRS Interest Rate applicable to the Participant.
(4) The additional Pension Allowance shall be payable under any of the optional forms described in Section 5.02, as elected by the Participant in accordance with Section 5.03, regardless of the optional form in which the Pension Allowance that commenced prior to his or her reemployment is payable.
(5) A Participant whose Pension Allowance is suspended in accordance with this Section 3.03 shall be provided with notice that his or her Pension Allowance is being suspended in accordance with the provisions of the Department of Labor Regulations Section 2530.203-3.
(b) Re-employment Without Break in Service. If either a Participant with a deferred vested Pension Allowance, a former non-vested Participant, or an Employee who was never a Participant, is re-employed without having a Break in Service, his or her participation date, Vesting Service and Accredited Service shall be determined as provided in Sections 2.01, 3.01 and 3.02, respectively. If a former Participant received a Cash Out, the Accredited Service to
which he or she was entitled at the time of his or her termination of service shall be restored to him or her only in accordance with the provisions of Section 3.03(c). Upon subsequent retirement, the Pension Allowance of a Participant whose Accredited Service has been restored pursuant to this subparagraph shall never be less than that which was accrued under the Plan through the date of prior termination.
(c) Re-employment After Break in Service. If a CECONY Participant with a deferred vested Pension Allowance or a former CECONY Participant who received a Cash Out, is restored to service as an Eligible CECONY Employee, after having had a Break in Service, the following shall apply:
(1) The Vesting Service to which he or she was previously entitled shall be restored to him or her.
(2) Any Accredited Service to which the CECONY Participant was entitled at the time of his or her termination of service shall be restored to him or her; provided, however, that in the case of a CECONY Participant who received a Cash Out, the CECONY Participant repays the amount of the Cash Out, if any, received upon his or her initial termination of service, together with interest on that amount at the rate prescribed by Code Section 411(a)(7)(C), to the date of repayment.
(3) Upon later termination or retirement of a CECONY Participant whose previous Accredited Service has been restored under this Section 3.03(c), his or her Pension Allowance as if he or she had no break in service and based on the applicable benefit formula for the re-employed CECONY Participant and his or her total Annual Compensation and Accredited Service while an Eligible CECONY Employee.
(d) Re-employment of Non-vested Participant After Break in Service. If a former non-vested Participant is restored to service as an Eligible Employee or an Employee, after having had a Break in Service, the following shall apply:
(1) If he or she is re-employed as an Eligible Employee, he or she shall again become a Participant as of his or her date of restoration to service as an Eligible Employee.
(2) Upon his or her restoration to participation, the Vesting Service to which he or she was previously entitled shall be restored to him or her, if his or her period of Break in Service does not exceed five years, determined at the time of the Break in Service, excluding any Vesting Service disregarded by reason of any earlier Break in Service.
(3) Any Accredited Service to which the Participant was entitled at the time of his or her termination of service which is included in the Vesting Service, so restored, shall be restored to him or her.
(4) Upon later termination or retirement of a Participant whose previous Accredited Service has been restored, his or her Pension Allowance, if any, shall be based on the applicable benefit formula in effect at such later termination or retirement and his or her total Annual Compensation and Accredited Service while in the service of an Employer as an Eligible Employee.
(e) Re-employment of Former Employee After Break in Service. If an Employee who was never a Participant is restored to service with the Company or an Affiliate, after having not exceed five years, excluding any Vesting Service disregarded by reason of any earlier Break in Service.

## ARTICLE IV

## Eligibility for and Amount of Benefits

### 4.01 Normal Retirement

The right of a Participant to a normal retirement Pension Allowance shall be non-forfeitable as of his or her Normal Retirement Age. A Participant who has attained Normal Retirement Age may retire from service and receive a normal retirement Pension Allowance beginning on his or her Normal Retirement Date. An O\&R Participant whose Normal Retirement Age is coincident with the first day of a calendar month may retire from service and receive a Normal Retirement Pension Allowance on the first day of the calendar month in which his or her Normal Retirement Age occurs. A Participant who postpones retirement shall be provided with notice that his or her Pension Allowance is being suspended in accordance with the provisions of Department of Labor Regulation Section 2530.203-3.

### 4.02 Normal Retirement Pension Allowance

(a) Normal Retirement Pension Allowance for a CECONY Participant or an O\&R Participant. The annual normal retirement Pension Allowance payable on the Normal Retirement Date of each CECONY Participant and O\&R Participant shall be determined in accordance with his or her applicable benefit formula, as set forth in Appendix F.
(b) Normal Retirement Pension Allowance for a CEI Participant A CEI Participant shall have his or her Pension Allowance determined based on a Cash Balance Account. Under the Cash Balance Account, the CEI Participant's Pension Allowance at Normal Retirement Date shall be equal to his or her Cash Balance Account as of the date of determination converted into a single life annuity using the IRS Interest Rate and IRS Mortality Table.
(1) Compensation Credits to Cash Balance Account.
(i) Allocation Date shall mean the last day of each calendar quarter in each Plan Year. As of the Allocation Date, a CEI Participant shall receive an allocation to his or her Cash Balance Account in an amount determined in accordance with the following schedule:

| Sum of Age and Years of Accredited <br> Service (each rounded to nearest whole <br> number) as of Allocation Date | Percentage of <br> Annual <br> Compensation <br> in Calendar <br> Quarter. | Excess Annual Allocation - <br> Percentage of Annual Com- <br> pensation in Calendar <br> Quarter in Excess of Social <br> Security Taxable Wage Base |
| :--- | :---: | :---: |
| 35 | $4 \%$ | $4 \%$ |
| Less than 35 | $5 \%$ | $4 \%$ |
| At least 35 but less than 50 | $6 \%$ | $4 \%$ |
| At least 50 but less than 65 | $7 \%$ | $4 \%$ |
| 65 and over |  |  |

(ii) The entire amount, if any, of a CEI Participant's Annual Variable Pay Award shall be included in the CEI Participant's Annual Compensation in the calendar quarter in which the Award is paid. Annual Compensation is determined based on the CEI Participant's rate of pay in the last pay period in each Calendar quarter.
(iii) A CEI Participant whose termination of employment occurs in the first or second month of a calendar quarter shall receive an allocation for such calendar quarter equal to a pro rata quarterly allocation based on age and years of Accredited Service at his or her termination of employment and the Annual Compensation he or she received in such calendar quarter multiplied by a fraction, the numerator of which is the number of months in the calendar quarter through the termination of employment and the denominator of which is three.
(iv) For any period of an authorized, unpaid leave of absence for which the Participant receives Accredited Service (up to but not to exceed six months), the Participant shall receive compensation credits to his or her Cash Balance Account. The compensation credits shall be determined on the assumption that the Participant continued to receive during the leave period the Annual Compensation (excluding any Annual Variable Pay Award) in effect for such Participant immediately prior to such leave of absence.
(2) Interest Credits to Cash Balance Account. As of the last day of each calendar quarter of each Plan Year, the Cash Balance Account shall be increased by an amount equal to one-fourth of the applicable IRS Interest Rate multiplied by the CEI Participant's Cash Balance Account as of the first day of such calendar quarter. Notwithstanding the foregoing, the interest rate taken into account as of the last day of any calendar quarter coinciding with or preceding the CEI Participant's Annuity Starting Date shall not be less than $0.75 \%$ or greater than $2.25 \%$. In the event the Annuity Starting Date of a CEI Participant is prior to the last day of a calendar quarter, he or she will receive a pro rata interest credit based on the number of months in that quarter prior to the Annuity Starting Date.
(3) Limitation on Credits. Notwithstanding the foregoing, in no event shall any interest credits be made to the account of any CEI Participant for any period on and after his or her Annuity Starting Date.
(4) Death Benefit. For a CEI Participant who is entitled to a vested Pension Allowance, a death benefit equal to the Cash Balance Account shall be payable to the CEI Participant's Beneficiary upon the CEI Participant's death prior to the Annuity Starting Date. If the Beneficiary is the CEI Participant's Surviving Spouse, the immediately payable Cash Balance Account shall be converted into a life annuity, in accordance with Section 4.02 (b), payable to the Surviving Spouse. The Surviving Spouse may, in lieu of an immediate life annuity, elect a Cash Balance Single Sum Payment payable as soon as practicable after the CEI Participant's date of death, or a life annuity commencing at any time prior to what would have been the CEI Participant's Normal Retirement Date. If the Beneficiary is not the Surviving Spouse, a Cash Balance Single Sum Payment shall be paid as soon as practicable following the CEI Participant's date of death. If the CEI Participant is married, no designation of a Beneficiary, other than the CEI Participant's Spouse, shall be valid.
(5) If the vested CEI Participant is not married at his or her death and there is no surviving Beneficiary or a Beneficiary has not been designated, the death benefit shall be payable to the CEI Participant's estate or legal representative.

### 4.03 Late Retirement

(a) If a Participant postpones his or her retirement beyond his or her Normal Retirement Date, upon his or her termination of employment, the Participant shall be entitled to a late retirement Pension Allowance beginning on the first day of the calendar month after the Plan Administrator receives his or her written application to retire. A Participant who has served a minimum of two years in a high-level executive or policymaking position immediately
preceding retirement and who is entitled to a non-forfeitable, immediate, Company-provided annual retirement Pension Allowance from any source or combination of sources which is at least equal to a single life annuity of $\$ 44,000$ per year may be retired at the election of the Company at any time on or after his or her attainment of age 65.
(b) A Participant who remains in service after his or her Normal Retirement Date shall be entitled to a monthly retirement Pension Allowance for each month during the postponement period which is a Non-Suspendible Month. Upon retirement, the Participant shall be entitled to an immediate late retirement Pension Allowance beginning on the Participant's late retirement date. Subject to the provisions of Section 5.01, his or her late retirement Pension Allowance shall be equal to the amount determined in accordance with the applicable benefit formula as of his or her late retirement date, reduced by an amount that is the Actuarial Equivalent of any Pension Allowance he or she previously received in any Non-Suspendible Month.
(c) In the event a Participant commences receipt of his or her Pension Allowance while in active service in accordance with Code Section 401(a)(9)'s minimum distribution rules, after his or her Normal Retirement Date, such commencement date shall not be the Participant's Annuity Starting Date for purposes of Article 5 and the Participant shall receive a late retirement Pension Allowance commencing at late retirement in an amount determined as if he or she had retired on such date. As of each succeeding December 31 prior to the Participant's actual late retirement date, and as of his or her actual late retirement date, the Participant's Pension Allowance shall be recomputed to reflect additional accruals. The Participant's recomputed Pension Allowance shall then be reduced by the Actuarial Equivalent of the total
payments of his or her late retirement Pension Allowance made with respect to monthly payments made in that calendar year, other than payments for NonSuspendible Months of continued employment, which were paid prior to each such re-computation to arrive at the Participant's late retirement Pension Allowance. No such reduction shall reduce the Participant's late retirement Pension Allowance below the amount of late retirement Pension Allowance payable to the Participant prior to the re-computation of such Pension.

### 4.04 Early Retirement

(a) CEI Participants A CEI Participant who is entitled to a vested Pension Allowance may elect to commence receipt of his or her vested Pension Allowance prior to his or her Normal Retirement Date. The vested Pension Allowance payable before Normal Retirement Date will equal his or her Cash Balance Account as of the CEI Participant's Annuity Starting Date, projected to the CEI Participant's Normal Retirement Date at the applicable Interest Rate taken into account in determining the benefit attributable to his or her Cash Balance Account, and discounted back to the Annuity Starting Date at the IRS Interest Rate and assuming no mortality factor, or, if greater, his or her Cash Balance Account, as determined without regard to any projection or discount.
(b) CECONY Participants A Rule of 75 Participant may retire and elect to commence receiving his or her Pension Allowance prior to his or her Normal Retirement Date. The amount of the early retirement Pension Allowance shall be determined below.
(1) Attainment of Age 55 and 30 Years of Accredited Service. If the CECONY Participant has attained age 55 and completed at least 30 years of Accredited Service as of the Annuity Starting Date, the early retirement Pension Allowance shall equal the Normal Retirement Pension Allowance determined under the
applicable benefit formula set forth in Appendix F, Section F. 1 or F.2, as applicable; provided, however, that the portion of the Pension Allowance, if any, attributable to Appendix F, Section F.2(A)(a)(iii), shall be reduced by the appropriate discount factor in Table E of Section A. 1 of Appendix A, based on the Participant's age as of his or her Annuity Starting Date.
(2) Attainment of Age 60. If the Participant has attained age 60 as of the Annuity Starting Date, the early retirement Pension Allowance shall be calculated using the same methodology as if he or she had attained age 55 and completed 30 years of Accredited Service.
(3) If the Participant has 75 points but does not meet either of the criteria set forth in (1) or (2) above as of the Annuity Starting Date, the early retirement Pension Allowance shall equal the normal retirement Pension Allowance determined under the applicable benefit formula set forth in Appendix F (other than the portion of the Pension Allowance, if any, for a CECONY Management Participant attributable to Appendix F Section F. 2 A(a)(iii)), multiplied by the appropriate discount factor in Appendix A, Section A.1, Table A based on the Participant's age as of the Annuity Starting Date. The portion of the normal retirement Pension Allowance, if any, for a CECONY Management Participant, attributable to Appendix F, Section F.2A(a)(iii) shall be reduced by the appropriate discount factor in Appendix A, Section A.1, Table E based on the Participant's age as of the Annuity Starting Date.

## (c) O\&R Participants.

(1) Upon written application filed with the Plan Administrator prior to the commencement date, an O\&R Participant who has not reached his or her Normal Retirement Date but who at the time of termination of employment has reached his or her Early Retirement Date shall be eligible to commence the receipt of benefits as of the later of: (1) the first day of the calendar month which immediately follows his or her Early Retirement Date, or (2) subject to Section 5.03, the first day of the calendar month which is at least 30 days after the O\&R Participant has received the information referred to in Section 5.03.
(2) Subject to Section 4.04(c)(3), Section 4.09 and Article 5, the early retirement Pension Allowance shall be a benefit commencing immediately, computed in accordance with Appendix F, Section F.3A(a) without regard to when the Pension Allowance actually commences. The early retirement Pension Allowance, computed in accordance with Appendix F, Section F.3A(a) shall be a normal retirement Pension Allowance, with the amount computed in accordance with Appendix F, Section F.3A(a)(i) on the basis of the O\&R Participant's Annual Compensation and Accredited Service to the time of his or her Early Retirement Date and the additional benefit for two (2) years of Accredited Service computed on the basis of his or her Annual Compensation at the rate being paid to him or her immediately prior to his or her Early Retirement Date, reduced by $1 / 3$ of $1 \%$ for each complete calendar month by which the commencement date of his or her Pension Allowance precedes the date which is five (5) years prior to his or her

Normal Retirement Date. The foregoing reduction for a commencement date preceding the date which is five (5) years prior to his or her Normal Retirement Date shall not be made if, at the O\&R Participant's Early Retirement Date, the Participant is a Rule of 85 Participant. The early retirement Pension Allowance computed in accordance with Section 5.01(c)(2) shall be the Actuarial Equivalent of the early retirement Pension Allowance computed in accordance with the immediately preceding sentence.
(3) At the time of early retirement, an O\&R Participant may elect in writing, filed with and acknowledged by the Plan Administrator, to defer receipt of an early retirement Pension Allowance. An election to defer will be deemed to have been made by an O\&R Participant if a written deferral election is not received and written consent to receipt of an early retirement Pension Allowance is not filed with and acknowledged by the Plan Administrator within the 90-day period prior to the date as of which payments could otherwise begin under Section 4.04(c)(1). An O\&R Participant whose early retirement Pension Allowance is deferred as provided above shall have his early retirement Pension Allowance commence as of his Normal Retirement Date. Subject to Section 4.09 and Article 5, the deferred early retirement Pension Allowance shall be computed in accordance with Appendix F, Section F.3A, on the basis of the Participant's Annual Compensation and Accredited Service to his or her Early Retirement Date and the additional benefit for two (2) years of Accredited Service computed on the basis of his or her Annual Compensation at the rate being paid to him or her immediately prior to his or her

Early Retirement Date. Notwithstanding Section 4.05(c), an O\&R Participant who defers commencement of an early retirement Pension Allowance may elect to receive a vested Pension Allowance under Section 4.05(c) commencing at any time prior to his Normal Retirement Date in lieu of any early retirement Pension Allowance under this Section 4.04(c).
(4) A supplemental payment of six hundred dollars (\$600) a month shall be paid to a retired O\&R Participant whose Early Retirement Pension Allowance commencement date occurs on or after the date on which the O\&R Participant attains age sixty (60) but prior to the Participant's attaining age sixty-two (62). Effective for an O\&R Participant hired before January 1, 2001, and retired after January 1, 2005, the supplement payment will be increased from six hundred dollars (\$600) a month to eight hundred dollars (\$800) a month. The monthly supplemental payments will cease with the payment made on the earlier of the first day of the month in which occurs the retired Participant's death or attainment of age sixty-two (62). The monthly supplemental payments will be paid only to a retired O\&R Participant who is eligible as set forth herein and shall not be subject to optional forms of payment or Spouse's or vested O\&R Participant Spouse's Allowances. The monthly supplemental payments are not part of the retired Participant's monthly Pension Allowance and are not subject to the pension benefit adjustments, but are subject to cessation in the event of re-employment which results in cessation of the retired Participant's monthly Pension Allowance.

### 4.05 Vested Terminations Before Attaining Early Retirement

(a) Each Participant shall be $100 \%$ vested in, and have a nonforfeitable right to, his or her Pension Allowance upon completion of five Years of Vesting Service. If the Participant's employment with the Company or an Affiliate is subsequently terminated for reasons other than retirement, death, or, if otherwise explicitly applicable to such a Participant, Disability, he or she shall be eligible for a deferred vested Pension Allowance payable on the Participant's Normal Retirement Date.
(b) A CECONY Participant who is not a Rule of 75 Participant, but who is entitled to a deferred vested Pension Allowance, may elect to commence receipt of his or her vested Pension Allowance prior to his or her Normal Retirement Date. The vested Pension Allowance, payable as a Cash Out, will equal the Actuarial Equivalent of his or her normal retirement Pension Allowance, in the form of a single life annuity, based on the consolidated RPA ' 94 Lump Sum Conversion Factors.
(c) An O\&R Participant who has not satisfied the requirements for an early retirement Pension Allowance but has earned a vested Pension Allowance may elect to receive a vested Pension Allowance on or after attainment of age 55 and completion of 10 years of Vesting Service, as set forth below.
(1) An O\&R Participant who ceases to be employed by the Company or an Affiliate for reasons other than death, retirement or Approved Leave of Absence, and before he or she has completed at least five years of Vesting Service, will be entitled only to receive his or her Accumulated Contributions.
(2) Subject to Section 4.09 and Article 5, the vested Pension Allowance shall be a deferred Pension Allowance commencing on the vested Participant's Normal

Retirement Date and shall be computed in accordance with Appendix F, Section F.3A(a), as in effect on his or her date of termination, with the amount determined under Appendix F, Section F.3A(a)(i) computed on the basis of the Participant's Annual Compensation and Accredited Service immediately prior to his or her date of termination and the additional benefit for two (2) years of Accredited Service computed on the basis of his or her Annual Compensation at the rate being paid to him or her immediately prior to his or her date of termination.
(3) Except as provided in Section 4.05(c)(4) if, on the date of termination, the vested O\&R Participant has completed at least 10 years of Vesting Service but has not reached his or her 55th birthday, he or she shall be eligible to receive, commencing as of the first day of any calendar month following his or her 55th birthday but not later than his Normal Retirement Date, as specified in an election in writing filed with and acknowledged by the Plan Administrator no more than 90 days prior to his or her Annuity Starting Date, a vested Pension Allowance which shall be an Allowance equal to the vested Pension Allowance computed in accordance with Section 4.05(c)(2) above reduced by $1 / 2$ of $1 \%$ for each complete calendar month by which the date of commencement of the vested Participant's Pension Allowance precedes such Participant's Normal Retirement Date.
(4) A vested O\&R Participant who elects to receive his or her Accumulated Contributions will have his or her vested Pension Allowance reduced in accordance with Section 4.05(c)(5).
(5) The vested Pension Allowance of an O\&R Participant who has received his or her Accumulated Contributions will be reduced (but not below zero) by that portion of his or her accrued Pension Allowance which is attributable to such Participant's Accumulated Contributions. With respect to a Pension Allowance payable for life and computed in accordance with Appendix F, Section F.3A(a), the portion of such Participant's Pension Allowance attributable to his or her Accumulated Contributions shall be equal to his Accumulated Contributions which were withdrawn, plus hypothetical interest at the rate determined in accordance with the definition of Accumulated Contributions, in Section 1.02, at the date of withdrawal to the Participant's Normal Retirement Date, multiplied by a conversion factor. The conversion factor for a Pension Allowance commencing at Normal Retirement Date shall be determined pursuant to the provisions of Code Section 411(c)(2) and any related regulations as then in effect. With respect to a Pension Allowance payable and computed in accordance with Appendix F, Section F.3A(a), of Appendix F and Section 5.01(c)(2), the portion attributable to the Participant's Accumulated Contributions shall be the Actuarial Equivalent of the amount determined above.

### 4.06 Disability Pension Allowance - CECONY Participants

(a) Social Security Disability. If a CECONY Participant terminates active employment because of a Disability and has at least five Years of Vesting Service, he or she may elect to be treated as if he or she remained in active employment until the earliest of: the end of his or her Disability, date of commencement of any gainful employment or any self-employment or any activity of like nature in which the Participant receives wages or earned income, date of death,
or Normal Retirement Date. The Pension Allowance of such CECONY Participant shall be determined as if his or her Annual Basic Straight Time Compensation at the point of his or her actual termination of active employment was his or her Annual Compensation for all future years. For that period of "deemed employment," Annual Compensation shall not include an Annual Variable Pay Award.
(b) Social Security Disability or Total and Permanent Disabilities Without Eligibility for Social Security Disability Benefits. A CECONY Participant who incurs a Disability while actively employed and a CECONY Participant who terminates employment due to a total and permanent disability, as determined by the Employer in accordance with its established procedures, may elect to commence benefits under the Plan at a date earlier than his or her Normal Retirement Date. If at the date of termination of employment or disability, whichever is earlier, the CECONY Participant has attained age 50 and completed at least 20 Years of Accredited Service, the Pension Allowance shall be determined in accordance with the applicable Normal Retirement Pension Allowance as set forth in Appendix F, Section F. 1 or F.2. If he or she is a CECONY Management Participant, the portion of the Pension Allowance attributable to Section F.2A(a)(iii) of Appendix F shall be reduced by the discount factor in Table E, Section A. 1 of Appendix A, based on the Participant's age as of the Annuity Starting Date. The portion of the Pension Allowance attributable to Section F1 or F.2A(i),(ii) and (iv) of Appendix F is not reduced for early commencement. If such CECONY Participant is a Rule of 75 CECONY Participant as of the Annuity Starting Date but has not attained age 50 and completed at least 20 years of Accredited Service as of termination of employment or Disability, whichever is earlier, the accrued Pension Allowance commencing at

Normal Retirement Date shall be reduced by $1.5 \%$ for each year (prorated for months) that benefit commencement precedes attainment of age 60 . If such CECONY Participant is not a Rule of 75 Participant as of the Annuity Starting Date, the benefit, if any, payable to such CECONY Participant shall be determined in accordance with Section 4.05(b).

### 4.07 Disability - O\&R Participant

(a) Upon written application to the Plan Administrator, an O\&R Participant who is disabled while in active service, has not reached his or her Normal Retirement Date, and has completed at least 10 years of Accredited Service will be retired on a Disability Pension Allowance. The Disability Pension Allowance is in lieu of retirement under any other provision of the Plan and will be effective as of the first day of a calendar month not less than 30 nor more than 90 days next following the receipt by the Plan Administrator of such written application provided the Plan Administrator finds the Participant is disabled, as set forth herein ("Disability Retirement Date"). The Plan Administrator must find to his or her satisfaction either (i) that a physician designated by the O\&R Participant and a physician designated by $O \& R$ have each certified an opinion that such $O \& R$ Participant is totally incapacitated, mentally or physically, from the further performance of his or her regular duties or duties comparable thereto, and that such incapacity occurred while the O\&R Participant was in active service with the Company or an Affiliate, resulted in termination of employment with the Company or an Affiliate, and is likely to be permanent; or (ii) that such O\&R Participant is eligible for and in receipt of a disability benefit under the Social Security Act, as amended from time to time, with respect to a disability within the meaning of subparagraph (i) above which occurred while in active service with the Company or an Affiliate and resulted in termination of employment with the Company or an Affiliate. If the opinions of the physicians
designated above differ as to whether the O\&R Participant is totally incapacitated as set forth therein, the certified opinion of a third physician, rendered after examination of the O\&R Participant and, to the extent deemed appropriate by the third physician, consultation with the other two physicians, will determine whether the O\&R Participant is totally incapacitated. The third physician will be selected by the O\&R Participant from a list of three names of independent physicians provided by O\&R. The fees and expenses of the third physician will be paid by O\&R.
(b) The Disability Pension Allowance will be payable as of the Participant's Disability Retirement Date and thereafter subject to continuance of his or her disability as provided in Section 4.07(c) and will be equal to a Pension Allowance computed in accordance with Appendix F, Section F.3A(a) and Section 5.01(c), with the amount determined under Appendix F, Section F.3A.(a)(i) computed on the basis of the Participant's Annual Compensation and Accredited Service immediately prior to his or her date of termination and the additional benefit for two (2) years of Accredited Service computed on the basis of the Participant's Annual Compensation at the last regular rate being paid to him or her immediately prior to his or her date of termination.
(c) Once each year, the Plan Administrator may require an O\&R Participant receiving a Disability Pension Allowance who has not reached his or her Normal Retirement Date to undergo a medical examination by a physician or physicians designated by the Plan Administrator, such examination to be made at the place of residence of such O\&R Participant or other place mutually agreed upon. Should any such O\&R Participant refuse to submit to such medical examination, the part of his or her Disability Pension Allowance provided by

Employer contributions shall be discontinued until his or her withdrawal of such refusal, and should his or her refusal continue for a year, all rights in and to the Disability Pension Allowance shall cease and the election of an optional benefit, if one has been elected, shall be of no further effect. If the Plan Administrator finds from such medical examination or otherwise that the disability of an O\&R Participant receiving a Disability Pension Allowance who has not reached his Normal Retirement Date has been removed and that he or she has regained his or her earning capacity, in whole or in part, or that he or she is no longer in receipt of a disability benefit under the Social Security Act, the part of his or her Disability Pension Allowance provided by Employer contributions shall be discontinued or reduced proportionately; provided that he or she shall be entitled to have his or her original Disability Pension Allowance restored in whole or in part prior to his or her Normal Retirement Date upon the Participant's again, or initially, receiving a disability benefit under the Social Security Act with respect to the total incapacity which originally entitled the O\&R Participant to the Disability Pension Allowance, or if on the basis of the certified opinions of a physician designated by the O\&R Participant and a physician designated by O\&R, (with any difference in opinion as to whether the O\&R Participant is totally incapacitated to be resolved by the opinion of the third physician selected as set forth in Section 4.07(a)), the Plan Administrator finds that the O\&R Participant again meets the requirements for Disability Pension Allowance. In the event that such Participant's Disability Pension Allowance is discontinued as herein provided and he or she is not restored to service as an Employee, he or she shall be entitled to receive a vested Retirement Allowance computed in accordance with Section 4.05(c)(2) or (3) or, if such O\&R Participant was at least age 55 at the time of his or her Disability Retirement, an Early Retirement Pension Allowance computed in accordance with Section 4.04(c)(2) or (3), whichever applies.

### 4.08 Spouse's Pension

(a) Unless otherwise set forth below, if a married Participant:
(1) dies vested and in active service; or
(2) dies after retiring on any Pension Allowance, or after terminating service with entitlement to a vested Pension Allowance but before his or her Annuity Starting Date; or
(3) terminates employment with entitlement to a vested Pension Allowance, and then dies before his or her Annuity Starting Date, then a spouse's Pension Allowance shall be payable to his or her Surviving Spouse for life.
(b) CECONY Participants.
(1) This Section 4.08(b)(1) applies to a Participant who, as of his or her date of death, was a Rule of 75 CECONY Participant and is survived by a spouse. The Surviving Spouse shall be entitled to receive a Pension Allowance in the form of a pre-retirement survivor annuity payable following the death of the Rule of 75 CECONY Participant. In the case of a Surviving Spouse of a Rule of 75 CECONY Participant, other than a CECONY Weekly Participant -1, the pre-retirement survivor annuity shall be equal to $50 \%$ of the Pension Allowance which the deceased Rule of 75 CECONY Participant would have begun receiving if he or she had terminated employment on the date of death and had applied for a Pension Allowance commencing on the first day of the month immediately following his or her death. In the case of a Surviving Spouse of a Rule of CECONY Participant
who is a CECONY Weekly Participant -1 , the pre-retirement survivor annuity shall be equal to $50 \%$ of the Pension Allowance of a reduced $50 \%$ qualified joint and survivor annuity which the deceased Rule of 75 CECONY Participant would have begun receiving if he or she had terminated employment on the date of death, and had applied for such a Pension Allowance commencing on the first day of the month immediately following his or her death. Payment of the annuity shall commence on the first day of the month following the Rule of 75 CECONY Participant's death unless the Surviving Spouse elects a later commencement date. Notwithstanding the foregoing, no Accredited Service shall be granted for any period following a Rule of 75 CECONY Participant's termination of employment.
(2) This Section $4.08(\mathrm{~b})(2)$ applies to a CECONY Participant who, as of date of death, was not a Rule of 75 Participant, was eligible for a Pension Allowance, and is survived by a spouse. The Surviving Spouse shall receive a pre-retirement survivor benefit of an immediate lump sum payment equal to $50 \%$ of the Cash Out, determined in accordance with Section 5.02(c), that the deceased Participant would have received if he or she had terminated employment and elected a Cash Out on his or her date of death ("Lump Sum PRSB"). If the Lump Sum PRSB amount exceeds $\$ 5,000$, or beginning for distributions after March 28, 2005, $\$ 1,000$, it shall not be paid unless the Surviving Spouse consents to such payment in writing on a form provided by the Plan Administrator. If consent is required but not provided, the Surviving Spouse will receive an annuity. Unless the Surviving Spouse elects the Cash Out, such annuity will begin on the first day of the month
following the Participant's death. The amount payable shall be the greater of (1) or (2) where (1) is determined by dividing the Lump Sum PRSB payable to the Surviving Spouse by an annuity conversion factor determined on the basis of the IRS Mortality Table, the Adjusted IRS Interest Rate and the Surviving Spouse's age as of the month of determination and (2) is determined by converting $50 \%$ of the Participant's normal retirement Pension Allowance into an annuity on the basis of the IRS Mortality Table, the Adjusted IRS Interest Rate and the Surviving Spouse's age as of the month of determination. If the Surviving Spouse elects to defer the commencement of such annuity, the amount thereof shall be increased so that the deferred annuity commencing on the date elected by the Surviving Spouse is the Actuarial Equivalent of the immediate annuity otherwise payable, on the basis of the IRS Mortality Table and the IRS Interest Rate. Notwithstanding the foregoing, no Accredited Service shall be granted for any period following a Participant's termination of employment.
(3) An election by the Surviving Spouse to commence receiving payments prior to what would have been the Participant's Normal Retirement Date may be made during the 90 -day period ending on the date the payments to the Surviving Spouse commence.

## (c) $O \& R$ Participants.

(1) Spousal Benefit for O\&R Participant. In the case of the death of a married O\&R Participant in active service prior to the O\&R Participant's Normal Retirement Date and after completing five years of Vesting Service, or, regardless of the
number of years of Vesting Service, after the Participant's Normal Retirement Date or after becoming fully vested, there shall be payable to the Participant's Surviving Spouse, a Spouse’s Allowance ("O\&R Surviving Spouse’s Allowance").
(2) The O\&R Surviving Spouse's Allowance is equal to one-half of the benefit which would have been payable to the deceased O\&R Participant on retirement under the provisions of Appendix F, Section F.3A (including the additional benefit for two years) as of the first day of the month coincident with or next following the Participant's date of death; provided that such amount shall be reduced by one per centum for each full year in excess of two years by which the deceased Participant's age exceeds the age of the Surviving Spouse and shall be adjusted to the Actuarial Equivalent thereof in the event the commencement of the O\&R Surviving Spouse's Allowance is deferred.
(3) Unless the election provided in Section 4.08 (c)(6) is in effect, upon the death of a married vested O\&R Participant prior to his or her Annuity Starting Date, there shall be payable to the vested O\&R Participant's Surviving Spouse a death benefit. This death benefit ("O\&R Spouse's Death Benefit"), is calculated differently from the way in which the O\&R Surviving Spouse's Allowance is calculated. The O\&R Spouse's Death Benefit will be payable beginning as of the first day of the calendar month coincident with or next following the later of the Participant's death or the 65th anniversary of the Participant's birth; provided, however, that in the event of the death of a O\&R Participant with at least 10 Years of Vesting

Service, his or her Surviving Spouse may elect to begin receiving his or her O\&R Spouse's Death Benefit as of the first day of the calendar month coincident with or next following the later of the O\&R Participant's death or the O\&R Participant's 55th birthday. The O\&R Spouse’s Death Benefit shall be paid monthly until the last monthly payment prior to his or her death. The death benefit is computed in accordance with Section 4.08 (c)(4).
(4) The O\&R Spouse's Death Benefit will be equal to the contingent annuitant's portion of the joint and $50 \%$ survivor annuity, as in Section 5.02 (c)(2) computed as a vested Pension Allowance, as provided in Section 4.05(c), with such amount being further reduced for each year from termination of employment to the date of death during which the O\&R Participant is covered by the spouse's allowance protection determined on the same basis as in Section 4.08 (c)(6). The amount of reduction for each year's coverage is set forth in Appendix A, Table E.
(5) Upon commencement of payment, the vested Pension Allowance payable to a vested O\&R Participant under Section 4.05 (c)(2) or (3) shall also be reduced for each year the vested O\&R Participant is covered by the vested O\&R Spouse's Death Benefit protection during the period from termination of employment (or, if later, from the time that the vested O\&R Participant has been given notice of his or her right to waive the vested O\&R Spouse's Death Benefit), to the date the vested Pension Allowance payments commence to the Participant. The amount of reduction for each year's coverage is set forth in Appendix A attached hereto.
(6) An O\&R Participant may elect at any time on or after termination of employment to waive coverage of the O\&R Spouse's Death Benefit and avoid the reductions imposed for coverage for the O\&R Spouse's Death Benefit protection. The election to waive coverage must be made by delivery of a properly completed written notice of such election to the Plan Administrator. Such election must be in the form prescribed by or acceptable to the Plan Administrator, and will be effective only upon filing with and acknowledgment of receipt by the Plan Administrator. Unless it is established to the satisfaction of the Plan Administrator that such consent cannot be obtained because there is no spouse, the spouse cannot be located, or there exist other reasons as may be prescribed in regulations of the Secretary of the Treasury, such election, in order to be valid, must have the signed written consent of the Participant's spouse to the waiver of the O\&R Spouse's Death Benefit coverage, and such consent must specifically acknowledge the effect of the waiver election as well as the designation of someone other than his or her spouse as Beneficiary. The spouse's signature to such consent and acknowledgment must be witnessed by the Plan Administrator or a Plan Administrator's delegate, or must be notarized by a notary public. Any consent by a spouse (or establishment that the spouse's consent cannot be obtained) shall be effective only with respect to such spouse.

Any such waiver election may be revoked by written notice of the O\&R Participant delivered to the Plan Administrator prior to the Participant's death. In such case, the coverage for the O\&R Spouse's Death Benefit protection will again be effective upon filing of
the written revocation notice with and acknowledgment of receipt by the Plan Administrator. Thereafter, additional elections to waive coverage may be made as described above, and similar revocations of such elections may be made.

In all cases, the elections to waive coverage and the revocations of such elections shall be prospective only, effective upon filing with and acknowledgement of receipt by the Plan Administrator.

The Plan Administrator shall give each O\&R Participant a written notice explaining (i) the O\&R Spouse's Death Benefit provisions, (ii) the financial effect thereof and the Participant's right to elect to waive such coverage, (iii) the necessity of the spouse's consent and acknowledgment in order to validate the Participant's election, and (iv) the right of the O\&R Participant to make, and the effect of, a revocation of the waiver of the O\&R Spouse's Death Benefit. The required notice, if not provided to the $O \& R$ Participant within the one-year period prior to the vested Participant's date of termination of employment, shall be provided to the vested O\&R Participant during the one (1) year period following such date of termination.
(7) In the event of the death of an O\&R Participant while coverage for the O\&R Spouse's Death Benefit is not in effect, no Death Benefit will be payable with respect to such Participant. In the event of the death of a vested O\&R Participant prior to the Annuity Starting Date with respect to the vested Pension Allowance and while coverage for the O\&R Spouse's Death Benefit is not in effect or is waived, no Pension Allowance will be payable with respect to such vested Participant. If applicable, however, the provisions of Article XIII will apply.
(8) In the event a married retired O\&R Participant who has elected to defer commencement of the early retirement Pension Allowance dies before the Annuity Starting Date, there will be payable to the Participant’s Surviving Spouse an O\&R Surviving Spouse’s Allowance. Such O\&R Surviving Spouse's Allowance shall be equal to the contingent annuitant's portion of Section 5.02 (c)(2) computed as though the early retirement Pension Allowance had commenced in such optional form as of the first day of the month coincident with or next following the Participant's death. In the event a married retired O\&R Participant who has elected to defer commencement of the early retirement Pension Allowance dies before the Annuity Starting Date with respect to such Allowance and the Spouse's Allowance is not in effect or payable, no Spouse's Allowance shall be payable with respect to such Participant, but, if applicable, the provisions of Article XIII shall apply.
(d) CEI Participants. A married CEI Participant cannot designate someone other than the Spouse to receive this death benefit in the event the CEI Participant dies before his or her Annuity Date. In the case of the death of a married, vested CEI Participant prior to his or her Annuity Starting Date, there shall be payable to the CEI Participant's Surviving Spouse a death benefit equal to the CEI Participant's Cash Balance Account.

### 4.09 Maximum Benefit Limitation

Notwithstanding any provision of the Plan to the contrary, the maximum annual Pension Allowance payable to a Participant under the Plan shall be subject to the limitations set forth in Code Section 415 and any regulations or rulings issued there under. If a Pension Allowance begins after January 1, 2002 and before
the Participant's 62nd birthday, the dollar limitation described in Code Section 415(b)(1)(A) shall be the Actuarial Equivalent of the maximum benefit payable at age 62. If the Pension Allowance begins after the Participant’s Social Security Retirement Age, or, beginning on January 1, 2002, after the Participant attains age 65, such dollar limitation shall be the Actuarial Equivalent, based on an interest rate of $5 \%$ per annum in lieu of the interest rate otherwise used in the determination of Actuarial Equivalent, to the maximum benefit payable at the Participant's Social Security Retirement Age, or payable at age 65, as the case may be. If the Pension Allowance is payable neither as a life annuity nor as a qualified joint and survivor annuity with the Participant's spouse as contingent annuitant, the maximum limitation shall be the Actuarial Equivalent of the maximum limitation otherwise applicable. Actuarial Equivalent for purposes of this Section 4.09 shall be determined in accordance with Code Section 415(b) and the regulations or rulings issued there under and using the IRS Mortality Table and an interest rate of $5 \%$, except that the Actuarial Equivalent of a Pension Allowance payable in the form of a lump sum shall be determined on the basis of the IRS Mortality Table and the IRS Interest Rate. As of January 1 of each calendar year on or after January 1, 1988, the dollar limitation as determined by the Commissioner of Internal Revenue for that calendar year shall become effective as the maximum permissible dollar amount of benefits payable under the Plan during that calendar year, including benefits payable to Participants who retired prior to that calendar year, in lieu of the otherwise previous maximum permissible amount.

### 4.10 Transfers and Employment With an Affiliate

(a) If a Participant becomes (i) employed by an Employer in any capacity other than as an Eligible Employee; (ii) employed by the Company or an Affiliate who is not an Employer; or (iii) a Leased Employee, he or she will retain any Accredited Service he or she has under this Plan but will not accrue additional Accredited Service. Upon his or her later retirement or termination of employment with the Company or an Affiliate (or upon benefit commencement in the case of a Leased Employee), any benefits to which the Participant is entitled under the Plan shall be determined under the Plan provisions in effect on the date he or she ceased to be on the active payroll of an Employer and an Eligible Employee and only on the basis of his or her Accredited Service accrued while he or she was an Eligible Employee.
(b) Subject to the Break in Service provisions of Article 3, and except as provided in an Appendix to the Plan, in the case of a person who was originally employed by or providing services to the Company or an Affiliate as a Leased Employee or in any capacity other than as an Eligible Employee and thereafter becomes a Participant, upon his or her later retirement or termination of employment, the benefits payable under the Plan shall be computed under the Plan provisions in effect at that time, and only on the basis of the Accredited Service accrued while he or she is an Eligible Employee.
(c) If a CECONY Participant's Accredited Service consists of Accredited Service as a CECONY Management Participant and as a CECONY Weekly Participant prior to January 1, 2001, his or her Pension Allowance shall be calculated as if he or she were credited with Accredited Service under one Prior Plan. The Pension Allowance of such Participant shall be calculated under the benefit formula applicable to such Participant as of his or her termination of employment with the Company or an Affiliate.

### 4.11 Minimum Benefits

In no event shall the benefit payable to a Participant who was an Eligible Employee on the Effective Date of this amendment and restatement of the Plan be less than the amount, if any, payable under the minimum benefit provisions in effect immediately prior thereto.

### 4.12 Additional Provisions

For additional provisions applicable to certain Participants, see the following Appendices:
(a) Appendix C- For provisions applicable to O\&R Participants transferred to or hired by CECONY or a CEI Affiliate.
(b) Appendix D- For provisions applicable to Participants employed at facilities purchased from Western Massachusetts Electric Company.
(c) Appendix G- For provisions applicable to a special adjustment in the Pension Allowance of certain Participants.
(d) Appendix H-For provisions applicable to certain CECONY Participants at fossil-fueled divested operations.
(e) Appendix I- For provisions applicable to O\&R Participants under O\&R’s Pension Protection Program.
(f) Appendix J- For provisions applicable to certain CECONY Participants and CEI Participants at divested nuclear operations.
(g) Appendix K- For provisions applicable to CECONY Support Employees Re: Voluntary Retirement Incentive - Support Organizations.
(h) Appendix L For provisions showing illustrative calculations of the pension benefit adjustment for O\&R Participants.
(i) Appendix M For provisions applicable to certain Participants employed at the Lakewood facilities.

## ARTICLE V

## Automatic Form of Payment

### 5.01 Automatic Form of Payment

(a) CEI Participants
(1) If a CEI Participant is not married on his or her Annuity Starting Date, his or her Pension Allowance will be payable in monthly installments ending with the monthly payment for the month in which the CEI Participant dies. An unmarried CEI Participant may also elect an optional form of benefit as provided in Section 5.02. The CEI Participant's Cash Balance Account will be converted into a single life annuity based on the IRS Interest Rate and IRS Mortality Table in effect as of the Annuity Starting Date.
(2) If a CEI Participant is married on his or her Annuity Starting Date, and if he or she has not elected an optional form of benefit as provided in Section 5.02, the Pension Allowance shall be the Actuarial Equivalent of the Pension Allowance payable under Section 5.01(a)(1) above to an unmarried CEI Participant and shall be payable in the form of a qualified joint and survivor annuity, providing for a Pension Allowance payable during the life of the Participant and, after his or her death, one-half of that Pension Allowance payable during the life of, and to, his or her Surviving Spouse.
(3) In the event the Cash Balance Account immediately payable to a CEI Participant or his or her Surviving Spouse or Beneficiary has a value of $\$ 5,000$ or less, or beginning for distributions after March 28, 2005, $\$ 1,000$, such value shall be paid in a single lump sum to the CEI Participant, Surviving Spouse or Beneficiary in lieu of any other benefit under the Plan.
(1) If a CECONY Participant is not married on his or her Annuity Starting Date, his or her Pension Allowance will be payable in monthly installments ending with the last monthly payment for the month in which the CECONY Participant dies. An unmarried CECONY Participant may elect an optional form of benefit as provided in Section 5.02.
(2) If a CECONY Participant is married on his or her Annuity Starting Date, and if he or she has not elected an optional form of benefit as provided in Section 5.02, the Pension Allowance payable shall be in the form of a qualified joint and survivor annuity, providing for a Pension Allowance during the life of the Participant and after his or her death, one half of that Pension Allowance payable during the life of, and to, the Participant's Surviving Spouse. A CECONY Weekly Participant -1 , who is married on his or her Annuity Starting Date and has not elected an optional form of benefit, will receive a reduced Pension Allowance during his or her life. If he or she dies before his or her Spouse, his or her Surviving Spouse will receive for life, one half of that reduced Pension Allowance.
(3) In the event that a Pension Allowance payable to a CECONY Participant or his or her Surviving Spouse has a present value of $\$ 5,000$ or less, or beginning for distributions after March 28, 2005, $\$ 1,000$, such present value shall be paid in a single lump sum to the CECONY Participant or Surviving Spouse, in lieu of the

Pension Allowance or annuity otherwise payable. The calculation of the present value of a Pension Allowance, for the purpose of the foregoing sentence, shall be made on the basis of the Consolidated RPA ' 94 Lump Sum Conversion Factor for the Participant's age, as in effect for the month in which payment is to be made; provided, however, that the resulting amount shall not be less than the present value of the annual Pension Allowance determined in accordance with the applicable benefit formula set forth in Appendix F, Section F. 1 or F. 2 taking into account only the Participant's employment and Annual Compensation prior to January 1, 1997, calculated on the basis of the lump sum factors set forth in Table B of Appendix A and the Participant's age as of the date of determination.

## (c) O\&R Participants

(1) If an O\&R Participant is not married on his or her Annuity Starting Date, his or her Pension Allowance shall be payable in monthly installments ending with the monthly payment for the month in which the O\&R Participant dies. An unmarried O\&R Participant may elect an optional form of benefit as provided in Section 5.02.
(2) If an O\&R Participant is married on his or her Annuity Starting Date, and if he or she has not elected an optional form of benefit as provided in Section 5.02, his or her Pension Allowance shall be the Actuarial Equivalent to such Pension Allowance payable in the form of a single life annuity, and shall be payable in the form of a qualified joint and survivor annuity, providing for a Pension Allowance payable to the O\&R Participant during his or her life, and providing after his or her death, one-half of that Pension Allowance payable during the life of, and to, his or her Surviving Spouse.
(3) In the event that a Pension Allowance payable to an O\&R Participant or his or her Surviving Spouse shall have a present value of $\$ 5,000$ or less, or beginning for distributions after March 28, 2005, $\$ 1,000$, such present value shall be paid in a single lump sum to the O\&R Participant or Surviving Spouse, in lieu of the Pension Allowance or annuity otherwise payable. The calculation of the present value of a Pension Allowance, for the purpose of the foregoing sentence, will be the mortality table prescribed by the Secretary of the Treasury in accordance with Code Section 417(e)(3)(A)(ii)(I) in effect on the date of distribution and the interest rate will be the lesser of five percent (5\%) or the annual rate of interest on thirty-year Treasury securities determined in accordance with Code Section 417(e)(3)(A)(ii)(II) for the second full calendar month preceding the first day of the Plan Year which contains the distribution date.
(d) Special Rules Regarding Pension Allowances of Less Than $\$ 5,000$ The determination as to whether a lump sum payment is less than $\$ 5,000$ or beginning for distributions after March 28, 2005, $\$ 1,000$, and immediately payable shall be made as soon as practicable following a Participant's termination of employment or death. To the extent permitted by law, in the event the present value of a Pension Allowance exceeds $\$ 5,000$ or beginning for distributions after March 28, 2005, $\$ 1,000$, upon an initial determination as to its present value, the present value of the Pension Allowance shall be re-determined annually as of the first day of each subsequent Plan Year. Any lump sum benefit payable shall be made as soon
as practicable following the determination that the amount qualifies for distribution under the provisions of this paragraph (d). In the event a Participant is not entitled to any Pension Allowance upon his or her termination of employment, he or she shall be deemed cashed-out as of the date he or she terminated service. If a non-vested Participant who is deemed cashed-out is subsequently re-employed under circumstances where the Participant's prior service is restored, he or she shall be deemed to have repaid such amount together with interest as described in Section 3.03.

### 5.02 Optional Forms of Payment

(a) CEI Participant. A CEI Participant may, subject to the provisions of Section 5.03 , elect to receive his or her benefit in the form of a Cash Balance Single Sum Payment in lieu of any other benefit under the Plan.
(b) CECONY Participant and CEI Participant. Unless specifically stated otherwise, effective as of December 1, 1996, a CECONY Participant and a CEI Participant may, subject to the provisions of Section 5.03, elect to convert the Pension Allowance otherwise payable to him or her as a single life annuity in the case of an unmarried CECONY Participant or unmarried CEI Participant, and a qualified joint and $50 \%$ surviving spouse annuity, in the case of a married CECONY Participant or married CEI Participant, into an optional benefit that is the Actuarial Equivalent, as provided in one of the options named below and the applicable factors set forth in Appendix A.
(1) Twelve Year Certain and Life Annuity Option. A modified Pension Allowance payable during the CECONY or CEI Participant's life, reduced by the appropriate factor in Appendix A, for such married or unmarried CECONY or CEI Participant. If the CECONY OR CEI Participant dies within 144 months after his
or her Annuity Starting Date, the balance of those 144 monthly payments will be paid: (A) in the case of an unmarried CECONY or CEI Participant, to one or more primary Beneficiaries named by him or her when he or she elected the option. If the Participant failed to designate a Beneficiary, the remainder is payable to the Participant's estate. If the Participant named a primary but not contingent Beneficiary and the primary Beneficiary predeceases the Participant, then the remaining payments will be payable to the Participant's estate(ask Hector if Participant can name another). If the designated primary Beneficiary does not survive the full 144 months following the Participant's Annuity Starting Date and there is no contingent Beneficiary, then the remaining payments will be payable to the Beneficiary's estate. In the case of a married Participant, the remaining payments will go to the Surviving Spouse, or if the Surviving Spouse does not survive the full 144 months following the Participant's Annuity Starting Date, to one or more Beneficiaries named by such Participant. So long as the primary or, if applicable, contingent, Beneficiary survivors the Participant, his or her or it's estate will receive any of the 144 guaranteed payments which remain to be paid following the death of the designated Beneficiary. The Plan may, upon the request of the legal representative of the estate, pay to the estate the present value of all remaining payments, discounted by the rate utilized to calculate the appropriate factors set forth in the applicable Appendix A as in effect on the date of the Participant's death. If the Surviving Spouse is the Beneficiary, the Surviving Spouse will receive a surviving spouse annuity equal to $50 \%$ of the amount of the reduced twelve year certain annuity, commencing on the later of the expiration of the 144 -month period or the Participant's death.

A married CECONY Weekly Participant -1 may elect this 12 -year certain and Life Annuity Option and designate someone including someone other than his or her spouse as the Beneficiary. If the CECONY Weekly Participant -1 dies within 144 months after his or her Annuity Starting Date, and the balance of those 144 monthly payments will be paid: to one or more primary Beneficiaries named by him or her when he or she elected the option, as provided above. In order for a married CECONY Weekly Participant -1 to elect this option, his or her spouse must both consent to the waiver of his or her surviving spouse annuity and, if applicable, to the designation of another Beneficiary.
(2) Joint and 100\% Surviving Spouse Annuity. A modified Pension Allowance payable during the Participant's life, and after his or her death, payable during the life of, and to, his or her Surviving Spouse. At the election of the Participant, the option may include a pop-up feature, as described below:
(i) If the Participant does not elect the pop-up feature, then the amount payable for the life of the Participant shall be equal to the Pension Allowance otherwise payable to the Participant, reduced by the appropriate factor in Appendix A, and the Surviving Spouse shall receive for his or her life an annuity equal to the amount payable to the Participant (before giving effect to any option elected under Section 5.02(b)(3) below).
(ii) If the Participant elects the pop-up feature, then the amount payable to the Participant during the period that both the Participant and his or her spouse are alive shall be the Pension Allowance otherwise payable to the Participant, reduced by the appropriate factor in Appendix A. The amount payable to the Participant during any period subsequent to the death of his or her spouse shall be equal to the Pension Allowance otherwise payable to the Participant in the absence of an election under this paragraph.

## (3) Level Income Option.

(a) The following subsections (i) through (v) apply to a distribution in the form of a level income options that begins before January 1, 2005.
(i) A Participant who is eligible to commence a Pension Allowance and whose Annuity Starting Date precedes his or her attainment of the age at which he or she is eligible to receive unreduced Social Security benefits may elect to receive his or her Pension Allowance under the Level Income Option. He or she may further elect as a leveling month, for purposes of (ii) below, either the month following the month in which he or she reaches age 62 or the earliest month for which he or she is eligible to receive unreduced Social Security benefits. The election of this option may be made in addition to an election for a Twelve Year Certain and Life Option or a Joint and $100 \%$ Surviving Spouse Annuity, as referred to above.
(ii) If a Participant elects this option, the amount payable to him or her during the period commencing with his or her Annuity Starting Date and ending with
the month prior to the leveling month shall be increased and the amount payable during the period commencing with the leveling month and ending in the month of the Participant's death shall be decreased from the Pension Allowance otherwise payable to the Participant, based on factors specified in Appendix A. The present value of the benefit payable under this option shall be equal to the present value of the Pension Allowance otherwise payable to the Participant, determined on the actuarial bases specified in Appendix A.
(iii) The amounts payable under this option shall be determined on the basis of an estimate of the Social Security benefit that the Participant would be eligible to commence to receive in the leveling month so that the amount payable for the month next preceding the leveling month shall be approximately equal to the sum of the amount payable for the leveling month plus the estimated Social Security benefit commencing in the leveling month, without taking into account any prospective cost of living adjustment pursuant to Section 11.02 of the Plan.
(iv) The amount payable to the Participant under this option shall not be adjusted after the Participant's Annuity Starting Date, and prior to the leveling month, regardless of any difference between the estimate taken into account in the determination thereof and the Social Security benefits actually paid or payable to the Participant, and regardless of whether the Participant elects to commence receipt of Social Security benefits in any month other than the leveling month. Commencing in the leveling month, the amount payable to a Participant shall be reduced by an amount equal to the product of (I) the estimated Social Security
benefit taken into account for purposes of subparagraph (iii) and (II) a fraction, the numerator of which shall be the amount payable to the Participant in the month next preceding the leveling month, taking into account any cost of living adjustments pursuant to Section 11.02, and the denominator of which shall be the amount determined to be payable as of the Participant's Annuity Starting Date, in accordance with subparagraph (ii) above.
(v) In the event that a Participant who elects to receive his or her Pension Allowance under this leveling income option, then the amount of Pension Allowance taken into account in the determination under subparagraph (iii) above shall be the amount payable to the Participant after giving effect to his or her otherwise Pension Allowance amount. In such event, the Participant's election to receive his or her Pension Allowance under this option shall have no effect on the amount payable to his or her Surviving Spouse or Beneficiary under any other election he or she has made. In the event that the amount payable to a Participant who has elected to receive his or her Pension Allowance under this option and also made an election to receive a Joint and $100 \%$ Surviving Spouse Annuity with a Pop-Up Feature is increased on account of the death of his or her spouse, the amount of such increase shall be disregarded for purposes of subparagraph (iv).
(b) The following subsection (i) applies to a distribution in the form of a level income option that begins on and after January 1, 2005.
(i) Effective for distributions commencing on and after January 1, 2005, the total amount of a Pension Allowance payable as a level income option will be
determined on the basis of the IRS Mortality Table and the Adjusted IRS Interest Rate, as in effect for the Participant's "reference Annuity Starting Date" and, if applicable, second, in accordance with subsection (ii) below. Solely for purposes of this subsection, a Participant’s "reference Annuity Starting Date" shall be January 1 of the calendar year in which his actual Annuity Starting Date occurs.
(ii) Effective for distributions on and after January 1, 2005, if a Participant has an accrued Pension Allowance that takes into account Accredited Service before January 1, 2005, the amount of his or her Pension Allowance payable as a level income option will be the greater of (A) the amount of his or her accrued Pension Allowance as of December 31, 2004, and calculated in accordance solely with subsection 5.02 (b)(3)(a), supra, or (B) the amount of his or her total Pension Allowance determined solely in accordance with this subsection 5.02(b)(3)(b)(i).
If a Participant dies after Pension Allowance payments have commenced, any payments continuing on to his or her Surviving Spouse or Beneficiary shall be distributed at least as rapidly as under the method of distribution being used as of the Participant's date of death.
(4) Cash Out Option
(i) A CECONY Participant who is not a Rule of 75 Participant may elect to receive the Pension Allowance otherwise payable to him or her in the form of a Cash Out. The election to receive a Cash Out may be made at any time subsequent to the CECONY Participant's termination of employment and prior to the date on which the CECONY Participant becomes a Rule of 75 Participant and will be subject to the provisions of Section 5.03. A CECONY Participant will not be eligible to receive a Cash Out after he or she has become a Rule of 75 Participant, regardless of whether he or she was a Rule of 75 Participant at the time of his or her termination of employment from the Company or an Affiliate.
(ii) The Cash Out is a lump sum payment representing the present value of the deferred vested Pension Allowance payable to the Participant, in the form of a single life annuity, at Normal Retirement Date. Effective January 1, 1997, the amount of a Cash Out will be the greater of (A) the product of the deferred vested Pension Allowance amount determined in accordance with Section 4.05(a) and the Consolidated RPA '94 Lump Sum Conversion Factor, as in effect for the Participant's Annuity Starting Date, for the Participant's age in such month, or (B) the product of the deferred vested Pension Allowance amount determined in accordance with Section 4.05(a), taking into account only the Participant's employment and Annual Basic Straight-Time Compensation prior to January 1, 1997, and the factor in Appendix A, Section A-1, Table B for the Participant's age as of his or her Annuity Starting Date. For the purpose of the foregoing sentence, a Participant's age in any month shall be his or her age on the birthday nearer in time to the first of such month.
(iii) In lieu of the Cash Out, a Participant who is eligible to elect to receive a Cash Out may receive an immediate annuity, commencing in the month in which the Cash Out would otherwise have been payable, in accordance with the provisions of Section 5.03. The amount of such immediate annuity shall be the amount determined by dividing the Cash Out, computed in accordance with paragraph (i)(A) above, by an annuity conversion factor determined on the basis of the IRS Mortality Table, the Adjusted IRS Interest Rate, and the Participant's age as of the month of determination.
(5) Single Life Annuity Option. This optional form of payment is available to a married CECONY Weekly Participant -1 . A married CECONY Weekly Participant -1 may elect a single life annuity payable for his or her life. If he or she selects this option, his or her spouse must consent to this form of distribution in accordance with the appropriate election and waiver requirements set forth in Section 5.03.
(c) O\&R Participant. An O\&R Participant may, subject to Section 5.03, elect to convert his or her Pension Allowance otherwise payable into an Actuarial Equivalent optional form of benefit, in accordance with one of the options described below. If a person other than the spouse of the O\&R Participant is named as the contingent annuitant under an option, the value of the Pension Allowance payable to the O\&R Participant under the option will in no event be less than fiftyone percent of the total value of the benefits payable to the O\&R Participant and contingent annuitant.
(1) Joint and 100\% Survivor Annuity. A modified Pension Allowance payable during the O\&R Participant's life, with the provision that, on his or her death, the modified Pension Allowance shall be paid during the life of, and to, the surviving contingent annuitant who was nominated by the Participant by written designation duly filed with, and receipt acknowledged by, the Plan Administrator when the O\&R Participant elected the option.
(2) Joint and 50\% Survivor Annuity. A modified Pension Allowance payable during the O\&R Participant's life, with the provision that, after his or her death, a Pension Allowance at one half the rate of his or her modified Pension Allowance shall be paid during the life of, and to, the surviving contingent annuitant who was nominated by him or her by written designation duly filed with, and receipt acknowledged by, the Plan Administrator when he or she elected the option. This is the normal form of payment of the Normal Retirement Allowance for an O\&R Participant who is married on his or her Annuity Starting Date, with the Participant's spouse as contingent annuitant, as provided in Section 5.01(c).
(3) Joint and 100\% Survivor Annuity with Pop-Up Feature. A modified Pension Allowance payable during the O\&R Participant's life, with the provision that, on his or her death, it shall be paid during the life of, and to, the contingent annuitant nominated by him or her by written designation duly filed with, and receipt acknowledged by, the Plan Administrator when he or she elected the option, if the contingent annuitant is surviving at the time of the O\&R Participant's death. If the designated contingent annuitant predeceases the O\&R Participant, the Pension Allowance payable to the O\&R Participant for months following the death of the contingent annuitant will increase to the Pension Allowance payable for the O\&R Participant's life with no further benefits payable following the O\&R Participant's death; or
(4) Joint and 50\% Survivor Annuity With Pop-Up Feature. A modified Pension Allowance payable during the O\&R Participant’s life, with the provision that after
his or her death a Pension Allowance at one-half the rate of his or her modified Pension Allowance will be paid during the life of, and to, the contingent annuitant nominated by him or her by written designation duly filed with, and receipt acknowledged by, the Plan Administrator when he or she elected the option, if the contingent annuitant is surviving at the time of the O\&R Participant's death. If the designated contingent annuitant predeceases the O\&R Participant, the Pension Allowance payable to the O\&R Participant for months following the death of the contingent annuitant will increase to the Pension Allowance payable for the O\&R Participant's life with no further benefits payable following the O\&R Participant's death.
(5) The optional forms of benefit amounts set forth for an O\&R Participant will be calculated in accordance with the actuarial tables in Appendix A, Section A-2, Tables A through F.

### 5.03 Election of Options

(a) A married Participant's election of any option is effective only if Spousal Consent to the election is received by the Plan Administrator, unless:
(1) the option provides for monthly payments to his or her spouse for life after the Participant's death, in an amount equal to at least $50 \%$ but not more than $100 \%$ of the monthly amount payable under the option to the Participant, and
(2) the option is no greater than the Actuarial Equivalent of the qualified joint and survivor annuity.
(b) An Employer shall furnish to each Participant a written explanation in non-technical language of the terms and conditions of the Pension Allowance payable to the Participant in the
applicable normal and optional forms of Pension Allowance to the Participant. Such explanation shall include a general description of the eligibility conditions for, and the material features and amounts payable under, the optional forms of Pension Allowance under the Plan, any rights the Participant may have to defer commencement of his or her Pension Allowance, the requirement for Spousal Consent as provided in paragraph (a) above, and the right of the Participant to make, and to revoke, elections.
(c) In addition to the explanation provided above, an Employer will furnish to each CECONY Weekly Participant -1 a written explanation in non-technical language of the terms and conditions of the actuarial equivalent forms of Pension Allowances. In particular, the Employer will give each CECONY Weekly Participant -1 a written notice explaining (i) the spouse's death benefit provisions, (ii) the financial effect thereof and the Participant's right to elect to waive such coverage, (iii) the necessity of the spouse's consent and acknowledgment in order to validate the Participant's election, and (iv) the right of the CECONY Weekly Participant -1 to make, and the effect of, a revocation of the waiver of the spouse's death benefit.
(d) A CECONY Weekly Participant -1 may elect to waive coverage of the spouse's death benefit and avoid the adjustments made for coverage for the spouse's death benefit protection. The election to waive coverage must be made by delivery of a properly completed written notice of such election to the Plan Administrator. Such election must be in the form prescribed by or acceptable to the Plan Administrator, and will be effective only upon filing with and acknowledgment of receipt by the Plan Administrator. Unless it is established to the satisfaction of the Plan Administrator that such consent cannot be obtained because there is no
spouse, the spouse cannot be located, or there exist other reasons as may be prescribed in regulations of the Secretary of the Treasury, such election, in order to be valid, must have the signed written consent of the Participant's spouse to the waiver of the death benefit coverage, and such consent must specifically acknowledge the effect of the waiver election as well as the specific designation of someone other than his or her spouse as Beneficiary. The spouse's signature to such consent and acknowledgment must be witnessed by the Plan Administrator or a Plan Administrator's delegate, or must be notarized by a notary public. Any consent by a spouse (or establishment that the spouse's consent cannot be obtained) shall be effective only with respect to such spouse, to such optional form, and to such designated alternate beneficiary..

Any such waiver election may be revoked by written notice of the CECONY Weekly Participant -1 delivered to the Plan Administrator prior to the Participant's Annuity Starting Date. In all cases, the elections to waive coverage and the revocations of such elections shall be prospective only, effective upon filing with and acknowledgement of receipt by the Plan Administrator.
(e) Each Employer shall provide the written explanation required by this Section 5.03 no more than 90 days and no less than 30 days prior to the Participant's Annuity Starting Date. A Participant's Annuity Starting Date may not occur less than 30 days after receipt of the notice. An election for an optional form shall be made on a form provided by the Plan Administrator and must be made during the 90 -day period ending on the Participant's Annuity Starting Date, but not prior to the date the Participant receives such written explanation.
(f) Notwithstanding the provisions of paragraph (c) above, a CECONY Participant, other than a Rule of 75 CECONY Participant, may, after having received the written explanation, affirmatively elect to have his or her benefit commence, or to receive his or her benefit in the form of a Cash Out, as applicable, sooner than 30 days following his or her receipt of the written explanation provided all of the following requirements are met:
(1) the Plan Administrator clearly informs the Participant that he or she has a period of at least 30 days after receiving the explanation to decide when to have his or her benefits begin and, if applicable, to choose a particular optional form of payment;
(2) the Participant affirmatively elects a date for his or her benefits to begin and, if applicable, an optional form of payment, after receiving the explanation;
(3) the Participant is permitted to revoke his or her election until the later of his or her Annuity Starting Date or seven days following the day he or she received the explanation;
(4) payment does not commence less than seven days following the day after the explanation is received by the Participant; and
(5) the Participant's Annuity Starting Date is after the date the explanation is provided.
(g) An election of an option may be revoked on a form provided by the Plan Administrator, and subsequent elections and revocations may be made at any time and from time to time during the election period specified in paragraph (c) or (d) above, whichever is applicable. An election of an optional form of benefit shall be effective on the Participant's Annuity Starting Date and may not be modified or revoked after his or her Annuity Starting Date unless
otherwise provided under paragraph (d). A revocation of any election shall be effective when the completed form is filed with the Plan Administrator. If a Participant who within the applicable time period, has elected, an optional form of benefit dies before the date the election of the option becomes effective, the election shall be given effect. If the Beneficiary designated under an option dies before the date the election of the option becomes effective, the election shall be revoked.

### 5.04 Commencement of Payments

(a) Except as otherwise provided in Article 4 or this Article 5, payment of a Participant's Pension Allowance will begin as soon as administratively practicable following the latest of (i) the Participant's 65th birthday, (ii) the fifth anniversary of the date on which he or she became a Participant, or (iii) the date he or she terminates service with the Company or an Affiliate, (but not more than 60 days after the close of the Plan Year in which the latest of (i), (ii) or (iii) occurs).
(b) Notwithstanding the preceding paragraph, payment of any Participant's Pension Allowance will begin not later than April 1 of the calendar year following the later of the calendar year in which he or she attains age $70^{1 / 2}$ or terminates employment.

### 5.05 Distribution Limitation

Notwithstanding any other provision of this Article 5, all distributions from this Plan will conform to the regulations issued under Code Section 401(a)(9), including the incidental death benefit provisions of Code Section 401(a)(9)(G). Further, such regulations shall override any plan provision that is inconsistent with Code Section 401(a)(9). The life expectancies of Participants and their spouses shall not be recalculated.

### 5.06 Direct Rollover of Certain Distributions

(a) Notwithstanding any provision of the Plan to the contrary that would otherwise limit a distributee's election under this Article, a distributee may elect, at the time and in the manner prescribed by the Plan Administrator, to have any portion of an eligible rollover distribution paid directly to an eligible retirement plan specified by the distributee in a direct rollover.
(b) The following definitions apply to the terms used in this Section:
(1) An "eligible rollover distribution" is any distribution of all or any portion of the balance to the credit of the distributee, except that an eligible rollover distribution does not include: any distribution that is one of a series of substantially equal periodic payments (not less frequently than annually) made for the life (or life expectancy) of the distributee or the joint lives (or joint life expectancies) of the distributee and the distributee's designated beneficiary, or for a specified period of ten years or more; any distribution to the extent such distribution is required under Code Section 401(a)(9); the portion of any distribution that is not includible in gross income (determined without regard to the exclusion for net unrealized appreciation with respect to employer securities); and any distribution where all otherwise eligible distributions are expected to total less than $\$ 200$;
(2) An "eligible retirement plan" is an individual retirement account described in Code Section 408(a), an individual retirement annuity described in Code Section 408(b), an annuity plan described in Code Section 403(a), or a qualified trust described in Code Section 401(a), that accepts the distributee's eligible rollover distribution. However, in the case of an eligible rollover distribution to the Surviving Spouse, an eligible retirement plan is an individual retirement account or individual retirement annuity;
(3) A "distributee" includes an Employee or former Employee. In addition, the Employee's or former Employee's Surviving Spouse and the Employee's or former Employee's spouse or former spouse who is the alternate payee under a qualified domestic relations order, as defined in Code Section 414(p), are distributees with regard to the interest of the spouse or former spouse; and
(4) A "direct rollover" is a payment by the Plan to the eligible retirement plan specified by the distributee.

In the event that the provisions of this Section 5.06 or any part thereof cease to be required by law as a result of subsequent legislation or otherwise, this Section or any applicable part thereof shall be ineffective without the necessity of further amendments to the Plan.

### 6.01 Employers' Contributions

It is the intention of the Company and the Employers to continue the Plan, make the contributions that are necessary to maintain the Plan on a sound actuarial basis and to meet the minimum funding standards prescribed by law. However, subject to the provisions of Article X, an Employer may discontinue its contributions for any reason at any time. Any forfeitures shall be used to reduce the Employers' contributions otherwise payable.

### 6.02 Return of Contributions

(a) The contributions of the Employers to the Plan are conditioned upon their deductibility under Code Section 404. If all or part of the deductions of the Employers are disallowed by the Internal Revenue Service, the portion of the contributions to which that disallowance applies will be returned to the Employers without interest, but reduced by any investment loss attributable to those contributions. The return shall be made within one year after the date of the disallowance of the deduction.
(b) The Employers may recover without interest the amount of their contributions to the Plan made on account of a mistake in fact, reduced by any investment loss attributable to those contributions, if recovery is made within one year after the date of those contributions.

### 6.03 Non-Contributory Nature

No contributions by any Employee or Participant to the Plan shall be required or permitted hereunder.

## ARTICLE VII

## Administration of Plan

### 7.01 Named Fiduciaries

(a) The Board has appointed those persons who occupy the positions of Chief Executive Officer, Chief Financial Officer and Chief Accounting Officer of CECONY as the Named Fiduciaries of the Plan. The Named Fiduciaries shall have the joint authority to control and manage the operation and administration of the Plan, including the appointment of the Plan Administrator. The Named Fiduciaries may, in their sole and absolute discretion, designate one or more committees or individuals to serve as the Plan Administrator, or in other fiduciary capacities responsible for the management, operation and administration of the Plan and/or investment of the trust and the plan assets. CECONY also may designate other persons who, upon acceptance of such designation, shall serve as Named Fiduciaries either instead of or in addition to those holding the aforementioned offices. Any such designation and acceptance shall be in writing and retained by the Plan Administrator.
(b) The Named Fiduciaries may allocate fiduciary responsibilities among themselves, and may designate other persons to carry out fiduciary responsibilities, other than those granted to the Trustee under the trust agreement adopted for use in implementing the Plan, in accordance with the following procedure:
(1) The Chief Executive Officer of CECONY shall allocate fiduciary responsibilities among the Named Fiduciaries in writing, and the acceptance of such responsibilities by the Named Fiduciaries shall be in writing. Any designation by a Named Fiduciary of persons to carry out fiduciary responsibilities, other than those
granted to the Trustee under the trust agreement adopted for use in implementing the Plan, shall be in writing, a copy of which shall be delivered to the designee, and shall specify the fiduciary responsibilities to be carried out by the designee. Written notice of any such designation shall be given to all other Named Fiduciaries by the Named Fiduciary making the designation. Any such allocations, acceptances and designations shall be retained by the Plan Administrator.
(2) A Named Fiduciary, or a fiduciary designated by a Named Fiduciary, may employ one or more persons to render advice with regard to any responsibility such fiduciary has under the Plan.
(3) One or more of the Named Fiduciaries may direct the Trustee to invest all or any part of the trust fund held by the Trustee in investments consistent and in accordance with the Plan's investment policy, including but not limited to, investments in insurance policies and contracts, including group annuity contracts, and in tax-exempt group trusts, and from time to time to liquidate any such investment in whole or in part.
(4) The Named Fiduciaries shall have the powers granted to them under the trust agreement adopted for use in implementing the Plan.

### 7.02 Duties of Plan Administrator

(a) The Plan Administrator shall have such duties and powers as may be necessary to discharge its duties hereunder, including but not by way of limitation, the following:
(1) to authorize any agent to execute or deliver any instrument or make any payment on its behalf;
(2) to retain counsel, employ agents and provide for such clerical, accounting, actuarial and consulting services as it may require in carrying out the provisions of the Plan;
(3) to delegate to other persons all or such portion of its duties under the Plan, other than those granted to the Trustee under the trust agreement adopted for use in implementing the Plan, as the Plan Administrator, in his or her sole discretion, shall decide and in accordance with ERISA Section 405;
(4) to decide all claims and questions of eligibility, and determine the amount, manner and time of payment of any benefit hereunder, and to construe and interpret the Plan or other plans as may be necessary in conjunction herewith;
(5) to make and enforce such rules and regulations as the Plan Administrator deems necessary or proper for the efficient administration and operation of the Plan;
(6) to prescribe procedures to be followed by Participants or Beneficiaries filing applications for benefits;
(7) to exercise such authority and responsibility, and perform such duties, as may be required in order to comply with ERISA and governmental regulations issued there under regarding records of Participants' service, accrued benefits, and non-forfeitable benefits under the Plan;
(8) to provide notifications to Participants, and file such annual reports as shall be required with the Internal Revenue Service, the Department of Labor and the Pension Benefit Guaranty Corporation;
(9) to receive and review the annual actuarial valuation of the Plan made by the actuary, and the regular reports of the Trustee regarding the financial condition, receipts and disbursements of the trust fund;
(10) to furnish to the Employers, upon request, such annual reports with respect to the administration of the Plan as are reasonable and appropriate;
(11) to receive service of legal process, as agent for the Plan; and
(12) to authorize the payment of reasonable and necessary expenses for the administration and operation of the Plan.
(b) The Plan Administrator shall have the authority to amend the Plan as follows:
(1) in accordance with action by the Board, to amend Appendix B to specify that an Affiliate will become an Employer and to provide for any special terms and conditions applicable to Participants employed by the Employer;
(2) to amend Appendix E to specify the method for determining and to determine the amount payable from the 401(h) Account for benefits under the Retiree Health Plan, pursuant to and for purposes of Section 12.06; and
(3) to adopt certain amendments to the Plan, which are (a) required or desirable in order to implement corporate transactions such as mergers, acquisitions and divestitures; (b) required, necessary or recommended for compliance with ERISA, the Code or other laws; or (c) necessary or desirable for uniform or efficient administration. In all cases, any amendment(s) adopted by the Plan Administrator shall neither materially nor significantly increase the Employers' or the Company's obligations or adversely affect or reduce the accrued benefits of Participants.

Any amendment adopted by the Plan Administrator pursuant to this Section shall be in writing and shall be effective as of the date specified by the Plan Administrator.

### 7.03 Meetings

The Plan Administrator will hold meetings upon such notice, at such place or places, and at such time or times as the Plan Administrator may from time to time determine.

### 7.04 Compensation and Bonding

The Named Fiduciaries and the Plan Administrator will not receive any compensation from the Plan for their services as such, and no bond or other security need be required of them in those capacities in any jurisdiction.

### 7.05 Establishment of Rules

Subject to the limitations of the Plan, the Plan Administrator from time to time will establish rules for the administration of the Plan and the transaction of business. The Plan Administrator has discretionary authority to interpret the Plan and to make factual determinations including but not limited to, determination of an individual's eligibility for Plan participation, the right and amount of any benefit payable under the Plan and the date on which any individual ceases to be a Participant. The determination of the Plan Administrator as to the interpretation of the Plan or any disputed question shall be conclusive and final to the extent permitted by applicable law. The Plan Administrator, however, shall have no power to add to, subtract from or modify any of the terms of the Plan, or to change or add to any benefits provided by the Plan, or to waive or fail to apply any requirements of eligibility for a pension under the Plan.

### 7.06 Prudent Conduct

The Named Fiduciaries and Plan Administrator will use that degree of care, skill, prudence and diligence that a prudent person acting in a like capacity and familiar with such matters would use in a similar situation.

### 7.07 Actuary

As an aid to the Employers in determining the amount of contributions payable to the Plan, the actuary designated by the Named Fiduciaries or the Plan Administrator will make annual actuarial valuations of the assets and liabilities of the Plan, and will submit to the Plan Administrator the rates of contribution which it recommends for use.

### 7.08 Maintenance of Accounts

The Plan Administrator will maintain accounts showing the fiscal transactions of the Plan and will keep in convenient form such data as may be necessary for actuarial valuations of the Plan.

### 7.09 Service in More Than One Fiduciary Capacity

Any individual, entity or group of persons may serve in more than one fiduciary capacity with respect to the Plan and/or the funds of the Plan.

### 7.10 Limitation of Liability

The Company, the members of its board of directors, the Employers and the members of their board of trustees or directors, the Named Fiduciaries, the Plan Administrator, and any officer, employee or agent of the Company or an Affiliate shall not incur any liability individually or on behalf of any other individuals for any act, or failure to act, made in good faith in relation to the Plan or the funds of the Plan. However, this limitation does not act to relieve any such individual or the Company or any Affiliate from a responsibility or liability for any fiduciary responsibility, obligation or duty under Part 4, Title I of ERISA.

### 7.11 Indemnification

The Company, the members of its board of directors, the Employers and the members of their board of trustees or directors, the Named Fiduciaries, the Plan Administrator, and any officer, employee or agent of the Company or an Affiliate are indemnified against any and all liabilities arising by reason of any act, or failure to act, in relation to the Plan or the funds of the Plan, including, without limitation, expenses reasonably incurred in the defense of any claim relating to the Plan or the funds of the Plan, and amounts paid in any compromise or settlement relating to the Plan or the funds of the Plan, except for actions or failures to act made in bad faith or which constitute a breach of fiduciary duty. The foregoing indemnification is from the funds of the Plan to the extent of those funds and to the extent permitted under applicable law; otherwise from the general assets of the Employers. The provisions are in addition to any other indemnification provision otherwise provided to any such individual by the Company or an Affiliate, provided that there is no duplication of benefits under this Section 7.11 and any such other provision.

### 7.12 Appointment of Investment Manager

The Board of Trustees, in its sole discretion, determines the investment policy for the Plan. However, a Named Fiduciary may, in its sole discretion, and in accordance with the investment policy, appoint one or more investment managers to manage the assets of the Plan (including the power to acquire and dispose of all or part of such assets) as the Named Fiduciary designates. In that event, the authority over and responsibility for the management of the assets so designated is the sole responsibility of that investment manager.

For purposes of this Article, the term "investment manager" means an individual firm, or entity who:
(a) has the power to manage, acquire or dispose of any asset of the Plan;
(b) is (i) registered as an investment advisor under the Investment Advisors Act of 1940, (ii) a bank, as defined in that Act, or (iii) an insurance company qualified to perform services described in paragraph (a) above; and
(c) has acknowledged in writing that he, she or it is a fiduciary with respect to the Plan.

### 7.13 Expenses of Administration

All reasonable expenses that arise in connection with the administration of the Plan, including but not limited to the compensation of the Trustee, administrative expenses and proper charges and disbursements of the Trustee and reasonable compensation and other expenses and charges of any enrolled actuary, counsel, accountant, specialist, or other person who has been retained by the Employers, Named Fiduciaries or Plan Administrator in connection with the administration thereof, will be paid from the funds of the Plan held by the Trustee under the trust agreement adopted for use in implementing the Plan, to the extent not paid by the Employers. So long as such reimbursement is in accordance with Department of Labor Regulation 29 CFR 2550.408c-2(b)(3), the funds of the Plan may also reimburse the Employers for compensation paid by the Employers to employees of the Employers who perform services to the Plan.

### 7.14 Claims and Review Procedures

(a) Applications for benefits and inquiries concerning the Plan (or concerning present or future rights to benefits under the Plan) must be submitted in writing to the Plan Administrator. An application for benefits must be submitted on the prescribed form and signed by the Participant or, in the case of a benefit payable after his or her death, by his or her Beneficiary, or a duly authorized legal representative.
(b) In the event that an application for benefits is denied in whole or in part, the Plan Administrator will notify the applicant in writing of the denial and of the right to review of the denial. The written notice will set forth, in a manner calculated to be understood by the applicant, specific reasons for the denial, specific references to the provisions of the Plan on which the denial is based, a description of any information or material necessary for the applicant to perfect the application, an explanation of why the material is necessary, and an explanation of the review procedure under the Plan. The written notice from the Plan Administrator will be given to the applicant within a reasonable period of time, not more than 90 days, after the Plan Administrator received the initial application, unless special circumstances require further time for processing and the applicant is advised of the need and reason for the extension within the first 90 -day period. The applicant will also be informed of the date by which the Plan Administrator expects to render the decision. In no event will the initial decision be given more than 180 days after the Plan Administrator received the application. The Plan Administrator has the authority to act with respect to any appeal from a denial of benefits or a determination of benefit rights.
(c) An applicant whose application for benefits was denied in whole or part, or the applicant's duly authorized representative, may appeal the denial by submitting to the Plan Administrator a request for a review of the application within 60 days after receiving written notice of the denial from the Plan Administrator. The Plan Administrator will give the applicant or his or her representative an opportunity to review pertinent materials, other than
legally privileged documents, in preparing the request for a review. The request for a review must be in writing and addressed to the Plan Administrator. The request for a review shall set forth all of the grounds on which it is based, all facts in support of the request and any other matters that the applicant deems pertinent. The Plan Administrator may require the applicant to submit such additional facts, documents or other materials as it may deem necessary or appropriate in making its review.
(d) The Plan Administrator will act on each request for a review within 60 days after receipt, unless special circumstances require further time for processing by the Plan Administrator and the applicant is advised of the need and reason for the extension. In no event will the decision on review be rendered more than 120 days after the Plan Administrator received the request for a review. The Plan Administrator will give prompt written notice of its decision to the applicant. In the event that the Plan Administrator confirms the denial of the application for benefits in whole or in part, the notice will set forth, in a manner calculated to be understood by the applicant, the specific reasons for the decision and specific references to the provisions of the Plan on which the decision is based. The Plan Administrator has discretionary authority to administer the plan, including interpreting the terms, determining eligibility for, entitlement to and amount of benefits under the Plan, determining any facts and resolving any questions relevant to administration of the Plan and remedying and correcting any ambiguities, inconsistencies or omissions in the Plan. Any action taken by the Plan administrator pursuant to such discretionary authority shall be conclusive and binding on all participants, beneficiaries and others.
(e) The Plan Administrator shall adopt such rules, procedures and interpretations of the Plan as deemed necessary or appropriate in carrying out the Plan Administrator responsibilities under this Section 7.14.
(f) No legal action for benefits under the Plan may be brought unless and until the claimant:
(i) has submitted a written application for benefits in accordance with paragraph (a),
(ii) has been notified by the Plan Administrator that the application is denied,
(iii) has filed a written request for a review of the application in accordance with paragraph (c), and
(iv) has been notified in writing that the Plan Administrator has affirmed the denial of the application;
provided, however, that legal action may be brought after the Plan Administrator has failed to take any action on the claim within the time prescribed by paragraphs (b) and (d) above.

## ARTICLE VIII

## Management of Funds

### 8.01 Trustee

All the funds of the Plan shall be held by a Trustee appointed from time to time by the Board under a trust instrument adopted, or as amended, by CECONY for use in providing the benefits of the Plan and paying its expenses not paid directly by the Employers. The assets of the Plan may be commingled by the Trustee with the assets of another qualified defined benefit plan maintained by an Affiliate; provided, however, that there shall be separate accounting for the beneficial interest of each such plan in the commingled assets. The beneficial interest of the trust fund under the Plan will be applied solely in accordance with the Plan and shall not be available to provide benefits under any other qualified defined benefit plan or for any other purpose. Expenses and taxes, to the extent paid from the commingled trust assets, will be equitably divided between the trust fund under the Plan and the trust fund under any other qualified defined benefit plan.

### 8.02 Exclusive Benefit Rule

Except as otherwise provided in the Plan, no part of the corpus or income of the funds of the Plan shall be used for, or diverted to, purposes other than for the exclusive benefit of Participants and other persons entitled to benefits under the Plan and paying Plan expenses not otherwise paid by the Employers, before the satisfaction of all liabilities with respect to them. No person has any interest in or right to any part of the earnings of the funds of the Plan, or any right in, or to, any part of the assets held under the Plan, except as and to the extent expressly provided in the Plan.

## ARTICLE IX

## General Provisions

### 9.01 Nonalienation

(a) Except as required by any applicable law, or by paragraph (c), no benefit under the Plan shall in any manner be anticipated, assigned or alienated, and any attempt to do so shall be void. However, payment may be made in accordance with the provisions of any judgment, decree, or order which creates for, or assigns to, a spouse, former spouse, child or other dependent of a Participant the right to receive all or a portion of the Participant's benefits under the Plan for the purpose of providing child support, alimony payments or marital property rights to that spouse, child or dependent, and:
(1) is made pursuant to a State domestic relations law,
(2) does not require the Plan to provide any type of benefit, or any option, not otherwise provided under the Plan, and
(3) otherwise meets the requirements of Section 206(d) of ERISA, as amended, as a qualified domestic relations order ("QDRO"), as determined by the Plan Administrator. The Plan shall have written procedures in effect for determining whether an order is a QDRO and, if so, for administering distributions under QDROs. The procedures shall notify each person, specified in the order who is entitled to payment of benefits under the Plan, of such procedures.

Notwithstanding the foregoing, a Participant whose benefit is in current pay status may elect to make a voluntary and revocable assignment of such benefit, not to exceed $10 \%$ of any benefit payment, provided the assignment is not for the purpose of defraying administrative costs.
(b) If the present value of any series of payments under a QDRO amounts to $\$ 5,000$ or less, or beginning for distributions after March $28,2005, \$ 1,000$, a lump sum payment that is the Actuarial Equivalent, determined in the manner described in Section 5.01, shall be made in lieu of the series of payments.
(c) A Participant's benefits under the Plan will be offset by the amount the Participant is required to pay to the Plan under the circumstances set forth in Code Section 401(a)(13).

### 9.02 Conditions of Employment Not Affected by Plan

The establishment of the Plan does not confer any legal rights upon any Employee or other person for a continuation of employment, nor does it interfere with the right of the Employers (which right is hereby reserved) to discharge any Employee and to treat him or her without regard to the effect which that treatment might have upon him or her as a Participant or potential Participant in the Plan.

### 9.03 Facility of Payment

If the Plan Administrator finds that a Participant or other person entitled to a benefit is unable to care for his or her affairs because of illness or accident or because he or she is a minor, the Plan Administrator may direct, in his or her sole discretion, that any benefit due him or her, unless claim has been made for the benefit of the Participant by a duly appointed legal representative, be paid to his or her spouse, a child, a parent or other blood relative, or to a person with whom he or she resides. Any payment so made shall be a complete discharge of the liabilities of the Plan for that benefit. Furthermore, if the Plan Administrator receives from a Participant a power of attorney valid under state law, the Plan Administrator will
comply with the instructions of the named attorney to the extent that the Plan Administrator would comply with such instructions if given by the Participant and such instructions are consistent with the power of attorney.

### 9.04 Information

Each Participant or other person entitled to a benefit, before any benefit will be payable to him or her or on his or her account under the Plan, must file with the Plan Administrator information that the Plan Administrator requires to establish the Participant's or other person's rights and benefits under the Plan.

### 9.05 Top-Heavy Provisions

(a) The following definitions apply to the terms used in this Section:
(1) "applicable determination date" means the last day of the preceding Plan Year;
(2) "top-heavy ratio" means the ratio of (A) the present value of the cumulative accrued benefits under the Plan for key employees to (B) the present value of the cumulative accrued benefits under the Plan for all key employees and non-key employees; provided, however, that if an individual has not performed services for the Company or Affiliate at any time during the 5 -year period ending on the applicable determination date, any accrued benefit for such individual (and the account of such individual) shall not be taken into account;
(3) "applicable valuation date" means the date within the preceding Plan Year as of which annual Plan costs are or would be computed for minimum funding purposes;
(4) "key employee" means an employee who is in a category of employees determined in accordance with the provisions Code Section 416(i)(1) and (5) and any regulations there under, and, where applicable, on the basis of the Employee's
remuneration which, with respect to any Employee, shall mean the wages, salaries and other amounts paid in respect of such Employee by the Company or an Affiliate for personal services actually rendered, determined before any pre-tax contributions under a "qualified cash or deferred arrangement" (as defined under Code Section 401(k) and its applicable regulations) or under a "cafeteria plan" (as defined under Code Section 125 and its applicable regulations), and shall include, but not by way of limitation, bonuses, overtime payments and commissions; and shall exclude deferred compensation, stock options and other distributions which receive special tax benefits under the Code;
(5) "non-key employee" means any employee who is not a key employee;
(6) "average remuneration" means the average annual remuneration of a Participant for the five consecutive years of his or her Vesting Service during which he or she received the greatest aggregate remuneration, as limited by Code Section 401(a)(17), from the Company or an Affiliate, excluding any remuneration for service after the last Plan Year with respect to which the Plan is top-heavy;
(7) "required aggregation group" means each other qualified plan of the Company or an Affiliate (including plans that terminated within the five-year period ending on the determination date) in which there are members who are key employees or which enables the Plan to meet the requirements of Code Section 401(a)(4) or 410; and
(8) "permissive aggregation group" means each plan in the required aggregation group and any other qualified plan(s) of the Company or an Affiliate in which all members are non-key employees, if the resulting aggregation group continues to meet the requirements of Code Sections 401(a)(4) and 410.
+(b) For purposes of this Section, the Plan shall be "top-heavy" with respect to any Plan Year beginning on or after January 1, 1984, if as of the applicable determination date the top-heavy ratio exceeds $60 \%$. The top-heavy ratio shall be determined as of the applicable valuation date in accordance with Code Section 416(g)(3) and (4)(B) on the basis of the 1983 Group Annuity Mortality Table and an interest rate of $5 \frac{1}{2} \%$ per year compounded annually. For purposes of determining whether the Plan is top-heavy, the present value of accrued benefits under the Plan will be combined with the present value of accrued benefits or account balances under each other plan in the required aggregation group, and, in the Employer's discretion, may be combined with the present value of accrued benefits or account balances under any other qualified plan(s) in the permissive aggregation group. The accrued benefit of a non-key employee under the Plan or any other defined benefit plan in the aggregation group shall be (i) determined under the method, if any, that uniformly applies for accrual purposes under all plans maintained by the Company or an Affiliate, or (ii) if there is no such method, as if such benefit accrued not more rapidly than the slowest accrual rate permitted under the fractional rule described in Code Section 411(b)(1)(C).
(c) The following provisions shall be applicable to Participants for any Plan Year with respect to which the Plan is top-heavy:
(1) In lieu of the vesting requirements specified in Section 4.05, a Participant shall be vested in, and have a non-forfeitable right to, a percentage of his or her accrued benefit, as set forth in the following vesting schedule:

| Years of Vesting Service | Percentage Vested |
| :--- | ---: |
| Less than 2 years | $0 \%$ |
| 2 years | $20 \%$ |
| 3 years | $40 \%$ |
| 4 years | $60 \%$ |
| 5 years | $100 \%$ |

(2) The accrued benefit of a Participant who is a non-key employee shall not be less than $2 \%$ of his or her average remuneration multiplied by the number of years of his or her Vesting Service, not in excess of 10, during the Plan Years for which the Plan is top-heavy. That minimum benefit shall be payable at a Participant's Normal Retirement Date. If payments commence at a time other than the Participant's Normal Retirement Date, the minimum accrued benefit shall be the Actuarial Equivalent of that minimum benefit.
(3) The multiplier " 1.25 " in Code Sections $415(\mathrm{e})(2)(\mathrm{B})(\mathrm{i})$ and (3)(B)(i) shall be reduced to " 1.0 ", and the dollar amount " $\$ 51,875$ " in Code Section 415(e)(6)(B)(i)(I) shall be reduced to " $\$ 41,500$ ".
(d) If the Plan is top-heavy with respect to a Plan Year and ceases to be top-heavy for a subsequent Plan Year, the following provisions shall be applicable:
(1) The accrued benefit in any such subsequent Plan Year shall not be less than the minimum accrued benefit provided in paragraph (c)(ii) above, computed as of the end of the most recent Plan Year for which the Plan was top-heavy.
(2) If a Participant has completed three years of Vesting Service on or before the last day of the most recent Plan Year for which the Plan was top-heavy, the vesting schedule set forth in paragraph (c)(i) above shall continue to be applicable.
(3) If a Participant has completed at least two, but less than three, years of Vesting Service on or before the last day of the most recent Plan Year for which the Plan was top-heavy, the vesting provisions of Section 4.05 shall again be applicable; provided, however, that in no event shall the vested percentage of a Participant's accrued benefit be less than the percentage determined under paragraph (c)(i) above as of the last day of the most recent Plan Year for which the Plan was top-heavy.

### 9.06 Construction

(a) The Plan shall be construed, regulated and administered under ERISA as in effect from time to time, and the laws of the State of New York, except where ERISA controls.
(b) The titles and headings of the Articles and Sections in this Plan are for convenience only. In case of ambiguity or inconsistency, the text rather than the titles or headings shall control.

### 9.07 Prevention of Escheat

If the Plan Administrator cannot ascertain the whereabouts of any person to whom a payment is due under the Plan, the Plan Administrator may, no earlier than three years from the date such payment is due, mail a notice of such due and owing payment to the last known address of such person as shown on the records of the Plan Administrator or the Employer. If such person has not made written claim therefore within three months of the date of the mailing, the Plan Administrator may, if it so elects and upon receiving advice from counsel to the Plan, direct that such payment and all remaining payments otherwise due such person be
cancelled on the records of the Plan and the amount thereof applied to reduce the contributions of the Employer. Upon such cancellation, the Plan has no further liability therefore except that, in the event such person or his or her Beneficiary later notifies the Plan Administrator of his or her whereabouts and requests the payment or payments due to him or her under the Plan, the amount so applied will be paid to him or her in accordance with the provisions of the Plan, without interest.

## ARTICLE X

## Amendment, Merger and Termination

### 10.01 Amendment of Plan

(a) CECONY, by action of its Board, or pursuant to authority granted by its Board, reserves the right at any time and from time to time, and retroactively if deemed necessary or appropriate, to amend in whole or in part any or all of the provisions of the Plan. However, no amendment shall make it possible for any part of the funds of the Plan to be used for, or diverted to, purposes other than for the exclusive benefit of persons entitled to benefits under the Plan, before the satisfaction of all liabilities with respect to them. No amendment will be made which has the effect of decreasing the accrued benefit or reducing the nonforfeitable percentage of the accrued benefit of a Participant below the nonforfeitable percentage computed under the Plan as in effect on the date on which the amendment is adopted or, if later, the date on which the amendment becomes effective.
(b) The Plan Administrator has the authority to amend the Plan to the extent and in the manner described in Section 7.02(b).

### 10.02 Merger, Consolidation, or Transfer

The Board may, in its sole discretion, merge this Plan with another qualified plan, subject to any applicable legal requirements. However, the Plan may not be merged or consolidated with, and its assets or liabilities may not be transferred to, any other plan unless each person entitled to benefits under the Plan would, if the resulting plan were then terminated, receive a benefit immediately after the merger, consolidation, or transfer which is equal to or greater than the benefit he or she would have been entitled to receive immediately before the merger, consolidation, or transfer if the Plan had then terminated.

### 10.03 Additional Participating Companies

(a) With the consent of CECONY, an Affiliate may adopt this Plan for some or all of its Employees. Upon the effective date of the adoption of the Plan by an Affiliate, the Affiliate shall be an Employer and shall delegate all fiduciary and administrative responsibilities (including the appointment and removal of fiduciaries) under the Plan to the Named Fiduciaries and the Plan Administrator of the Plan. An Employer may adopt the Plan for some or all of its employees upon appropriate action by such Employer, and with the consent of CECONY, and the employees for whom the Plan is adopted shall be described in Appendix B to the Plan.
(b) An Employer may terminate its participation in the Plan upon appropriate action. The funds of the Plan held on account of Participants in the employ of that Employer will be determined by the Plan Administrator and will be applied as provided in Section 10.04 if the Plan should be terminated, or will be segregated by the Trustee as a separate trust, pursuant to certification to the Trustee by the Plan Administrator, continuing the Plan as a separate plan for the employees of that company under which the board of directors of that company will succeed to all the powers and duties of the board of trustees, including the appointment of named fiduciaries.

### 10.04 Termination of Plan

CECONY, by action of its Board, may terminate the Plan for any reason at any time. In case of termination of the Plan, the rights of Participants to their benefits accrued under the Plan as of the date of the termination, to the extent then funded or protected by law, if greater, shall be nonforfeitable. The funds of the Plan shall be used for the exclusive benefit of persons entitled to benefits under the Plan as of the date of termination, except as provided in Section 6.02. However, any funds not required to satisfy all liabilities of the Plan for benefits because of erroneous actuarial computation will be returned to the Employers. In addition, after the satisfaction of all liabilities for benefits to which Participants and other persons may be entitled under the Plan, and satisfaction of all liabilities for expenses under by the Plan, in the event there are remaining plan assets, upon termination of the Plan, such excess assets shall revert to the Employers. The Plan Administrator will determine on the basis of actuarial valuation the share of the funds of the Plan allocable to each person entitled to benefits under the Plan in accordance with Section 4044 of ERISA, or corresponding provision of any applicable law in effect at the time. In the event of a partial termination of the Plan, the provisions of this Section will be applicable to the Participants affected by that partial termination.

### 10.05 Limitation Concerning Highly-Compensated Employees and Highly-Compensated Former Employees

(a) The provisions of this Section shall apply (i) in the event the Plan is terminated, to any Participant who is a highly-compensated employee or highlycompensated former employee (as those terms are defined in Code Section 414(q)) of the Company or an Affiliate and (ii) in any other event, to any Participant who is one of the 25 highly-compensated employees or highly-compensated former employees of the Company or Affiliate with the greatest compensation in
any Plan Year. The amount of the annual payments to any one of the Participants to whom this Section applies will not be greater than an amount equal to the annual payments that would be made on behalf of the Participant during the year under a single life annuity that is the Actuarial Equivalent of the sum of the Participant's accrued benefit and the Participant's other benefits under the Plan.
(b) If, (i) after payment of Pension Allowance or other benefits to any one of the Participants to whom this Section applies, the value of Plan assets equals or exceeds $110 \%$ of the value of current liabilities (as that term is defined in Code Section 412(l)(7)) of the Plan, (ii) the value of the accrued benefit and other benefits of any one of the Participants to whom this Section applies is less than $1 \%$ of the value of current liabilities of the Plan, or (iii) the value of the benefits payable to a Participant to whom this Section applies does not exceed the amount described in Code Section 411(a)(11)(A), the provisions of paragraph (a) above will not be applicable to the payment of benefits to such Participant.
(c) If any Participant to whom this Section applies elects to receive a lump sum payment in lieu of his or her Pension Allowance and the provisions of paragraph (b) above are not met with respect to such Participant, the Participant will be entitled to receive his or her benefit in full provided he or she agrees to repay to the Plan any portion of the lump sum payment which would be restricted by operation of the provisions of paragraph (a), and shall provide adequate security to guarantee that repayment.
(d) Notwithstanding paragraph (a) of this Section, in the event the Plan is terminated, the restriction of this Section is not applicable if the benefit payable to any highly-compensated employee and any highly-compensated former employee is limited to a benefit that is nondiscriminatory under Code Section 401(a) (4).
(e) If it should subsequently be determined by statute, court decision acquiesced in by the Commissioner of Internal Revenue, or ruling by the Commissioner of Internal Revenue, that the provisions of this Section are no longer necessary to qualify the Plan under the Code, this Section shall be ineffective without the necessity of further amendment to the Plan.

## ARTICLE XI

## Cost-Of-Living Adjustments

### 11.01 Eligibility-CECONY Participants

All Pension Allowances payable to CECONY Participants under the Plan for the month of April in a calendar year which commenced prior to December 31 of the prior calendar year shall be eligible for an adjustment hereunder. In the case of an annuity payable to a Surviving Spouse of a retired CECONY Participant, the Surviving Spouse's annuity shall be deemed to have commenced on the date the retired CECONY Participant's Pension Allowance commenced. No CEI Participant or the Surviving Spouse or Beneficiary of a CEI Participant is eligible for a cost-of-living adjustment to his or her Cash Balance Account Pension Allowance.

### 11.02 Annual Adjustment-CECONY Participants

All eligible Pension Allowances of CECONY Participants being paid from time to time under the Plan shall be increased annually by the percentage determined under Section 11.03. Such adjustment shall be made for the month of April each year and for each month thereafter, until further changed or terminated in accordance with provisions of this Plan.

### 11.03 Percentage of Adjustment-CECONY Participants

Each annual adjustment shall equal $75 \%$ of the percentage increase, rounded to the nearest $1 / 10$ of one percent ( 0.001 ), in the Index specified in Section 11.05 for the preceding December over the Index for the next-preceding December; provided, however, that such annual adjustment shall not:
(a) exceed $3 \%$, or
(b) be less than 0\% of the eligible Pension Allowance.

### 11.04 Limitation on Adjustments-CECONY Participants

No adjustment in a Pension Allowance provided under this Article XI may cause such Pension Allowance, as adjusted, to be greater than the product of (a) the amount of such Pension Allowance paid for the month of December 1986 or the later month in which the Pension Allowance commenced ("Commencement Month"), multiplied by (b) a fraction, the numerator of which shall be the Index for the December immediately preceding the month of April in which the adjustment is to be made, and the denominator of which shall be the Index for the December immediately preceding the Commencement Month. Any increase pursuant to this Article XI shall be reduced to the extent required to satisfy the limitation set forth in this Section 11.04.

### 11.05 Index-CECONY Participants

The Index to be used for purposes of this Article XI shall be the Consumer Price Index, All Urban Consumers - US City Average ("CPI-U"), as published by the United States Department of Labor. If at any time such Index is revised or discontinued, or if the Named Fiduciaries determine that a different index, device, or other form of measurement more accurately measures the impact of inflation on the purchasing power of retirees, the Named Fiduciaries may substitute such other index, device, or other form of measurement as they, in their discretion, determine to be appropriate.

### 11.06 Eligibility and Adjustment-O\&R Participants

Beginning as of July 1 of the year for which the cumulative percentage change in the CPI-U, defined below, exceeds $20 \%$, but not earlier than July 1 , 1993, and as of each July 1 thereafter, the monthly Pension Allowance then being received by a retired O\&R Participant, or a vested O\&R Participant whose employment terminates after January 1, 1993, shall be increased by a pension benefit adjustment ("PBA"), not less than zero, determined by multiplying:
(a) the gross monthly Pension Allowance as of the Annuity Starting Date, or as of June 1, 1993 for a retired O\&R Participant whose Annuity Starting Date occurred prior to January 1, 1989, or in both cases such other gross monthly Pension Allowance, then being paid to the extent it is not a PBA under this Section 11.06, by
(b) a percentage (rounded to the nearest 100th of a percent) equal to $75 \%$ of the "cumulative percentage change" in the CPI-U for the year in excess of $20 \%$, but not more than the applicable "cumulative maximum percentage," as defined below.
(c) Effective for an O\&R Hourly Employee who is hired on or after January 1, 2005 (an "O\&R Hourly Employee -1 "), his or her Pension Allowance will be calculated and accrued without a pension benefit adjustment (cost-of-living-adjustment). The pension benefit adjustment also will not apply to the Eligible Spouse, Contingent Annuitant or Alternate Payee of an O\&R Hourly Employee -1.

### 11.07 Eligible Spouse or Contingent Annuitant of O\&R Participant

The monthly Pension Allowance being received by a Surviving Spouse, including a former spouse treated as the spouse under a QDRO, unless the QDRO provides otherwise, or a contingent annuitant under a joint and survivor annuity or contingent annuitant option with respect to a retired O\&R Participant or vested O\&R Participant whose employment terminates on or after January 1, 1993, shall be increased by a PBA, not less than zero, on July 1 of each year, beginning:
(a) as of the July 1 coincident with or next following the spouse's or contingent annuitant's Annuity Starting Date if the retired O\&R Participant or vested O\&R Participant had previously received one or more PBAs under Section 11.06 above, or
(b) as of the July 1, on or after July 1, 1993, of the year for which the "cumulative percentage change in the CPI-U" first exceeds $20 \%$.

### 11.08 Pension Benefit Adjustment Amount for Spouse or Contingent Annuitant of O\&R Participant

(a) The PBA for the spouse or contingent annuitant shall be calculated by multiplying the percentage in Section 11.06(ii) above, determined using the deceased Participant's Annuity Starting Date, by the spouse's or contingent annuitant's gross monthly Pension Allowance as of the spouse's or contingent annuitant's Annuity Starting Date, or as of June 1, 1993 for a spouse or contingent annuitant whose Annuity Starting Date occurred prior to January 1, 1989, excluding any portion of such Pension Allowance which represents PBAs to the retired Participant's or vested Participant's Pension Allowance pursuant to Section 11.06 above.
(b) The monthly O\&R Surviving Spouse's Pension Allowance, or O\&R Spouse's Death Benefit Allowance with respect to a vested O\&R Participant whose employment terminates after January 1, 1993, then being received by a spouse, including a former spouse treated as the spouse under a QDRO unless the QDRO provides otherwise, shall be increased by a PBA, not less than zero, on July 1 of the year for which the "cumulative percentage change in the CPI-U" exceeds $20 \%$, but not earlier than July 1, 1993, and as of each July 1 thereafter. The PBA shall be calculated by multiplying the percentage in Section 11.06 (ii) above, determined using the spouse's Annuity Starting Date, by the spouse's gross monthly Pension Allowance, as of the spouse’s Annuity Starting Date, or June 1, 1993 for a spouse whose Annuity Starting Date occurred prior to January 1, 1989.

### 11.09 Pension Benefit Adjustment for Alternate Payee of an O\&R Participant

(a) The monthly Pension Allowance then being received by an alternate payee, within the meaning of ERISA Section 206(d) and Code Section 414(p), under a QDRO who does not otherwise share in an increase by reason of Section 11.06, Section 11.07 or Section 11.08 above, and is not subject to the exception in the last sentence hereof, shall be increased by a PBA, not less than zero, on each July 1 beginning
(1) as of the July 1 coincident with or next following the alternate payee's Annuity Starting Date if the QDRO is effective after the O\&R Participant's Annuity Starting Date and the O\&R Participant had previously received one or more PBAs under Section 11.06 above, or
(2) as of the first July 1, on or after July 1, 1993, of the year for which the "cumulative percentage change in the CPI-U" first exceeds $20 \%$.
(b) The PBA shall be calculated by multiplying the percentage in Section 11.06 (ii) above, determined using the alternate payee's Annuity Starting Date if the QDRO is effective on or before the O\&R Participant's Annuity Starting Date and using the O\&R Participant's Annuity Starting Date if the QDRO is effective after the O\&R Participant's Annuity Starting Date, by the alternate payee's gross monthly Pension Allowance as of the alternate payee's Annuity Starting Date, or as of June 1, 1993 for an alternate payee whose Annuity Starting Date occurred prior to January 1, 1989, excluding any portion of such Pension Allowance which represents PBAs to the O\&R Participant's Pension Allowance pursuant to Section 11.06 above.

This paragraph shall not apply if the QDRO states that the PBA shall not apply and further shall not apply in any event to any Pension Allowance paid with respect to a Vested O\&R Participant whose employment terminated prior to January 1, 1993. For purposes of applying the provisions of Section 5.02(c)(3) and (4) which provide for the monthly Pension Allowance of a retired O\&R Participant or vested O\&R Participant to be increased after the death of the contingent annuitant, such increase, if made on a date other than a July 1 , shall include the PBA which would have applied under paragraph (a) above if the retired $O \& R$ Participant or vested O\&R Participant had been receiving the Pension Allowance as a single life annuity as of the immediately preceding July 1 . A retired $O \& R$ Participant (including a O\&R Participant who remains in service but has commenced his or her Allowance because of attainment of age 70-1/2) or a vested O\&R Participant will be considered, for purposes of this Section only, to have multiple Annuity Starting Dates if the Pension Allowance as of the Annuity Starting Date is adjusted thereafter as a result of future Annual Compensation and Accredited Service. The initial Annuity Starting Date, which is the date as of which a Pension Allowance first begins to the retired or vested O\&R Participant from the Plan, applies to the portion of the Pension Allowance attributable to Annual Compensation and Accredited Service prior to such initial Annuity Starting Date. Thereafter, each subsequent date as of which an Pension Allowance is adjusted after the initial Annuity Starting Date by reason of Annual Compensation or Accredited Service thereafter shall be considered, for purposes of this Section only, as the Annuity Starting Date with respect to the portion of the Pension Allowance attributable to Annual Compensation and Accredited Service since the previous Annuity Starting Date.
(c) The terms specified below which are used in Sections $11.06,11.07,11.08$ and 11.09 shall have the meanings set forth below, unless the context clearly dictates another meaning.
(1) CPI-U means the annual average figure under the Consumer Price Index for All Urban Consumers, U.S. City Average of All Items (19821984=100), or its successor, as published by the United States Bureau of Labor Statistics.
(2) Cumulative Percentage Change in the CPI-U for a year is calculated by dividing the difference between the CPI-U for the prior year and the CPI-U for the year prior to the year in which the applicable Annuity Starting Date occurred by the CPI-U for the year prior to the year in which the Annuity Starting Date occurred, and rounding to the nearest 100th of a percent (e.g., for purposes of determining the cumulative percentage change in the CPI-U for 1993 for a retired O\&R Participant whose Annuity Starting Date occurred in 1990, subtract the CPI-U for 1989 from the CPI-U for 1992, then divide the result by the CPI-U for 1989 and round to the nearest 100th of a percent). Notwithstanding any provisions of Sections $11.06,11.07,11.08$ and 11.09 to the contrary, in all cases when the Annuity Starting Date occurred before January 1, 1989, the cumulative percentage change in the CPI-U for a year shall be calculated by dividing the difference between the CPI-U for the prior year and the CPI-U for 1991 by the CPI-U for 1991, rounding to the nearest 100th of a percent, and adding 20\%.
(3) Cumulative Maximum Percentage. For purposes of Section 11.06, Section 11.08 and, Section 11.07, if the O\&R Participant had not previously received any PBA under Section 11.06, and Section 11.09, if the alternate payee’s Annuity Starting

Date is used to determine the PBA, cumulative maximum percentage is $3 \%$ for the first year in which a PBA is made and for each succeeding year is $3 \%$ plus $103 \%$ of the prior year's cumulative maximum percentage, rounded to the nearest 100th of a percent (e.g., $3 \%$ for the first year, $6.09 \%$ for the second year, $9.27 \%$ for the third year). For purposes of Section 11.06, if the O\&R Participant had previously received a PBA under Section 11.06, and Section 11.09, if the Member's Annuity Starting Date is used to determine the PBA, the maximum for the first year is $3 \%$ plus $103 \%$ of the prior year's cumulative maximum percentage applicable to the Participant, rounded to the nearest 100th of a percent, and for each succeeding year is $3 \%$ plus $103 \%$ of the prior year's cumulative maximum percentage, rounded to the nearest 100th of a percent.
(d) Appendix L attached hereto contains sample illustrations which are intended solely to aid in the interpretation and application of the provisions of Sections 11.06, 11.07, 11.08 and 11.09 .

### 12.01 Establishment

Effective January 1, 1986, a "401(h) Account" was established in the CECONY Management Plan and the CECONY Weekly Plan in order to fund post-retirement medical benefits to CECONY Management Participants and CECONY Weekly Participants who meet certain criteria (and the spouses/dependents of such CECONY Participants) and who retire under the terms of this Plan, pursuant to the Retiree Health Plan. The provisions of the Retiree Health Plan previously were set forth in the CECONY Management Plan and the CECONY Weekly Plan. Effective January 1, 2001, the provisions of the Retiree Health Plan are set forth in a separate document. CECONY Participants who are or were in any prior Plan Year "key employees" (as that term is defined in Code Section 416(i)), their spouses and dependents shall not be eligible for the payment of any Retiree Health Plan benefits from the 401(h) Account.

### 12.02 Terms and Conditions

Effective January 1, 2001, a "401(h) Account" is established under this Plan, and the Retiree Health Plan is maintained by CECONY to provide postretirement medical, hospital, vision care, and prescription drug benefits to certain retired CECONY Management Participants, CECONY Weekly Participants and CEI Participants who retired from CECONY (and the spouses/dependents of such Participants).

### 12.03 Contributions

The 401(h) Account shall be funded by the contributions of CECONY, in its sole discretion, which shall be deposited with the Trustee. CECONY may also require that

Participants make contributions to the Retiree Health Plan and CECONY shall determine whether such contributions shall be deposited in the 401(h) Account or any other funding vehicle which CECONY may sponsor to fund benefits provided by the Retiree Health Plan. All such contributions to the 401(h) Account may be commingled with Plan assets for investment and custody purposes, but all contributions to the 401(h) Account and earnings thereon, if any, together with all disbursements from the 401(h) Account, shall be recorded and accounted for in one or more separate accounts relating solely to the Retiree Health Plan. If CECONY makes a contribution to the trust fund which includes amounts allocable both to the Plan and to the 401(h) Account, CECONY shall clearly specify the portion of such contribution allocable to the Plan and the portion allocable to the 401(h) Account. In the event that a Participant's interest in the 401(h) Account is forfeited prior to termination of the Plan, an amount equal to the amount of the forfeiture shall be applied as soon as possible to reduce any contributions by CECONY to the 401(h) Account.

### 12.04 Use of Assets

Assets in this 401(h) Account shall be used solely for the purpose of providing retiree health benefits, in accordance with Section 12.06, for those individuals who are determined to be entitled thereto in accordance with the terms of the Retiree Health Plan and to pay any necessary or appropriate expenses attributable to the administration of the 401(h) Account. The benefits provided by the 401(h) Account shall be subordinate to the pension benefits provided by the Plan. No part of the corpus or income of the $401(\mathrm{~h})$ Account shall be used for, or diverted to, any purposes other than the provision of health coverage at any time prior to the satisfaction of all liabilities for health coverage hereunder. Upon the satisfaction of all liabilities incurred pursuant to the Retiree Health Plan any amount which may remain in the 401(h) Account shall be returned to CECONY by the Trustee.

### 12.05 Modification, Amendment, and Termination

CECONY reserves the right to modify, amend, or terminate the Retiree Health Plan at any time. The establishment and operation of the 401(h) Account does not obligate CECONY in any way to continue to maintain any health care plans of any nature or to provide post-retirement health care coverage of any kind. In the event that CECONY terminates health coverage for retirees, this Plan shall have no liability to provide further health coverage for current or future retirees, for purposes of determining the amount to be returned to CECONY under Section 12.04. No amendment, modification, or termination of the Retiree Health Plan, nor change in CECONY contributions thereunder, shall retroactively, adversely affect any Participant's benefit under the Retiree Health Plan.

### 12.06 Allocation of Responsibility for Payment

Benefits under the Retiree Health Plan are provided through the 401(h) Account, through other funding mechanisms, and through contributions by covered retirees and Surviving Spouses. The amount payable from the 401(h) Account shall be determined in accordance with the provisions of Appendix E, as in effect from time to time.

## ARTICLE XIII

## Return of Contributions to an O\&R Participant

### 13.01 Vested O\&R Participant

An O\&R Participant who is entitled to a vested Pension Allowance, upon ceasing to be employed by the Company or an Affiliate for any cause other than death, Approved Leave of Absence, or retirement, may elect to receive in one sum within six months thereafter the amount of his or her Accumulated Contributions, if any, at the time he or she ceased to be so employed. If the present value of his or her Accumulated Contributions exceeds $\$ 5,000$ or beginning for distributions after March 28, 2005, $\$ 1,000$, the O\&R Participant must consent and if married, his or her spouse must provide Spousal Consent to a distribution. The consent and Spousal Consent must apply to the form and the timing of the distribution.

### 13.02 An O\&R Participant Not Vested

An O\&R Participant who is not entitled to a Pension Allowance shall, upon ceasing to be employed by the Company or an Affiliate for any cause other than death, Approved Leave of Absence, or retirement under the Plan, be paid his or her Accumulated Contributions, if any, within six months after the date he or she ceases to be so employed. If the present value of his or her Accumulated Contributions exceeds $\$ 5,000$ or beginning for distributions after March 28, 2005, $\$ 1,000$, the O\&R Participant must consent and if married, his or her spouse must provide Spousal Consent to a distribution. The consent and Spousal Consent must apply to the form and the timing of the distribution.

### 13.03 Death of O\&R Participant

Upon receipt of proof, satisfactory to the Plan Administrator, of the death of an O\&R Participant prior to his or her Annuity Starting Date, provided no other benefit is payable on his or her account, the amount of his or her Accumulated Contributions at the time of his or her death shall be payable in one sum to his or her designated beneficiary, if living, otherwise to such Participant's legal representatives.

### 13.04 Cessation of Pension Allowance

Upon the cessation of payments of the Pension Allowance or other benefit payable to or on account of an O\&R Participant or the Surviving Spouse of an O\&R Participant, the excess, if any, of an O\&R Participant's Accumulated Contributions at retirement or prior to death over the total benefit payments made to him or her or on his or her account shall be paid in one sum to the O\&R Participant's beneficiary, if living, otherwise to the legal representatives of the person last in receipt of such Pension Allowance or other benefit.

## THE CONSOLIDATED EDISON <br> RETIREMENT PLAN

PART II (a)
APPENDICES
Effective as of January 1, 2001
Favorable Determination Letter Issued
April 9, 2003
Subject to the Following Amendments and Clarifications:

- Clarified on May 2, 2002
- Amended December 13, 2001
- Amended April 2003 In Accordance with IRS Issuance of Favorable Determination Letter;
- Amended August 2004 for

2004 Agreement Between Local Union 503 of the International Brotherhood of Electrical Workers, AFL-CIO ;

- Amended August 2004, for O\&R Management Employees

Changes Concurrent with O\&R Hourly Employees;

- Amended August 2004 for Agreement Between Local 1-2 of the Utility Workers Union of America, AFL-CIO;
- Amended July 2004 for Updated Factors for O\&R Optional Forms; and
- Amended and Restated October 2004 for Miscellaneous Changes


## APPENDICES

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## APPENDIX A

## Actuarial Factors

## Sub appendix A-1 CECONY Participants

Subappendix A. 1 Actuarial Factors Applicable to CECONY Participants
Tables A to I provide the actuarial factors that are applied for calculating and computing Pension Allowances for CECONY Management Participants and CECONY Weekly Participants, and, when applicable, to CECONY Weekly Employees -1 .

Tables J to M provide the actuarial factors that are applied for calculating and computing Pension Allowances for CECONY Weekly Participants -1 .

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J Conversion from Single Life to Twelve Year Certain with 50\% Joint \& Survivor with Pop-Up
K Conversion from Single Life to 100\% Joint and Survivor without Pop-Up
L Conversion from Single Life to 100\% Joint and Survivor with Pop - Up
M Conversion from Single Life to 50\% Joint and Survivor with Pop-Up
N Conversion from Single Life to 50\% Joint and Survivor without Pop-Up

## Sub appendix A-2 O\&R Participants

## Subappendix A. 2 Actuarial Factors Applicable to O\&R Participants

Tables A to F provide the actuarial factors that are applied for calculating and computing Pension Allowances for O\&R Management Participants and O\&R Hourly Participants who begin the distribution of their Pension Allowance before July 1, 2004

Tables G to L provide the actuarial factors that are applied for calculating and computing Pension Allowances for O\&R Management Participants and O\&R Hourly Participants who begin their distribution of their Pension Allowance after July 1, 2004.

Tables A to F apply to
O\&R Participants who begin distribution on or before July 1, 2004

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| G | Joint and $100 \%$ Survivor Option Factors without Pop-Up | A-29 to A-30 |
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| I | Joint and $100 \%$ Survivor Option with Pop-Up Factors | A-33 to A-34 |
| J | Joint and $50 \%$ Survivor Option With Pop-Up Factors | A-35 to A-36 |
| K | Reduction Factors For Vested Participant Spouse's Allowance Coverage | A-37 |
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Sub appendix A-3 CEI Participants

## Subappendix A. 0 Actuarial Factors Applicable to CEI Participants

Tables A to E provide the actuarial factors that are applied for calculating and computing Pension Allowances for CEI Participants.

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Table A -
Early Retirement Discount Factors
Applied To The Participant's Accrued Pension For Retirements Prior To The Attainment Of A CECONY Participant's Sixtieth Birthday And The Actual Date Of Retirement

CECONY Participants
(Also Applied In Calculation Of Surviving Spouse Benefit)

| Months Prior | Discount Factor | Months Prior | Discount Factor | Months Prior | Discount Factor | Months Prior | Discount Factor | Months Prior | Discount Factor |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 0.99875 | 37 | 0.95375 | 73 | 0.54100 | 109 | 0.43400 | 145 | 0.36200 |
| 2 | 0.99750 | 38 | 0.95250 | 74 | 0.53800 | 110 | 0.43200 | 146 | 0.36000 |
| 3 | 0.99625 | 39 | 0.95125 | 75 | 0.53500 | 111 | 0.43000 | 147 | 0.35800 |
| 4 | 0.99500 | 40 | 0.95000 | 76 | 0.53200 | 112 | 0.42800 | 148 | 0.35600 |
| 5 | 0.99375 | 41 | 0.94875 | 77 | 0.52900 | 113 | 0.42600 | 149 | 0.35400 |
| 6 | 0.99250 | 42 | 0.94750 | 78 | 0.52600 | 114 | 0.42400 | 150 | 0.35200 |
| 7 | 0.99125 | 43 | 0.94625 | 79 | 0.52300 | 115 | 0.42200 | 151 | 0.35000 |
| 8 | 0.99000 | 44 | 0.94500 | 80 | 0.52000 | 116 | 0.42000 | 152 | 0.34800 |
| 9 | 0.98875 | 45 | 0.94375 | 81 | 0.51700 | 117 | 0.41800 | 153 | 0.34600 |
| 10 | 0.98750 | 46 | 0.94250 | 82 | 0.51400 | 118 | 0.41600 | 154 | 0.34400 |
| 11 | 0.98625 | 47 | 0.94125 | 83 | 0.51100 | 119 | 0.41400 | 155 | 0.34200 |
| 12 (59) | 0.98500 | 48 (56) | 0.94000 | 84 (53) | 0.50800 | 120 (50) | 0.41200 | 156 (47) | 0.34000 |
| 13 | 0.98375 | 49 | 0.93875 | 85 | 0.50500 | 121 | 0.41000 | 157 | 0.33800 |
| 14 | 0.98250 | 50 | 0.93750 | 86 | 0.50200 | 122 | 0.40800 | 158 | 0.33600 |
| 15 | 0.98125 | 51 | 0.93625 | 87 | 0.49900 | 123 | 0.40600 | 159 | 0.33400 |
| 16 | 0.98000 | 52 | 0.93500 | 88 | 0.49600 | 124 | 0.40400 | 160 | 0.33200 |
| 17 | 0.97875 | 53 | 0.93375 | 89 | 0.49300 | 125 | 0.40200 | 161 | 0.33000 |
| 18 | 0.97750 | 54 | 0.93250 | 90 | 0.49000 | 126 | 0.40000 | 162 | 0.32800 |
| 19 | 0.97625 | 55 | 0.93125 | 91 | 0.48700 | 127 | 0.39800 | 163 | 0.32600 |
| 20 | 0.97500 | 56 | 0.93000 | 92 | 0.48400 | 128 | 0.39600 | 164 | 0.32400 |
| 21 | 0.97375 | 57 | 0.92875 | 93 | 0.48100 | 129 | 0.39400 | 165 | 0.32200 |
| 22 | 0.97250 | 58 | 0.92750 | 94 | 0.47800 | 130 | 0.39200 | 166 | 0.32000 |
| 23 | 0.97125 | 59 | 0.92625 | 95 | 0.47500 | 131 | 0.39000 | 167 | 0.31800 |
| 24 (58) | 0.97000 | 60 (55) | 0.92500 | 96 (52) | 0.47200 | 132 (49) | 0.38800 | 168 (46) | 0.31600 |
| 25 | 0.96875 | 61 | 0.57700 | 97 | 0.46900 | 133 | 0.38600 | 169 | 0.31400 |
| 26 | 0.96750 | 62 | 0.57400 | 98 | 0.46600 | 134 | 0.38400 | 170 | 0.31200 |
| 27 | 0.96625 | 63 | 0.57100 | 99 | 0.46300 | 135 | 0.38200 | 171 | 0.31000 |
| 28 | 0.96500 | 64 | 0.56800 | 100 | 0.46000 | 136 | 0.38000 | 172 | 0.30800 |
| 29 | 0.96375 | 65 | 0.56500 | 101 | 0.45700 | 137 | 0.37800 | 173 | 0.30600 |
| 30 | 0.96250 | 66 | 0.56200 | 102 | 0.45400 | 138 | 0.37600 | 174 | 0.30400 |
| 31 | 0.96125 | 67 | 0.55900 | 103 | 0.45100 | 139 | 0.37400 | 175 | 0.30200 |
| 32 | 0.96000 | 68 | 0.55600 | 104 | 0.44800 | 140 | 0.37200 | 176 | 0.30000 |
| 33 | 0.95875 | 69 | 0.55300 | 105 | 0.44500 | 141 | 0.37000 | 177 | 0.29800 |
| 34 | 0.95750 | 70 | 0.55000 | 106 | 0.44200 | 142 | 0.36800 | 178 | 0.29600 |
| 35 | 0.95625 | 71 | 0.54700 | 107 | 0.43900 | 143 | 0.36600 | 179 | 0.29400 |
| 36 (57) | 0.95500 | 72 (54) | 0.54400 | 108 (51) | 0.43600 | 144 (48) | 0.36400 | 180 (45) | 0.29200 |

Exact ages shown in parenthesis

Sub appendix A. 1
TABLE B -
Conversion from Single Life to Twelve Year Certain And Life Annuity Conversion Factors
Applies to all single CECONY Participants and All married CECONY Weekly Participants - 1 who choose this option

| Age | Factor |
| :--- | :---: |
| 45 | 0.9948 |
| 46 | 0.9942 |
| 47 | 0.9935 |
| 48 | 0.9927 |
| 49 | 0.9919 |
| 50 | 0.9911 |
| 51 | 0.9901 |
| 52 | 0.9891 |
| 53 | 0.9880 |
| 54 | 0.9868 |
| 55 | 0.9854 |
| 56 | 0.9838 |
| 57 | 0.9820 |
| 58 | 0.9800 |
| 59 | 0.9776 |
| 60 | 0.9748 |
| 61 | 0.9716 |
| 62 | 0.9679 |
| 63 | 0.9637 |
| 64 | 0.9589 |
| 65 | 0.9535 |
| 66 | 0.9474 |
| 67 | 0.9405 |
| 68 | 0.9329 |
| 69 | 0.9243 |
| 70 | 0.9148 |
| 71 | 0.9042 |
| 72 | 0.8925 |
| 73 | 0.8796 |
| 74 | 0.8654 |
| 75 | 0.8499 |

Basis: GATT GAM (1983 GAM with Margins Weighted 50\% male and 50\% female) 7.50\%
Effective Date: January 1, 1995

## TABLE C

Conversion From 50\% Joint \& Survivor to
Twelve Year Certain With 50\% Joint \& Survivor
CECONY Management Participants and CECONY Weekly Participants
Not Applicable to CECONY Weekly Participants -1

| Beneficiary's Age At Pensioner's Retirement | PENSIONER WHOSE RETIREMENT AGE IS: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 354 | 35 |
| 20 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 21 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 22 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 23 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 24 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 25 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 26 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 27 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 28 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 29 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 30 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 31 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 32 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 33 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 34 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 35 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 36 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 37 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 38 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 39 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 40 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 41 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 42 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 43 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 44 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 45 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 46 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 47 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 48 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 49 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 50 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 51 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 52 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 53 | * | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 |
| 54 | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 |

$\begin{array}{llllllllllllllll}20 & 21 & 22 & 23 & 24 & 25 & 26 & 27 & 28 & 29 & 30 & 31 & 32 & 33 & 34 & 35\end{array}$
PENSIONER WHOSE RETIREMENT AGE IS: * = 1.000
INTEREST - 7.5000\%
PENSIONER'S MORTALITY - SPECIAL PENSIONER MORTALITY TABLE BENEFICIARY'S MORTALITY - SPECIAL PENSIONER MORTALITY TABLE

## CECONY Management Participants and CECONY Weekly Participants

Not Applicable to CECONY Weekly Participants -1

| Beneficiary's Age At Pensioner's Retirement | PENSIONER WHOSE RETIREMENT AGE IS: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Beneficiary's Age At Pensioner's Retirement |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 |  |
| 55 | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | 55 |
| 56 | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | 56 |
| 57 | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | 57 |
| 58 | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | 58 |
| 59 | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | 59 |
| 60 | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | 60 |
| 61 | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | 61 |
| 62 | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | 62 |
| 63 | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | 63 |
| 64 | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | 64 |
| 65 | * | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | 65 |
| 66 | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | 66 |
| 67 | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | 67 |
| 68 | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | 68 |
| 69 | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | 69 |
| 70 | * | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | 70 |
| 71 | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | 71 |
| 72 | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | 72 |
| 73 | * | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | 73 |
| 75 | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | 75 |
| 76 | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | 76 |
| 77 | * | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | 77 |
| 78 | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | 78 |
| 79 | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | 79 |
| 80 | * | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | 80 |
| 81 | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | 81 |
| 82 | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | 82 |
| 83 | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | 83 |
| 84 | * | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | 84 |
| 85 | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | 85 |
| 86 | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | 86 |
| 87 | * | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | 87 |
| 88 | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | 88 |
| 89 | * | * | * | * | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | 89 |
|  | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 |  |

## Sub appendix A. 1

## TABLE C -

## Conversion From 50\% Joint \& Survivor to <br> Twelve Year Certain With 50\% Joint \& Survivor <br> CECONY Management Participants and CECONY Weekly Participants <br> Not Applicable to CECONY Weekly Participants -1

| BENEFICIARY'S <br> AGE AT <br> PENSIONER'S <br> RETIREMENT | PENSIONER WHOSE RETIREMENT AGE IS: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | BENEFICIARY'S <br> AGE AT <br> PENSIONER'S <br> RETIREMENT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |  |
| 20 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 20 |
| 21 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 21 |
| 22 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 22 |
| 23 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 23 |
| 24 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 24 |
| 25 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 25 |
| 26 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 26 |
| 27 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 27 |
| 28 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 28 |
| 29 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 29 |
| 30 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 30 |
| 31 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 31 |
| 32 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 32 |
| 33 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 33 |
| 34 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 34 |
| 35 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 35 |
| 36 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 36 |
| 37 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 37 |
| 38 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 38 |
| 39 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 39 |
| 40 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 40 |
| 41 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 12 |
| 42 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 42 |
| 43 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 43 |
| 44 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 44 |
| 45 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 45 |
| 46 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 46 |
| 47 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 47 |
| 48 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | 48 |
| 49 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 996 | . 996 | . 996 | 49 |
| 50 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 996 | . 996 | . 996 | 50 |
| 51 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 996 | 51 |
| 52 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 996 | 52 |
| 53 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 996 | 53 |
| 54 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 996 | 54 |
|  | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |  |

PENSIONER WHOSE RETIREMENT AGE IS: * = $1.000 \quad$ INTEREST - 7.5000\%
PENSIONER'S MORTALITY - SPECIAL PENSIONER MORTALITY TABLE BENEFICIARY'S MORTALITY - SPECIAL PENSIONER MORTALITY TABLE

## Sub appendix A. 1

## TABLE C -

# Conversion From 50\% Joint \& Survivor to <br> Twelve Year Certain With 50\% Joint \& Survivor <br> CECONY Management Participants and CECONY Weekly Participants <br> Not Applicable to CECONY Weekly Participants -1 

| BENEFICIARY'S | PENSIONER WHOSE RETIREMENT AGE IS: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | BENEFICIARY'S <br> AGE AT <br> PENSIONER'S <br> RETIREMENT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RETIREMENT | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |  |
| 55 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 996 | 55 |
| 56 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 996 | 56 |
| 57 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 996 | 57 |
| 58 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 996 | 58 |
| 60 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 995 | 60 |
| 61 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 995 | 61 |
| 62 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 995 | 62 |
| 63 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 995 | 63 |
| 64 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 995 | 64 |
| 65 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 995 | 65 |
| 66 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 996 | . 996 | . 996 | . 995 | 66 |
| 67 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 996 | . 996 | . 996 | . 995 | 67 |
| 68 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 996 | . 995 | 68 |
| 69 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 996 | . 995 | 69 |
| 70 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 995 | . 995 | 70 |
| 71 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 995 | . 995 | 71 |
| 72 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 995 | . 995 | 72 |
| 73 | . 999 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 995 | . 995 | 73 |
| 74 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 995 | . 995 | 74 |
| 75 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 997 | . 996 | . 995 | . 995 | . 994 | 75 |
| 76 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 997 | . 996 | . 995 | . 995 | . 994 | 76 |
| 77 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 997 | . 996 | . 995 | . 995 | . 994 | 77 |
| 78 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 997 | . 996 | . 995 | . 995 | . 994 | 78 |
| 79 | . 999 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 996 | . 996 | . 996 | . 995 | . 995 | . 994 | 79 |
| 80 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 996 | . 996 | . 995 | . 995 | . 994 | . 994 | 80 |
| 81 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 995 | . 995 | . 994 | . 994 | 81 |
| 82 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 995 | . 995 | . 994 | . 994 | 82 |
| 83 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 995 | . 995 | . 994 | . 993 | 83 |
| 84 | . 999 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 995 | . 995 | . 994 | . 993 | 84 |
| 85 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 996 | . 996 | . 996 | . 995 | . 994 | . 994 | . 993 | 85 |
| 86 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 996 | . 996 | . 995 | . 995 | . 994 | . 994 | . 993 | 86 |
| 87 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 995 | . 995 | . 994 | . 994 | . 993 | 87 |
| 88 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 995 | . 995 | . 994 | . 993 | . 993 | 88 |
| 89 | . 999 | . 999 | . 998 | . 998 | . 998 | . 998 | . 997 | . 997 | . 997 | . 996 | . 996 | . 995 | . 995 | . 994 | . 993 | . 993 | 89 |
|  | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |  |

## Sub appendix A. 1

## TABLE C -

## Conversion From 50\% Joint \& Survivor to <br> Twelve Year Certain With 50\% Joint \& Survivor CECONY Management Participants and CECONY Weekly Participants <br> Not Applicable to CECONY Weekly Participants -1

| beneficiary's | pensioner whose retirement age is: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | BENEFICIARY'S AGE AT PENSIONER'S RETIREMENT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RETIREMENT | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |  |
| 20 | . 996 | . 996 | . 995 | . 995 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 986 | . 984 | . 983 | . 980 | 20 |
| 21 | . 996 | . 996 | . 995 | . 995 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 986 | . 984 | . 983 | . 980 | 21 |
| 22 | . 996 | . 996 | . 995 | . 995 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 986 | . 984 | . 982 | . 980 | 22 |
| 23 | . 996 | . 996 | . 995 | . 995 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 986 | . 984 | . 982 | . 980 | 23 |
| 24 | . 996 | . 995 | . 995 | . 995 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 986 | . 984 | . 982 | . 980 | 24 |
| 25 | . 996 | . 995 | . 995 | . 995 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 986 | . 984 | . 982 | . 980 | 25 |
| 26 | . 996 | . 995 | . 995 | . 995 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 986 | . 984 | . 982 | . 980 | 26 |
| 27 | . 996 | . 995 | . 995 | . 995 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 986 | . 984 | . 982 | . 980 | 27 |
| 28 | . 996 | . 995 | . 995 | . 995 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 986 | . 984 | . 982 | . 980 | 28 |
| 29 | . 996 | . 995 | . 995 | . 995 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 986 | . 984 | . 982 | . 980 | 29 |
| 30 | . 996 | . 995 | . 995 | . 995 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 987 | . 986 | . 984 | . 982 | . 980 | 30 |
| 31 | . 996 | . 995 | . 995 | . 995 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 987 | . 986 | . 984 | . 982 | . 980 | 31 |
| 32 | . 996 | . 995 | . 995 | . 995 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 987 | . 986 | . 984 | . 982 | . 980 | 32 |
| 33 | . 996 | . 995 | . 995 | . 995 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 987 | . 986 | . 984 | . 982 | . 980 | 33 |
| 34 | . 996 | . 995 | . 995 | . 995 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 987 | . 986 | . 984 | . 982 | . 980 | 34 |
| 35 | . 996 | . 995 | . 995 | . 994 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 987 | . 986 | . 984 | . 982 | . 980 | 35 |
| 36 | . 996 | . 995 | . 995 | . 994 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 987 | . 986 | . 984 | . 982 | . 980 | 36 |
| 37 | . 996 | . 995 | . 995 | . 994 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 987 | . 986 | . 984 | . 982 | . 980 | 37 |
| 38 | . 996 | . 995 | . 995 | . 994 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 987 | . 986 | . 984 | . 982 | . 980 | 38 |
| 39 | . 996 | . 995 | . 995 | . 994 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 987 | . 986 | . 984 | . 982 | . 980 | 39 |
| 40 | . 996 | . 995 | . 995 | . 994 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 987 | . 986 | . 984 | . 982 | . 980 | 40 |
| 41 | . 996 | . 995 | . 995 | . 994 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 987 | . 986 | . 984 | . 982 | . 980 | 12 |
| 42 | . 996 | . 995 | . 995 | . 994 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 987 | . 986 | . 984 | . 982 | . 980 | 42 |
| 43 | . 996 | . 995 | . 995 | . 994 | . 994 | . 993 | . 992 | . 992 | . 991 | . 990 | . 988 | . 987 | . 986 | . 984 | . 982 | . 979 | 43 |
| 44 | . 996 | . 995 | . 995 | . 994 | . 994 | . 993 | . 992 | . 992 | . 991 | . 990 | . 988 | . 987 | . 985 | . 984 | . 982 | . 979 | 44 |
| 45 | . 996 | . 995 | . 995 | . 994 | . 994 | . 993 | . 992 | . 992 | . 991 | . 990 | . 988 | . 987 | . 985 | . 984 | . 981 | . 979 | 45 |
| 46 | . 996 | . 995 | . 995 | . 994 | . 994 | . 993 | . 992 | . 992 | . 991 | . 990 | . 988 | . 987 | . 985 | . 984 | . 981 | . 979 | 46 |
| 47 | . 996 | . 995 | . 995 | . 994 | . 994 | . 993 | . 992 | . 992 | . 991 | . 990 | . 988 | . 987 | . 985 | . 983 | . 981 | . 979 | 47 |
| 48 | . 996 | . 995 | . 995 | . 994 | . 994 | . 993 | . 992 | . 992 | . 991 | . 990 | . 988 | . 987 | . 985 | . 983 | . 981 | . 979 | 48 |
| 49 | . 996 | . 995 | . 995 | . 994 | . 994 | . 993 | . 992 | . 991 | . 991 | . 989 | . 988 | . 987 | . 985 | . 983 | . 981 | . 979 | 49 |
| 50 | . 996 | . 995 | . 995 | . 994 | . 994 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 987 | . 985 | . 983 | . 981 | . 979 | 50 |
| 51 | . 996 | . 995 | . 995 | . 994 | . 994 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 987 | . 985 | . 983 | . 981 | . 979 | 51 |
| 52 | . 996 | . 995 | . 995 | . 994 | . 994 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 987 | . 985 | . 983 | . 981 | . 979 | 52 |
| 53 | . 996 | . 995 | . 995 | . 994 | . 994 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 987 | . 985 | . 983 | . 981 | . 978 | 53 |
| 54 | . 996 | . 995 | . 995 | . 994 | . 994 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 986 | . 985 | . 983 | . 981 | . 978 | 54 |
|  | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |  |

PENSIONER WHOSE RETIREMENT AGE IS: * = $1.000 \quad$ INTEREST - 7.5000\%
PENSIONER'S MORTALITY - SPECIAL PENSIONER MORTALITY TABLE
BENEFICIARY'S MORTALITY - SPECIAL PENSIONER MORTALITY TABLE

## Sub appendix A. 1

TABLE C-

## Conversion From 50\% Joint \& Survivor to

 Twelve Year Certain With 50\% Joint \& Survivor
## CECONY Management Participants and CECONY Weekly Participants

Not Applicable to CECONY Weekly Participants -1

| BENEFICIARY'S <br> AGE AT <br> PENSIONER'S RETIREMENT | PENSIONER WHOSE RETIREMENT AGE IS: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | BENEFICIARY'S AGE AT PENSIONER'S RETIREMENT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |  |
| 55 | . 996 | . 995 | . 995 | . 994 | . 994 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 986 | . 985 | . 983 | . 981 | . 978 | 55 |
| 56 | . 996 | . 995 | . 995 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 986 | . 985 | . 983 | . 980 | . 978 | 56 |
| 57 | . 996 | . 995 | . 995 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 986 | . 984 | . 982 | . 980 | . 978 | 57 |
| 58 | . 996 | . 995 | . 995 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 986 | . 984 | . 982 | . 980 | . 978 | 58 |
| 59 | . 995 | . 995 | . 995 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 987 | . 986 | . 984 | . 982 | . 980 | . 977 | 59 |
| 60 | . 995 | . 995 | . 994 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 987 | . 986 | . 984 | . 982 | . 980 | . 977 | 60 |
| 61 | . 995 | . 995 | . 994 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 987 | . 986 | . 984 | . 982 | . 980 | . 977 | 61 |
| 62 | . 995 | . 995 | . 994 | . 994 | . 993 | . 992 | . 992 | . 991 | . 990 | . 988 | . 987 | . 986 | . 984 | . 982 | . 979 | . 977 | 62 |
| 63 | . 995 | . 995 | . 994 | . 994 | . 993 | . 992 | . 992 | . 991 | . 990 | . 988 | . 987 | . 985 | . 984 | . 981 | . 979 | . 976 | 63 |
| 64 | . 995 | . 995 | . 994 | . 994 | . 993 | . 992 | . 991 | . 991 | . 989 | . 988 | . 987 | . 985 | . 983 | . 981 | . 979 | . 976 | 64 |
| 65 | . 995 | . 995 | . 994 | . 994 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 987 | . 985 | . 983 | . 981 | . 978 | . 976 | 65 |
| 66 | . 995 | . 995 | . 994 | . 994 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 986 | . 985 | . 983 | . 981 | . 978 | . 975 | 66 |
| 67 | . 995 | . 995 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 986 | . 985 | . 983 | . 980 | . 978 | . 975 | 67 |
| 68 | . 995 | . 995 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 986 | . 984 | . 982 | . 980 | . 978 | . 975 | 68 |
| 70 | . 995 | . 994 | . 994 | . 993 | . 992 | . 992 | . 991 | . 990 | . 989 | . 987 | . 986 | . 984 | . 982 | . 979 | . 977 | . 974 | 70 |
| 71 | . 995 | . 994 | . 994 | . 993 | . 992 | . 992 | . 991 | . 990 | . 988 | . 987 | . 985 | . 984 | . 981 | . 979 | . 976 | . 973 | 71 |
| 72 | . 995 | . 994 | . 994 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 987 | . 985 | . 983 | . 981 | . 979 | . 976 | . 973 | 72 |
| 73 | . 995 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 986 | . 985 | . 983 | . 981 | . 978 | . 975 | . 972 | 73 |
| 74 | . 995 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 986 | . 985 | . 983 | . 980 | . 978 | . 975 | . 972 | 74 |
| 75 | . 994 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 987 | . 986 | . 984 | . 982 | . 980 | . 977 | . 974 | . 971 | 75 |
| 76 | . 994 | . 994 | . 993 | . 992 | . 992 | . 991 | . 990 | . 989 | . 987 | . 986 | . 984 | . 982 | . 979 | . 977 | . 974 | . 970 | 76 |
| 77 | . 994 | . 994 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 987 | . 985 | . 984 | . 981 | . 979 | . 976 | . 973 | . 970 | 77 |
| 78 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 987 | . 985 | . 983 | . 981 | . 979 | . 976 | . 973 | . 969 | 78 |
| 79 | . 994 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 986 | . 985 | . 983 | . 981 | . 978 | . 975 | . 972 | . 968 | 79 |
| 80 | . 994 | . 993 | . 992 | . 992 | . 991 | . 990 | . 989 | . 988 | . 986 | . 984 | . 982 | . 980 | . 978 | . 975 | . 971 | . 968 | 80 |
| 81 | . 994 | . 993 | . 992 | . 992 | . 991 | . 990 | . 989 | . 987 | . 986 | . 984 | . 982 | . 980 | . 977 | . 974 | . 971 | . 967 | 81 |
| 82 | . 994 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 987 | . 985 | . 984 | . 982 | . 979 | . 977 | . 974 | . 970 | . 966 | 82 |
| 83 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 987 | . 985 | . 983 | . 981 | . 979 | . 976 | . 973 | . 970 | . 966 | 83 |
| 84 | . 993 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 986 | . 985 | . 983 | . 981 | . 979 | . 976 | . 973 | . 969 | . 965 | 84 |
| 85 | . 993 | . 992 | . 992 | . 991 | . 990 | . 989 | . 988 | . 986 | . 985 | . 983 | . 981 | . 978 | . 975 | . 972 | . 968 | . 964 | 85 |
| 86 | . 993 | . 992 | . 992 | . 991 | . 990 | . 989 | . 987 | . 986 | . 984 | . 982 | . 980 | . 978 | . 975 | . 972 | . 968 | . 964 | 86 |
| 87 | . 993 | . 992 | . 991 | . 990 | . 990 | . 988 | . 987 | . 986 | . 984 | . 982 | . 980 | . 977 | . 974 | . 971 | . 967 | . 963 | 87 |
| 88 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 987 | . 985 | . 984 | . 982 | . 980 | . 977 | . 974 | . 970 | . 967 | . 962 | 88 |
| 89 | . 993 | . 992 | . 991 | . 990 | . 989 | . 988 | . 987 | . 985 | . 983 | . 981 | . 979 | . 977 | . 973 | . 970 | . 966 | . 962 | 89 |
|  | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |  |

PENSIONER'S MORTALITY - SPECIAL PENSIONER MORTALITY TABLE
BENEFICIARY'S MORTALITY - SPECIAL PENSIONER MORTALITY TABLE

Sub appendix A. 1
TABLE C -
Conversion From 50\% Joint \& Survivor to
Twelve Year Certain With 50\% Joint \& Survivor
CECONY Management Participants and CECONY Weekly Participants
Not Applicable to CECONY Weekly Participants -1

| BENEFICIARY'S AGE AT PENSIONER'S RETIREMENT | pensioner whose retirement age is: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | BENEFICIARY'S AGE AT PENSIONER'S RETIREMENT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |  |
| 20 | . 980 | . 978 | . 975 | . 972 | . 969 | . 966 | . 962 | . 958 | . 953 | . 948 | . 942 | . 937 | . 931 | . 924 | . 918 | . 911 | 20 |
| 21 | . 980 | . 978 | . 975 | . 972 | . 969 | . 966 | . 962 | . 958 | . 953 | . 948 | . 942 | . 937 | . 931 | . 924 | . 917 | . 911 | 21 |
| 22 | . 980 | . 978 | . 975 | . 972 | . 969 | . 966 | . 962 | . 958 | . 953 | . 948 | . 942 | . 937 | . 930 | . 924 | . 917 | . 911 | 22 |
| 23 | . 980 | . 978 | . 975 | . 972 | . 969 | . 966 | . 962 | . 957 | . 953 | . 948 | . 942 | . 937 | . 930 | . 924 | . 917 | . 910 | 23 |
| 24 | . 980 | . 978 | . 975 | . 972 | . 969 | . 966 | . 962 | . 957 | . 953 | . 948 | . 942 | . 936 | . 930 | . 924 | . 917 | . 910 | 24 |
| 25 | . 980 | . 978 | . 975 | . 972 | . 969 | . 966 | . 962 | . 957 | . 953 | . 948 | . 942 | . 936 | . 930 | . 924 | . 917 | . 910 | 25 |
| 26 | . 980 | . 978 | . 975 | . 972 | . 969 | . 965 | . 962 | . 957 | . 953 | . 948 | . 942 | . 936 | . 930 | . 924 | . 917 | . 910 | 26 |
| 27 | . 980 | . 978 | . 975 | . 972 | . 969 | . 965 | . 962 | . 957 | . 953 | . 947 | . 942 | . 936 | . 930 | . 923 | . 917 | . 910 | 27 |
| 28 | . 980 | . 978 | . 975 | . 972 | . 969 | . 965 | . 961 | . 957 | . 952 | . 947 | . 942 | . 936 | . 930 | . 923 | . 917 | . 910 | 28 |
| 29 | . 980 | . 978 | . 975 | . 972 | . 969 | . 965 | . 961 | . 957 | . 952 | . 947 | . 942 | . 936 | . 930 | . 923 | . 917 | . 910 | 29 |
| 30 | . 980 | . 978 | . 975 | . 972 | . 969 | . 965 | . 961 | . 957 | . 952 | . 947 | . 942 | . 936 | . 930 | . 923 | . 916 | . 910 | 30 |
| 31 | . 980 | . 978 | . 975 | . 972 | . 969 | . 965 | . 961 | . 957 | . 952 | . 947 | . 942 | . 936 | . 930 | . 923 | . 916 | . 909 | 31 |
| 32 | . 980 | . 978 | . 975 | . 972 | . 969 | . 965 | . 961 | . 957 | . 952 | . 947 | . 941 | . 936 | . 929 | . 923 | . 916 | . 909 | 32 |
| 33 | . 980 | . 978 | . 975 | . 972 | . 969 | . 965 | . 961 | . 957 | . 952 | . 947 | . 941 | . 935 | . 929 | . 923 | . 916 | . 909 | 33 |
| 34 | . 980 | . 978 | . 975 | . 972 | . 969 | . 965 | . 961 | . 957 | . 952 | . 947 | . 941 | . 935 | . 929 | . 923 | . 916 | . 909 | 34 |
| 35 | . 980 | . 978 | . 975 | . 972 | . 969 | . 965 | . 961 | . 957 | . 952 | . 947 | . 941 | . 935 | . 929 | . 922 | . 916 | . 908 | 35 |
| 36 | . 980 | . 977 | . 975 | . 972 | . 968 | . 965 | . 961 | . 956 | . 952 | . 947 | . 941 | . 935 | . 929 | . 922 | . 915 | . 908 | 36 |
| 37 | . 980 | . 977 | . 975 | . 972 | . 968 | . 965 | . 961 | . 956 | . 952 | . 946 | . 941 | . 935 | . 928 | . 922 | . 915 | . 908 | 37 |
| 38 | . 980 | . 977 | . 975 | . 972 | . 968 | . 965 | . 961 | . 956 | . 951 | . 946 | . 941 | . 935 | . 928 | . 922 | . 915 | . 908 | 38 |
| 39 | . 980 | . 977 | . 975 | . 972 | . 968 | . 965 | . 961 | . 956 | . 951 | . 946 | . 940 | . 934 | . 928 | . 921 | . 914 | . 907 | 39 |
| 40 | . 980 | . 977 | . 974 | . 971 | . 968 | . 964 | . 960 | . 956 | . 951 | . 946 | . 940 | . 934 | . 928 | . 921 | . 914 | . 907 | 40 |
| 41 | . 980 | . 977 | . 974 | . 971 | . 968 | . 964 | . 960 | . 956 | . 951 | . 946 | . 940 | . 934 | . 927 | . 921 | . 914 | . 907 | 12 |
| 42 | . 980 | . 977 | . 974 | . 971 | . 968 | . 964 | . 960 | . 956 | . 951 | . 945 | . 940 | . 934 | . 927 | . 920 | . 913 | . 906 | 42 |
| 43 | . 979 | . 977 | . 974 | . 971 | . 968 | . 964 | . 960 | . 955 | . 951 | . 945 | . 939 | . 933 | . 927 | . 920 | . 913 | . 906 | 43 |
| 44 | . 979 | . 977 | . 974 | . 971 | . 968 | . 964 | . 960 | . 955 | . 950 | . 945 | . 939 | . 933 | . 927 | . 920 | . 913 | . 905 | 44 |
| 45 | . 979 | . 977 | . 974 | . 971 | . 967 | . 964 | . 960 | . 955 | . 950 | . 945 | . 939 | . 933 | . 926 | . 919 | . 912 | . 905 | 45 |
| 46 | . 979 | . 977 | . 974 | . 971 | . 967 | . 963 | . 959 | . 955 | . 950 | . 944 | . 939 | . 933 | . 926 | . 919 | . 912 | . 904 | 46 |
| 47 | . 979 | . 977 | . 974 | . 971 | . 967 | . 963 | . 959 | . 955 | . 950 | . 944 | . 938 | . 932 | . 925 | . 918 | . 911 | . 904 | 47 |
| 48 | . 979 | . 976 | . 974 | . 970 | . 967 | . 963 | . 959 | . 954 | . 949 | . 944 | . 938 | . 932 | . 925 | . 918 | . 911 | . 903 | 48 |
| 49 | . 979 | . 976 | . 973 | . 970 | . 967 | . 963 | . 959 | . 954 | . 949 | . 943 | . 937 | . 931 | . 924 | . 917 | . 910 | . 903 | 49 |
| 50 | . 979 | . 976 | . 973 | . 970 | . 967 | . 963 | . 958 | . 954 | . 949 | . 943 | . 937 | . 931 | . 924 | . 917 | . 910 | . 902 | 50 |
| 51 | . 979 | . 976 | . 973 | . 970 | . 966 | . 962 | . 958 | . 953 | . 948 | . 943 | . 937 | . 930 | . 923 | . 916 | . 909 | . 901 | 51 |
| 52 | . 979 | . 976 | . 973 | . 970 | . 966 | . 962 | . 958 | . 953 | . 948 | . 942 | . 936 | . 930 | . 923 | . 916 | . 908 | . 901 | 52 |
| 53 | . 978 | . 976 | . 973 | . 970 | . 966 | . 962 | . 958 | . 953 | . 948 | . 942 | . 936 | . 929 | . 922 | . 915 | . 908 | . 900 | 53 |
| 54 | . 978 | . 976 | . 973 | . 969 | . 966 | . 962 | . 957 | . 952 | . 947 | . 941 | . 935 | . 929 | . 922 | . 914 | . 907 | . 899 | 54 |
|  | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |  |

PENSIONER WHOSE RETIREMENT AGE IS: * 1.000 INTEREST - 7.5000\%
PENSIONER'S MORTALITY - SPECIAL PENSIONER MORTALITY TABLE
BENEFICIARY'S MORTALITY - SPECIAL PENSIONER MORTALITY TABLE

## Sub appendix A. 1

TABLE C -

## Conversion From 50\% Joint \& Survivor to

 Twelve Year Certain With 50\% Joint \& Survivor
## CECONY Management Participants and CECONY Weekly Participants

 Not Applicable to CECONY Weekly Participants -1| BENEFICIARY'S | PENSIONER WHOSE RETIREMENT AGE IS: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | BENEFICIARY'S <br> AGE AT PENSIONER'S RETIREMENT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RETIREMENT | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |  |
| 55 | . 978 | . 975 | . 972 | . 969 | . 965 | . 961 | . 957 | . 952 | . 947 | . 941 | . 935 | . 928 | . 921 | . 914 | . 906 | . 898 | 55 |
| 56 | . 978 | . 975 | . 972 | . 969 | . 965 | . 961 | . 957 | . 952 | . 946 | . 940 | . 934 | . 927 | . 920 | . 913 | . 905 | . 897 | 56 |
| 57 | . 978 | . 975 | . 972 | . 969 | . 965 | . 961 | . 956 | . 951 | . 946 | . 940 | . 933 | . 927 | . 919 | . 912 | . 904 | . 896 | 57 |
| 58 | . 978 | . 975 | . 972 | . 968 | . 965 | . 960 | . 956 | . 951 | . 945 | . 939 | . 933 | . 926 | . 919 | . 911 | . 903 | . 895 | 58 |
| 59 | . 977 | . 975 | . 971 | . 968 | . 964 | . 960 | . 955 | . 950 | . 945 | . 939 | . 932 | . 925 | . 918 | . 910 | . 902 | . 894 | 59 |
| 60 | . 977 | . 974 | . 971 | . 968 | . 964 | . 959 | . 955 | . 950 | . 944 | . 938 | . 931 | . 924 | . 917 | . 909 | . 901 | . 892 | 60 |
| 61 | . 977 | . 974 | . 971 | . 967 | . 963 | . 959 | . 954 | . 949 | . 943 | . 937 | . 930 | . 923 | . 916 | . 908 | . 899 | . 891 | 61 |
| 62 | . 977 | . 974 | . 970 | . 967 | . 963 | . 959 | . 954 | . 948 | . 943 | . 936 | . 929 | . 922 | . 914 | . 906 | . 898 | . 889 | 62 |
| 63 | . 976 | . 973 | . 970 | . 966 | . 962 | . 958 | . 953 | . 948 | . 942 | . 935 | . 928 | . 921 | . 913 | . 905 | . 896 | . 888 | 63 |
| 64 | . 976 | . 973 | . 970 | . 966 | . 962 | . 957 | . 952 | . 947 | . 941 | . 934 | . 927 | . 920 | . 912 | . 903 | . 895 | . 886 | 64 |
| 65 | . 976 | . 973 | . 969 | . 966 | . 961 | . 957 | . 952 | . 946 | . 940 | . 933 | . 926 | . 918 | . 910 | . 902 | . 893 | . 884 | 65 |
| 66 | . 975 | . 972 | . 969 | . 965 | . 961 | . 956 | . 951 | . 945 | . 939 | . 933 | . 925 | . 917 | . 909 | . 900 | . 891 | . 882 | 66 |
| 67 | . 975 | . 972 | . 968 | . 964 | . 960 | . 956 | . 950 | . 944 | . 938 | . 931 | . 923 | . 915 | . 907 | . 898 | . 889 | . 879 | 67 |
| 68 | . 975 | . 971 | . 968 | . 964 | . 959 | . 956 | . 949 | . 943 | . 937 | . 930 | . 922 | . 914 | . 906 | . 896 | . 887 | . 877 | 68 |
| 69 | . 974 | . 971 | . 967 | . 963 | . 959 | . 954 | . 948 | . 942 | . 935 | . 928 | . 920 | . 912 | . 903 | . 894 | . 884 | . 874 | 69 |
| 70 | . 974 | . 970 | . 967 | . 962 | . 958 | . 953 | . 947 | . 941 | . 934 | . 927 | . 919 | . 910 | . 901 | . 892 | . 882 | . 872 | 70 |
| 71 | . 973 | . 970 | . 966 | . 962 | . 957 | . 952 | . 946 | . 940 | . 933 | . 925 | . 917 | . 908 | . 899 | . 889 | . 879 | . 869 | 71 |
| 72 | . 973 | . 969 | . 965 | . 952 | . 956 | . 951 | . 945 | . 939 | . 931 | . 924 | . 915 | . 906 | . 897 | . 887 | . 876 | . 866 | 72 |
| 73 | . 972 | . 969 | . 965 | . 960 | . 955 | . 950 | . 944 | . 937 | . 930 | . 922 | . 913 | . 904 | . 894 | . 884 | . 873 | . 863 | 73 |
| 74 | . 972 | . 968 | . 964 | . 959 | . 954 | . 949 | . 943 | . 936 | . 928 | . 920 | . 911 | . 902 | . 892 | . 881 | . 870 | . 859 | 74 |
| 75 | . 971 | . 967 | . 963 | . 958 | . 953 | . 948 | . 941 | . 934 | . 927 | . 918 | . 909 | . 899 | . 889 | . 878 | . 867 | . 856 | 75 |
| 76 | . 970 | . 967 | . 962 | . 958 | . 952 | . 946 | . 940 | . 933 | . 925 | . 916 | . 907 | . 897 | . 886 | . 875 | . 864 | . 852 | 76 |
| 77 | . 970 | . 966 | . 961 | . 957 | . 951 | . 945 | . 938 | . 931 | . 923 | . 916 | . 905 | . 894 | . 884 | . 872 | . 860 | . 848 | 77 |
| 78 | . 969 | . 965 | . 961 | . 956 | . 950 | . 944 | . 941 | . 930 | . 921 | . 912 | . 902 | . 892 | . 881 | . 872 | . 857 | . 844 | 78 |
| 79 | . 969 | . 964 | . 960 | . 955 | . 949 | . 943 | . 940 | . 928 | . 919 | . 910 | . 900 | . 889 | . 878 | . 866 | . 853 | . 841 | 79 |
| 80 | . 968 | . 964 | . 959 | . 954 | . 948 | . 941 | . 934 | . 926 | . 918 | . 908 | . 898 | . 887 | . 875 | . 863 | . 850 | . 837 | 80 |
| 81 | . 967 | . 963 | . 958 | . 953 | . 947 | . 940 | . 933 | . 925 | . 916 | . 906 | . 895 | . 884 | . 872 | . 860 | . 846 | . 833 | 81 |
| 82 | . 966 | . 962 | . 957 | . 952 | . 948 | . 939 | . 931 | . 923 | . 914 | . 904 | . 893 | . 882 | . 869 | . 856 | . 843 | . 829 | 82 |
| 83 | . 966 | . 961 | . 956 | . 951 | . 944 | . 937 | . 930 | . 921 | . 912 | . 902 | . 891 | . 879 | . 866 | . 853 | . 839 | . 825 | 83 |
| 84 | . 965 | . 960 | . 955 | . 950 | . 943 | . 936 | . 928 | . 920 | . 910 | . 900 | . 888 | . 876 | . 863 | . 850 | . 836 | . 821 | 84 |
| 85 | . 964 | . 960 | . 954 | . 949 | . 942 | . 935 | . 927 | . 918 | . 908 | . 898 | . 886 | . 874 | . 861 | . 847 | . 832 | . 817 | 85 |
| 86 | . 964 | . 959 | . 954 | . 948 | . 941 | . 934 | . 925 | . 916 | . 906 | . 896 | . 884 | . 871 | . 858 | . 843 | . 829 | . 813 | 86 |
| 87 | . 963 | . 958 | . 953 | . 947 | . 940 | . 932 | . 924 | . 915 | . 905 | . 894 | . 881 | . 869 | . 855 | . 840 | . 835 | . 810 | 87 |
| 88 | . 962 | . 957 | . 952 | . 946 | . 939 | . 931 | . 923 | . 913 | . 903 | . 891 | . 879 | . 866 | . 852 | . 837 | . 822 | . 806 | 88 |
| 89 | . 962 | . 957 | . 951 | . 945 | . 938 | . 930 | . 921 | . 912 | . 901 | . 889 | . 877 | . 863 | . 849 | . 834 | . 818 | . 802 | 89 |
|  | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |  |

PENSIONER'S MORTALITY - SPECIAL PENSIONER MORTALITY TABLE
BENEFICIARY'S MORTALITY - SPECIAL PENSIONER MORTALITY TABLE

## TABLE C -

## Conversion From 50\% Joint \& Survivor to <br> Twelve Year Certain With 50\% Joint \& Survivor CECONY Management Participants and CECONY Weekly Participants Not Applicable to CECONY Weekly Participants -1

| BENEFICIARY'S AGE AT PENSIONER'S RETIREMENT | PEnsioner whose retirement age is: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | BENEFICIARY' AGE AT PENSIONER'S RETIREMENT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 |  |
| 20 | . 911 | . 904 | . 897 | . 889 | . 882 | . 874 | . 866 | . 859 | . 850 | . 842 | . 834 | . 826 | . 818 | . 809 | . 801 | . 793 | 20 |
| 21 | . 911 | . 904 | . 896 | . 889 | . 882 | . 874 | . 866 | . 858 | . 850 | . 842 | . 834 | . 826 | . 817 | . 809 | . 801 | . 793 | 21 |
| 22 | . 911 | . 904 | . 896 | . 889 | . 882 | . 874 | . 866 | . 858 | . 850 | . 842 | . 834 | . 825 | . 817 | . 809 | . 801 | . 793 | 22 |
| 23 | . 910 | . 903 | . 896 | . 889 | . 881 | . 874 | . 866 | . 858 | . 850 | . 842 | . 834 | . 825 | . 817 | . 809 | . 801 | . 792 | 23 |
| 24 | . 910 | . 903 | . 896 | . 889 | . 881 | . 874 | . 866 | . 858 | . 850 | . 842 | . 833 | . 825 | . 817 | . 809 | . 800 | . 792 | 24 |
| 25 | . 910 | . 903 | . 896 | . 889 | . 881 | . 873 | . 866 | . 858 | . 850 | . 841 | . 833 | . 825 | . 817 | . 808 | . 800 | . 792 | 25 |
| 26 | . 910 | . 903 | . 896 | . 889 | . 881 | . 873 | . 865 | . 857 | . 849 | . 841 | . 833 | . 825 | . 816 | . 808 | . 800 | . 792 | 26 |
| 27 | . 910 | . 903 | . 896 | . 888 | . 881 | . 873 | . 865 | . 857 | . 849 | . 841 | . 833 | . 824 | . 816 | . 808 | . 799 | . 791 | 27 |
| 28 | . 910 | . 903 | . 895 | . 888 | . 881 | . 873 | . 865 | . 857 | . 849 | . 841 | . 832 | . 824 | . 816 | . 807 | . 799 | . 791 | 28 |
| 29 | . 910 | . 903 | . 895 | . 888 | . 880 | . 873 | . 865 | . 857 | . 849 | . 840 | . 832 | . 824 | . 815 | . 807 | . 799 | . 791 | 29 |
| 30 | . 910 | . 902 | . 895 | . 888 | . 880 | . 872 | . 865 | . 857 | . 848 | . 840 | . 832 | . 823 | . 815 | . 807 | . 798 | . 790 | 30 |
| 31 | . 909 | . 902 | . 895 | . 887 | . 880 | . 872 | . 864 | . 856 | . 848 | . 840 | . 831 | . 823 | . 815 | . 806 | . 798 | . 790 | 31 |
| 32 | . 909 | . 902 | . 895 | . 887 | . 880 | . 872 | . 864 | . 856 | . 848 | . 839 | . 831 | . 823 | . 814 | . 806 | . 798 | . 789 | 32 |
| 33 | . 909 | . 902 | . 894 | . 887 | . 879 | . 872 | . 864 | . 856 | . 847 | . 839 | . 831 | . 822 | . 814 | . 805 | . 797 | . 789 | 33 |
| 34 | . 909 | . 902 | . 894 | . 887 | . 879 | . 871 | . 863 | . 855 | . 847 | . 839 | . 830 | . 822 | . 813 | . 805 | . 797 | . 788 | 34 |
| 35 | . 908 | . 901 | . 894 | . 886 | . 879 | . 871 | . 863 | . 855 | . 847 | . 838 | . 830 | . 821 | . 813 | . 804 | . 796 | . 788 | 35 |
| 36 | . 908 | . 901 | . 894 | . 886 | . 878 | . 871 | . 863 | . 854 | . 846 | . 838 | . 829 | . 821 | . 812 | . 804 | . 795 | . 787 | 36 |
| 37 | . 908 | . 901 | . 893 | . 886 | . 878 | . 870 | . 862 | . 854 | . 846 | . 837 | . 829 | . 820 | . 812 | . 803 | . 795 | . 787 | 37 |
| 38 | . 908 | . 900 | . 893 | . 885 | . 878 | . 870 | . 862 | . 854 | . 845 | . 837 | . 828 | . 820 | . 811 | . 803 | . 794 | . 786 | 38 |
| 39 | . 907 | . 900 | . 893 | . 885 | . 877 | . 869 | . 861 | . 853 | . 845 | . 836 | . 828 | . 819 | . 810 | . 802 | . 793 | . 785 | 39 |
| 40 | . 907 | . 900 | . 892 | . 885 | . 877 | . 869 | . 861 | . 852 | . 844 | . 836 | . 827 | . 818 | . 810 | . 801 | . 793 | . 784 | 40 |
| 41 | . 907 | . 899 | . 892 | . 884 | . 876 | . 868 | . 860 | . 852 | . 843 | . 835 | . 826 | . 818 | . 809 | . 800 | . 792 | . 783 | 12 |
| 42 | . 906 | . 899 | . 891 | . 884 | . 876 | . 868 | . 860 | . 851 | . 843 | . 834 | . 825 | . 817 | . 808 | . 800 | . 791 | . 782 | 42 |
| 43 | . 906 | . 898 | . 891 | . 883 | . 875 | . 867 | . 859 | . 851 | . 842 | . 833 | . 825 | . 816 | . 807 | . 799 | . 790 | . 781 | 43 |
| 44 | . 905 | . 898 | . 890 | . 882 | . 875 | . 866 | . 858 | . 850 | . 841 | . 833 | . 824 | . 815 | . 806 | . 798 | . 789 | . 780 | 44 |
| 45 | . 905 | . 897 | . 890 | . 882 | . 874 | . 866 | . 857 | . 849 | . 840 | . 832 | . 823 | . 814 | . 805 | . 797 | . 788 | . 779 | 45 |
| 46 | . 904 | . 897 | . 889 | . 881 | . 873 | . 865 | . 857 | . 848 | . 839 | . 831 | . 822 | . 813 | . 804 | . 795 | . 787 | . 779 | 46 |
| 47 | . 904 | . 896 | . 888 | . 881 | . 872 | . 864 | . 856 | . 847 | . 839 | . 830 | . 821 | . 812 | . 803 | . 794 | . 785 | . 777 | 47 |
| 48 | . 903 | . 896 | . 888 | . 880 | . 872 | . 863 | . 855 | . 846 | . 838 | . 829 | . 820 | . 811 | . 802 | . 793 | . 785 | . 775 | 48 |
| 49 | . 903 | . 895 | . 887 | . 879 | . 871 | . 863 | . 854 | . 845 | . 836 | . 827 | . 818 | . 809 | . 800 | . 792 | . 783 | . 774 | 49 |
| 50 | . 902 | . 894 | . 886 | . 878 | . 870 | . 862 | . 853 | . 844 | . 835 | . 826 | . 817 | . 808 | . 799 | . 790 | . 781 | . 772 | 50 |
| 51 | . 901 | . 893 | . 885 | . 877 | . 869 | . 861 | . 852 | . 843 | . 834 | . 825 | . 816 | . 807 | . 798 | . 789 | . 779 | . 771 | 51 |
| 52 | . 901 | . 893 | . 885 | . 876 | . 868 | . 859 | . 851 | . 842 | . 833 | . 824 | . 814 | . 805 | . 796 | . 787 | . 778 | . 769 | 52 |
| 53 | . 900 | . 892 | . 884 | . 875 | . 867 | . 858 | . 850 | . 841 | . 831 | . 822 | . 813 | . 804 | . 794 | . 785 | . 776 | . 767 | 53 |
| 54 | . 899 | . 891 | . 883 | . 874 | . 866 | . 857 | . 848 | . 839 | . 830 | . 821 | . 811 | . 802 | . 793 | . 783 | . 774 | . 765 | 54 |
|  | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 |  |

PENSIONER WHOSE RETIREMENT AGE IS: * $1.000 \quad$ INTEREST - 7.5000\%
PENSIONER'S MORTALITY - SPECIAL PENSIONER MORTALITY TABLE
BENEFICIARY'S MORTALITY - SPECIAL PENSIONER MORTALITY TABLE

## TABLE C -

# Conversion From 50\% Joint \& Survivor to <br> Twelve Year Certain With 50\% Joint \& Survivor <br> CECONY Management Participants and CECONY Weekly Participants <br> Not Applicable to CECONY Weekly Participants -1 

| BENEFICIARY'S AGE AT PENSIONER'S RETIREMENT | pensioner whose retirement age is: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | BENEFICIARY'S <br> AGE AT PENSIONER'S RETIREMENT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 |  |
| 55 | . 898 | . 890 | . 882 | . 873 | . 865 | . 856 | . 847 | . 838 | . 828 | . 819 | . 810 | . 800 | . 791 | . 781 | . 772 | . 763 | 55 |
| 56 | . 897 | . 889 | . 880 | . 872 | . 863 | . 854 | . 845 | . 836 | . 827 | . 817 | . 808 | . 798 | . 789 | . 779 | . 777 | . 760 | 56 |
| 57 | . 896 | . 888 | . 879 | . 871 | . 862 | . 853 | . 844 | . 834 | . 825 | . 815 | . 806 | . 796 | . 786 | . 777 | . 767 | . 758 | 57 |
| 58 | . 895 | . 886 | . 876 | . 869 | . 860 | . 851 | . 842 | . 833 | . 823 | . 813 | . 803 | . 794 | . 784 | . 774 | . 765 | . 755 | 58 |
| 59 | . 894 | . 885 | . 876 | . 868 | . 859 | . 849 | . 840 | . 830 | . 821 | . 811 | . 801 | . 791 | . 781 | . 771 | . 762 | . 752 | 59 |
| 60 | . 892 | . 884 | . 875 | . 866 | . 857 | . 847 | . 838 | . 828 | . 818 | . 808 | . 798 | . 788 | . 778 | . 768 | . 759 | . 749 | 60 |
| 61 | . 891 | . 882 | . 873 | . 864 | . 855 | . 845 | . 836 | . 826 | . 815 | . 806 | . 796 | . 785 | . 775 | . 765 | . 755 | . 745 | 61 |
| 62 | . 889 | . 880 | . 871 | . 862 | . 853 | . 843 | . 833 | . 823 | . 813 | . 803 | . 792 | . 782 | . 772 | . 762 | . 752 | . 742 | 62 |
| 63 | . 888 | . 878 | . 869 | . 860 | . 850 | . 840 | . 830 | . 820 | . 810 | . 800 | . 789 | . 779 | . 768 | . 758 | . 748 | . 737 | 63 |
| 64 | . 886 | . 876 | . 867 | . 857 | . 848 | . 838 | . 828 | . 817 | . 807 | . 796 | . 786 | . 775 | . 764 | . 754 | . 743 | . 733 | 64 |
| 65 | . 884 | . 874 | . 865 | . 855 | . 845 | . 835 | . 825 | . 814 | . 803 | . 792 | . 782 | . 771 | . 760 | . 749 | . 739 | . 728 | 65 |
| 66 | . 882 | . 872 | . 862 | . 852 | . 842 | . 832 | . 821 | . 810 | . 800 | . 789 | . 778 | . 767 | . 758 | . 745 | . 734 | . 723 | 66 |
| 67 | . 879 | . 870 | . 860 | . 849 | . 839 | . 828 | . 818 | . 807 | . 796 | . 784 | . 773 | . 762 | . 751 | . 740 | . 729 | . 718 | 67 |
| 68 | . 877 | . 867 | . 857 | . 846 | . 836 | . 825 | . 814 | . 803 | . 791 | . 780 | . 768 | . 757 | . 746 | . 734 | . 723 | . 712 | 68 |
| 69 | . 874 | . 864 | . 854 | . 843 | . 832 | . 821 | . 810 | . 798 | . 787 | . 775 | . 763 | . 752 | . 740 | . 728 | . 717 | . 706 | 69 |
| 70 | . 872 | . 861 | . 851 | . 840 | . 828 | . 817 | . 806 | . 794 | . 782 | . 770 | . 758 | . 746 | . 734 | . 722 | . 711 | . 699 | 70 |
| 71 | . 869 | . 858 | . 847 | . 836 | . 825 | . 813 | . 801 | . 789 | . 777 | . 765 | . 752 | . 740 | . 728 | . 716 | . 704 | . 692 | 71 |
| 72 | . 866 | . 855 | . 843 | . 832 | . 820 | . 808 | . 796 | . 784 | . 772 | . 759 | . 746 | . 734 | . 721 | . 709 | . 697 | . 685 | 72 |
| 73 | . 863 | . 851 | . 840 | . 828 | . 816 | . 804 | . 791 | . 779 | . 766 | . 753 | . 740 | . 727 | . 714 | . 702 | . 689 | . 677 | 73 |
| 74 | . 859 | . 848 | . 836 | . 824 | . 811 | . 799 | . 786 | . 773 | . 760 | . 747 | . 733 | . 720 | . 707 | . 694 | . 681 | . 669 | 74 |
| 75 | . 856 | . 844 | . 831 | . 819 | . 806 | . 794 | . 780 | . 767 | . 754 | . 740 | . 726 | . 713 | . 699 | . 686 | . 673 | . 660 | 75 |
| 76 | . 852 | . 840 | . 827 | . 814 | . 801 | . 788 | . 775 | . 761 | . 747 | . 733 | . 719 | . 705 | . 692 | . 678 | . 665 | . 651 | 76 |
| 77 | . 848 | . 836 | . 823 | . 810 | . 796 | . 783 | . 769 | . 755 | . 740 | . 726 | . 712 | . 698 | . 683 | . 670 | . 656 | . 642 | 77 |
| 78 | . 844 | . 831 | . 818 | . 805 | . 791 | . 777 | . 763 | . 748 | . 734 | . 719 | . 704 | . 690 | . 675 | . 661 | . 647 | . 633 | 78 |
| 79 | . 841 | . 827 | . 814 | . 800 | . 786 | . 771 | . 757 | . 742 | . 727 | . 712 | . 697 | . 682 | . 667 | . 652 | . 638 | . 624 | 79 |
| 80 | . 837 | . 823 | . 809 | . 795 | . 780 | . 766 | . 751 | . 735 | . 720 | . 704 | . 689 | . 674 | . 658 | . 643 | . 628 | . 614 | 80 |
| 81 | . 833 | . 819 | . 804 | . 790 | . 775 | . 760 | . 744 | . 729 | . 713 | . 697 | . 681 | . 665 | . 650 | . 634 | . 619 | . 604 | 81 |
| 82 | . 829 | . 815 | . 800 | . 785 | . 770 | . 754 | . 738 | . 722 | . 706 | . 690 | . 673 | . 657 | . 641 | . 626 | . 610 | . 595 | 82 |
| 83 | . 825 | . 810 | . 795 | . 780 | . 764 | . 748 | . 732 | . 716 | . 699 | . 682 | . 666 | . 649 | . 633 | . 617 | . 601 | . 585 | 83 |
| 84 | . 821 | . 806 | . 791 | . 775 | . 759 | . 743 | . 726 | . 709 | . 692 | . 675 | . 658 | . 641 | . 624 | . 608 | . 591 | . 576 | 84 |
| 85 | . 817 | . 802 | . 786 | . 770 | . 754 | . 737 | . 720 | . 703 | . 685 | . 668 | . 650 | . 633 | . 616 | . 599 | . 582 | . 566 | 85 |
| 86 | . 813 | . 798 | . 782 | . 765 | . 758 | . 731 | . 714 | . 696 | . 678 | . 660 | . 643 | . 625 | . 607 | . 590 | . 573 | . 557 | 86 |
| 87 | . 810 | . 794 | . 777 | . 760 | . 743 | . 726 | . 708 | . 690 | . 672 | . 653 | . 635 | . 617 | . 599 | . 581 | . 564 | . 547 | 87 |
| 88 | . 806 | . 789 | . 773 | . 755 | . 738 | . 720 | . 702 | . 683 | . 665 | . 646 | . 627 | . 609 | . 591 | . 573 | . 555 | . 538 | 88 |
| 89 | . 802 | . 785 | . 768 | . 751 | . 733 | . 714 | . 696 | . 677 | . 658 | . 639 | . 620 | . 601 | . 582 | . 564 | . 546 | . 528 | 89 |
|  | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 |  |

PENSIONER WHOSE RETIREMENT AGE IS: * $1.000 \quad$ INTEREST - 7.5000\%
PENSIONER'S MORTALITY - SPECIAL PENSIONER MORTALITY TABLE BENEFICIARY'S MORTALITY - SPECIAL PENSIONER MORTALITY TABLE

TABLE D -
Early Retirement Factors - Excess Formula CECONY Management Participants
Applied To The Portion Of The Pension Formula Calculated On Final Average Salary In Excess Of The Social Security Wage Base

| Months Prior to Age 65 | Factor | Months Prior to Age 65 | Factor | Months <br> Prior to <br> Age 65 | Factor | Months <br> Prior to <br> Age 65 | Factor | Months <br> Prior to <br> Age 65 | Factor | Months <br> Prior to Age 65 | Factor | Months Prior to Age 65 | Factor |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 (65) | 1.00000 | 36 (62) | 0.76900 | 72 (59) | 0.65400 | 108 (56) | 0.52900 | 144 (53) | 0.42566 | 180 (50) | 0.34522 | 216 (47) | 0.28489 |
| 1 | 0.99358 | 37 | 0.76583 | 73 | 0.65075 | 109 | 0.52542 | 145 | 0.42315 | 181 | 0.34354 | 217 | 0.28321 |
| 2 | 0.98717 | 38 | 0.76267 | 74 | 0.64750 | 110 | 0.52183 | 146 | 0.42063 | 182 | 0.34187 | 218 | 0.28154 |
| 3 | 0.98075 | 39 | 0.75950 | 75 | 0.64425 | 111 | 0.51825 | 147 | 0.41812 | 183 | 0.34019 | 219 | 0.27986 |
| 4 | 0.97433 | 40 | 0.75633 | 76 | 0.64100 | 112 | 0.51467 | 148 | 0.41561 | 184 | 0.33852 | 220 | 0.27819 |
| 5 | 0.96792 | 41 | 0.75317 | 77 | 0.63775 | 113 | 0.51108 | 149 | 0.41309 | 185 | 0.33684 | 221 | 0.27651 |
| 6 | 0.96150 | 42 | 0.75000 | 78 | 0.63450 | 114 | 0.50750 | 150 | 0.41058 | 186 | 0.33517 | 222 | 0.27484 |
| 7 | 0.95508 | 43 | 0.74683 | 79 | 0.63125 | 115 | 0.50392 | 151 | 0.40807 | 187 | 0.33349 | 223 | 0.27316 |
| 8 | 0.94867 | 44 | 0.74367 | 80 | 0.62800 | 116 | 0.50033 | 152 | 0.40555 | 188 | 0.33181 | 224 | 0.27148 |
| 9 | 0.94225 | 45 | 0.74050 | 81 | 0.62475 | 117 | 0.49675 | 153 | 0.40304 | 189 | 0.33014 | 225 | 0.26981 |
| 10 | 0.93583 | 46 | 0.73733 | 82 | 0.62150 | 118 | 0.49317 | 154 | 0.40053 | 190 | 0.32846 | 226 | 0.26813 |
| 11 | 0.92942 | 47 | 0.73417 | 83 | 0.61825 | 119 | 0.48958 | 155 | 0.39801 | 191 | 0.32679 | 227 | 0.26646 |
| 12 (64) | 0.92300 | 48 (61) | 0.73100 | 84 (58) | 0.61500 | 120 (55) | 0.48600 | 156 (52) | 0.39550 | 192 (49) | 0.32511 | 228 (46) | 0.26478 |
| 13 | 0.91658 | 49 | 0.72775 | 85 | 0.61183 | 121 | 0.48349 | 157 | 0.39299 | 193 | 0.32343 | 229 | 0.26310 |
| 14 | 0.91017 | 50 | 0.72450 | 86 | 0.60867 | 122 | 0.48097 | 158 | 0.39047 | 194 | 0.32176 | 230 | 0.26143 |
| 15 | 0.90375 | 51 | 0.72125 | 87 | 0.60550 | 123 | 0.47846 | 159 | 0.38796 | 195 | 0.32008 | 231 | 0.25975 |
| 16 | 0.89733 | 52 | 0.71800 | 88 | 0.60233 | 124 | 0.47594 | 160 | 0.38544 | 196 | 031841 | 232 | 0.25808 |
| 17 | 0.89092 | 53 | 0.71475 | 89 | 0.59917 | 125 | 0.47343 | 161 | 0.38293 | 197 | 0.31673 | 233 | 0.25640 |
| 18 | 0.88450 | 54 | 0.71150 | 90 | 0.59600 | 126 | 0.47091 | 162 | 0.38041 | 198 | 0.31506 | 234 | 0.25473 |
| 19 | 0.87806 | 55 | 0.70825 | 91 | 0.59283 | 127 | 0.46840 | 163 | 0.37790 | 199 | 0.31338 | 235 | 0.25305 |
| 20 | 0.87167 | 56 | 0.70500 | 92 | 0.58967 | 128 | 0.46589 | 164 | 0.37539 | 200 | 0.31170 | 236 | 0.25137 |
| 21 | 0.86525 | 57 | 0.70175 | 93 | 0.58650 | 129 | 0.46337 | 165 | 0.37287 | 201 | 0.31003 | 237 | 0.24970 |
| 22 | 0.85883 | 58 | 0.69850 | 94 | 0.58333 | 130 | 0.46086 | 166 | 0.37036 | 202 | 0.30835 | 238 | 0.24802 |
| 23 | 0.85242 | 59 | 0.69525 | 95 | 0.58017 | 131 | 0.45834 | 167 | 0.36784 | 203 | 0.30668 | 239 | 0.24635 |
| 24 (63) | 0.84600 | 60 (60) | 0.69200 | 96 (57) | 0.57700 | 132 (54) | 0.45583 | 168 (51) | 0.36533 | 204 (48) | 0.30500 | 240 (45) | 0.24467 |
| 25 | 0.83958 | 61 | 0.68883 | 97 | 0.57300 | 133 | 0.45332 | 169 | 0.36365 | 205 | 0.30332 |  |  |
| 26 | 0.83317 | 62 | 0.68567 | 98 | 0.56900 | 134 | 0.45080 | 170 | 0.36198 | 206 | 0.30165 |  |  |
| 27 | 0.82675 | 63 | 0.68250 | 99 | 0.56500 | 135 | 0.44829 | 171 | 0.36030 | 207 | 0.29997 |  |  |
| 28 | 0.82033 | 64 | 0.67933 | 100 | 0.56100 | 136 | 0.44577 | 172 | 0.35863 | 208 | 0.29830 |  |  |
| 29 | 0.81392 | 65 | 0.67617 | 101 | 0.55700 | 137 | 0.44326 | 173 | 0.35695 | 209 | 0.29662 |  |  |
| 30 | 0.80750 | 66 | 0.67300 | 102 | 0.55300 | 138 | 0.44074 | 174 | 0.35528 | 210 | 0.29495 |  |  |
| 31 | 0.80108 | 67 | 0.66983 | 103 | 0.54900 | 139 | 0.43823 | 175 | 0.35360 | 211 | 0.29327 |  |  |
| 32 | 0.79467 | 68 | 0.66667 | 104 | 0.54500 | 140 | 0.43572 | 176 | 0.35192 | 212 | 0.29159 |  |  |
| 33 | 0.78825 | 69 | 0.66350 | 105 | 0.54100 | 141 | 0.43320 | 177 | 0.35025 | 213 | 0.28992 |  |  |
| 34 | 0.78183 | 70 | 0.66033 | 106 | 0.53700 | 142 | 0.43069 | 178 | 0.34857 | 214 | 0.28824 |  |  |
| 35 | 0.77542 | 71 | 0.65717 | 107 | 0.53300 | 143 | 0.42817 | 179 | 0.34690 | 215 | 0.28657 |  |  |

Exact Age in ( ) Effective Date: January 1, 1990

## Sub appendix A. 1

TABLE E-
Conversion From 50\% Joint \& Survivor to 100\% Joint \& Survivor
CECONY Management Participants and CECONY Weekly Participants
Not Applicable to CECONY Weekly Participants -1
PENSIONER

## Age Of Bene.

| 35 |
| :--- |
| 36 |
| 37 |
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| 60 |


| * | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| * | . 9641 | . 9611 | . 9580 | . 9548 | . 9513 | . 9476 | . 9437 | . 9397 | . 9353 | . 9307 | . 9259 | . 9208 | . 9154 | . 9097 | . 9037 | . 8974 |
| * | . 9649 | . 9620 | . 9589 | . 9557 | . 9522 | . 9486 | . 9448 | . 9406 | . 9363 | . 9318 | . 9270 | . 9219 | . 9165 | . 9109 | . 9049 | . 8986 |
| * | . 9658 | . 9629 | . 9598 | . 9566 | . 9533 | . 9496 | . 9458 | . 9417 | . 9375 | . 9329 | . 9281 | . 9230 | . 9177 | . 9120 | . 9061 | . 8998 |
| * | . 9666 | . 9639 | . 9608 | . 9577 | . 9542 | . 9506 | . 9468 | . 9428 | . 9386 | . 9341 | . 9293 | . 9243 | . 9189 | . 9133 | . 9073 | . 9010 |
| * | . 9675 | . 9647 | . 9618 | . 9585 | . 9553 | . 9518 | . 9479 | . 9441 | . 9398 | . 9353 | . 9305 | . 9256 | . 9202 | . 9146 | . 9087 | . 9024 |
| * | . 9684 | . 9657 | . 9627 | . 9597 | . 9563 | . 9529 | . 9491 | . 9452 | . 9410 | . 9366 | . 9318 | . 9269 | . 9216 | . 9160 | . 9100 | . 9039 |
| * | . 9693 | . 9666 | . 9637 | . 9606 | . 9574 | . 9540 | . 9503 | . 9464 | . 9423 | . 9379 | . 9332 | . 9282 | . 9230 | . 9174 | . 9115 | . 9053 |
| * | . 9702 | . 9677 | . 9648 | . 9618 | . 9586 | . 9551 | . 9515 | . 9477 | . 9436 | . 9392 | . 9346 | . 9297 | . 9244 | . 9188 | . 9130 | . 9069 |
| * | . 9711 | . 9686 | . 9658 | . 9629 | . 9598 | . 9564 | . 9527 | . 9490 | . 9450 | . 9406 | . 9361 | . 9311 | . 9260 | . 9204 | . 9145 | . 9084 |
| * | . 9721 | . 9697 | . 9668 | . 9640 | . 9609 | . 9576 | . 9541 | . 9504 | . 9463 | . 9421 | . 9375 | . 9327 | . 9275 | . 9221 | . 9162 | . 9102 |
| * | . 9731 | . 9707 | . 9679 | . 9651 | . 9620 | . 9588 | . 9554 | . 9517 | . 9478 | . 9436 | . 9390 | . 9342 | . 9291 | . 9237 | . 9180 | . 9119 |
| * | . 9740 | . 9716 | . 9690 | . 9662 | . 9632 | . 9601 | . 9567 | . 9531 | . 9492 | . 9451 | . 9406 | . 9359 | . 9308 | . 9254 | . 9198 | . 9137 |
| * | . 9750 | . 9726 | . 9701 | . 9674 | . 9645 | . 9614 | . 9581 | . 9545 | . 9507 | . 9466 | . 9423 | . 9375 | . 9326 | . 9272 | . 9216 | . 9156 |
| * | . 9759 | . 9736 | . 9712 | . 9686 | . 9658 | . 9627 | . 9594 | . 9560 | . 9522 | . 9482 | . 9439 | . 9392 | . 9344 | . 9291 | . 9234 | . 9175 |
| * | . 9769 | . 9746 | . 9723 | . 9698 | . 9670 | . 9640 | . 9608 | . 9574 | . 9538 | . 9499 | . 9456 | . 9411 | . 9362 | . 9310 | . 9254 | . 9195 |
| * | . 9778 | . 9757 | . 9734 | . 9709 | . 9682 | . 9654 | . 9622 | 9589 | . 9553 | . 9515 | . 9474 | . 9428 | . 9381 | . 9330 | . 9275 | . 9216 |
| * | . 9788 | . 9768 | . 9745 | . 9720 | . 9695 | . 9667 | . 9637 | . 9604 | . 9569 | . 9531 | . 9491 | . 9446 | . 9400 | . 9349 | . 9296 | . 9238 |
| * | . 9797 | . 9777 | . 9756 | . 9732 | . 9707 | . 9679 | . 9651 | . 9619 | . 9585 | . 9549 | . 9508 | . 9466 | . 9420 | . 9370 | . 9317 | . 9260 |
| * | . 9806 | . 9788 | . 9766 | . 9743 | . 9720 | . 9693 | . 9665 | . 9634 | . 9601 | . 9565 | . 9526 | . 9485 | . 9440 | . 9391 | . 9338 | . 9282 |
| * | . 9815 | . 9797 | . 9777 | . 9755 | . 9732 | . 9706 | . 9680 | . 9650 | . 9617 | . 9582 | . 9544 | . 9504 | . 9460 | . 9411 | . 9360 | . 9305 |
| * | . 9824 | . 9806 | . 9788 | . 9766 | . 9744 | . 9720 | . 9694 | . 9665 | . 9634 | . 9600 | . 9563 | . 9524 | . 9480 | . 9433 | . 9382 | . 9329 |
| * | . 9833 | . 9816 | . 9797 | . 9778 | . 9756 | . 9732 | . 9707 | . 9680 | . 9650 | . 9617 | . 9582 | . 9543 | . 9501 | . 9455 | . 9406 | . 9353 |
| * | . 9842 | . 9825 | . 9808 | . 9789 | . 9768 | . 9746 | . 9721 | . 9695 | . 9667 | . 9634 | . 9600 | . 9562 | . 9521 | . 9477 | . 9430 | . 9378 |
| * | . 9850 | . 9834 | . 9818 | . 9800 | . 9781 | . 9759 | . 9735 | . 9710 | . 9682 | . 9652 | . 9618 | . 9582 | . 9542 | . 9500 | . 9453 | . 9402 |
| * | . 9858 | . 9843 | . 9829 | . 9810 | . 9791 | . 9772 | . 9749 | . 9724 | . 9698 | . 9668 | . 9636 | . 9602 | . 9564 | . 9522 | . 9477 | . 9427 |
| * | . 9867 | . 9853 | . 9838 | . 9821 | . 9803 | . 9784 | . 9763 | . 9739 | . 9714 | . 9686 | . 9655 | . 9621 | . 9585 | . 9544 | . 9501 | . 9453 |

246721 -Consolidated Edison Retirement Plan - Appendices Amended 2004

TABLE E-
Conversion From 50\% Joint \& Survivor To 100 \% Joint \& Survivor
CECONY Management Participants And CECONY Weekly Participants
Not Applicable To CECONY Weekly Participants -1
PENSIONER

Age Of Bene.

| 61 |
| :--- |
| 62 |
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| 80 |
| 81 |
| 82 |
| 83 |
| 84 |
| 85 |


| * | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| * | . 9874 | . 9861 | . 9847 | . 9831 | . 9814 | . 9796 | . 9776 | . 9753 | . 9729 | . 9702 | . 9673 | . 9641 | . 9606 | . 9567 | . 9524 | . 9478 |
| * | . 9882 | . 9872 | . 9856 | . 9841 | . 9825 | . 9808 | . 9788 | . 9767 | . 9744 | . 9718 | . 9691 | . 9660 | . 9626 | . 9589 | . 9548 | . 9503 |
| * | . 9889 | . 9878 | . 9865 | . 9851 | . 9835 | . 9819 | . 9801 | . 9781 | . 9759 | . 9735 | . 9709 | . 9679 | . 9647 | . 9610 | . 9571 | . 9529 |
| * | . 9896 | . 9886 | . 9873 | . 9861 | . 9845 | . 9831 | . 9813 | . 9794 | . 9774 | . 9751 | . 9725 | . 9697 | . 9667 | . 9632 | . 9595 | . 9554 |
| * | . 9903 | . 9893 | . 9881 | . 9869 | . 9855 | . 9841 | . 9824 | . 9807 | . 9788 | . 9766 | . 9742 | . 9715 | . 9686 | . 9654 | . 9618 | . 9579 |
| * | . 9909 | . 9900 | . 9889 | . 9878 | . 9866 | . 9852 | . 9836 | . 9819 | . 9801 | . 9781 | . 9758 | . 9733 | . 9706 | . 9675 | . 9641 | . 9603 |
| * | . 9915 | . 9907 | . 9897 | . 9886 | . 9874 | . 9861 | . 9847 | . 9831 | . 9814 | . 9795 | . 9774 | . 9750 | . 9724 | . 9695 | . 9662 | . 9627 |
| * | . 9921 | . 9913 | . 9904 | . 9894 | . 9883 | . 9871 | . 9858 | . 9843 | . 9827 | . 9809 | . 9789 | . 9767 | . 9742 | . 9716 | . 9684 | . 9650 |
| * | . 9927 | . 9919 | . 9911 | . 9901 | . 9892 | . 9880 | . 9867 | . 9854 | . 9839 | . 9823 | . 9803 | . 9783 | . 9759 | . 9734 | . 9705 | . 9673 |
| * | . 9932 | . 9925 | . 9918 | . 9909 | . 9899 | . 9889 | . 9878 | . 9864 | . 9851 | . 9835 | . 9817 | . 9798 | . 9777 | . 9752 | . 9726 | . 9694 |
| * | . 9938 | . 9931 | . 9923 | . 9915 | . 9906 | . 9896 | . 9887 | . 9875 | . 9862 | . 9847 | . 9831 | . 9813 | . 9793 | . 9770 | . 9745 | . 9716 |
| * | . 9943 | . 9936 | . 9929 | . 9921 | . 9914 | . 9905 | . 9895 | . 9884 | . 9872 | . 9859 | . 9845 | . 9828 | . 9808 | . 9787 | . 9763 | . 9737 |
| * | . 9947 | . 9941 | . 9935 | . 9928 | . 9921 | . 9912 | . 9904 | . 9894 | . 9883 | . 9870 | . 9856 | . 9840 | . 9824 | . 9803 | . 9781 | . 9755 |
| * | . 9951 | . 9946 | . 9940 | . 9934 | . 9926 | . 9919 | . 9911 | . 9902 | . 9892 | . 9880 | . 9867 | . 9853 | . 9837 | . 9819 | . 9798 | . 9774 |
| * | . 9955 | . 9950 | . 9945 | . 9940 | . 9933 | . 9926 | . 9918 | . 9910 | . 9901 | . 9890 | . 9879 | . 9866 | . 9850 | . 9833 | . 9814 | . 9792 |
| * | . 9959 | . 9954 | . 9950 | . 9945 | . 9938 | . 9932 | . 9925 | . 9918 | . 9909 | . 9899 | . 9889 | . 9877 | . 9862 | . 9847 | . 9829 | . 9809 |
| * | . 9962 | . 9958 | . 9955 | . 9949 | . 9944 | . 9938 | . 9931 | . 9924 | . 9917 | . 9908 | . 9898 | . 9886 | . 9874 | . 9860 | . 9844 | . 9824 |
| * | . 9966 | . 9962 | . 9959 | . 9953 | . 9949 | . 9944 | . 9937 | . 9932 | . 9923 | . 9916 | . 9907 | . 9896 | . 9885 | . 9871 | . 9857 | . 9841 |
| * | . 9969 | . 9965 | . 9962 | . 9957 | . 9953 | . 9949 | . 9942 | . 9937 | . 9930 | . 9923 | . 9915 | . 9905 | . 9896 | . 9884 | . 9869 | . 9854 |
| * | . 9972 | . 9969 | . 9965 | . 9962 | . 9957 | . 9953 | . 9948 | . 9942 | . 9937 | . 9930 | . 9923 | . 9914 | . 9905 | . 9893 | . 9880 | . 9867 |
| * | . 9974 | . 9971 | . 9968 | . 9965 | . 9961 | . 9957 | . 9953 | . 9947 | . 9943 | . 9936 | . 9929 | . 9922 | . 9913 | . 9903 | . 9891 | . 9879 |
| * | . 9977 | . 9974 | . 9971 | . 9968 | . 9964 | . 9961 | . 9956 | . 9953 | . 9948 | . 9942 | . 9936 | . 9929 | . 9921 | . 9912 | . 9902 | . 9890 |
| * | . 9979 | . 9977 | . 9974 | . 9971 | . 9968 | . 9965 | . 9961 | . 9958 | . 9953 | . 9947 | . 9942 | . 9935 | . 9929 | . 9921 | . 9911 | . 9900 |
| * | . 9981 | . 9979 | . 9976 | . 9974 | . 9971 | . 9968 | . 9965 | . 9961 | . 9957 | . 9952 | . 9947 | . 9941 | . 9935 | . 9927 | . 9920 | . 9909 |
| * | . 9983 | . 9981 | . 9979 | . 9976 | . 9974 | . 9971 | . 9968 | . 9964 | . 9961 | . 9957 | . 9953 | . 9948 | . 9942 | . 9934 | . 9927 | . 9918 |

TABLE E -

## CONVERSION FROM 50\% JOINT \& SURVIVOR TO 100 \% JOINT \& SURVIVOR

CECONY Management Participants and CECONY Weekly Participants
Not Applicable to CECONY Weekly Participants -1
pensioner

## Age Of Bene.

| Age Of Bene. |
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| * | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| * | . 8909 | . 8840 | . 8767 | . 8692 | . 8615 | . 8535 | . 8452 | . 8368 | . 8281 | . 8193 | 8103 | . 8011 | . 7919 | . 7826 | . 7731 |
| * | . 8920 | . 8851 | . 8779 | . 8703 | . 8626 | . 8546 | . 8463 | . 8379 | . 8292 | . 8204 | . 8114 | . 8022 | . 7930 | . 7835 | . 7741 |
| * | . 8932 | . 8863 | . 8791 | . 8716 | . 8638 | . 8558 | . 8475 | . 8390 | . 8304 | . 8215 | . 8125 | . 8033 | . 7941 | . 7847 | . 7751 |
| * | . 8945 | . 8875 | . 8803 | . 8729 | . 8651 | . 8571 | . 8488 | . 8404 | . 8317 | . 8227 | . 8138 | . 8045 | . 7952 | . 7857 | . 7762 |
| * | . 8958 | . 8889 | . 8817 | . 8742 | . 8665 | . 8584 | . 8502 | . 8417 | . 8330 | . 8240 | . 8150 | . 8058 | . 7964 | . 7870 | . 7774 |
| * | . 8972 | . 8904 | . 8832 | . 8757 | . 8679 | . 8599 | . 8516 | . 8431 | . 8344 | . 8255 | . 8164 | . 8071 | . 7977 | . 7883 | . 7787 |
| * | . 8988 | . 8919 | . 8847 | . 8772 | . 8694 | . 8614 | . 8531 | . 8446 | . 8358 | . 8269 | . 8178 | . 8086 | . 7992 | . 7896 | . 7800 |
| * | . 9002 | . 8934 | . 8863 | . 8788 | . 8710 | . 8630 | . 8546 | . 8461 | . 8374 | . 8284 | . 8194 | . 8101 | . 8007 | . 7911 | . 7814 |
| * | . 9019 | . 8951 | . 8879 | . 8805 | . 8727 | . 8647 | . 8564 | . 8478 | . 8391 | . 9302 | . 8211 | . 8117 | . 8022 | . 7926 | . 7829 |
|  | . 9036 | . 8968 | . 8896 | . 8823 | . 8745 | . 8664 | . 8581 | . 8496 | . 8404 | . 8318 | . 8227 | . 8013 | . 8039 | . 7943 | . 7846 |
| * | . 9054 | . 8986 | . 8916 | . 8841 | . 8763 | . 8682 | . 8600 | . 8515 | . 8427 | . 8337 | . 8245 | . 8152 | . 8057 | . 7959 | . 7862 |
| * | . 9073 | . 9005 | . 8935 | . 8860 | . 8783 | . 8702 | . 8619 | . 8534 | . 8446 | . 8356 | . 8265 | . 8170 | . 8075 | . 7979 | . 7880 |
| * | . 9092 | . 9025 | . 8954 | . 8881 | . 8803 | . 8723 | . 8640 | . 8555 | . 8467 | . 8377 | . 8284 | . 8190 | . 8094 | . 7998 | . 7900 |
| * | . 9112 | . 9045 | . 8975 | . 8902 | . 8824 | . 8745 | . 8661 | . 8576 | . 8488 | . 8398 | . 8305 | . 8212 | . 8116 | . 8018 | . 7920 |
| * | . 9133 | . 9066 | . 8996 | . 8923 | . 8847 | . 8767 | . 8684 | . 8599 | . 8511 | . 8421 | . 8328 | . 8233 | . 8138 | . 8040 | . 7941 |
| * | . 9154 | . 9089 | . 9019 | . 8946 | . 8870 | . 8791 | . 8707 | . 8622 | . 8534 | . 8445 | . 8352 | . 8258 | . 8160 | . 8062 | . 7963 |
| * | . 9176 | . 9111 | . 9042 | . 8970 | . 8894 | . 8814 | . 8732 | . 8647 | . 8559 | . 8469 | . 8377 | . 8282 | . 8185 | . 8087 | . 7987 |
| * | . 9199 | . 9134 | . 9066 | . 8995 | . 8919 | . 8840 | . 8758 | . 8673 | . 8585 | . 8495 | . 8403 | . 8308 | . 8211 | . 8112 | . 8012 |
| * | . 9223 | . 9159 | . 9091 | . 9020 | . 8945 | . 8867 | . 8785 | . 8700 | . 8613 | . 8523 | . 8430 | . 8335 | . 8239 | . 8139 | . 8039 |
| * | . 9246 | . 9183 | . 9117 | . 9046 | . 8972 | . 8894 | . 8813 | . 8728 | . 8641 | . 8551 | . 8459 | . 8364 | . 8267 | . 8167 | . 8067 |
| * | . 9271 | . 9209 | . 9144 | . 9073 | . 9000 | . 8923 | . 8842 | . 8757 | . 8671 | . 8581 | . 8489 | . 8395 | . 8297 | . 8197 | . 8096 |
| * | . 9296 | . 9235 | . 9171 | . 9102 | . 9028 | . 8952 | . 8872 | . 8789 | . 8703 | . 8612 | . 8521 | . 8426 | . 8328 | . 8229 | . 8128 |
| * | . 9322 | . 9261 | . 9198 | . 9130 | . 9058 | . 8983 | . 8903 | . 8821 | . 8735 | . 8646 | . 8554 | . 8459 | . 8362 | . 8263 | . 8161 |
| * | . 9348 | . 9289 | . 9226 | . 9159 | . 9089 | . 9014 | . 8935 | . 8854 | . 8768 | . 8680 | . 8589 | . 8494 | . 8397 | . 8297 | . 8196 |
| * | . 9374 | . 9317 | . 9255 | . 9190 | . 9121 | . 9047 | . 8969 | . 8888 | . 8803 | . 8716 | . 8625 | . 8530 | . 8434 | . 8334 | . 8233 |
| * | . 9401 | . 9346 | . 9285 | . 9221 | . 9152 | . 9080 | . 9003 | . 8924 | . 8840 | . 8753 | . 8663 | . 8569 | . 8472 | . 8372 | . 8271 |

[^1]TABLE E -

## CONVERSION FROM 50\% JOINT \& SURVIVOR TO 100 \% JOINT \& SURVIVOR

## CECONY Management Participants and CECONY Weekly Participants

Not Applicable to CECONY Weekly Participants -1
pensioner

## Age Of Bene.

| 61 |
| :--- |
| 62 |
| 63 |
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| 85 |


| * | 61 | 62 | 63 | 64 | 65 | 66 | 67 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| * | . 9428 | . 9373 | . 9315 | . 9252 | . 9185 | . 9113 | . 9039 |
| * | . 9454 | . 9402 | . 9345 | . 9284 | . 9218 | . 9149 | . 9074 |
| * | . 9482 | . 9431 | . 9375 | . 9316 | . 9252 | . 9184 | . 9111 |
| * | . 9509 | . 9459 | . 9406 | . 9348 | . 9285 | . 9219 | . 9149 |
| * | . 9535 | . 9487 | . 9437 | . 9380 | . 9320 | . 9255 | . 9186 |
| * | . 9562 | . 9516 | . 9466 | . 9412 | . 9354 | . 9291 | . 9225 |
| * | . 9588 | . 9543 | . 9496 | . 9444 | . 9388 | . 9327 | . 9263 |
| * | . 9612 | . 9571 | . 9525 | . 9475 | . 9422 | . 9363 | . 9301 |
| * | . 9637 | . 9597 | . 9554 | . 9506 | . 9455 | . 9398 | . 9338 |
| * | . 9661 | . 9623 | . 9582 | . 9537 | . 9488 | . 9433 | . 9375 |
| * | . 9684 | . 9649 | . 9610 | . 9566 | . 9520 | . 9468 | . 9412 |
| * | . 9706 | . 9673 | . 9636 | . 9596 | . 9551 | . 9502 | . 9449 |
| * | . 9728 | . 9697 | . 9662 | . 9624 | . 9581 | . 9535 | . 9485 |
| * | . 9748 | . 9720 | . 9687 | . 9650 | . 9611 | . 9566 | . 9519 |
| * | . 9768 | . 9741 | . 9711 | . 9676 | . 9639 | . 9598 | . 9552 |
| * | . 9787 | . 9761 | . 9732 | . 9702 | . 9666 | . 9627 | . 9584 |
| * | . 9804 | . 9780 | . 9754 | . 9725 | . 9693 | . 9656 | . 9615 |
| * | . 9821 | . 9799 | . 9774 | . 9747 | . 9716 | . 9682 | . 9644 |
| * | . 9836 | . 9816 | . 9793 | . 9768 | . 9739 | . 9708 | . 9672 |
| * | . 9850 | . 9832 | . 9811 | . 9788 | . 9761 | . 9732 | . 9699 |
| * | . 9864 | . 9847 | . 9828 | . 9806 | . 9781 | . 9755 | . 9723 |
| * | . 9876 | . 9861 | . 9843 | . 9824 | . 9801 | . 9775 | . 9747 |
| * | . 9887 | . 9873 | . 9857 | . 9839 | . 9818 | . 9795 | . 9769 |
| * | . 9898 | . 9885 | . 9871 | . 9854 | . 9835 | . 9813 | . 9789 |
| * | . 9908 | . 9896 | . 9883 | . 9868 | . 9850 | . 9831 | . 9808 |

[^2]TABLE F -
CONVERSION FROM 50\% JOINT \& SURVIVOR TO 100 \% JOINT \& SURVIVOR WITH POP UP

## CECONY Management Participants and CECONY Weekly Participants

Not Applicable to CECONY Weekly Participants -1
PENSIONER

| Age Of Bene. |
| :--- |
| 35 |
| 36 |
| 37 |
| 38 |
| 39 |
| 40 |
| 41 |
| 42 |
| 43 |
| 44 |
| 45 |
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| 51 |
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| 53 |
| 54 |
| 55 |
| 56 |
| 57 |
| 58 |
| 59 |
| 60 |


| * | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| * | . 9633 | . 9603 | . 9572 | . 9539 | . 9504 | . 9467 | . 9428 | . 9387 | . 9343 | . 9297 | . 9249 | . 9198 | . 9144 | . 9087 | . 9027 | . 8964 |
| * | . 9641 | . 9612 | . 9580 | . 9548 | . 9513 | . 9476 | . 9437 | . 9396 | . 9353 | . 9308 | . 9259 | . 9208 | . 9154 | . 9098 | . 9037 | . 8974 |
| * | . 9649 | . 9619 | . 9589 | . 9556 | . 9522 | . 9486 | . 9447 | . 9406 | . 9363 | . 9318 | . 9269 | . 9219 | . 9165 | . 9109 | . 9049 | . 8986 |
| * | . 9657 | . 9628 | . 9598 | . 9565 | . 9531 | . 9495 | . 9457 | . 9417 | . 9374 | . 9329 | . 9280 | . 9230 | . 9176 | . 9120 | . 9060 | . 8997 |
| * | . 9665 | . 9636 | . 9606 | . 9574 | . 9541 | . 9505 | . 9467 | . 9427 | . 9384 | . 9340 | . 9292 | . 9242 | . 9188 | . 9132 | . 9072 | . 9010 |
| * | . 9673 | . 9645 | . 9615 | . 9584 | . 9550 | . 9516 | . 9477 | . 9438 | . 9396 | . 9351 | . 9304 | . 9253 | . 9200 | . 9144 | . 9085 | . 9023 |
|  | . 9681 | . 9653 | . 9624 | . 9593 | . 9560 | . 9525 | . 9488 | . 9449 | . 9407 | . 9363 | . 9315 | . 9265 | . 9213 | . 9157 | . 9098 | . 9035 |
|  | . 9690 | . 9663 | . 9634 | . 9603 | . 9570 | . 9536 | . 9499 | . 9460 | . 9419 | . 9375 | . 9328 | . 9279 | . 9227 | . 9170 | . 9111 | . 9050 |
|  | . 9698 | . 9672 | . 9643 | . 9614 | . 9582 | . 9547 | . 9511 | . 9472 | . 9431 | . 9387 | . 9341 | . 9291 | . 9240 | . 9184 | . 9126 | . 9064 |
| * | . 9707 | . 9681 | . 9653 | . 9623 | . 9591 | . 9558 | . 9522 | . 9484 | . 9444 | . 9400 | . 9354 | . 9306 | . 9254 | . 9199 | . 9140 | . 9079 |
|  | . 9716 | . 9690 | . 9662 | . 9633 | . 9603 | . 9569 | 9534 | . 9496 | . 9457 | . 9414 | . 9368 | . 9320 | . 9268 | . 9214 | . 9156 | . 9095 |
|  | . 9724 | . 9699 | . 9672 | . 9644 | . 9613 | . 9581 | . 9546 | . 9509 | . 9470 | . 9427 | . 9382 | . 9335 | . 9283 | . 9229 | . 9172 | . 9111 |
|  | . 9732 | . 9708 | . 9682 | . 9655 | . 9624 | . 9592 | . 9559 | . 9522 | . 9483 | . 9441 | . 9397 | . 9349 | . 9299 | . 9245 | . 9188 | . 9127 |
| * | . 9741 | . 9718 | . 9692 | . 9665 | . 9635 | . 9604 | . 9570 | . 9535 | . 9497 | . 9456 | . 9411 | . 9364 | . 9315 | . 9261 | . 9204 | . 9145 |
| * | . 9750 | . 9727 | . 9702 | . 9675 | . 9647 | . 9616 | . 9582 | . 9548 | . 9510 | . 9470 | . 9426 | . 9380 | . 9331 | . 9278 | . 9222 | . 9162 |
| $*$ | . 9759 | . 9736 | . 9712 | . 9686 | . 9657 | . 9628 | . 9595 | . 9561 | . 9525 | . 9485 | . 9442 | . 9396 | . 9347 | . 9296 | . 9240 | . 9181 |
| * | . 9767 | . 9745 | . 9721 | . 9696 | . 9669 | . 9640 | . 9608 | . 9574 | . 9538 | . 9499 | . 9458 | . 9413 | . 9365 | . 9313 | . 9259 | . 9200 |
| * | . 9775 | . 9754 | . 9731 | . 9707 | . 9680 | . 9651 | . 9620 | . 9588 | . 9552 | . 9515 | . 9473 | . 9429 | . 9382 | . 9331 | . 9277 | . 9219 |
| * | . 9784 | . 9764 | . 9741 | . 9717 | . 9691 | . 9663 | . 9634 | . 9602 | . 9567 | . 9529 | . 9489 | . 9446 | . 9399 | . 9349 | . 9295 | . 9239 |
| * | . 9792 | . 9772 | . 9751 | . 9727 | . 9703 | . 9675 | . 9646 | . 96115 | . 9581 | . 9545 | . 9505 | . 9463 | . 9417 | . 9368 | . 9315 | . 9258 |
| * | . 9800 | . 9780 | . 9760 | . 9737 | . 9713 | . 9687 | . 9659 | . 9628 | . 9595 | . 9560 | . 9520 | . 9480 | . 9435 | . 9386 | . 9334 | . 9279 |
| * | . 9808 | . 9789 | . 9769 | . 9747 | . 9724 | . 9698 | . 9671 | . 9641 | . 9609 | . 9574 | . 9538 | . 9496 | . 9454 | . 9406 | . 9355 | . 9299 |
| * | . 9816 | . 9798 | . 9779 | . 9757 | . 9734 | . 9710 | . 9683 | . 9654 | . 9624 | . 9590 | . 9553 | . 9514 | . 9471 | . 9424 | . 9375 | . 9321 |
| * | . 9823 | . 9806 | . 9787 | . 9767 | . 9746 | . 9721 | . 9695 | . 9668 | . 9637 | . 9605 | . 9569 | . 9531 | . 9489 | . 9445 | . 9395 | . 9343 |
| * | . 9831 | . 9813 | . 9796 | . 9776 | . 9755 | . 9733 | . 9707 | . 9680 | . 9651 | . 9620 | . 9585 | . 9548 | . 9507 | . 9464 | . 9415 | . 9363 |
| * | . 9838 | . 9822 | . 9804 | . 9785 | . 9765 | . 9743 | . 9720 | . 9693 | . 9666 | . 9635 | . 9602 | . 9565 | . 9525 | . 9482 | . 9436 | . 9385 |

[^3]TABLE F -
CONVERSION FROM 50\% JOINT \& SURVIVOR TO 100 \% JOINT \& SURVIVOR WITH POP UP
CECONY Management Participants and CECONY Weekly Participants
Not Applicable to CECONY Weekly Participants -1
pensioner

Age Of Bene.

| Age Of Bene. |
| :--- |
| 61 |
| 62 |
| 63 |
| 64 |
| 65 |
| 66 |
| 67 |
| 68 |
| 69 |
| 70 |
| 71 |
| 72 |
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| 75 |
| 76 |
| 77 |
| 78 |
| 79 |
| 80 |
| 81 |
| 82 |
| 83 |
| 84 |
| 85 |


| * | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| * | . 9845 | . 9830 | . 9813 | . 9795 | . 9775 | . 9754 | . 9732 | . 9706 | . 9679 | . 9649 | . 9617 | . 9582 | . 9543 | . 9501 | . 9456 | . 9407 |
| * | . 9852 | . 9837 | . 9821 | . 9804 | . 9785 | . 9765 | . 9742 | . 9719 | . 9692 | . 9664 | . 9633 | . 9599 | . 9561 | . 9520 | . 9476 | . 9428 |
| * | . 9858 | . 9845 | . 9829 | . 9813 | . 9794 | . 9775 | . 9754 | . 9730 | . 9705 | . 9678 | . 9649 | . 9615 | . 9579 | . 9539 | . 9496 | . 9450 |
|  | . 9865 | . 9851 | . 9836 | . 9821 | . 9803 | . 9785 | . 9765 | . 9742 | . 9718 | . 9692 | . 9663 | . 9631 | . 9596 | . 9558 | . 9517 | . 9471 |
| * | . 9871 | . 9858 | . 9844 | . 9829 | . 9813 | . 9795 | . 9775 | . 9754 | . 9731 | . 9706 | . 9678 | . 9646 | . 9613 | . 9577 | . 9537 | . 9493 |
| * | . 9877 | . 9864 | . 9851 | . 9837 | . 9821 | . 9804 | . 9786 | . 9765 | . 9743 | . 9718 | . 9692 | . 9662 | . 9631 | . 9595 | . 9556 | . 9513 |
| * | . 9883 | . 9871 | . 9859 | . 9844 | . 9829 | . 9813 | . 9795 | . 9775 | . 9754 | . 9732 | . 9706 | . 9678 | . 9647 | . 9613 | . 9575 | . 9534 |
| * | . 9888 | . 9878 | . 9864 | . 9852 | . 9837 | . 9822 | . 9805 | . 9786 | . 9767 | . 9744 | . 9720 | . 9693 | . 9662 | . 9630 | . 9594 | . 9554 |
|  | . 9894 | . 9883 | . 9871 | . 9858 | . 9845 | . 9830 | . 9814 | . 9797 | . 9778 | . 9756 | . 9733 | . 9707 | . 9678 | . 9647 | . 9612 | . 9575 |
| * | . 9899 | . 9888 | . 9878 | . 9865 | . 9852 | . 9838 | . 9823 | . 9806 | . 9788 | . 9768 | . 9746 | . 9721 | . 9694 | . 9664 | . 9630 | . 9593 |
| * | . 9904 | . 9894 | . 9884 | . 9872 | . 9859 | . 9846 | . 9832 | . 9816 | . 9799 | . 9779 | . 9758 | . 9735 | . 9708 | . 9680 | . 9648 | . 9612 |
|  | . 9909 | . 9899 | . 9889 | . 9878 | . 9867 | . 9854 | . 9841 | . 9825 | . 9808 | . 9790 | . 9770 | . 9747 | . 9723 | . 9696 | . 9665 | . 9631 |
|  | . 9913 | . 9904 | . 9895 | . 9885 | . 9873 | . 9861 | . 9849 | . 9833 | . 9818 | . 9801 | . 9781 | . 9761 | . 9737 | . 9710 | . 9682 | . 9648 |
| * | . 9917 | . 9910 | . 9900 | . 9891 | . 9879 | . 9869 | . 9856 | . 9842 | . 9828 | . 9812 | . 9792 | . 9773 | . 9750 | . 9725 | . 9697 | . 9666 |
| * | . 9922 | . 9914 | . 9906 | . 9896 | . 9886 | . 9875 | . 9863 | . 9850 | . 9837 | . 9821 | . 9804 | . 97784 | . 9763 | . 9739 | . 9712 | . 9682 |
| $*$ | . 9926 | . 9918 | . 9910 | . 9902 | . 9891 | . 9881 | . 9871 | . 9858 | . 9845 | . 9830 | . 9814 | . 9796 | . 9775 | . 9753 | . 9727 | . 9698 |
| * | . 9930 | . 9922 | . 9915 | . 9907 | . 9898 | . 9887 | . 9877 | . 9865 | . 9853 | . 9839 | . 9823 | . 9806 | . 9787 | . 9766 | . 9742 | . 9715 |
| * | . 9934 | . 9927 | . 9919 | . 9911 | . 9903 | . 9893 | . 9883 | . 9872 | . 9860 | . 9847 | . 9833 | . 9817 | . 9798 | . 9777 | . 9756 | . 9730 |
| * | . 9937 | . 9931 | . 9923 | . 9915 | . 9907 | . 9899 | . 9889 | . 9879 | . 9868 | . 9856 | . 9842 | . 9826 | . 9809 | . 9790 | . 9768 | . 9744 |
| * | . 9941 | . 9934 | . 9928 | . 9921 | . 9913 | . 9904 | . 9895 | . 9886 | . 9875 | . 9864 | . 9851 | . 9836 | . 9820 | . 9801 | . 9780 | . 9758 |
| * | . 9943 | . 9937 | . 9931 | . 9924 | . 9917 | . 9910 | . 9901 | . 9891 | . 9882 | . 9870 | . 9858 | . 9845 | . 9830 | . 9813 | . 9792 | . 9771 |
| * | . 9947 | . 9941 | . 9935 | . 9928 | . 9922 | . 9914 | . 9906 | . 9898 | . 9889 | . 9878 | . 9866 | . 9853 | . 9839 | . 9823 | . 9804 | . 9784 |
| * | . 9950 | . 9944 | . 9939 | . 9933 | . 9926 | . 9920 | . 9911 | . 9904 | . 9894 | . 9885 | . 9874 | . 9862 | . 9849 | . 9833 | . 9815 | . 9796 |
| * | . 9953 | . 9948 | . 9942 | . 9936 | . 9930 | . 9924 | . 9916 | . 9909 | . 9900 | . 9891 | . 9882 | . 9870 | . 9857 | . 9842 | . 9827 | . 9808 |
| * | . 9955 | . 9951 | . 9946 | . 9939 | . 9934 | . 9928 | . 9921 | . 9914 | . 9906 | . 9897 | . 9888 | . 9878 | . 9865 | . 9851 | . 9836 | . 9818 |

[^4]TABLE F -
CONVERSION FROM 50\% JOINT \& SURVIVOR TO 100 \% JOINT \& SURVIVOR WITH POP UP
CECONY Management Participants and CECONY Weekly Participants
Not Applicable to CECONY Weekly Participants -1
pensioner

## Age Of Bene.

| 35 |
| :--- |
| 36 |
| 37 |
| 38 |
| 39 |
| 40 |
| 41 |
| 42 |
| 43 |
| 44 |
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| 47 |
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| 50 |
| 51 |
| 52 |
| 53 |
| 54 |
| 55 |
| 56 |
| 57 |
| 58 |
| 59 |
| 60 |


| * | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| * | . 8898 | . 8829 | . 8757 | . 8682 | . 8605 | . 8525 | . 8443 | . 8358 | . 8272 | . 8184 | . 8095 | . 8003 | . 7911 | . 7818 | . 7724 |
| * | . 8908 | . 8840 | . 8768 | . 8693 | . 8615 | . 8535 | . 8453 | . 8368 | . 8282 | . 8194 | . 8104 | . 8013 | . 7920 | . 7826 | . 7732 |
| * | . 8920 | . 8851 | . 8779 | . 8704 | . 8627 | . 8546 | . 8464 | . 8380 | . 8293 | . 8204 | . 8115 | . 8023 | . 7931 | . 7837 | . 7743 |
| * | . 8932 | . 8862 | . 8791 | . 8715 | . 8638 | . 8558 | . 8475 | . 8391 | . 8305 | . 8216 | . 8127 | . 8034 | . 7942 | . 7848 | . 7753 |
| * | . 8944 | . 8875 | . 8803 | . 8727 | . 8651 | . 8571 | . 8488 | . 8403 | . 8317 | . 8228 | . 8138 | . 8046 | . 7953 | . 7859 | . 7764 |
| * | . 8956 | . 8888 | . 8816 | . 8742 | . 8663 | . 8583 | . 8501 | . 8416 | . 8330 | . 8240 | . 8150 | . 8058 | . 7965 | . 7871 | . 7775 |
| * | . 8970 | . 8901 | . 8829 | . 8755 | . 8678 | . 8597 | . 8515 | . 8430 | . 8342 | . 8254 | . 8164 | . 8071 | . 7977 | . 7883 | . 7788 |
| * | . 8984 | . 8916 | . 8844 | . 8769 | . 8691 | . 8612 | . 8528 | . 8444 | . 8356 | . 8268 | . 8177 | . 8085 | . 7991 | . 7896 | . 7800 |
| * | . 8998 | . 8931 | . 8859 | . 8784 | . 8707 | . 8626 | . 8544 | . 8458 | . 8371 | . 8283 | . 8192 | . 8099 | . 8005 | . 7910 | . 7813 |
| * | . 9014 | . 8946 | . 8874 | . 8800 | . 8722 | . 8642 | . 8559 | . 8474 | . 8387 | . 8298 | . 8207 | . 8114 | . 8020 | . 7924 | . 7828 |
| * | . 9030 | . 8962 | . 8891 | . 8816 | . 8738 | . 8658 | . 8576 | . 8491 | . 8403 | . 8314 | . 8223 | . 8130 | . 8035 | . 7940 | . 7843 |
| * | . 9046 | . 8978 | . 8908 | . 8833 | . 8756 | . 8676 | . 8593 | . 8508 | . 8420 | . 8331 | . 8241 | . 8147 | . 8052 | . 7956 | . 7859 |
|  | . 9063 | . 8996 | . 8925 | . 8852 | . 8774 | . 8694 | . 8611 | . 8526 | . 8439 | . 8350 | . 8258 | . 8164 | . 8069 | . 7973 | . 7877 |
| * | . 9081 | . 9013 | . 8944 | . 8870 | . 8792 | . 8713 | . 8630 | . 8545 | . 8457 | . 8368 | . 8277 | . 8184 | . 8088 | . 7992 | . 7894 |
| * | . 9099 | . 9032 | . 8962 | . 8889 | . 8812 | . 8733 | . 8650 | . 8565 | . 8478 | . 8388 | . 8296 | . 8203 | . 8107 | . 8011 | . 7913 |
| * | . 9118 | . 9052 | . 8982 | . 8909 | . 8833 | . 8754 | . 8671 | . 8586 | . 8498 | . 8409 | . 8318 | . 8224 | . 8127 | . 8030 | . 7932 |
| * | . 9138 | . 9072 | . 9002 | . 8930 | . 8854 | . 8774 | . 8692 | . 8608 | . 8520 | . 8431 | . 8339 | . 8245 | . 8149 | . 8052 | . 7953 |
| * | . 9158 | . 9092 | . 9023 | . 8951 | . 8876 | . 8796 | . 8714 | . 8630 | . 8542 | . 8454 | . 8362 | . 8268 | . 8172 | . 8074 | . 7975 |
| * | . 9178 | . 9113 | . 9045 | . 8973 | . 8898 | . 8820 | . 8737 | . 8653 | . 8567 | . 8477 | . 8386 | . 8292 | . 8196 | . 8098 | . 7999 |
| * | . 9199 | . 9135 | . 9067 | . 8996 | . 8922 | . 8843 | . 8762 | . 8678 | . 8591 | . 8502 | . 8411 | . 8317 | . 8220 | . 8122 | . 8023 |
| * | . 9220 | . 9157 | . 9090 | . 9020 | . 8946 | . 8868 | . 8787 | . 8703 | . 8617 | . 8528 | . 8436 | . 8342 | . 8246 | . 8148 | . 8048 |
| * | . 9242 | . 9180 | . 9113 | . 9044 | . 8970 | . 8892 | . 8812 | . 8730 | . 8644 | . 8554 | . 8463 | . 8370 | . 8274 | . 8176 | . 8076 |
| * | . 9263 | . 9202 | . 9137 | . 9068 | . 8995 | . 8919 | . 8839 | . 8757 | . 8671 | . 8582 | . 8492 | . 8398 | . 8302 | . 8203 | . 8105 |
| * | . 9285 | . 9225 | . 9160 | . 9093 | . 9021 | . 8945 | . 8866 | . 8785 | . 8699 | . 8611 | . 8521 | . 8427 | . 8331 | . 8234 | . 8134 |
| * | . 9309 | . 9250 | . 9186 | . 9118 | . 9048 | . 8973 | . 8895 | . 8813 | . 8728 | . 8641 | . 8551 | . 8457 | . 8362 | . 8264 | . 8164 |
| * | . 9331 | . 9273 | . 9210 | . 9144 | . 9074 | . 9001 | . 8922 | . 8842 | . 8758 | . 8672 | . 8582 | . 8490 | . 8394 | . 8296 | . 8196 |

[^5]
## TABLE F -

CONVERSION FROM 50\% JOINT \& SURVIVOR TO 100 \% JOINT \& SURVIVOR WITH POP UP
CECONY Management Participants and CECONY Weekly Participants
Not Applicable to CECONY Weekly Participants -1
pensioner

| Age Of Bene. | $*$ $*$ $*$ | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 61 | * | . 9354 | . 9297 | . 9235 | . 9170 | . 9101 | . 9628 | . 8952 | . 8872 | . 8790 | . 8702 | . 8613 | . 8522 | . 8426 | . 8329 | . 8230 |
| 62 | * | . 9377 | . 9320 | . 9261 | . 9197 | . 9129 | . 9057 | . 8982 | 8904 | . 8821 | . 8735 | . 8647 | . 8555 | . 8460 | . 8363 | . 8264 |
| 63 | * | . 9399 | . 9345 | . 9286 | . 9224 | . 9156 | . 9087 | . 9012 | . 8934 | . 8853 | . 8768 | . 8680 | . 8589 | . 8495 | . 8398 | . 8299 |
| 64 | * | . 9423 | . 9369 | . 9312 | . 9250 | . 9185 | . 9115 | . 9042 | . 8966 | . 8885 | . 8801 | . 8715 | . 8624 | . 8531 | . 8434. | . 8336 |
| 65 | * | . 9445 | . 9392 | . 9337 | . 9277 | . 9213 | . 9144 | . 9073 | . 8998 | . 8918 | . 8836 | . 8750 | . 8661 | 8567 | . 8472 | . 8374 |
| 66 | * | . 9467 | . 9416 | . 9362 | . 9303 | . 9241 | . 9174 | . 9104 | . 9030 | . 8952 | . 8870 | . 8785 | . 8696 | . 8605 | . 8510 | . 8412 |
| 67 | * | . 9489 | . 9440 | . 9387 | . 9330 | . 9269 | . 9204 | . 9135 | . 9062 | . 8986 | . 8905 | . 8821 | . 8734 | . 8642 | . 8549 | . 8451 |
| 68 | * | . 9511 | . 9463 | . 9411 | . 9356 | . 9297 | . 9234 | . 9166 | . 9095 | . 9019 | . 8941 | . 8858 | . 8772 | . 8681 | . 8588 | . 8493 |
| 69 | * | . 9532 | . 9486 | . 9436 | . 9382 | . 9324 | . 9262 | . 9197 | . 9128 | . 9053 | . 8976 | . 8895 | . 8809 | . 8720 | . 8629 | . 8533 |
| 70 | * | . 9553 | 9509 | . 9461 | . 9409 | . 9353 | . 9292 | . 9227 | . 9159 | . 9087 | . 9011 | . 8931 | . 8847 | . 8760 | . 8669 | . 8575 |
| 71 | * | . 9573 | . 9531 | . 9484 | . 9434 | . 9379 | . 9320 | . 9258 | . 9192 | . 9121 | . 9046 | . 8968 | . 8886 | . 8800 | . 8710 | . 8617 |
| 72 | * | . 9593 | . 9552 | . 9507 | . 9459 | . 9406 | . 9349 | . 9289 | . 9224 | . 9154 | . 9082 | . 9006 | . 8925 | . 8840 | . 8752 | . 8660 |
| 73 | * | . 9612 | . 9573 | . 9530 | . 9483 | . 9432 | . 9377 | . 9318 | . 9254 | . 9189 | . 9117 | . 9043 | . 8963 | . 8880 | . 8794 | . 8702 |
| 74 | * | . 9631 | . 9594 | . 9553 | . 9507 | . 9458 | . 9405 | . 9348 | . 9286 | . 9221 | . 9152 | . 9080 | . 9001 | . 8920 | . 8835 | . 8746 |
| 75 | * | . 9649 | . 9614 | . 9575 | . 9531 | . 9482 | . 9432 | . 9376 | . 9317 | . 9254 | . 9186 | . 9115 | . 9039 | . 8960 | . 8876 | . 8789 |
| 76 | * | . 9667 | . 9633 | . 9594 | . 9553 | . 9508 | . 9457 | . 9404 | . 9347 | . 9285 | . 9221 | . 9151 | . 9077 | . 9000 | . 8918 | . 8832 |
| 77 | * | . 9685 | . 9652 | . 9615 | . 9575 | . 9531 | . 9483 | . 9432 | . 9376 | . 9318 | . 9254 | . 9187 | . 9114 | . 9039 | . 8960 | . 8875 |
| 78 | * | . 9701 | . 9669 | . 9634 | . 9597 | . 9554 | . 9508 | . 9458 | . 9405 | . 9348 | . 9287 | . 9221 | . 9153 | . 9078 | . 9000 | . 8918 |
| 79 | * | . 9717 | . 9687 | . 9653 | . 9616 | . 9576 | . 9532 | . 9485 | . 9434 | . 9378 | . 9319 | . 9255 | . 9189 | . 9116 | . 9040. | . 8960 |
| 80 | * | . 9732 | . 9703 | . 9672 | . 9636 | . 9598 | . 9556 | . 9510 | . 9460 | . 9407 | . 9350 | . 9288 | . 9223 | . 9154 | . 9079 | . 9001 |
| 81 | * | . 9747 | . 9720 | . 9690 | . 9656 | . 9618 | . 9579 | . 9534 | . 9487 | . 9435 | . 9380 | . 9322 | . 9258 | . 9191 | . 9118 | . 9042 |
| 82 | * | . 9760 | . 9735 | . 9706 | . 9674 | . 9639 | . 9600 | . 9558 | . 9512 | . 9463 | . 9411 | . 9354 | . 9292 | . 9227 | . 9157 | . 9083 |
| 83 | * | . 9774 | . 9749 | . 9722 | . 9691 | . 9658 | . 9621 | . 9581 | . 9537 | . 9491 | . 9439 | . 9386 | . 9326 | . 9263 | . 9195 | . 9123 |
| 84 | * | 9787 | . 9764 | . 9737 | . 9709 | . 9676 | . 9641 | . 9603 | . 9562 | . 9516 | . 9469 | . 9416 | . 9359 | . 9297 | . 9232 | . 9163 |
| 85 | * | . 9799 | . 9777 | . 9753 | . 9725 | . 9695 | . 9661 | . 9625 | . 9585 | . 9543 | . 9495 | . 9445 | . 9390 | . 9333. | . 9269 | . 9202 |

## Sub appendix A. 1

TABLE G-
All CECONY Participants Whose Distributions Begin Before January 1, 2005
Social Security Leveling Factors

|  | Leveling To Age 62 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 45 | 0.223320 | 0.224894 | 0.226467 | 0.228041 | 0.229614 | 0.231188 | 0.232761 | 0.234335 | 0.235909 | 0.237482 | 0.239056 | 0.240629 |
| 46 | 0.242203 | 0.243923 | 0.245643 | 0.247363 | 0.249083 | 0.250803 | 0.252523 | 0.254243 | 0.255963 | 0.257683 | 0.259403 | 0.261123 |
| 47 | 0.262843 | 0.264725 | 0.266607 | 0.268489 | 0.270371 | 0.272253 | 0.274135 | 0.276017 | 0.277899 | 0.279781 | 0.281663 | 0.283545 |
| 48 | 0.285427 | 0.287488 | 0.289550 | 0.291611 | 0.293673 | 0.295734 | 0.297796 | 0.299857 | 0.301918 | 0.303980 | 0.306041 | 0.308103 |
| 49 | 0.310164 | 0.312425 | 0.314686 | 0.316946 | 0.319207 | 0.321468 | 0.323729 | 0.325989 | 0.328250 | 0.330511 | 0.332772 | 0.335032 |
| 50 | 0.337293 | 0.339775 | 0.342258 | 0.344740 | 0.347223 | 0.349705 | 0.352188 | 0.354670 | 0.357152 | 0.359635 | 0.362117 | 0.364600 |
| 51 | 0.367082 | 0.369811 | 0.372541 | 0.375271 | 0.378000 | 0.380730 | 0.383459 | 0.386189 | 0.388918 | 0.391648 | 0.394377 | 0.397107 |
| 52 | 0.399836 | 0.402841 | 0.405847 | 0.408852 | 0.411858 | 0.414863 | 0.417869 | 0.420874 | 0.423879 | 0.426885 | 0.429890 | 0.432896 |
| 53 | 0.435901 | 0.439215 | 0.442530 | 0.445844 | 0.449159 | 0.452473 | 0.455788 | 0.459102 | 0.462416 | 0.465731 | 0.469045 | 0.472360 |
| 54 | 0.475674 | 0.479335 | 0.482997 | 0.486658 | 0.490319 | 0.493981 | 0.497642 | 0.501303 | 0.504965 | 0.508626 | 0.512287 | 0.515949 |
| 55 | 0.519610 | 0.523662 | 0.527713 | 0.531765 | 0.535817 | 0.539868 | 0.543920 | 0.547972 | 0.552023 | 0.556075 | 0.560127 | 0.564178 |
| 56 | 0.568230 | 0.572723 | 0.577215 | 0.581707 | 0.586200 | 0.590693 | 0.595185 | 0.599678 | 0.604170 | 0.608663 | 0.613155 | 0.617648 |
| 57 | 0.622140 | 0.627131 | 0.632123 | 0.637114 | 0.642106 | 0.647097 | 0.652089 | 0.657080 | 0.662071 | 0.667063 | 0.672054 | 0.677046 |
| 58 | 0.682037 | 0.687595 | 0.693154 | 0.698712 | 0.704270 | 0.709829 | 0.715387 | 0.720945 | 0.726504 | 0.732062 | 0.737620 | 0.743179 |
| 59 | 0.748737 | 0.754941 | 0.761146 | 0.767350 | 0.773554 | 0.779759 | 0.785963 | 0.792167 | 0.798372 | 0.804576 | 0.810780 | 0.816985 |
| 60 | 0.823189 | 0.830132 | 0.837075 | 0.844018 | 0.850962 | 0.857905 | 0.864848 | 0.871791 | 0.878734 | 0.885677 | 0.892621 | 0.899564 |
| 61 | 0.906507 | 0.914298 | 0.922089 | 0.929880 | 0.937671 | 0.945462 | 0.953254 | 0.961045 | 0.968836 | 0.976627 | 0.984418 | 0.992209 |
| 62 | 1.000000 |  |  |  |  |  |  |  |  |  |  |  |

## Sub appendix A. 1

TABLE G-
All CECONY Participants
Social Security Leveling Factors for Distributions Beginning Before January 1, 2005

|  | Leveling To Age 65 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 45 | 0.164388 | 0.165546 | 0.166705 | 0.167863 | 0.169021 | 0.170180 | 0.171338 | 0.172496 | 0.173655 | 0.174813 | 0.175971 | 0.177130 |
| 46 | 0.178288 | 0.179554 | 0.180820 | 0.182087 | 0.183353 | 0.184619 | 0.185885 | 0.187151 | 0.188417 | 0.189683 | 0.190950 | 0.192216 |
| 47 | 0.193482 | 0.194867 | 0.196253 | 0.197638 | 0.199023 | 0.200409 | 0.201794 | 0.203179 | 0.204565 | 0.205950 | 0.207335 | 0.208721 |
| 48 | 0.210106 | 0.211623 | 0.213141 | 0.214658 | 0.216176 | 0.217693 | 0.219210 | 0.220728 | 0.222245 | 0.223763 | 0.225280 | 0.226798 |
| 49 | 0.228315 | 0.229979 | 0.231643 | 0.233308 | 0.234972 | 0.236636 | 0.238300 | 0.239964 | 0.241628 | 0.243293 | 0.244957 | 0.246621 |
| 50 | 0.248285 | 0.250112 | 0.251940 | 0.253767 | 0.255594 | 0.257422 | 0.259249 | 0.261076 | 0.262904 | 0.264731 | 0.266558 | 0.268386 |
| 51 | 0.270213 | 0.272222 | 0.274231 | 0.276241 | 0.278250 | 0.280259 | 0.282268 | 0.284277 | 0.286286 | 0.288296 | 0.290305 | 0.292314 |
| 52 | 0.294323 | 0.296535 | 0.298748 | 0.300960 | 0.303172 | 0.305385 | 0.307597 | 0.309809 | 0.312022 | 0.314234 | 0.316446 | 0.318659 |
| 53 | 0.320871 | 0.323311 | 0.325751 | 0.328191 | 0.330630 | 0.333070 | 0.335510 | 0.337950 | 0.340390 | 0.342829 | 0.345269 | 0.347709 |
| 54 | 0.350149 | 0.352844 | 0.355539 | 0.358234 | 0.360929 | 0.363624 | 0.366319 | 0.369015 | 0.371710 | 0.374405 | 0.377100 | 0.379795 |
| 55 | 0.382490 | 0.385473 | 0.388455 | 0.391437 | 0.394420 | 0.397403 | 0.400385 | 0.403367 | 0.406350 | 0.409333 | 0.412315 | 0.415297 |
| 56 | 0.418280 | 0.421587 | 0.424894 | 0.428201 | 0.431508 | 0.434815 | 0.438122 | 0.441429 | 0.444736 | 0.448043 | 0.451350 | 0.454657 |
| 57 | 0.457964 | 0.461638 | 0.465312 | 0.468987 | 0.472661 | 0.476335 | 0.480010 | 0.483684 | 0.487358 | 0.491032 | 0.494707 | 0.498381 |
| 58 | 0.502055 | 0.506147 | 0.510238 | 0.514330 | 0.518421 | 0.522513 | 0.526605 | 0.530696 | 0.534788 | 0.538879 | 0.542971 | 0.547062 |
| 59 | 0.551154 | 0.555721 | 0.560288 | 0.564855 | 0.569422 | 0.573989 | 0.578557 | 0.583124 | 0.587691 | 0.592258 | 0.596825 | 0.601392 |
| 60 | 0.605959 | 0.611070 | 0.616181 | 0.621292 | 0.626403 | 0.631514 | 0.636625 | 0.641735 | 0.646846 | 0.651957 | 0.657068 | 0.662179 |
| 61 | 0.667290 | 0.673025 | 0.678760 | 0.684495 | 0.690230 | 0.695965 | 0.701701 | 0.707436 | 0.713171 | 0.718906 | 0.724641 | 0.730376 |
| 62 | 0.736111 | 0.742565 | 0.749019 | 0.755473 | 0.761927 | 0.768381 | 0.774836 | 0.781290 | 0.787744 | 0.794198 | 0.800652 | 0.807106 |
| 63 | 0.813560 | 0.820846 | 0.828131 | 0.835417 | 0.842703 | 0.849988 | 0.857274 | 0.864560 | 0.871845 | 0.879131 | 0.886417 | 0.893702 |
| 64 | 0.900988 | 0.909239 | 0.917490 | 0.925741 | 0.933992 | 0.942243 | 0.950494 | 0.958745 | 0.966996 | 0.975247 | 0.983498 | 0.991749 |
| 65 | 1.000000 |  |  |  |  |  |  |  |  |  |  |  |

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Sub appendix A. 1
TABLE G-
All CECONY Participants
Social Security Leveling Factors For Distributions Beginning Before January 1, 2005
Leveling to Age 66

Sub appendix A. 1
TABLE G-
All CECONY Participants
Social Security Leveling Factors For Distributions Beginning Before January 1, 2005
Leveling To Age 67

| AGE | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 45 | . 132481 | . 133415 | . 134348 | . 135282 | . 136215 | . 137149 | . 138082 | . 139016 | . 139949 | . 140883 | . 141816 | . 142750 |
| 46 | . 143683 | . 144703 | . 145724 | . 146744 | . 147765 | . 148785 | . 149806 | . 150826 | . 151846 | . 152867 | . 153887 | . 154908 |
| 47 | . 155928 | . 157044 | . 158161 | . 159277 | . 160394 | . 161510 | . 162627 | . 163743 | . 164859 | . 165976 | . 167092 | . 168209 |
| 48 | . 169325 | . 170548 | . 171771 | . 172994 | . 174217 | . 175440 | . 176663 | . 177885 | . 179108 | . 180331 | . 181554 | . 182777 |
| 49 | . 184000 | . 185341 | . 186682 | . 188024 | . 189365 | . 190706 | . 192047 | . 193388 | . 194729 | . 196071 | . 197412 | . 198753 |
| 50 | . 200094 | . 201567 | . 203039 | . 204512 | . 205985 | . 207457 | . 208930 | . 210403 | . 211875 | . 213348 | . 214821 | . 216293 |
| 51 | . 217766 | . 219385 | . 221005 | . 222624 | . 224243 | . 225862 | . 227482 | . 229101 | 230720 | . 232339 | . 233959 | . 235578 |
| 52 | . 237197 | . 238980 | . 240763 | . 242546 | . 244329 | . 246112 | . 247895 | . 249677 | . 251460 | . 253243 | . 255026 | . 256809 |
| 53 | . 258592 | . 260558 | . 262525 | . 264491 | . 266457 | . 268423 | . 270390 | . 272356 | . 274322 | . 276288 | . 278255 | . 280221 |
| 54 | . 282187 | . 284359 | . 286531 | . 288703 | . 290875 | . 293047 | . 295219 | . 297391 | . 299563 | . 301735 | . 303907 | . 306079 |
| 55 | . 308251 | . 310655 | . 313058 | . 315462 | . 317865 | . 320269 | . 322673 | . 325076 | . 327480 | . 329883 | . 332287 | . 334690 |
| 56 | . 337094 | . 339759 | . 342424 | . 345089 | . 347754 | . 350419 | . 353085 | . 355750 | . 358415 | . 361080 | . 363745 | . 366410 |
| 57 | . 369075 | . 372036 | . 374997 | . 377959 | . 380920 | . 383881 | . 386842 | . 389803 | . 392764 | . 395726 | . 398687 | . 401648 |
| 58 | . 404609 | . 407906 | . 411204 | . 414501 | . 417798 | . 421096 | . 424393 | . 427690 | . 430988 | . 434285 | . 437582 | . 440880 |
| 59 | . 444177 | . 447858 | . 451538 | . 455219 | . 458900 | . 462580 | . 466261 | . 469942 | . 473622 | . 477303 | . 480984 | . 484664 |
| 60 | . 488345 | . 492464 | 496583 | . 500702 | . 504821 | . 508940 | . 513059 | . 517177 | . 521296 | . 525415 | . 529534 | . 533653 |
| 61 | . 537772 | . 542394 | . 547016 | . 551638 | . 556260 | . 560882 | . 565504 | . 570125 | . 574747 | . 579369 | . 583991 | . 588613 |
| 62 | . 593235 | . 598436 | . 603638 | . 608839 | . 614041 | . 619242 | . 624444 | . 629645 | . 634846 | . 640048 | . 645249 | . 650451 |
| 63 | . 655652 | . 661524 | . 667395 | . 673267 | . 679138 | . 685010 | . 690882 | . 696753 | . 702625 | . 708496 | . 714368 | . 720239 |
| 64 | . 726111 | . 732761 | . 739410 | . 746060 | . 752709 | . 759359 | . 766008 | . 772658 | . 779307 | . 785957 | . 792606 | . 799256 |
| 65 | . 805905 | . 813461 | . 821018 | . 828574 | . 836131 | . 843687 | . 851244 | . 858800 | . 866356 | . 873913 | . 881469 | . 889026 |
| 66 | . 896582 | . 905200 | . 913818 | . 922437 | . 931055 | . 939673 | . 948291 | . 956909 | . 965527 | . 974146 | . 982764 | . 991382 |
| 67 | 1.000000 |  |  |  |  |  |  |  |  |  |  |  |

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## TABLE I

Conversion From Single Life to Twelve Year Certain with 50\% Joint \& Survivor without Pop-Up CECONY Weekly Participants -1

Age of Pensioner

| AGE OF BENEFICIARY | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 25 | 0.9858 | 0.9845 | 0.9833 | 0.9818 | 0.9804 | 0.9787 | 0.9768 | 0.9749 | 0.9729 | 0.9706 | 0.9681 | 0.9655 | 0.9626 | 0.9596 | 0.9564 | 0.9528 |
| 26 | 0.9861 | 0.9849 | 0.9837 | 0.9822 | 0.9808 | 0.9791 | 0.9773 | 0.9754 | 0.9733 | 0.9711 | 0.9687 | 0.9660 | 0.9632 | 0.9602 | 0.9570 | 0.9534 |
| 27 | 0.9865 | 0.9853 | 0.9841 | 0.9826 | 0.9812 | 0.9796 | 0.9778 | 0.9759 | 0.9738 | 0.9716 | 0.9692 | 0.9666 | 0.9638 | 0.9608 | 0.9576 | 0.9541 |
| 28 | 0.9868 | 0.9856 | 0.9844 | 0.9830 | 0.9816 | 0.9800 | 0.9782 | 0.9764 | 0.9744 | 0.9722 | 0.9698 | 0.9672 | 0.9644 | 0.9615 | 0.9582 | 0.9548 |
| 29 | 0.9872 | 0.9860 | 0.9848 | 0.9834 | 0.9820 | 0.9804 | 0.9787 | 0.9769 | 0.9749 | 0.9727 | 0.9703 | 0.9677 | 0.9651 | 0.9621 | 0.9589 | 0.9554 |
| 30 | 0.9875 | 0.9864 | 0.9852 | 0.9839 | 0.9825 | 0.9809 | 0.9792 | 0.9774 | 0.9755 | 0.9733 | 0.9709 | 0.9684 | 0.9657 | 0.9628 | 0.9596 | 0.9561 |
| 31 | 0.9879 | 0.9867 | 0.9856 | 0.9842 | 0.9829 | 0.9814 | 0.9797 | 0.9779 | 0.9760 | 0.9739 | 0.9715 | 0.9690 | 0.9664 | 0.9635 | 0.9603 | 0.9569 |
| 32 | 0.9882 | 0.9871 | 0.9860 | 0.9847 | 0.9834 | 0.9818 | 0.9802 | 0.9784 | 0.9766 | 0.9745 | 0.9722 | 0.9697 | 0.9671 | 0.9642 | 0.9611 | 0.9577 |
| 33 | 0.9885 | 0.9875 | 0.9864 | 0.9851 | 0.9838 | 0.9824 | 0.9807 | 0.9790 | 0.9772 | 0.9750 | 0.9728 | 0.9703 | 0.9678 | 0.9649 | 0.9618 | 0.9585 |
| 34 | 0.9889 | 0.9879 | 0.9868 | 0.9856 | 0.9843 | 0.9829 | 0.9812 | 0.9795 | 0.9777 | 0.9757 | 0.9734 | 0.9710 | 0.9685 | 0.9657 | 0.9626 | 0.9593 |
| 35 | 0.9892 | 0.9882 | 0.9872 | 0.9859 | 0.9848 | 0.9833 | 0.9818 | 0.9801 | 0.9783 | 0.9763 | 0.9741 | 0.9717 | 0.9692 | 0.9664 | 0.9634 | 0.9601 |
| 36 | 0.9896 | 0.9886 | 0.9876 | 0.9864 | 0.9852 | 0.9838 | 0.9823 | 0.9807 | 0.9789 | 0.9770 | 0.9748 | 0.9725 | 0.9699 | 0.9672 | 0.9643 | 0.9610 |
| 37 | 0.9899 | 0.9890 | 0.9880 | 0.9868 | 0.9857 | 0.9843 | 0.9828 | 0.9812 | 0.9795 | 0.9776 | 0.9755 | 0.9732 | 0.9708 | 0.9680 | 0.9652 | 0.9619 |
| 38 | 0.9902 | 0.9893 | 0.9884 | 0.9873 | 0.9861 | 0.9848 | 0.9834 | 0.9818 | 0.9801 | 0.9782 | 0.9762 | 0.9739 | 0.9715 | 0.9689 | 0.9660 | 0.9629 |
| 39 | 0.9906 | 0.9897 | 0.9888 | 0.9876 | 0.9865 | 0.9853 | 0.9839 | 0.9824 | 0.9807 | 0.9789 | 0.9769 | 0.9746 | 0.9723 | 0.9697 | 0.9669 | 0.9638 |
| 40 | 0.9909 | 0.9901 | 0.9891 | 0.9881 | 0.9871 | 0.9858 | 0.9844 | 0.9830 | 0.9814 | 0.9796 | 0.9776 | 0.9754 | 0.9731 | 0.9705 | 0.9678 | 0.9648 |
| 41 | 0.9913 | 0.9904 | 0.9895 | 0.9885 | 0.9875 | 0.9863 | 0.9850 | 0.9836 | 0.9820 | 0.9803 | 0.9783 | 0.9761 | 0.9739 | 0.9714 | 0.9687 | 0.9658 |
| 42 | 0.9916 | 0.9907 | 0.9899 | 0.9889 | 0.9880 | 0.9868 | 0.9855 | 0.9841 | 0.9826 | 0.9809 | 0.9790 | 0.9769 | 0.9747 | 0.9722 | 0.9697 | 0.9667 |
| 43 | 0.9919 | 0.9911 | 0.9903 | 0.9893 | 0.9884 | 0.9872 | 0.9860 | 0.9847 | 0.9832 | 0.9815 | 0.9797 | 0.9776 | 0.9756 | 0.9731 | 0.9706 | 0.9677 |
| 44 | 0.9922 | 0.9914 | 0.9906 | 0.9897 | 0.9889 | 0.9877 | 0.9865 | 0.9852 | 0.9838 | 0.9822 | 0.9804 | 0.9785 | 0.9764 | 0.9740 | 0.9715 | 0.9687 |
| 45 | 0.9925 | 0.9918 | 0.9910 | 0.9901 | 0.9892 | 0.9882 | 0.9870 | 0.9858 | 0.9844 | 0.9828 | 0.9811 | 0.9792 | 0.9771 | 0.9749 | 0.9724 | 0.9697 |
| 46 | 0.9928 | 0.9921 | 0.9914 | 0.9905 | 0.9897 | 0.9887 | 0.9875 | 0.9863 | 0.9850 | 0.9835 | 0.9818 | 0.9799 | 0.9780 | 0.9757 | 0.9734 | 0.9707 |
| 47 | 0.9931 | 0.9924 | 0.9917 | 0.9909 | 0.9900 | 0.9891 | 0.9880 | 0.9868 | 0.9856 | 0.9841 | 0.9825 | 0.9807 | 0.9788 | 0.9766 | 0.9743 | 0.9717 |
| 48 | 0.9933 | 0.9927 | 0.9920 | 0.9913 | 0.9905 | 0.9896 | 0.9885 | 0.9874 | 0.9861 | 0.9848 | 0.9832 | 0.9814 | 0.9796 | 0.9775 | 0.9752 | 0.9726 |
| 49 | 0.9936 | 0.9930 | 0.9924 | 0.9916 | 0.9909 | 0.9899 | 0.9890 | 0.9879 | 0.9867 | 0.9854 | 0.9838 | 0.9822 | 0.9803 | 0.9783 | 0.9761 | 0.9736 |
| 50 | 0.9939 | 0.9933 | 0.9927 | 0.9919 | 0.9912 | 0.9904 | 0.9894 | 0.9883 | 0.9872 | 0.9860 | 0.9845 | 0.9829 | 0.9812 | 0.9791 | 0.9770 | 0.9746 |
| 51 | 0.9942 | 0.9936 | 0.9930 | 0.9923 | 0.9916 | 0.9908 | 0.9899 | 0.9889 | 0.9878 | 0.9865 | 0.9851 | 0.9835 | 0.9819 | 0.9800 | 0.9779 | 0.9756 |
| 52 | 0.9944 | 0.9939 | 0.9933 | 0.9926 | 0.9920 | 0.9912 | 0.9903 | 0.9893 | 0.9883 | 0.9871 | 0.9857 | 0.9842 | 0.9826 | 0.9808 | 0.9788 | 0.9765 |
| 53 | 0.9946 | 0.9941 | 0.9936 | 0.9930 | 0.9924 | 0.9916 | 0.9907 | 0.9898 | 0.9888 | 0.9876 | 0.9864 | 0.9849 | 0.9834 | 0.9816 | 0.9797 | 0.9775 |
| 54 | 0.9949 | 0.9944 | 0.9939 | 0.9933 | 0.9927 | 0.9920 | 0.9912 | 0.9903 | 0.9893 | 0.9882 | 0.9870 | 0.9856 | 0.9841 | 0.9824 | 0.9805 | 0.9785 |
| 55 | 0.9951 | 0.9946 | 0.9942 | 0.9936 | 0.9930 | 0.9923 | 0.9916 | 0.9907 | 0.9898 | 0.9888 | 0.9876 | 0.9862 | 0.9848 | 0.9832 | 0.9814 | 0.9793 |

TABLE I
Conversion from Single Life to Twelve Year Certain with 50\% Joint \& Survivor without Pop-Up CECONY Weekly Participant $\mathbf{- 1}$

Age of Pensioner

| AGE Of beneficiary | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 56 | 0.9954 | 0.9949 | 0.9944 | 0.9939 | 0.9933 | 0.9927 | 0.9919 | 0.9911 | 0.9903 | 0.9892 | 0.9881 | 0.9868 | 0.9854 | 0.9839 | 0.9822 | 02 |
| 57 | 0.9956 | 0.9951 | 0.9947 | 0.9942 | 0.9936 | 0.9930 | 0.9923 | 0.9916 | 0.9907 | 0.9898 | 0.9886 | 0.9874 | 0.9861 | 0.9847 | 0.9830 | 0.9811 |
| 58 | 0.9957 | 0.9953 | 0.9950 | 0.9944 | 0.9939 | 0.9934 | 0.9927 | 0.9920 | 0.9912 | 0.9902 | 0.9892 | 0.9880 | 0.9868 | 0.9853 | 0.9838 | 0.9820 |
| 59 | 0.9960 | 0.9956 | 0.9952 | 0.9947 | 0.9942 | 0.9937 | 0.9931 | 0.9924 | 0.9916 | 0.9908 | 0.9897 | 0.9886 | 0.9874 | 0.9860 | 0.9846 | 0.9828 |
| 60 | 0.9962 | 0.9958 | 0.9954 | 0.9949 | 0.9945 | 0.9940 | 0.9934 | 0.9927 | 0.9920 | 0.9912 | 0.9902 | 0.9891 | 0.9881 | 0.9867 | 0.9853 | 0.9836 |
| 61 | 0.9963 | 0.9959 | 0.9956 | 0.9952 | 0.9948 | 0.9943 | 0.9937 | 0.9931 | 0.9924 | 0.9916 | 0.9907 | 0.9897 | 0.9886 | 0.9874 | 0.9860 | 0.9844 |
| 62 | 0.9966 | 0.9962 | 0.9959 | 0.9955 | 0.9951 | 0.9946 | 0.9940 | 0.9934 | 0.9928 | 0.9921 | 0.9912 | 0.9902 | 0.9891 | 0.9880 | 0.9867 | 0.9852 |
| 63 | 0.9967 | 0.9963 | 0.9961 | 0.9957 | 0.9953 | 0.9948 | 0.9944 | 0.9938 | 0.9932 | 0.9924 | 0.9916 | 0.9907 | 0.9897 | 0.9885 | 0.9873 | 0.9859 |
| 64 | 0.9969 | 0.9965 | 0.9963 | 0.9958 | 0.9956 | 0.9951 | 0.9947 | 0.9941 | 0.9935 | 0.9928 | 0.9920 | 0.9911 | 0.9902 | 0.9891 | 0.9879 | 0.9866 |
| 65 | 0.9970 | 0.9967 | 0.9965 | 0.9961 | 0.9958 | 0.9954 | 0.9949 | 0.9944 | 0.9938 | 0.9932 | 0.9925 | 0.9916 | 0.9907 | 0.9897 | 0.9885 | 0.9872 |
| 66 | 0.9971 | 0.9968 | 0.9966 | 0.9963 | 0.9960 | 0.9956 | 0.9952 | 0.9947 | 0.9942 | 0.9936 | 0.9929 | 0.9920 | 0.9911 | 0.9902 | 0.9891 | 0.9878 |
| 67 | 0.9973 | 0.9970 | 0.9968 | 0.9964 | 0.9962 | 0.9958 | 0.9954 | 0.9949 | 0.9945 | 0.9939 | 0.9932 | 0.9924 | 0.9916 | 0.9907 | 0.9896 | 0.9884 |
| 68 | 0.9974 | 0.9971 | 0.9970 | 0.9967 | 0.9964 | 0.9960 | 0.9956 | 0.9952 | 0.9948 | 0.9942 | 0.9936 | 0.9928 | 0.9921 | 0.9912 | 0.9902 | 0.9890 |
| 69 | 0.9975 | 0.9973 | 0.9971 | 0.9968 | 0.9966 | 0.9963 | 0.9959 | 0.9955 | 0.9950 | 0.9945 | 0.9939 | 0.9931 | 0.9925 | 0.9916 | 0.9906 | 0.9895 |
| 70 | 0.9977 | 0.9974 | 0.9973 | 0.9970 | 0.9967 | 0.9964 | 0.9961 | 0.9957 | 0.9953 | 0.9947 | 0.9942 | 0.9935 | 0.9928 | 0.9920 | 0.9910 | 0.9900 |
| 71 | 0.9977 | 0.9975 | 0.9974 | 0.9971 | 0.9969 | 0.9966 | 0.9963 | 0.9959 | 0.9955 | 0.9950 | 0.9945 | 0.9938 | 0.9932 | 0.9923 | 0.9915 | 0.9905 |
| 72 | 0.9979 | 0.9977 | 0.9975 | 0.9972 | 0.9970 | 0.9968 | 0.9964 | 0.9961 | 0.9957 | 0.9953 | 0.9947 | 0.9941 | 0.9935 | 0.9927 | 0.9919 | 0.9909 |
| 73 | 0.9980 | 0.9977 | 0.9976 | 0.9973 | 0.9972 | 0.9970 | 0.9966 | 0.9962 | 0.9959 | 0.9955 | 0.9949 | 0.9944 | 0.9938 | 0.9931 | 0.9922 | 0.9913 |
| 74 | 0.9980 | 0.9978 | 0.9977 | 0.9975 | 0.9973 | 0.9970 | 0.9968 | 0.9965 | 0.9961 | 0.9957 | 0.9952 | 0.9946 | 0.9940 | 0.9934 | 0.9926 | 0.9917 |
| 75 | 0.9981 | 0.9980 | 0.9978 | 0.9976 | 0.9974 | 0.9972 | 0.9969 | 0.9966 | 0.9963 | 0.9959 | 0.9954 | 0.9948 | 0.9943 | 0.9936 | 0.9929 | 0.9920 |
| 76 | 0.9982 | 0.9980 | 0.9979 | 0.9977 | 0.9976 | 0.9973 | 0.9970 | 0.9967 | 0.9965 | 0.9960 | 0.9956 | 0.9951 | 0.9946 | 0.9939 | 0.9932 | 0.9923 |
| 77 | 0.9983 | 0.9981 | 0.9980 | 0.9977 | 0.9976 | 0.9974 | 0.9972 | 0.9969 | 0.9966 | 0.9962 | 0.9958 | 0.9952 | 0.9947 | 0.9941 | 0.9934 | 0.9926 |
| 78 | 0.9983 | 0.9981 | 0.9980 | 0.9978 | 0.9977 | 0.9975 | 0.9972 | 0.9970 | 0.9967 | 0.9964 | 0.9960 | 0.9954 | 0.9950 | 0.9943 | 0.9936 | 0.9929 |
| 79 | 0.9983 | 0.9982 | 0.9981 | 0.9979 | 0.9978 | 0.9976 | 0.9973 | 0.9971 | 0.9968 | 0.9964 | 0.9960 | 0.9955 | 0.9951 | 0.9945 | 0.9939 | 0.9931 |
| 80 | 0.9984 | 0.9983 | 0.9982 | 0.9980 | 0.9979 | 0.9976 | 0.9974 | 0.9972 | 0.9969 | 0.9966 | 0.9962 | 0.9957 | 0.9953 | 0.9947 | 0.9940 | 0.9933 |
| 81 | 0.9985 | 0.9983 | 0.9982 | 0.9980 | 0.9979 | 0.9977 | 0.9975 | 0.9972 | 0.9970 | 0.9967 | 0.9963 | 0.9959 | 0.9954 | 0.9949 | 0.9942 | 0.9935 |
| 82 | 0.9985 | 0.9983 | 0.9983 | 0.9980 | 0.9979 | 0.9978 | 0.9975 | 0.9973 | 0.9971 | 0.9967 | 0.9964 | 0.9959 | 0.9955 | 0.9949 | 0.9943 | 0.9937 |
| 83 | 0.9986 | 0.9983 | 0.9983 | 0.9981 | 0.9980 | 0.9979 | 0.9976 | 0.9974 | 0.9971 | 0.9968 | 0.9965 | 0.9960 | 0.9956 | 0.9951 | 0.9945 | 0.9938 |
| 84 | 0.9986 | 0.9984 | 0.9983 | 0.9982 | 0.9981 | 0.9979 | 0.9976 | 0.9975 | 0.9972 | 0.9969 | 0.9966 | 0.9962 | 0.9957 | 0.9952 | 0.9946 | 0.9939 |
| 85 | 0.9986 | 0.9984 | 0.9983 | 0.9982 | 0.9981 | 0.9979 | 0.9977 | 0.9975 | 0.9973 | 0.9970 | 0.9966 | 0.9962 | 0.9958 | 0.9953 | 0.9947 | 0.9941 |

## APPENDICES

TABLE I
Conversion from Single Life Annuity to
12 Year Certain And Life With 50\% Joint And Survivor without Pop-Up CECONY Weekly Participant -1

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 |
| 25 | 0.9491 | 0.9453 | 0.9410 | 0.9367 | 0.9319 | 0.9270 | 0.9218 | 0.9162 | 0.9102 | 0.9039 | 0.8972 | 0.8899 | 0.8822 | 0.8738 | 0.8650 | 0.8555 |
| 26 | 0.9498 | 0.9459 | 0.9417 | 0.9373 | 0.9327 | 0.9278 | 0.9225 | 0.9169 | 0.9110 | 0.9047 | 0.8979 | 0.8907 | 0.8830 | 0.8746 | 0.8658 | 0.8563 |
| 27 | 0.9505 | 0.9466 | 0.9424 | 0.9380 | 0.9334 | 0.9285 | 0.9233 | 0.9177 | 0.9118 | 0.9055 | 0.8987 | 0.8915 | 0.8838 | 0.8755 | 0.8666 | 0.8572 |
| 28 | 0.9511 | 0.9473 | 0.9431 | 0.9388 | 0.9341 | 0.9293 | 0.9241 | 0.9185 | 0.9126 | 0.9063 | 0.8996 | 0.8924 | 0.8847 | 0.8764 | 0.8676 | 0.8581 |
| 29 | 0.9519 | 0.9480 | 0.9439 | 0.9396 | 0.9349 | 0.9301 | 0.9249 | 0.9194 | 0.9135 | 0.9073 | 0.9005 | 0.8933 | 0.8856 | 0.8774 | 0.8685 | 0.8591 |
| 30 | 0.9526 | 0.9488 | 0.9447 | 0.9404 | 0.9358 | 0.9310 | 0.9258 | 0.9203 | 0.9144 | 0.9082 | 0.9014 | 0.8943 | 0.8866 | 0.8784 | 0.8695 | 0.8601 |
| 31 | 0.9534 | 0.9496 | 0.9455 | 0.9412 | 0.9367 | 0.9319 | 0.9267 | 0.9213 | 0.9153 | 0.9092 | 0.9025 | 0.8953 | 0.8877 | 0.8794 | 0.8706 | 0.8611 |
| 32 | 0.9542 | 0.9504 | 0.9464 | 0.9421 | 0.9376 | 0.9328 | 0.9277 | 0.9223 | 0.9164 | 0.9102 | 0.9035 | 0.8964 | 0.8887 | 0.8805 | 0.8717 | 0.8623 |
| 33 | 0.9550 | 0.9513 | 0.9473 | 0.9430 | 0.9386 | 0.9338 | 0.9287 | 0.9233 | 0.9175 | 0.9113 | 0.9046 | 0.8976 | 0.8899 | 0.8817 | 0.8729 | 0.8635 |
| 34 | 0.9559 | 0.9522 | 0.9482 | 0.9440 | 0.9395 | 0.9348 | 0.9298 | 0.9244 | 0.9186 | 0.9124 | 0.9058 | 0.8987 | 0.8912 | 0.8830 | 0.8742 | 0.8648 |
| 35 | 0.9568 | 0.9531 | 0.9492 | 0.9450 | 0.9406 | 0.9358 | 0.9308 | 0.9255 | 0.9197 | 0.9137 | 0.9070 | 0.9000 | 0.8924 | 0.8842 | 0.8755 | 0.8661 |
| 36 | 0.9577 | 0.9541 | 0.9502 | 0.9460 | 0.9417 | 0.9370 | 0.9320 | 0.9267 | 0.9209 | 0.9149 | 0.9083 | 0.9013 | 0.8937 | 0.8856 | 0.8769 | 0.8675 |
| 37 | 0.9587 | 0.9551 | 0.9512 | 0.9471 | 0.9428 | 0.9382 | 0.9332 | 0.9279 | 0.9222 | 0.9162 | 0.9096 | 0.9027 | 0.8951 | 0.8870 | 0.8784 | 0.8691 |
| 38 | 0.9596 | 0.9560 | 0.9523 | 0.9482 | 0.9439 | 0.9393 | 0.9344 | 0.9292 | 0.9235 | 0.9175 | 0.9110 | 0.9041 | 0.8966 | 0.8885 | 0.8798 | 0.8706 |
| 39 | 0.9606 | 0.9571 | 0.9533 | 0.9493 | 0.9451 | 0.9405 | 0.9357 | 0.9305 | 0.9249 | 0.9189 | 0.9125 | 0.9056 | 0.8982 | 0.8901 | 0.8815 | 0.8722 |
| 40 | 0.9616 | 0.9581 | 0.9544 | 0.9505 | 0.9463 | 0.9418 | 0.9370 | 0.9319 | 0.9263 | 0.9204 | 0.9140 | 0.9071 | 0.8997 | 0.8917 | 0.8832 | 0.8739 |
| 41 | 0.9626 | 0.9592 | 0.9556 | 0.9517 | 0.9475 | 0.9431 | 0.9384 | 0.9333 | 0.9277 | 0.9219 | 0.9156 | 0.9088 | 0.9014 | 0.8934 | 0.8849 | 0.8757 |
| 42 | 0.9636 | 0.9603 | 0.9567 | 0.9529 | 0.9488 | 0.9445 | 0.9398 | 0.9347 | 0.9293 | 0.9235 | 0.9172 | 0.9104 | 0.9031 | 0.8952 | 0.8868 | 0.8776 |
| 43 | 0.9647 | 0.9615 | 0.9579 | 0.9541 | 0.9501 | 0.9458 | 0.9412 | 0.9363 | 0.9308 | 0.9251 | 0.9188 | 0.9122 | 0.9049 | 0.8971 | 0.8886 | 0.8795 |
| 44 | 0.9657 | 0.9625 | 0.9591 | 0.9554 | 0.9514 | 0.9472 | 0.9426 | 0.9378 | 0.9324 | 0.9268 | 0.9206 | 0.9140 | 0.9067 | 0.8989 | 0.8906 | 0.8815 |
| 45 | 0.9668 | 0.9637 | 0.9602 | 0.9566 | 0.9527 | 0.9486 | 0.9442 | 0.9393 | 0.9340 | 0.9285 | 0.9223 | 0.9158 | 0.9087 | 0.9009 | 0.8926 | 0.8836 |
| 46 | 0.9679 | 0.9648 | 0.9615 | 0.9579 | 0.9541 | 0.9500 | 0.9457 | 0.9409 | 0.9357 | 0.9302 | 0.9241 | 0.9177 | 0.9107 | 0.9030 | 0.8948 | 0.8858 |
| 47 | 0.9689 | 0.9659 | 0.9627 | 0.9592 | 0.9555 | 0.9515 | 0.9472 | 0.9425 | 0.9374 | 0.9320 | 0.9261 | 0.9196 | 0.9127 | 0.9051 | 0.8969 | 0.8881 |
| 48 | 0.9700 | 0.9671 | 0.9639 | 0.9605 | 0.9569 | 0.9530 | 0.9488 | 0.9442 | 0.9392 | 0.9338 | 0.9280 | 0.9216 | 0.9148 | 0.9073 | 0.8992 | 0.8904 |
| 49 | 0.9711 | 0.9682 | 0.9651 | 0.9618 | 0.9583 | 0.9545 | 0.9504 | 0.9458 | 0.9410 | 0.9357 | 0.9299 | 0.9237 | 0.9169 | 0.9095 | 0.9015 | 0.8928 |
| 50 | 0.9721 | 0.9694 | 0.9664 | 0.9631 | 0.9597 | 0.9559 | 0.9519 | 0.9475 | 0.9427 | 0.9376 | 0.9319 | 0.9258 | 0.9191 | 0.9118 | 0.9039 | 0.8953 |
| 51 | 0.9732 | 0.9705 | 0.9676 | 0.9645 | 0.9611 | 0.9575 | 0.9536 | 0.9492 | 0.9445 | 0.9395 | 0.9339 | 0.9279 | 0.9213 | 0.9141 | 0.9063 | 0.8978 |
| 52 | 0.9742 | 0.9716 | 0.9688 | 0.9658 | 0.9625 | 0.9590 | 0.9551 | 0.9510 | 0.9463 | 0.9414 | 0.9359 | 0.9301 | 0.9236 | 0.9165 | 0.9088 | 0.9004 |
| 53 | 0.9752 | 0.9728 | 0.9700 | 0.9671 | 0.9639 | 0.9604 | 0.9568 | 0.9527 | 0.9481 | 0.9434 | 0.9380 | 0.9323 | 0.9259 | 0.9189 | 0.9113 | 0.9030 |
| 54 | 0.9763 | 0.9739 | 0.9712 | 0.9683 | 0.9652 | 0.9619 | 0.9583 | 0.9543 | 0.9500 | 0.9453 | 0.9400 | 0.9344 | 0.9282 | 0.9214 | 0.9139 | 0.9057 |
| 55 | 0.9772 | 0.9750 | 0.9723 | 0.9696 | 0.9667 | 0.9634 | 0.9599 | 0.9561 | 0.9518 | 0.9472 | 0.9422 | 0.9366 | 0.9306 | 0.9238 | 0.9165 | 0.9085 |

## APPENDICES

TABLE I
Conversion from Single Life Annuity to
12 Year Certain And Life With 50\% Joint And Survivor Without Pop Up CECONY Weekly Participant -1

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 |
| 56 | 0.9782 | 0.9760 | 0.9735 | 0.9708 | 0.9680 | 0.9648 | 0.9615 | 0.9577 | 0.9536 | 0.9492 | 0.9443 | 0.9389 | 0.9330 | 0.9263 | 0.9191 | 0.9113 |
| 57 | 0.9792 | 0.9771 | 0.9747 | 0.9721 | 0.9693 | 0.9663 | 0.9631 | 0.9595 | 0.9554 | 0.9511 | 0.9463 | 0.9411 | 0.9353 | 0.9288 | 0.9219 | 0.9141 |
| 58 | 0.9801 | 0.9781 | 0.9758 | 0.9733 | 0.9707 | 0.9678 | 0.9646 | 0.9612 | 0.9573 | 0.9531 | 0.9484 | 0.9433 | 0.9376 | 0.9314 | 0.9245 | 0.9169 |
| 59 | 0.9810 | 0.9790 | 0.9769 | 0.9745 | 0.9719 | 0.9691 | 0.9661 | 0.9628 | 0.9590 | 0.9550 | 0.9505 | 0.9456 | 0.9401 | 0.9339 | 0.9272 | 0.9199 |
| 60 | 0.9819 | 0.9800 | 0.9779 | 0.9757 | 0.9732 | 0.9705 | 0.9676 | 0.9644 | 0.9607 | 0.9569 | 0.9525 | 0.9478 | 0.9424 | 0.9365 | 0.9300 | 0.9227 |
| 61 | 0.9828 | 0.9810 | 0.9789 | 0.9768 | 0.9744 | 0.9718 | 0.9691 | 0.9660 | 0.9625 | 0.9587 | 0.9545 | 0.9499 | 0.9447 | 0.9390 | 0.9326 | 0.9256 |
| 62 | 0.9836 | 0.9818 | 0.9799 | 0.9779 | 0.9756 | 0.9731 | 0.9704 | 0.9675 | 0.9641 | 0.9606 | 0.9565 | 0.9520 | 0.9471 | 0.9414 | 0.9353 | 0.9284 |
| 63 | 0.9843 | 0.9827 | 0.9808 | 0.9789 | 0.9767 | 0.9744 | 0.9718 | 0.9690 | 0.9658 | 0.9623 | 0.9584 | 0.9541 | 0.9493 | 0.9439 | 0.9378 | 0.9312 |
| 64 | 0.9851 | 0.9836 | 0.9818 | 0.9799 | 0.9778 | 0.9756 | 0.9732 | 0.9704 | 0.9673 | 0.9641 | 0.9603 | 0.9562 | 0.9515 | 0.9463 | 0.9404 | 0.9339 |
| 65 | 0.9858 | 0.9844 | 0.9827 | 0.9808 | 0.9789 | 0.9767 | 0.9744 | 0.9718 | 0.9689 | 0.9657 | 0.9621 | 0.9581 | 0.9536 | 0.9485 | 0.9430 | 0.9366 |
| 66 | 0.9865 | 0.9851 | 0.9835 | 0.9818 | 0.9799 | 0.9779 | 0.9756 | 0.9731 | 0.9704 | 0.9674 | 0.9639 | 0.9600 | 0.9557 | 0.9508 | 0.9454 | 0.9393 |
| 67 | 0.9872 | 0.9858 | 0.9843 | 0.9827 | 0.9809 | 0.9789 | 0.9768 | 0.9745 | 0.9718 | 0.9689 | 0.9655 | 0.9619 | 0.9577 | 0.9530 | 0.9477 | 0.9419 |
| 68 | 0.9878 | 0.9865 | 0.9851 | 0.9835 | 0.9818 | 0.9799 | 0.9779 | 0.9757 | 0.9731 | 0.9704 | 0.9671 | 0.9636 | 0.9596 | 0.9551 | 0.9501 | 0.9444 |
| 69 | 0.9884 | 0.9872 | 0.9858 | 0.9843 | 0.9827 | 0.9809 | 0.9790 | 0.9768 | 0.9743 | 0.9717 | 0.9686 | 0.9653 | 0.9615 | 0.9571 | 0.9522 | 0.9467 |
| 70 | 0.9889 | 0.9877 | 0.9864 | 0.9850 | 0.9835 | 0.9818 | 0.9800 | 0.9779 | 0.9755 | 0.9730 | 0.9701 | 0.9669 | 0.9632 | 0.9590 | 0.9543 | 0.9490 |
| 71 | 0.9895 | 0.9884 | 0.9871 | 0.9857 | 0.9842 | 0.9826 | 0.9809 | 0.9789 | 0.9767 | 0.9743 | 0.9714 | 0.9684 | 0.9648 | 0.9608 | 0.9563 | 0.9512 |
| 72 | 0.9900 | 0.9888 | 0.9876 | 0.9863 | 0.9850 | 0.9834 | 0.9817 | 0.9798 | 0.9777 | 0.9754 | 0.9728 | 0.9698 | 0.9664 | 0.9625 | 0.9581 | 0.9532 |
| 73 | 0.9904 | 0.9893 | 0.9882 | 0.9869 | 0.9856 | 0.9841 | 0.9825 | 0.9807 | 0.9787 | 0.9765 | 0.9740 | 0.9711 | 0.9679 | 0.9641 | 0.9599 | 0.9551 |
| 74 | 0.9908 | 0.9898 | 0.9887 | 0.9874 | 0.9862 | 0.9847 | 0.9833 | 0.9816 | 0.9796 | 0.9775 | 0.9750 | 0.9723 | 0.9692 | 0.9656 | 0.9615 | 0.9569 |
| 75 | 0.9911 | 0.9902 | 0.9891 | 0.9880 | 0.9867 | 0.9854 | 0.9839 | 0.9823 | 0.9804 | 0.9784 | 0.9760 | 0.9734 | 0.9705 | 0.9669 | 0.9630 | 0.9586 |
| 76 | 0.9915 | 0.9906 | 0.9896 | 0.9884 | 0.9872 | 0.9860 | 0.9846 | 0.9830 | 0.9812 | 0.9793 | 0.9770 | 0.9745 | 0.9716 | 0.9683 | 0.9645 | 0.9601 |
| 77 | 0.9919 | 0.9909 | 0.9899 | 0.9889 | 0.9877 | 0.9865 | 0.9852 | 0.9837 | 0.9819 | 0.9800 | 0.9778 | 0.9754 | 0.9726 | 0.9694 | 0.9657 | 0.9615 |
| 78 | 0.9921 | 0.9912 | 0.9903 | 0.9892 | 0.9881 | 0.9870 | 0.9857 | 0.9842 | 0.9825 | 0.9807 | 0.9786 | 0.9763 | 0.9736 | 0.9705 | 0.9669 | 0.9628 |
| 79 | 0.9923 | 0.9915 | 0.9905 | 0.9895 | 0.9885 | 0.9874 | 0.9861 | 0.9847 | 0.9831 | 0.9813 | 0.9793 | 0.9771 | 0.9745 | 0.9713 | 0.9679 | 0.9639 |
| 80 | 0.9926 | 0.9918 | 0.9908 | 0.9899 | 0.9888 | 0.9877 | 0.9865 | 0.9852 | 0.9836 | 0.9819 | 0.9800 | 0.9778 | 0.9752 | 0.9722 | 0.9689 | 0.9650 |
| 81 | 0.9928 | 0.9920 | 0.9911 | 0.9901 | 0.9891 | 0.9880 | 0.9869 | 0.9856 | 0.9840 | 0.9824 | 0.9805 | 0.9784 | 0.9759 | 0.9730 | 0.9697 | 0.9660 |
| 82 | 0.9930 | 0.9922 | 0.9913 | 0.9904 | 0.9894 | 0.9884 | 0.9872 | 0.9859 | 0.9844 | 0.9829 | 0.9810 | 0.9789 | 0.9765 | 0.9736 | 0.9705 | 0.9668 |
| 83 | 0.9931 | 0.9924 | 0.9915 | 0.9906 | 0.9896 | 0.9886 | 0.9875 | 0.9863 | 0.9847 | 0.9833 | 0.9814 | 0.9794 | 0.9770 | 0.9743 | 0.9711 | 0.9676 |
| 84 | 0.9933 | 0.9925 | 0.9917 | 0.9908 | 0.9899 | 0.9889 | 0.9877 | 0.9865 | 0.9851 | 0.9836 | 0.9818 | 0.9798 | 0.9775 | 0.9748 | 0.9718 | 0.9682 |
| 85 | 0.9934 | 0.9927 | 0.9918 | 0.9909 | 0.9900 | 0.9890 | 0.9880 | 0.9868 | 0.9853 | 0.9839 | 0.9821 | 0.9802 | 0.9779 | 0.9752 | 0.9722 | 0.9687 |

TABLE I
Conversion from Single Life Annuity to
12 Year Certain And Life With 50\% Joint And Survivor Without Pop Up CECONY Weekly Participant -1

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
| 25 | 0.8455 | 0.8347 | 0.8232 | 0.8112 | 0.7984 | 0.7851 | 0.7710 | 0.7563 | 0.7410 | 0.7250 | 0.7083 | 0.6909 | 0.6729 | 0.6544 |
| 26 | 0.8462 | 0.8355 | 0.8241 | 0.8121 | 0.7993 | 0.7859 | 0.7718 | 0.7571 | 0.7418 | 0.7258 | 0.7091 | 0.6917 | 0.6737 | 0.6552 |
| 27 | 0.8472 | 0.8364 | 0.8250 | 0.8129 | 0.8001 | 0.7868 | 0.7727 | 0.7580 | 0.7426 | 0.7266 | 0.7099 | 0.6926 | 0.6745 | 0.6560 |
| 28 | 0.8481 | 0.8373 | 0.8259 | 0.8139 | 0.8011 | 0.7877 | 0.7737 | 0.7589 | 0.7436 | 0.7275 | 0.7108 | 0.6934 | 0.6754 | 0.6569 |
| 29 | 0.8490 | 0.8383 | 0.8269 | 0.8149 | 0.8021 | 0.7887 | 0.7746 | 0.7599 | 0.7445 | 0.7285 | 0.7118 | 0.6944 | 0.6763 | 0.6578 |
| 30 | 0.8501 | 0.8393 | 0.8279 | 0.8159 | 0.8032 | 0.7898 | 0.7757 | 0.7610 | 0.7456 | 0.7296 | 0.7129 | 0.6954 | 0.6773 | 0.6588 |
| 31 | 0.8511 | 0.8404 | 0.8290 | 0.8170 | 0.8043 | 0.7909 | 0.7768 | 0.7621 | 0.7467 | 0.7307 | 0.7140 | 0.6965 | 0.6784 | 0.6599 |
| 32 | 0.8523 | 0.8416 | 0.8302 | 0.8182 | 0.8055 | 0.7921 | 0.7780 | 0.7633 | 0.7479 | 0.7318 | 0.7151 | 0.6977 | 0.6795 | 0.6609 |
| 33 | 0.8535 | 0.8428 | 0.8315 | 0.8195 | 0.8067 | 0.7933 | 0.7792 | 0.7645 | 0.7492 | 0.7331 | 0.7163 | 0.6989 | 0.6807 | 0.6622 |
| 34 | 0.8548 | 0.8441 | 0.8327 | 0.8208 | 0.8081 | 0.7947 | 0.7806 | 0.7659 | 0.7505 | 0.7344 | 0.7176 | 0.7002 | 0.6820 | 0.6634 |
| 35 | 0.8562 | 0.8455 | 0.8342 | 0.8222 | 0.8095 | 0.7961 | 0.7820 | 0.7673 | 0.7519 | 0.7358 | 0.7190 | 0.7016 | 0.6834 | 0.6648 |
| 36 | 0.8576 | 0.8469 | 0.8356 | 0.8237 | 0.8109 | 0.7976 | 0.7835 | 0.7688 | 0.7534 | 0.7373 | 0.7205 | 0.7030 | 0.6848 | 0.6662 |
| 37 | 0.8591 | 0.8484 | 0.8372 | 0.8252 | 0.8125 | 0.7991 | 0.7850 | 0.7704 | 0.7550 | 0.7389 | 0.7221 | 0.7046 | 0.6864 | 0.6677 |
| 38 | 0.8607 | 0.8501 | 0.8388 | 0.8269 | 0.8141 | 0.8008 | 0.7867 | 0.7720 | 0.7566 | 0.7406 | 0.7237 | 0.7062 | 0.6880 | 0.6693 |
| 39 | 0.8624 | 0.8518 | 0.8405 | 0.8286 | 0.8159 | 0.8026 | 0.7885 | 0.7738 | 0.7584 | 0.7423 | 0.7255 | 0.7080 | 0.6897 | 0.6710 |
| 40 | 0.8641 | 0.8535 | 0.8422 | 0.8304 | 0.8177 | 0.8044 | 0.7904 | 0.7756 | 0.7603 | 0.7442 | 0.7273 | 0.7098 | 0.6916 | 0.6728 |
| 41 | 0.8659 | 0.8554 | 0.8441 | 0.8323 | 0.8197 | 0.8064 | 0.7923 | 0.7777 | 0.7623 | 0.7462 | 0.7293 | 0.7117 | 0.6935 | 0.6747 |
| 42 | 0.8678 | 0.8574 | 0.8461 | 0.8343 | 0.8217 | 0.8085 | 0.7944 | 0.7797 | 0.7643 | 0.7482 | 0.7314 | 0.7138 | 0.6955 | 0.6767 |
| 43 | 0.8698 | 0.8594 | 0.8482 | 0.8364 | 0.8239 | 0.8106 | 0.7965 | 0.7819 | 0.7665 | 0.7504 | 0.7335 | 0.7160 | 0.6977 | 0.6789 |
| 44 | 0.8719 | 0.8615 | 0.8503 | 0.8386 | 0.8261 | 0.8129 | 0.7988 | 0.7842 | 0.7688 | 0.7527 | 0.7359 | 0.7183 | 0.6999 | 0.6811 |
| 45 | 0.8741 | 0.8637 | 0.8527 | 0.8409 | 0.8284 | 0.8152 | 0.8012 | 0.7866 | 0.7712 | 0.7552 | 0.7383 | 0.7207 | 0.7023 | 0.6835 |
| 46 | 0.8763 | 0.8660 | 0.8550 | 0.8433 | 0.8308 | 0.8177 | 0.8037 | 0.7891 | 0.7738 | 0.7577 | 0.7408 | 0.7232 | 0.7048 | 0.6860 |
| 47 | 0.8786 | 0.8684 | 0.8574 | 0.8458 | 0.8334 | 0.8203 | 0.8063 | 0.7917 | 0.7764 | 0.7603 | 0.7435 | 0.7259 | 0.7075 | 0.6886 |
| 48 | 0.8810 | 0.8708 | 0.8600 | 0.8484 | 0.8360 | 0.8229 | 0.8091 | 0.7945 | 0.7792 | 0.7631 | 0.7463 | 0.7286 | 0.7102 | 0.6914 |
| 49 | 0.8835 | 0.8734 | 0.8625 | 0.8510 | 0.8387 | 0.8257 | 0.8119 | 0.7974 | 0.7821 | 0.7660 | 0.7492 | 0.7316 | 0.7132 | 0.6942 |
| 50 | 0.8861 | 0.8760 | 0.8653 | 0.8539 | 0.8416 | 0.8287 | 0.8149 | 0.8003 | 0.7851 | 0.7690 | 0.7522 | 0.7346 | 0.7162 | 0.6973 |
| 51 | 0.8887 | 0.8787 | 0.8681 | 0.8567 | 0.8446 | 0.8317 | 0.8179 | 0.8034 | 0.7882 | 0.7723 | 0.7555 | 0.7378 | 0.7194 | 0.7004 |
| 52 | 0.8914 | 0.8816 | 0.8710 | 0.8597 | 0.8476 | 0.8347 | 0.8211 | 0.8067 | 0.7916 | 0.7756 | 0.7588 | 0.7412 | 0.7228 | 0.7038 |
| 53 | 0.8941 | 0.8844 | 0.8739 | 0.8628 | 0.8507 | 0.8381 | 0.8244 | 0.8101 | 0.7950 | 0.7790 | 0.7622 | 0.7447 | 0.7262 | 0.7073 |
| 54 | 0.8970 | 0.8874 | 0.8770 | 0.8659 | 0.8540 | 0.8414 | 0.8279 | 0.8136 | 0.7985 | 0.7826 | 0.7659 | 0.7483 | 0.7299 | 0.7110 |
| 55 | 0.8998 | 0.8903 | 0.8801 | 0.8692 | 0.8574 | 0.8448 | 0.8314 | 0.8172 | 0.8023 | 0.7864 | 0.7697 | 0.7522 | 0.7338 | 0.7148 |

[^6]TABLE I
Conversion from Single Life Annuity to
12 Year Certain And Life With 50\% Joint And Survivor Without Pop Up CECONY Weekly Participant -1

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF beneficiary | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
| 56 | 0.9028 | 0.8934 | 0.8833 | 0.8725 | 0.8608 | 0.8484 | 0.8351 | 0.8209 | 0.8060 | 0.7903 | 0.7736 | 0.7561 | 0.7377 | 0.7187 |
| 57 | 0.9057 | 0.8965 | 0.8866 | 0.8759 | 0.8643 | 0.8520 | 0.8388 | 0.8248 | 0.8100 | 0.7943 | 0.7777 | 0.7602 | 0.7419 | 0.7229 |
| 58 | 0.9087 | 0.8997 | 0.8899 | 0.8793 | 0.8680 | 0.8557 | 0.8427 | 0.8288 | 0.8141 | 0.7985 | 0.7819 | 0.7645 | 0.7462 | 0.7273 |
| 59 | 0.9118 | 0.9029 | 0.8933 | 0.8829 | 0.8716 | 0.8595 | 0.8466 | 0.8328 | 0.8182 | 0.8027 | 0.7863 | 0.7689 | 0.7506 | 0.7317 |
| 60 | 0.9148 | 0.9062 | 0.8966 | 0.8864 | 0.8753 | 0.8635 | 0.8506 | 0.8370 | 0.8225 | 0.8071 | 0.7907 | 0.7735 | 0.7553 | 0.7364 |
| 61 | 0.9178 | 0.9093 | 0.9000 | 0.8900 | 0.8791 | 0.8674 | 0.8547 | 0.8412 | 0.8269 | 0.8116 | 0.7953 | 0.7781 | 0.7600 | 0.7411 |
| 62 | 0.9208 | 0.9126 | 0.9035 | 0.8936 | 0.8829 | 0.8713 | 0.8589 | 0.8455 | 0.8313 | 0.8162 | 0.8000 | 0.7829 | 0.7648 | 0.7460 |
| 63 | 0.9239 | 0.9158 | 0.9068 | 0.8972 | 0.8866 | 0.8753 | 0.8630 | 0.8498 | 0.8358 | 0.8208 | 0.8047 | 0.7878 | 0.7698 | 0.7510 |
| 64 | 0.9268 | 0.9189 | 0.9102 | 0.9008 | 0.8905 | 0.8792 | 0.8672 | 0.8542 | 0.8403 | 0.8255 | 0.8096 | 0.7927 | 0.7748 | 0.7561 |
| 65 | 0.9297 | 0.9220 | 0.9136 | 0.9043 | 0.8941 | 0.8833 | 0.8713 | 0.8585 | 0.8448 | 0.8301 | 0.8144 | 0.7976 | 0.7798 | 0.7613 |
| 66 | 0.9326 | 0.9251 | 0.9168 | 0.9078 | 0.8978 | 0.8871 | 0.8754 | 0.8628 | 0.8493 | 0.8348 | 0.8192 | 0.8026 | 0.7850 | 0.7665 |
| 67 | 0.9354 | 0.9281 | 0.9200 | 0.9112 | 0.9015 | 0.8910 | 0.8795 | 0.8671 | 0.8538 | 0.8395 | 0.8241 | 0.8076 | 0.7901 | 0.7717 |
| 68 | 0.9381 | 0.9309 | 0.9231 | 0.9145 | 0.9051 | 0.8947 | 0.8835 | 0.8714 | 0.8582 | 0.8441 | 0.8288 | 0.8126 | 0.7951 | 0.7769 |
| 69 | 0.9406 | 0.9337 | 0.9262 | 0.9178 | 0.9085 | 0.8985 | 0.8874 | 0.8755 | 0.8626 | 0.8486 | 0.8336 | 0.8174 | 0.8002 | 0.7821 |
| 70 | 0.9431 | 0.9364 | 0.9290 | 0.9209 | 0.9118 | 0.9020 | 0.8912 | 0.8795 | 0.8668 | 0.8530 | 0.8382 | 0.8223 | 0.8051 | 0.7872 |
| 71 | 0.9454 | 0.9390 | 0.9318 | 0.9239 | 0.9151 | 0.9054 | 0.8949 | 0.8834 | 0.8709 | 0.8574 | 0.8428 | 0.8270 | 0.8101 | 0.7922 |
| 72 | 0.9477 | 0.9414 | 0.9344 | 0.9267 | 0.9181 | 0.9088 | 0.8984 | 0.8871 | 0.8748 | 0.8616 | 0.8471 | 0.8315 | 0.8148 | 0.7971 |
| 73 | 0.9498 | 0.9437 | 0.9369 | 0.9294 | 0.9210 | 0.9119 | 0.9018 | 0.8907 | 0.8787 | 0.8656 | 0.8513 | 0.8360 | 0.8194 | 0.8018 |
| 74 | 0.9517 | 0.9458 | 0.9393 | 0.9320 | 0.9238 | 0.9148 | 0.9049 | 0.8941 | 0.8823 | 0.8694 | 0.8554 | 0.8402 | 0.8237 | 0.8064 |
| 75 | 0.9536 | 0.9478 | 0.9415 | 0.9344 | 0.9264 | 0.9177 | 0.9080 | 0.8974 | 0.8857 | 0.8730 | 0.8593 | 0.8442 | 0.8280 | 0.8107 |
| 76 | 0.9553 | 0.9497 | 0.9435 | 0.9366 | 0.9288 | 0.9203 | 0.9108 | 0.9004 | 0.8889 | 0.8765 | 0.8628 | 0.8480 | 0.8320 | 0.8148 |
| 77 | 0.9568 | 0.9515 | 0.9453 | 0.9386 | 0.9311 | 0.9226 | 0.9133 | 0.9032 | 0.8919 | 0.8797 | 0.8662 | 0.8516 | 0.8356 | 0.8187 |
| 78 | 0.9582 | 0.9530 | 0.9471 | 0.9405 | 0.9330 | 0.9249 | 0.9158 | 0.9057 | 0.8948 | 0.8827 | 0.8694 | 0.8549 | 0.8391 | 0.8224 |
| 79 | 0.9596 | 0.9544 | 0.9486 | 0.9422 | 0.9349 | 0.9270 | 0.9179 | 0.9081 | 0.8973 | 0.8854 | 0.8723 | 0.8580 | 0.8424 | 0.8258 |
| 80 | 0.9607 | 0.9557 | 0.9500 | 0.9438 | 0.9367 | 0.9288 | 0.9199 | 0.9103 | 0.8997 | 0.8880 | 0.8749 | 0.8609 | 0.8454 | 0.8290 |
| 81 | 0.9617 | 0.9569 | 0.9513 | 0.9451 | 0.9382 | 0.9305 | 0.9218 | 0.9123 | 0.9018 | 0.8902 | 0.8775 | 0.8634 | 0.8481 | 0.8317 |
| 82 | 0.9627 | 0.9579 | 0.9524 | 0.9464 | 0.9395 | 0.9320 | 0.9235 | 0.9141 | 0.9037 | 0.8922 | 0.8796 | 0.8657 | 0.8506 | 0.8344 |
| 83 | 0.9635 | 0.9588 | 0.9535 | 0.9476 | 0.9408 | 0.9333 | 0.9249 | 0.9156 | 0.9054 | 0.8941 | 0.8816 | 0.8679 | 0.8528 | 0.8368 |
| 84 | 0.9642 | 0.9596 | 0.9543 | 0.9485 | 0.9419 | 0.9345 | 0.9262 | 0.9171 | 0.9070 | 0.8958 | 0.8833 | 0.8698 | 0.8549 | 0.8389 |
| 85 | 0.9649 | 0.9603 | 0.9552 | 0.9494 | 0.9428 | 0.9356 | 0.9274 | 0.9183 | 0.9083 | 0.8972 | 0.8849 | 0.8714 | 0.8567 | 0.8407 |

TABLE J
Conversion from Single Life Annuity to
12 Year Certain And Life With 50\% Joint And Survivor With Pop-Up CECONY Weekly Participant -1

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| 25 | 0.9856 | 0.9843 | 0.9830 | 0.9816 | 0.9801 | 0.9784 | 0.9766 | 0.9746 | 0.9725 | 0.9703 | 0.9678 | 0.9651 | 0.9623 | 0.9593 | 0.9560 | 0.9524 |
| 26 | 0.9859 | 0.9847 | 0.9834 | 0.9820 | 0.9805 | 0.9788 | 0.9770 | 0.9751 | 0.9730 | 0.9708 | 0.9683 | 0.9656 | 0.9629 | 0.9598 | 0.9565 | 0.9530 |
| 27 | 0.9863 | 0.9850 | 0.9838 | 0.9823 | 0.9809 | 0.9793 | 0.9774 | 0.9756 | 0.9735 | 0.9713 | 0.9688 | 0.9662 | 0.9634 | 0.9604 | 0.9572 | 0.9537 |
| 28 | 0.9866 | 0.9854 | 0.9841 | 0.9827 | 0.9813 | 0.9796 | 0.9779 | 0.9760 | 0.9740 | 0.9717 | 0.9694 | 0.9667 | 0.9640 | 0.9609 | 0.9578 | 0.9542 |
| 29 | 0.9869 | 0.9857 | 0.9845 | 0.9831 | 0.9817 | 0.9801 | 0.9784 | 0.9765 | 0.9745 | 0.9723 | 0.9699 | 0.9673 | 0.9645 | 0.9616 | 0.9584 | 0.9549 |
| 30 | 0.9872 | 0.9860 | 0.9849 | 0.9835 | 0.9821 | 0.9805 | 0.9788 | 0.9770 | 0.9750 | 0.9728 | 0.9705 | 0.9679 | 0.9652 | 0.9622 | 0.9591 | 0.9556 |
| 31 | 0.9875 | 0.9864 | 0.9852 | 0.9839 | 0.9826 | 0.9810 | 0.9793 | 0.9775 | 0.9755 | 0.9734 | 0.9710 | 0.9685 | 0.9658 | 0.9629 | 0.9597 | 0.9563 |
| 32 | 0.9879 | 0.9867 | 0.9856 | 0.9843 | 0.9830 | 0.9815 | 0.9798 | 0.9780 | 0.9760 | 0.9739 | 0.9716 | 0.9691 | 0.9665 | 0.9635 | 0.9604 | 0.9570 |
| 33 | 0.9882 | 0.9871 | 0.9860 | 0.9847 | 0.9834 | 0.9819 | 0.9803 | 0.9785 | 0.9766 | 0.9745 | 0.9723 | 0.9697 | 0.9671 | 0.9643 | 0.9611 | 0.9578 |
| 34 | 0.9885 | 0.9875 | 0.9864 | 0.9851 | 0.9838 | 0.9824 | 0.9807 | 0.9790 | 0.9772 | 0.9751 | 0.9728 | 0.9704 | 0.9678 | 0.9649 | 0.9619 | 0.9586 |
| 35 | 0.9888 | 0.9878 | 0.9868 | 0.9855 | 0.9843 | 0.9828 | 0.9812 | 0.9795 | 0.9777 | 0.9757 | 0.9734 | 0.9711 | 0.9685 | 0.9657 | 0.9626 | 0.9593 |
| 36 | 0.9892 | 0.9881 | 0.9872 | 0.9859 | 0.9847 | 0.9833 | 0.9818 | 0.9801 | 0.9783 | 0.9763 | 0.9741 | 0.9717 | 0.9692 | 0.9664 | 0.9634 | 0.9601 |
| 37 | 0.9895 | 0.9885 | 0.9875 | 0.9863 | 0.9851 | 0.9838 | 0.9822 | 0.9806 | 0.9789 | 0.9769 | 0.9747 | 0.9724 | 0.9699 | 0.9672 | 0.9642 | 0.9610 |
| 38 | 0.9898 | 0.9888 | 0.9879 | 0.9867 | 0.9856 | 0.9842 | 0.9827 | 0.9811 | 0.9794 | 0.9775 | 0.9754 | 0.9731 | 0.9706 | 0.9679 | 0.9650 | 0.9619 |
| 39 | 0.9901 | 0.9892 | 0.9883 | 0.9871 | 0.9860 | 0.9846 | 0.9832 | 0.9817 | 0.9800 | 0.9781 | 0.9760 | 0.9737 | 0.9714 | 0.9687 | 0.9658 | 0.9627 |
| 40 | 0.9905 | 0.9895 | 0.9886 | 0.9875 | 0.9864 | 0.9851 | 0.9837 | 0.9822 | 0.9806 | 0.9787 | 0.9767 | 0.9744 | 0.9721 | 0.9695 | 0.9667 | 0.9636 |
| 41 | 0.9908 | 0.9898 | 0.9889 | 0.9879 | 0.9868 | 0.9856 | 0.9842 | 0.9827 | 0.9811 | 0.9793 | 0.9773 | 0.9752 | 0.9729 | 0.9703 | 0.9675 | 0.9645 |
| 42 | 0.9911 | 0.9901 | 0.9893 | 0.9883 | 0.9872 | 0.9861 | 0.9847 | 0.9833 | 0.9817 | 0.9800 | 0.9780 | 0.9758 | 0.9736 | 0.9710 | 0.9684 | 0.9654 |
| 43 | 0.9913 | 0.9905 | 0.9897 | 0.9887 | 0.9877 | 0.9865 | 0.9852 | 0.9838 | 0.9822 | 0.9806 | 0.9787 | 0.9765 | 0.9744 | 0.9719 | 0.9692 | 0.9663 |
| 44 | 0.9916 | 0.9908 | 0.9900 | 0.9890 | 0.9880 | 0.9869 | 0.9856 | 0.9843 | 0.9828 | 0.9812 | 0.9793 | 0.9773 | 0.9751 | 0.9727 | 0.9700 | 0.9672 |
| 45 | 0.9919 | 0.9911 | 0.9903 | 0.9893 | 0.9885 | 0.9873 | 0.9861 | 0.9847 | 0.9833 | 0.9818 | 0.9799 | 0.9779 | 0.9759 | 0.9734 | 0.9709 | 0.9681 |
| 46 | 0.9922 | 0.9914 | 0.9906 | 0.9897 | 0.9889 | 0.9878 | 0.9866 | 0.9853 | 0.9839 | 0.9823 | 0.9805 | 0.9786 | 0.9765 | 0.9743 | 0.9718 | 0.9690 |
| 47 | 0.9924 | 0.9917 | 0.9910 | 0.9901 | 0.9892 | 0.9881 | 0.9870 | 0.9858 | 0.9844 | 0.9829 | 0.9812 | 0.9793 | 0.9773 | 0.9750 | 0.9726 | 0.9699 |
| 48 | 0.9927 | 0.9920 | 0.9913 | 0.9904 | 0.9896 | 0.9886 | 0.9875 | 0.9862 | 0.9849 | 0.9835 | 0.9818 | 0.9800 | 0.9780 | 0.9758 | 0.9734 | 0.9708 |
| 49 | 0.9929 | 0.9922 | 0.9916 | 0.9907 | 0.9900 | 0.9890 | 0.9879 | 0.9867 | 0.9854 | 0.9840 | 0.9824 | 0.9806 | 0.9787 | 0.9765 | 0.9743 | 0.9717 |
| 50 | 0.9932 | 0.9925 | 0.9919 | 0.9910 | 0.9903 | 0.9893 | 0.9883 | 0.9871 | 0.9860 | 0.9845 | 0.9830 | 0.9813 | 0.9794 | 0.9773 | 0.9751 | 0.9726 |
| 51 | 0.9934 | 0.9927 | 0.9921 | 0.9913 | 0.9906 | 0.9897 | 0.9887 | 0.9876 | 0.9864 | 0.9851 | 0.9835 | 0.9819 | 0.9801 | 0.9781 | 0.9759 | 0.9734 |
| 52 | 0.9936 | 0.9930 | 0.9924 | 0.9916 | 0.9909 | 0.9901 | 0.9891 | 0.9880 | 0.9869 | 0.9856 | 0.9842 | 0.9825 | 0.9808 | 0.9788 | 0.9767 | 0.9743 |
| 53 | 0.9939 | 0.9933 | 0.9927 | 0.9919 | 0.9913 | 0.9905 | 0.9895 | 0.9885 | 0.9874 | 0.9861 | 0.9847 | 0.9831 | 0.9815 | 0.9795 | 0.9775 | 0.9752 |
| 54 | 0.9941 | 0.9935 | 0.9929 | 0.9922 | 0.9916 | 0.9908 | 0.9899 | 0.9889 | 0.9878 | 0.9866 | 0.9852 | 0.9837 | 0.9821 | 0.9803 | 0.9782 | 0.9760 |
| 55 | 0.9942 | 0.9937 | 0.9932 | 0.9925 | 0.9919 | 0.9911 | 0.9903 | 0.9893 | 0.9883 | 0.9871 | 0.9857 | 0.9843 | 0.9828 | 0.9810 | 0.9790 | 0.9768 |

TABLE J
Conversion from Single Life Annuity to 12 Year Certain And Life With 50\% Joint And Survivor With Pop-Up CECONY Weekly Participant -1

|  |  |  |  |  |  |  |  | Age | ioner |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| 56 | 0.9945 | 0.9939 | 0.9935 | 0.9928 | 0.9922 | 0.9914 | 0.9906 | 0.9897 | 0.9887 | 0.9876 | 0.9863 | 0.9848 | 0.9834 | 0.9816 | 0.9797 | 0.9776 |
| 57 | 0.9947 | 0.9941 | 0.9937 | 0.9931 | 0.9925 | 0.9917 | 0.9909 | 0.9901 | 0.9891 | 0.9880 | 0.9868 | 0.9854 | 0.9839 | 0.9823 | 0.9805 | 0.9784 |
| 58 | 0.9948 | 0.9944 | 0.9939 | 0.9933 | 0.9927 | 0.9920 | 0.9913 | 0.9905 | 0.9895 | 0.9885 | 0.9873 | 0.9859 | 0.9845 | 0.9829 | 0.9812 | 0.9791 |
| 59 | 0.9951 | 0.9946 | 0.9941 | 0.9935 | 0.9930 | 0.9923 | 0.9916 | 0.9908 | 0.9899 | 0.9889 | 0.9877 | 0.9864 | 0.9851 | 0.9835 | 0.9818 | 0.9799 |
| 60 | 0.9952 | 0.9947 | 0.9944 | 0.9938 | 0.9933 | 0.9926 | 0.9919 | 0.9911 | 0.9903 | 0.9893 | 0.9882 | 0.9869 | 0.9856 | 0.9841 | 0.9825 | 0.9806 |
| 61 | 0.9954 | 0.9950 | 0.9946 | 0.9940 | 0.9936 | 0.9929 | 0.9922 | 0.9914 | 0.9906 | 0.9897 | 0.9886 | 0.9874 | 0.9861 | 0.9847 | 0.9831 | 0.9813 |
| 62 | 0.9956 | 0.9951 | 0.9947 | 0.9942 | 0.9938 | 0.9932 | 0.9925 | 0.9917 | 0.9910 | 0.9901 | 0.9890 | 0.9879 | 0.9867 | 0.9852 | 0.9837 | 0.9819 |
| 63 | 0.9957 | 0.9953 | 0.9950 | 0.9944 | 0.9940 | 0.9934 | 0.9928 | 0.9920 | 0.9913 | 0.9904 | 0.9894 | 0.9883 | 0.9871 | 0.9857 | 0.9842 | 0.9826 |
| 64 | 0.9959 | 0.9954 | 0.9951 | 0.9946 | 0.9942 | 0.9937 | 0.9931 | 0.9924 | 0.9916 | 0.9908 | 0.9899 | 0.9887 | 0.9876 | 0.9863 | 0.9848 | 0.9832 |
| 65 | 0.9960 | 0.9956 | 0.9953 | 0.9948 | 0.9944 | 0.9939 | 0.9933 | 0.9927 | 0.9919 | 0.9911 | 0.9902 | 0.9891 | 0.9881 | 0.9867 | 0.9853 | 0.9837 |
| 66 | 0.9961 | 0.9957 | 0.9955 | 0.9950 | 0.9946 | 0.9941 | 0.9935 | 0.9929 | 0.9922 | 0.9914 | 0.9906 | 0.9895 | 0.9884 | 0.9872 | 0.9859 | 0.9843 |
| 67 | 0.9963 | 0.9959 | 0.9956 | 0.9952 | 0.9948 | 0.9943 | 0.9937 | 0.9932 | 0.9925 | 0.9917 | 0.9909 | 0.9899 | 0.9889 | 0.9877 | 0.9863 | 0.9848 |
| 68 | 0.9964 | 0.9960 | 0.9958 | 0.9953 | 0.9950 | 0.9945 | 0.9940 | 0.9934 | 0.9928 | 0.9921 | 0.9912 | 0.9903 | 0.9893 | 0.9881 | 0.9868 | 0.9854 |
| 69 | 0.9965 | 0.9962 | 0.9959 | 0.9955 | 0.9951 | 0.9947 | 0.9942 | 0.9936 | 0.9930 | 0.9924 | 0.9915 | 0.9906 | 0.9896 | 0.9884 | 0.9873 | 0.9859 |
| 70 | 0.9966 | 0.9962 | 0.9960 | 0.9956 | 0.9953 | 0.9949 | 0.9944 | 0.9939 | 0.9933 | 0.9926 | 0.9918 | 0.9909 | 0.9900 | 0.9888 | 0.9877 | 0.9862 |
| 71 | 0.9967 | 0.9964 | 0.9962 | 0.9958 | 0.9955 | 0.9951 | 0.9946 | 0.9940 | 0.9935 | 0.9928 | 0.9921 | 0.9912 | 0.9903 | 0.9892 | 0.9881 | 0.9867 |
| 72 | 0.9968 | 0.9965 | 0.9962 | 0.9959 | 0.9956 | 0.9952 | 0.9947 | 0.9943 | 0.9937 | 0.9930 | 0.9923 | 0.9914 | 0.9906 | 0.9895 | 0.9884 | 0.9871 |
| 73 | 0.9969 | 0.9966 | 0.9964 | 0.9960 | 0.9958 | 0.9954 | 0.9949 | 0.9944 | 0.9939 | 0.9933 | 0.9926 | 0.9917 | 0.9908 | 0.9898 | 0.9888 | 0.9875 |
| 74 | 0.9969 | 0.9967 | 0.9965 | 0.9961 | 0.9958 | 0.9955 | 0.9950 | 0.9946 | 0.9941 | 0.9935 | 0.9928 | 0.9920 | 0.9911 | 0.9902 | 0.9891 | 0.9878 |
| 75 | 0.9970 | 0.9968 | 0.9965 | 0.9962 | 0.9960 | 0.9956 | 0.9952 | 0.9947 | 0.9942 | 0.9937 | 0.9929 | 0.9922 | 0.9914 | 0.9904 | 0.9894 | 0.9881 |
| 76 | 0.9971 | 0.9968 | 0.9966 | 0.9963 | 0.9961 | 0.9957 | 0.9953 | 0.9949 | 0.9944 | 0.9938 | 0.9932 | 0.9924 | 0.9916 | 0.9906 | 0.9896 | 0.9884 |
| 77 | 0.9971 | 0.9969 | 0.9967 | 0.9964 | 0.9961 | 0.9958 | 0.9954 | 0.9950 | 0.9945 | 0.9940 | 0.9933 | 0.9926 | 0.9918 | 0.9909 | 0.9899 | 0.9887 |
| 78 | 0.9972 | 0.9970 | 0.9968 | 0.9964 | 0.9963 | 0.9959 | 0.9956 | 0.9951 | 0.9947 | 0.9941 | 0.9935 | 0.9927 | 0.9920 | 0.9911 | 0.9901 | 0.9889 |
| 79 | 0.9973 | 0.9970 | 0.9968 | 0.9965 | 0.9964 | 0.9960 | 0.9956 | 0.9952 | 0.9948 | 0.9943 | 0.9936 | 0.9929 | 0.9922 | 0.9912 | 0.9903 | 0.9892 |
| 80 | 0.9973 | 0.9971 | 0.9969 | 0.9966 | 0.9964 | 0.9960 | 0.9957 | 0.9953 | 0.9949 | 0.9944 | 0.9937 | 0.9931 | 0.9923 | 0.9914 | 0.9905 | 0.9893 |
| 81 | 0.9974 | 0.9971 | 0.9970 | 0.9967 | 0.9964 | 0.9961 | 0.9958 | 0.9954 | 0.9950 | 0.9944 | 0.9939 | 0.9931 | 0.9925 | 0.9916 | 0.9906 | 0.9896 |
| 82 | 0.9974 | 0.9971 | 0.9970 | 0.9967 | 0.9965 | 0.9962 | 0.9959 | 0.9955 | 0.9951 | 0.9946 | 0.9939 | 0.9933 | 0.9925 | 0.9917 | 0.9908 | 0.9897 |
| 83 | 0.9974 | 0.9972 | 0.9971 | 0.9967 | 0.9966 | 0.9963 | 0.9959 | 0.9955 | 0.9951 | 0.9947 | 0.9940 | 0.9934 | 0.9926 | 0.9918 | 0.9909 | 0.9898 |
| 84 | 0.9974 | 0.9972 | 0.9971 | 0.9967 | 0.9966 | 0.9963 | 0.9959 | 0.9955 | 0.9952 | 0.9947 | 0.9941 | 0.9934 | 0.9928 | 0.9919 | 0.9910 | 0.9899 |
| 85 | 0.9974 | 0.9972 | 0.9971 | 0.9968 | 0.9967 | 0.9963 | 0.9960 | 0.9956 | 0.9952 | 0.9947 | 0.9942 | 0.9935 | 0.9929 | 0.9920 | 0.9911 | 0.9900 |

TABLE J
Conversion from Single Life Annuity to 12 Year Certain And Life With 50\% Joint And Survivor With Pop-Up CECONY Weekly Participant -1

|  |  |  |  |  |  |  |  | Age | oner |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| age of beneficiary | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 |
| 25 | 0.9488 | 0.9448 | 0.9406 | 0.9362 | 0.9315 | 0.9266 | 0.9213 | 0.9158 | 0.9097 | 0.9034 | 0.8966 | 0.8894 | 0.8817 | 0.8733 | 0.8645 | 0.8550 |
| 26 | 0.9494 | 0.9455 | 0.9412 | 0.9368 | 0.9322 | 0.9272 | 0.9220 | 0.9164 | 0.9105 | 0.9042 | 0.8974 | 0.8902 | 0.8824 | 0.8741 | 0.8653 | 0.8558 |
| 27 | 0.9500 | 0.9461 | 0.9419 | 0.9375 | 0.9329 | 0.9280 | 0.9228 | 0.9172 | 0.9112 | 0.9050 | 0.8982 | 0.8910 | 0.8832 | 0.8749 | 0.8661 | 0.8566 |
| 28 | 0.9506 | 0.9468 | 0.9426 | 0.9382 | 0.9336 | 0.9287 | 0.9235 | 0.9180 | 0.9120 | 0.9058 | 0.8990 | 0.8918 | 0.8841 | 0.8758 | 0.8669 | 0.8575 |
| 29 | 0.9513 | 0.9475 | 0.9433 | 0.9390 | 0.9344 | 0.9294 | 0.9243 | 0.9188 | 0.9129 | 0.9066 | 0.8998 | 0.8927 | 0.8850 | 0.8766 | 0.8679 | 0.8584 |
| 30 | 0.9520 | 0.9482 | 0.9441 | 0.9397 | 0.9352 | 0.9302 | 0.9251 | 0.9196 | 0.9137 | 0.9075 | 0.9007 | 0.8936 | 0.8859 | 0.8776 | 0.8688 | 0.8594 |
| 31 | 0.9527 | 0.9489 | 0.9448 | 0.9405 | 0.9360 | 0.9311 | 0.9260 | 0.9205 | 0.9146 | 0.9084 | 0.9016 | 0.8946 | 0.8869 | 0.8786 | 0.8698 | 0.8604 |
| 32 | 0.9536 | 0.9497 | 0.9456 | 0.9414 | 0.9369 | 0.9320 | 0.9269 | 0.9215 | 0.9156 | 0.9094 | 0.9027 | 0.8955 | 0.8879 | 0.8797 | 0.8709 | 0.8614 |
| 33 | 0.9543 | 0.9505 | 0.9465 | 0.9422 | 0.9377 | 0.9329 | 0.9278 | 0.9224 | 0.9165 | 0.9104 | 0.9037 | 0.8966 | 0.8890 | 0.8808 | 0.8720 | 0.8626 |
| 34 | 0.9551 | 0.9514 | 0.9473 | 0.9431 | 0.9386 | 0.9338 | 0.9288 | 0.9234 | 0.9176 | 0.9115 | 0.9048 | 0.8977 | 0.8901 | 0.8819 | 0.8731 | 0.8637 |
| 35 | 0.9559 | 0.9522 | 0.9482 | 0.9441 | 0.9396 | 0.9349 | 0.9299 | 0.9245 | 0.9186 | 0.9126 | 0.9059 | 0.8989 | 0.8913 | 0.8831 | 0.8744 | 0.8650 |
| 36 | 0.9568 | 0.9531 | 0.9492 | 0.9451 | 0.9406 | 0.9359 | 0.9309 | 0.9255 | 0.9198 | 0.9137 | 0.9071 | 0.9001 | 0.8925 | 0.8843 | 0.8757 | 0.8663 |
| 37 | 0.9576 | 0.9540 | 0.9501 | 0.9460 | 0.9416 | 0.9370 | 0.9320 | 0.9267 | 0.9209 | 0.9149 | 0.9083 | 0.9013 | 0.8938 | 0.8857 | 0.8770 | 0.8677 |
| 38 | 0.9585 | 0.9549 | 0.9511 | 0.9470 | 0.9426 | 0.9381 | 0.9331 | 0.9279 | 0.9221 | 0.9162 | 0.9096 | 0.9027 | 0.8952 | 0.8871 | 0.8785 | 0.8691 |
| 39 | 0.9594 | 0.9559 | 0.9521 | 0.9480 | 0.9438 | 0.9392 | 0.9343 | 0.9291 | 0.9234 | 0.9175 | 0.9109 | 0.9041 | 0.8966 | 0.8885 | 0.8799 | 0.8706 |
| 40 | 0.9604 | 0.9569 | 0.9531 | 0.9492 | 0.9449 | 0.9403 | 0.9355 | 0.9303 | 0.9247 | 0.9188 | 0.9123 | 0.9055 | 0.8980 | 0.8900 | 0.8814 | 0.8722 |
| 41 | 0.9613 | 0.9578 | 0.9541 | 0.9502 | 0.9460 | 0.9415 | 0.9367 | 0.9317 | 0.9260 | 0.9202 | 0.9138 | 0.9070 | 0.8996 | 0.8916 | 0.8830 | 0.8738 |
| 42 | 0.9623 | 0.9588 | 0.9552 | 0.9513 | 0.9471 | 0.9427 | 0.9380 | 0.9329 | 0.9274 | 0.9216 | 0.9153 | 0.9085 | 0.9012 | 0.8932 | 0.8847 | 0.8755 |
| 43 | 0.9632 | 0.9599 | 0.9562 | 0.9525 | 0.9483 | 0.9440 | 0.9393 | 0.9343 | 0.9288 | 0.9231 | 0.9168 | 0.9101 | 0.9027 | 0.8949 | 0.8864 | 0.8773 |
| 44 | 0.9642 | 0.9609 | 0.9574 | 0.9536 | 0.9495 | 0.9452 | 0.9407 | 0.9357 | 0.9303 | 0.9246 | 0.9184 | 0.9117 | 0.9045 | 0.8966 | 0.8882 | 0.8791 |
| 45 | 0.9651 | 0.9619 | 0.9584 | 0.9547 | 0.9508 | 0.9465 | 0.9420 | 0.9371 | 0.9318 | 0.9261 | 0.9200 | 0.9134 | 0.9062 | 0.8984 | 0.8901 | 0.8811 |
| 46 | 0.9661 | 0.9630 | 0.9596 | 0.9559 | 0.9520 | 0.9478 | 0.9434 | 0.9385 | 0.9333 | 0.9277 | 0.9216 | 0.9151 | 0.9079 | 0.9002 | 0.8920 | 0.8830 |
| 47 | 0.9671 | 0.9640 | 0.9606 | 0.9571 | 0.9533 | 0.9492 | 0.9448 | 0.9400 | 0.9348 | 0.9293 | 0.9233 | 0.9168 | 0.9098 | 0.9021 | 0.8939 | 0.8850 |
| 48 | 0.9680 | 0.9650 | 0.9617 | 0.9582 | 0.9545 | 0.9505 | 0.9461 | 0.9415 | 0.9363 | 0.9310 | 0.9250 | 0.9186 | 0.9117 | 0.9041 | 0.8959 | 0.8871 |
| 49 | 0.9690 | 0.9660 | 0.9628 | 0.9595 | 0.9557 | 0.9518 | 0.9476 | 0.9430 | 0.9380 | 0.9326 | 0.9268 | 0.9205 | 0.9135 | 0.9060 | 0.8980 | 0.8893 |
| 50 | 0.9699 | 0.9671 | 0.9639 | 0.9606 | 0.9570 | 0.9532 | 0.9490 | 0.9445 | 0.9396 | 0.9343 | 0.9285 | 0.9223 | 0.9155 | 0.9081 | 0.9001 | 0.8915 |
| 51 | 0.9709 | 0.9681 | 0.9650 | 0.9618 | 0.9583 | 0.9545 | 0.9504 | 0.9460 | 0.9411 | 0.9360 | 0.9303 | 0.9242 | 0.9175 | 0.9102 | 0.9023 | 0.8937 |
| 52 | 0.9718 | 0.9691 | 0.9661 | 0.9629 | 0.9595 | 0.9558 | 0.9518 | 0.9475 | 0.9427 | 0.9377 | 0.9321 | 0.9261 | 0.9195 | 0.9123 | 0.9045 | 0.8960 |
| 53 | 0.9728 | 0.9701 | 0.9671 | 0.9641 | 0.9607 | 0.9571 | 0.9532 | 0.9490 | 0.9444 | 0.9394 | 0.9339 | 0.9280 | 0.9215 | 0.9144 | 0.9067 | 0.8983 |
| 54 | 0.9736 | 0.9711 | 0.9682 | 0.9652 | 0.9620 | 0.9584 | 0.9546 | 0.9506 | 0.9459 | 0.9412 | 0.9358 | 0.9300 | 0.9236 | 0.9165 | 0.9090 | 0.9007 |
| 55 | 0.9745 | 0.9720 | 0.9692 | 0.9663 | 0.9631 | 0.9597 | 0.9561 | 0.9521 | 0.9476 | 0.9429 | 0.9376 | 0.9319 | 0.9256 | 0.9187 | 0.9113 | 0.9031 |

TABLE J
Conversion from Single Life Annuity to 12 Year Certain And Life With 50\% Joint And Survivor With Pop-Up CECONY Weekly Participant -1

| AGE OF BENEFICIARY | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 |
| 56 | 0.9754 | 0.9729 | 0.9703 | 0.9674 | 0.9644 | 0.9611 | 0.9575 | 0.9536 | 0.9492 | 0.9445 | 0.9394 | 0.9339 | 0.9277 | 0.9209 | 0.9136 | 0.9056 |
| 57 | 0.9762 | 0.9739 | 0.9712 | 0.9685 | 0.9656 | 0.9623 | 0.9588 | 0.9551 | 0.9507 | 0.9463 | 0.9412 | 0.9358 | 0.9298 | 0.9231 | 0.9159 | 0.9080 |
| 58 | 0.9771 | 0.9748 | 0.9723 | 0.9696 | 0.9667 | 0.9636 | 0.9601 | 0.9565 | 0.9523 | 0.9480 | 0.9431 | 0.9378 | 0.9318 | 0.9253 | 0.9182 | 0.9105 |
| 59 | 0.9779 | 0.9757 | 0.9732 | 0.9706 | 0.9678 | 0.9648 | 0.9615 | 0.9579 | 0.9539 | 0.9496 | 0.9448 | 0.9396 | 0.9338 | 0.9275 | 0.9206 | 0.9129 |
| 60 | 0.9786 | 0.9765 | 0.9741 | 0.9716 | 0.9689 | 0.9659 | 0.9628 | 0.9593 | 0.9554 | 0.9513 | 0.9466 | 0.9415 | 0.9359 | 0.9296 | 0.9228 | 0.9154 |
| 61 | 0.9794 | 0.9773 | 0.9750 | 0.9726 | 0.9700 | 0.9671 | 0.9641 | 0.9607 | 0.9569 | 0.9529 | 0.9484 | 0.9434 | 0.9379 | 0.9318 | 0.9252 | 0.9178 |
| 62 | 0.9801 | 0.9781 | 0.9759 | 0.9736 | 0.9710 | 0.9682 | 0.9653 | 0.9620 | 0.9584 | 0.9544 | 0.9501 | 0.9453 | 0.9399 | 0.9339 | 0.9274 | 0.9203 |
| 63 | 0.9808 | 0.9789 | 0.9767 | 0.9745 | 0.9720 | 0.9694 | 0.9665 | 0.9633 | 0.9598 | 0.9560 | 0.9517 | 0.9470 | 0.9419 | 0.9361 | 0.9297 | 0.9227 |
| 64 | 0.9815 | 0.9796 | 0.9775 | 0.9753 | 0.9730 | 0.9704 | 0.9676 | 0.9646 | 0.9611 | 0.9575 | 0.9533 | 0.9488 | 0.9438 | 0.9381 | 0.9318 | 0.9250 |
| 65 | 0.9821 | 0.9804 | 0.9783 | 0.9762 | 0.9739 | 0.9714 | 0.9687 | 0.9658 | 0.9625 | 0.9590 | 0.9549 | 0.9506 | 0.9456 | 0.9401 | 0.9340 | 0.9273 |
| 66 | 0.9828 | 0.9810 | 0.9791 | 0.9770 | 0.9748 | 0.9724 | 0.9699 | 0.9670 | 0.9637 | 0.9604 | 0.9564 | 0.9522 | 0.9474 | 0.9420 | 0.9362 | 0.9296 |
| 67 | 0.9833 | 0.9816 | 0.9797 | 0.9778 | 0.9757 | 0.9734 | 0.9708 | 0.9681 | 0.9650 | 0.9617 | 0.9579 | 0.9538 | 0.9491 | 0.9439 | 0.9382 | 0.9317 |
| 68 | 0.9839 | 0.9822 | 0.9804 | 0.9785 | 0.9765 | 0.9742 | 0.9718 | 0.9691 | 0.9662 | 0.9630 | 0.9593 | 0.9554 | 0.9508 | 0.9457 | 0.9401 | 0.9339 |
| 69 | 0.9844 | 0.9828 | 0.9811 | 0.9792 | 0.9772 | 0.9750 | 0.9728 | 0.9702 | 0.9672 | 0.9642 | 0.9606 | 0.9568 | 0.9524 | 0.9475 | 0.9420 | 0.9360 |
| 70 | 0.9849 | 0.9833 | 0.9816 | 0.9799 | 0.9779 | 0.9759 | 0.9737 | 0.9712 | 0.9683 | 0.9654 | 0.9619 | 0.9582 | 0.9539 | 0.9491 | 0.9438 | 0.9379 |
| 71 | 0.9854 | 0.9839 | 0.9822 | 0.9805 | 0.9786 | 0.9766 | 0.9745 | 0.9721 | 0.9694 | 0.9664 | 0.9631 | 0.9595 | 0.9554 | 0.9507 | 0.9455 | 0.9398 |
| 72 | 0.9858 | 0.9844 | 0.9827 | 0.9811 | 0.9793 | 0.9773 | 0.9752 | 0.9729 | 0.9703 | 0.9675 | 0.9643 | 0.9608 | 0.9568 | 0.9522 | 0.9472 | 0.9415 |
| 73 | 0.9862 | 0.9848 | 0.9832 | 0.9816 | 0.9799 | 0.9780 | 0.9759 | 0.9737 | 0.9712 | 0.9684 | 0.9654 | 0.9620 | 0.9580 | 0.9536 | 0.9488 | 0.9432 |
| 74 | 0.9866 | 0.9852 | 0.9837 | 0.9821 | 0.9804 | 0.9786 | 0.9766 | 0.9745 | 0.9719 | 0.9694 | 0.9663 | 0.9630 | 0.9592 | 0.9549 | 0.9501 | 0.9448 |
| 75 | 0.9869 | 0.9856 | 0.9841 | 0.9826 | 0.9809 | 0.9791 | 0.9772 | 0.9751 | 0.9728 | 0.9702 | 0.9672 | 0.9641 | 0.9603 | 0.9562 | 0.9515 | 0.9463 |
| 76 | 0.9873 | 0.9860 | 0.9845 | 0.9830 | 0.9814 | 0.9797 | 0.9778 | 0.9758 | 0.9734 | 0.9709 | 0.9681 | 0.9650 | 0.9614 | 0.9573 | 0.9527 | 0.9477 |
| 77 | 0.9876 | 0.9863 | 0.9848 | 0.9834 | 0.9818 | 0.9801 | 0.9783 | 0.9763 | 0.9741 | 0.9717 | 0.9689 | 0.9658 | 0.9624 | 0.9583 | 0.9539 | 0.9489 |
| 78 | 0.9878 | 0.9865 | 0.9851 | 0.9837 | 0.9822 | 0.9806 | 0.9788 | 0.9768 | 0.9746 | 0.9723 | 0.9696 | 0.9666 | 0.9632 | 0.9593 | 0.9550 | 0.9500 |
| 79 | 0.9880 | 0.9868 | 0.9855 | 0.9840 | 0.9825 | 0.9809 | 0.9792 | 0.9773 | 0.9752 | 0.9729 | 0.9702 | 0.9673 | 0.9640 | 0.9602 | 0.9559 | 0.9511 |
| 80 | 0.9883 | 0.9870 | 0.9857 | 0.9843 | 0.9828 | 0.9812 | 0.9795 | 0.9778 | 0.9756 | 0.9734 | 0.9707 | 0.9680 | 0.9647 | 0.9609 | 0.9567 | 0.9519 |
| 81 | 0.9884 | 0.9872 | 0.9859 | 0.9845 | 0.9831 | 0.9815 | 0.9799 | 0.9781 | 0.9760 | 0.9738 | 0.9712 | 0.9685 | 0.9653 | 0.9616 | 0.9575 | 0.9528 |
| 82 | 0.9886 | 0.9874 | 0.9861 | 0.9848 | 0.9833 | 0.9818 | 0.9802 | 0.9784 | 0.9763 | 0.9742 | 0.9717 | 0.9690 | 0.9658 | 0.9622 | 0.9581 | 0.9535 |
| 83 | 0.9888 | 0.9876 | 0.9863 | 0.9850 | 0.9836 | 0.9820 | 0.9804 | 0.9787 | 0.9767 | 0.9745 | 0.9721 | 0.9694 | 0.9663 | 0.9627 | 0.9587 | 0.9542 |
| 84 | 0.9889 | 0.9877 | 0.9864 | 0.9852 | 0.9837 | 0.9823 | 0.9807 | 0.9789 | 0.9769 | 0.9749 | 0.9724 | 0.9698 | 0.9667 | 0.9632 | 0.9593 | 0.9548 |
| 85 | 0.9890 | 0.9879 | 0.9866 | 0.9852 | 0.9839 | 0.9824 | 0.9809 | 0.9792 | 0.9772 | 0.9751 | 0.9727 | 0.9701 | 0.9671 | 0.9636 | 0.9597 | 0.9553 |

TABLE J
Conversion from Single Life Annuity to
12 Year Certain And Life With 50\% Joint And Survivor With Pop-Up CECONY Weekly Participant -1

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
| 25 | 0.8450 | 0.8342 | 0.8227 | 0.8108 | 0.7980 | 0.7846 | 0.7706 | 0.7559 | 0.7405 | 0.7246 | 0.7079 | 0.6905 | 0.6725 | 0.6541 |
| 26 | 0.8457 | 0.8350 | 0.8236 | 0.8115 | 0.7988 | 0.7854 | 0.7713 | 0.7567 | 0.7413 | 0.7253 | 0.7086 | 0.6913 | 0.6733 | 0.6549 |
| 27 | 0.8465 | 0.8358 | 0.8244 | 0.8124 | 0.7996 | 0.7863 | 0.7722 | 0.7575 | 0.7422 | 0.7262 | 0.7095 | 0.6921 | 0.6741 | 0.6556 |
| 28 | 0.8474 | 0.8366 | 0.8253 | 0.8133 | 0.8005 | 0.7872 | 0.7731 | 0.7584 | 0.7430 | 0.7270 | 0.7104 | 0.6930 | 0.6749 | 0.6565 |
| 29 | 0.8484 | 0.8376 | 0.8262 | 0.8142 | 0.8014 | 0.7881 | 0.7740 | 0.7593 | 0.7440 | 0.7280 | 0.7113 | 0.6939 | 0.6759 | 0.6574 |
| 30 | 0.8493 | 0.8386 | 0.8272 | 0.8152 | 0.8025 | 0.7891 | 0.7750 | 0.7603 | 0.7450 | 0.7290 | 0.7123 | 0.6949 | 0.6768 | 0.6583 |
| 31 | 0.8504 | 0.8396 | 0.8283 | 0.8162 | 0.8035 | 0.7902 | 0.7761 | 0.7614 | 0.7461 | 0.7300 | 0.7133 | 0.6959 | 0.6778 | 0.6593 |
| 32 | 0.8514 | 0.8408 | 0.8293 | 0.8174 | 0.8046 | 0.7913 | 0.7772 | 0.7625 | 0.7472 | 0.7311 | 0.7144 | 0.6970 | 0.6789 | 0.6604 |
| 33 | 0.8526 | 0.8419 | 0.8305 | 0.8185 | 0.8058 | 0.7924 | 0.7784 | 0.7637 | 0.7483 | 0.7323 | 0.7156 | 0.6982 | 0.6801 | 0.6616 |
| 34 | 0.8538 | 0.8431 | 0.8317 | 0.8198 | 0.8071 | 0.7937 | 0.7797 | 0.7650 | 0.7496 | 0.7336 | 0.7168 | 0.6994 | 0.6813 | 0.6627 |
| 35 | 0.8550 | 0.8444 | 0.8330 | 0.8210 | 0.8083 | 0.7950 | 0.7810 | 0.7663 | 0.7509 | 0.7349 | 0.7182 | 0.7007 | 0.6826 | 0.6640 |
| 36 | 0.8564 | 0.8457 | 0.8344 | 0.8225 | 0.8097 | 0.7964 | 0.7823 | 0.7677 | 0.7524 | 0.7363 | 0.7195 | 0.7021 | 0.6840 | 0.6654 |
| 37 | 0.8578 | 0.8471 | 0.8358 | 0.8239 | 0.8112 | 0.7979 | 0.7839 | 0.7691 | 0.7538 | 0.7377 | 0.7210 | 0.7036 | 0.6854 | 0.6668 |
| 38 | 0.8592 | 0.8486 | 0.8373 | 0.8254 | 0.8127 | 0.7994 | 0.7854 | 0.7707 | 0.7554 | 0.7393 | 0.7226 | 0.7051 | 0.6870 | 0.6683 |
| 39 | 0.8608 | 0.8502 | 0.8389 | 0.8270 | 0.8143 | 0.8010 | 0.7870 | 0.7724 | 0.7570 | 0.7410 | 0.7242 | 0.7067 | 0.6885 | 0.6699 |
| 40 | 0.8624 | 0.8518 | 0.8406 | 0.8287 | 0.8161 | 0.8027 | 0.7887 | 0.7740 | 0.7587 | 0.7427 | 0.7259 | 0.7084 | 0.6903 | 0.6716 |
| 41 | 0.8640 | 0.8535 | 0.8422 | 0.8304 | 0.8178 | 0.8046 | 0.7906 | 0.7759 | 0.7605 | 0.7445 | 0.7277 | 0.7103 | 0.6921 | 0.6734 |
| 42 | 0.8658 | 0.8553 | 0.8441 | 0.8322 | 0.8197 | 0.8064 | 0.7924 | 0.7778 | 0.7625 | 0.7465 | 0.7297 | 0.7122 | 0.6940 | 0.6753 |
| 43 | 0.8675 | 0.8571 | 0.8460 | 0.8342 | 0.8216 | 0.8084 | 0.7944 | 0.7798 | 0.7645 | 0.7484 | 0.7317 | 0.7142 | 0.6960 | 0.6773 |
| 44 | 0.8695 | 0.8591 | 0.8479 | 0.8362 | 0.8236 | 0.8105 | 0.7965 | 0.7819 | 0.7666 | 0.7506 | 0.7338 | 0.7163 | 0.6981 | 0.6794 |
| 45 | 0.8714 | 0.8610 | 0.8500 | 0.8382 | 0.8258 | 0.8126 | 0.7987 | 0.7841 | 0.7688 | 0.7528 | 0.7360 | 0.7185 | 0.7003 | 0.6816 |
| 46 | 0.8734 | 0.8631 | 0.8521 | 0.8405 | 0.8280 | 0.8148 | 0.8009 | 0.7864 | 0.7712 | 0.7552 | 0.7383 | 0.7209 | 0.7026 | 0.6839 |
| 47 | 0.8756 | 0.8653 | 0.8543 | 0.8427 | 0.8303 | 0.8172 | 0.8033 | 0.7888 | 0.7736 | 0.7575 | 0.7408 | 0.7233 | 0.7050 | 0.6863 |
| 48 | 0.8777 | 0.8675 | 0.8566 | 0.8450 | 0.8326 | 0.8196 | 0.8058 | 0.7913 | 0.7761 | 0.7601 | 0.7433 | 0.7259 | 0.7076 | 0.6888 |
| 49 | 0.8799 | 0.8697 | 0.8589 | 0.8474 | 0.8351 | 0.8221 | 0.8083 | 0.7939 | 0.7787 | 0.7628 | 0.7460 | 0.7286 | 0.7103 | 0.6916 |
| 50 | 0.8822 | 0.8721 | 0.8613 | 0.8499 | 0.8377 | 0.8247 | 0.8110 | 0.7965 | 0.7814 | 0.7655 | 0.7488 | 0.7313 | 0.7131 | 0.6943 |
| 51 | 0.8845 | 0.8746 | 0.8639 | 0.8525 | 0.8403 | 0.8274 | 0.8137 | 0.7994 | 0.7843 | 0.7684 | 0.7517 | 0.7342 | 0.7160 | 0.6972 |
| 52 | 0.8869 | 0.8770 | 0.8664 | 0.8551 | 0.8430 | 0.8302 | 0.8166 | 0.8022 | 0.7872 | 0.7714 | 0.7547 | 0.7373 | 0.7190 | 0.7003 |
| 53 | 0.8893 | 0.8795 | 0.8690 | 0.8578 | 0.8458 | 0.8331 | 0.8195 | 0.8052 | 0.7902 | 0.7745 | 0.7579 | 0.7405 | 0.7222 | 0.7034 |
| 54 | 0.8918 | 0.8821 | 0.8717 | 0.8606 | 0.8487 | 0.8360 | 0.8226 | 0.8083 | 0.7934 | 0.7777 | 0.7611 | 0.7437 | 0.7255 | 0.7068 |
| 55 | 0.8943 | 0.8848 | 0.8744 | 0.8635 | 0.8516 | 0.8391 | 0.8256 | 0.8115 | 0.7967 | 0.7810 | 0.7644 | 0.7471 | 0.7289 | 0.7102 |

TABLE J
Conversion from Single Life Annuity to
12 Year Certain And Life With 50\% Joint And Survivor With Pop-Up CECONY Weekly Participant -1

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
| 56 | 0.8969 | 0.8874 | 0.8772 | 0.8663 | 0.8546 | 0.8422 | 0.8288 | 0.8148 | 0.8000 | 0.7844 | 0.7679 | 0.7506 | 0.7325 | 0.7137 |
| 57 | 0.8994 | 0.8901 | 0.8800 | 0.8692 | 0.8576 | 0.8453 | 0.8321 | 0.8181 | 0.8035 | 0.7879 | 0.7715 | 0.7542 | 0.7361 | 0.7174 |
| 58 | 0.9021 | 0.8928 | 0.8829 | 0.8722 | 0.8607 | 0.8485 | 0.8355 | 0.8216 | 0.8070 | 0.7915 | 0.7752 | 0.7580 | 0.7399 | 0.7213 |
| 59 | 0.9046 | 0.8955 | 0.8858 | 0.8752 | 0.8639 | 0.8518 | 0.8388 | 0.8251 | 0.8105 | 0.7952 | 0.7789 | 0.7618 | 0.7438 | 0.7252 |
| 60 | 0.9072 | 0.8983 | 0.8886 | 0.8783 | 0.8671 | 0.8551 | 0.8422 | 0.8286 | 0.8142 | 0.7990 | 0.7827 | 0.7658 | 0.7478 | 0.7293 |
| 61 | 0.9098 | 0.9011 | 0.8915 | 0.8813 | 0.8702 | 0.8584 | 0.8457 | 0.8322 | 0.8180 | 0.8028 | 0.7867 | 0.7698 | 0.7518 | 0.7334 |
| 62 | 0.9124 | 0.9038 | 0.8944 | 0.8844 | 0.8734 | 0.8617 | 0.8491 | 0.8358 | 0.8217 | 0.8066 | 0.7906 | 0.7738 | 0.7561 | 0.7376 |
| 63 | 0.9149 | 0.9065 | 0.8973 | 0.8874 | 0.8766 | 0.8651 | 0.8527 | 0.8395 | 0.8254 | 0.8106 | 0.7947 | 0.7780 | 0.7603 | 0.7419 |
| 64 | 0.9175 | 0.9092 | 0.9001 | 0.8904 | 0.8798 | 0.8684 | 0.8562 | 0.8432 | 0.8293 | 0.8144 | 0.7987 | 0.7821 | 0.7645 | 0.7462 |
| 65 | 0.9199 | 0.9118 | 0.9030 | 0.8933 | 0.8829 | 0.8717 | 0.8596 | 0.8467 | 0.8331 | 0.8184 | 0.8028 | 0.7863 | 0.7688 | 0.7506 |
| 66 | 0.9223 | 0.9144 | 0.9057 | 0.8963 | 0.8861 | 0.8750 | 0.8631 | 0.8504 | 0.8368 | 0.8223 | 0.8069 | 0.7905 | 0.7731 | 0.7550 |
| 67 | 0.9247 | 0.9169 | 0.9084 | 0.8992 | 0.8891 | 0.8782 | 0.8665 | 0.8539 | 0.8405 | 0.8262 | 0.8109 | 0.7947 | 0.7774 | 0.7594 |
| 68 | 0.9270 | 0.9194 | 0.9111 | 0.9020 | 0.8921 | 0.8814 | 0.8698 | 0.8574 | 0.8442 | 0.8300 | 0.8148 | 0.7987 | 0.7816 | 0.7637 |
| 69 | 0.9292 | 0.9218 | 0.9136 | 0.9047 | 0.8949 | 0.8845 | 0.8731 | 0.8608 | 0.8478 | 0.8338 | 0.8188 | 0.8028 | 0.7858 | 0.7680 |
| 70 | 0.9313 | 0.9240 | 0.9160 | 0.9073 | 0.8978 | 0.8874 | 0.8762 | 0.8642 | 0.8513 | 0.8374 | 0.8226 | 0.8068 | 0.7899 | 0.7722 |
| 71 | 0.9334 | 0.9263 | 0.9184 | 0.9098 | 0.9005 | 0.8903 | 0.8792 | 0.8674 | 0.8547 | 0.8410 | 0.8263 | 0.8106 | 0.7939 | 0.7764 |
| 72 | 0.9353 | 0.9283 | 0.9206 | 0.9123 | 0.9030 | 0.8931 | 0.8822 | 0.8705 | 0.8579 | 0.8445 | 0.8300 | 0.8144 | 0.7978 | 0.7804 |
| 73 | 0.9371 | 0.9302 | 0.9227 | 0.9145 | 0.9054 | 0.8957 | 0.8850 | 0.8735 | 0.8611 | 0.8478 | 0.8334 | 0.8180 | 0.8016 | 0.7843 |
| 74 | 0.9388 | 0.9322 | 0.9248 | 0.9167 | 0.9078 | 0.8982 | 0.8877 | 0.8763 | 0.8641 | 0.8509 | 0.8367 | 0.8215 | 0.8051 | 0.7880 |
| 75 | 0.9404 | 0.9339 | 0.9267 | 0.9188 | 0.9100 | 0.9005 | 0.8902 | 0.8790 | 0.8670 | 0.8539 | 0.8398 | 0.8247 | 0.8086 | 0.7916 |
| 76 | 0.9419 | 0.9355 | 0.9284 | 0.9206 | 0.9120 | 0.9027 | 0.8925 | 0.8815 | 0.8696 | 0.8567 | 0.8429 | 0.8279 | 0.8118 | 0.7950 |
| 77 | 0.9433 | 0.9370 | 0.9301 | 0.9224 | 0.9140 | 0.9048 | 0.8947 | 0.8838 | 0.8721 | 0.8594 | 0.8456 | 0.8308 | 0.8149 | 0.7982 |
| 78 | 0.9445 | 0.9383 | 0.9315 | 0.9240 | 0.9157 | 0.9066 | 0.8967 | 0.8860 | 0.8744 | 0.8618 | 0.8482 | 0.8335 | 0.8178 | 0.8012 |
| 79 | 0.9457 | 0.9396 | 0.9328 | 0.9255 | 0.9173 | 0.9083 | 0.8986 | 0.8879 | 0.8765 | 0.8641 | 0.8506 | 0.8361 | 0.8204 | 0.8039 |
| 80 | 0.9467 | 0.9407 | 0.9341 | 0.9268 | 0.9187 | 0.9099 | 0.9002 | 0.8898 | 0.8784 | 0.8662 | 0.8528 | 0.8384 | 0.8228 | 0.8064 |
| 81 | 0.9476 | 0.9417 | 0.9351 | 0.9280 | 0.9200 | 0.9113 | 0.9018 | 0.8914 | 0.8802 | 0.8680 | 0.8547 | 0.8405 | 0.8250 | 0.8088 |
| 82 | 0.9484 | 0.9426 | 0.9361 | 0.9291 | 0.9211 | 0.9126 | 0.9032 | 0.8929 | 0.8817 | 0.8697 | 0.8566 | 0.8423 | 0.8270 | 0.8108 |
| 83 | 0.9491 | 0.9434 | 0.9370 | 0.9300 | 0.9222 | 0.9137 | 0.9044 | 0.8942 | 0.8831 | 0.8712 | 0.8581 | 0.8440 | 0.8288 | 0.8127 |
| 84 | 0.9498 | 0.9441 | 0.9378 | 0.9308 | 0.9231 | 0.9146 | 0.9054 | 0.8953 | 0.8844 | 0.8725 | 0.8595 | 0.8455 | 0.8304 | 0.8144 |
| 85 | 0.9503 | 0.9447 | 0.9384 | 0.9315 | 0.9239 | 0.9156 | 0.9063 | 0.8963 | 0.8854 | 0.8737 | 0.8607 | 0.8468 | 0.8318 | 0.8158 |

## TABLE K

# Conversion from Single Life to 100\% Joint and Survivor Without Pop-Up <br> CECONY Weekly Participants -1 

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 |

## 25

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$\overline{0.9822} \overline{0.9806} \overline{0.9790} \overline{0.9772} \overline{0.9753} \overline{0.9733} \overline{0.9710} \overline{0.9686} \overline{0.9659} \overline{0.9631} \overline{0.9600} \overline{0.9567} \overline{0.9532}$| 0.9494 |
| :--- |
| 0.9454 |$\overline{0.9409} \overline{0.9363}$ $\begin{array}{llllllllllllllllllllllll}0.9826 & 0.9811 & 0.9796 & 0.9778 & 0.9760 & 0.9739 & 0.9716 & 0.9693 & 0.9666 & 0.9639 & 0.9608 & 0.9576 & 0.9540 & 0.9503 & 0.9463 & 0.9420 & 0.9373\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9831 & 0.9817 & 0.9801 & 0.9784 & 0.9766 & 0.9746 & 0.9723 & 0.9700 & 0.9674 & 0.9647 & 0.9617 & 0.9584 & 0.9550 & 0.9513 & 0.9473 & 0.9430\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9836 & 0.9822 & 0.9807 & 0.9790 & 0.9772 & 0.9752 & 0.9730 & 0.9708 & 0.9682 & 0.9655 & 0.9625 & 0.9594 & 0.9559 & 0.9523 & 0.9483 & 0.9441 & 0.9395\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9840 & 0.9827 & 0.9812 & 0.9795 & 0.9778 & 0.9759 & 0.9737 & 0.9715 & 0.9690 & 0.9664 & 0.9634 & 0.9603 & 0.9569 & 0.9533 & 0.9493 & 0.9452 & 0.9406\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9846 & 0.9832 & 0.9817 & 0.9801 & 0.9785 & 0.9766 & 0.9744 & 0.9723 & 0.9697 & 0.9672 & 0.9643 & 0.9612 & 0.9579 & 0.9543 & 0.9505 & 0.9463 & 0.9418\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9851 & 0.9837 & 0.9823 & 0.9807 & 0.9791 & 0.9772 & 0.9751 & 0.9731 & 0.9706 & 0.9681 & 0.9652 & 0.9622 & 0.9589 & 0.9554 & 0.9516 & 0.9474 & 0.9430\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9855 & 0.9842 & 0.9828 & 0.9813 & 0.9797 & 0.9779 & 0.9759 & 0.9738 & 0.9714 & 0.9689 & 0.9662 & 0.9632 & 0.9600 & 0.9565 & 0.9527 & 0.9486 & 0.9443\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9860 & 0.9847 & 0.9834 & 0.9819 & 0.9804 & 0.9786 & 0.9766 & 0.9746 & 0.9722 & 0.9698 & 0.9671 & 0.9642 & 0.9610 & 0.9576 & 0.9539 & 0.9499 & 0.9455\end{array}$ $\begin{array}{llllllllllllllllllll}0.9864 & 0.9852 & 0.9839 & 0.9825 & 0.9810 & 0.9793 & 0.9774 & 0.9753 & 0.9730 & 0.9707 & 0.9680 & 0.9652 & 0.9620 & 0.9587 & 0.9551 & 0.9511 & 0.9469\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9869 & 0.9857 & 0.9845 & 0.9831 & 0.9816 & 0.9799 & 0.9781 & 0.9761 & 0.9739 & 0.9716 & 0.9690 & 0.9662 & 0.9631 & 0.9599 & 0.9563 & 0.9524 & 0.9482\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9873 & 0.9863 & 0.9850 & 0.9837 & 0.9822 & 0.9806 & 0.9788 & 0.9769 & 0.9748 & 0.9725 & 0.9700 & 0.9672 & 0.9643 & 0.9610 & 0.9575 & 0.9537 & 0.9495\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9878 & 0.9867 & 0.9855 & 0.9842 & 0.9829 & 0.9813 & 0.9795 & 0.9777 & 0.9756 & 0.9734 & 0.9709 & 0.9683 & 0.9653 & 0.9622 & 0.9588 & 0.9550 & 0.9509\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9882 & 0.9872 & 0.9861 & 0.9848 & 0.9835 & 0.9820 & 0.9803 & 0.9785 & 0.9764 & 0.9743 & 0.9719 & 0.9693 & 0.9664 & 0.9634 & 0.9600 & 0.9563 & 0.9523\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9887 & 0.9876 & 0.9866 & 0.9853 & 0.9841 & 0.9826 & 0.9810 & 0.9793 & 0.9772 & 0.9752 & 0.9729 & 0.9703 & 0.9676 & 0.9645 & 0.9613 & 0.9576 & 0.9537\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9890 & 0.9881 & 0.9871 & 0.9859 & 0.9847 & 0.9833 & 0.9816 & 0.9800 & 0.9781 & 0.9761 & 0.9738 & 0.9714 & 0.9686 & 0.9658 & 0.9625 & 0.9590 & 0.9552\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9895 & 0.9886 & 0.9875 & 0.9864 & 0.9853 & 0.9839 & 0.9824 & 0.9808 & 0.9789 & 0.9770 & 0.9748 & 0.9724 & 0.9697 & 0.9669 & 0.9638 & 0.9604 & 0.9566\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9899 & 0.9890 & 0.9880 & 0.9870 & 0.9859 & 0.9845 & 0.9830 & 0.9815 & 0.9797 & 0.9779 & 0.9758 & 0.9734 & 0.9709 & 0.9681 & 0.9651 & 0.9617 & 0.9581\end{array}$ $\begin{array}{lllllllllllllllllllllllllll}0.9903 & 0.9895 & 0.9886 & 0.9875 & 0.9865 & 0.9852 & 0.9837 & 0.9822 & 0.9805 & 0.9788 & 0.9767 & 0.9744 & 0.9720 & 0.9693 & 0.9663 & 0.9631 & 0.9596\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9907 & 0.9899 & 0.9890 & 0.9880 & 0.9870 & 0.9858 & 0.9844 & 0.9830 & 0.9813 & 0.9796 & 0.9776 & 0.9754 & 0.9731 & 0.9705 & 0.9676 & 0.9645 & 0.9610\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9911 & 0.9903 & 0.9894 & 0.9885 & 0.9876 & 0.9863 & 0.9851 & 0.9837 & 0.9820 & 0.9804 & 0.9785 & 0.9764 & 0.9741 & 0.9716 & 0.9689 & 0.9625\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9914 & 0.9907 & 0.9899 & 0.9890 & 0.9881 & 0.9869 & 0.9856 & 0.9844 & 0.9828 & 0.9812 & 0.9794 & 0.9774 & 0.9752 & 0.9728 & 0.9701 & 0.9672 & 0.9639\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9918 & 0.9911 & 0.9903 & 0.9895 & 0.9886 & 0.9875 & 0.9863 & 0.9851 & 0.9836 & 0.9820 & 0.9803 & 0.9784 & 0.9762 & 0.9739 & 0.9714 & 0.9685 & 0.9654\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9922 & 0.9915 & 0.9908 & 0.9899 & 0.9891 & 0.9881 & 0.9869 & 0.9858 & 0.9843 & 0.9829 & 0.9812 & 0.9793 & 0.9773 & 0.9751 & 0.9725 & 0.9698 & 0.9668\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9925 & 0.9919 & 0.9912 & 0.9904 & 0.9896 & 0.9886 & 0.9875 & 0.9864 & 0.9850 & 0.9837 & 0.9821 & 0.9802 & 0.9783 & 0.9761 & 0.9738 & 0.9712 & 0.9682\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9928 & 0.9922 & 0.9916 & 0.9908 & 0.9900 & 0.9891 & 0.9881 & 0.9870 & 0.9857 & 0.9844 & 0.9829 & 0.9812 & 0.9792 & 0.9772 & 0.9750 & 0.9724 & 0.9696\end{array}$ $\begin{array}{lllllllllllllllllllllllllll}0.9932 & 0.9926 & 0.9920 & 0.9912 & 0.9906 & 0.9897 & 0.9887 & 0.9877 & 0.9864 & 0.9851 & 0.9837 & 0.9821 & 0.9803 & 0.9783 & 0.9761 & 0.9737 & 0.9710\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9935 & 0.9930 & 0.9924 & 0.9917 & 0.9910 & 0.9902 & 0.9892 & 0.9883 & 0.9870 & 0.9859 & 0.9845 & 0.9829 & 0.9812 & 0.9793 & 0.9773 & 0.9749\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9938 & 0.9933 & 0.9927 & 0.9921 & 0.9914 & 0.9907 & 0.9898 & 0.9889 & 0.9877 & 0.9865 & 0.9852 & 0.9838 & 0.9821 & 0.9803 & 0.9784 & 0.9761 & 0.9737\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9941 & 0.9936 & 0.9931 & 0.9925 & 0.9919 & 0.9911 & 0.9903 & 0.9894 & 0.9883 & 0.9873 & 0.9860 & 0.9846 & 0.9830 & 0.9813 & 0.9794 & 0.9773\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9944 & 0.9939 & 0.9935 & 0.9929 & 0.9923 & 0.9916 & 0.9907 & 0.9900 & 0.9890 & 0.9880 & 0.9867 & 0.9854 & 0.9839 & 0.9823 & 0.9805 & 0.9784 & 0.9762\end{array}$

## TABLE K

Conversion from Single Life to 100\% Joint and Survivor Without Pop-Up CECONY Weekly Participants -1


$\begin{array}{lllllllllllllllll}0.9947 & 0.9943 & 0.9938 & 0.9932 & 0.9927 & 0.9920 & 0.9912 & 0.9905 & 0.9895 & 0.9886 & 0.9875 & 0.9861 & 0.9847 & 0.9833 & 0.9815 & 0.9796 & 0.9774\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9950 & 0.9946 & 0.9941 & 0.9936 & 0.9931 & 0.9925 & 0.9918 & 0.9910 & 0.9901 & 0.9892 & 0.9881 & 0.9869 & 0.9856 & 0.9842 & 0.9825 & 0.9807 & 0.9787\end{array}$ 0.99530 .99490 .99440 .99400 .99350 .99290 .99220 .99150 .99070 .98980 .98880 .98760 .98640 .98510 .98350 .98170 .9798 0.99550 .99520 .99470 .99430 .99390 .99330 .99270 .99200 .99120 .99040 .98940 .98840 .98720 .98590 .98450 .98280 .9810 0.99580 .99540 .99500 .99460 .99430 .99370 .99310 .99250 .99170 .99090 .99010 .98910 .98800 .98670 .98540 .98380 .9821 $\begin{array}{llllllllllllllllllllllll}0.9960 & 0.9957 & 0.9953 & 0.9949 & 0.9946 & 0.9941 & 0.9935 & 0.9929 & 0.9922 & 0.9915 & 0.9907 & 0.9897 & 0.9886 & 0.9875 & 0.9863 & 0.9832\end{array}$ 0.99620 .99590 .99560 .99520 .99490 .99450 .99390 .99340 .99270 .99210 .99130 .99030 .98940 .98830 .98710 .98570 .9842 0.99640 .99620 .99590 .99550 .99520 .99480 .99430 .99380 .99310 .99260 .99180 .99090 .99010 .98910 .98790 .98670 .9852 0.99670 .99640 .99610 .99580 .99550 .99510 .99470 .99420 .99360 .99300 .99230 .99160 .99070 .98980 .98870 .98750 .9861 0.99690 .99670 .99640 .99610 .99580 .99540 .99500 .99460 .99400 .99350 .99290 .99220 .99140 .99050 .98950 .98830 .9870 0.99710 .99690 .99670 .99630 .99610 .99580 .99530 .99500 .99440 .99390 .99340 .99270 .99200 .99120 .99020 .98920 .9880 $\begin{array}{llllllllllllllllllllll}0.9973 & 0.9971 & 0.9969 & 0.9966 & 0.9964 & 0.9960 & 0.9956 & 0.9953 & 0.9948 & 0.9944 & 0.9938 & 0.9932 & 0.9925 & 0.9918 & 0.9909 & 0.9898\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9975 & 0.9973 & 0.9971 & 0.9968 & 0.9966 & 0.9963 & 0.9959 & 0.9956 & 0.9952 & 0.9948 & 0.9943 & 0.9937 & 0.9930 & 0.9924 & 0.9916 & 0.9896\end{array}$ $\begin{array}{lllllllllllllllllllll}0 & 0.9976 & 0.9975 & 0.9972 & 0.9970 & 0.9969 & 0.9966 & 0.9962 & 0.9960 & 0.9955 & 0.9952 & 0.9947 & 0.9941 & 0.9936 & 0.9929 & 0.9922 & 0.9913\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9978 & 0.9976 & 0.9975 & 0.9972 & 0.9971 & 0.9969 & 0.9965 & 0.9963 & 0.9958 & 0.9955 & 0.9951 & 0.9946 & 0.9940 & 0.9935 & 0.9927 & 0.9920\end{array}$ 0.99790 .99780 .99760 .99750 .99730 .99710 .99680 .99650 .99620 .99590 .99550 .99500 .99450 .99400 .99340 .99260 .9917 0.99810 .99800 .99780 .99770 .99750 .99730 .99710 .99680 .99650 .99620 .99580 .99540 .99490 .99450 .99390 .99320 .9924 0.99820 .99810 .99800 .99780 .99780 .99750 .99730 .99710 .99670 .99650 .99620 .99580 .99540 .99490 .99440 .99370 .9931 $\begin{array}{llllllllllllllllllllllllll}0.9984 & 0.9983 & 0.9981 & 0.9980 & 0.9979 & 0.9977 & 0.9975 & 0.9974 & 0.9970 & 0.9968 & 0.9965 & 0.9961 & 0.9958 & 0.9953 & 0.9948 & 0.9942\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9985 & 0.9984 & 0.9983 & 0.9981 & 0.9981 & 0.9979 & 0.9977 & 0.9976 & 0.9973 & 0.9971 & 0.9968 & 0.9965 & 0.9961 & 0.9958 & 0.9953 & 0.9941\end{array}$ $\begin{array}{lllllllllllllllllllllllllll}0.9986 & 0.9985 & 0.9984 & 0.9983 & 0.9983 & 0.9981 & 0.9979 & 0.9977 & 0.9975 & 0.9973 & 0.9971 & 0.9968 & 0.9965 & 0.9961 & 0.9957 & 0.9952\end{array}$ 0.99870 .99870 .99860 .99840 .99840 .99830 .99800 .99800 .99770 .99760 .99730 .99700 .99680 .99650 .99600 .99560 .9951 $\begin{array}{llllllllllllllllllllllllllll}0 & 0.9988 & 0.9987 & 0.9987 & 0.9986 & 0.9985 & 0.9984 & 0.9983 & 0.9981 & 0.9979 & 0.9978 & 0.9976 & 0.9973 & 0.9971 & 0.9968 & 0.9964\end{array}$ 0.99900 .99890 .99880 .99870 .99870 .99860 .99840 .99830 .99810 .99800 .99780 .99750 .99730 .99710 .99670 .99630 .9959 0.99900 .99900 .99890 .99880 .99880 .99870 .99850 .99850 .99830 .99820 .99800 .99780 .99750 .99740 .99710 .99670 .9963 $\begin{array}{llllllllllllllllllllll}0.9991 & 0.9990 & 0.9990 & 0.9989 & 0.9989 & 0.9988 & 0.9986 & 0.9986 & 0.9984 & 0.9983 & 0.9982 & 0.9980 & 0.9978 & 0.9976 & 0.9974 & 0.9970\end{array}$ $\begin{array}{lllllllllllllllllllllllllllll}0.9992 & 0.9991 & 0.9991 & 0.9990 & 0.9990 & 0.9989 & 0.9988 & 0.9987 & 0.9986 & 0.9985 & 0.9983 & 0.9982 & 0.9980 & 0.9978 & 0.9976 & 0.9973\end{array}$ 0.99930 .99920 .99920 .99910 .99910 .99900 .99890 .99890 .99870 .99860 .99850 .99830 .99820 .99800 .99780 .99760 .9973 0.99930 .99930 .99930 .99920 .99920 .99910 .99900 .99890 .99880 .99880 .99860 .99850 .99840 .99820 .99810 .99780 .9975 0.99940 .99930 .99930 .99930 .99930 .99920 .99910 .99910 .99890 .99890 .99880 .99860 .99850 .99840 .99820 .99800 .9978

TABLE K
Conversion from Single Life to 100\% Joint and Survivor Without Pop-Up CECONY Weekly Participants -1

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 |
| 25 | 0.9314 | 0.9261 | 0.9205 | 0.9145 | 0.9083 | 0.9017 | 0.8947 | 0.8874 | 0.8797 | 0.8717 | 0.8632 | 0.8543 | 0.8449 | 0.8351 | 0.8247 | 0.8138 | 0.8024 |
| 26 | 0.9324 | 0.9271 | 0.9216 | 0.9156 | 0.9094 | 0.9029 | 0.8959 | 0.8886 | 0.8810 | 0.8729 | 0.8645 | 0.8557 | 0.8462 | 0.8364 | 0.8260 | 0.8151 | 0.8037 |
| 27 | 0.9335 | 0.9283 | 0.9227 | 0.9168 | 0.9106 | 0.9041 | 0.8972 | 0.8899 | 0.8823 | 0.8743 | 0.8659 | 0.8570 | 0.8476 | 0.8378 | 0.8274 | 0.8165 | 0.8051 |
| 28 | 0.9347 | 0.9295 | 0.9240 | 0.9181 | 0.9119 | 0.9054 | 0.8985 | 0.8912 | 0.8836 | 0.8756 | 0.8673 | 0.8584 | 0.8490 | 0.8392 | 0.8288 | 0.8180 | 0.8065 |
| 29 | 0.9359 | 0.9307 | 0.9252 | 0.9194 | 0.9133 | 0.9068 | 0.8999 | 0.8927 | 0.8851 | 0.8771 | 0.8688 | 0.8599 | 0.8506 | 0.8408 | 0.8304 | 0.8195 | 0.8081 |
| 30 | 0.9370 | 0.9320 | 0.9265 | 0.9207 | 0.9146 | 0.9082 | 0.9014 | 0.8942 | 0.8866 | 0.8786 | 0.8703 | 0.8615 | 0.8521 | 0.8424 | 0.8320 | 0.8212 | 0.8097 |
| 31 | 0.9383 | 0.9333 | 0.9279 | 0.9221 | 0.9160 | 0.9097 | 0.9028 | 0.8957 | 0.8882 | 0.8803 | 0.8719 | 0.8632 | 0.8539 | 0.8441 | 0.8337 | 0.8230 | 0.8115 |
| 32 | 0.9396 | 0.9346 | 0.9293 | 0.9236 | 0.9175 | 0.9112 | 0.9044 | 0.8974 | 0.8898 | 0.8820 | 0.8737 | 0.8649 | 0.8556 | 0.8459 | 0.8356 | 0.8247 | 0.9133 |
| 33 | 0.9409 | 0.9360 | 0.9307 | 0.9250 | 0.9191 | 0.9128 | 0.9061 | 0.8990 | 0.8916 | 0.8837 | 0.8755 | 0.8668 | 0.8574 | 0.8478 | 0.8374 | 0.8267 | 0.8153 |
| 34 | 0.9423 | 0.9374 | 0.9322 | 0.9266 | 0.9207 | 0.9144 | 0.9078 | 0.9008 | 0.8934 | 0.8856 | 0.8774 | 0.8686 | 0.8594 | 0.8498 | 0.8395 | 0.8287 | 0.8173 |
| 35 | 0.9438 | 0.9389 | 0.9337 | 0.9282 | 0.9224 | 0.9161 | 0.9095 | 0.9026 | 0.8953 | 0.8875 | 0.8793 | 0.8707 | 0.8615 | 0.8518 | 0.8416 | 0.8309 | . 08195 |
| 36 | 0.9452 | 0.9404 | 0.9353 | 0.9298 | 0.9241 | 0.9179 | 0.9114 | 0.9045 | 0.8972 | 0.8895 | 0.8813 | 0.8728 | 0.8636 | 0.8540 | 0.8438 | 0.8331 | 0.8217 |
| 37 | 0.9466 | 0.9419 | 0.9369 | 0.9315 | 0.9258 | 0.9197 | 0.9132 | 0.9064 | 0.8992 | 0.8916 | 0.8835 | 0.8750 | 0.8658 | 0.8563 | 0.8461 | 0.8354 | 0.8241 |
| 38 | 0.9481 | 0.9435 | 0.9385 | 0.9332 | 0.9276 | 0.9216 | 0.9152 | 0.9084 | 0.9013 | 0.8937 | 0.8857 | 0.8772 | 0.8681 | 0.8586 | 0.8485 | 0.8379 | 0.8266 |
| 39 | 0.9496 | 0.9451 | 0.9402 | 0.9350 | 0.9294 | 0.9235 | 0.9172 | 0.9106 | 0.9035 | 0.8959 | 0.8880 | 0.8796 | 0.8706 | 0.8611 | 0.8511 | 0.8404 | 0.8292 |
| 39 | 0.9496 | 0.9451 | 0.9402 | 0.9350 | 0.9294 | 0.9235 | 0.9172 | 0.9106 | 0.9035 | 0.8959 | 0.8880 | 0.8796 | 0.8706 | 0.8611 | 0.8511 | 0.8404 | 0.8292 |
| 40 | 0.9511 | 0.9467 | 0.9419 | 0.9367 | 0.9313 | 0.9255 | 0.9193 | 0.9127 | 0.9057 | 0.8982 | 0.8904 | 0.8820 | 0.8731 | 0.8637 | 0.8537 | 0.8431 | 0.8319 |
| 41 | 0.9527 | 0.9483 | 0.9437 | 0.9386 | 0.9333 | 0.9275 | 0.9214 | 0.9148 | 0.9079 | 0.9006 | 0.8929 | 0.8846 | 0.8757 | 0.8664 | 0.8564 | 0.8460 | 0.8348 |
| 42 | 0.9542 | 0.9500 | 0.9454 | 0.9404 | 0.9352 | 0.9296 | 0.9235 | 0.9171 | 0.9103 | 0.9030 | 0.8954 | 0.8872 | 0.8784 | 0.8692 | 0.8593 | 0.8489 | 0.8378 |
| 43 | 0.9558 | 0.9516 | 0.9472 | 0.9423 | 0.9372 | 0.9316 | 0.9257 | 0.9195 | 0.9127 | 0.9055 | 0.8980 | 0.8899 | 0.8812 | 0.8721 | 0.8622 | 0.8520 | 0.8409 |
| 44 | 0.9574 | 0.9533 | 0.9490 | 0.9442 | 0.9392 | 0.9338 | 0.9280 | 0.9218 | 0.9152 | 0.9081 | 0.9007 | 0.8927 | 0.8841 | 0.8751 | 0.8653 | 0.8551 | 0.8442 |
| 45 | 0.9589 | 0.9550 | 0.9508 | 0.9461 | 0.9412 | 0.9359 | 0.9302 | 0.9241 | 0.9177 | 0.9108 | 0.9034 | 0.8956 | 0.8871 | 0.8781 | 0.8685 | 0.8583 | 0.8475 |
| 46 | 0.9605 | 0.9566 | 0.9526 | 0.9480 | 0.9433 | 0.9381 | 0.9325 | 0.9266 | 0.9202 | 0.9135 | 0.9062 | 0.8985 | 0.8901 | 0.8813 | 0.8718 | 0.8617 | 0.8509 |
| 47 | 0.9621 | 0.9583 | 0.9543 | 0.9499 | 0.9453 | 0.9402 | 0.9348 | 0.9290 | 0.9228 | 0.9162 | 0.9090 | 0.9014 | 0.8932 | 0.8845 | 0.8751 | 0.8652 | 0.8546 |
| 48 | 0.9636 | 0.9600 | 0.9561 | 0.9518 | 0.9473 | 0.9424 | 0.9372 | 0.9315 | 0.9254 | 0.9189 | 0.9120 | 0.9045 | 0.8964 | 0.8878 | 0.8786 | 0.8688 | 0.8582 |
| 49 | 0.9651 | 0.9617 | 0.9579 | 0.9537 | 0.9494 | 0.9446 | 0.9395 | 0.9340 | 0.9280 | 0.9217 | 0.9149 | 0.9076 | 0.8996 | 0.8912 | 0.8821 | 0.8724 | 0.8620 |
| 50 | 0.9666 | 0.9633 | 0.9597 | 0.9556 | 0.9514 | 0.9468 | 0.9418 | 0.9364 | 0.9307 | 0.9245 | 0.9178 | 0.9107 | 0.9029 | 0.8947 | 0.8857 | 0.8762 | 0.8660 |
| 51 | 0.9681 | 0.9649 | 0.9614 | 0.9576 | 0.9535 | 0.9490 | 0.9441 | 0.9389 | 0.9333 | 0.9273 | 0.9209 | 0.9138 | 0.9063 | 0.8982 | 0.8893 | 0.8800 | 0.8699 |
| 52 | 0.9696 | 0.9665 | 0.9631 | 0.9594 | 0.9555 | 0.9511 | 0.9465 | 0.9414 | 0.9360 | 0.9302 | 0.9238 | 0.9170 | 0.9097 | 0.9017 | 0.8931 | 0.8839 | 0.8740 |
| 53 | 0.9710 | 0.9680 | 0.9648 | 0.9613 | 0.9575 | 0.9533 | 0.9487 | 0.9439 | 0.9386 | 0.9330 | 0.9269 | 0.9202 | 0.9130 | 0.9053 | 0.8969 | 0.8879 | 0.8782 |
| 54 | 0.9724 | 0.9696 | 0.9665 | 0.9631 | 0.9594 | 0.9554 | 0.9511 | 0.9464 | 0.9413 | 0.9358 | 0.9300 | 0.9235 | 0.9164 | 0.9090 | 0.9008 | 0.8920 | 0.8824 |
| 55 | 0.9738 | 0.9711 | 0.9681 | 0.9648 | 0.9614 | 0.9575 | 0.9533 | 0.9489 | 0.9440 | 0.9387 | 0.9329 | 0.9267 | 0.9199 | 0.9126 | 0.9046 | 0.8960 | 0.8867 |

## TABLE K

## Conversion from Single Life to 100\% Joint and Survivor Without Pop-Up CECONY Weekly Participants -1


0.97520 .97250 .96970 .96660 .96320 .95960 .95560 .95130 .94650 .94140 .93600 .93000 .92340 .91630 .90860 .90010 .8911 $\begin{array}{lllllllllllllllllllllllll}0.9765 & 0.9740 & 0.9713 & 0.9683 & 0.9651 & 0.9616 & 0.9578 & 0.9537 & 0.9492 & 0.9442 & 0.9390 & 0.9332 & 0.9268 & 0.9200 & 0.9124 & 0.9044 & 0.8955\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9777 & 0.9754 & 0.9729 & 0.9700 & 0.9670 & 0.9637 & 0.9599 & 0.9560 & 0.9517 & 0.9470 & 0.9419 & 0.9364 & 0.9302 & 0.9237 & 0.9164 & 0.9086 & 0.9000\end{array}$ $\begin{array}{llllllllllllllllllll}0.9790 & 0.9768 & 0.9743 & 0.9717 & 0.9688 & 0.9656 & 0.9621 & 0.9583 & 0.9543 & 0.9498 & 0.9449 & 0.9396 & 0.9337 & 0.9273 & 0.9203 & 0.9128 & 0.9044\end{array}$ 0.98020 .97810 .97590 .97330 .97050 .96750 .96420 .96060 .95670 .95250 .94780 .94270 .93710 .93100 .92420 .91700 .9089 $\begin{array}{lllllllllllllllllll}0.9814 & 0.9794 & 0.9772 & 0.9748 & 0.9722 & 0.9694 & 0.9662 & 0.9628 & 0.9591 & 0.9551 & 0.9507 & 0.9458 & 0.9404 & 0.9346 & 0.9281 & 0.9211 & 0.9134\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9825 & 0.9807 & 0.9786 & 0.9763 & 0.9739 & 0.9712 & 0.9682 & 0.9650 & 0.9615 & 0.9576 & 0.9535 & 0.9489 & 0.9437 & 0.9382 & 0.9320 & 0.9252 & 0.9178\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9837 & 0.9819 & 0.9799 & 0.9778 & 0.9755 & 0.9729 & 0.9702 & 0.9671 & 0.9638 & 0.9601 & 0.9562 & 0.9518 & 0.9470 & 0.9417 & 0.9358 & 0.9294 & 0.9222\end{array}$ $\begin{array}{lllllllllllllllllll}0.9847 & 0.9830 & 0.9812 & 0.9792 & 0.9771 & 0.9746 & 0.9720 & 0.9691 & 0.9660 & 0.9626 & 0.9589 & 0.9547 & 0.9501 & 0.9451 & 0.9395 & 0.9334 & 0.9265\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9857 & 0.9842 & 0.9825 & 0.9806 & 0.9786 & 0.9763 & 0.9738 & 0.9711 & 0.9681 & 0.9649 & 0.9615 & 0.9576 & 0.9532 & 0.9484 & 0.9431 & 0.9373 & 0.9308\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9867 & 0.9853 & 0.9836 & 0.9818 & 0.9800 & 0.9778 & 0.9755 & 0.9730 & 0.9703 & 0.9672 & 0.9639 & 0.9603 & 0.9562 & 0.9517 & 0.9467 & 0.9411 & 0.9350\end{array}$ $\begin{array}{llllllllllllllllll}0.9876 & 0.9863 & 0.9848 & 0.9830 & 0.9814 & 0.9793 & 0.9772 & 0.9749 & 0.9723 & 0.9694 & 0.9663 & 0.9629 & 0.9590 & 0.9548 & 0.9501 & 0.9448 & 0.9390\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9885 & 0.9872 & 0.9859 & 0.9843 & 0.9826 & 0.9808 & 0.9788 & 0.9766 & 0.9742 & 0.9715 & 0.9687 & 0.9654 & 0.9618 & 0.9578 & 0.9534 & 0.9485 & 0.9430\end{array}$ $\begin{array}{llllllllllllllllllll}0.9894 & 0.9881 & 0.9869 & 0.9854 & 0.9839 & 0.9822 & 0.9803 & 0.9783 & 0.9760 & 0.9735 & 0.9708 & 0.9678 & 0.9645 & 0.9608 & 0.9566 & 0.9520 & 0.9468\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9901 & 0.9891 & 0.9878 & 0.9865 & 0.9850 & 0.9835 & 0.9817 & 0.9798 & 0.9778 & 0.9755 & 0.9729 & 0.9702 & 0.9670 & 0.9636 & 0.9596 & 0.9554 & 0.9505\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9909 & 0.9899 & 0.9888 & 0.9875 & 0.9862 & 0.9847 & 0.9831 & 0.9813 & 0.9794 & 0.9773 & 0.9750 & 0.9724 & 0.9695 & 0.9663 & 0.9626 & 0.9586 & 0.9541\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9916 & 0.9907 & 0.9896 & 0.9884 & 0.9873 & 0.9859 & 0.9843 & 0.9828 & 0.9810 & 0.9790 & 0.9769 & 0.9745 & 0.9718 & 0.9689 & 0.9654 & 0.9617 & 0.9574\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9923 & 0.9914 & 0.9905 & 0.9894 & 0.9883 & 0.9870 & 0.9856 & 0.9841 & 0.9824 & 0.9806 & 0.9787 & 0.9765 & 0.9739 & 0.9713 & 0.9680 & 0.9647 & 0.9607\end{array}$ $\begin{array}{llllllllllllllllllllllllllll}0.9929 & 0.9921 & 0.9913 & 0.9902 & 0.9892 & 0.9880 & 0.9867 & 0.9853 & 0.9838 & 0.9822 & 0.9804 & 0.9783 & 0.9760 & 0.9735 & 0.9706 & 0.9675 & 0.9637\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9936 & 0.9928 & 0.9920 & 0.9911 & 0.9901 & 0.9890 & 0.9879 & 0.9865 & 0.9852 & 0.9837 & 0.9820 & 0.9802 & 0.9780 & 0.9757 & 0.9730 & 0.9700 & 0.9666\end{array}$ $\begin{array}{llllllllllllllllllll}0.9941 & 0.9934 & 0.9927 & 0.9918 & 0.9909 & 0.9900 & 0.9888 & 0.9877 & 0.9864 & 0.9850 & 0.9835 & 0.9818 & 0.9798 & 0.9777 & 0.9752 & 0.9725 & 0.9694\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9946 & 0.9940 & 0.9933 & 0.9925 & 0.9917 & 0.9908 & 0.9898 & 0.9887 & 0.9876 & 0.9863 & 0.9849 & 0.9833 & 0.9815 & 0.9796 & 0.9773 & 0.9748 & 0.9720\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9951 & 0.9945 & 0.9939 & 0.9931 & 0.9924 & 0.9916 & 0.9907 & 0.9897 & 0.9886 & 0.9874 & 0.9862 & 0.9848 & 0.9831 & 0.9814 & 0.9793 & 0.9770 & 0.9744\end{array}$ $\begin{array}{llllllllllllllllllll}0.9955 & 0.9950 & 0.9944 & 0.9938 & 0.9931 & 0.9924 & 0.9915 & 0.9906 & 0.9896 & 0.9885 & 0.9874 & 0.9861 & 0.9846 & 0.9830 & 0.9811 & 0.9791 & 0.9767\end{array}$ 0.99590 .99550 .99490 .99430 .99370 .99300 .99220 .99140 .99050 .98960 .98850 .98740 .98590 .98460 .98280 .98090 .9787 $\begin{array}{llllllllllllllllllllll}0.9963 & 0.9959 & 0.9954 & 0.9948 & 0.9943 & 0.9937 & 0.9930 & 0.9922 & 0.9913 & 0.9905 & 0.9896 & 0.9885 & 0.9872 & 0.9859 & 0.9844 & 0.9827 & 0.9806\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9967 & 0.9963 & 0.9959 & 0.9953 & 0.9948 & 0.9942 & 0.9936 & 0.9929 & 0.9922 & 0.9913 & 0.9905 & 0.9896 & 0.9884 & 0.9872 & 0.9858 & 0.9842 & 0.9824\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9970 & 0.9966 & 0.9963 & 0.9957 & 0.9953 & 0.9948 & 0.9942 & 0.9936 & 0.9929 & 0.9922 & 0.9914 & 0.9906 & 0.9894 & 0.9884 & 0.9871 & 0.9857 & 0.9841\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9973 & 0.9970 & 0.9966 & 0.9961 & 0.9958 & 0.9953 & 0.9947 & 0.9942 & 0.9936 & 0.9929 & 0.9922 & 0.9914 & 0.9905 & 0.9895 & 0.9883 & 0.9871 & 0.9855\end{array}$


## TABLE K

## Conversion from Single Life to 100\% Joint and Survivor Without Pop-Up CECONY Weekly Participants -1

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
| 25 | 0.7903 | 0.7777 | 0.7644 | 0.7507 | 0.7363 | 0.7214 | 0.7061 | 0.6902 | 0.6740 | 0.6573 | 0.6402 | 0.6229 | 0.6052 | 0.5873 | 0.5691 | 0.5507 | 0.5323 |
| 26 | 0.7916 | 0.7789 | 0.7657 | 0.7520 | 0.7376 | 0.7227 | 0.7074 | 0.6915 | 0.6752 | 0.6584 | 0.6414 | 0.6240 | 0.6064 | 0.5884 | 0.5702 | 0.5518 | 0.5333 |
| 27 | 0.7930 | 0.7803 | 0.7671 | 0.7534 | 0.7390 | 0.7241 | 0.7087 | 0.6928 | 0.6765 | 0.6598 | 0.6427 | 0.6253 | 0.6076 | 0.5896 | 0.5714 | 0.5529 | 0.5344 |
| 28 | 0.7944 | 0.7818 | 0.7686 | 0.7548 | 0.7404 | 0.7255 | 0.7102 | 0.6942 | 0.6779 | 0.6611 | 0.6440 | 0.6266 | 0.6089 | 0.5909 | 0.5726 | 0.5541 | 0.5356 |
| 29 | 0.7960 | 0.7834 | 0.7701 | 0.7564 | 0.7420 | 0.7270 | 0.7116 | 0.6957 | 0.6794 | 0.6626 | 0.6454 | 0.6280 | 0.6103 | 0.5922 | 0.5739 | 0.5554 | 0.5368 |
| 30 | 0.7976 | 0.7851 | 0.7718 | 0.7580 | 0.7437 | 0.7287 | 0.7132 | 0.6973 | 0.6809 | 0.6641 | 0.6470 | 0.6295 | 0.6117 | 0.5936 | 0.5753 | 0.5567 | 0.5381 |
| 31 | 0.7994 | 0.7868 | 0.7736 | 0.7598 | 0.7454 | 0.7304 | 0.7150 | 0.6990 | 0.6826 | 0.6658 | 0.6486 | 0.6311 | 0.6133 | 0.5952 | 0.5768 | 0.5582 | 0.5396 |
| 32 | 0.8013 | 0.7887 | 0.7754 | 0.7616 | 0.7472 | 0.7322 | 0.7168 | 0.7008 | 0.6844 | 0.6675 | 0.6504 | 0.6328 | 0.6150 | 0.5968 | 0.5784 | 0.5598 | 0.5411 |
| 33 | 0.8032 | 0.7906 | 0.7774 | 0.7636 | 0.7492 | 0.7342 | 0.7187 | 0.7027 | 0.6863 | 0.6694 | 0.6522 | 0.6346 | 0.6168 | 0.5986 | 0.5801 | 0.5614 | 0.5427 |
| 34 | 0.8053 | 0.7926 | 0.7795 | 0.7657 | 0.7512 | 0.7362 | 0.7208 | 0.7047 | 0.6883 | 0.6714 | 0.6542 | 0.6365 | 0.6186 | 0.6004 | 0.5819 | 0.5632 | 0.5444 |
| 35 | 0.8074 | 0.7949 | 0.7816 | 0.7679 | 0.7534 | 0.7384 | 0.7229 | 0.7069 | 0.6904 | 0.6735 | 0.6562 | 0.6386 | 0.6207 | 0.6024 | 0.5839 | 0.5651 | 0.5463 |
| 36 | 0.8097 | 0.7972 | 0.7840 | 0.7701 | 0.7557 | 0.7407 | 0.7253 | 0.7092 | 0.6927 | 0.6757 | 0.6584 | 0.6408 | 0.6228 | 0.6045 | 0.5859 | 0.5670 | 0.5482 |
| 37 | 0.8121 | 0.7996 | 0.7863 | 0.7726 | 0.7582 | 0.7431 | 0.7277 | 0.7116 | 0.6951 | 0.6781 | 0.6608 | 0.6431 | 0.6250 | 0.6067 | 0.5881 | 0.5692 | 0.5503 |
| 38 | 0.8146 | 0.8021 | 0.7889 | 0.7752 | 0.7607 | 0.7458 | 0.7303 | 0.7142 | 0.6977 | 0.6806 | 0.6633 | 0.6455 | 0.6275 | 0.6091 | 0.5904 | 0.5715 | 0.5525 |
| 39 | 0.8173 | 0.8048 | 0.7917 | 0.7779 | 0.7635 | 0.7485 | 0.7330 | 0.7169 | 0.7003 | 0.6833 | 0.6659 | 0.6481 | 0.6301 | 0.6116 | 0.5929 | 0.5739 | 0.5549 |
| 40 | 0.8201 | 0.8076 | 0.7945 | 0.7808 | 0.7664 | 0.7514 | 0.7358 | 0.7198 | 0.7032 | 0.6861 | 0.6687 | 0.6509 | 0.6328 | 0.6143 | 0.5955 | 0.5765 | 0.5574 |
| 41 | 0.8230 | 0.8106 | 0.7975 | 0.7838 | 0.7694 | 0.7544 | 0.7389 | 0.7228 | 0.7062 | 0.6891 | 0.6717 | 0.6538 | 0.6357 | 0.6172 | 0.5983 | 0.5792 | 0.5601 |
| 42 | 0.8260 | 0.8137 | 0.8006 | 0.7869 | 0.7726 | 0.7576 | 0.7421 | 0.7259 | 0.7094 | 0.6923 | 0.6748 | 0.6570 | 0.6388 | 0.6202 | 0.6013 | 0.5821 | 0.5629 |
| 43 | 0.8292 | 0.8169 | 0.8039 | 0.7902 | 0.7759 | 0.7609 | 0.7455 | 0.7294 | 0.7128 | 0.6956 | 0.6781 | 0.6603 | 0.6420 | 0.6234 | 0.6044 | 0.5852 | 0.5660 |
| 44 | 0.8325 | 0.8203 | 0.8073 | 0.7937 | 0.7794 | 0.7645 | 0.7490 | 0.7329 | 0.7163 | 0.6992 | 0.6816 | 0.6637 | 0.6454 | 0.6267 | 0.6078 | 0.5885 | 0.5692 |
| 45 | 0.8359 | 0.8237 | 0.8108 | 0.7973 | 0.7830 | 0.7681 | 0.7527 | 0.7366 | 0.7200 | 0.7029 | 0.6853 | 0.6674 | 0.6491 | 0.6303 | 0.6113 | 0.5919 | 0.5726 |
| 46 | 0.8395 | 0.8274 | 0.8145 | 0.8011 | 0.7869 | 0.7720 | 0.7566 | 0.7405 | 0.7239 | 0.7068 | 0.6892 | 0.6713 | 0.6529 | 0.6341 | 0.6151 | 0.5956 | 0.5762 |
| 47 | 0.8432 | 0.8312 | 0.8184 | 0.8050 | 0.7908 | 0.7760 | 0.7606 | 0.7446 | 0.7280 | 0.7109 | 0.6933 | 0.6754 | 0.6569 | 0.6381 | 0.6190 | 0.5995 | 0.5799 |
| 48 | 0.8469 | 0.8351 | 0.8224 | 0.8091 | 0.7950 | 0.7803 | 0.7649 | 0.7489 | 0.7324 | 0.7152 | 0.6976 | 0.6796 | 0.6612 | 0.6423 | 0.6232 | 0.6036 | 0.5840 |
| 49 | 0.8509 | 0.8391 | 0.8265 | 0.8133 | 0.7993 | 0.7846 | 0.7693 | 0.7534 | 0.7369 | 0.7197 | 0.7022 | 0.6841 | 0.6657 | 0.6468 | 0.6275 | 0.6079 | 0.5882 |
| 50 | 0.8549 | 0.8433 | 0.8308 | 0.8177 | 0.8038 | 0.7892 | 0.7739 | 0.7580 | 0.7416 | 0.7244 | 0.7069 | 0.6889 | 0.6704 | 0.6515 | 0.6321 | 0.6125 | 0.5927 |
| 51 | 0.8591 | 0.8475 | 0.8352 | 0.8222 | 0.8084 | 0.7939 | 0.7787 | 0.7629 | 0.7465 | 0.7294 | 0.7118 | 0.6938 | 0.6754 | 0.6564 | 0.6370 | 0.6173 | 0.5975 |
| 52 | 0.8633 | 0.8519 | 0.8398 | 0.8269 | 0.8132 | 0.7988 | 0.7838 | 0.7680 | 0.7516 | 0.7346 | 0.7171 | 0.6990 | 0.6805 | 0.6616 | 0.6422 | 0.6224 | 0.6025 |
| 53 | 0.8677 | 0.8565 | 0.8444 | 0.8317 | 0.8182 | 0.8039 | 0.7890 | 0.7733 | 0.7570 | 0.7400 | 0.7225 | 0.7045 | 0.6860 | 0.6670 | 0.6476 | 0.6278 | 0.6078 |
| 54 | 0.8721 | 0.8611 | 0.8492 | 0.8367 | 0.8233 | 0.8092 | 0.7944 | 0.7788 | 0.7626 | 0.7457 | 0.7282 | 0.7103 | 0.6918 | 0.6728 | 0.6533 | 0.6334 | 0.6134 |
| 55 | 0.8766 | 0.8658 | 0.8542 | 0.8418 | 0.8286 | 0.8146 | 0.7999 | 0.7845 | 0.7684 | 0.7515 | 0.7342 | 0.7163 | 0.6978 | 0.6789 | 0.6594 | 0.6395 | 0.6194 |

## TABLE K

## Conversion from Single Life to 100\% Joint and Survivor Without Pop-Up CECONY Weekly Participants -1


$\begin{array}{lllllllllllllllllll}0.8812 & 0.8706 & 0.8592 & 0.8470 & 0.8340 & 0.8202 & 0.8057 & 0.7904 & 0.7744 & 0.7577 & 0.7404 & 0.7226 & 0.7042 & 0.6852 & 0.6657 & 0.6457 & 0.6256\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.8859 & 0.8755 & 0.8643 & 0.8524 & 0.8396 & 0.8260 & 0.8117 & 0.7965 & 0.7807 & 0.7641 & 0.7469 & 0.7292 & 0.7108 & 0.6919 & 0.6724 & 0.6524 & 0.6322\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.8905 & 0.8804 & 0.8696 & 0.8578 & 0.8453 & 0.8319 & 0.8178 & 0.8028 & 0.7872 & 0.7708 & 0.7537 & 0.7360 & 0.7177 & 0.6988 & 0.6794 & 0.6594 & 0.6392\end{array}$ $\begin{array}{llllllllllllllllllll}0.8953 & 0.8855 & 0.8748 & 0.8634 & 0.8510 & 0.8380 & 0.8241 & 0.8093 & 0.7938 & 0.7776 & 0.7607 & 0.7432 & 0.7250 & 0.7061 & 0.6867 & 0.6668 & 0.6466\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9001 & 0.8905 & 0.8802 & 0.8690 & 0.8570 & 0.8441 & 0.8305 & 0.8160 & 0.8008 & 0.7847 & 0.7680 & 0.7505 & 0.7325 & 0.7138 & 0.6944 & 0.6745 & 0.6543\end{array}$ $\begin{array}{llllllllllllllllllllllllllllll}0.9048 & 0.8956 & 0.8855 & 0.8747 & 0.8629 & 0.8504 & 0.8371 & 0.8228 & 0.8078 & 0.7919 & 0.7754 & 0.7582 & 0.7403 & 0.7216 & 0.7024 & 0.6825 & 0.6624\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9096 & 0.9007 & 0.8909 & 0.8804 & 0.8690 & 0.8567 & 0.8437 & 0.8297 & 0.8150 & 0.7994 & 0.7831 & 0.7661 & 0.7484 & 0.7299 & 0.7107 & 0.6910 & 0.6708\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9143 & 0.9057 & 0.8963 & 0.8861 & 0.8750 & 0.8632 & 0.8504 & 0.8367 & 0.8224 & 0.8071 & 0.7910 & 0.7742 & 0.7567 & 0.7383 & 0.7194 & 0.6997 & 0.6796\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9190 & 0.9108 & 0.9017 & 0.8918 & 0.8812 & 0.8696 & 0.8572 & 0.8439 & 0.8298 & 0.8148 & 0.7991 & 0.7825 & 0.7652 & 0.7471 & 0.7283 & 0.7087 & 0.6888\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9236 & 0.9157 & 0.9070 & 0.8975 & 0.8872 & 0.8760 & 0.8640 & 0.8511 & 0.8374 & 0.8227 & 0.8073 & 0.7911 & 0.7740 & 0.7561 & 0.7375 & 0.7181 & 0.6983\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9281 & 0.9206 & 0.9122 & 0.9032 & 0.8932 & 0.8824 & 0.8708 & 0.8583 & 0.8449 & 0.8307 & 0.8155 & 0.7997 & 0.7829 & 0.7653 & 0.7470 & 0.7277 & 0.7081\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9325 & 0.9254 & 0.9174 & 0.9087 & 0.8992 & 0.8888 & 0.8776 & 0.8655 & 0.8525 & 0.8386 & 0.8239 & 0.8084 & 0.7920 & 0.7747 & 0.7566 & 0.7376 & 0.7182\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9368 & 0.9300 & 0.9224 & 0.9142 & 0.9051 & 0.8951 & 0.8843 & 0.8727 & 0.8601 & 0.8466 & 0.8324 & 0.8172 & 0.8012 & 0.7842 & 0.7664 & 0.7478 & 0.7285\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9409 & 0.9346 & 0.9274 & 0.9195 & 0.9108 & 0.9013 & 0.8910 & 0.8797 & 0.8677 & 0.8546 & 0.8408 & 0.8260 & 0.8104 & 0.7938 & 0.7764 & 0.7580 & 0.7390\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9450 & 0.9389 & 0.9322 & 0.9247 & 0.9164 & 0.9073 & 0.8976 & 0.8867 & 0.8751 & 0.8625 & 0.8491 & 0.8349 & 0.8197 & 0.8036 & 0.7865 & 0.7684 & 0.7498\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9489 & 0.9432 & 0.9368 & 0.9298 & 0.9220 & 0.9133 & 0.9039 & 0.8936 & 0.8825 & 0.8704 & 0.8575 & 0.8437 & 0.8290 & 0.8132 & 0.7966 & 0.7790 & 0.7607\end{array}$ $\begin{array}{lllllllllllllllllll}0.9526 & 0.9473 & 0.9413 & 0.9347 & 0.9272 & 0.9191 & 0.9102 & 0.9004 & 0.8897 & 0.8782 & 0.8658 & 0.8525 & 0.8382 & 0.8231 & 0.8069 & 0.7896 & 0.7717\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9562 & 0.9512 & 0.9456 & 0.9394 & 0.9324 & 0.9247 & 0.9162 & 0.9069 & 0.8969 & 0.8858 & 0.8739 & 0.8612 & 0.8474 & 0.8328 & 0.8170 & 0.8003 & 0.7829\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9595 & 0.9549 & 0.9497 & 0.9439 & 0.9374 & 0.9301 & 0.9222 & 0.9133 & 0.9037 & 0.8932 & 0.8819 & 0.8697 & 0.8565 & 0.8423 & 0.8271 & 0.8110 & 0.7940\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9628 & 0.9585 & 0.9536 & 0.9482 & 0.9421 & 0.9352 & 0.9278 & 0.9195 & 0.9104 & 0.9004 & 0.8897 & 0.8780 & 0.8654 & 0.8519 & 0.8373 & 0.8216 & 0.8051\end{array}$ $\begin{array}{lllllllllllllllllll}0.9658 & 0.9618 & 0.9573 & 0.9523 & 0.9466 & 0.9402 & 0.9332 & 0.9254 & 0.9169 & 0.9074 & 0.8973 & 0.8862 & 0.8742 & 0.8611 & 0.8471 & 0.8320 & 0.8161\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9687 & 0.9650 & 0.9608 & 0.9561 & 0.9508 & 0.9450 & 0.9384 & 0.9311 & 0.9230 & 0.9142 & 0.9045 & 0.8940 & 0.8826 & 0.8702 & 0.8568 & 0.8423 & 0.8269\end{array}$ $\begin{array}{llllllllllllllllllll}0.9713 & 0.9680 & 0.9641 & 0.9598 & 0.9548 & 0.9494 & 0.9433 & 0.9364 & 0.9290 & 0.9206 & 0.9115 & 0.9016 & 0.8908 & 0.8790 & 0.8662 & 0.8523 & 0.8376\end{array}$ $\begin{array}{llllllllllllllllllll}0.9738 & 0.9708 & 0.9672 & 0.9632 & 0.9586 & 0.9536 & 0.9479 & 0.9415 & 0.9345 & 0.9267 & 0.9182 & 0.9088 & 0.8986 & 0.8875 & 0.8753 & 0.8620 & 0.8480\end{array}$ $\begin{array}{llllllllllllllllll}0.9761 & 0.9733 & 0.9700 & 0.9664 & 0.9622 & 0.9575 & 0.9522 & 0.9463 & 0.9398 & 0.9325 & 0.9246 & 0.9158 & 0.9062 & 0.8956 & 0.8841 & 0.8715 & 0.8580\end{array}$ $\begin{array}{lllllllllllllllllll}0.9783 & 0.9757 & 0.9728 & 0.9694 & 0.9655 & 0.9612 & 0.9563 & 0.9509 & 0.9448 & 0.9380 & 0.9306 & 0.9223 & 0.9133 & 0.9034 & 0.8925 & 0.8806 & 0.8678\end{array}$ $\begin{array}{llllllllllllllllllll}0.9803 & 0.9779 & 0.9752 & 0.9722 & 0.9686 & 0.9646 & 0.9602 & 0.9551 & 0.9494 & 0.9432 & 0.9362 & 0.9286 & 0.9201 & 0.9108 & 0.9006 & 0.8893 & 0.8771\end{array}$ $\begin{array}{llllllllllllllllllll}0.9821 & 0.9800 & 0.9775 & 0.9747 & 0.9715 & 0.9678 & 0.9637 & 0.9590 & 0.9538 & 0.9480 & 0.9416 & 0.9345 & 0.9266 & 0.9179 & 0.9083 & 0.8976 & 0.8863\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9839 & 0.9819 & 0.9796 & 0.9770 & 0.9741 & 0.9708 & 0.9670 & 0.9627 & 0.9579 & 0.9526 & 0.9466 & 0.9401 & 0.9327 & 0.9246 & 0.9157 & 0.9056 & 0.8949\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9854 & 0.9836 & 0.9815 & 0.9792 & 0.9766 & 0.9735 & 0.9701 & 0.9662 & 0.9618 & 0.9568 & 0.9514 & 0.9453 & 0.9385 & 0.9309 & 0.9226 & 0.9133 & 0.9032\end{array}$

## TABLE L

## Conversion from Single Life to 100\% Joint and Survivor With Pop-Up CECONY Weekly Participants -1


$\begin{array}{llllllllllllllllllllll}0.9818 & 0.9803 & 0.9787 & 0.9768 & 0.9750 & 0.9728 & 0.9705 & 0.9681 & 0.9654 & 0.9626 & 0.9595 & 0.9562 & 0.9526 & 0.9488 & 0.9447 & 0.9403 & 0.9356\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9823 & 0.9808 & 0.9792 & 0.9774 & 0.9756 & 0.9735 & 0.9711 & 0.9688 & 0.9661 & 0.9633 & 0.9603 & 0.9570 & 0.9535 & 0.9497 & 0.9456 & 0.9413 & 0.9366\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9828 & 0.9813 & 0.9797 & 0.9780 & 0.9761 & 0.9741 & 0.9718 & 0.9695 & 0.9668 & 0.9641 & 0.9611 & 0.9578 & 0.9543 & 0.9506 & 0.9466 & 0.9423 & 0.9376\end{array}$ $\begin{array}{llllllllllllllllllll}0.9832 & 0.9818 & 0.9802 & 0.9785 & 0.9767 & 0.9747 & 0.9725 & 0.9702 & 0.9676 & 0.9649 & 0.9619 & 0.9586 & 0.9552 & 0.9515 & 0.9475 & 0.9432 & 0.9386\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9837 & 0.9823 & 0.9807 & 0.9790 & 0.9773 & 0.9753 & 0.9732 & 0.9709 & 0.9683 & 0.9657 & 0.9628 & 0.9596 & 0.9562 & 0.9525 & 0.9486 & 0.9443 & 0.9397\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9841 & 0.9828 & 0.9812 & 0.9796 & 0.9779 & 0.9760 & 0.9738 & 0.9716 & 0.9691 & 0.9665 & 0.9636 & 0.9605 & 0.9571 & 0.9535 & 0.9496 & 0.9454 & 0.9408\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9846 & 0.9832 & 0.9818 & 0.9802 & 0.9786 & 0.9766 & 0.9746 & 0.9723 & 0.9699 & 0.9673 & 0.9645 & 0.9613 & 0.9581 & 0.9545 & 0.9506 & 0.9464 & 0.9420\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9851 & 0.9837 & 0.9823 & 0.9808 & 0.9791 & 0.9773 & 0.9752 & 0.9731 & 0.9707 & 0.9681 & 0.9653 & 0.9623 & 0.9591 & 0.9555 & 0.9517 & 0.9476 & 0.9431\end{array}$ $\begin{array}{llllllllllllllllllll}0.9855 & 0.9842 & 0.9828 & 0.9813 & 0.9797 & 0.9779 & 0.9759 & 0.9738 & 0.9715 & 0.9690 & 0.9662 & 0.9633 & 0.9600 & 0.9565 & 0.9528 & 0.9488 & 0.9443\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9859 & 0.9847 & 0.9833 & 0.9818 & 0.9804 & 0.9786 & 0.9766 & 0.9746 & 0.9722 & 0.9698 & 0.9671 & 0.9642 & 0.9610 & 0.9576 & 0.9539 & 0.9499 & 0.9456\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9864 & 0.9852 & 0.9838 & 0.9824 & 0.9809 & 0.9792 & 0.9773 & 0.9753 & 0.9730 & 0.9706 & 0.9680 & 0.9651 & 0.9620 & 0.9587 & 0.9551 & 0.9511 & 0.9469\end{array}$ $\begin{array}{llllllllllllllllll}0.9868 & 0.9856 & 0.9843 & 0.9829 & 0.9815 & 0.9799 & 0.9779 & 0.9761 & 0.9738 & 0.9715 & 0.9689 & 0.9661 & 0.9630 & 0.9598 & 0.9562 & 0.9523 & 0.9481\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9872 & 0.9861 & 0.9848 & 0.9835 & 0.9821 & 0.9805 & 0.9787 & 0.9768 & 0.9746 & 0.9724 & 0.9698 & 0.9670 & 0.9641 & 0.9609 & 0.9573 & 0.9536 & 0.9494\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9876 & 0.9865 & 0.9854 & 0.9840 & 0.9827 & 0.9811 & 0.9793 & 0.9775 & 0.9753 & 0.9732 & 0.9707 & 0.9681 & 0.9651 & 0.9619 & 0.9585 & 0.9548 & 0.9507\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9880 & 0.9870 & 0.9858 & 0.9845 & 0.9833 & 0.9817 & 0.9800 & 0.9782 & 0.9761 & 0.9740 & 0.9716 & 0.9690 & 0.9661 & 0.9631 & 0.9597 & 0.9560 & 0.9520\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9884 & 0.9874 & 0.9863 & 0.9850 & 0.9838 & 0.9823 & 0.9806 & 0.9789 & 0.9769 & 0.9748 & 0.9725 & 0.9699 & 0.9672 & 0.9642 & 0.9608 & 0.9573 & 0.9533\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9887 & 0.9879 & 0.9867 & 0.9855 & 0.9843 & 0.9829 & 0.9813 & 0.9796 & 0.9777 & 0.9757 & 0.9734 & 0.9709 & 0.9682 & 0.9653 & 0.9621 & 0.9585 & 0.9547\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9892 & 0.9882 & 0.9872 & 0.9860 & 0.9849 & 0.9835 & 0.9819 & 0.9803 & 0.9785 & 0.9765 & 0.9743 & 0.9719 & 0.9692 & 0.9663 & 0.9632 & 0.9598 & 0.9560\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9895 & 0.9887 & 0.9877 & 0.9866 & 0.9854 & 0.9841 & 0.9826 & 0.9810 & 0.9792 & 0.9773 & 0.9752 & 0.9728 & 0.9702 & 0.9674 & 0.9644 & 0.9610 & 0.9573\end{array}$ $\begin{array}{llllllllllllllllllllllllllll}0.9899 & 0.9890 & 0.9881 & 0.9870 & 0.9859 & 0.9847 & 0.9832 & 0.9817 & 0.9799 & 0.9781 & 0.9760 & 0.9737 & 0.9713 & 0.9685 & 0.9655 & 0.9623 & 0.9587\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9903 & 0.9895 & 0.9885 & 0.9875 & 0.9865 & 0.9852 & 0.9837 & 0.9823 & 0.9806 & 0.9789 & 0.9768 & 0.9746 & 0.9722 & 0.9696 & 0.9667 & 0.9635 & 0.9600\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9906 & 0.9898 & 0.9889 & 0.9879 & 0.9869 & 0.9858 & 0.9844 & 0.9830 & 0.9813 & 0.9796 & 0.9777 & 0.9755 & 0.9732 & 0.9707 & 0.9679 & 0.9648 & 0.9614\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9909 & 0.9902 & 0.9893 & 0.9884 & 0.9874 & 0.9863 & 0.9849 & 0.9836 & 0.9820 & 0.9804 & 0.9785 & 0.9764 & 0.9742 & 0.9717 & 0.9690 & 0.9659 & 0.9627\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9912 & 0.9906 & 0.9897 & 0.9888 & 0.9878 & 0.9868 & 0.9855 & 0.9842 & 0.9827 & 0.9811 & 0.9793 & 0.9773 & 0.9751 & 0.9727 & 0.9701 & 0.9672 & 0.9640\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9916 & 0.9908 & 0.9901 & 0.9892 & 0.9884 & 0.9873 & 0.9861 & 0.9848 & 0.9834 & 0.9818 & 0.9801 & 0.9782 & 0.9761 & 0.9738 & 0.9712 & 0.9684 & 0.9653\end{array}$ $\begin{array}{llllllllllllllllllll}0.9919 & 0.9912 & 0.9905 & 0.9896 & 0.9888 & 0.9877 & 0.9866 & 0.9854 & 0.9840 & 0.9826 & 0.9809 & 0.9790 & 0.9770 & 0.9747 & 0.9722 & 0.9695 & 0.9665\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9922 & 0.9916 & 0.9908 & 0.9900 & 0.9892 & 0.9883 & 0.9871 & 0.9860 & 0.9846 & 0.9832 & 0.9816 & 0.9798 & 0.9778 & 0.9758 & 0.9734 & 0.9707 & 0.9677\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9925 & 0.9919 & 0.9912 & 0.9904 & 0.9896 & 0.9887 & 0.9876 & 0.9866 & 0.9852 & 0.9839 & 0.9824 & 0.9806 & 0.9787 & 0.9766 & 0.9744 & 0.9718 & 0.9690\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9928 & 0.9922 & 0.9916 & 0.9908 & 0.9900 & 0.9891 & 0.9881 & 0.9871 & 0.9858 & 0.9846 & 0.9830 & 0.9814 & 0.9795 & 0.9776 & 0.9754 & 0.9729 & 0.9702\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9931 & 0.9925 & 0.9919 & 0.9912 & 0.9904 & 0.9896 & 0.9886 & 0.9876 & 0.9864 & 0.9851 & 0.9838 & 0.9821 & 0.9804 & 0.9785 & 0.9764 & 0.9740 & 0.9714\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9933 & 0.9927 & 0.9921 & 0.9915 & 0.9909 & 0.9900 & 0.9890 & 0.9881 & 0.9870 & 0.9858 & 0.9844 & 0.9829 & 0.9812 & 0.9794 & 0.9773 & 0.9751 & 0.9726\end{array}$

## TABLE L

Conversion from Single Life to 100\% Joint and Survivor With Pop-Up CECONY Weekly Participants -1


$\begin{array}{llllllllllllllllllll}0.9936 & 0.9930 & 0.9925 & 0.9918 & 0.9912 & 0.9905 & 0.9895 & 0.9886 & 0.9875 & 0.9864 & 0.9851 & 0.9836 & 0.9820 & 0.9803 & 0.9783 & 0.9761 & 0.9737\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9938 & 0.9933 & 0.9928 & 0.9922 & 0.9916 & 0.9908 & 0.9900 & 0.9891 & 0.9880 & 0.9870 & 0.9857 & 0.9843 & 0.9827 & 0.9811 & 0.9792 & 0.9771 & 0.9748\end{array}$ 0.99410 .99360 .99310 .99250 .99200 .99120 .99040 .98960 .98850 .98750 .98640 .98500 .98350 .98190 .98010 .97810 .9758 $\begin{array}{llllllllllllllllllll}0.9943 & 0.9939 & 0.9934 & 0.9928 & 0.9923 & 0.9916 & 0.9908 & 0.9900 & 0.9890 & 0.9881 & 0.9869 & 0.9856 & 0.9842 & 0.9827 & 0.9810 & 0.9790 & 0.9769\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9945 & 0.9941 & 0.9937 & 0.9932 & 0.9926 & 0.9919 & 0.9912 & 0.9905 & 0.9895 & 0.9886 & 0.9875 & 0.9863 & 0.9850 & 0.9835 & 0.9818 & 0.9799 & 0.9779\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9947 & 0.9944 & 0.9939 & 0.9935 & 0.9929 & 0.9923 & 0.9916 & 0.9909 & 0.9900 & 0.9892 & 0.9881 & 0.9869 & 0.9856 & 0.9842 & 0.9827 & 0.9808 & 0.9788\end{array}$ $\begin{array}{llllllllllllllllllll}0.9950 & 0.9946 & 0.9942 & 0.9937 & 0.9932 & 0.9927 & 0.9920 & 0.9913 & 0.9905 & 0.9896 & 0.9886 & 0.9875 & 0.9862 & 0.9849 & 0.9834 & 0.9817 & 0.9798\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9952 & 0.9948 & 0.9944 & 0.9940 & 0.9935 & 0.9930 & 0.9924 & 0.9917 & 0.9909 & 0.9901 & 0.9891 & 0.9881 & 0.9869 & 0.9857 & 0.9842 & 0.9826 & 0.9807\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9954 & 0.9950 & 0.9947 & 0.9943 & 0.9938 & 0.9933 & 0.9927 & 0.9920 & 0.9913 & 0.9906 & 0.9896 & 0.9886 & 0.9875 & 0.9863 & 0.9849 & 0.9834 & 0.9816\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9956 & 0.9953 & 0.9949 & 0.9945 & 0.9941 & 0.9936 & 0.9930 & 0.9924 & 0.9917 & 0.9910 & 0.9902 & 0.9891 & 0.9881 & 0.9869 & 0.9857 & 0.9842 & 0.9825\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9958 & 0.9955 & 0.9952 & 0.9947 & 0.9944 & 0.9939 & 0.9933 & 0.9928 & 0.9921 & 0.9915 & 0.9906 & 0.9897 & 0.9886 & 0.9876 & 0.9863 & 0.9849 & 0.9833\end{array}$ $\begin{array}{lllllllllllllllllll}0.9959 & 0.9957 & 0.9954 & 0.9950 & 0.9946 & 0.9942 & 0.9936 & 0.9932 & 0.9925 & 0.9918 & 0.9911 & 0.9902 & 0.9892 & 0.9882 & 0.9870 & 0.9857 & 0.9841\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9961 & 0.9958 & 0.9955 & 0.9952 & 0.9949 & 0.9945 & 0.9939 & 0.9935 & 0.9928 & 0.9923 & 0.9915 & 0.9906 & 0.9898 & 0.9887 & 0.9876 & 0.9864 & 0.9849\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9963 & 0.9961 & 0.9958 & 0.9955 & 0.9951 & 0.9948 & 0.9942 & 0.9938 & 0.9932 & 0.9927 & 0.9920 & 0.9912 & 0.9903 & 0.9894 & 0.9882 & 0.9870 & 0.9857\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9964 & 0.9962 & 0.9960 & 0.9957 & 0.9954 & 0.9950 & 0.9945 & 0.9941 & 0.9935 & 0.9930 & 0.9923 & 0.9916 & 0.9908 & 0.9899 & 0.9888 & 0.9876\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9967 & 0.9964 & 0.9961 & 0.9958 & 0.9956 & 0.9952 & 0.9948 & 0.9944 & 0.9938 & 0.9933 & 0.9927 & 0.9920 & 0.9912 & 0.9904 & 0.9894 & 0.9883 & 0.9870\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9968 & 0.9966 & 0.9964 & 0.9960 & 0.9958 & 0.9955 & 0.9950 & 0.9947 & 0.9942 & 0.9937 & 0.9931 & 0.9925 & 0.9917 & 0.9909 & 0.9900 & 0.9889 & 0.9877\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9970 & 0.9967 & 0.9965 & 0.9962 & 0.9960 & 0.9957 & 0.9953 & 0.9950 & 0.9944 & 0.9940 & 0.9935 & 0.9928 & 0.9921 & 0.9914 & 0.9905 & 0.9883\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9970 & 0.9969 & 0.9967 & 0.9964 & 0.9962 & 0.9959 & 0.9955 & 0.9952 & 0.9947 & 0.9943 & 0.9938 & 0.9932 & 0.9925 & 0.9919 & 0.9910 & 0.9900 & 0.9890\end{array}$ $\begin{array}{lllllllllllllllllllllll}0 & 0.9972 & 0.9970 & 0.9968 & 0.9966 & 0.9964 & 0.9961 & 0.9957 & 0.9955 & 0.9950 & 0.9946 & 0.9941 & 0.9936 & 0.9930 & 0.9922 & 0.9914 & 0.9906 & 0.9896\end{array}$ $\begin{array}{lllllllllllllllllllll}0 & 0.9973 & 0.9972 & 0.9969 & 0.9967 & 0.9966 & 0.9963 & 0.9959 & 0.9957 & 0.9952 & 0.9949 & 0.9944 & 0.9939 & 0.9933 & 0.9927 & 0.9920 & 0.9911 & 0.9901\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9975 & 0.9973 & 0.9971 & 0.9969 & 0.9968 & 0.9965 & 0.9962 & 0.9959 & 0.9955 & 0.9952 & 0.9948 & 0.9942 & 0.9936 & 0.9931 & 0.9924 & 0.9916 & 0.9907\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9976 & 0.9974 & 0.9972 & 0.9971 & 0.9969 & 0.9967 & 0.9964 & 0.9962 & 0.9958 & 0.9955 & 0.9951 & 0.9946 & 0.9940 & 0.9935 & 0.9928 & 0.9920 & 0.9911\end{array}$ $\begin{array}{llllllllllllllllllll}0.9977 & 0.9975 & 0.9974 & 0.9972 & 0.9971 & 0.9969 & 0.9965 & 0.9963 & 0.9960 & 0.9957 & 0.9953 & 0.9948 & 0.9943 & 0.9938 & 0.9932 & 0.9925 & 0.9917\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9978 & 0.9977 & 0.9975 & 0.9973 & 0.9972 & 0.9970 & 0.9968 & 0.9965 & 0.9962 & 0.9959 & 0.9956 & 0.9951 & 0.9946 & 0.9942 & 0.9936 & 0.9929 & 0.9921\end{array}$ $\begin{array}{llllllllllllllllllllllllllll}0 & 0.9979 & 0.9978 & 0.9976 & 0.9975 & 0.9974 & 0.9971 & 0.9969 & 0.9967 & 0.9964 & 0.9961 & 0.9958 & 0.9954 & 0.9949 & 0.9945 & 0.9935\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9980 & 0.9979 & 0.9978 & 0.9976 & 0.9975 & 0.9973 & 0.9971 & 0.9969 & 0.9966 & 0.9964 & 0.9960 & 0.9956 & 0.9952 & 0.9948 & 0.9943 & 0.9937 & 0.9930\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9981 & 0.9980 & 0.9978 & 0.9978 & 0.9976 & 0.9974 & 0.9972 & 0.9971 & 0.9967 & 0.9966 & 0.9963 & 0.9959 & 0.9955 & 0.9951 & 0.9947 & 0.9940 & 0.9934\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9982 & 0.9981 & 0.9980 & 0.9978 & 0.9978 & 0.9976 & 0.9974 & 0.9972 & 0.9970 & 0.9967 & 0.9965 & 0.9961 & 0.9958 & 0.9954 & 0.9950 & 0.9944 & 0.9938\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9983 & 0.9982 & 0.9981 & 0.9980 & 0.9979 & 0.9977 & 0.9975 & 0.9974 & 0.9971 & 0.9970 & 0.9966 & 0.9963 & 0.9960 & 0.9957 & 0.9953 & 0.9947 & 0.9941\end{array}$

## TABLE L

## Conversion from Single Life to 100\% Joint and Survivor With Pop-Up CECONY Weekly Participants -1


$\begin{array}{lllllllllllllllll}0.9307 & 0.9254 & 0.9198 & 0.9138 & 0.9075 & 0.9009 & 0.8938 & 0.8866 & 0.8789 & 0.8708 & 0.8623 & 0.8534 & 0.8440 & 0.8342 & 0.8238 & 0.8129 & 0.8014\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9317 & 0.9264 & 0.9208 & 0.9148 & 0.9086 & 0.9020 & 0.8950 & 0.8877 & 0.8800 & 0.8720 & 0.8636 & 0.8546 & 0.8452 & 0.8354 & 0.8250 & 0.8141 & 0.8027\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9327 & 0.9275 & 0.9219 & 0.9159 & 0.9097 & 0.9031 & 0.8962 & 0.8889 & 0.8813 & 0.8732 & 0.8648 & 0.8560 & 0.8465 & 0.8367 & 0.8263 & 0.8155 & 0.8040\end{array}$ $\begin{array}{llllllllllllllllllll}0.9338 & 0.9286 & 0.9230 & 0.9171 & 0.9110 & 0.9044 & 0.8975 & 0.8902 & 0.8826 & 0.8745 & 0.8662 & 0.8573 & 0.8479 & 0.8381 & 0.8277 & 0.8168 & 0.8053\end{array}$ $\begin{array}{llllllllllllllllllllllllllll}0.9349 & 0.9298 & 0.9242 & 0.9184 & 0.9122 & 0.9057 & 0.8987 & 0.8916 & 0.8840 & 0.8760 & 0.8675 & 0.8587 & 0.8493 & 0.8396 & 0.8292 & 0.8183 & 0.8068\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9361 & 0.9309 & 0.9255 & 0.9196 & 0.9135 & 0.9070 & 0.9001 & 0.8930 & 0.8853 & 0.8774 & 0.8690 & 0.8602 & 0.8508 & 0.8411 & 0.8307 & 0.8198 & 0.8084\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9372 & 0.9322 & 0.9267 & 0.9209 & 0.9149 & 0.9084 & 0.9016 & 0.8944 & 0.8869 & 0.8789 & 0.8706 & 0.8618 & 0.8524 & 0.8426 & 0.8323 & 0.8215 & 0.8100\end{array}$ 0.93850 .93340 .92800 .92220 .91620 .90990 .90300 .89590 .88840 .88050 .87220 .86340 .85400 .84430 .83400 .82310 .8117 $\begin{array}{llllllllllllllllllll}0.9398 & 0.9347 & 0.9294 & 0.9237 & 0.9177 & 0.9114 & 0.9046 & 0.8975 & 0.8900 & 0.8821 & 0.8738 & 0.8651 & 0.8558 & 0.8461 & 0.8357 & 0.8249 & 0.8135\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9410 & 0.9361 & 0.9308 & 0.9251 & 0.9192 & 0.9129 & 0.9061 & 0.8991 & 0.8917 & 0.8838 & 0.8756 & 0.8669 & 0.8576 & 0.8479 & 0.8376 & 0.8269 & 0.8154\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9423 & 0.9374 & 0.9322 & 0.9266 & 0.9207 & 0.9145 & 0.9078 & 0.9008 & 0.8934 & 0.8856 & 0.8774 & 0.8687 & 0.8595 & 0.8499 & 0.8396 & 0.8288 & 0.8174\end{array}$ $\begin{array}{lllllllllllllllllll}0.9437 & 0.9388 & 0.9336 & 0.9281 & 0.9223 & 0.9161 & 0.9095 & 0.9026 & 0.8952 & 0.8874 & 0.8793 & 0.8707 & 0.8615 & 0.8518 & 0.8416 & 0.8309 & 0.8195\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9450 & 0.9403 & 0.9352 & 0.9296 & 0.9239 & 0.9178 & 0.9112 & 0.9044 & 0.8971 & 0.8894 & 0.8813 & 0.8726 & 0.8635 & 0.8540 & 0.8437 & 0.8330 & 0.8216\end{array}$ 0.94640 .94170 .93660 .93120 .92560 .91950 .91300 .90620 .89900 .89140 .88330 .87480 .86560 .85610 .84600 .83530 .8240 $\begin{array}{llllllllllllllllllllll}0.9478 & 0.9431 & 0.9382 & 0.9329 & 0.9273 & 0.9212 & 0.9149 & 0.9081 & 0.9009 & 0.8934 & 0.8854 & 0.8769 & 0.8679 & 0.8584 & 0.8483 & 0.8376 & 0.8263\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9492 & 0.9446 & 0.9398 & 0.9345 & 0.9290 & 0.9231 & 0.9168 & 0.9101 & 0.9030 & 0.8955 & 0.8876 & 0.8791 & 0.8702 & 0.8607 & 0.8507 & 0.8401 & 0.8288\end{array}$ $\begin{array}{llllllllllllllllll}0.9506 & 0.9461 & 0.9414 & 0.9362 & 0.9308 & 0.9249 & 0.9187 & 0.9121 & 0.9050 & 0.8976 & 0.8898 & 0.8814 & 0.8725 & 0.8632 & 0.8531 & 0.8426 & 0.8314\end{array}$ $\begin{array}{llllllllllllllllllll}0.9521 & 0.9477 & 0.9430 & 0.9379 & 0.9325 & 0.9268 & 0.9207 & 0.9142 & 0.9072 & 0.8999 & 0.8921 & 0.8839 & 0.8750 & 0.8657 & 0.8557 & 0.8452 & 0.8341\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9535 & 0.9492 & 0.9446 & 0.9396 & 0.9343 & 0.9287 & 0.9226 & 0.9162 & 0.9094 & 0.9021 & 0.8944 & 0.8863 & 0.8775 & 0.8683 & 0.8584 & 0.8480 & 0.8369\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9549 & 0.9507 & 0.9462 & 0.9413 & 0.9362 & 0.9306 & 0.9247 & 0.9183 & 0.9116 & 0.9044 & 0.8968 & 0.8887 & 0.8801 & 0.8710 & 0.8611 & 0.8508 & 0.8398\end{array}$ $\begin{array}{lllllllllllllllllll}0.9563 & 0.9522 & 0.9478 & 0.9431 & 0.9380 & 0.9326 & 0.9267 & 0.9205 & 0.9139 & 0.9068 & 0.8993 & 0.8913 & 0.8827 & 0.8737 & 0.8640 & 0.8537 & 0.8428\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9578 & 0.9537 & 0.9495 & 0.9448 & 0.9399 & 0.9345 & 0.9288 & 0.9226 & 0.9162 & 0.9092 & 0.9018 & 0.8940 & 0.8855 & 0.8765 & 0.8669 & 0.8567 & 0.8459\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9591 & 0.9553 & 0.9511 & 0.9465 & 0.9417 & 0.9365 & 0.9308 & 0.9248 & 0.9184 & 0.9116 & 0.9044 & 0.8966 & 0.8882 & 0.8794 & 0.8699 & 0.8598 & 0.8491\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9606 & 0.9568 & 0.9527 & 0.9483 & 0.9435 & 0.9384 & 0.9329 & 0.9271 & 0.9208 & 0.9141 & 0.9070 & 0.8993 & 0.8911 & 0.8823 & 0.8729 & 0.8630 & 0.8523\end{array}$ $\begin{array}{llllllllllllllllllll}0.9620 & 0.9583 & 0.9543 & 0.9499 & 0.9454 & 0.9404 & 0.9350 & 0.9293 & 0.9231 & 0.9166 & 0.9096 & 0.9021 & 0.8939 & 0.8854 & 0.8761 & 0.8663 & 0.8557\end{array}$ $\begin{array}{lllllllllllllllllll}0.9633 & 0.9598 & 0.9559 & 0.9517 & 0.9472 & 0.9423 & 0.9371 & 0.9315 & 0.9255 & 0.9191 & 0.9122 & 0.9049 & 0.8969 & 0.8884 & 0.8792 & 0.8695 & 0.8591\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9647 & 0.9612 & 0.9575 & 0.9534 & 0.9491 & 0.9443 & 0.9392 & 0.9337 & 0.9279 & 0.9216 & 0.9149 & 0.9077 & 0.8998 & 0.8915 & 0.8825 & 0.8729 & 0.8626\end{array}$ $\begin{array}{lllllllllllllllllll}0.9660 & 0.9626 & 0.9590 & 0.9550 & 0.9508 & 0.9463 & 0.9413 & 0.9360 & 0.9303 & 0.9241 & 0.9176 & 0.9105 & 0.9028 & 0.8946 & 0.8858 & 0.8764 & 0.8662\end{array}$ $\begin{array}{llllllllllllllllllll}0.9673 & 0.9641 & 0.9606 & 0.9567 & 0.9527 & 0.9482 & 0.9434 & 0.9382 & 0.9327 & 0.9267 & 0.9203 & 0.9133 & 0.9058 & 0.8978 & 0.8891 & 0.8798 & 0.8698\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9686 & 0.9654 & 0.9621 & 0.9584 & 0.9544 & 0.9501 & 0.9454 & 0.9404 & 0.9350 & 0.9292 & 0.9230 & 0.9162 & 0.9089 & 0.9011 & 0.8925 & 0.8834 & 0.8736\end{array}$ 0.96990 .96690 .96360 .96000 .95610 .95200 .94740 .94260 .93740 .93170 .92560 .91910 .91190 .90420 .89590 .88700 .8773

## TABLE L

## CECONY Weekly Participants -1 <br> Conversion from Single Life to <br> 100\% Joint and Survivor With Pop-Up


$\begin{array}{llllllllllllll}0.9711 & 0.9682 & 0.9650 & 0.9616 & 0.9579 & 0.9538 & 0.9494 & 0.9448 & 0.9397 & 0.9342 & 0.9283 & 0.9219 & 0.9149 & 0.9075\end{array} 0.89930 .89060 .8812$ $\begin{array}{llllllllllllllllllllllllll}0.9723 & 0.9695 & 0.9664 & 0.9631 & 0.9596 & 0.9557 & 0.9514 & 0.9469 & 0.9420 & 0.9367 & 0.9310 & 0.9247 & 0.9180 & 0.9107 & 0.9027 & 0.8942 & 0.8850\end{array}$ $\begin{array}{lllllllllllllllllll}0.9735 & 0.9707 & 0.9678 & 0.9646 & 0.9612 & 0.9575 & 0.9534 & 0.9490 & 0.9442 & 0.9391 & 0.9336 & 0.9275 & 0.9209 & 0.9139 & 0.9062 & 0.8979 & 0.8888\end{array}$ $\begin{array}{llllllllllllllllll}0.9746 & 0.9720 & 0.9692 & 0.9661 & 0.9628 & 0.9592 & 0.9553 & 0.9510 & 0.9465 & 0.9415 & 0.9362 & 0.9304 & 0.9240 & 0.9172 & 0.9096 & 0.9015 & 0.8926\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9757 & 0.9732 & 0.9706 & 0.9676 & 0.9644 & 0.9609 & 0.9571 & 0.9531 & 0.9486 & 0.9439 & 0.9388 & 0.9332 & 0.9269 & 0.9203 & 0.9130 & 0.9051 & 0.8965\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9768 & 0.9744 & 0.9718 & 0.9689 & 0.9659 & 0.9626 & 0.9590 & 0.9550 & 0.9508 & 0.9462 & 0.9413 & 0.9359 & 0.9299 & 0.9235 & 0.9163 & 0.9087 & 0.9003\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9778 & 0.9756 & 0.9731 & 0.9703 & 0.9674 & 0.9642 & 0.9607 & 0.9570 & 0.9529 & 0.9485 & 0.9437 & 0.9385 & 0.9327 & 0.9266 & 0.9197 & 0.9123 & 0.9042\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9788 & 0.9766 & 0.9743 & 0.9717 & 0.9689 & 0.9658 & 0.9625 & 0.9588 & 0.9550 & 0.9507 & 0.9461 & 0.9411 & 0.9356 & 0.9296 & 0.9230 & 0.9158 & 0.9079\end{array}$ $\begin{array}{lllllllllllllllllll}0.9798 & 0.9777 & 0.9755 & 0.9729 & 0.9702 & 0.9673 & 0.9641 & 0.9607 & 0.9569 & 0.9529 & 0.9485 & 0.9437 & 0.9383 & 0.9326 & 0.9262 & 0.9193 & 0.9117\end{array}$ $\begin{array}{llllllllllllllllllll}0.9808 & 0.9787 & 0.9765 & 0.9742 & 0.9716 & 0.9689 & 0.9658 & 0.9625 & 0.9589 & 0.9550 & 0.9508 & 0.9462 & 0.9410 & 0.9355 & 0.9294 & 0.9227 & 0.9154\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9817 & 0.9797 & 0.9777 & 0.9753 & 0.9729 & 0.9702 & 0.9673 & 0.9642 & 0.9607 & 0.9571 & 0.9530 & 0.9486 & 0.9437 & 0.9384 & 0.9325 & 0.9261 & 0.9190\end{array}$ $\begin{array}{llllllllllllllllllll}0.9825 & 0.9807 & 0.9788 & 0.9765 & 0.9742 & 0.9716 & 0.9688 & 0.9659 & 0.9626 & 0.9590 & 0.9552 & 0.9510 & 0.9463 & 0.9412 & 0.9355 & 0.9294 & 0.9226\end{array}$ $\begin{array}{lllllllllllllllllllllllllll}0.9834 & 0.9817 & 0.9798 & 0.9776 & 0.9755 & 0.9730 & 0.9703 & 0.9675 & 0.9644 & 0.9610 & 0.9573 & 0.9533 & 0.9488 & 0.9440 & 0.9385 & 0.9326 & 0.9260\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9842 & 0.9826 & 0.9808 & 0.9787 & 0.9766 & 0.9743 & 0.9717 & 0.9690 & 0.9660 & 0.9628 & 0.9594 & 0.9555 & 0.9512 & 0.9466 & 0.9414 & 0.9358 & 0.9294\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9850 & 0.9834 & 0.9817 & 0.9797 & 0.9778 & 0.9755 & 0.9731 & 0.9705 & 0.9677 & 0.9646 & 0.9613 & 0.9577 & 0.9536 & 0.9491 & 0.9442 & 0.9388 & 0.9327\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9857 & 0.9843 & 0.9826 & 0.9807 & 0.9789 & 0.9767 & 0.9744 & 0.9719 & 0.9692 & 0.9663 & 0.9632 & 0.9597 & 0.9558 & 0.9516 & 0.9469 & 0.9418 & 0.9359\end{array}$ $\begin{array}{llllllllllllllllllll}0.9865 & 0.9850 & 0.9835 & 0.9817 & 0.9799 & 0.9778 & 0.9757 & 0.9734 & 0.9707 & 0.9680 & 0.9651 & 0.9617 & 0.9580 & 0.9540 & 0.9495 & 0.9446 & 0.9391\end{array}$ $\begin{array}{lllllllllllllllllll}0.9872 & 0.9858 & 0.9843 & 0.9827 & 0.9809 & 0.9790 & 0.9769 & 0.9746 & 0.9723 & 0.9696 & 0.9668 & 0.9637 & 0.9602 & 0.9564 & 0.9521 & 0.9474 & 0.9421\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9878 & 0.9865 & 0.9851 & 0.9835 & 0.9819 & 0.9800 & 0.9781 & 0.9760 & 0.9736 & 0.9712 & 0.9685 & 0.9655 & 0.9622 & 0.9586 & 0.9545 & 0.9501 & 0.9450\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9885 & 0.9872 & 0.9859 & 0.9844 & 0.9828 & 0.9811 & 0.9792 & 0.9772 & 0.9750 & 0.9726 & 0.9701 & 0.9673 & 0.9641 & 0.9607 & 0.9568 & 0.9526 & 0.9478\end{array}$ $\begin{array}{llllllllllllllllllll}0.9891 & 0.9879 & 0.9867 & 0.9852 & 0.9837 & 0.9820 & 0.9802 & 0.9784 & 0.9762 & 0.9740 & 0.9716 & 0.9690 & 0.9659 & 0.9627 & 0.9591 & 0.9551 & 0.9505\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9897 & 0.9885 & 0.9874 & 0.9859 & 0.9846 & 0.9830 & 0.9812 & 0.9795 & 0.9775 & 0.9754 & 0.9731 & 0.9706 & 0.9677 & 0.9647 & 0.9612 & 0.9574 & 0.9531\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9902 & 0.9891 & 0.9880 & 0.9867 & 0.9854 & 0.9838 & 0.9823 & 0.9805 & 0.9786 & 0.9767 & 0.9746 & 0.9722 & 0.9695 & 0.9666 & 0.9633 & 0.9597 & 0.9557\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9908 & 0.9898 & 0.9887 & 0.9874 & 0.9862 & 0.9847 & 0.9831 & 0.9815 & 0.9798 & 0.9779 & 0.9759 & 0.9736 & 0.9711 & 0.9684 & 0.9653 & 0.9619 & 0.9580\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9913 & 0.9903 & 0.9893 & 0.9881 & 0.9869 & 0.9855 & 0.9840 & 0.9825 & 0.9808 & 0.9791 & 0.9772 & 0.9750 & 0.9727 & 0.9701 & 0.9671 & 0.9640 & 0.9603\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9918 & 0.9909 & 0.9899 & 0.9887 & 0.9876 & 0.9863 & 0.9849 & 0.9835 & 0.9819 & 0.9801 & 0.9784 & 0.9764 & 0.9741 & 0.9717 & 0.9690 & 0.9659 & 0.9624\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9922 & 0.9914 & 0.9904 & 0.9893 & 0.9883 & 0.9871 & 0.9857 & 0.9844 & 0.9828 & 0.9812 & 0.9795 & 0.9777 & 0.9755 & 0.9733 & 0.9707 & 0.9678 & 0.9646\end{array}$ $\begin{array}{llllllllllllllllllll}0.9927 & 0.9919 & 0.9910 & 0.9899 & 0.9889 & 0.9878 & 0.9865 & 0.9852 & 0.9838 & 0.9823 & 0.9807 & 0.9789 & 0.9769 & 0.9748 & 0.9723 & 0.9697 & 0.9666\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9931 & 0.9923 & 0.9915 & 0.9905 & 0.9896 & 0.9884 & 0.9872 & 0.9860 & 0.9847 & 0.9833 & 0.9818 & 0.9801 & 0.9782 & 0.9762 & 0.9739 & 0.9714 & 0.9685\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9936 & 0.9928 & 0.9920 & 0.9911 & 0.9901 & 0.9891 & 0.9879 & 0.9868 & 0.9855 & 0.9842 & 0.9828 & 0.9812 & 0.9794 & 0.9776 & 0.9754 & 0.9730 & 0.9703\end{array}$

## TABLE L

## Conversion from Single Life to 100\% Joint and Survivor With Pop-Up CECONY Weekly Participants -1


$\begin{array}{llllllllllllllllllll}0.7893 & 0.7767 & 0.7635 & 0.7497 & 0.7354 & 0.7205 & 0.7052 & 0.6893 & 0.6731 & 0.6564 & 0.6394 & 0.6221 & 0.6045 & 0.5866 & 0.5684 & 0.5500 & 0.5316\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.7905 & 0.7780 & 0.7647 & 0.7510 & 0.7366 & 0.7217 & 0.7064 & 0.6905 & 0.6743 & 0.6575 & 0.6405 & 0.6232 & 0.6056 & 0.5876 & 0.5694 & 0.5510 & 0.5326\end{array}$ 0.79190 .77930 .76600 .75230 .73790 .72300 .70770 .69180 .67550 .65870 .64170 .62440 .60670 .58870 .57050 .55210 .5336 $\begin{array}{lllllllllllllllllllll}0.7933 & 0.7807 & 0.7675 & 0.7536 & 0.7393 & 0.7244 & 0.7090 & 0.6931 & 0.6768 & 0.6601 & 0.6430 & 0.6256 & 0.6079 & 0.5899 & 0.5717 & 0.5532 & 0.5347\end{array}$ 0.79470 .78210 .76890 .75510 .74070 .72580 .71040 .69450 .67820 .66140 .64430 .62690 .60920 .59120 .57290 .55440 .5359 $\begin{array}{llllllllllllllllllllllll}0.7963 & 0.7837 & 0.7704 & 0.7567 & 0.7423 & 0.7274 & 0.7120 & 0.6960 & 0.6797 & 0.6629 & 0.6458 & 0.6283 & 0.6106 & 0.5926 & 0.5743 & 0.5557 & 0.5372\end{array}$ $\begin{array}{lllllllllllllllllll}0.7979 & 0.7853 & 0.7721 & 0.7583 & 0.7439 & 0.7290 & 0.7136 & 0.6976 & 0.6812 & 0.6644 & 0.6473 & 0.6298 & 0.6121 & 0.5940 & 0.5757 & 0.5571 & 0.5385\end{array}$ 0.79970 .78710 .77380 .76000 .74560 .73070 .71520 .69930 .68290 .66610 .64890 .63150 .61370 .59550 .57720 .55860 .5400 $\begin{array}{llllllllllllllllll}0.8015 & 0.7888 & 0.7756 & 0.7619 & 0.7475 & 0.7325 & 0.7171 & 0.7011 & 0.6847 & 0.6678 & 0.6507 & 0.6331 & 0.6153 & 0.5972 & 0.5787 & 0.5601 & 0.5415\end{array}$ $\begin{array}{lllllllllllllllllllllllllll}0.8034 & 0.7908 & 0.7776 & 0.7638 & 0.7494 & 0.7344 & 0.7190 & 0.7030 & 0.6865 & 0.6697 & 0.6525 & 0.6349 & 0.6171 & 0.5989 & 0.5804 & 0.5618 & 0.5431\end{array}$ $\begin{array}{lllllllllllllllllll}0.8054 & 0.7928 & 0.7796 & 0.7658 & 0.7514 & 0.7364 & 0.7210 & 0.7049 & 0.6885 & 0.6716 & 0.6544 & 0.6368 & 0.6189 & 0.6007 & 0.5823 & 0.5635 & 0.5448\end{array}$ 0.80750 .79490 .78170 .76790 .75350 .73850 .72300 .70700 .69060 .67370 .65640 .63880 .62090 .60270 .58420 .56540 .5466 $\begin{array}{llllllllllllllllllllll}0.8097 & 0.7972 & 0.7840 & 0.7701 & 0.7558 & 0.7408 & 0.7253 & 0.7092 & 0.6928 & 0.6759 & 0.6586 & 0.6410 & 0.6230 & 0.6047 & 0.5862 & 0.5674 & 0.5486\end{array}$ $\begin{array}{llllllllllllllllllllll}0.8120 & 0.7995 & 0.7863 & 0.7725 & 0.7581 & 0.7431 & 0.7276 & 0.7116 & 0.6951 & 0.6781 & 0.6609 & 0.6432 & 0.6252 & 0.6069 & 0.5883 & 0.5695 & 0.5506\end{array}$ $\begin{array}{llllllllllllllllllll}0.8144 & 0.8019 & 0.7887 & 0.7750 & 0.7606 & 0.7456 & 0.7301 & 0.7141 & 0.6976 & 0.6806 & 0.6633 & 0.6456 & 0.6275 & 0.6092 & 0.5906 & 0.5717 & 0.5527\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.8169 & 0.8044 & 0.7913 & 0.7776 & 0.7632 & 0.7482 & 0.7327 & 0.7167 & 0.7002 & 0.6832 & 0.6658 & 0.6481 & 0.6301 & 0.6116 & 0.5930 & 0.5740 & 0.5551\end{array}$ $\begin{array}{llllllllllllllllllllll}0.8196 & 0.8071 & 0.7940 & 0.7803 & 0.7659 & 0.7509 & 0.7354 & 0.7194 & 0.7029 & 0.6859 & 0.6685 & 0.6507 & 0.6327 & 0.6142 & 0.5955 & 0.5765 & 0.5575\end{array}$ $\begin{array}{llllllllllllllllll}0.8223 & 0.8099 & 0.7968 & 0.7831 & 0.7687 & 0.7538 & 0.7384 & 0.7223 & 0.7057 & 0.6887 & 0.6713 & 0.6535 & 0.6354 & 0.6170 & 0.5982 & 0.5791 & 0.5601\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.8251 & 0.8128 & 0.7998 & 0.7861 & 0.7717 & 0.7568 & 0.7413 & 0.7253 & 0.7088 & 0.6917 & 0.6743 & 0.6565 & 0.6384 & 0.6198 & 0.6010 & 0.5819 & 0.5628\end{array}$ $\begin{array}{llllllllllllllllllllllllllll}0.8281 & 0.8158 & 0.8028 & 0.7892 & 0.7749 & 0.7600 & 0.7445 & 0.7284 & 0.7119 & 0.6948 & 0.6774 & 0.6596 & 0.6414 & 0.6228 & 0.6040 & 0.5848 & 0.5657\end{array}$ $\begin{array}{lllllllllllllllllllll}0.8312 & 0.8189 & 0.8059 & 0.7924 & 0.7781 & 0.7633 & 0.7478 & 0.7317 & 0.7152 & 0.6981 & 0.6807 & 0.6628 & 0.6446 & 0.6260 & 0.6072 & 0.5880 & 0.5687\end{array}$ $\begin{array}{lllllllllllllllllllll}0.8343 & 0.8221 & 0.8092 & 0.7957 & 0.7815 & 0.7666 & 0.7512 & 0.7352 & 0.7187 & 0.7016 & 0.6841 & 0.6663 & 0.6480 & 0.6294 & 0.6104 & 0.5912 & 0.5719\end{array}$ $\begin{array}{lllllllllllllllllllll}0.8376 & 0.8255 & 0.8127 & 0.7992 & 0.7850 & 0.7702 & 0.7549 & 0.7388 & 0.7223 & 0.7052 & 0.6877 & 0.6699 & 0.6516 & 0.6329 & 0.6140 & 0.5946 & 0.5753\end{array}$ $\begin{array}{llllllllllllllllllll}0.8409 & 0.8289 & 0.8162 & 0.8028 & 0.7887 & 0.7739 & 0.7586 & 0.7426 & 0.7261 & 0.7090 & 0.6915 & 0.6737 & 0.6553 & 0.6367 & 0.6176 & 0.5983 & 0.5789\end{array}$ 0.84440 .83250 .81980 .80660 .79250 .77780 .76250 .74650 .73010 .71300 .69550 .67760 .65930 .64060 .62150 .60210 .5826 $\begin{array}{lllllllllllllllllllll}0.8480 & 0.8361 & 0.8236 & 0.8104 & 0.7964 & 0.7818 & 0.7665 & 0.7506 & 0.7342 & 0.7172 & 0.6997 & 0.6818 & 0.6634 & 0.6447 & 0.6256 & 0.6061 & 0.5866\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.8516 & 0.8399 & 0.8275 & 0.8143 & 0.8005 & 0.7859 & 0.7707 & 0.7549 & 0.7385 & 0.7215 & 0.7040 & 0.6861 & 0.6678 & 0.6490 & 0.6299 & 0.6104 & 0.5908\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.8554 & 0.8438 & 0.8315 & 0.8184 & 0.8047 & 0.7902 & 0.7751 & 0.7593 & 0.7429 & 0.7260 & 0.7086 & 0.6907 & 0.6724 & 0.6536 & 0.6344 & 0.6149 & 0.5952\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.8591 & 0.8477 & 0.8356 & 0.8227 & 0.8090 & 0.7946 & 0.7796 & 0.7639 & 0.7476 & 0.7307 & 0.7133 & 0.6954 & 0.6771 & 0.6583 & 0.6391 & 0.6195 & 0.5998\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.8630 & 0.8517 & 0.8397 & 0.8270 & 0.8134 & 0.7992 & 0.7843 & 0.7686 & 0.7524 & 0.7356 & 0.7182 & 0.7004 & 0.6821 & 0.6633 & 0.6441 & 0.6245 & 0.6047\end{array}$ $\begin{array}{lllllllllllllllllllllllllll}0.8670 & 0.8558 & 0.8440 & 0.8314 & 0.8180 & 0.8038 & 0.7891 & 0.7735 & 0.7574 & 0.7407 & 0.7234 & 0.7056 & 0.6873 & 0.6685 & 0.6493 & 0.6296 & 0.6098\end{array}$

## TABLE L

## Conversion from Single Life to 100\% Joint and Survivor With Pop-Up CECONY Weekly Participants -1


$\begin{array}{llllllllllllllll}0.8709 & 0.8600 & 0.8483 & 0.8358 & 0.8227 & 0.8087 & 0.7940 & 0.7786 & 0.7626 & 0.7459 & 0.7287 & 0.7109 & 0.6927 & 0.6739 & 0.6547 & 0.6351\end{array} 0.6152$ $\begin{array}{lllllllllllllllllllllllll}0.8749 & 0.8642 & 0.8527 & 0.8405 & 0.8274 & 0.8136 & 0.7991 & 0.7838 & 0.7679 & 0.7513 & 0.7342 & 0.7165 & 0.6983 & 0.6795 & 0.6603 & 0.6407 & 0.6209\end{array}$ $\begin{array}{llllllllllllllllllllll}0.8790 & 0.8685 & 0.8571 & 0.8451 & 0.8322 & 0.8186 & 0.8043 & 0.7891 & 0.7734 & 0.7569 & 0.7399 & 0.7223 & 0.7041 & 0.6854 & 0.6663 & 0.6466 & 0.6267\end{array}$ $\begin{array}{lllllllllllllllllll}0.8830 & 0.8728 & 0.8617 & 0.8498 & 0.8371 & 0.8236 & 0.8095 & 0.7945 & 0.7789 & 0.7626 & 0.7457 & 0.7282 & 0.7101 & 0.6915 & 0.6724 & 0.6527 & 0.6329\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.8871 & 0.8771 & 0.8662 & 0.8546 & 0.8421 & 0.8288 & 0.8149 & 0.8001 & 0.7846 & 0.7685 & 0.7517 & 0.7343 & 0.7164 & 0.6978 & 0.6787 & 0.6591 & 0.6393\end{array}$ $\begin{array}{lllllllllllllllllllllllllllll}0.8912 & 0.8814 & 0.8707 & 0.8594 & 0.8471 & 0.8341 & 0.8203 & 0.8057 & 0.7905 & 0.7745 & 0.7579 & 0.7406 & 0.7228 & 0.7043 & 0.6853 & 0.6657 & 0.6459\end{array}$ $\begin{array}{llllllllllllllllllll}0.8952 & 0.8857 & 0.8753 & 0.8641 & 0.8521 & 0.8393 & 0.8258 & 0.8114 & 0.7964 & 0.7806 & 0.7642 & 0.7471 & 0.7294 & 0.7110 & 0.6921 & 0.6726 & 0.6528\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.8993 & 0.8900 & 0.8799 & 0.8690 & 0.8572 & 0.8447 & 0.8314 & 0.8173 & 0.8025 & 0.7868 & 0.7706 & 0.7536 & 0.7361 & 0.7178 & 0.6990 & 0.6796 & 0.6599\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9033 & 0.8942 & 0.8844 & 0.8737 & 0.8623 & 0.8500 & 0.8370 & 0.8231 & 0.8085 & 0.7931 & 0.7770 & 0.7603 & 0.7429 & 0.7249 & 0.7062 & 0.6869 & 0.6672\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9073 & 0.8984 & 0.8889 & 0.8785 & 0.8674 & 0.8553 & 0.8426 & 0.8290 & 0.8147 & 0.7995 & 0.7837 & 0.7671 & 0.7500 & 0.7321 & 0.7135 & 0.6943 & 0.6748\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9111 & 0.9026 & 0.8934 & 0.8833 & 0.8724 & 0.8607 & 0.8482 & 0.8349 & 0.8208 & 0.8059 & 0.7903 & 0.7741 & 0.7571 & 0.7394 & 0.7210 & 0.7019 & 0.6825\end{array}$ $\begin{array}{lllllllllllllllllllllllllll}0.9150 & 0.9067 & 0.8978 & 0.8880 & 0.8774 & 0.8660 & 0.8539 & 0.8408 & 0.8270 & 0.8124 & 0.7971 & 0.7811 & 0.7643 & 0.7468 & 0.7286 & 0.7097 & 0.6904\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9187 & 0.9108 & 0.9021 & 0.8927 & 0.8823 & 0.8713 & 0.8594 & 0.8466 & 0.8332 & 0.8189 & 0.8038 & 0.7881 & 0.7716 & 0.7543 & 0.7363 & 0.7176 & 0.6985\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9224 & 0.9148 & 0.9064 & 0.8973 & 0.8873 & 0.8765 & 0.8650 & 0.8525 & 0.8394 & 0.8253 & 0.8106 & 0.7952 & 0.7789 & 0.7619 & 0.7441 & 0.7257 & 0.7067\end{array}$ $\begin{array}{llllllllllllllllllllllllllll}0.9260 & 0.9186 & 0.9105 & 0.9017 & 0.8921 & 0.8816 & 0.8704 & 0.8584 & 0.8455 & 0.8318 & 0.8174 & 0.8023 & 0.7863 & 0.7695 & 0.7520 & 0.7338 & 0.7150\end{array}$ $\begin{array}{lllllllllllllllllllllllllll}0.9295 & 0.9224 & 0.9147 & 0.9062 & 0.8968 & 0.8867 & 0.8759 & 0.8641 & 0.8516 & 0.8383 & 0.8242 & 0.8094 & 0.7937 & 0.7772 & 0.7600 & 0.7420 & 0.7235\end{array}$ $\begin{array}{llllllllllllllllllllllllllll}0.9329 & 0.9262 & 0.9186 & 0.9105 & 0.9015 & 0.8917 & 0.8812 & 0.8698 & 0.8577 & 0.8447 & 0.8309 & 0.8164 & 0.8011 & 0.7849 & 0.7680 & 0.7503 & 0.7320\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9362 & 0.9297 & 0.9225 & 0.9147 & 0.9060 & 0.8966 & 0.8864 & 0.8754 & 0.8636 & 0.8509 & 0.8376 & 0.8234 & 0.8085 & 0.7926 & 0.7761 & 0.7586 & 0.7406\end{array}$ $\begin{array}{llllllllllllllllllllllllllll}0.9394 & 0.9332 & 0.9263 & 0.9188 & 0.9105 & 0.9014 & 0.8915 & 0.8809 & 0.8695 & 0.8572 & 0.8442 & 0.8304 & 0.8158 & 0.8003 & 0.7841 & 0.7669 & 0.7492\end{array}$ $\begin{array}{lllllllllllllllllllllllllll}0.9424 & 0.9366 & 0.9300 & 0.9228 & 0.9147 & 0.9060 & 0.8965 & 0.8862 & 0.8753 & 0.8634 & 0.8507 & 0.8373 & 0.8231 & 0.8080 & 0.7920 & 0.7753 & 0.7579\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9454 & 0.9398 & 0.9335 & 0.9266 & 0.9189 & 0.9106 & 0.9015 & 0.8915 & 0.8809 & 0.8694 & 0.8572 & 0.8441 & 0.8303 & 0.8155 & 0.8000 & 0.7835 & 0.7665\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9483 & 0.9429 & 0.9369 & 0.9303 & 0.9230 & 0.9149 & 0.9062 & 0.8966 & 0.8864 & 0.8752 & 0.8634 & 0.8508 & 0.8374 & 0.8230 & 0.8078 & 0.7917 & 0.7750\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9510 & 0.9460 & 0.9402 & 0.9339 & 0.9269 & 0.9192 & 0.9108 & 0.9016 & 0.8918 & 0.8810 & 0.8695 & 0.8573 & 0.8443 & 0.8304 & 0.8156 & 0.7998 & 0.7836\end{array}$ $\begin{array}{llllllllllllllllllll}0.9536 & 0.9488 & 0.9433 & 0.9374 & 0.9307 & 0.9233 & 0.9152 & 0.9064 & 0.8969 & 0.8866 & 0.8755 & 0.8638 & 0.8512 & 0.8376 & 0.8232 & 0.8080 & 0.7920\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9561 & 0.9515 & 0.9464 & 0.9407 & 0.9343 & 0.9272 & 0.9196 & 0.9111 & 0.9019 & 0.8921 & 0.8814 & 0.8700 & 0.8578 & 0.8447 & 0.8307 & 0.8159 & 0.8003\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9585 & 0.9542 & 0.9493 & 0.9438 & 0.9378 & 0.9310 & 0.9237 & 0.9156 & 0.9069 & 0.8973 & 0.8871 & 0.8761 & 0.8643 & 0.8517 & 0.8382 & 0.8237 & 0.8085\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9608 & 0.9567 & 0.9521 & 0.9469 & 0.9412 & 0.9347 & 0.9277 & 0.9200 & 0.9116 & 0.9025 & 0.8926 & 0.8821 & 0.8708 & 0.8585 & 0.8454 & 0.8314 & 0.8167\end{array}$ $\begin{array}{lllllllllllllllllll}0.9631 & 0.9592 & 0.9548 & 0.9498 & 0.9444 & 0.9383 & 0.9316 & 0.9242 & 0.9162 & 0.9075 & 0.8980 & 0.8880 & 0.8770 & 0.8652 & 0.8525 & 0.8389 & 0.8247\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9652 & 0.9615 & 0.9573 & 0.9527 & 0.9475 & 0.9417 & 0.9354 & 0.9283 & 0.9207 & 0.9123 & 0.9033 & 0.8936 & 0.8831 & 0.8717 & 0.8595 & 0.8464 & 0.8326\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9672 & 0.9637 & 0.9598 & 0.9554 & 0.9504 & 0.9450 & 0.9390 & 0.9323 & 0.9250 & 0.9170 & 0.9084 & 0.8991 & 0.8891 & 0.8781 & 0.8664 & 0.8537 & 0.8403\end{array}$

## TABLE M

Conversion from Single Life to 50\% Joint and Survivor with Pop-Up CECONY Weekly Participants -1

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 |
| 25 | 0.9908 | 0.9900 | 0.9892 | 0.9882 | 0.9873 | 0.9863 | 0.9850 | 0.9838 | 0.9824 | 0.9809 | 0.9793 | 0.9776 | 0.9757 | 0.9738 | 0.9716 | 0.9692 | 0.9667 |
| 26 | 0.9911 | 0.9903 | 0.9894 | 0.9885 | 0.9876 | 0.9866 | 0.9854 | 0.9841 | 0.9828 | 0.9813 | 0.9798 | 0.9780 | 0.9762 | 0.9742 | 0.9721 | 0.9698 | 0.9672 |
| 27 | 0.9913 | 0.9906 | 0.9897 | 0.9888 | 0.9879 | 0.9869 | 0.9857 | 0.9845 | 0.9831 | 0.9818 | 0.9801 | 0.9784 | 0.9766 | 0.9746 | 0.9725 | 0.9703 | 0.9677 |
| 28 | 0.9915 | 0.9908 | 0.9900 | 0.9891 | 0.9882 | 0.9872 | 0.9860 | 0.9849 | 0.9835 | 0.9821 | 0.9806 | 0.9789 | 0.9771 | 0.9752 | 0.9731 | 0.9708 | 0.9683 |
| 29 | 0.9917 | 0.9911 | 0.9902 | 0.9894 | 0.9886 | 0.9875 | 0.9864 | 0.9852 | 0.9839 | 0.9826 | 0.9810 | 0.9793 | 0.9775 | 0.9757 | 0.9736 | 0.9714 | 0.9689 |
| 30 | 0.9920 | 0.9913 | 0.9905 | 0.9897 | 0.9889 | 0.9879 | 0.9867 | 0.9856 | 0.9843 | 0.9830 | 0.9815 | 0.9798 | 0.9781 | 0.9762 | 0.9742 | 0.9719 | 0.9695 |
| 31 | 0.9922 | 0.9916 | 0.9908 | 0.9900 | 0.9892 | 0.9882 | 0.9871 | 0.9860 | 0.9847 | 0.9834 | 0.9819 | 0.9803 | 0.9786 | 0.9767 | 0.9747 | 0.9725 | 0.9701 |
| 32 | 0.9925 | 0.9918 | 0.9910 | 0.9903 | 0.9895 | 0.9885 | 0.9874 | 0.9863 | 0.9851 | 0.9838 | 0.9824 | 0.9808 | 0.9791 | 0.9772 | 0.9753 | 0.9731 | 0.9707 |
| 33 | 0.9927 | 0.9920 | 0.9913 | 0.9906 | 0.9898 | 0.9888 | 0.9878 | 0.9868 | 0.9855 | 0.9843 | 0.9828 | 0.9812 | 0.9796 | 0.9778 | 0.9759 | 0.9737 | 0.9714 |
| 34 | 0.9929 | 0.9923 | 0.9916 | 0.9908 | 0.9900 | 0.9892 | 0.9881 | 0.9872 | 0.9859 | 0.9847 | 0.9833 | 0.9818 | 0.9801 | 0.9783 | 0.9765 | 0.9743 | 0.9720 |
| 35 | 0.9931 | 0.9925 | 0.9919 | 0.9911 | 0.9904 | 0.9895 | 0.9885 | 0.9875 | 0.9863 | 0.9851 | 0.9838 | 0.9823 | 0.9807 | 0.9789 | 0.9770 | 0.9749 | 0.9727 |
| 36 | 0.9934 | 0.9927 | 0.9921 | 0.9914 | 0.9907 | 0.9899 | 0.9889 | 0.9879 | 0.9867 | 0.9856 | 0.9842 | 0.9827 | 0.9812 | 0.9795 | 0.9776 | 0.9756 | 0.9734 |
| 37 | 0.9935 | 0.9930 | 0.9924 | 0.9917 | 0.9910 | 0.9902 | 0.9892 | 0.9883 | 0.9871 | 0.9860 | 0.9847 | 0.9832 | 0.9817 | 0.9800 | 0.9782 | 0.9762 | 0.9740 |
| 38 | 0.9937 | 0.9932 | 0.9926 | 0.9919 | 0.9913 | 0.9905 | 0.9895 | 0.9886 | 0.9875 | 0.9864 | 0.9852 | 0.9838 | 0.9822 | 0.9806 | 0.9788 | 0.9769 | 0.9747 |
| 39 | 0.9939 | 0.9934 | 0.9929 | 0.9922 | 0.9916 | 0.9908 | 0.9899 | 0.9890 | 0.9879 | 0.9868 | 0.9856 | 0.9842 | 0.9828 | 0.9812 | 0.9794 | 0.9775 | 0.9754 |
| 40 | 0.9942 | 0.9936 | 0.9931 | 0.9925 | 0.9918 | 0.9911 | 0.9902 | 0.9894 | 0.9883 | 0.9873 | 0.9861 | 0.9847 | 0.9833 | 0.9818 | 0.9800 | 0.9781 | 0.9761 |
| 41 | 0.9944 | 0.9939 | 0.9933 | 0.9927 | 0.9921 | 0.9914 | 0.9906 | 0.9897 | 0.9887 | 0.9877 | 0.9865 | 0.9853 | 0.9838 | 0.9824 | 0.9807 | 0.9788 | 0.9768 |
| 42 | 0.9945 | 0.9941 | 0.9935 | 0.9929 | 0.9924 | 0.9917 | 0.9909 | 0.9901 | 0.9891 | 0.9881 | 0.9869 | 0.9857 | 0.9844 | 0.9829 | 0.9813 | 0.9795 | 0.9775 |
| 43 | 0.9947 | 0.9943 | 0.9938 | 0.9932 | 0.9927 | 0.9920 | 0.9912 | 0.9904 | 0.9895 | 0.9886 | 0.9874 | 0.9862 | 0.9849 | 0.9835 | 0.9819 | 0.9802 | 0.9782 |
| 44 | 0.9949 | 0.9945 | 0.9940 | 0.9935 | 0.9929 | 0.9923 | 0.9915 | 0.9908 | 0.9899 | 0.9889 | 0.9878 | 0.9867 | 0.9854 | 0.9840 | 0.9825 | 0.9808 | 0.9789 |
| 45 | 0.9951 | 0.9947 | 0.9942 | 0.9937 | 0.9932 | 0.9925 | 0.9918 | 0.9911 | 0.9902 | 0.9893 | 0.9883 | 0.9871 | 0.9859 | 0.9846 | 0.9831 | 0.9814 | 0.9796 |
| 46 | 0.9953 | 0.9949 | 0.9944 | 0.9939 | 0.9934 | 0.9928 | 0.9921 | 0.9914 | 0.9905 | 0.9897 | 0.9887 | 0.9876 | 0.9864 | 0.9851 | 0.9837 | 0.9820 | 0.9803 |
| 47 | 0.9954 | 0.9950 | 0.9947 | 0.9941 | 0.9937 | 0.9931 | 0.9924 | 0.9917 | 0.9909 | 0.9901 | 0.9891 | 0.9881 | 0.9869 | 0.9857 | 0.9842 | 0.9827 | 0.9810 |
| 48 | 0.9956 | 0.9953 | 0.9948 | 0.9943 | 0.9939 | 0.9933 | 0.9927 | 0.9920 | 0.9913 | 0.9905 | 0.9896 | 0.9885 | 0.9874 | 0.9862 | 0.9848 | 0.9833 | 0.9816 |
| 49 | 0.9958 | 0.9954 | 0.9950 | 0.9946 | 0.9942 | 0.9936 | 0.9930 | 0.9923 | 0.9916 | 0.9909 | 0.9899 | 0.9889 | 0.9879 | 0.9867 | 0.9854 | 0.9839 | 0.9823 |
| 50 | 0.9959 | 0.9955 | 0.9952 | 0.9948 | 0.9944 | 0.9939 | 0.9933 | 0.9926 | 0.9919 | 0.9912 | 0.9903 | 0.9894 | 0.9883 | 0.9872 | 0.9860 | 0.9845 | 0.9830 |
| 51 | 0.9961 | 0.9958 | 0.9954 | 0.9949 | 0.9946 | 0.9941 | 0.9935 | 0.9929 | 0.9922 | 0.9915 | 0.9907 | 0.9898 | 0.9888 | 0.9877 | 0.9865 | 0.9851 | 0.9836 |
| 52 | 0.9962 | 0.9959 | 0.9955 | 0.9952 | 0.9948 | 0.9943 | 0.9938 | 0.9932 | 0.9925 | 0.9919 | 0.9911 | 0.9902 | 0.9892 | 0.9882 | 0.9870 | 0.9857 | 0.9842 |
| 53 | 0.9964 | 0.9961 | 0.9958 | 0.9954 | 0.9950 | 0.9945 | 0.9940 | 0.9935 | 0.9928 | 0.9922 | 0.9914 | 0.9906 | 0.9897 | 0.9887 | 0.9876 | 0.9863 | 0.9849 |
| 54 | 0.9965 | 0.9962 | 0.9959 | 0.9955 | 0.9952 | 0.9948 | 0.9942 | 0.9938 | 0.9931 | 0.9925 | 0.9918 | 0.9909 | 0.9901 | 0.9891 | 0.9881 | 0.9868 | 0.9855 |
| 55 | 0.9967 | 0.9964 | 0.9961 | 0.9958 | 0.9954 | 0.9950 | 0.9945 | 0.9941 | 0.9934 | 0.9929 | 0.9921 | 0.9913 | 0.9905 | 0.9896 | 0.9885 | 0.9873 | 0.9860 |

## TABLE M

Conversion from Single Life to 50\% Joint and Survivor with Pop-Up CECONY Weekly Participants -1

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 |
| 56 | 0.9967 | 0.9965 | 0.9962 | 0.9959 | 0.9956 | 0.9952 | 0.9947 | 0.9943 | 0.9937 | 0.9932 | 0.9925 | 0.9917 | 0.9909 | 0.9900 | 0.9890 | 0.9879 | 0.9867 |
| 57 | 0.9969 | 0.9967 | 0.9964 | 0.9960 | 0.9958 | 0.9954 | 0.9950 | 0.9945 | 0.9940 | 0.9935 | 0.9928 | 0.9921 | 0.9913 | 0.9905 | 0.9895 | 0.9884 | 0.9872 |
| 58 | 0.9970 | 0.9968 | 0.9965 | 0.9962 | 0.9960 | 0.9956 | 0.9952 | 0.9947 | 0.9942 | 0.9937 | 0.9931 | 0.9925 | 0.9917 | 0.9909 | 0.9900 | 0.9889 | 0.9877 |
| 59 | 0.9971 | 0.9970 | 0.9967 | 0.9963 | 0.9961 | 0.9958 | 0.9953 | 0.9950 | 0.9945 | 0.9940 | 0.9934 | 0.9928 | 0.9920 | 0.9913 | 0.9904 | 0.9894 | 0.9883 |
| 60 | 0.9973 | 0.9970 | 0.9968 | 0.9966 | 0.9963 | 0.9960 | 0.9956 | 0.9952 | 0.9947 | 0.9943 | 0.9937 | 0.9931 | 0.9924 | 0.9917 | 0.9908 | 0.9899 | 0.9888 |
| 61 | 0.9973 | 0.9972 | 0.9969 | 0.9967 | 0.9965 | 0.9962 | 0.9958 | 0.9954 | 0.9949 | 0.9945 | 0.9940 | 0.9934 | 0.9927 | 0.9921 | 0.9912 | 0.9903 | 0.9893 |
| 62 | 0.9975 | 0.9973 | 0.9971 | 0.9968 | 0.9966 | 0.9963 | 0.9959 | 0.9956 | 0.9952 | 0.9948 | 0.9943 | 0.9937 | 0.9931 | 0.9924 | 0.9917 | 0.9908 | 0.9898 |
| 63 | 0.9976 | 0.9974 | 0.9972 | 0.9969 | 0.9968 | 0.9965 | 0.9962 | 0.9959 | 0.9954 | 0.9951 | 0.9945 | 0.9940 | 0.9934 | 0.9928 | 0.9921 | 0.9912 | 0.9903 |
| 64 | 0.9977 | 0.9975 | 0.9973 | 0.9971 | 0.9969 | 0.9966 | 0.9963 | 0.9960 | 0.9956 | 0.9953 | 0.9948 | 0.9943 | 0.9937 | 0.9931 | 0.9924 | 0.9916 | 0.9907 |
| 65 | 0.9978 | 0.9976 | 0.9975 | 0.9972 | 0.9971 | 0.9969 | 0.9965 | 0.9962 | 0.9958 | 0.9955 | 0.9951 | 0.9946 | 0.9940 | 0.9935 | 0.9927 | 0.9920 | 0.9912 |
| 66 | 0.9978 | 0.9977 | 0.9975 | 0.9974 | 0.9972 | 0.9970 | 0.9966 | 0.9964 | 0.9960 | 0.9958 | 0.9953 | 0.9948 | 0.9943 | 0.9938 | 0.9931 | 0.9924 | 0.9916 |
| 67 | 0.9980 | 0.9978 | 0.9977 | 0.9975 | 0.9973 | 0.9971 | 0.9968 | 0.9966 | 0.9962 | 0.9959 | 0.9955 | 0.9950 | 0.9946 | 0.9941 | 0.9934 | 0.9928 | 0.9920 |
| 68 | 0.9981 | 0.9979 | 0.9978 | 0.9976 | 0.9975 | 0.9972 | 0.9970 | 0.9968 | 0.9964 | 0.9961 | 0.9957 | 0.9953 | 0.9949 | 0.9944 | 0.9938 | 0.9931 | 0.9924 |
| 69 | 0.9981 | 0.9980 | 0.9978 | 0.9977 | 0.9976 | 0.9974 | 0.9971 | 0.9969 | 0.9966 | 0.9964 | 0.9960 | 0.9956 | 0.9951 | 0.9946 | 0.9941 | 0.9935 | 0.9927 |
| 70 | 0.9982 | 0.9981 | 0.9980 | 0.9978 | 0.9977 | 0.9975 | 0.9972 | 0.9971 | 0.9967 | 0.9965 | 0.9962 | 0.9958 | 0.9953 | 0.9949 | 0.9944 | 0.9938 | 0.9931 |
| 71 | 0.9983 | 0.9982 | 0.9981 | 0.9979 | 0.9978 | 0.9976 | 0.9974 | 0.9972 | 0.9969 | 0.9967 | 0.9963 | 0.9959 | 0.9956 | 0.9951 | 0.9947 | 0.9941 | 0.9934 |
| 72 | 0.9984 | 0.9983 | 0.9981 | 0.9980 | 0.9979 | 0.9977 | 0.9975 | 0.9974 | 0.9970 | 0.9969 | 0.9966 | 0.9962 | 0.9959 | 0.9955 | 0.9950 | 0.9944 | 0.9938 |
| 73 | 0.9984 | 0.9984 | 0.9982 | 0.9981 | 0.9981 | 0.9979 | 0.9976 | 0.9975 | 0.9972 | 0.9970 | 0.9967 | 0.9964 | 0.9960 | 0.9957 | 0.9952 | 0.9947 | 0.9941 |
| 74 | 0.9985 | 0.9984 | 0.9983 | 0.9982 | 0.9981 | 0.9980 | 0.9977 | 0.9976 | 0.9973 | 0.9972 | 0.9969 | 0.9966 | 0.9962 | 0.9959 | 0.9955 | 0.9950 | 0.9945 |
| 75 | 0.9986 | 0.9985 | 0.9984 | 0.9983 | 0.9982 | 0.9980 | 0.9979 | 0.9977 | 0.9975 | 0.9973 | 0.9970 | 0.9968 | 0.9965 | 0.9961 | 0.9957 | 0.9953 | 0.9948 |
| 76 | 0.9987 | 0.9986 | 0.9985 | 0.9984 | 0.9983 | 0.9982 | 0.9980 | 0.9979 | 0.9976 | 0.9975 | 0.9973 | 0.9969 | 0.9966 | 0.9964 | 0.9960 | 0.9955 | 0.9950 |
| 77 | 0.9987 | 0.9987 | 0.9986 | 0.9984 | 0.9984 | 0.9983 | 0.9980 | 0.9980 | 0.9977 | 0.9976 | 0.9973 | 0.9971 | 0.9969 | 0.9965 | 0.9962 | 0.9958 | 0.9953 |
| 78 | 0.9987 | 0.9987 | 0.9986 | 0.9985 | 0.9985 | 0.9983 | 0.9982 | 0.9980 | 0.9979 | 0.9977 | 0.9975 | 0.9972 | 0.9970 | 0.9968 | 0.9964 | 0.9960 | 0.9955 |
| 79 | 0.9988 | 0.9987 | 0.9987 | 0.9986 | 0.9986 | 0.9984 | 0.9983 | 0.9982 | 0.9980 | 0.9979 | 0.9976 | 0.9974 | 0.9972 | 0.9969 | 0.9966 | 0.9962 | 0.9958 |
| 80 | 0.9989 | 0.9988 | 0.9987 | 0.9987 | 0.9987 | 0.9985 | 0.9983 | 0.9983 | 0.9981 | 0.9979 | 0.9978 | 0.9975 | 0.9973 | 0.9971 | 0.9968 | 0.9964 | 0.9960 |
| 81 | 0.9990 | 0.9989 | 0.9988 | 0.9987 | 0.9987 | 0.9986 | 0.9984 | 0.9983 | 0.9982 | 0.9981 | 0.9979 | 0.9977 | 0.9975 | 0.9972 | 0.9970 | 0.9966 | 0.9962 |
| 82 | 0.9990 | 0.9990 | 0.9989 | 0.9988 | 0.9988 | 0.9986 | 0.9985 | 0.9985 | 0.9983 | 0.9982 | 0.9980 | 0.9978 | 0.9976 | 0.9974 | 0.9971 | 0.9968 | 0.9965 |
| 83 | 0.9990 | 0.9990 | 0.9990 | 0.9989 | 0.9988 | 0.9987 | 0.9986 | 0.9986 | 0.9983 | 0.9983 | 0.9981 | 0.9979 | 0.9978 | 0.9975 | 0.9973 | 0.9970 | 0.9966 |
| 84 | 0.9991 | 0.9990 | 0.9990 | 0.9989 | 0.9989 | 0.9988 | 0.9986 | 0.9986 | 0.9985 | 0.9984 | 0.9982 | 0.9981 | 0.9978 | 0.9977 | 0.9974 | 0.9972 | 0.9969 |
| 85 | 0.9991 | 0.9991 | 0.9990 | 0.9990 | 0.9990 | 0.9989 | 0.9987 | 0.9987 | 0.9986 | .998 | 0.9983 | 0.9982 | 0.9980 | 0.997 | 0.9976 | 0.9973 | 0.9970 |

## TABLE M

Conversion from Single Life to 50\% Joint and Survivor with Pop-Up CECONY Weekly Participants -1

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 |

 $\begin{array}{lllllllllllllllllllllllll}0.9646 & 0.9618 & 0.9588 & 0.9555 & 0.9522 & 0.9485 & 0.9446 & 0.9405 & 0.9362 & 0.9316 & 0.9268 & 0.9216 & 0.9161 & 0.9104 & 0.9041 & 0.8976 & 0.8905\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9652 & 0.9623 & 0.9594 & 0.9561 & 0.9527 & 0.9491 & 0.9453 & 0.9412 & 0.9369 & 0.9323 & 0.9275 & 0.9224 & 0.9169 & 0.9111 & 0.9049 & 0.8984 & 0.8914\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9658 & 0.9630 & 0.9600 & 0.9567 & 0.9534 & 0.9498 & 0.9459 & 0.9419 & 0.9376 & 0.9331 & 0.9283 & 0.9232 & 0.9177 & 0.9119 & 0.9057 & 0.8992 & 0.8922\end{array}$ $\begin{array}{llllllllllllllllllll}0.9664 & 0.9636 & 0.9606 & 0.9574 & 0.9541 & 0.9505 & 0.9467 & 0.9427 & 0.9384 & 0.9338 & 0.9291 & 0.9240 & 0.9185 & 0.9128 & 0.9066 & 0.9001 & 0.8931\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9670 & 0.9643 & 0.9613 & 0.9581 & 0.9548 & 0.9513 & 0.9474 & 0.9434 & 0.9392 & 0.9347 & 0.9300 & 0.9249 & 0.9194 & 0.9137 & 0.9075 & 0.9010 & 0.8940\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9676 & 0.9649 & 0.9620 & 0.9588 & 0.9556 & 0.9520 & 0.9482 & 0.9442 & 0.9400 & 0.9355 & 0.9308 & 0.9258 & 0.9203 & 0.9146 & 0.9085 & 0.9020 & 0.8951\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9683 & 0.9656 & 0.9627 & 0.9596 & 0.9563 & 0.9528 & 0.9490 & 0.9451 & 0.9409 & 0.9364 & 0.9317 & 0.9267 & 0.9212 & 0.9156 & 0.9094 & 0.9030 & 0.8961\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9690 & 0.9663 & 0.9634 & 0.9603 & 0.9571 & 0.9536 & 0.9499 & 0.9459 & 0.9418 & 0.9373 & 0.9327 & 0.9277 & 0.9223 & 0.9166 & 0.9105 & 0.9041 & 0.8972\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9696 & 0.9670 & 0.9642 & 0.9611 & 0.9579 & 0.9545 & 0.9508 & 0.9469 & 0.9427 & 0.9383 & 0.9337 & 0.9287 & 0.9233 & 0.9177 & 0.9116 & 0.9052 & 0.8983\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9703 & 0.9677 & 0.9649 & 0.9619 & 0.9587 & 0.9553 & 0.9517 & 0.9478 & 0.9437 & 0.9393 & 0.9347 & 0.9298 & 0.9244 & 0.9189 & 0.9128 & 0.9064 & 0.8995\end{array}$ $\begin{array}{llllllllllllllllllll}0.9711 & 0.9684 & 0.9657 & 0.9627 & 0.9596 & 0.9562 & 0.9526 & 0.9488 & 0.9447 & 0.9404 & 0.9358 & 0.9309 & 0.9256 & 0.9200 & 0.9140 & 0.9077 & 0.9008\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9717 & 0.9692 & 0.9665 & 0.9635 & 0.9605 & 0.9572 & 0.9535 & 0.9498 & 0.9457 & 0.9414 & 0.9369 & 0.9320 & 0.9268 & 0.9212 & 0.9152 & 0.9089 & 0.9021\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9725 & 0.9700 & 0.9673 & 0.9644 & 0.9614 & 0.9581 & 0.9545 & 0.9508 & 0.9468 & 0.9426 & 0.9380 & 0.9332 & 0.9280 & 0.9225 & 0.9166 & 0.9103 & 0.9035\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9732 & 0.9707 & 0.9681 & 0.9652 & 0.9623 & 0.9590 & 0.9556 & 0.9519 & 0.9479 & 0.9437 & 0.9392 & 0.9344 & 0.9293 & 0.9238 & 0.9179 & 0.9116 & 0.9049\end{array}$ $\begin{array}{lllllllllllllllllll}0.9740 & 0.9716 & 0.9690 & 0.9661 & 0.9632 & 0.9600 & 0.9565 & 0.9529 & 0.9490 & 0.9448 & 0.9404 & 0.9357 & 0.9305 & 0.9252 & 0.9193 & 0.9131 & 0.9064\end{array}$ $\begin{array}{lllllllllllllllllll}0.9747 & 0.9723 & 0.9698 & 0.9670 & 0.9642 & 0.9610 & 0.9576 & 0.9541 & 0.9502 & 0.9460 & 0.9417 & 0.9370 & 0.9319 & 0.9266 & 0.9207 & 0.9146 & 0.9079\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9755 & 0.9731 & 0.9706 & 0.9679 & 0.9651 & 0.9620 & 0.9586 & 0.9551 & 0.9514 & 0.9473 & 0.9430 & 0.9384 & 0.9333 & 0.9280 & 0.9222 & 0.9161 & 0.9095\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9762 & 0.9740 & 0.9715 & 0.9688 & 0.9660 & 0.9631 & 0.9597 & 0.9563 & 0.9525 & 0.9486 & 0.9443 & 0.9398 & 0.9347 & 0.9295 & 0.9238 & 0.9177 & 0.9112\end{array}$ $\begin{array}{lllllllllllllllll}0.9769 & 0.9747 & 0.9724 & 0.9698 & 0.9670 & 0.9640 & 0.9609 & 0.9574 & 0.9537 & 0.9499 & 0.9456 & 0.9411 & 0.9362 & 0.9311 & 0.9254 & 0.9194 & 0.9129\end{array}$ $\begin{array}{llllllllllllllllllll}0.9777 & 0.9756 & 0.9732 & 0.9707 & 0.9680 & 0.9651 & 0.9619 & 0.9586 & 0.9550 & 0.9512 & 0.9470 & 0.9426 & 0.9377 & 0.9326 & 0.9270 & 0.9211 & 0.9147\end{array}$ $\begin{array}{llllllllllllllllll}0.9784 & 0.9763 & 0.9741 & 0.9716 & 0.9690 & 0.9662 & 0.9631 & 0.9598 & 0.9563 & 0.9525 & 0.9484 & 0.9441 & 0.9393 & 0.9342 & 0.9287 & 0.9229 & 0.9165\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9792 & 0.9772 & 0.9749 & 0.9725 & 0.9700 & 0.9672 & 0.9641 & 0.9610 & 0.9575 & 0.9538 & 0.9498 & 0.9455 & 0.9408 & 0.9359 & 0.9304 & 0.9247 & 0.9183\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9799 & 0.9779 & 0.9758 & 0.9734 & 0.9710 & 0.9682 & 0.9653 & 0.9621 & 0.9588 & 0.9551 & 0.9512 & 0.9470 & 0.9424 & 0.9375 & 0.9322 & 0.9265 & 0.9203\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9806 & 0.9787 & 0.9766 & 0.9743 & 0.9719 & 0.9693 & 0.9664 & 0.9634 & 0.9600 & 0.9565 & 0.9527 & 0.9485 & 0.9440 & 0.9392 & 0.9339 & 0.9283 & 0.9222\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9813 & 0.9795 & 0.9775 & 0.9752 & 0.9729 & 0.9703 & 0.9675 & 0.9645 & 0.9613 & 0.9579 & 0.9541 & 0.9500 & 0.9456 & 0.9409 & 0.9357 & 0.9302 & 0.9242\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9821 & 0.9803 & 0.9783 & 0.9761 & 0.9738 & 0.9714 & 0.9686 & 0.9658 & 0.9626 & 0.9592 & 0.9556 & 0.9516 & 0.9473 & 0.9426 & 0.9376 & 0.9322 & 0.9263\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9828 & 0.9810 & 0.9791 & 0.9770 & 0.9748 & 0.9724 & 0.9698 & 0.9669 & 0.9638 & 0.9606 & 0.9570 & 0.9532 & 0.9489 & 0.9444 & 0.9394 & 0.9341 & 0.9283\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9834 & 0.9817 & 0.9799 & 0.9779 & 0.9758 & 0.9734 & 0.9709 & 0.9681 & 0.9652 & 0.9619 & 0.9585 & 0.9547 & 0.9506 & 0.9462 & 0.9413 & 0.9361 & 0.9304\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9841 & 0.9824 & 0.9807 & 0.9787 & 0.9767 & 0.9744 & 0.9719 & 0.9693 & 0.9664 & 0.9633 & 0.9600 & 0.9563 & 0.9523 & 0.9480 & 0.9432 & 0.9381 & 0.9326\end{array}$ $\begin{array}{llllllllllllllllllll}0.9847 & 0.9832 & 0.9815 & 0.9796 & 0.9776 & 0.9754 & 0.9730 & 0.9705 & 0.9677 & 0.9646 & 0.9614 & 0.9578 & 0.9539 & 0.9497 & 0.9451 & 0.9402 & 0.9346\end{array}$

## TABLE M

Conversion from Single Life to 50\% Joint and Survivor with Pop-Up CECONY Weekly Participants -1

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 |

56
$\begin{array}{lllllllllllllllllll}0.9854 & 0.9839 & 0.9822 & 0.9804 & 0.9785 & 0.9764 & 0.9741 & 0.9716 & 0.9689 & 0.9659 & 0.9628 & 0.9594 & 0.9556 & 0.9515 & 0.9470 & 0.9422 & 0.9368\end{array}$ $\begin{array}{llllllllllllllllllllllllllll}0.9860 & 0.9845 & 0.9829 & 0.9812 & 0.9794 & 0.9774 & 0.9751 & 0.9727 & 0.9701 & 0.9673 & 0.9643 & 0.9609 & 0.9572 & 0.9533 & 0.9488 & 0.9442 & 0.9390\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9866 & 0.9852 & 0.9837 & 0.9820 & 0.9803 & 0.9783 & 0.9761 & 0.9738 & 0.9713 & 0.9686 & 0.9657 & 0.9624 & 0.9589 & 0.9550 & 0.9508 & 0.9462 & 0.9411\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9871 & 0.9858 & 0.9844 & 0.9827 & 0.9810 & 0.9792 & 0.9771 & 0.9749 & 0.9725 & 0.9698 & 0.9671 & 0.9640 & 0.9605 & 0.9568 & 0.9527 & 0.9482 & 0.9433\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9877 & 0.9864 & 0.9850 & 0.9835 & 0.9819 & 0.9801 & 0.9781 & 0.9760 & 0.9737 & 0.9711 & 0.9684 & 0.9654 & 0.9620 & 0.9585 & 0.9545 & 0.9502 & 0.9454\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9883 & 0.9870 & 0.9857 & 0.9842 & 0.9827 & 0.9810 & 0.9790 & 0.9770 & 0.9748 & 0.9724 & 0.9698 & 0.9669 & 0.9637 & 0.9602 & 0.9563 & 0.9522 & 0.9476\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9888 & 0.9877 & 0.9863 & 0.9849 & 0.9835 & 0.9818 & 0.9800 & 0.9780 & 0.9759 & 0.9736 & 0.9711 & 0.9683 & 0.9652 & 0.9619 & 0.9581 & 0.9541 & 0.9497\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9893 & 0.9882 & 0.9870 & 0.9856 & 0.9842 & 0.9826 & 0.9808 & 0.9790 & 0.9770 & 0.9747 & 0.9724 & 0.9697 & 0.9667 & 0.9636 & 0.9600 & 0.9561 & 0.9518\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9898 & 0.9888 & 0.9876 & 0.9862 & 0.9849 & 0.9834 & 0.9817 & 0.9799 & 0.9780 & 0.9759 & 0.9736 & 0.9710 & 0.9681 & 0.9651 & 0.9617 & 0.9579 & 0.9538\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9903 & 0.9893 & 0.9881 & 0.9869 & 0.9856 & 0.9841 & 0.9826 & 0.9809 & 0.9790 & 0.9770 & 0.9748 & 0.9724 & 0.9696 & 0.9667 & 0.9634 & 0.9599\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9908 & 0.9898 & 0.9888 & 0.9875 & 0.9863 & 0.9849 & 0.9834 & 0.9818 & 0.9800 & 0.9780 & 0.9759 & 0.9736 & 0.9710 & 0.9683 & 0.9650 & 0.9616 & 0.9578\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9912 & 0.9903 & 0.9892 & 0.9881 & 0.9869 & 0.9856 & 0.9842 & 0.9826 & 0.9809 & 0.9791 & 0.9771 & 0.9749 & 0.9723 & 0.9698 & 0.9667 & 0.9634 & 0.9597\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9916 & 0.9908 & 0.9898 & 0.9887 & 0.9876 & 0.9863 & 0.9849 & 0.9835 & 0.9819 & 0.9801 & 0.9782 & 0.9761 & 0.9737 & 0.9712 & 0.9683 & 0.9652 & 0.9616\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9921 & 0.9912 & 0.9903 & 0.9892 & 0.9882 & 0.9870 & 0.9856 & 0.9843 & 0.9828 & 0.9810 & 0.9793 & 0.9773 & 0.9750 & 0.9726 & 0.9698 & 0.9668 & 0.9634\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9925 & 0.9916 & 0.9908 & 0.9898 & 0.9888 & 0.9876 & 0.9863 & 0.9850 & 0.9836 & 0.9820 & 0.9803 & 0.9784 & 0.9763 & 0.9740 & 0.9712 & 0.9685 & 0.9652\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9929 & 0.9920 & 0.9912 & 0.9903 & 0.9893 & 0.9883 & 0.9871 & 0.9857 & 0.9844 & 0.9829 & 0.9813 & 0.9795 & 0.9774 & 0.9752 & 0.9727 & 0.9700 & 0.9669\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9932 & 0.9925 & 0.9917 & 0.9907 & 0.9899 & 0.9888 & 0.9877 & 0.9865 & 0.9852 & 0.9837 & 0.9823 & 0.9805 & 0.9786 & 0.9765 & 0.9741 & 0.9716 & 0.9685\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9936 & 0.9929 & 0.9921 & 0.9912 & 0.9904 & 0.9894 & 0.9883 & 0.9872 & 0.9859 & 0.9846 & 0.9832 & 0.9815 & 0.9797 & 0.9777 & 0.9754 & 0.9730 & 0.9702\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9939 & 0.9932 & 0.9925 & 0.9917 & 0.9908 & 0.9900 & 0.9889 & 0.9878 & 0.9867 & 0.9854 & 0.9840 & 0.9825 & 0.9807 & 0.9788 & 0.9767 & 0.9744 & 0.9718\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9943 & 0.9936 & 0.9929 & 0.9921 & 0.9913 & 0.9904 & 0.9895 & 0.9884 & 0.9873 & 0.9861 & 0.9848 & 0.9834 & 0.9817 & 0.9800 & 0.9779 & 0.9758\end{array}$ 0.99450 .99390 .99320 .99250 .99180 .99090 .99000 .98910 .98800 .98690 .98570 .98420 .98270 .98110 .97910 .97700 .9746 $\begin{array}{lllllllllllllllllllll}0.9948 & 0.9942 & 0.9936 & 0.9929 & 0.9922 & 0.9914 & 0.9905 & 0.9896 & 0.9886 & 0.9875 & 0.9864 & 0.9851 & 0.9836 & 0.9821 & 0.9802 & 0.9783 & 0.9760\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9951 & 0.9945 & 0.9940 & 0.9933 & 0.9927 & 0.9919 & 0.9910 & 0.9902 & 0.9892 & 0.9882 & 0.9871 & 0.9859 & 0.9845 & 0.9830 & 0.9813 & 0.9794 & 0.9773\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9954 & 0.9949 & 0.9943 & 0.9937 & 0.9930 & 0.9923 & 0.9915 & 0.9907 & 0.9898 & 0.9889 & 0.9878 & 0.9867 & 0.9853 & 0.9840 & 0.9823 & 0.9806 & 0.9786\end{array}$ $\begin{array}{llllllllllllllllllllllllllll}0.9957 & 0.9952 & 0.9946 & 0.9940 & 0.9934 & 0.9927 & 0.9920 & 0.9912 & 0.9904 & 0.9894 & 0.9885 & 0.9874 & 0.9861 & 0.9848 & 0.9838\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9959 & 0.9954 & 0.9949 & 0.9943 & 0.9938 & 0.9931 & 0.9924 & 0.9917 & 0.9909 & 0.9900 & 0.9891 & 0.9880 & 0.9869 & 0.9857 & 0.9842 & 0.9827 & 0.9809\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9961 & 0.9956 & 0.9952 & 0.9946 & 0.9941 & 0.9935 & 0.9928 & 0.9921 & 0.9913 & 0.9905 & 0.9897 & 0.9887 & 0.9876 & 0.9865 & 0.9851 & 0.9836 & 0.9820\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9964 & 0.9960 & 0.9955 & 0.9949 & 0.9944 & 0.9938 & 0.9932 & 0.9926 & 0.9918 & 0.9910 & 0.9903 & 0.9894 & 0.9883 & 0.9872 & 0.9859 & 0.9846\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9965 & 0.9962 & 0.9958 & 0.9952 & 0.9948 & 0.9942 & 0.9936 & 0.9930 & 0.9923 & 0.9915 & 0.9908 & 0.9900 & 0.9889 & 0.9880 & 0.9867 & 0.9855 & 0.9840\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9968 & 0.9964 & 0.9960 & 0.9955 & 0.9951 & 0.9945 & 0.9939 & 0.9933 & 0.9927 & 0.9920 & 0.9913 & 0.9906 & 0.9896 & 0.9887 & 0.9875 & 0.9864 & 0.9849\end{array}$

## TABLE M

Conversion from Single Life to 50\% Joint and Survivor with Pop-Up CECONY Weekly Participants -1

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |

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0.88220 .87440 .86580 .85700 .84750 .83750 .82710 .81610 .80460 .79260 .78000 .76700 .75350 .73940 .72480 .70970 .6942 0.88300 .87510 .86660 .85780 .84840 .83840 .82800 .81690 .80540 .79340 .78080 .76780 .75430 .74020 .72570 .71050 .6950 0.88380 .87600 .86750 .85860 .84920 .83930 .82880 .81780 .80630 .79430 .7818 0.7688 0.75520 .74110 .72660 .71140 .6959 0.88470 .87680 .86840 .85950 .85010 .84010 .82980 .81870 .80730 .79520 .78270 .76970 .75610 .74210 .72750 .71240 .6969 0.88560 .87770 .86930 .86050 .85100 .84120 .83070 .81970 .80820 .79620 .78370 .77070 .75720 .74310 .72850 .71330 .6979 0.88660 .87870 .87030 .86150 .85210 .84220 .83180 .82070 .80930 .79730 .78470 .77180 .75830 .74420 .72950 .71440 .6989 0.88760 .87980 .87140 .86250 .85320 .84320 .83290 .82190 .81040 .79840 .78590 .77290 .75940 .74530 .73070 .71560 .7001
 0.88980 .88200 .87360 .86480 .85540 .84560 .83520 .82430 .81290 .80080 .78830 .77540 .76190 .74780 .73320 .71800 .7025 0.89100 .88320 .87490 .86610 .85670 .84690 .83650 .82550 .81420 .80220 .78970 .77670 .76320 .74910 .73460 .71940 .7039
 0.89340 .88570 .87750 .86870 .85940 .84960 .83930 .82840 .81700 .80500 .79260 .77960 .76620 .75210 .73750 .72230 .7069 0.89480 .88710 .87890 .87010 .86090 .85110 .84080 .82990 .81860 .80660 .79410 .78120 .76770 .75370 .73910 .72400 .7085 0.89620 .88860 .88030 .87160 .86240 .85270 .84240 .83150 .82020 .80820 .79580 .78290 .76940 .75540 .74080 .72570 .7102 0.89770 .89010 .88190 .87320 .86400 .85430 .84400 .83320 .82180 .80990 .79750 .78460 .77120 .75710 .74260 .72740 .7120
 0.90080 .89320 .88520 .87660 .86750 .85780 .84760 .8368 0.8256 0.81370 .80130 .78850 .77500 .76100 .74650 .73140 .7159 0.90240 .89490 .88690 .87840 .86930 .85970 .84950 .83870 .82750 .81570 .80330 .79050 .77710 .76310 .74860 .73350 .7180 $\begin{array}{llllllllllllllllllllllllllll}0.9042 & 0.8967 & 0.8887 & 0.8802 & 0.8712 & 0.8616 & 0.8515 & 0.8408 & 0.8296 & 0.8177 & 0.8055 & 0.7926 & 0.7793 & 0.7653 & 0.7508 & 0.7357 & 0.7203\end{array}$ 0.90600 .89850 .89060 .88220 .87320 .86360 .85360 .84290 .83170 .81990 .80770 .79490 .78150 .76760 .75310 .73800 .7226 0.90780 .90040 .89250 .88420 .87520 .86570 .85570 .84510 .83400 .82220 .81000 .79720 .78390 .77000 .75560 .74050 .7251 $\begin{array}{lllllllllllllllllllllllll}0.9097 & 0.9024 & 0.8946 & 0.8863 & 0.8774 & 0.8679 & 0.8579 & 0.8474 & 0.8364 & 0.8246 & 0.8124 & 0.7997 & 0.7864 & 0.7726 & 0.7581 & 0.7431 & 0.7276\end{array}$ 0.91160 .90440 .89660 .88840 .87960 .87020 .86030 .84980 .83870 .82710 .81500 .80230 .78910 .77520 .76080 .74580 .7304 0.91360 .90640 .89880 .89060 .88190 .87250 .86280 .85230 .84130 .82970 .81760 .80500 .79180 .77800 .76360 .74870 .7333 0.91560 .90850 .90100 .89290 .88420 .87500 .86530 .85490 .84400 .83250 .82040 .8078 0.7947 0.78090 .76660 .75160 .7363 0.91770 .91080 .90330 .89530 .88670 .87750 .86790 .85760 .84670 .83530 .82330 .81080 .79770 .78400 .76970 .75480 .7394 0.91990 .91300 .90560 .89770 .88920 .88010 .87060 .86030 .84960 .83820 .82630 .81380 .80080 .78720 .77290 .75810 .7428 0.92200 .91530 .90800 .90010 .89180 .88280 .87330 .86320 .85250 .84120 .82940 .81700 .80410 .79050 .77630 .76150 .7463 0.92420 .91760 .91040 .90270 .89440 .88550 .87620 .86620 .85560 .84440 .83270 .82040 .80750 .79400 .77990 .76500 .7499 $\begin{array}{llllllllllllllllllllllllll}0.9265 & 0.9199 & 0.9129 & 0.9053 & 0.8971 & 0.8884 & 0.8791 & 0.8692 & 0.8587 & 0.8476 & 0.8360 & 0.8238 & 0.8110 & 0.7976 & 0.7835 & 0.7688 & 0.7537\end{array}$ $\begin{array}{lllllllllllllllllllllllllll}0.9287 & 0.9224 & 0.9154 & 0.9079 & 0.8998 & 0.8912 & 0.8821 & 0.8724 & 0.8620 & 0.8510 & 0.8395 & 0.8274 & 0.8147 & 0.8013 & 0.7873 & 0.7727 & 0.7576\end{array}$

## TABLE M

Conversion from Single Life to 50\% Joint and Survivor with Pop-Up CECONY Weekly Participants -1

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
| 56 | 0.9310 | 0.9247 | 0.9179 | 0.9106 | 0.9027 | 0.8942 | 0.8852 | 0.8756 | 0.8653 | 0.8545 | 0.8430 | 0.8311 | 0.8184 | 0.8052 | 0.7913 | 0.7768 | 0.7618 |
| 57 | 0.9333 | 0.9272 | 0.9204 | 0.9133 | 0.9055 | 0.8972 | 0.8883 | 0.8788 | 0.8687 | 0.8579 | 0.8467 | 0.8348 | 0.8223 | 0.8092 | 0.7955 | 0.7810 | 0.7661 |
| 58 | 0.9356 | 0.9296 | 0.9231 | 0.9160 | 0.9084 | 0.9002 | 0.8915 | 0.8821 | 0.8722 | 0.8616 | 0.8505 | 0.8387 | 0.8264 | 0.8133 | 0.7997 | 0.7854 | 0.7706 |
| 59 | 0.9379 | 0.9320 | 0.9256 | 0.9188 | 0.9113 | 0.9033 | 0.8948 | 0.8855 | 0.8758 | 0.8653 | 0.8544 | 0.8428 | 0.8305 | 0.8176 | 0.8041 | 0.7899 | 0.7752 |
| 60 | 0.9402 | 0.9345 | 0.9283 | 0.9216 | 0.9142 | 0.9064 | 0.8980 | 0.8889 | 0.8793 | 0.8691 | 0.8583 | 0.8469 | 0.8348 | 0.8220 | 0.8086 | 0.7945 | 0.7800 |
| 61 | 0.9424 | 0.9369 | 0.9309 | 0.9244 | 09172 | 0.9095 | 0.9013 | 0.8924 | 0.8830 | 0.8729 | 0.8622 | 0.8510 | 0.8391 | 0.8265 | 0.8133 | 0.7993 | 0.7849 |
| 62 | 0.9448 | 0.9394 | 0.9335 | 0.9272 | 0.9202 | 0.9127 | 0.9046 | 0.8959 | 0.8867 | 0.8768 | 0.8663 | 0.8552 | 0.8435 | 0.8311 | 0.8181 | 0.8042 | 0.7899 |
| 63 | 0.9469 | 0.9418 | 0.9361 | 0.9299 | 0.9232 | 0.9158 | 0.9079 | 0.8994 | 0.8904 | 0.8807 | 0.8704 | 0.8595 | 0.8480 | 0.8357 | 0.8229 | 0.8093 | 0.7951 |
| 64 | 0.9492 | 0.9442 | 0.9386 | 0.9326 | 0.9261 | 0.9189 | 0.9113 | 0.9030 | 0.8941 | 0.8846 | 0.8745 | 0.8638 | 0.8525 | 0.8405 | 0.8278 | 0.8143 | 0.8004 |
| 65 | 0.9513 | 0.9465 | 0.9412 | 0.9354 | 0.9289 | 0.9220 | 0.9146 | 0.9065 | 0.8978 | 0.8886 | 0.8787 | 0.8682 | 0.8572 | 0.8453 | 0.8328 | 0.8196 | 0.8058 |
| 66 | 0.9535 | 0.9489 | 0.9437 | 0.9381 | 0.9318 | 0.9251 | 0.9179 | 0.9101 | 0.9016 | 0.8925 | 0.8829 | 0.8726 | 0.8618 | 0.8501 | 0.8379 | 0.8248 | 0.8113 |
| 67 | 0.9556 | 0.9511 | 0.9461 | 0.9407 | 0.9347 | 0.9282 | 0.9212 | 0.9135 | 0.9054 | 0.8965 | 0.8870 | 0.8770 | 0.8664 | 0.8551 | 0.8430 | 0.8302 | 0.8169 |
| 68 | 0.9577 | 0.9533 | 0.9485 | 0.9433 | 0.9375 | 0.9312 | 0.9244 | 0.9170 | 0.9091 | 0.9004 | 0.8912 | 0.8814 | 0.8711 | 0.8599 | 0.8481 | 0.8355 | 0.8225 |
| 69 | 0.9596 | 0.9555 | 0.9509 | 0.9459 | 0.9403 | 0.9342 | 0.9276 | 0.9204 | 0.9127 | 0.9044 | 0.8954 | 0.8859 | 0.8758 | 0.8649 | 0.8533 | 0.8410 | 0.8282 |
| 70 | 0.9615 | 0.9576 | 0.9532 | 0.9483 | 0.9430 | 0.9371 | 0.9307 | 0.9238 | 0.9163 | 0.9082 | 0.8995 | 0.8902 | 0.8804 | 0.8697 | 0.8585 | 0.8464 | 0.8339 |
| 71 | 0.9634 | 0.9597 | 0.9554 | 0.9507 | 0.9456 | 0.9399 | 0.9338 | 0.9271 | 0.9199 | 0.9120 | 0.9037 | 0.8946 | 0.8850 | 0.8746 | 0.8637 | 0.8518 | 0.8395 |
| 72 | 0.9653 | 0.9616 | 0.9576 | 0.9532 | 0.9482 | 0.9428 | 0.9368 | 0.9303 | 0.9234 | 0.9158 | 0.9076 | 0.8989 | 0.8896 | 0.8795 | 0.8688 | 0.8573 | 0.8453 |
| 73 | 0.9670 | 0.9636 | 0.9597 | 0.9555 | 0.9507 | 0.9455 | 0.9398 | 0.9336 | 0.9269 | 0.9195 | 0.9116 | 0.9032 | 0.8941 | 0.8843 | 0.8739 | 0.8627 | 0.8510 |
| 74 | 0.9687 | 0.9654 | 0.9617 | 0.9577 | 0.9531 | 0.9481 | 0.9427 | 0.9367 | 0.9302 | 0.9231 | 0.9155 | 0.9074 | 0.8986 | 0.8891 | 0.8789 | 0.8681 | 0.8567 |
| 75 | 0.9704 | 0.9672 | 0.9637 | 0.9598 | 0.9555 | 0.9507 | 0.9455 | 0.9397 | 0.9335 | 0.9267 | 0.9193 | 0.9115 | 0.9030 | 0.8938 | 0.8840 | 0.8734 | 0.8623 |
| 76 | 0.9720 | 0.9690 | 0.9656 | 0.9619 | 0.9578 | 0.9532 | 0.9482 | 0.9427 | 0.9367 | 0.9301 | 0.9231 | 0.9155 | 0.9073 | 0.8984 | 0.8889 | 0.8786 | 0.8678 |
| 77 | 0.9735 | 0.9706 | 0.9674 | 0.9639 | 0.9599 | 0.9555 | 0.9508 | 0.9455 | 0.9398 | 0.9334 | 0.9267 | 0.9194 | 0.9115 | 0.9029 | 0.8937 | 0.8837 | 0.8733 |
| 78 | 0.9749 | 0.9722 | 0.9692 | 0.9659 | 0.9620 | 0.9579 | 0.9534 | 0.9482 | 0.9427 | 0.9367 | 0.9303 | 0.9232 | 0.9156 | 0.9073 | 0.8984 | 0.8888 | 0.8786 |
| 79 | 0.9762 | 0.9738 | 0.9708 | 0.9676 | 0.9641 | 0.9601 | 0.9557 | 0.9510 | 0.9457 | 0.9399 | 0.9337 | 0.9269 | 0.9196 | 0.9116 | 0.9031 | 0.8937 | 0.8840 |
| 80 | 0.9776 | 0.9752 | 0.9725 | 0.9695 | 0.9660 | 0.9622 | 0.9581 | 0.9535 | 0.9484 | 0.9430 | 0.9369 | 0.9305 | 0.9235 | 0.9158 | 0.9075 | 0.8986 | 0.8891 |
| 81 | 0.9788 | 0.9766 | 0.9740 | 0.9711 | 0.9679 | 0.9642 | 0.9604 | 0.9559 | 0.9512 | 0.9459 | 0.9402 | 0.9340 | 0.9272 | 0.9199 | 0.9120 | 0.9033 | 0.8941 |
| 82 | 0.9800 | 0.9779 | 0.9754 | 0.9727 | 0.9696 | 0.9662 | 0.9625 | 0.9583 | 0.9538 | 0.9487 | 0.9433 | 0.9374 | 0.9309 | 0.9239 | 0.9162 | 0.9079 | 0.8991 |
| 83 | 0.9812 | 0.9791 | 0.9768 | 0.9743 | 0.9714 | 0.9682 | 0.9647 | 0.9606 | 0.9563 | 0.9515 | 0.9463 | 0.9406 | 0.9345 | 0.9278 | 0.9204 | 0.9124 | 0.9039 |
| 84 | 0.9822 | 0.9804 | 0.9782 | 0.9758 | 0.9731 | 0.9700 | 0.9666 | 0.9629 | 0.9587 | 0.9541 | 0.9492 | 0.9438 | 0.9379 | 0.9315 | 0.9245 | 0.9168 | 0.9087 |
| 85 | 0.9833 | 0.9815 | 0.9795 | 0.9772 | 0.9746 | 0.9717 | 0.9686 | 0.9650 | 0.9611 | 0.9567 | 0.9520 | 0.9469 | 0.9413 | 0.9351 | 0.9284 | 0.9210 | 0.9132 |

## TABLE N

## Conversion from Single Life to

50\% Joint and Survivor Without Pop-Up CECONY Weekly Participants -1


## 26

0.99100 .99030 .98940 .98850 .98760 .98650 .98530 .98410 .98260 .98120 .97960 .97790 .97600 .97410 .97190 .96960 .9671 0.99120 .99050 .98970 .98870 .98780 .98680 .98560 .98440 .98300 .98160 .98010 .97830 .97650 .97460 .97240 .97010 .9676 0.99140 .99080 .98990 .98900 .98810 .98720 .98590 .98480 .98340 .98200 .98040 .97870 .97700 .97500 .97290 .97060 .9682 0.99170 .99100 .99020 .98930 .98850 .98740 .98630 .98520 .98380 .98250 .98100 .97930 .97750 .97550 .97350 .97120 .9688 0.99200 .99130 .99050 .98960 .98880 .98780 .98670 .98550 .98420 .98290 .98140 .97970 .97800 .97610 .97400 .97180 .9694 0.99220 .99150 .99080 .98990 .98920 .98820 .98700 .98600 .98460 .98340 .9818 0.9802 0.97850 .97660 .97460 .97240 .9700 0.99250 .99180 .99100 .99030 .98950 .98850 .98740 .98630 .98500 .98380 .98240 .98070 .97900 .97720 .97520 .97300 .9706 0.99270 .99200 .99130 .99060 .98980 .98880 .98780 .98670 .98550 .98430 .9828 0.9812 0.97950 .97770 .97580 .97370 .9713 0.99290 .99230 .99160 .99090 .99010 .98920 .98810 .98720 .98590 .98470 .98330 .98180 .98010 .97830 .97640 .97430 .9720 0.99310 .99250 .99190 .99120 .99040 .98960 .98850 .98750 .98630 .98510 .98380 .98230 .98070 .97890 .97700 .97490 .9727 0.99340 .99280 .99210 .99150 .99070 .98990 .98890 .98800 .98670 .98560 .98430 .98280 .98120 .97950 .97760 .97560 .9734 0.99360 .99300 .99240 .99180 .99110 .99020 .98930 .98830 .98720 .98610 .9848 0.9833 0.98180 .98010 .97830 .97630 .9741 0.99390 .99330 .99270 .99210 .99140 .99060 .98960 .98870 .98760 .98650 .98520 .9838 0.9824 0.98070 .97890 .97700 .9749 0.99410 .99360 .99300 .99230 .99170 .99090 .99000 .98910 .98810 .98700 .98580 .98440 .98300 .98130 .97960 .97770 .9755 0.99430 .99380 .99320 .99260 .99200 .99130 .99040 .98950 .98840 .98740 .98630 .98500 .98350 .98200 .98030 .97840 .9763 0.99450 .99400 .99350 .99290 .99230 .99160 .99070 .98990 .98890 .98790 .98670 .98550 .98410 .98260 .98090 .97910 .9770 0.99470 .99420 .99380 .99320 .99260 .99190 .99110 .99030 .98930 .98840 .98720 .98600 .98470 .98320 .98160 .97980 .9779 0.99490 .99440 .99400 .99350 .99290 .99220 .99150 .99070 .98970 .98890 .98770 .98650 .98520 .98380 .98220 .98050 .9786 0.99510 .99470 .99420 .99370 .99310 .99250 .99180 .99110 .99020 .98920 .98820 .98700 .9858 0.9845 0.98290 .98120 .9794 0.99530 .99490 .99440 .99400 .99340 .99280 .99210 .99140 .99050 .98970 .98870 .98760 .98630 .98510 .98360 .98190 .9801 0.99550 .99510 .99470 .99420 .99370 .99310 .99240 .99180 .99090 .99010 .98910 .98810 .98690 .98570 .98420 .98260 .9809 0.99570 .99530 .99490 .99440 .99400 .99340 .99280 .99210 .99130 .99060 .98960 .98850 .98740 .98620 .98480 .98330 .9816 0.99590 .99550 .99520 .99470 .99430 .99370 .99310 .99250 .99170 .99090 .99010 .98910 .98800 .98680 .98550 .98400 .9824 0.99610 .99570 .99530 .99490 .99460 .99400 .99340 .99280 .99210 .99140 .99050 .98950 .98850 .98740 .98610 .98470 .9831 0.99620 .99590 .99550 .99520 .99480 .99430 .99370 .99320 .99250 .99180 .99090 .99000 .98900 .98790 .98670 .98540 .9838 0.99640 .99610 .99580 .99540 .99500 .99450 .99400 .99350 .9928 0.9921 0.99140 .99050 .98960 .98850 .98730 .98600 .9845 0.99660 .99630 .99600 .99560 .99530 .99480 .99430 .99380 .99310 .99250 .99170 .99090 .99000 .98910 .98790 .98670 .9853 0.99670 .99640 .99610 .99580 .99550 .99510 .99460 .99410 .99340 .99290 .99220 .99140 .99050 .98960 .98850 .98730 .9860 0.99690 .99670 .99640 .99600 .99570 .99540 .99480 .99440 .99380 .99330 .99260 .9918 0.9910 0.99010 .98910 .98800 .9867 0.99700 .99680 .99650 .99620 .99600 .99560 .99510 .99470 .99410 .99360 .99290 .99220 .99140 .99060 .98960 .98850 .9873 0.99720 .99700 .99670 .99640 .99620 .99580 .99530 .99500 .99440 .99390 .99330 .99260 .99190 .99110 .99010 .98910 .9880

## TABLE N

## Conversion from Single Life to 50\% Joint and Survivor Without Pop-Up CECONY Weekly Participants -1

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 |

56

$\overline{0.9973} \overline{0.9971} \overline{0.9969} \overline{0.9966} \overline{0.9963} \overline{0.9960} \overline{0.9956} \overline{0.9953} \overline{0.9947}$|  |
| :---: |\(\overline{-9942} \begin{gathered}0.9937 <br>

0.9930 <br>
0.9924 <br>
0.9916 <br>
0.9907 <br>
0.9897 <br>
0.9886\end{gathered}\) 0.99750 .99730 .99700 .99680 .99660 .99630 .99590 .99550 .99500 .99460 .99400 .99340 .99270 .99200 .99120 .99020 .9892 $\begin{array}{llllllllllllllllllllll}0 & 0.9976 & 0.9974 & 0.9972 & 0.9969 & 0.9968 & 0.9965 & 0.9961 & 0.9958 & 0.9953 & 0.9949 & 0.9944 & 0.9937 & 0.9931 & 0.9925 & 0.9917 & 0.9908\end{array}$ 0.99770 .99750 .99740 .99710 .99690 .99660 .99630 .99600 .99550 .99520 .99470 .99410 .99360 .99290 .99220 .99130 .9903 0.99780 .99770 .99750 .99730 .99710 .99690 .99650 .99620 .99580 .99550 .99500 .99450 .99390 .99330 .99270 .99190 .9910 $\begin{array}{llllllllllllllllllllllll}0.9980 & 0.9978 & 0.9976 & 0.9975 & 0.9973 & 0.9971 & 0.9967 & 0.9965 & 0.9961 & 0.9958 & 0.9954 & 0.9948 & 0.9943 & 0.9938 & 0.9931 & 0.9923 & 0.9915\end{array}$ $\begin{array}{lllllllllllllllllllllllllll}0.9981 & 0.9980 & 0.9978 & 0.9976 & 0.9975 & 0.9972 & 0.9969 & 0.9967 & 0.9963 & 0.9961 & 0.9956 & 0.9952 & 0.9946 & 0.9942 & 0.9935 & 0.9928\end{array}$ $\begin{array}{llllllllllllllllllllllllllll}0.9982 & 0.9981 & 0.9979 & 0.9978 & 0.9976 & 0.9974 & 0.9971 & 0.9969 & 0.9965 & 0.9963 & 0.9959 & 0.9955 & 0.9950 & 0.9945 & 0.9940 & 0.9932\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9983 & 0.9982 & 0.9981 & 0.9979 & 0.9978 & 0.9976 & 0.9973 & 0.9971 & 0.9967 & 0.9965 & 0.9962 & 0.9958 & 0.9953 & 0.9948 & 0.9944 & 0.9937 & 0.9930\end{array}$ 0.99840 .99830 .99820 .99810 .99790 .99770 .99750 .99730 .99700 .99670 .99640 .99600 .99560 .99520 .99470 .99420 .9934 $\begin{array}{llllllllllllllllllllllll}0.9985 & 0.9984 & 0.9983 & 0.9981 & 0.9981 & 0.9979 & 0.9977 & 0.9975 & 0.9972 & 0.9970 & 0.9966 & 0.9963 & 0.9959 & 0.9955 & 0.9951 & 0.9946\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9986 & 0.9985 & 0.9984 & 0.9983 & 0.9982 & 0.9980 & 0.9978 & 0.9977 & 0.9973 & 0.9972 & 0.9970 & 0.9966 & 0.9962 & 0.9958 & 0.9954 & 0.9949 & 0.9944\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9987 & 0.9987 & 0.9985 & 0.9984 & 0.9984 & 0.9982 & 0.9980 & 0.9978 & 0.9976 & 0.9974 & 0.9971 & 0.9969 & 0.9965 & 0.9961 & 0.9957 & 0.9953\end{array}$ $\begin{array}{lllllllllllllllllllllllllllll}0.9988 & 0.9987 & 0.9987 & 0.9985 & 0.9984 & 0.9983 & 0.9981 & 0.9980 & 0.9977 & 0.9976 & 0.9973 & 0.9971 & 0.9968 & 0.9965 & 0.9960 & 0.9956\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9989 & 0.9988 & 0.9987 & 0.9986 & 0.9986 & 0.9984 & 0.9983 & 0.9981 & 0.9979 & 0.9978 & 0.9976 & 0.9973 & 0.9970 & 0.9968 & 0.9964 & 0.9960 & 0.9955\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9990 & 0.9989 & 0.9988 & 0.9987 & 0.9987 & 0.9986 & 0.9984 & 0.9983 & 0.9981 & 0.9979 & 0.9977 & 0.9975 & 0.9972 & 0.9970\end{array}$ 0.99900 .99900 .99890 .99880 .99880 .99860 .99850 .99840 .99830 .99810 .99790 .99770 .99750 .99720 .99690 .99660 .9962 0.99910 .99900 .99900 .99890 .99890 .99880 .99860 .99860 .99830 .99830 .99810 .99790 .99770 .99750 .99720 .99690 .9965 $\begin{array}{lllllllllllllllllllllllllllll}0 & 0.9992 & 0.9991 & 0.9990 & 0.9990 & 0.9990 & 0.9989 & 0.9987 & 0.9986 & 0.9985 & 0.9984 & 0.9982 & 0.9981 & 0.9978 & 0.9977 & 0.9974 & 0.9971\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9993 & 0.9992 & 0.9991 & 0.9990 & 0.9990 & 0.9989 & 0.9989 & 0.9988 & 0.9986 & 0.9986 & 0.9984 & 0.9982 & 0.9981 & 0.9978 & 0.9977 & 0.9973\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9993 & 0.9993 & 0.9992 & 0.9991 & 0.9991 & 0.9991 & 0.9989 & 0.9989 & 0.9987 & 0.9987 & 0.9985 & 0.9984 & 0.9982 & 0.9981 & 0.9978 & 0.9976\end{array}$ $\begin{array}{llllllllllllllllllllll}0 & 0.9993 & 0.9993 & 0.9993 & 0.9992 & 0.9992 & 0.9992 & 0.9990 & 0.9990 & 0.9989 & 0.9988 & 0.9987 & 0.9985 & 0.9984 & 0.9982 & 0.9981 & 0.9978 & 0.9976\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9994 & 0.9994 & 0.9993 & 0.9993 & 0.9993 & 0.9992 & 0.9991 & 0.9991 & 0.9989 & 0.9989 & 0.9988 & 0.9986 & 0.9985 & 0.9984 & 0.9982 & 0.9980 & 0.9977\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9995 & 0.9994 & 0.9994 & 0.9993 & 0.9993 & 0.9993 & 0.9992 & 0.9992 & 0.9990 & 0.9990 & 0.9989 & 0.9988 & 0.9986 & 0.9985 & 0.9984\end{array}$
 $\begin{array}{lllllllllllllllllllllllll}0.9996 & 0.9996 & 0.9995 & 0.9994 & 0.9995 & 0.9994 & 0.9993 & 0.9993 & 0.9992 & 0.9992 & 0.9991 & 0.9990 & 0.9988 & 0.9988 & 0.9987 & 0.9985 & 0.9983\end{array}$ 0.99960 .99960 .99960 .99950 .99950 .99950 .99940 .99940 .99920 .99920 .99920 .99910 .99900 .99890 .99880 .99870 .9985 $\begin{array}{lllllllllllllllllllllllll}0.9996 & 0.9996 & 0.9996 & 0.9996 & 0.9995 & 0.9995 & 0.9994 & 0.9995 & 0.9993 & 0.9993 & 0.9992 & 0.9992 & 0.9991 & 0.9990 & 0.9989 & 0.998\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9996 & 0.9996 & 0.9996 & 0.9996 & 0.9996 & 0.9995 & 0.9995 & 0.9995 & 0.9994 & 0.9994 & 0.9993 & 0.9992 & 0.9992 & 0.9991 & 0.9990 & 0.9989\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0 & 0.9997 & 0.9996 & 0.9996 & 0.9996 & 0.9996 & 0.9996 & 0.9995 & 0.9995 & 0.9995 & 0.9995 & 0.9994 & 0.9993 & 0.9992 & 0.9992 & 0.9999\end{array}$

## TABLE N

## Conversion from Single Life to 50\% Joint and Survivor Without Pop-Up <br> CECONY Weekly Participants -1

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 |

25
 0.96510 .96220 .95920 .95590 .95260 .94900 .94510 .94110 .93670 .93210 .92740 .92220 .91670 .91090 .90470 .89820 .8912 $\begin{array}{llllllllllllllllllllll}0.9657 & 0.9628 & 0.9598 & 0.9566 & 0.9533 & 0.9497 & 0.9458 & 0.9417 & 0.9374 & 0.9329 & 0.9281 & 0.9230 & 0.9175 & 0.9117 & 0.9055 & 0.8990 & 0.8920\end{array}$ 0.96620 .96350 .96050 .95730 .95390 .95040 .94650 .94250 .93830 .93370 .92890 .92380 .91840 .91260 .90640 .89990 .8929 0.96690 .96410 .96110 .95800 .95470 .95110 .94730 .94330 .93910 .93450 .92980 .92470 .91920 .91350 .90730 .90080 .8939 $\begin{array}{lllllllllllllllllllllll}0.9675 & 0.9648 & 0.9619 & 0.9587 & 0.9554 & 0.9519 & 0.9481 & 0.9442 & 0.9399 & 0.9354 & 0.9307 & 0.9256 & 0.9201 & 0.9145 & 0.9083 & 0.9018 & 0.8949\end{array}$ 0.96820 .96540 .96260 .95950 .95620 .95270 .94900 .94500 .94080 .93630 .93160 .92660 .92120 .91540 .90930 .90290 .8959 0.96890 .96620 .96340 .96020 .95700 .95350 .94980 .94590 .94170 .93730 .93260 .92760 .92220 .91660 .91040 .90400 .8971 0.96960 .96690 .96410 .96100 .95790 .95440 .95070 .94680 .94260 .93830 .93360 .92870 .92330 .91760 .91150 .90510 .8982 0.97030 .96770 .96490 .96190 .95870 .95530 .95170 .94780 .94370 .93930 .93470 .92970 .92440 .91880 .91270 .90630 .8995 0.97110 .96850 .96580 .96280 .95960 .95630 .95260 .94880 .94470 .94040 .93580 .93090 .92560 .92000 .91400 .90770 .9008 0.97180 .96930 .96660 .96360 .96050 .95720 .95360 .94980 .94580 .94150 .93700 .93210 .92680 .92130 .91530 .90890 .9021 0.97260 .97010 .96740 .96450 .96150 .95820 .95460 .95090 .94690 .94260 .93820 .93330 .92800 .92260 .91660 .91040 .9036 0.97340 .97100 .96830 .96550 .96240 .95920 .95570 .95200 .94810 .94390 .93940 .93460 .92940 .92400 .91810 .91180 .9051 0.97420 .97180 .96920 .96640 .96350 .96030 .9568 0.9531 0.94920 .94510 .94070 .93600 .93080 .92540 .91950 .91330 .9067 0.97500 .97260 .97010 .96730 .96450 .96130 .95790 .95440 .95050 .94640 .94200 .93730 .93220 .92690 .92110 .91490 .9083 0.97580 .97350 .97100 .96830 .96550 .96240 .95910 .95560 .95170 .94770 .94340 .9388 0.9337 0.92850 .92270 .91660 .9100 0.97660 .97440 .97190 .96930 .96650 .96350 .96020 .95680 .95300 .94910 .9448 0.9402 0.93530 .93010 .92430 .91830 .9118 $\begin{array}{llllllllllllllllllllllllll}0.9774 & 0.9753 & 0.9729 & 0.9703 & 0.9676 & 0.9646 & 0.9614 & 0.9580 & 0.9543 & 0.9505 & 0.9463 & 0.9417 & 0.9369 & 0.9317 & 0.9261 & 0.9200 & 0.9136\end{array}$ 0.97830 .97610 .97380 .97130 .96860 .96580 .96260 .95930 .95570 .95180 .94780 .94330 .93850 .93340 .92780 .92190 .9155 0.97900 .97700 .97480 .97230 .96970 .96690 .96380 .96060 .95710 .95330 .94930 .94490 .94010 .93520 .92960 .92380 .9175 0.97990 .97780 .97570 .97330 .97080 .96810 .96510 .96190 .95840 .95480 .95080 .94650 .94180 .93690 .93150 .92580 .9195 0.98070 .97870 .97660 .97430 .97190 .96920 .96630 .96320 .95990 .95620 .95240 .94820 .94360 .93870 .93340 .92770 .9216 0.98150 .97960 .97750 .97530 .97300 .97040 .96750 .96450 .96130 .95770 .95390 .94990 .94530 .94060 .93540 .92970 .9237 0.98230 .98040 .97850 .97630 .97410 .97150 .96880 .96590 .96270 .95930 .95560 .95160 .94710 .94250 .93740 .93190 .9259 0.98310 .98130 .97940 .97730 .97510 .97270 .97000 .96720 .96410 .96080 .95720 .95320 .94890 .94440 .93940 .93400 .9282 0.98380 .98210 .98030 .97830 .97610 .97390 .97120 .96850 .96550 .96220 .9588 0.9550 0.95080 .94640 .94150 .93620 .9305 0.98460 .98300 .98120 .97920 .97720 .97500 .97250 .96980 .96700 .96380 .96050 .95670 .95270 .94830 .94350 .93840 .9328 0.98530 .98380 .98210 .98020 .97820 .97610 .97370 .97120 .96840 .96530 .9620 0.9585 0.95460 .95030 .94560 .94060 .9351 $\begin{array}{lllllllllllllllllllllllll}0.9860 & 0.9846 & 0.9830 & 0.9812 & 0.9793 & 0.9772 & 0.9749 & 0.9724 & 0.9698 & 0.9668 & 0.9637 & 0.9602 & 0.9564 & 0.9523 & 0.9478 & 0.9429 & 0.9376\end{array}$ 0.98670 .98530 .98390 .98210 .98030 .97830 .97610 .97380 .97110 .96830 .96530 .96200 .95820 .95440 .94990 .94520 .9400

## TABLE N

## Conversion from Single Life to

50\% Joint and Survivor Without Pop-Up

## CECONY Weekly Participants -1



56
57
58
59
60
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62
63
64
65
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## 71

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84
85
0.98740 .98610 .98460 .98300 .98130 .97940 .97730 .97500 .97260 .96980 .96700 .96370 .96020 .95630 .95210 .94750 .9424 0.98810 .98680 .98550 .98390 .98230 .98040 .97850 .97630 .97390 .97140 .96860 .96540 .96200 .95830 .95420 .94980 .9449 0.98870 .98760 .98630 .98480 .98320 .98150 .97960 .97750 .97530 .97280 .97010 .96720 .96380 .96040 .95630 .95210 .9473 0.98940 .98830 .98700 .98560 .98420 .98250 .98070 .97880 .97660 .97420 .97170 .96890 .96570 .96230 .95850 .95440 .9498 0.99010 .98900 .98770 .98640 .98500 .98350 .98180 .97990 .97780 .97560 .97330 .97050 .96750 .96430 .96060 .95670 .9523 0.99060 .98960 .98850 .98720 .98590 .98450 .98280 .98110 .97910 .97700 .97470 .97220 .96930 .96620 .96270 .95890 .9547 0.99120 .99020 .98920 .98800 .98680 .98540 .98390 .98220 .98030 .97840 .97620 .97380 .97100 .96810 .96480 .96120 .9572 0.99180 .99090 .98990 .98880 .98760 .98630 .98480 .98330 .98150 .97970 .97770 .97540 .97280 .96990 .96680 .96340 .9595 0.99230 .99150 .99060 .98950 .98840 .98720 .98580 .98440 .98270 .98100 .97900 .97680 .97440 .97180 .96880 .96550 .9618 0.99290 .99200 .99120 .99020 .98920 .98800 .98670 .98530 .9838 0.9822 0.98040 .97830 .97600 .97350 .97070 .96760 .9642 0.99330 .99260 .99170 .99080 .98990 .98880 .98760 .98630 .98490 .98330 .98170 .97970 .97760 .97530 .97260 .96970 .9664 0.99380 .99310 .99240 .99140 .99060 .98960 .98840 .98730 .98590 .98450 .98290 .98120 .97910 .97690 .97440 .97160 .9685 0.99430 .99360 .99280 .99210 .99120 .99040 .98920 .98820 .98690 .98560 .98410 .98240 .98050 .97850 .97610 .97360 .9706 0.99470 .99410 .99340 .99260 .99190 .99100 .99000 .98900 .98780 .98660 .98520 .98370 .98190 .98000 .97780 .97540 .9727 $0.9950 \quad 0.99450 .99390 .99320 .99250 .99170 .99080 .9898$ 0.9887 0.98750 .98630 .98490 .98320 .98150 .97940 .97720 .9746 0.99540 .99490 .99430 .99370 .99310 .99230 .99150 .99060 .98960 .98850 .98730 .98600 .98450 .98290 .98090 .97890 .9765 0.99580 .99530 .99480 .99420 .99360 .99290 .99210 .99130 .99040 .98940 .98830 .98710 .98570 .98410 .98240 .98050 .9783 0.99610 .99570 .99520 .99460 .99410 .99350 .99270 .99200 .99120 .99020 .98920 .98810 .9868 0.9854 0.98380 .98200 .9799 0.99650 .99600 .99560 .99510 .99460 .99400 .99330 .99270 .9918 0.9910 0.99010 .98900 .98780 .98660 .98510 .98350 .9815 0.99680 .99640 .99600 .99550 .99510 .99450 .99390 .99320 .99250 .99180 .99090 .99000 .98880 .98770 .98630 .98480 .9830 $0.99710 .99670 .99630 .99580 .99550 .9950 \quad 0.99430 .99380 .99320 .99240 .99170 .9908$ 0.9898 0.98870 .98740 .98610 .9845 0.99730 .99700 .99660 .99620 .99590 .99540 .99480 .99430 .99370 .99310 .99240 .99160 .99060 .98970 .98860 .98730 .9858 0.99760 .99720 .99700 .99650 .99620 .99580 .99530 .99480 .99420 .99370 .99300 .99240 .99150 .99060 .98950 .98840 .9871 0.99780 .99750 .99720 .99690 .99650 .99620 .99570 .99530 .99470 .99430 .99370 .99300 .99220 .99150 .99050 .98940 .9881 0.99790 .99770 .99740 .99710 .99680 .99650 .99610 .99570 .99520 .99480 .99420 .99360 .99290 .99220 .99130 .99040 .9892 0.99820 .99790 .99770 .99740 .99720 .99680 .99650 .99610 .99570 .99520 .99480 .99420 .99360 .99300 .99210 .99130 .9902 0.99830 .99820 .99790 .99760 .99740 .99710 .9968 0.9964 0.99610 .99570 .99520 .99480 .99420 .99360 .99280 .99210 .9911 0.99850 .99830 .99820 .99780 .99770 .99740 .99700 .99680 .99640 .99600 .99570 .99530 .99470 .99420 .99350 .99280 .9919 0.99870 .99850 .99830 .99810 .99790 .99760 .99740 .99710 .99670 .99650 .99610 .99570 .99520 .99470 .99410 .99350 .9928 $0.9988 \quad 0.99860 .99850 .99820 .99810 .99790 .99760 .99730 .99710 .9968$ 0.9965 0.99610 .99560 .99520 .99460 .99410 .9935

## TABLE N

## Conversion from Single Life to 50\% Joint and Survivor Without Pop-Up <br> CECONY Weekly Participants -1

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
| 25 | 0.8828 | 0.8749 | 0.8665 | 0.8576 | 0.8481 | 0.8382 | 0.8277 | 0.8167 | 0.8052 | 0.7932 | 0.7806 | 0.7676 | 0.7541 | 0.7400 | 0.7254 | 0.7102 | 0.6948 |
| 26 | 0.8837 | 0.8757 | 0.8673 | 0.8584 | 0.8490 | 0.8391 | 0.8286 | 0.8176 | 0.8062 | 0.7940 | 0.7815 | 0.7685 | 0.7550 | 0.7409 | 0.7263 | 0.7111 | 0.6957 |
| 27 | 0.8845 | 0.8766 | 0.8682 | 0.8594 | 0.8499 | 0.8399 | 0.8295 | 0.8185 | 0.8071 | 0.7950 | 0.7825 | 0.7695 | 0.7559 | 0.7418 | 0.7273 | 0.7121 | 0.6966 |
| 28 | 0.8854 | 0.8776 | 0.8691 | 0.8603 | 0.8508 | 0.8409 | 0.8305 | 0.8195 | 0.8080 | 0.7960 | 0.7835 | 0.7704 | 0.7569 | 0.7428 | 0.7282 | 0.7130 | 0.6975 |
| 29 | 0.8864 | 0.8785 | 0.8702 | 0.8613 | 0.8519 | 0.8420 | 0.8316 | 0.8205 | 0.8091 | 0.7970 | 0.7845 | 0.7715 | 0.7580 | 0.7439 | 0.7293 | 0.7141 | 0.6986 |
| 30 | 0.8874 | 0.8796 | 0.8712 | 0.8624 | 0.8529 | 0.8430 | 0.8327 | 0.8217 | 0.8102 | 0.7982 | 0.7857 | 0.7726 | 0.7591 | 0.7450 | 0.7304 | 0.7152 | 0.6997 |
| 31 | 0.8885 | 0.8807 | 0.8723 | 0.8635 | 0.8541 | 0.8442 | 0.8338 | 0.8228 | 0.8114 | 0.7994 | 0.7869 | 0.7739 | 0.7603 | 0.7462 | 0.7316 | 0.7165 | 0.7010 |
| 32 | 0.8896 | 0.8818 | 0.8735 | 0.8647 | 0.8553 | 0.8454 | 0.8351 | 0.8241 | 0.8126 | 0.8007 | 0.7881 | 0.7751 | 0.7616 | 0.7475 | 0.7329 | 0.7177 | 0.7023 |
| 33 | 0.8908 | 0.8830 | 0.8747 | 0.8660 | 0.8566 | 0.8467 | 0.8364 | 0.8254 | 0.8140 | 0.8020 | 0.7895 | 0.7765 | 0.7629 | 0.7489 | 0.7343 | 0.7191 | 0.7036 |
| 34 | 0.8921 | 0.8844 | 0.8761 | 0.8673 | 0.8580 | 0.8481 | 0.8377 | 0.8268 | 0.8154 | 0.8034 | 0.7909 | 0.7779 | 0.7644 | 0.7503 | 0.7357 | 0.7205 | 0.7050 |
| 35 | 0.8934 | 0.8857 | 0.8774 | 0.8687 | 0.8594 | 0.8495 | 0.8392 | 0.8283 | 0.8169 | 0.8049 | 0.7925 | 0.7795 | 0.7659 | 0.7519 | 0.7373 | 0.7221 | 0.7066 |
| 36 | 0.8949 | 0.8871 | 0.8789 | 0.8701 | 0.8609 | 0.8511 | 0.8407 | 0.8299 | 0.8185 | 0.8065 | 0.7941 | 0.7811 | 0.7676 | 0.7535 | 0.7389 | 0.7238 | 0.7082 |
| 37 | 0.8963 | 0.8886 | 0.8804 | 0.8717 | 0.8624 | 0.8527 | 0.8424 | 0.8315 | 0.8201 | 0.8082 | 0.7957 | 0.7828 | 0.7693 | 0.7553 | 0.7406 | 0.7254 | 0.7099 |
| 38 | 0.8979 | 0.8902 | 0.8820 | 0.8734 | 0.8642 | 0.8544 | 0.8441 | 0.8332 | 0.8219 | 0.8099 | 0.7975 | 0.7846 | 0.7711 | 0.7571 | 0.7425 | 0.7273 | 0.7118 |
| 39 | 0.8995 | 0.8918 | 0.8837 | 0.8751 | 0.8659 | 0.8562 | 0.8459 | 0.8351 | 0.8238 | 0.8119 | 0.7994 | 0.7865 | 0.7731 | 0.7590 | 0.7444 | 0.7292 | 0.7137 |
| 40 | 0.9011 | 0.8936 | 0.8855 | 0.8768 | 0.8677 | 0.8580 | 0.8479 | 0.8371 | 0.8257 | 0.8138 | 0.8014 | 0.7885 | 0.7751 | 0.7611 | 0.7465 | 0.7313 | 0.7158 |
| 41 | 0.9029 | 0.8954 | 0.8873 | 0.8788 | 0.8697 | 0.8600 | 0.8498 | 0.8391 | 0.8278 | 0.8159 | 0.8036 | 0.7907 | 0.7773 | 0.7633 | 0.7487 | 0.7336 | 0.7180 |
| 42 | 0.9047 | 0.8972 | 0.8893 | 0.8807 | 0.8717 | 0.8621 | 0.8520 | 0.8412 | 0.8300 | 0.8182 | 0.8058 | 0.7930 | 0.7796 | 0.7656 | 0.7510 | 0.7359 | 0.7204 |
| 43 | 0.9067 | 0.8992 | 0.8913 | 0.8828 | 0.8738 | 0.8642 | 0.8542 | 0.8435 | 0.8323 | 0.8205 | 0.8082 | 0.7953 | 0.7820 | 0.7680 | 0.7535 | 0.7383 | 0.7229 |
| 44 | 0.9086 | 0.9012 | 0.8934 | 0.8850 | 0.8760 | 0.8665 | 0.8565 | 0.8459 | 0.8347 | 0.8230 | 0.8107 | 0.7979 | 0.7845 | 0.7705 | 0.7560 | 0.7410 | 0.7254 |
| 45 | 0.9106 | 0.9033 | 0.8955 | 0.8872 | 0.8783 | 0.8689 | 0.8589 | 0.8483 | 0.8372 | 0.8255 | 0.8133 | 0.8005 | 0.7872 | 0.7733 | 0.7588 | 0.7437 | 0.7282 |
| 46 | 0.9127 | 0.9055 | 0.8978 | 0.8896 | 0.8807 | 0.8714 | 0.8614 | 0.8509 | 0.8399 | 0.8282 | 0.8161 | 0.8033 | 0.7900 | 0.7761 | 0.7616 | 0.7466 | 0.7311 |
| 47 | 0.9149 | 0.9078 | 0.9001 | 0.8920 | 0.8832 | 0.8739 | 0.8641 | 0.8536 | 0.8426 | 0.8310 | 0.8188 | 0.8062 | 0.7930 | 0.7791 | 0.7647 | 0.7496 | 0.7341 |
| 48 | 0.9172 | 0.9101 | 0.9025 | 0.8945 | 0.8858 | 0.8765 | 0.8668 | 0.8564 | 0.8455 | 0.8340 | 0.8219 | 0.8093 | 0.7961 | 0.7822 | 0.7678 | 0.7528 | 0.7374 |
| 49 | 0.9195 | 0.9125 | 0.9050 | 0.8970 | 0.8885 | 0.8793 | 0.8696 | 0.8593 | 0.8485 | 0.8370 | 0.8250 | 0.8124 | 0.7993 | 0.7855 | 0.7711 | 0.7561 | 0.7407 |
| 50 | 0.9218 | 0.9150 | 0.9076 | 0.8997 | 0.8912 | 0.8822 | 0.8726 | 0.8623 | 0.8516 | 0.8402 | 0.8283 | 0.8157 | 0.8027 | 0.7889 | 0.7747 | 0.7597 | 0.7443 |
| 51 | 0.9242 | 0.9174 | 0.9102 | 0.9025 | 0.8941 | 0.8851 | 0.8756 | 0.8655 | 0.8548 | 0.8435 | 0.8317 | 0.8192 | 0.8062 | 0.7925 | 0.7783 | 0.7634 | 0.7481 |
| 52 | 0.9266 | 0.9200 | 0.9129 | 0.9053 | 0.8970 | 0.8881 | 0.8788 | 0.8688 | 0.8582 | 0.8470 | 0.8353 | 0.8229 | 0.8099 | 0.7963 | 0.7821 | 0.7672 | 0.7520 |
| 53 | 0.9291 | 0.9227 | 0.9156 | 0.9081 | 0.9000 | 0.8913 | 0.8820 | 0.8721 | 0.8617 | 0.8506 | 0.8389 | 0.8267 | 0.8138 | 0.8002 | 0.7861 | 0.7713 | 0.7561 |
| 54 | 0.9317 | 0.9254 | 0.9185 | 0.9111 | 0.9031 | 0.8945 | 0.8854 | 0.8756 | 0.8653 | 0.8543 | 0.8428 | 0.8306 | 0.8178 | 0.8044 | 0.7903 | 0.7756 | 0.7604 |
| 55 | 0.9343 | 0.9281 | 0.9213 | 0.9141 | 0.9062 | 0.8978 | 0.8888 | 0.8792 | 0.8691 | 0.8582 | 0.8467 | 0.8347 | 0.8221 | 0.8087 | 0.7947 | 0.7801 | 0.7650 |

## TABLE N

## Conversion from Single Life to 50\% Joint and Survivor Without Pop-Up <br> CECONY Weekly Participants -1

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
| 56 | 0.9368 | 0.9309 | 0.9242 | 0.9172 | 0.9095 | 0.9012 | 0.8924 | 0.8829 | 0.8729 | 0.8621 | 0.8508 | 0.8390 | 0.8264 | 0.8132 | 0.7993 | 0.7847 | 0.7698 |
| 57 | 0.9394 | 0.9336 | 0.9272 | 0.9203 | 0.9128 | 0.9047 | 0.8960 | 0.8867 | 0.8769 | 0.8662 | 0.8551 | 0.8434 | 0.8310 | 0.8179 | 0.8041 | 0.7896 | 0.7747 |
| 58 | 0.9421 | 0.9364 | 0.9302 | 0.9235 | 0.9162 | 0.9083 | 0.8998 | 0.8906 | 0.8810 | 0.8705 | 0.8595 | 0.8480 | 0.8356 | 0.8227 | 0.8091 | 0.7947 | 0.7799 |
| 59 | 0.9448 | 0.9393 | 0.9332 | 0.9267 | 0.9196 | 0.9118 | 0.9035 | 0.8946 | 0.8851 | 0.8749 | 0.8641 | 0.8526 | 0.8405 | 0.8278 | 0.8142 | 0.8000 | 0.7854 |
| 60 | 0.9474 | 0.9420 | 0.9362 | 0.9299 | 0.9230 | 0.9154 | 0.9074 | 0.8986 | 0.8894 | 0.8793 | 0.8687 | 0.8575 | 0.8456 | 0.8329 | 0.8196 | 0.8056 | 0.7910 |
| 61 | 0.9500 | 0.9449 | 0.9393 | 0.9331 | 0.9264 | 0.9192 | 0.9113 | 0.9028 | 0.8937 | 0.8839 | 0.8735 | 0.8625 | 0.8508 | 0.8383 | 0.8252 | 0.8113 | 0.7969 |
| 62 | 0.9526 | 0.9477 | 0.9423 | 0.9364 | 0.9299 | 0.9228 | 0.9152 | 0.9069 | 0.8981 | 0.8885 | 0.8784 | 0.8676 | 0.8561 | 0.8439 | 0.8309 | 0.8172 | 0.8030 |
| 63 | 0.9553 | 0.9505 | 0.9453 | 0.9396 | 0.9334 | 0.9265 | 0.9192 | 0.9111 | 0.9026 | 0.8932 | 0.8833 | 0.8727 | 0.8615 | 0.8495 | 0.8368 | 0.8233 | 0.8093 |
| 64 | 0.9577 | 0.9532 | 0.9483 | 0.9429 | 0.9368 | 0.9302 | 0.9231 | 0.9153 | 0.9070 | 0.8979 | 0.8883 | 0.8780 | 0.8670 | 0.8553 | 0.8428 | 0.8295 | 0.8158 |
| 65 | 0.9602 | 0.9559 | 0.9512 | 0.9460 | 0.9402 | 0.9339 | 0.9271 | 0.9196 | 0.9115 | 0.9027 | 0.8934 | 0.8833 | 0.8726 | 0.8611 | 0.8489 | 0.8359 | 0.8224 |
| 66 | 0.9627 | 0.9586 | 0.9541 | 0.9491 | 0.9436 | 0.9376 | 0.9310 | 0.9238 | 0.9159 | 0.9075 | 0.8984 | 0.8887 | 0.8783 | 0.8671 | 0.8551 | 0.8425 | 0.8291 |
| 67 | 0.9651 | 0.9612 | 0.9569 | 0.9522 | 0.9469 | 0.9411 | 0.9348 | 0.9279 | 0.9204 | 0.9122 | 0.9035 | 0.8940 | 0.8839 | 0.8731 | 0.8614 | 0.8490 | 0.8360 |
| 68 | 0.9674 | 0.9637 | 0.9596 | 0.9552 | 0.9502 | 0.9447 | 0.9386 | 0.9320 | 0.9248 | 0.9169 | 0.9085 | 0.8994 | 0.8896 | 0.8790 | 0.8678 | 0.8557 | 0.8429 |
| 69 | 0.9696 | 0.9661 | 0.9623 | 0.9581 | 0.9534 | 0.9481 | 0.9424 | 0.9360 | 0.9291 | 0.9216 | 0.9135 | 0.9047 | 0.8953 | 0.8851 | 0.8741 | 0.8623 | 0.8500 |
| 70 | 0.9717 | 0.9685 | 0.9648 | 0.9609 | 0.9564 | 0.9514 | 0.9460 | 0.9400 | 0.9334 | 0.9262 | 0.9185 | 0.9100 | 0.9009 | 0.8911 | 0.8804 | 0.8690 | 0.8570 |
| 71 | 0.9737 | 0.9708 | 0.9674 | 0.9636 | 0.9594 | 0.9547 | 0.9496 | 0.9438 | 0.9376 | 0.9307 | 0.9233 | 0.9153 | 0.9065 | 0.8971 | 0.8869 | 0.8758 | 0.8641 |
| 72 | 0.9757 | 0.9729 | 0.9697 | 0.9662 | 0.9622 | 0.9578 | 0.9530 | 0.9476 | 0.9417 | 0.9351 | 0.9280 | 0.9204 | 0.9120 | 0.9029 | 0.8931 | 0.8825 | 0.8712 |
| 73 | 0.9776 | 0.9750 | 0.9720 | 0.9687 | 0.9650 | 0.9608 | 0.9563 | 0.9512 | 0.9456 | 0.9395 | 0.9327 | 0.9254 | 0.9174 | 0.9087 | 0.8993 | 0.8890 | 0.8782 |
| 74 | 0.9794 | 0.9769 | 0.9742 | 0.9711 | 0.9677 | 0.9638 | 0.9595 | 0.9547 | 0.9494 | 0.9436 | 0.9372 | 0.9303 | 0.9227 | 0.9145 | 0.9054 | 0.8956 | 0.8852 |
| 75 | 0.9811 | 0.9788 | 0.9763 | 0.9734 | 0.9701 | 0.9665 | 0.9626 | 0.9580 | 0.9531 | 0.9476 | 0.9416 | 0.9351 | 0.9279 | 0.9200 | 0.9114 | 0.9020 | 0.8920 |
| 76 | 0.9826 | 0.9806 | 0.9782 | 0.9755 | 0.9726 | 0.9691 | 0.9654 | 0.9613 | 0.9566 | 0.9515 | 0.9459 | 0.9397 | 0.9329 | 0.9254 | 0.9172 | 0.9083 | 0.8988 |
| 77 | 0.9841 | 0.9822 | 0.9800 | 0.9776 | 0.9748 | 0.9716 | 0.9682 | 0.9643 | 0.9600 | 0.9552 | 0.9498 | 0.9441 | 0.9377 | 0.9306 | 0.9228 | 0.9143 | 0.9053 |
| 78 | 0.9854 | 0.9837 | 0.9817 | 0.9795 | 0.9769 | 0.9740 | 0.9708 | 0.9672 | 0.9632 | 0.9587 | 0.9537 | 0.9483 | 0.9422 | 0.9356 | 0.9283 | 0.9202 | 0.9116 |
| 79 | 0.9868 | 0.9852 | 0.9833 | 0.9813 | 0.9789 | 0.9762 | 0.9732 | 0.9699 | 0.9662 | 0.9619 | 0.9573 | 0.9522 | 0.9466 | 0.9403 | 0.9335 | 0.9259 | 0.9178 |
| 80 | 0.9880 | 0.9865 | 0.9848 | 0.9829 | 0.9808 | 0.9783 | 0.9755 | 0.9724 | 0.9690 | 0.9650 | 0.9608 | 0.9560 | 0.9508 | 0.9449 | 0.9384 | 0.9313 | 0.9236 |
| 81 | 0.9891 | 0.9877 | 0.9861 | 0.9845 | 0.9824 | 0.9802 | 0.9777 | 0.9748 | 0.9717 | 0.9680 | 0.9640 | 0.9596 | 0.9547 | 0.9493 | 0.9432 | 0.9365 | 0.9292 |
| 82 | 0.9901 | 0.9888 | 0.9875 | 0.9859 | 0.9841 | 0.9819 | 0.9796 | 0.9770 | 0.9741 | 0.9707 | 0.9671 | 0.9629 | 0.9584 | 0.9534 | 0.9477 | 0.9414 | 0.9346 |
| 83 | 0.9910 | 0.9899 | 0.9886 | 0.9872 | 0.9855 | 0.9836 | 0.9816 | 0.9791 | 0.9764 | 0.9733 | 0.9699 | 0.9662 | 0.9619 | 0.9572 | 0.9519 | 0.9460 | 0.9397 |
| 84 | 0.9918 | 0.9908 | 0.9896 | 0.9884 | 0.9869 | 0.9851 | 0.9833 | 0.9810 | 0.9786 | 0.9757 | 0.9726 | 0.9691 | 0.9652 | 0.9608 | 0.9560 | 0.9504 | 0.9445 |
| 85 | 0.9927 | 0.9918 | 0.9907 | 0.9895 | 0.9882 | 0.9865 | 0.9848 | 0.9828 | 0.9806 | 0.9779 | 0.9750 | 0.9719 | 0.9683 | 0.9643 | 0.9597 | 0.9547 | 0.9492 |

## Sub appendix A. 2 TABLE A - <br> O\&R Participants

For Distributions Beginning Before July 1, 2004

## Joint And 100\% Survivorship Option Without Pop-up

|  | Participant's Age |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 25 to 27 | 28 to 30 | 31 to 33 | 34 to 36 | 37 to 39 | 40 to 42 | 43 to 45 |
| Difference in Contingent Annuitant's Age |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 20 or more | 91 | 90 | 89 | 87 | 85 | 83 | 81 |
| 17 to 19 | 92 | 90 | 89 | 88 | 86 | 84 | 82 |
| 14 to 16 | 92 | 91 | 90 | 88 | 87 | 85 | 83 |
| 11 to 13 | 92 | 91 | 90 | 89 | 87 | 86 | 84 |
| 8 to 10 | 93 | 92 | 91 | 90 | 88 | 87 | 85 |
| 5 to 7 | 93 | 93 | 92 | 90 | 89 | 88 | 86 |
| 2 to 4 | 94 | 93 | 92 | 91 | 90 | 89 | 87 |
| 0 to 1 | 94 | 94 | 93 | 92 | 91 | 90 | 89 |
| Years Older |  |  |  |  |  |  |  |
| 0 to 1 | 94 | 94 | 93 | 92 | 91 | 90 | 89 |
| 2 to 4 | 95 | 94 | 94 | 93 | 92 | 91 | 90 |
| 5 to 7 | 96 | 95 | 94 | 94 | 93 | 92 | 91 |
| 8 to 10 | 96 | 96 | 95 | 94 | 94 | 93 | 92 |
| 11 to 13 | 97 | 96 | 96 | 95 | 95 | 94 | 93 |
| 14 to 16 | 97 | 97 | 96 | 96 | 95 | 95 | 94 |
| 17 to 19 | 97 | 97 | 97 | 96 | 96 | 96 | 95 |
| 20 or more | 98 | 98 | 97 | 97 | 97 | 96 | 96 |

Note: Ages for determination of option reduction: Step 1: Determine Participant's nearest age in terms of years and months at the date payments commence. Step 2: Determine difference in Participant's and contingent annuitant's dates of birth to nearest year. Step 3: Spouse's nearest age is Participant's nearest age in Step 1 plus or minus difference determined in Step 2.

## Sub appendix A. 2 <br> TABLE A -

O\&R Participants
For Distributions Beginning Before July 1, 2004

## Joint And 100\% Survivorship Option Without Pop-up

|  | Participant's Age |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} 46 \text { to } \\ 48 \end{gathered}$ | $\begin{gathered} 49 \text { to } \\ 51 \end{gathered}$ | $\begin{gathered} 52 \text { to } \\ 54 \end{gathered}$ | $\begin{gathered} 55 \text { to } \\ 57 \end{gathered}$ | $\begin{gathered} 58 \text { to } \\ 60 \end{gathered}$ | $\begin{gathered} 61 \text { to } \\ 63 \end{gathered}$ | 64 and over |
| Difference in Contingent Annuitant's Age |  |  |  |  |  |  |  |
| Years Younger |  |  |  |  |  |  |  |
| 20 or more | 79 | 76 | 74 | 71 | 68 | 64 | 61 |
| 17 to 19 | 80 | 78 | 75 | 72 | 69 | 66 | 63 |
| 14 to 16 | 81 | 79 | 76 | 74 | 71 | 68 | 65 |
| 11 to 13 | 82 | 80 | 78 | 75 | 73 | 70 | 67 |
| 8 to 10 | 83 | 81 | 79 | 77 | 74 | 72 | 69 |
| 5 to 7 | 85 | 83 | 81 | 79 | 77 | 74 | 72 |
| 2 to 4 | 86 | 84 | 83 | 81 | 79 | 77 | 75 |
| 0 to 1 | 87 | 86 | 84 | 83 | 81 | 79 | 78 |
| Years Older $\%$ |  |  |  |  |  |  |  |
|  | \% | \% | \% | \% | \% | \% | \% |
| 0 to 1 | 87 | 86 | 84 | 83 | 81 | 79 | 78 |
| 2 to 4 | 89 | 87 | 86 | 85 | 83 | 82 | 81 |
| 5 to 7 | 90 | 89 | 88 | 87 | 86 | 85 | 83 |
| 8 to 10 | 91 | 91 | 90 | 89 | 88 | 87 | 86 |
| 11 to 13 | 93 | 92 | 91 | 91 | 90 | 89 | 89 |
| 14 to 16 | 94 | 93 | 93 | 92 | 92 | 92 | 91 |
| 17 to 19 | 95 | 95 | 94 | 94 | 94 | 94 | 93 |
| 20 or more | 96 | 96 | 96 | 95 | 95 | 95 | 95 |

Note: Ages for determination of option reduction: Step 1: Determine Participant's nearest age in terms of years and months at the date payments commence. Step 2: Determine difference in Participant's and contingent annuitant's dates of birth to nearest year. Step 3: Spouse’s nearest age is Participant's nearest age in Step 1 plus or minus difference determined in Step 2.

## Sub appendix A. 2 <br> Table B - <br> O\&R Participants

For Distributions Beginning Before July 1, 2004

## Joint And 50\% Survivorship Option Factors Without Pop-Up

|  | Participant's Age |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 25 to 27 | 28 to 30 | 31 to 33 | 34 to 36 | 37 to 39 | 40 to 42 | 43 to 45 |
| Difference in Contingent Annuitant's Age |  |  |  |  |  |  |  |
| Years Younger | \% | \% | \% | \% | \% | \% | \% |
| 20 or more | 95 | 95 | 94 | 93 | 92 | 91 | 90 |
| 17 to 19 | 96 | 95 | 94 | 93 | 92 | 91 | 90 |
| 14 to 16 | 96 | 95 | 95 | 94 | 93 | 92 | 91 |
| 11 to 13 | 96 | 96 | 95 | 94 | 93 | 92 | 91 |
| 8 to 10 | 96 | 96 | 95 | 95 | 94 | 93 | 92 |
| 5 to 7 | 97 | 96 | 96 | 95 | 94 | 93 | 93 |
| 2 to 4 | 97 | 96 | 96 | 95 | 95 | 94 | 93 |
| 0 to 1 | 97 | 97 | 96 | 96 | 95 | 95 | 94 |
| Years Older | \% | \% | \% | \% | \% | \% | \% |
| 0 to 1 | 97 | 97 | 96 | 96 | 95 | 95 | 94 |
| 2 to 4 | 97 | 97 | 97 | 96 | 96 | 95 | 95 |
| 5 to 7 | 98 | 97 | 97 | 97 | 96 | 96 | 95 |
| 8 to 10 | 98 | 98 | 97 | 97 | 97 | 96 | 96 |
| 11 to 13 | 98 | 98 | 98 | 97 | 97 | 97 | 97 |
| 14 to 16 | 98 | 98 | 98 | 98 | 98 | 97 | 97 |
| 17 to 19 | 99 | 99 | 98 | 98 | 98 | 98 | 98 |
| 20 or more | 99 | 99 | 99 | 98 | 98 | 98 | 98 |

Note: Ages for determination of option reduction: Step 1: Determine Participant's nearest age in terms of years and months at the date payments commence. Step 2: Determine difference in Participant's and contingent annuitant's dates of birth to nearest year. Step 3: Spouse’s nearest age is Participant's nearest age in Step 1 plus or minus difference determined in Step 2.

## Sub appendix A. 2 <br> Table B - <br> O\&R Participants

For Distributions Beginning Before July 1, 2004

## Joint And 50\% Survivorship Option Without Pop-Up

|  | Participant's Age |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 46 to 48 | 49 to 51 | 52 to 54 | 55 to 57 | 58 to 60 | 61 to 63 | 64 and over |
| Difference in <br> Contingent <br> Annuitant's Age |  |  |  |  |  |  |  |
| Years Younger |  |  |  |  |  |  |  |
| 20 or more | 88 | 87 | 85 | 83 | 81 | 78 | 76 |
| 17 to 19 | 89 | 87 | 86 | 84 | 82 | 79 | 77 |
| 14 to 16 | 89 | 88 | 86 | 85 | 83 | 81 | 78 |
| 11 to 13 | 90 | 89 | 87 | 86 | 84 | 82 | 80 |
| 8 to 10 | 91 | 90 | 88 | 87 | 85 | 84 | 82 |
| 5 to 7 | 92 | 91 | 89 | 88 | 87 | 85 | 84 |
| 2 to 4 | 92 | 91 | 90 | 89 | 88 | 87 | 85 |
| 0 to 1 | 93 | 92 | 91 | 91 | 89 | 88 | 87 |
| Years Older |  |  |  |  |  |  |  |
| 0 to 1 | 93 | 92 | 91 | 91 | 89 | 88 | 87 |
| 2 to 4 | 94 | 93 | 93 | 92 | 91 | 90 | 89 |
| 5 to 7 | 95 | 94 | 94 | 93 | 92 | 92 | 91 |
| 8 to 10 | 96 | 95 | 95 | 94 | 94 | 93 | 93 |
| 11 to 13 | 96 | 96 | 95 | 95 | 95 | 94 | 94 |
| 14 to 16 | 97 | 97 | 96 | 96 | 96 | 96 | 95 |
| 17 to 19 | 97 | 97 | 97 | 97 | 97 | 97 | 96 |
| 20 or more | 98 | 98 | 98 | 98 | 98 | 98 | 98 |

[^7]
## Sub appendix A. 2 <br> Table C - <br> \section*{O\&R Participants}

For Distributions Beginning Before July 1, 2004

## Joint And 100\% Survivorship Option With Pop-Up

|  | Participant's Age |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 25 to 27 | 28 to 30 | 31 to 33 | 34 to 36 | 37 to 39 | 40 to 42 | 43 to 45 |
| Difference in <br> Contingent Annuitant's Age |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 20 or more | 91 | 90 | 89 | 87 | 85 | 83 | 81 |
| 17 to 19 | 92 | 90 | 89 | 88 | 86 | 84 | 82 |
| 14 to 16 | 92 | 91 | 90 | 88 | 87 | 85 | 83 |
| 11 to 13 | 92 | 91 | 90 | 89 | 87 | 86 | 84 |
| 8 to 10 | 93 | 92 | 91 | 89 | 88 | 86 | 85 |
| 5 to 7 | 93 | 92 | 91 | 90 | 89 | 87 | 86 |
| 2 to 4 | 94 | 93 | 92 | 91 | 90 | 88 | 87 |
| 0 to 1 | 94 | 93 | 93 | 92 | 90 | 89 | 88 |
| Years Older |  |  |  |  |  |  |  |
| 0 to 1 | 94 | 93 | 93 | 92 | 90 | 89 | 88 |
| 2 to 4 | 95 | 94 | 93 | 92 | 91 | 90 | 89 |
| 5 to 7 | 95 | 95 | 94 | 93 | 92 | 91 | 90 |
| 8 to 10 | 96 | 95 | 94 | 94 | 93 | 92 | 91 |
| 11 to 13 | 96 | 96 | 95 | 94 | 94 | 93 | 92 |
| 14 to 16 | 97 | 96 | 96 | 95 | 94 | 94 | 93 |
| 17 to 19 | 97 | 97 | 96 | 96 | 95 | 94 | 94 |
| 20 or more | 97 | 97 | 97 | 96 | 96 | 95 | 95 |

[^8]
## Sub appendix A. 2 <br> Table C - <br> O\&R Participants

For Distributions Beginning Before July 1, 2004

## Joint And 100\% Survivorship With Pop-Up Option Factors

|  | Participant's Age |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 46 to 48 | 49 to 51 | 52 to 54 | 55 to 57 | 58 to 60 | 61 to 63 | 64 and over |
| Difference in Contingent Annuitant's Age |  |  |  |  |  |  |  |
| Years Younger | \% | \% | \% | \% | \% | \% | \% |
| 20 or more | 79 | 76 | 73 | 70 | 67 | 64 | 60 |
| 17 to 19 | 80 | 77 | 74 | 71 | 68 | 65 | 62 |
| 14 to 16 | 81 | 78 | 76 | 73 | 69 | 67 | 63 |
| 11 to 13 | 82 | 79 | 77 | 74 | 71 | 68 | 65 |
| 8 to 10 | 83 | 80 | 78 | 76 | 73 | 70 | 67 |
| 5 to 7 | 84 | 82 | 80 | 77 | 75 | 72 | 69 |
| 2 to 4 | 85 | 83 | 81 | 79 | 77 | 74 | 72 |
| 0 to 1 | 86 | 84 | 83 | 81 | 79 | 76 | 74 |
| Years Older |  |  |  |  |  |  |  |
| 0 to 1 | 86 | 84 | 83 | 81 | 79 | 76 | 74 |
| 2 to 4 | 87 | 86 | 84 | 82 | 80 | 78 | 76 |
| 5 to 7 | 89 | 87 | 86 | 84 | 82 | 81 | 79 |
| 8 to 10 | 90 | 89 | 87 | 86 | 84 | 83 | 81 |
| 11 to 13 | 91 | 90 | 89 | 87 | 86 | 85 | 83 |
| 14 to 16 | 92 | 91 | 90 | 89 | 88 | 87 | 86 |
| 17 to 19 | 93 | 92 | 91 | 90 | 90 | 89 | 88 |
| 20 or more | 94 | 93 | 93 | 92 | 91 | 90 | 90 |

Note: Ages for determination of option reduction: Step 1: Determine Participant's nearest age in terms of years and months at the date payments commence. Step 2: Determine difference in Participant's and contingent annuitant's dates of birth to nearest year. Step 3: Spouse’s nearest age is Participant's nearest age in Step 1 plus or minus difference determined in Step 2.

## Sub appendix A. 2 <br> Table D - <br> O\&R Participants

For Distributions Beginning Before July 1, 2004

## Joint And 50\% Survivorship With Pop-Up Option Factors

|  | Participant's Age |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 25 to 27 | 28 to 30 | 31 to 33 | 34 to 36 | 37 to 39 | 40 to 42 | 43 to 45 |
| Difference in <br> Contingent <br> Annuitant's Age |  |  |  |  |  |  |  |
| Years Younger |  |  |  |  |  |  |  |
| 20 or more | 95 | 95 | 94 | 93 | 92 | 91 | 90 |
| 17 to 19 | 96 | 95 | 94 | 93 | 92 | 91 | 90 |
| 14 to 16 | 96 | 95 | 94 | 94 | 93 | 92 | 91 |
| 11 to 13 | 96 | 95 | 95 | 94 | 93 | 92 | 91 |
| 8 to 10 | 96 | 96 | 95 | 94 | 94 | 93 | 92 |
| 5 to 7 | 97 | 96 | 95 | 95 | 94 | 93 | 92 |
| 2 to 4 | 97 | 96 | 96 | 95 | 94 | 94 | 93 |
| 0 to 1 | 97 | 97 | 96 | 96 | 95 | 94 | 93 |
| Years Older |  |  |  |  |  |  |  |
| 0 to 1 | 97 | 97 | 96 | 96 | 95 | 94 | 93 |
| 2 to 4 | 97 | 97 | 96 | 96 | 95 | 95 | 94 |
| 5 to 7 | 98 | 97 | 97 | 96 | 96 | 95 | 95 |
| 8 to 10 | 98 | 97 | 97 | 97 | 96 | 96 | 95 |
| 11 to 13 | 98 | 98 | 97 | 97 | 97 | 96 | 96 |
| 14 to 16 | 98 | 98 | 98 | 97 | 97 | 97 | 96 |
| 17 to 19 | 98 | 98 | 98 | 98 | 97 | 97 | 97 |
| 20 or more | 99 | 98 | 98 | 98 | 98 | 97 | 97 |

[^9]
## Sub appendix A. 2 <br> Table D - <br> O\&R Participants

For Distributions Beginning Before July 1, 2004

## Joint And 50\% Survivorship With Pop-Up Option Factors

|  | Participant's Age |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} 46 \text { to } \\ 48 \end{gathered}$ | $\begin{gathered} 49 \text { to } \\ 51 \end{gathered}$ | $\begin{gathered} 52 \text { to } \\ 54 \end{gathered}$ | $\begin{gathered} 55 \text { to } \\ 57 \end{gathered}$ | $\begin{gathered} 58 \text { to } \\ 60 \end{gathered}$ | $\begin{gathered} 61 \text { to } \\ 63 \end{gathered}$ | 64 and over |
| Difference in Contingent Annuitant's Age |  |  |  |  |  |  |  |
| Years Younger |  |  |  |  |  |  |  |
| 20 or more | 88 | 86 | 84 | 82 | 80 | 78 | 75 |
| 17 to 19 | 89 | 87 | 85 | 83 | 81 | 79 | 76 |
| 14 to 16 | 89 | 88 | 86 | 84 | 82 | 80 | 77 |
| 11 to 13 | 90 | 88 | 87 | 85 | 83 | 81 | 79 |
| 8 to 10 | 90 | 89 | 88 | 86 | 84 | 82 | 80 |
| 5 to 7 | 91 | 90 | 89 | 87 | 85 | 84 | 82 |
| 2 to 4 | 92 | 91 | 90 | 88 | 87 | 85 | 83 |
| 0 to 1 | 93 | 92 | 90 | 89 | 88 | 86 | 85 |
| Years Older |  |  |  |  |  |  |  |
| 0 to 1 | 93 | 92 | 90 | 89 | 88 | 86 | 85 |
| 2 to 4 | 93 | 92 | 91 | 90 | 89 | 88 | 87 |
| 5 to 7 | 94 | 93 | 92 | 91 | 90 | 89 | 88 |
| 8 to 10 | 95 | 94 | 93 | 92 | 91 | 91 | 90 |
| 11 to 13 | 95 | 95 | 94 | 93 | 93 | 92 | 91 |
| 14 to 16 | 96 | 95 | 95 | 94 | 94 | 93 | 92 |
| 17 to 19 | 96 | 96 | 95 | 95 | 94 | 94 | 94 |
| 20 or more | 97 | 97 | 96 | 96 | 95 | 95 | 95 |

[^10]
# Sub Appendix A. 2 <br> Table E - <br> O\&R Participants <br> For Distributions Beginning Before July 1, 2004 

## Reduction Factors For

## Vested Participant Spouse's Allowance Coverage

Applied for each year of coverage after termination of employment (or if later, from the time that the vested Participant has been given notice of his or her right to waive the vested Participant Spouse's Allowance) and before the earlier of death or the Annuity Starting Date.

| Vested Participant's Age Range | Factors per Year of Coverage |
| :--- | :---: |
|  |  |
| 60 and over | $.80 \%$ |
| $55-59$ | $.55 \%$ |
| $50-54$ | $.35 \%$ |
| $45-49$ | $.20 \%$ |
| $40-44$ | $.15 \%$ |
| 39 and under | $.10 \%$ |

The factors per year of coverage shall be pro-rated for months of coverage in the established age ranges in a manner determined by the Plan Administrator.

## Sub appendix A. 2

## TABLE F

## O\&R PARTICIPANTS

For purposes of calculating payment of Actuarial Equivalent which are otherwise not set forth in the Plan, the Plan Administrator has adopted the interest rate and mortality table described in Section 5.01(c)(3) as the interest rate and mortality table to be used on and after January 1, 2000 in all circumstances required by Code Section 417(e) and the regulations thereunder.

## Sub appendix A. 2 <br> Table G-

For Distributions Beginning On And After July 1, 2004 100\% Joint And Survivor Without Pop-Up O\&R Participants

|  |  |  |  |  |  |  |  | Age | ner |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| 20 | 0.9504 | 0.9466 | 0.9426 | 0.9384 | 0.9339 | 0.9290 | 0.9240 | 0.9187 | 0.9130 | 0.9070 | 0.9007 | 0.8941 | 0.8871 | 0.8798 | 0.8721 | 0.8642 |
| 21 | 0.9517 | 0.9480 | 0.9440 | 0.9399 | 0.9354 | 0.9306 | 0.9256 | 0.9203 | 0.9147 | 0.9087 | 0.9025 | 0.8958 | 0.8889 | 0.8816 | 0.8740 | 0.8660 |
| 22 | 0.9531 | 0.9494 | 0.9455 | 0.9413 | 0.9369 | 0.9322 | 0.9272 | 0.9220 | 0.9163 | 0.9105 | 0.9043 | 0.8976 | 0.8907 | 0.8835 | 0.8759 | 0.8679 |
| 23 | 0.9544 | 0.9508 | 0.9469 | 0.9429 | 0.9385 | 0.9338 | 0.9289 | 0.9237 | 0.9181 | 0.9123 | 0.9061 | 0.8995 | 0.8926 | 0.8854 | 0.8778 | 0.8699 |
| 24 | 0.9558 | 0.9522 | 0.9484 | 0.9444 | 0.9401 | 0.9354 | 0.9306 | 0.9255 | 0.9199 | 0.9142 | 0.9080 | 0.9014 | 0.8946 | 0.8874 | 0.8799 | 0.8720 |
| 25 | 0.9571 | 0.9536 | 0.9499 | 0.9460 | 0.9417 | 0.9372 | 0.9323 | 0.9272 | 0.9218 | 0.9160 | 0.9099 | 0.9034 | 0.8966 | 0.8895 | 0.8820 | 0.8741 |
| 26 | 0.9585 | 0.9551 | 0.9514 | 0.9476 | 0.9434 | 0.9389 | 0.9341 | 0.9291 | 0.9237 | 0.9180 | 0.9119 | 0.9055 | 0.8987 | 0.8917 | 0.8842 | 0.8763 |
| 27 | 0.9599 | 0.9566 | 0.9530 | 0.9492 | 0.9450 | 0.9406 | 0.9359 | 0.9309 | 0.9256 | 0.9199 | 0.9140 | 0.9076 | 0.9009 | 0.8938 | 0.8864 | 0.8786 |
| 28 | 0.9613 | 0.9580 | 0.9545 | 0.9508 | 0.9467 | 0.9424 | 0.9378 | 0.9328 | 0.9276 | 0.9220 | 0.9161 | 0.9097 | 0.9031 | 0.8961 | 0.8887 | 0.8810 |
| 29 | 0.9627 | 0.9595 | 0.9560 | 0.9524 | 0.9484 | 0.9441 | 0.9396 | 0.9348 | 0.9296 | 0.9241 | 0.9182 | 0.9120 | 0.9054 | 0.8984 | 0.8911 | 0.8834 |
| 30 | 0.9641 | 0.9609 | 0.9576 | 0.9540 | 0.9501 | 0.9459 | 0.9415 | 0.9368 | 0.9316 | 0.9262 | 0.9204 | 0.9142 | 0.9077 | 0.9008 | 0.8935 | 0.8859 |
| 31 | 0.9655 | 0.9624 | 0.9591 | 0.9556 | 0.9518 | 0.9477 | 0.9434 | 0.9387 | 0.9336 | 0.9284 | 0.9226 | 0.9165 | 0.9101 | 0.9033 | 0.8960 | 0.8884 |
| 32 | 0.9668 | 0.9638 | 0.9606 | 0.9572 | 0.9535 | 0.9495 | 0.9453 | 0.9407 | 0.9358 | 0.9305 | 0.9249 | 0.9189 | 0.9125 | 0.9058 | 0.8986 | 0.8911 |
| 33 | 0.9681 | 0.9652 | 0.9622 | 0.9589 | 0.9552 | 0.9513 | 0.9472 | 0.9427 | 0.9379 | 0.9327 | 0.9272 | 0.9212 | 0.9150 | 0.9083 | 0.9013 | 0.8938 |
| 34 | 0.9694 | 0.9667 | 0.9637 | 0.9605 | 0.9570 | 0.9532 | 0.9491 | 0.9447 | 0.9400 | 0.9349 | 0.9295 | 0.9236 | 0.9174 | 0.9109 | 0.9039 | 0.8966 |
| 35 | 0.9708 | 0.9680 | 0.9652 | 0.9620 | 0.9587 | 0.9549 | 0.9510 | 0.9467 | 0.9421 | 0.9371 | 0.9318 | 0.9261 | 0.9200 | 0.9135 | 0.9067 | 0.8994 |
| 36 | 0.9720 | 0.9694 | 0.9667 | 0.9636 | 0.9603 | 0.9567 | 0.9529 | 0.9487 | 0.9442 | 0.9393 | 0.9341 | 0.9285 | 0.9226 | 0.9163 | 0.9095 | 0.9023 |
| 37 | 0.9733 | 0.9708 | 0.9681 | 0.9652 | 0.9620 | 0.9585 | 0.9548 | 0.9508 | 0.9463 | 0.9416 | 0.9365 | 0.9310 | 0.9251 | 0.9189 | 0.9123 | 0.9052 |
| 38 | 0.9745 | 0.9721 | 0.9695 | 0.9667 | 0.9636 | 0.9602 | 0.9566 | 0.9527 | 0.9484 | 0.9438 | 0.9389 | 0.9335 | 0.9277 | 0.9217 | 0.9151 | 0.9082 |
| 39 | 0.9757 | 0.9734 | 0.9709 | 0.9682 | 0.9652 | 0.9620 | 0.9585 | 0.9547 | 0.9505 | 0.9461 | 0.9412 | 0.9360 | 0.9304 | 0.9244 | 0.9180 | 0.9112 |
| 40 | 0.9768 | 0.9746 | 0.9723 | 0.9697 | 0.9668 | 0.9637 | 0.9603 | 0.9567 | 0.9526 | 0.9483 | 0.9436 | 0.9385 | 0.9330 | 0.9272 | 0.9209 | 0.9142 |
| 41 | 0.9780 | 0.9758 | 0.9736 | 0.9711 | 0.9683 | 0.9654 | 0.9621 | 0.9585 | 0.9546 | 0.9505 | 0.9459 | 0.9409 | 0.9356 | 0.9299 | 0.9238 | 0.9172 |
| 42 | 0.9791 | 0.9771 | 0.9749 | 0.9725 | 0.9698 | 0.9670 | 0.9639 | 0.9604 | 0.9567 | 0.9527 | 0.9482 | 0.9434 | 0.9382 | 0.9327 | 0.9267 | 0.9203 |
| 43 | 0.9801 | 0.9782 | 0.9761 | 0.9739 | 0.9713 | 0.9686 | 0.9656 | 0.9623 | 0.9587 | 0.9548 | 0.9505 | 0.9458 | 0.9408 | 0.9355 | 0.9296 | 0.9234 |
| 44 | 0.9812 | 0.9793 | 0.9774 | 0.9752 | 0.9728 | 0.9701 | 0.9673 | 0.9642 | 0.9606 | 0.9569 | 0.9528 | 0.9482 | 0.9434 | 0.9382 | 0.9325 | 0.9264 |
| 45 | 0.9822 | 0.9804 | 0.9785 | 0.9765 | 0.9742 | 0.9717 | 0.9689 | 0.9659 | 0.9626 | 0.9590 | 0.9550 | 0.9506 | 0.9459 | 0.9409 | 0.9354 | 0.9295 |
| 46 | 0.9831 | 0.9815 | 0.9797 | 0.9777 | 0.9755 | 0.9731 | 0.9705 | 0.9676 | 0.9644 | 0.9609 | 0.9571 | 0.9529 | 0.9485 | 0.9436 | 0.9382 | 0.9325 |
| 47 | 0.9840 | 0.9824 | 0.9808 | 0.9789 | 0.9768 | 0.9745 | 0.9721 | 0.9693 | 0.9662 | 0.9629 | 0.9593 | 0.9553 | 0.9509 | 0.9462 | 0.9411 | 0.9356 |
| 48 | 0.9849 | 0.9834 | 0.9818 | 0.9801 | 0.9781 | 0.9759 | 0.9735 | 0.9710 | 0.9680 | 0.9649 | 0.9613 | 0.9575 | 0.9533 | 0.9488 | 0.9439 | 0.9385 |
| 49 | 0.9857 | 0.9844 | 0.9829 | 0.9812 | 0.9793 | 0.9772 | 0.9750 | 0.9725 | 0.9697 | 0.9667 | 0.9634 | 0.9597 | 0.9557 | 0.9514 | 0.9466 | 0.9414 |
| 50 | 0.9866 | 0.9853 | 0.9838 | 0.9823 | 0.9805 | 0.9785 | 0.9764 | 0.9741 | 0.9714 | 0.9686 | 0.9653 | 0.9618 | 0.9580 | 0.9538 | 0.9493 | 0.9443 |
| 51 | 0.9873 | 0.9861 | 0.9847 | 0.9833 | 0.9816 | 0.9797 | 0.9777 | 0.9755 | 0.9730 | 0.9703 | 0.9672 | 0.9639 | 0.9602 | 0.9563 | 0.9519 | 0.9472 |
| 52 | 0.9881 | 0.9869 | 0.9857 | 0.9843 | 0.9827 | 0.9810 | 0.9791 | 0.9769 | 0.9745 | 0.9720 | 0.9691 | 0.9659 | 0.9624 | 0.9587 | 0.9544 | 0.9499 |

## Sub appendix A. 2 <br> Table G -

For Distributions Beginning On And After July 1, 2004 100\% Joint And Survivor Without Pop-Up O\&R Participants

|  |  |  |  |  |  |  |  | Age | ioner |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| age ofbeneficiary | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| 53 | 0.9888 | 0.9877 | 0.9865 | 0.9852 | 0.9837 | 0.9821 | 0.9803 | 0.9783 | 0.9760 | 0.9736 | 0.9709 | 0.9678 | 0.9645 | 0.9609 | 0.9569 | 0.9526 |
| 54 | 0.9895 | 0.9885 | 0.9873 | 0.9861 | 0.9847 | 0.9832 | 0.9815 | 0.9796 | 0.9775 | 0.9752 | 0.9726 | 0.9697 | 0.9666 | 0.9632 | 0.9594 | 0.9552 |
| 55 | 0.9901 | 0.9892 | 0.9881 | 0.9870 | 0.9857 | 0.9842 | 0.9826 | 0.9808 | 0.9788 | 0.9767 | 0.9742 | 0.9715 | 0.9685 | 0.9654 | 0.9617 | 0.9578 |
| 56 | 0.9907 | 0.9898 | 0.9889 | 0.9878 | 0.9865 | 0.9852 | 0.9838 | 0.9821 | 0.9802 | 0.9782 | 0.9758 | 0.9733 | 0.9705 | 0.9674 | 0.9640 | 0.9603 |
| 57 | 0.9914 | 0.9905 | 0.9896 | 0.9886 | 0.9874 | 0.9862 | 0.9848 | 0.9832 | 0.9814 | 0.9795 | 0.9774 | 0.9750 | 0.9723 | 0.9694 | 0.9662 | 0.9627 |
| 58 | 0.9920 | 0.9911 | 0.9903 | 0.9893 | 0.9883 | 0.9870 | 0.9858 | 0.9844 | 0.9827 | 0.9809 | 0.9788 | 0.9766 | 0.9741 | 0.9714 | 0.9683 | 0.9650 |
| 59 | 0.9925 | 0.9917 | 0.9909 | 0.9901 | 0.9890 | 0.9879 | 0.9867 | 0.9854 | 0.9838 | 0.9821 | 0.9803 | 0.9781 | 0.9758 | 0.9732 | 0.9703 | 0.9672 |
| 60 | 0.9930 | 0.9923 | 0.9916 | 0.9907 | 0.9898 | 0.9887 | 0.9877 | 0.9864 | 0.9849 | 0.9834 | 0.9816 | 0.9796 | 0.9774 | 0.9750 | 0.9723 | 0.9694 |
| 61 | 0.9934 | 0.9928 | 0.9922 | 0.9914 | 0.9905 | 0.9896 | 0.9885 | 0.9874 | 0.9860 | 0.9845 | 0.9829 | 0.9810 | 0.9789 | 0.9767 | 0.9741 | 0.9714 |
| 62 | 0.9940 | 0.9934 | 0.9927 | 0.9920 | 0.9912 | 0.9903 | 0.9893 | 0.9883 | 0.9870 | 0.9856 | 0.9841 | 0.9823 | 0.9804 | 0.9783 | 0.9760 | 0.9734 |
| 63 | 0.9944 | 0.9938 | 0.9933 | 0.9926 | 0.9918 | 0.9910 | 0.9902 | 0.9891 | 0.9879 | 0.9867 | 0.9852 | 0.9836 | 0.9818 | 0.9799 | 0.9776 | 0.9753 |
| 64 | 0.9948 | 0.9943 | 0.9937 | 0.9932 | 0.9924 | 0.9917 | 0.9909 | 0.9899 | 0.9888 | 0.9877 | 0.9863 | 0.9848 | 0.9832 | 0.9814 | 0.9793 | 0.9770 |
| 65 | 0.9952 | 0.9947 | 0.9942 | 0.9937 | 0.9930 | 0.9923 | 0.9916 | 0.9907 | 0.9897 | 0.9886 | 0.9873 | 0.9860 | 0.9844 | 0.9828 | 0.9808 | 0.9787 |
| 66 | 0.9956 | 0.9951 | 0.9947 | 0.9942 | 0.9935 | 0.9929 | 0.9922 | 0.9914 | 0.9905 | 0.9895 | 0.9884 | 0.9871 | 0.9856 | 0.9841 | 0.9822 | 0.9803 |
| 67 | 0.9959 | 0.9955 | 0.9951 | 0.9946 | 0.9941 | 0.9935 | 0.9928 | 0.9921 | 0.9912 | 0.9903 | 0.9893 | 0.9880 | 0.9867 | 0.9853 | 0.9836 | 0.9818 |
| 68 | 0.9962 | 0.9959 | 0.9955 | 0.9950 | 0.9945 | 0.9940 | 0.9934 | 0.9928 | 0.9919 | 0.9911 | 0.9901 | 0.9890 | 0.9878 | 0.9865 | 0.9849 | 0.9833 |
| 69 | 0.9966 | 0.9962 | 0.9958 | 0.9955 | 0.9950 | 0.9945 | 0.9939 | 0.9934 | 0.9926 | 0.9918 | 0.9909 | 0.9899 | 0.9888 | 0.9876 | 0.9862 | 0.9846 |
| 70 | 0.9968 | 0.9965 | 0.9962 | 0.9959 | 0.9954 | 0.9949 | 0.9945 | 0.9939 | 0.9932 | 0.9926 | 0.9917 | 0.9907 | 0.9897 | 0.9886 | 0.9873 | 0.9859 |
| 71 | 0.9971 | 0.9968 | 0.9965 | 0.9962 | 0.9958 | 0.9954 | 0.9950 | 0.9945 | 0.9938 | 0.9932 | 0.9924 | 0.9915 | 0.9906 | 0.9896 | 0.9883 | 0.9870 |
| 72 | 0.9973 | 0.9971 | 0.9968 | 0.9965 | 0.9961 | 0.9958 | 0.9954 | 0.9949 | 0.9944 | 0.9938 | 0.9930 | 0.9923 | 0.9914 | 0.9904 | 0.9893 | 0.9882 |
| 73 | 0.9976 | 0.9973 | 0.9971 | 0.9969 | 0.9965 | 0.9962 | 0.9958 | 0.9954 | 0.9948 | 0.9943 | 0.9937 | 0.9929 | 0.9921 | 0.9913 | 0.9903 | 0.9892 |
| 74 | 0.9978 | 0.9975 | 0.9974 | 0.9971 | 0.9968 | 0.9965 | 0.9962 | 0.9958 | 0.9953 | 0.9949 | 0.9943 | 0.9935 | 0.9929 | 0.9921 | 0.9911 | 0.9901 |
| 75 | 0.9980 | 0.9978 | 0.9976 | 0.9974 | 0.9971 | 0.9968 | 0.9965 | 0.9962 | 0.9957 | 0.9953 | 0.9948 | 0.9942 | 0.9935 | 0.9928 | 0.9919 | 0.9910 |
| 76 | 0.9982 | 0.9980 | 0.9978 | 0.9976 | 0.9974 | 0.9971 | 0.9969 | 0.9966 | 0.9962 | 0.9958 | 0.9953 | 0.9947 | 0.9941 | 0.9934 | 0.9927 | 0.9918 |
| 77 | 0.9984 | 0.9982 | 0.9980 | 0.9979 | 0.9976 | 0.9974 | 0.9972 | 0.9969 | 0.9965 | 0.9961 | 0.9957 | 0.9952 | 0.9947 | 0.9941 | 0.9934 | 0.9926 |
| 78 | 0.9985 | 0.9984 | 0.9982 | 0.9980 | 0.9979 | 0.9977 | 0.9974 | 0.9972 | 0.9968 | 0.9965 | 0.9961 | 0.9956 | 0.9952 | 0.9946 | 0.9939 | 0.9933 |
| 79 | 0.9987 | 0.9985 | 0.9984 | 0.9982 | 0.9980 | 0.9978 | 0.9977 | 0.9975 | 0.9971 | 0.9969 | 0.9965 | 0.9961 | 0.9956 | 0.9951 | 0.9946 | 0.9940 |
| 80 | 0.9988 | 0.9987 | 0.9985 | 0.9984 | 0.9982 | 0.9981 | 0.9979 | 0.9977 | 0.9974 | 0.9972 | 0.9969 | 0.9965 | 0.9960 | 0.9956 | 0.9951 | 0.9945 |
| 81 | 0.9989 | 0.9988 | 0.9986 | 0.9986 | 0.9984 | 0.9983 | 0.9981 | 0.9979 | 0.9977 | 0.9975 | 0.9972 | 0.9968 | 0.9964 | 0.9961 | 0.9955 | 0.9950 |
| 82 | 0.9990 | 0.9989 | 0.9988 | 0.9987 | 0.9986 | 0.9984 | 0.9983 | 0.9982 | 0.9979 | 0.9977 | 0.9975 | 0.9971 | 0.9968 | 0.9965 | 0.9960 | 0.9956 |
| 83 | 0.9991 | 0.9990 | 0.9989 | 0.9988 | 0.9987 | 0.9986 | 0.9985 | 0.9984 | 0.9981 | 0.9980 | 0.9977 | 0.9974 | 0.9971 | 0.9968 | 0.9964 | 0.9960 |
| 84 | 0.9992 | 0.9991 | 0.9990 | 0.9989 | 0.9989 | 0.9987 | 0.9986 | 0.9985 | 0.9983 | 0.9982 | 0.9980 | 0.9977 | 0.9974 | 0.9971 | 0.9967 | 0.9964 |
| 85 | 0.9993 | 0.9992 | 0.9991 | 0.9991 | 0.9989 | 0.9989 | 0.9988 | 0.9987 | 0.9985 | 0.9983 | 0.9982 | 0.9979 | 0.9977 | 0.9975 | 0.9971 | 0.9968 |

## Sub appendix A. 2 <br> Table G -

For Distributions Beginning On And After July 1, 2004 100\% Joint And Survivor Without Pop-Up O\&R Participants

|  |  |  |  |  |  |  |  | Age of P | ner |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 |
| 20 | 0.8559 | 0.8472 | 0.8382 | 0.8289 | 0.8192 | 0.8091 | 0.7986 | 0.7878 | 0.7765 | 0.7648 | 0.7526 | 0.7400 | 0.7269 | 0.7134 | 0.6993 | 0.6848 |
| 21 | 0.8577 | 0.8491 | 0.8401 | 0.8307 | 0.8211 | 0.8110 | 0.8005 | 0.7896 | 0.7784 | 0.7666 | 0.7545 | 0.7418 | 0.7287 | 0.7151 | 0.7011 | 0.6866 |
| 22 | 0.8597 | 0.8510 | 0.8421 | 0.8327 | 0.8230 | 0.8129 | 0.8024 | 0.7916 | 0.7803 | 0.7686 | 0.7564 | 0.7437 | 0.7306 | 0.7170 | 0.7029 | 0.6884 |
| 23 | 0.8617 | 0.8530 | 0.8441 | 0.8348 | 0.8251 | 0.8149 | 0.8045 | 0.7937 | 0.7824 | 0.7706 | 0.7584 | 0.7457 | 0.7326 | 0.7190 | 0.7049 | 0.6903 |
| 24 | 0.8637 | 0.8551 | 0.8462 | 0.8369 | 0.8272 | 0.8171 | 0.8067 | 0.7958 | 0.7845 | 0.7728 | 0.7605 | 0.7479 | 0.7347 | 0.7211 | 0.7070 | 0.6924 |
| 25 | 0.8659 | 0.8573 | 0.8484 | 0.8391 | 0.8294 | 0.8193 | 0.8089 | 0.7981 | 0.7867 | 0.7749 | 0.7627 | 0.7501 | 0.7369 | 0.7233 | 0.7091 | 0.6945 |
| 26 | 0.8682 | 0.8596 | 0.8507 | 0.8414 | 0.8318 | 0.8217 | 0.8112 | 0.8004 | 0.7891 | 0.7773 | 0.7651 | 0.7524 | 0.7392 | 0.7256 | 0.7114 | 0.6967 |
| 27 | 0.8705 | 0.8619 | 0.8530 | 0.8438 | 0.8342 | 0.8241 | 0.8137 | 0.8029 | 0.7916 | 0.7797 | 0.7675 | 0.7548 | 0.7416 | 0.7279 | 0.7137 | 0.6991 |
| 28 | 0.8729 | 0.8644 | 0.8555 | 0.8463 | 0.8367 | 0.8267 | 0.8162 | 0.8054 | 0.7941 | 0.7823 | 0.7701 | 0.7574 | 0.7442 | 0.7304 | 0.7162 | 0.7015 |
| 29 | 0.8754 | 0.8669 | 0.8581 | 0.8489 | 0.8393 | 0.8293 | 0.8189 | 0.8081 | 0.7968 | 0.7850 | 0.7728 | 0.7600 | 0.7468 | 0.7331 | 0.7188 | 0.7041 |
| 30 | 0.8779 | 0.8695 | 0.8607 | 0.8515 | 0.8420 | 0.8320 | 0.8216 | 0.8108 | 0.7996 | 0.7878 | 0.7755 | 0.7628 | 0.7496 | 0.7359 | 0.7216 | 0.7068 |
| 31 | 0.8806 | 0.8721 | 0.8635 | 0.8543 | 0.8448 | 0.8349 | 0.8245 | 0.8138 | 0.8025 | 0.7907 | 0.7785 | 0.7657 | 0.7525 | 0.7388 | 0.7244 | 0.7097 |
| 32 | 0.8832 | 0.8749 | 0.8663 | 0.8572 | 0.8477 | 0.8378 | 0.8275 | 0.8167 | 0.8055 | 0.7937 | 0.7815 | 0.7688 | 0.7556 | 0.7418 | 0.7275 | 0.7127 |
| 33 | 0.8860 | 0.8778 | 0.8692 | 0.8601 | 0.8507 | 0.8409 | 0.8306 | 0.8199 | 0.8086 | 0.7969 | 0.7847 | 0.7719 | 0.7587 | 0.7450 | 0.7306 | 0.7158 |
| 34 | 0.8889 | 0.8807 | 0.8722 | 0.8632 | 0.8539 | 0.8440 | 0.8338 | 0.8231 | 0.8119 | 0.8002 | 0.7880 | 0.7753 | 0.7621 | 0.7483 | 0.7339 | 0.7191 |
| 35 | 0.8918 | 0.8837 | 0.8752 | 0.8663 | 0.8571 | 0.8473 | 0.8371 | 0.8264 | 0.8153 | 0.8036 | 0.7914 | 0.7787 | 0.7655 | 0.7517 | 0.7374 | 0.7226 |
| 36 | 0.8948 | 0.8868 | 0.8784 | 0.8696 | 0.8604 | 0.8506 | 0.8405 | 0.8299 | 0.8188 | 0.8072 | 0.7950 | 0.7823 | 0.7691 | 0.7553 | 0.7410 | 0.7261 |
| 37 | 0.8978 | 0.8899 | 0.8816 | 0.8729 | 0.8638 | 0.8541 | 0.8440 | 0.8335 | 0.8225 | 0.8108 | 0.7987 | 0.7861 | 0.7729 | 0.7591 | 0.7448 | 0.7299 |
| 38 | 0.9009 | 0.8931 | 0.8849 | 0.8763 | 0.8672 | 0.8576 | 0.8477 | 0.8372 | 0.8262 | 0.8146 | 0.8026 | 0.7899 | 0.7768 | 0.7631 | 0.7487 | 0.7338 |
| 39 | 0.9040 | 0.8963 | 0.8883 | 0.8797 | 0.8708 | 0.8613 | 0.8514 | 0.8410 | 0.8301 | 0.8186 | 0.8066 | 0.7940 | 0.7809 | 0.7671 | 0.7528 | 0.7379 |
| 40 | 0.9071 | 0.8996 | 0.8917 | 0.8833 | 0.8744 | 0.8650 | 0.8552 | 0.8450 | 0.8341 | 0.8227 | 0.8107 | 0.7982 | 0.7851 | 0.7714 | 0.7570 | 0.7422 |
| 41 | 0.9103 | 0.9029 | 0.8951 | 0.8869 | 0.8781 | 0.8689 | 0.8592 | 0.8490 | 0.8382 | 0.8269 | 0.8150 | 0.8025 | 0.7895 | 0.7758 | 0.7615 | 0.7467 |
| 42 | 0.9136 | 0.9063 | 0.8986 | 0.8905 | 0.8819 | 0.8728 | 0.8632 | 0.8531 | 0.8425 | 0.8312 | 0.8194 | 0.8070 | 0.7940 | 0.7804 | 0.7661 | 0.7513 |
| 43 | 0.9168 | 0.9097 | 0.9022 | 0.8942 | 0.8857 | 0.8768 | 0.8673 | 0.8574 | 0.8468 | 0.8357 | 0.8240 | 0.8116 | 0.7987 | 0.7851 | 0.7709 | 0.7561 |
| 44 | 0.9200 | 0.9131 | 0.9057 | 0.8979 | 0.8896 | 0.8808 | 0.8715 | 0.8617 | 0.8512 | 0.8402 | 0.8286 | 0.8164 | 0.8035 | 0.7900 | 0.7758 | 0.7611 |
| 45 | 0.9232 | 0.9165 | 0.9093 | 0.9017 | 0.8935 | 0.8849 | 0.8757 | 0.8660 | 0.8558 | 0.8448 | 0.8334 | 0.8212 | 0.8085 | 0.7951 | 0.7810 | 0.7663 |
| 46 | 0.9265 | 0.9199 | 0.9129 | 0.9054 | 0.8975 | 0.8890 | 0.8800 | 0.8705 | 0.8604 | 0.8496 | 0.8382 | 0.8262 | 0.8136 | 0.8003 | 0.7863 | 0.7716 |
| 47 | 0.9297 | 0.9233 | 0.9165 | 0.9092 | 0.9015 | 0.8931 | 0.8843 | 0.8750 | 0.8650 | 0.8544 | 0.8432 | 0.8313 | 0.8188 | 0.8056 | 0.7917 | 0.7771 |
| 48 | 0.9328 | 0.9267 | 0.9200 | 0.9129 | 0.9054 | 0.8973 | 0.8887 | 0.8795 | 0.8697 | 0.8593 | 0.8483 | 0.8366 | 0.8242 | 0.8111 | 0.7973 | 0.7828 |
| 49 | 0.9359 | 0.9300 | 0.9236 | 0.9167 | 0.9094 | 0.9015 | 0.8930 | 0.8841 | 0.8745 | 0.8643 | 0.8534 | 0.8419 | 0.8296 | 0.8167 | 0.8030 | 0.7887 |
| 50 | 0.9390 | 0.9333 | 0.9271 | 0.9204 | 0.9133 | 0.9056 | 0.8974 | 0.8887 | 0.8794 | 0.8693 | 0.8587 | 0.8473 | 0.8352 | 0.8224 | 0.8089 | 0.7947 |
| 51 | 0.9420 | 0.9365 | 0.9306 | 0.9241 | 0.9172 | 0.9098 | 0.9019 | 0.8933 | 0.8842 | 0.8744 | 0.8639 | 0.8528 | 0.8409 | 0.8283 | 0.8149 | 0.8008 |
| 52 | 0.9451 | 0.9397 | 0.9340 | 0.9278 | 0.9211 | 0.9140 | 0.9062 | 0.8980 | 0.8891 | 0.8795 | 0.8692 | 0.8583 | 0.8466 | 0.8342 | 0.8210 | 0.8071 |

Table G-
For Distributions Beginning On And After July 1, 2004
100\% Joint And Survivor Without Pop-Up
O\&R Participants

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 |
| 53 | 0.9479 | 0.9428 | 0.9373 | 0.9314 | 0.9250 | 0.9180 | 0.9106 | 0.9026 | 0.8939 | 0.8846 | 0.8746 | 0.8639 | 0.8525 | 0.8403 | 0.8273 | 0.8135 |
| 54 | 0.9508 | 0.9459 | 0.9406 | 0.9349 | 0.9288 | 0.9221 | 0.9149 | 0.9071 | 0.8988 | 0.8897 | 0.8800 | 0.8695 | 0.8584 | 0.8464 | 0.8336 | 0.8201 |
| 55 | 0.9536 | 0.9489 | 0.9439 | 0.9384 | 0.9325 | 0.9261 | 0.9191 | 0.9117 | 0.9036 | 0.8948 | 0.8854 | 0.8752 | 0.8643 | 0.8526 | 0.8401 | 0.8268 |
| 56 | 0.9562 | 0.9518 | 0.9470 | 0.9418 | 0.9362 | 0.9300 | 0.9234 | 0.9162 | 0.9084 | 0.8999 | 0.8907 | 0.8808 | 0.8703 | 0.8588 | 0.8465 | 0.8335 |
| 57 | 0.9589 | 0.9547 | 0.9501 | 0.9452 | 0.9398 | 0.9339 | 0.9275 | 0.9206 | 0.9131 | 0.9049 | 0.8961 | 0.8865 | 0.8762 | 0.8651 | 0.8531 | 0.8403 |
| 58 | 0.9614 | 0.9574 | 0.9531 | 0.9484 | 0.9433 | 0.9377 | 0.9316 | 0.9251 | 0.9178 | 0.9099 | 0.9014 | 0.8922 | 0.8822 | 0.8714 | 0.8597 | 0.8472 |
| 59 | 0.9638 | 0.9600 | 0.9560 | 0.9516 | 0.9467 | 0.9414 | 0.9356 | 0.9293 | 0.9224 | 0.9149 | 0.9067 | 0.8978 | 0.8881 | 0.8777 | 0.8663 | 0.8542 |
| 60 | 0.9662 | 0.9626 | 0.9588 | 0.9546 | 0.9500 | 0.9449 | 0.9395 | 0.9335 | 0.9269 | 0.9198 | 0.9119 | 0.9034 | 0.8941 | 0.8839 | 0.8729 | 0.8612 |
| 61 | 0.9685 | 0.9651 | 0.9615 | 0.9576 | 0.9533 | 0.9484 | 0.9432 | 0.9376 | 0.9314 | 0.9245 | 0.9170 | 0.9088 | 0.8998 | 0.8901 | 0.8795 | 0.8681 |
| 62 | 0.9706 | 0.9675 | 0.9641 | 0.9603 | 0.9563 | 0.9518 | 0.9469 | 0.9416 | 0.9356 | 0.9291 | 0.9220 | 0.9142 | 0.9056 | 0.8963 | 0.8860 | 0.8750 |
| 63 | 0.9727 | 0.9697 | 0.9666 | 0.9631 | 0.9593 | 0.9551 | 0.9504 | 0.9454 | 0.9398 | 0.9336 | 0.9269 | 0.9194 | 0.9112 | 0.9023 | 0.8925 | 0.8819 |
| 64 | 0.9746 | 0.9719 | 0.9689 | 0.9657 | 0.9621 | 0.9582 | 0.9539 | 0.9491 | 0.9439 | 0.9380 | 0.9316 | 0.9245 | 0.9168 | 0.9083 | 0.8988 | 0.8887 |
| 65 | 0.9765 | 0.9739 | 0.9712 | 0.9681 | 0.9648 | 0.9611 | 0.9571 | 0.9527 | 0.9478 | 0.9422 | 0.9362 | 0.9295 | 0.9221 | 0.9141 | 0.9051 | 0.8953 |
| 66 | 0.9783 | 0.9759 | 0.9733 | 0.9705 | 0.9674 | 0.9640 | 0.9602 | 0.9561 | 0.9515 | 0.9463 | 0.9407 | 0.9344 | 0.9274 | 0.9197 | 0.9111 | 0.9019 |
| 67 | 0.9799 | 0.9777 | 0.9754 | 0.9727 | 0.9699 | 0.9667 | 0.9631 | 0.9594 | 0.9550 | 0.9502 | 0.9449 | 0.9390 | 0.9324 | 0.9251 | 0.9170 | 0.9082 |
| 68 | 0.9815 | 0.9795 | 0.9773 | 0.9748 | 0.9722 | 0.9692 | 0.9660 | 0.9625 | 0.9584 | 0.9539 | 0.9489 | 0.9434 | 0.9372 | 0.9304 | 0.9228 | 0.9144 |
| 69 | 0.9830 | 0.9811 | 0.9791 | 0.9768 | 0.9744 | 0.9717 | 0.9687 | 0.9654 | 0.9617 | 0.9574 | 0.9528 | 0.9477 | 0.9419 | 0.9355 | 0.9283 | 0.9204 |
| 70 | 0.9844 | 0.9826 | 0.9807 | 0.9787 | 0.9765 | 0.9739 | 0.9712 | 0.9681 | 0.9647 | 0.9608 | 0.9565 | 0.9517 | 0.9463 | 0.9403 | 0.9336 | 0.9261 |
| 71 | 0.9857 | 0.9841 | 0.9823 | 0.9805 | 0.9784 | 0.9761 | 0.9735 | 0.9707 | 0.9676 | 0.9639 | 0.9600 | 0.9555 | 0.9505 | 0.9449 | 0.9386 | 0.9317 |
| 72 | 0.9869 | 0.9854 | 0.9838 | 0.9821 | 0.9802 | 0.9780 | 0.9758 | 0.9732 | 0.9703 | 0.9669 | 0.9633 | 0.9592 | 0.9545 | 0.9493 | 0.9435 | 0.9370 |
| 73 | 0.9881 | 0.9867 | 0.9853 | 0.9836 | 0.9819 | 0.9800 | 0.9778 | 0.9755 | 0.9728 | 0.9698 | 0.9663 | 0.9625 | 0.9583 | 0.9535 | 0.9480 | 0.9420 |
| 74 | 0.9891 | 0.9879 | 0.9866 | 0.9851 | 0.9835 | 0.9817 | 0.9797 | 0.9776 | 0.9751 | 0.9724 | 0.9693 | 0.9658 | 0.9618 | 0.9574 | 0.9523 | 0.9467 |
| 75 | 0.9900 | 0.9890 | 0.9877 | 0.9864 | 0.9850 | 0.9833 | 0.9815 | 0.9796 | 0.9773 | 0.9748 | 0.9720 | 0.9688 | 0.9652 | 0.9611 | 0.9564 | 0.9512 |
| 76 | 0.9910 | 0.9899 | 0.9888 | 0.9877 | 0.9863 | 0.9849 | 0.9832 | 0.9815 | 0.9794 | 0.9771 | 0.9745 | 0.9715 | 0.9683 | 0.9645 | 0.9602 | 0.9554 |
| 77 | 0.9918 | 0.9908 | 0.9899 | 0.9888 | 0.9876 | 0.9862 | 0.9847 | 0.9831 | 0.9813 | 0.9792 | 0.9768 | 0.9742 | 0.9712 | 0.9678 | 0.9638 | 0.9594 |
| 78 | 0.9926 | 0.9917 | 0.9908 | 0.9898 | 0.9888 | 0.9875 | 0.9862 | 0.9847 | 0.9830 | 0.9811 | 0.9790 | 0.9766 | 0.9738 | 0.9707 | 0.9671 | 0.9630 |
| 79 | 0.9933 | 0.9925 | 0.9917 | 0.9908 | 0.9898 | 0.9887 | 0.9875 | 0.9862 | 0.9846 | 0.9829 | 0.9810 | 0.9788 | 0.9763 | 0.9735 | 0.9702 | 0.9665 |
| 80 | 0.9940 | 0.9932 | 0.9925 | 0.9917 | 0.9908 | 0.9898 | 0.9887 | 0.9875 | 0.9861 | 0.9845 | 0.9828 | 0.9808 | 0.9785 | 0.9759 | 0.9730 | 0.9696 |
| 81 | 0.9945 | 0.9939 | 0.9932 | 0.9925 | 0.9917 | 0.9907 | 0.9898 | 0.9887 | 0.9875 | 0.9860 | 0.9845 | 0.9827 | 0.9806 | 0.9783 | 0.9755 | 0.9725 |
| 82 | 0.9951 | 0.9945 | 0.9939 | 0.9932 | 0.9925 | 0.9917 | 0.9907 | 0.9899 | 0.9887 | 0.9874 | 0.9860 | 0.9844 | 0.9825 | 0.9804 | 0.9779 | 0.9752 |
| 83 | 0.9956 | 0.9950 | 0.9945 | 0.9939 | 0.9933 | 0.9925 | 0.9916 | 0.9908 | 0.9898 | 0.9887 | 0.9874 | 0.9859 | 0.9843 | 0.9824 | 0.9802 | 0.9776 |
| 84 | 0.9960 | 0.9955 | 0.9950 | 0.9945 | 0.9939 | 0.9933 | 0.9925 | 0.9917 | 0.9908 | 0.9898 | 0.9886 | 0.9873 | 0.9858 | 0.9842 | 0.9821 | 0.9799 |
| 85 | 0.9964 | 0.9960 | 0.9955 | 0.9951 | 0.9946 | 0.9939 | 0.9932 | 0.9926 | 0.9918 | 0.9908 | 0.9898 | 0.9887 | 0.9873 | 0.9858 | 0.9840 | 0.9820 |

Table G-
For Distributions Beginning On And After July 1, 2004
100\% Joint And Survivor Without Pop-Up O\&R Participants

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
| 20 | 0.6699 | 0.6546 | 0.6388 | 0.6228 | 0.6063 | 0.5897 | 0.5728 | 0.5557 | 0.5385 | 0.5211 | 0.5037 | 0.4861 | 0.4686 | 0.4511 |
| 21 | 0.6716 | 0.6563 | 0.6405 | 0.6244 | 0.6079 | 0.5912 | 0.5743 | 0.5572 | 0.5399 | 0.5225 | 0.5050 | 0.4874 | 0.4699 | 0.4523 |
| 22 | 0.6734 | 0.6581 | 0.6422 | 0.6261 | 0.6096 | 0.5928 | 0.5759 | 0.5587 | 0.5414 | 0.5240 | 0.5065 | 0.4888 | 0.4712 | 0.4536 |
| 23 | 0.6753 | 0.6599 | 0.6441 | 0.6279 | 0.6113 | 0.5945 | 0.5776 | 0.5604 | 0.5430 | 0.5255 | 0.5079 | 0.4902 | 0.4726 | 0.4549 |
| 24 | 0.6773 | 0.6619 | 0.6460 | 0.6298 | 0.6132 | 0.5964 | 0.5793 | 0.5621 | 0.5447 | 0.5272 | 0.5095 | 0.4918 | 0.4741 | 0.4564 |
| 25 | 0.6794 | 0.6639 | 0.6480 | 0.6318 | 0.6151 | 0.5983 | 0.5812 | 0.5639 | 0.5464 | 0.5289 | 0.5112 | 0.4934 | 0.4756 | 0.4579 |
| 26 | 0.6816 | 0.6661 | 0.6502 | 0.6339 | 0.6172 | 0.6003 | 0.5832 | 0.5658 | 0.5483 | 0.5307 | 0.5130 | 0.4951 | 0.4773 | 0.4595 |
| 27 | 0.6840 | 0.6684 | 0.6524 | 0.6361 | 0.6193 | 0.6024 | 0.5852 | 0.5678 | 0.5503 | 0.5326 | 0.5148 | 0.4969 | 0.4790 | 0.4611 |
| 28 | 0.6864 | 0.6708 | 0.6548 | 0.6384 | 0.6216 | 0.6046 | 0.5874 | 0.5700 | 0.5524 | 0.5346 | 0.5168 | 0.4988 | 0.4809 | 0.4629 |
| 29 | 0.6889 | 0.6733 | 0.6573 | 0.6408 | 0.6240 | 0.6070 | 0.5897 | 0.5722 | 0.5545 | 0.5367 | 0.5188 | 0.5008 | 0.4828 | 0.4648 |
| 30 | 0.6917 | 0.6760 | 0.6599 | 0.6434 | 0.6266 | 0.6095 | 0.5921 | 0.5746 | 0.5568 | 0.5390 | 0.5210 | 0.5029 | 0.4849 | 0.4668 |
| 31 | 0.6945 | 0.6788 | 0.6626 | 0.6461 | 0.6292 | 0.6121 | 0.5947 | 0.5771 | 0.5593 | 0.5414 | 0.5233 | 0.5051 | 0.4870 | 0.4689 |
| 32 | 0.6974 | 0.6817 | 0.6655 | 0.6490 | 0.6320 | 0.6148 | 0.5974 | 0.5797 | 0.5618 | 0.5439 | 0.5258 | 0.5075 | 0.4893 | 0.4711 |
| 33 | 0.7005 | 0.6848 | 0.6686 | 0.6520 | 0.6350 | 0.6177 | 0.6002 | 0.5825 | 0.5645 | 0.5465 | 0.5283 | 0.5100 | 0.4917 | 0.4734 |
| 34 | 0.7038 | 0.6880 | 0.6717 | 0.6551 | 0.6380 | 0.6207 | 0.6032 | 0.5854 | 0.5674 | 0.5493 | 0.5310 | 0.5126 | 0.4942 | 0.4759 |
| 35 | 0.7072 | 0.6914 | 0.6751 | 0.6584 | 0.6413 | 0.6239 | 0.6063 | 0.5885 | 0.5704 | 0.5522 | 0.5339 | 0.5154 | 0.4969 | 0.4785 |
| 36 | 0.7108 | 0.6949 | 0.6786 | 0.6619 | 0.6447 | 0.6273 | 0.6096 | 0.5917 | 0.5735 | 0.5553 | 0.5369 | 0.5183 | 0.4998 | 0.4812 |
| 37 | 0.7145 | 0.6986 | 0.6823 | 0.6655 | 0.6483 | 0.6308 | 0.6131 | 0.5951 | 0.5769 | 0.5585 | 0.5400 | 0.5214 | 0.5028 | 0.4841 |
| 38 | 0.7184 | 0.7025 | 0.6861 | 0.6693 | 0.6521 | 0.6345 | 0.6168 | 0.5987 | 0.5804 | 0.5620 | 0.5434 | 0.5246 | 0.5059 | 0.4872 |
| 39 | 0.7225 | 0.7066 | 0.6902 | 0.6733 | 0.6560 | 0.6384 | 0.6206 | 0.6024 | 0.5841 | 0.5656 | 0.5469 | 0.5281 | 0.5093 | 0.4904 |
| 40 | 0.7268 | 0.7108 | 0.6944 | 0.6775 | 0.6602 | 0.6425 | 0.6246 | 0.6064 | 0.5880 | 0.5694 | 0.5506 | 0.5317 | 0.5128 | 0.4938 |
| 41 | 0.7312 | 0.7153 | 0.6988 | 0.6819 | 0.6646 | 0.6468 | 0.6289 | 0.6106 | 0.5920 | 0.5734 | 0.5545 | 0.5355 | 0.5165 | 0.4974 |
| 42 | 0.7359 | 0.7199 | 0.7035 | 0.6865 | 0.6691 | 0.6513 | 0.6333 | 0.6150 | 0.5963 | 0.5776 | 0.5586 | 0.5395 | 0.5204 | 0.5012 |
| 43 | 0.7407 | 0.7248 | 0.7083 | 0.6913 | 0.6739 | 0.6560 | 0.6380 | 0.6196 | 0.6008 | 0.5820 | 0.5630 | 0.5438 | 0.5245 | 0.5052 |
| 44 | 0.7457 | 0.7298 | 0.7133 | 0.6963 | 0.6788 | 0.6610 | 0.6428 | 0.6244 | 0.6056 | 0.5867 | 0.5675 | 0.5482 | 0.5288 | 0.5094 |
| 45 | 0.7509 | 0.7350 | 0.7185 | 0.7015 | 0.6840 | 0.6661 | 0.6480 | 0.6294 | 0.6106 | 0.5915 | 0.5723 | 0.5529 | 0.5334 | 0.5139 |
| 46 | 0.7563 | 0.7404 | 0.7240 | 0.7070 | 0.6895 | 0.6716 | 0.6533 | 0.6347 | 0.6158 | 0.5967 | 0.5774 | 0.5578 | 0.5382 | 0.5185 |
| 47 | 0.7619 | 0.7460 | 0.7296 | 0.7126 | 0.6951 | 0.6772 | 0.6589 | 0.6402 | 0.6212 | 0.6020 | 0.5826 | 0.5630 | 0.5433 | 0.5235 |
| 48 | 0.7676 | 0.7519 | 0.7355 | 0.7185 | 0.7010 | 0.6830 | 0.6647 | 0.6460 | 0.6269 | 0.6077 | 0.5881 | 0.5684 | 0.5486 | 0.5286 |
| 49 | 0.7736 | 0.7579 | 0.7415 | 0.7246 | 0.7070 | 0.6891 | 0.6708 | 0.6520 | 0.6329 | 0.6135 | 0.5939 | 0.5740 | 0.5541 | 0.5341 |
| 50 | 0.7797 | 0.7641 | 0.7478 | 0.7309 | 0.7134 | 0.6954 | 0.6771 | 0.6583 | 0.6391 | 0.6197 | 0.6000 | 0.5800 | 0.5600 | 0.5398 |
| 51 | 0.7860 | 0.7705 | 0.7543 | 0.7374 | 0.7200 | 0.7020 | 0.6837 | 0.6648 | 0.6456 | 0.6261 | 0.6063 | 0.5863 | 0.5661 | 0.5458 |
| 52 | 0.7924 | 0.7770 | 0.7609 | 0.7441 | 0.7268 | 0.7088 | 0.6905 | 0.6717 | 0.6524 | 0.6329 | 0.6130 | 0.5928 | 0.5725 | 0.5521 |

## Sub appendix A. 2 <br> Table G -

For Distributions Beginning On And After July 1, 2004 100\% Joint And Survivor Without Pop-Up O\&R Participants

| age of beneficiary | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 53 | 0.7990 | 0.7838 | 0.7678 | 0.7511 | 0.7338 | 0.7160 | 0.6976 | 0.6788 | 0.6595 | 0.6399 | 0.6200 | 0.5997 | 0.5793 | 0.5587 |
| 54 | 0.8057 | 0.7907 | 0.7748 | 0.7583 | 0.7411 | 0.7233 | 0.7050 | 0.6862 | 0.6669 | 0.6473 | 0.6273 | 0.6069 | 0.5864 | 0.5657 |
| 55 | 0.8126 | 0.7977 | 0.7820 | 0.7656 | 0.7486 | 0.7309 | 0.7126 | 0.6939 | 0.6746 | 0.6549 | 0.6349 | 0.6145 | 0.5939 | 0.5731 |
| 56 | 0.8196 | 0.8049 | 0.7895 | 0.7732 | 0.7563 | 0.7387 | 0.7205 | 0.7018 | 0.6826 | 0.6629 | 0.6429 | 0.6224 | 0.6017 | 0.5808 |
| 57 | 0.8267 | 0.8123 | 0.7970 | 0.7810 | 0.7642 | 0.7468 | 0.7287 | 0.7101 | 0.6909 | 0.6713 | 0.6512 | 0.6306 | 0.6099 | 0.5889 |
| 58 | 0.8339 | 0.8197 | 0.8047 | 0.7889 | 0.7723 | 0.7550 | 0.7372 | 0.7186 | 0.6995 | 0.6799 | 0.6599 | 0.6393 | 0.6185 | 0.5974 |
| 59 | 0.8412 | 0.8273 | 0.8126 | 0.7970 | 0.7807 | 0.7636 | 0.7459 | 0.7275 | 0.7084 | 0.6889 | 0.6689 | 0.6483 | 0.6275 | 0.6063 |
| 60 | 0.8485 | 0.8349 | 0.8205 | 0.8053 | 0.7891 | 0.7723 | 0.7548 | 0.7365 | 0.7176 | 0.6982 | 0.6783 | 0.6577 | 0.6368 | 0.6156 |
| 61 | 0.8352 | 0.8426 | 0.8285 | 0.8136 | 0.7978 | 0.7811 | 0.7639 | 0.7459 | 0.7271 | 0.7078 | 0.6880 | 0.6674 | 0.6466 | 0.6253 |
| 62 | 0.8631 | 0.8503 | 0.8366 | 0.8220 | 0.8065 | 0.7902 | 0.7732 | 0.7554 | 0.7369 | 0.7177 | 0.6979 | 0.6775 | 0.6567 | 0.6354 |
| 63 | 0.8704 | 0.8580 | 0.8446 | 0.8305 | 0.8153 | 0.7994 | 0.7826 | 0.7651 | 0.7468 | 0.7279 | 0.7083 | 0.6879 | 0.6672 | 0.6459 |
| 64 | 0.8776 | 0.8656 | 0.8527 | 0.8389 | 0.8242 | 0.8086 | 0.7922 | 0.7750 | 0.7569 | 0.7383 | 0.7188 | 0.6986 | 0.6780 | 0.6568 |
| 65 | 0.8847 | 0.8732 | 0.8607 | 0.8474 | 0.8330 | 0.8178 | 0.8019 | 0.7849 | 0.7672 | 0.7488 | 0.7296 | 0.7097 | 0.6891 | 0.6680 |
| 66 | 0.8917 | 0.8807 | 0.8687 | 0.8557 | 0.8419 | 0.8271 | 0.8115 | 0.7951 | 0.7777 | 0.7596 | 0.7406 | 0.7209 | 0.7006 | 0.6796 |
| 67 | 0.8985 | 0.8880 | 0.8764 | 0.8640 | 0.8506 | 0.8363 | 0.8212 | 0.8051 | 0.7882 | 0.7704 | 0.7518 | 0.7323 | 0.7122 | 0.6914 |
| 68 | 0.9052 | 0.8951 | 0.8841 | 0.8722 | 0.8592 | 0.8455 | 0.8308 | 0.8152 | 0.7987 | 0.7813 | 0.7631 | 0.7439 | 0.7241 | 0.7035 |
| 69 | 0.9117 | 0.9021 | 0.8916 | 0.8802 | 0.8678 | 0.8545 | 0.8404 | 0.8253 | 0.8092 | 0.7923 | 0.7745 | 0.7556 | 0.7361 | 0.7158 |
| 70 | 0.9179 | 0.9088 | 0.8988 | 0.8880 | 0.8761 | 0.8634 | 0.8498 | 0.8353 | 0.8197 | 0.8033 | 0.7858 | 0.7674 | 0.7483 | 0.7283 |
| 71 | 0.9239 | 0.9153 | 0.9059 | 0.8956 | 0.8843 | 0.8721 | 0.8591 | 0.8451 | 0.8301 | 0.8141 | 0.7972 | 0.7793 | 0.7605 | 0.7409 |
| 72 | 0.9297 | 0.9216 | 0.9127 | 0.9030 | 0.8922 | 0.8807 | 0.8683 | 0.8548 | 0.8403 | 0.8249 | 0.8085 | 0.7911 | 0.7729 | 0.7536 |
| 73 | 0.9352 | 0.9276 | 0.9193 | 0.9101 | 0.8999 | 0.8889 | 0.8771 | 0.8642 | 0.8504 | 0.8356 | 0.8198 | 0.8029 | 0.7851 | 0.7664 |
| 74 | 0.9404 | 0.9334 | 0.9256 | 0.9169 | 0.9073 | 0.8970 | 0.8857 | 0.8735 | 0.8602 | 0.8460 | 0.8309 | 0.8146 | 0.7974 | 0.7791 |
| 75 | 0.9454 | 0.9388 | 0.9315 | 0.9234 | 0.9144 | 0.9046 | 0.8940 | 0.8824 | 0.8698 | 0.8563 | 0.8418 | 0.8261 | 0.8094 | 0.7918 |
| 76 | 0.9500 | 0.9439 | 0.9372 | 0.9296 | 0.9212 | 0.9120 | 0.9020 | 0.8910 | 0.8791 | 0.8662 | 0.8524 | 0.8373 | 0.8213 | 0.8043 |
| 77 | 0.9544 | 0.9488 | 0.9424 | 0.9355 | 0.9276 | 0.9190 | 0.9097 | 0.8993 | 0.8880 | 0.8758 | 0.8626 | 0.8482 | 0.8329 | 0.8165 |
| 78 | 0.9584 | 0.9533 | 0.9475 | 0.9410 | 0.9337 | 0.9257 | 0.9169 | 0.9072 | 0.8966 | 0.8851 | 0.8726 | 0.8589 | 0.8442 | 0.8285 |
| 79 | 0.9622 | 0.9575 | 0.9522 | 0.9461 | 0.9394 | 0.9319 | 0.9237 | 0.9147 | 0.9047 | 0.8939 | 0.8820 | 0.8691 | 0.8551 | 0.8401 |
| 80 | 0.9657 | 0.9614 | 0.9565 | 0.9509 | 0.9446 | 0.9377 | 0.9302 | 0.9217 | 0.9124 | 0.9023 | 0.8912 | 0.8789 | 0.8656 | 0.8513 |
| 81 | 0.9689 | 0.9650 | 0.9605 | 0.9554 | 0.9496 | 0.9432 | 0.9363 | 0.9284 | 0.9197 | 0.9102 | 0.8998 | 0.8882 | 0.8757 | 0.8621 |
| 82 | 0.9720 | 0.9683 | 0.9642 | 0.9595 | 0.9542 | 0.9483 | 0.9419 | 0.9346 | 0.9265 | 0.9177 | 0.9080 | 0.8971 | 0.8853 | 0.8725 |
| 83 | 0.9747 | 0.9714 | 0.9676 | 0.9634 | 0.9586 | 0.9531 | 0.9472 | 0.9405 | 0.9330 | 0.9248 | 0.9157 | 0.9055 | 0.8945 | 0.8824 |
| 84 | 0.9772 | 0.9742 | 0.9708 | 0.9669 | 0.9625 | 0.9575 | 0.9521 | 0.9459 | 0.9390 | 0.9314 | 0.9230 | 0.9135 | 0.9032 | 0.8918 |
| 85 | 0.9795 | 0.9768 | 0.9738 | 0.9702 | 0.9661 | 0.9617 | 0.9567 | 0.9510 | 0.9446 | 0.9376 | 0.9299 | 0.9211 | 0.9115 | 0.9008 |

## A. 2

Table H -
For Distributions Beginning On And After July 1, 2004 50\% Joint And Survivor Without Pop-Up O\&R Participants

|  |  |  |  |  |  |  |  | Age Of P | oner |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| 20 | 0.9746 | 0.9726 | 0.9705 | 0.9682 | 0.9658 | 0.9632 | 0.9605 | 0.9576 | 0.9545 | 0.9513 | 0.9478 | 0.9441 | 0.9401 | 0.9361 | 0.9317 | 0.9272 |
| 21 | 0.9753 | 0.9733 | 0.9712 | 0.9690 | 0.9666 | 0.9640 | 0.9614 | 0.9585 | 0.9554 | 0.9522 | 0.9487 | 0.9451 | 0.9412 | 0.9371 | 0.9327 | 0.9282 |
| 22 | 0.9760 | 0.9740 | 0.9720 | 0.9698 | 0.9674 | 0.9649 | 0.9622 | 0.9594 | 0.9563 | 0.9532 | 0.9497 | 0.9461 | 0.9422 | 0.9381 | 0.9338 | 0.9293 |
| 23 | 0.9767 | 0.9748 | 0.9728 | 0.9706 | 0.9682 | 0.9657 | 0.9631 | 0.9603 | 0.9573 | 0.9541 | 0.9508 | 0.9471 | 0.9433 | 0.9393 | 0.9349 | 0.9304 |
| 24 | 0.9774 | 0.9755 | 0.9735 | 0.9714 | 0.9691 | 0.9666 | 0.9640 | 0.9613 | 0.9583 | 0.9551 | 0.9518 | 0.9481 | 0.9443 | 0.9404 | 0.9361 | 0.9316 |
| 25 | 0.9781 | 0.9762 | 0.9743 | 0.9722 | 0.9700 | 0.9675 | 0.9650 | 0.9622 | 0.9593 | 0.9562 | 0.9528 | 0.9493 | 0.9455 | 0.9415 | 0.9373 | 0.9328 |
| 26 | 0.9789 | 0.9770 | 0.9751 | 0.9731 | 0.9709 | 0.9684 | 0.9659 | 0.9633 | 0.9603 | 0.9573 | 0.9540 | 0.9504 | 0.9466 | 0.9428 | 0.9385 | 0.9340 |
| 27 | 0.9796 | 0.9778 | 0.9759 | 0.9739 | 0.9717 | 0.9694 | 0.9669 | 0.9643 | 0.9614 | 0.9583 | 0.9550 | 0.9516 | 0.9478 | 0.9439 | 0.9398 | 0.9353 |
| 28 | 0.9803 | 0.9785 | 0.9767 | 0.9748 | 0.9726 | 0.9703 | 0.9679 | 0.9653 | 0.9624 | 0.9594 | 0.9562 | 0.9527 | 0.9491 | 0.9452 | 0.9411 | 0.9367 |
| 29 | 0.9810 | 0.9793 | 0.9775 | 0.9756 | 0.9735 | 0.9713 | 0.9689 | 0.9663 | 0.9635 | 0.9605 | 0.9574 | 0.9539 | 0.9503 | 0.9465 | 0.9424 | 0.9381 |
| 30 | 0.9817 | 0.9801 | 0.9783 | 0.9765 | 0.9744 | 0.9722 | 0.9698 | 0.9673 | 0.9646 | 0.9617 | 0.9585 | 0.9551 | 0.9516 | 0.9479 | 0.9437 | 0.9395 |
| 31 | 0.9825 | 0.9808 | 0.9791 | 0.9773 | 0.9753 | 0.9731 | 0.9709 | 0.9684 | 0.9657 | 0.9628 | 0.9597 | 0.9564 | 0.9529 | 0.9492 | 0.9452 | 0.9409 |
| 32 | 0.9831 | 0.9816 | 0.9800 | 0.9782 | 0.9762 | 0.9741 | 0.9719 | 0.9695 | 0.9668 | 0.9640 | 0.9610 | 0.9577 | 0.9542 | 0.9506 | 0.9466 | 0.9424 |
| 33 | 0.9838 | 0.9823 | 0.9808 | 0.9790 | 0.9771 | 0.9751 | 0.9729 | 0.9705 | 0.9679 | 0.9652 | 0.9622 | 0.9590 | 0.9556 | 0.9520 | 0.9480 | 0.9439 |
| 34 | 0.9845 | 0.9830 | 0.9815 | 0.9799 | 0.9780 | 0.9760 | 0.9739 | 0.9716 | 0.9691 | 0.9664 | 0.9635 | 0.9603 | 0.9569 | 0.9534 | 0.9495 | 0.9455 |
| 35 | 0.9852 | 0.9838 | 0.9823 | 0.9807 | 0.9789 | 0.9769 | 0.9749 | 0.9726 | 0.9701 | 0.9676 | 0.9647 | 0.9616 | 0.9583 | 0.9548 | 0.9510 | 0.9470 |
| 36 | 0.9858 | 0.9845 | 0.9830 | 0.9815 | 0.9797 | 0.9779 | 0.9759 | 0.9737 | 0.9713 | 0.9687 | 0.9659 | 0.9630 | 0.9597 | 0.9563 | 0.9526 | 0.9486 |
| 37 | 0.9865 | 0.9852 | 0.9838 | 0.9823 | 0.9806 | 0.9788 | 0.9769 | 0.9748 | 0.9724 | 0.9699 | 0.9672 | 0.9642 | 0.9611 | 0.9578 | 0.9541 | 0.9502 |
| 38 | 0.9871 | 0.9858 | 0.9845 | 0.9831 | 0.9815 | 0.9797 | 0.9778 | 0.9758 | 0.9735 | 0.9711 | 0.9685 | 0.9656 | 0.9625 | 0.9592 | 0.9556 | 0.9519 |
| 39 | 0.9877 | 0.9865 | 0.9853 | 0.9839 | 0.9823 | 0.9806 | 0.9788 | 0.9768 | 0.9746 | 0.9723 | 0.9697 | 0.9669 | 0.9639 | 0.9608 | 0.9572 | 0.9535 |
| 40 | 0.9883 | 0.9871 | 0.9859 | 0.9846 | 0.9831 | 0.9815 | 0.9797 | 0.9778 | 0.9757 | 0.9735 | 0.9709 | 0.9683 | 0.9654 | 0.9622 | 0.9588 | 0.9552 |
| 41 | 0.9889 | 0.9878 | 0.9866 | 0.9853 | 0.9839 | 0.9823 | 0.9807 | 0.9789 | 0.9768 | 0.9746 | 0.9722 | 0.9695 | 0.9667 | 0.9637 | 0.9604 | 0.9568 |
| 42 | 0.9894 | 0.9884 | 0.9873 | 0.9860 | 0.9847 | 0.9832 | 0.9816 | 0.9799 | 0.9778 | 0.9758 | 0.9734 | 0.9708 | 0.9681 | 0.9652 | 0.9620 | 0.9585 |
| 43 | 0.9900 | 0.9890 | 0.9879 | 0.9868 | 0.9854 | 0.9840 | 0.9825 | 0.9808 | 0.9789 | 0.9769 | 0.9746 | 0.9721 | 0.9695 | 0.9667 | 0.9635 | 0.9602 |
| 44 | 0.9905 | 0.9896 | 0.9885 | 0.9874 | 0.9862 | 0.9848 | 0.9833 | 0.9817 | 0.9799 | 0.9780 | 0.9758 | 0.9734 | 0.9708 | 0.9681 | 0.9650 | 0.9618 |
| 45 | 0.9910 | 0.9901 | 0.9892 | 0.9881 | 0.9869 | 0.9856 | 0.9842 | 0.9827 | 0.9809 | 0.9790 | 0.9770 | 0.9747 | 0.9722 | 0.9696 | 0.9666 | 0.9635 |
| 46 | 0.9915 | 0.9906 | 0.9897 | 0.9888 | 0.9876 | 0.9863 | 0.9850 | 0.9835 | 0.9819 | 0.9801 | 0.9781 | 0.9759 | 0.9735 | 0.9710 | 0.9681 | 0.9651 |
| 47 | 0.9920 | 0.9912 | 0.9903 | 0.9893 | 0.9883 | 0.9871 | 0.9858 | 0.9844 | 0.9828 | 0.9811 | 0.9792 | 0.9771 | 0.9748 | 0.9724 | 0.9696 | 0.9667 |
| 48 | 0.9924 | 0.9916 | 0.9908 | 0.9899 | 0.9889 | 0.9878 | 0.9866 | 0.9852 | 0.9837 | 0.9821 | 0.9803 | 0.9783 | 0.9761 | 0.9737 | 0.9711 | 0.9683 |
| 49 | 0.9928 | 0.9921 | 0.9914 | 0.9905 | 0.9895 | 0.9885 | 0.9873 | 0.9861 | 0.9846 | 0.9831 | 0.9813 | 0.9794 | 0.9773 | 0.9751 | 0.9726 | 0.9698 |
| 50 | 0.9933 | 0.9925 | 0.9918 | 0.9911 | 0.9902 | 0.9892 | 0.9880 | 0.9868 | 0.9855 | 0.9840 | 0.9823 | 0.9805 | 0.9785 | 0.9764 | 0.9740 | 0.9713 |
| 51 | 0.9936 | 0.9930 | 0.9923 | 0.9916 | 0.9907 | 0.9897 | 0.9887 | 0.9876 | 0.9863 | 0.9849 | 0.9834 | 0.9816 | 0.9797 | 0.9776 | 0.9753 | 0.9729 |
| 52 | 0.9940 | 0.9934 | 0.9927 | 0.9921 | 0.9913 | 0.9904 | 0.9894 | 0.9883 | 0.9871 | 0.9858 | 0.9843 | 0.9826 | 0.9809 | 0.9789 | 0.9766 | 0.9743 |

## Sub appendix A. 2

Table $\mathrm{H}_{-}$
For Distributions Beginning On And After July 1, 2004
50\% Joint And Survivor Without Pop-Up
O\&R Participants

|  |  |  |  |  |  |  |  | Age | ner |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| 53 | 0.9944 | 0.9938 | 0.9932 | 0.9925 | 0.9918 | 0.9909 | 0.9900 | 0.9890 | 0.9879 | 0.9867 | 0.9852 | 0.9837 | 0.9819 | 0.9801 | 0.9780 | 0.9757 |
| 54 | 0.9947 | 0.9942 | 0.9936 | 0.9930 | 0.9923 | 0.9915 | 0.9906 | 0.9897 | 0.9886 | 0.9874 | 0.9861 | 0.9846 | 0.9830 | 0.9812 | 0.9792 | 0.9771 |
| 55 | 0.9951 | 0.9945 | 0.9940 | 0.9935 | 0.9928 | 0.9920 | 0.9912 | 0.9903 | 0.9893 | 0.9882 | 0.9870 | 0.9855 | 0.9840 | 0.9823 | 0.9805 | 0.9784 |
| 56 | 0.9954 | 0.9949 | 0.9944 | 0.9939 | 0.9933 | 0.9925 | 0.9918 | 0.9910 | 0.9900 | 0.9889 | 0.9878 | 0.9864 | 0.9850 | 0.9834 | 0.9816 | 0.9797 |
| 57 | 0.9957 | 0.9952 | 0.9948 | 0.9943 | 0.9937 | 0.9930 | 0.9923 | 0.9916 | 0.9906 | 0.9897 | 0.9885 | 0.9873 | 0.9860 | 0.9845 | 0.9828 | 0.9810 |
| 58 | 0.9959 | 0.9956 | 0.9951 | 0.9946 | 0.9941 | 0.9935 | 0.9928 | 0.9921 | 0.9912 | 0.9904 | 0.9893 | 0.9882 | 0.9868 | 0.9855 | 0.9839 | 0.9822 |
| 59 | 0.9962 | 0.9959 | 0.9954 | 0.9950 | 0.9945 | 0.9939 | 0.9933 | 0.9927 | 0.9918 | 0.9910 | 0.9900 | 0.9889 | 0.9877 | 0.9865 | 0.9849 | 0.9833 |
| 60 | 0.9965 | 0.9961 | 0.9958 | 0.9953 | 0.9948 | 0.9943 | 0.9938 | 0.9931 | 0.9924 | 0.9916 | 0.9907 | 0.9897 | 0.9885 | 0.9873 | 0.9860 | 0.9845 |
| 61 | 0.9967 | 0.9964 | 0.9961 | 0.9957 | 0.9952 | 0.9948 | 0.9942 | 0.9936 | 0.9929 | 0.9922 | 0.9913 | 0.9904 | 0.9893 | 0.9882 | 0.9869 | 0.9855 |
| 62 | 0.9970 | 0.9967 | 0.9964 | 0.9960 | 0.9956 | 0.9951 | 0.9947 | 0.9941 | 0.9934 | 0.9928 | 0.9920 | 0.9911 | 0.9901 | 0.9891 | 0.9878 | 0.9865 |
| 63 | 0.9972 | 0.9969 | 0.9966 | 0.9963 | 0.9959 | 0.9955 | 0.9950 | 0.9945 | 0.9939 | 0.9933 | 0.9926 | 0.9917 | 0.9908 | 0.9898 | 0.9887 | 0.9875 |
| 64 | 0.9974 | 0.9971 | 0.9969 | 0.9966 | 0.9962 | 0.9958 | 0.9954 | 0.9949 | 0.9944 | 0.9938 | 0.9931 | 0.9923 | 0.9915 | 0.9906 | 0.9895 | 0.9884 |
| 65 | 0.9976 | 0.9973 | 0.9971 | 0.9968 | 0.9965 | 0.9961 | 0.9957 | 0.9954 | 0.9948 | 0.9943 | 0.9937 | 0.9929 | 0.9921 | 0.9913 | 0.9903 | 0.9892 |
| 66 | 0.9978 | 0.9975 | 0.9973 | 0.9971 | 0.9967 | 0.9964 | 0.9961 | 0.9957 | 0.9952 | 0.9947 | 0.9941 | 0.9935 | 0.9927 | 0.9920 | 0.9910 | 0.9901 |
| 67 | 0.9980 | 0.9977 | 0.9975 | 0.9973 | 0.9970 | 0.9967 | 0.9964 | 0.9961 | 0.9956 | 0.9952 | 0.9946 | 0.9940 | 0.9933 | 0.9926 | 0.9917 | 0.9908 |
| 68 | 0.9981 | 0.9979 | 0.9977 | 0.9975 | 0.9973 | 0.9970 | 0.9967 | 0.9964 | 0.9959 | 0.9955 | 0.9951 | 0.9945 | 0.9939 | 0.9932 | 0.9924 | 0.9915 |
| 69 | 0.9983 | 0.9981 | 0.9979 | 0.9978 | 0.9975 | 0.9973 | 0.9970 | 0.9967 | 0.9963 | 0.9959 | 0.9954 | 0.9949 | 0.9944 | 0.9938 | 0.9930 | 0.9922 |
| 70 | 0.9984 | 0.9982 | 0.9981 | 0.9979 | 0.9977 | 0.9975 | 0.9972 | 0.9970 | 0.9966 | 0.9963 | 0.9959 | 0.9953 | 0.9948 | 0.9943 | 0.9936 | 0.9929 |
| 71 | 0.9985 | 0.9984 | 0.9982 | 0.9981 | 0.9979 | 0.9977 | 0.9975 | 0.9972 | 0.9969 | 0.9966 | 0.9962 | 0.9957 | 0.9952 | 0.9948 | 0.9941 | 0.9934 |
| 72 | 0.9987 | 0.9985 | 0.9984 | 0.9983 | 0.9981 | 0.9979 | 0.9977 | 0.9975 | 0.9971 | 0.9969 | 0.9965 | 0.9961 | 0.9957 | 0.9952 | 0.9946 | 0.9940 |
| 73 | 0.9988 | 0.9987 | 0.9985 | 0.9984 | 0.9982 | 0.9981 | 0.9979 | 0.9977 | 0.9974 | 0.9972 | 0.9969 | 0.9965 | 0.9960 | 0.9956 | 0.9951 | 0.9945 |
| 74 | 0.9989 | 0.9988 | 0.9986 | 0.9986 | 0.9984 | 0.9983 | 0.9981 | 0.9979 | 0.9976 | 0.9974 | 0.9971 | 0.9968 | 0.9964 | 0.9960 | 0.9955 | 0.9950 |
| 75 | 0.9990 | 0.9989 | 0.9988 | 0.9987 | 0.9986 | 0.9984 | 0.9983 | 0.9981 | 0.9979 | 0.9977 | 0.9974 | 0.9971 | 0.9967 | 0.9964 | 0.9959 | 0.9955 |
| 76 | 0.9991 | 0.9990 | 0.9989 | 0.9988 | 0.9987 | 0.9986 | 0.9984 | 0.9983 | 0.9980 | 0.9979 | 0.9977 | 0.9973 | 0.9970 | 0.9967 | 0.9963 | 0.9959 |
| 77 | 0.9992 | 0.9991 | 0.9990 | 0.9989 | 0.9988 | 0.9987 | 0.9986 | 0.9984 | 0.9982 | 0.9981 | 0.9978 | 0.9976 | 0.9973 | 0.9970 | 0.9967 | 0.9963 |
| 78 | 0.9992 | 0.9992 | 0.9991 | 0.9991 | 0.9989 | 0.9988 | 0.9987 | 0.9986 | 0.9984 | 0.9983 | 0.9981 | 0.9978 | 0.9976 | 0.9973 | 0.9970 | 0.9966 |
| 79 | 0.9994 | 0.9992 | 0.9992 | 0.9991 | 0.9990 | 0.9989 | 0.9989 | 0.9987 | 0.9985 | 0.9985 | 0.9983 | 0.9980 | 0.9978 | 0.9976 | 0.9973 | 0.9970 |
| 80 | 0.9994 | 0.9993 | 0.9992 | 0.9992 | 0.9991 | 0.9990 | 0.9990 | 0.9988 | 0.9987 | 0.9986 | 0.9985 | 0.9982 | 0.9980 | 0.9978 | 0.9975 | 0.9972 |
| 81 | 0.9995 | 0.9994 | 0.9994 | 0.9993 | 0.9992 | 0.9991 | 0.9990 | 0.9990 | 0.9988 | 0.9987 | 0.9986 | 0.9984 | 0.9982 | 0.9980 | 0.9978 | 0.9975 |
| 82 | 0.9995 | 0.9994 | 0.9994 | 0.9993 | 0.9993 | 0.9992 | 0.9992 | 0.9991 | 0.9990 | 0.9989 | 0.9988 | 0.9986 | 0.9984 | 0.9982 | 0.9980 | 0.9977 |
| 83 | 0.9995 | 0.9995 | 0.9995 | 0.9994 | 0.9993 | 0.9993 | 0.9992 | 0.9992 | 0.9990 | 0.9990 | 0.9989 | 0.9987 | 0.9986 | 0.9984 | 0.9982 | 0.9980 |
| 84 | 0.9996 | 0.9995 | 0.9995 | 0.9995 | 0.9994 | 0.9993 | 0.9993 | 0.9993 | 0.9991 | 0.9991 | 0.9990 | 0.9988 | 0.9987 | 0.9986 | 0.9984 | 0.9982 |
| 85 | 0.9996 | 0.9996 | 0.9996 | 0.9995 | 0.9995 | 0.9994 | 0.9994 | 0.9993 | 0.9992 | 0.9992 | 0.9991 | 0.9989 | 0.9988 | 0.9987 | 0.9985 | 0.9984 |

## Sub appendix A. 2 <br> Table H-

For Distributions Beginning On And After July 1, 2004 50\% Joint And Survivor Without Pop-Up

O\&R Participants

|  |  |  |  |  |  |  |  | Age O | sioner |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 |
| 20 | 0.9224 | 0.9173 | 0.9120 | 0.9065 | 0.9006 | 0.8945 | 0.8880 | 0.8813 | 0.8742 | 0.8667 | 0.8588 | 0.8506 | 0.8418 | 0.8327 | 0.8231 | 0.8130 |
| 21 | 0.9235 | 0.9184 | 0.9131 | 0.9076 | 0.9017 | 0.8956 | 0.8892 | 0.8825 | 0.8754 | 0.8679 | 0.8600 | 0.8518 | 0.8430 | 0.8339 | 0.8243 | 0.8142 |
| 22 | 0.9246 | 0.9195 | 0.9143 | 0.9087 | 0.9029 | 0.8968 | 0.8904 | 0.8837 | 0.8766 | 0.8691 | 0.8613 | 0.8530 | 0.8444 | 0.8352 | 0.8256 | 0.8155 |
| 23 | 0.9257 | 0.9207 | 0.9154 | 0.9099 | 0.9041 | 0.8980 | 0.8916 | 0.8850 | 0.8779 | 0.8704 | 0.8626 | 0.8544 | 0.8457 | 0.8365 | 0.8269 | 0.8168 |
| 24 | 0.9269 | 0.9219 | 0.9167 | 0.9112 | 0.9054 | 0.8993 | 0.8930 | 0.8863 | 0.8792 | 0.8718 | 0.8640 | 0.8557 | 0.8471 | 0.8380 | 0.8283 | 0.8182 |
| 25 | 0.9282 | 0.9232 | 0.9180 | 0.9125 | 0.9068 | 0.9007 | 0.8943 | 0.8877 | 0.8806 | 0.8732 | 0.8654 | 0.8572 | 0.8485 | 0.8394 | 0.8298 | 0.8197 |
| 26 | 0.9295 | 0.9245 | 0.9193 | 0.9139 | 0.9082 | 0.9021 | 0.8957 | 0.8892 | 0.8821 | 0.8747 | 0.8669 | 0.8587 | 0.8500 | 0.8410 | 0.8313 | 0.8213 |
| 27 | 0.9308 | 0.9259 | 0.9207 | 0.9153 | 0.9096 | 0.9035 | 0.8973 | 0.8906 | 0.8836 | 0.8762 | 0.8685 | 0.8603 | 0.8516 | 0.8426 | 0.8329 | 0.8229 |
| 28 | 0.9321 | 0.9272 | 0.9221 | 0.9167 | 0.9111 | 0.9051 | 0.8988 | 0.8922 | 0.8853 | 0.8779 | 0.8701 | 0.8619 | 0.8533 | 0.8443 | 0.8347 | 0.8246 |
| 29 | 0.9335 | 0.9287 | 0.9236 | 0.9183 | 0.9127 | 0.9067 | 0.9004 | 0.8939 | 0.8869 | 0.8795 | 0.8718 | 0.8636 | 0.8551 | 0.8460 | 0.8364 | 0.8264 |
| 30 | 0.9350 | 0.9302 | 0.9252 | 0.9198 | 0.9143 | 0.9083 | 0.9021 | 0.8956 | 0.8886 | 0.8813 | 0.8736 | 0.8655 | 0.8569 | 0.8479 | 0.8382 | 0.8283 |
| 31 | 0.9365 | 0.9317 | 0.9267 | 0.9215 | 0.9159 | 0.9100 | 0.9038 | 0.8973 | 0.8904 | 0.8831 | 0.8754 | 0.8673 | 0.8588 | 0.8497 | 0.8402 | 0.8302 |
| 32 | 0.9380 | 0.9333 | 0.9284 | 0.9231 | 0.9176 | 0.9118 | 0.9056 | 0.8991 | 0.8923 | 0.8850 | 0.8773 | 0.8693 | 0.8608 | 0.8518 | 0.8422 | 0.8322 |
| 33 | 0.9396 | 0.9349 | 0.9300 | 0.9248 | 0.9194 | 0.9135 | 0.9074 | 0.9010 | 0.8942 | 0.8870 | 0.8793 | 0.8713 | 0.8628 | 0.8538 | 0.8443 | 0.8344 |
| 34 | 0.9412 | 0.9366 | 0.9317 | 0.9266 | 0.9212 | 0.9154 | 0.9093 | 0.9030 | 0.8962 | 0.8890 | 0.8814 | 0.8734 | 0.8650 | 0.8560 | 0.8465 | 0.8366 |
| 35 | 0.9428 | 0.9383 | 0.9335 | 0.9284 | 0.9230 | 0.9173 | 0.9113 | 0.9050 | 0.8982 | 0.8911 | 0.8836 | 0.8756 | 0.8672 | 0.8583 | 0.8488 | 0.8389 |
| 36 | 0.9445 | 0.9399 | 0.9353 | 0.9302 | 0.9250 | 0.9193 | 0.9133 | 0.9071 | 0.9004 | 0.8933 | 0.8858 | 0.8779 | 0.8695 | 0.8606 | 0.8512 | 0.8414 |
| 37 | 0.9461 | 0.9417 | 0.9371 | 0.9322 | 0.9269 | 0.9213 | 0.9154 | 0.9092 | 0.9026 | 0.8955 | 0.8881 | 0.8802 | 0.8719 | 0.8631 | 0.8537 | 0.8439 |
| 38 | 0.9479 | 0.9435 | 0.9389 | 0.9340 | 0.9289 | 0.9234 | 0.9175 | 0.9114 | 0.9048 | 0.8978 | 0.8905 | 0.8827 | 0.8744 | 0.8656 | 0.8563 | 0.8465 |
| 39 | 0.9496 | 0.9453 | 0.9408 | 0.9360 | 0.9309 | 0.9255 | 0.9197 | 0.9137 | 0.9072 | 0.9003 | 0.8929 | 0.8852 | 0.8769 | 0.8682 | 0.8590 | 0.8492 |
| 40 | 0.9513 | 0.9471 | 0.9428 | 0.9380 | 0.9330 | 0.9276 | 0.9219 | 0.9160 | 0.9096 | 0.9027 | 0.8955 | 0.8878 | 0.8796 | 0.8709 | 0.8617 | 0.8520 |
| 41 | 0.9531 | 0.9490 | 0.9447 | 0.9400 | 0.9351 | 0.9299 | 0.9243 | 0.9183 | 0.9120 | 0.9052 | 0.8981 | 0.8904 | 0.8824 | 0.8738 | 0.8646 | 0.8549 |
| 42 | 0.9549 | 0.9508 | 0.9466 | 0.9421 | 0.9372 | 0.9321 | 0.9266 | 0.9208 | 0.9145 | 0.9078 | 0.9007 | 0.8932 | 0.8852 | 0.8767 | 0.8676 | 0.8580 |
| 43 | 0.9566 | 0.9527 | 0.9485 | 0.9442 | 0.9394 | 0.9343 | 0.9289 | 0.9232 | 0.9171 | 0.9105 | 0.9034 | 0.8960 | 0.8880 | 0.8796 | 0.8706 | 0.8611 |
| 44 | 0.9583 | 0.9545 | 0.9505 | 0.9462 | 0.9416 | 0.9366 | 0.9313 | 0.9257 | 0.9197 | 0.9132 | 0.9063 | 0.8989 | 0.8910 | 0.8827 | 0.8738 | 0.8643 |
| 45 | 0.9601 | 0.9564 | 0.9525 | 0.9483 | 0.9438 | 0.9389 | 0.9337 | 0.9282 | 0.9223 | 0.9159 | 0.9091 | 0.9018 | 0.8941 | 0.8858 | 0.8770 | 0.8677 |
| 46 | 0.9618 | 0.9583 | 0.9545 | 0.9504 | 0.9460 | 0.9412 | 0.9362 | 0.9308 | 0.9250 | 0.9186 | 0.9120 | 0.9049 | 0.8972 | 0.8891 | 0.8803 | 0.8711 |
| 47 | 0.9636 | 0.9601 | 0.9564 | 0.9524 | 0.9482 | 0.9435 | 0.9386 | 0.9334 | 0.9276 | 0.9215 | 0.9149 | 0.9079 | 0.9004 | 0.8924 | 0.8837 | 0.8746 |
| 48 | 0.9652 | 0.9619 | 0.9584 | 0.9545 | 0.9504 | 0.9459 | 0.9411 | 0.9359 | 0.9304 | 0.9243 | 0.9179 | 0.9110 | 0.9036 | 0.8957 | 0.8872 | 0.8782 |
| 49 | 0.9669 | 0.9637 | 0.9603 | 0.9566 | 0.9526 | 0.9482 | 0.9435 | 0.9385 | 0.9331 | 0.9272 | 0.9209 | 0.9141 | 0.9069 | 0.8991 | 0.8907 | 0.8818 |
| 50 | 0.9686 | 0.9655 | 0.9621 | 0.9586 | 0.9547 | 0.9505 | 0.9459 | 0.9411 | 0.9358 | 0.9301 | 0.9239 | 0.9173 | 0.9102 | 0.9026 | 0.8943 | 0.8856 |
| 51 | 0.9702 | 0.9672 | 0.9641 | 0.9606 | 0.9569 | 0.9527 | 0.9484 | 0.9437 | 0.9386 | 0.9330 | 0.9270 | 0.9205 | 0.9135 | 0.9061 | 0.8980 | 0.8894 |
| 52 | 0.9718 | 0.9689 | 0.9659 | 0.9625 | 0.9589 | 0.9550 | 0.9508 | 0.9462 | 0.9413 | 0.9359 | 0.9300 | 0.9238 | 0.9169 | 0.9096 | 0.9017 | 0.8933 |

## Sub appendix A. 2

Table H-
O\&R Participants
For Distributions Beginning On And After July 1, 2004 50\% Joint And Survivor Without Pop-Up

|  |  |  |  |  |  |  |  | Age | oner |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 |
| 53 | 0.9733 | 0.9706 | 0.9677 | 0.9645 | 0.9610 | 0.9572 | 0.9532 | 0.9488 | 0.9440 | 0.9388 | 0.9331 | 0.9270 | 0.9204 | 0.9132 | 0.9054 | 0.8972 |
| 54 | 0.9748 | 0.9722 | 0.9694 | 0.9664 | 0.9631 | 0.9595 | 0.9555 | 0.9513 | 0.9467 | 0.9416 | 0.9361 | 0.9302 | 0.9238 | 0.9168 | 0.9092 | 0.9011 |
| 55 | 0.9763 | 0.9738 | 0.9711 | 0.9683 | 0.9651 | 0.9616 | 0.9578 | 0.9538 | 0.9494 | 0.9445 | 0.9392 | 0.9334 | 0.9272 | 0.9204 | 0.9131 | 0.9052 |
| 56 | 0.9776 | 0.9753 | 0.9728 | 0.9700 | 0.9671 | 0.9637 | 0.9602 | 0.9563 | 0.9520 | 0.9473 | 0.9422 | 0.9367 | 0.9306 | 0.9240 | 0.9169 | 0.9092 |
| 57 | 0.9790 | 0.9768 | 0.9744 | 0.9718 | 0.9690 | 0.9658 | 0.9624 | 0.9587 | 0.9546 | 0.9501 | 0.9452 | 0.9398 | 0.9340 | 0.9277 | 0.9207 | 0.9132 |
| 58 | 0.9803 | 0.9782 | 0.9760 | 0.9736 | 0.9708 | 0.9678 | 0.9646 | 0.9611 | 0.9571 | 0.9528 | 0.9482 | 0.9430 | 0.9374 | 0.9313 | 0.9245 | 0.9173 |
| 59 | 0.9816 | 0.9796 | 0.9775 | 0.9752 | 0.9727 | 0.9698 | 0.9667 | 0.9634 | 0.9597 | 0.9555 | 0.9511 | 0.9462 | 0.9408 | 0.9349 | 0.9283 | 0.9214 |
| 60 | 0.9828 | 0.9809 | 0.9789 | 0.9768 | 0.9744 | 0.9717 | 0.9688 | 0.9656 | 0.9621 | 0.9582 | 0.9539 | 0.9492 | 0.9441 | 0.9384 | 0.9322 | 0.9254 |
| 61 | 0.9840 | 0.9822 | 0.9804 | 0.9783 | 0.9760 | 0.9736 | 0.9708 | 0.9678 | 0.9645 | 0.9607 | 0.9567 | 0.9522 | 0.9473 | 0.9419 | 0.9359 | 0.9294 |
| 62 | 0.9851 | 0.9834 | 0.9817 | 0.9798 | 0.9777 | 0.9753 | 0.9727 | 0.9699 | 0.9668 | 0.9632 | 0.9594 | 0.9551 | 0.9504 | 0.9453 | 0.9395 | 0.9334 |
| 63 | 0.9861 | 0.9846 | 0.9830 | 0.9812 | 0.9792 | 0.9770 | 0.9745 | 0.9720 | 0.9690 | 0.9656 | 0.9620 | 0.9580 | 0.9536 | 0.9487 | 0.9432 | 0.9373 |
| 64 | 0.9872 | 0.9857 | 0.9842 | 0.9825 | 0.9807 | 0.9786 | 0.9764 | 0.9739 | 0.9711 | 0.9680 | 0.9646 | 0.9608 | 0.9566 | 0.9520 | 0.9467 | 0.9411 |
| 65 | 0.9881 | 0.9868 | 0.9854 | 0.9838 | 0.9821 | 0.9802 | 0.9780 | 0.9758 | 0.9731 | 0.9702 | 0.9670 | 0.9635 | 0.9595 | 0.9551 | 0.9502 | 0.9448 |
| 66 | 0.9890 | 0.9878 | 0.9865 | 0.9850 | 0.9835 | 0.9816 | 0.9797 | 0.9776 | 0.9751 | 0.9724 | 0.9694 | 0.9661 | 0.9623 | 0.9582 | 0.9535 | 0.9484 |
| 67 | 0.9899 | 0.9888 | 0.9875 | 0.9862 | 0.9847 | 0.9830 | 0.9812 | 0.9792 | 0.9770 | 0.9745 | 0.9717 | 0.9685 | 0.9650 | 0.9611 | 0.9567 | 0.9519 |
| 68 | 0.9907 | 0.9896 | 0.9885 | 0.9873 | 0.9859 | 0.9844 | 0.9827 | 0.9809 | 0.9788 | 0.9764 | 0.9738 | 0.9708 | 0.9676 | 0.9639 | 0.9598 | 0.9553 |
| 69 | 0.9914 | 0.9904 | 0.9894 | 0.9883 | 0.9870 | 0.9856 | 0.9840 | 0.9824 | 0.9805 | 0.9783 | 0.9758 | 0.9731 | 0.9700 | 0.9667 | 0.9628 | 0.9586 |
| 70 | 0.9922 | 0.9912 | 0.9903 | 0.9892 | 0.9881 | 0.9868 | 0.9853 | 0.9838 | 0.9821 | 0.9800 | 0.9778 | 0.9752 | 0.9724 | 0.9692 | 0.9656 | 0.9617 |
| 71 | 0.9928 | 0.9919 | 0.9911 | 0.9902 | 0.9891 | 0.9879 | 0.9866 | 0.9851 | 0.9835 | 0.9816 | 0.9795 | 0.9772 | 0.9746 | 0.9717 | 0.9683 | 0.9646 |
| 72 | 0.9934 | 0.9927 | 0.9919 | 0.9910 | 0.9900 | 0.9889 | 0.9877 | 0.9864 | 0.9849 | 0.9832 | 0.9813 | 0.9791 | 0.9767 | 0.9740 | 0.9709 | 0.9675 |
| 73 | 0.9940 | 0.9933 | 0.9926 | 0.9918 | 0.9909 | 0.9899 | 0.9888 | 0.9876 | 0.9862 | 0.9846 | 0.9828 | 0.9809 | 0.9787 | 0.9762 | 0.9733 | 0.9701 |
| 74 | 0.9945 | 0.9939 | 0.9932 | 0.9925 | 0.9917 | 0.9907 | 0.9898 | 0.9887 | 0.9874 | 0.9860 | 0.9844 | 0.9826 | 0.9805 | 0.9783 | 0.9755 | 0.9726 |
| 75 | 0.9950 | 0.9944 | 0.9938 | 0.9932 | 0.9925 | 0.9916 | 0.9907 | 0.9897 | 0.9886 | 0.9873 | 0.9858 | 0.9841 | 0.9822 | 0.9802 | 0.9777 | 0.9750 |
| 76 | 0.9955 | 0.9949 | 0.9944 | 0.9938 | 0.9931 | 0.9924 | 0.9915 | 0.9906 | 0.9896 | 0.9884 | 0.9870 | 0.9856 | 0.9839 | 0.9820 | 0.9797 | 0.9772 |
| 77 | 0.9959 | 0.9954 | 0.9949 | 0.9944 | 0.9937 | 0.9931 | 0.9923 | 0.9915 | 0.9906 | 0.9895 | 0.9883 | 0.9869 | 0.9854 | 0.9836 | 0.9815 | 0.9793 |
| 78 | 0.9963 | 0.9959 | 0.9954 | 0.9949 | 0.9944 | 0.9937 | 0.9930 | 0.9923 | 0.9915 | 0.9905 | 0.9894 | 0.9882 | 0.9867 | 0.9851 | 0.9833 | 0.9812 |
| 79 | 0.9967 | 0.9962 | 0.9958 | 0.9954 | 0.9949 | 0.9943 | 0.9937 | 0.9931 | 0.9923 | 0.9913 | 0.9904 | 0.9893 | 0.9880 | 0.9866 | 0.9848 | 0.9829 |
| 80 | 0.9970 | 0.9966 | 0.9962 | 0.9958 | 0.9954 | 0.9948 | 0.9943 | 0.9937 | 0.9930 | 0.9922 | 0.9913 | 0.9903 | 0.9891 | 0.9879 | 0.9863 | 0.9846 |
| 81 | 0.9973 | 0.9969 | 0.9966 | 0.9962 | 0.9958 | 0.9954 | 0.9948 | 0.9943 | 0.9937 | 0.9929 | 0.9922 | 0.9913 | 0.9902 | 0.9890 | 0.9876 | 0.9861 |
| 82 | 0.9975 | 0.9972 | 0.9969 | 0.9966 | 0.9963 | 0.9958 | 0.9953 | 0.9949 | 0.9943 | 0.9937 | 0.9930 | 0.9921 | 0.9912 | 0.9901 | 0.9888 | 0.9874 |
| 83 | 0.9978 | 0.9975 | 0.9973 | 0.9970 | 0.9966 | 0.9962 | 0.9958 | 0.9954 | 0.9949 | 0.9943 | 0.9936 | 0.9929 | 0.9921 | 0.9911 | 0.9900 | 0.9887 |
| 84 | 0.9980 | 0.9978 | 0.9975 | 0.9972 | 0.9970 | 0.9966 | 0.9962 | 0.9959 | 0.9954 | 0.9949 | 0.9943 | 0.9936 | 0.9929 | 0.9920 | 0.9910 | 0.9898 |
| 85 | 0.9982 | 0.9980 | 0.9978 | 0.9976 | 0.9973 | 0.9970 | 0.9966 | 0.9963 | 0.9959 | 0.9954 | 0.9949 | 0.9943 | 0.9936 | 0.9929 | 0.9919 | 0.9909 |

## Sub appendix A. 2 <br> Table H-

For Distributions Beginning On And After July 1, 2004 50\% Joint And Survivor Without Pop-Up

O\&R Participants

|  | Age Of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
| 20 | 0.8023 | 0.7913 | 0.7796 | 0.7676 | 0.7549 | 0.7418 | 0.7284 | 0.7144 | 0.7000 | 0.6852 | 0.6699 | 0.6542 | 0.6381 | 0.6217 |
| 21 | 0.8036 | 0.7925 | 0.7809 | 0.7688 | 0.7561 | 0.7431 | 0.7296 | 0.7156 | 0.7012 | 0.6864 | 0.6711 | 0.6554 | 0.6393 | 0.6229 |
| 22 | 0.8049 | 0.7937 | 0.7821 | 0.7701 | 0.7574 | 0.7444 | 0.7309 | 0.7169 | 0.7025 | 0.6877 | 0.6724 | 0.6566 | 0.6406 | 0.6241 |
| 23 | 0.8062 | 0.7952 | 0.7835 | 0.7714 | 0.7588 | 0.7457 | 0.7323 | 0.7183 | 0.7038 | 0.6890 | 0.6737 | 0.6579 | 0.6418 | 0.6254 |
| 24 | 0.8076 | 0.7966 | 0.7850 | 0.7729 | 0.7602 | 0.7471 | 0.7337 | 0.7197 | 0.7052 | 0.6904 | 0.6751 | 0.6593 | 0.6432 | 0.6267 |
| 25 | 0.8091 | 0.7980 | 0.7864 | 0.7744 | 0.7617 | 0.7486 | 0.7352 | 0.7212 | 0.7067 | 0.6919 | 0.6766 | 0.6607 | 0.6447 | 0.6281 |
| 26 | 0.8107 | 0.7996 | 0.7880 | 0.7759 | 0.7633 | 0.7502 | 0.7368 | 0.7227 | 0.7082 | 0.6934 | 0.6781 | 0.6623 | 0.6462 | 0.6296 |
| 27 | 0.8123 | 0.8013 | 0.7896 | 0.7776 | 0.7649 | 0.7518 | 0.7384 | 0.7244 | 0.7099 | 0.6950 | 0.6797 | 0.6639 | 0.6478 | 0.6312 |
| 28 | 0.8140 | 0.8030 | 0.7914 | 0.7793 | 0.7667 | 0.7536 | 0.7401 | 0.7261 | 0.7116 | 0.6968 | 0.6814 | 0.6656 | 0.6494 | 0.6329 |
| 29 | 0.8158 | 0.8048 | 0.7932 | 0.7811 | 0.7685 | 0.7554 | 0.7420 | 0.7279 | 0.7134 | 0.6986 | 0.6832 | 0.6674 | 0.6512 | 0.6346 |
| 30 | 0.8177 | 0.8067 | 0.7951 | 0.7830 | 0.7704 | 0.7573 | 0.7439 | 0.7298 | 0.7153 | 0.7005 | 0.6851 | 0.6692 | 0.6531 | 0.6365 |
| 31 | 0.8197 | 0.8087 | 0.7971 | 0.7850 | 0.7724 | 0.7594 | 0.7459 | 0.7318 | 0.7173 | 0.7025 | 0.6871 | 0.6712 | 0.6550 | 0.6384 |
| 32 | 0.8217 | 0.8107 | 0.7992 | 0.7871 | 0.7745 | 0.7615 | 0.7480 | 0.7340 | 0.7194 | 0.7046 | 0.6892 | 0.6733 | 0.6571 | 0.6404 |
| 33 | 0.8239 | 0.8129 | 0.8014 | 0.7893 | 0.7767 | 0.7637 | 0.7502 | 0.7362 | 0.7216 | 0.7068 | 0.6914 | 0.6755 | 0.6593 | 0.6426 |
| 34 | 0.8262 | 0.8152 | 0.8037 | 0.7916 | 0.7790 | 0.7660 | 0.7525 | 0.7385 | 0.7240 | 0.7091 | 0.6937 | 0.6778 | 0.6615 | 0.6449 |
| 35 | 0.8285 | 0.8175 | 0.8061 | 0.7940 | 0.7815 | 0.7684 | 0.7549 | 0.7409 | 0.7264 | 0.7115 | 0.6961 | 0.6802 | 0.6640 | 0.6472 |
| 36 | 0.8310 | 0.8200 | 0.8085 | 0.7965 | 0.7840 | 0.7710 | 0.7575 | 0.7435 | 0.7290 | 0.7141 | 0.6986 | 0.6827 | 0.6665 | 0.6497 |
| 37 | 0.8335 | 0.8226 | 0.8111 | 0.7992 | 0.7866 | 0.7736 | 0.7602 | 0.7462 | 0.7316 | 0.7167 | 0.7013 | 0.6854 | 0.6691 | 0.6524 |
| 38 | 0.8361 | 0.8253 | 0.8139 | 0.8019 | 0.7894 | 0.7764 | 0.7630 | 0.7490 | 0.7344 | 0.7196 | 0.7041 | 0.6882 | 0.6719 | 0.6552 |
| 39 | 0.8389 | 0.8281 | 0.8167 | 0.8048 | 0.7923 | 0.7793 | 0.7659 | 0.7519 | 0.7374 | 0.7225 | 0.7071 | 0.6912 | 0.6749 | 0.6581 |
| 40 | 0.8418 | 0.8310 | 0.8197 | 0.8077 | 0.7953 | 0.7824 | 0.7690 | 0.7550 | 0.7405 | 0.7256 | 0.7102 | 0.6943 | 0.6780 | 0.6612 |
| 41 | 0.8447 | 0.8340 | 0.8227 | 0.8109 | 0.7985 | 0.7855 | 0.7722 | 0.7582 | 0.7437 | 0.7288 | 0.7135 | 0.6975 | 0.6812 | 0.6643 |
| 42 | 0.8479 | 0.8372 | 0.8259 | 0.8141 | 0.8017 | 0.7888 | 0.7755 | 0.7616 | 0.7471 | 0.7322 | 0.7168 | 0.7009 | 0.6845 | 0.6677 |
| 43 | 0.8511 | 0.8404 | 0.8292 | 0.8175 | 0.8052 | 0.7923 | 0.7790 | 0.7651 | 0.7506 | 0.7358 | 0.7204 | 0.7045 | 0.6881 | 0.6713 |
| 44 | 0.8544 | 0.8438 | 0.8327 | 0.8210 | 0.8087 | 0.7959 | 0.7826 | 0.7688 | 0.7544 | 0.7395 | 0.7241 | 0.7082 | 0.6918 | 0.6750 |
| 45 | 0.8577 | 0.8473 | 0.8363 | 0.8246 | 0.8124 | 0.7996 | 0.7864 | 0.7725 | 0.7582 | 0.7434 | 0.7280 | 0.7121 | 0.6958 | 0.6789 |
| 46 | 0.8613 | 0.8509 | 0.8399 | 0.8283 | 0.8162 | 0.8035 | 0.7903 | 0.7766 | 0.7622 | 0.7474 | 0.7321 | 0.7161 | 0.6998 | 0.6830 |
| 47 | 0.8649 | 0.8546 | 0.8437 | 0.8322 | 0.8201 | 0.8075 | 0.7944 | 0.7807 | 0.7663 | 0.7516 | 0.7363 | 0.7204 | 0.7041 | 0.6872 |
| 48 | 0.8686 | 0.8584 | 0.8476 | 0.8362 | 0.8242 | 0.8116 | 0.7986 | 0.7849 | 0.7707 | 0.7560 | 0.7407 | 0.7248 | 0.7085 | 0.6916 |
| 49 | 0.8724 | 0.8623 | 0.8516 | 0.8403 | 0.8284 | 0.8159 | 0.8029 | 0.7893 | 0.7751 | 0.7605 | 0.7453 | 0.7294 | 0.7131 | 0.6963 |
| 50 | 0.8762 | 0.8663 | 0.8557 | 0.8445 | 0.8327 | 0.8203 | 0.8075 | 0.7940 | 0.7798 | 0.7652 | 0.7500 | 0.7342 | 0.7180 | 0.7011 |
| 51 | 0.8802 | 0.8703 | 0.8599 | 0.8489 | 0.8372 | 0.8249 | 0.8122 | 0.7987 | 0.7847 | 0.7701 | 0.7549 | 0.7392 | 0.7229 | 0.7062 |
| 52 | 0.8842 | 0.8745 | 0.8642 | 0.8533 | 0.8417 | 0.8296 | 0.8169 | 0.8036 | 0.7897 | 0.7752 | 0.7601 | 0.7444 | 0.7282 | 0.7114 |

[^11]
## Sub appendix A. 2

Table $\mathrm{H}_{-}$
For Distributions Beginning On And After July 1, 2004
50\% Joint And Survivor Without Pop-Up
O\&R Participants

| AGE OF BENEFICIARY | Age Of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
| 53 | 0.8883 | 0.8788 | 0.8687 | 0.8579 | 0.8464 | 0.8344 | 0.8219 | 0.8087 | 0.7948 | 0.7804 | 0.7655 | 0.7498 | 0.7337 | 0.7169 |
| 54 | 0.8924 | 0.8831 | 0.8731 | 0.8625 | 0.8512 | 0.8394 | 0.8270 | 0.8139 | 0.8002 | 0.7859 | 0.7709 | 0.7554 | 0.7393 | 0.7226 |
| 55 | 0.8966 | 0.8875 | 0.8777 | 0.8673 | 0.8562 | 0.8445 | 0.8322 | 0.8193 | 0.8057 | 0.7915 | 0.7767 | 0.7612 | 0.7452 | 0.7286 |
| 56 | 0.9008 | 0.8919 | 0.8824 | 0.8721 | 0.8612 | 0.8497 | 0.8376 | 0.8248 | 0.8113 | 0.7973 | 0.7827 | 0.7672 | 0.7513 | 0.7348 |
| 57 | 0.9052 | 0.8965 | 0.8870 | 0.8771 | 0.8664 | 0.8550 | 0.8431 | 0.8305 | 0.8172 | 0.8033 | 0.7887 | 0.7735 | 0.7577 | 0.7412 |
| 58 | 0.9094 | 0.9010 | 0.8918 | 0.8820 | 0.8715 | 0.8605 | 0.8487 | 0.8363 | 0.8232 | 0.8095 | 0.7951 | 0.7800 | 0.7643 | 0.7479 |
| 59 | 0.9138 | 0.9055 | 0.8966 | 0.8871 | 0.8768 | 0.8659 | 0.8545 | 0.8422 | 0.8293 | 0.8158 | 0.8016 | 0.7867 | 0.7711 | 0.7549 |
| 60 | 0.9181 | 0.9101 | 0.9014 | 0.8921 | 0.8822 | 0.8715 | 0.8603 | 0.8483 | 0.8356 | 0.8223 | 0.8083 | 0.7935 | 0.7782 | 0.7620 |
| 61 | 0.8352 | 0.9146 | 0.9062 | 0.8972 | 0.8875 | 0.8772 | 0.8662 | 0.8544 | 0.8420 | 0.8289 | 0.8151 | 0.8005 | 0.7854 | 0.7694 |
| 62 | 0.9265 | 0.9191 | 0.9110 | 0.9023 | 0.8928 | 0.8828 | 0.8721 | 0.8607 | 0.8485 | 0.8357 | 0.8221 | 0.8078 | 0.7928 | 0.7770 |
| 63 | 0.9307 | 0.9235 | 0.9158 | 0.9074 | 0.8983 | 0.8885 | 0.8781 | 0.8669 | 0.8551 | 0.8425 | 0.8292 | 0.8151 | 0.8004 | 0.7849 |
| 64 | 0.9348 | 0.9280 | 0.9205 | 0.9124 | 0.9036 | 0.8941 | 0.8841 | 0.8732 | 0.8616 | 0.8494 | 0.8364 | 0.8226 | 0.8082 | 0.7929 |
| 65 | 0.9388 | 0.9323 | 0.9252 | 0.9174 | 0.9089 | 0.8998 | 0.8900 | 0.8795 | 0.8683 | 0.8564 | 0.8437 | 0.8301 | 0.8160 | 0.8010 |
| 66 | 0.9427 | 0.9365 | 0.9297 | 0.9223 | 0.9141 | 0.9053 | 0.8960 | 0.8858 | 0.8749 | 0.8633 | 0.8510 | 0.8378 | 0.8239 | 0.8092 |
| 67 | 0.9466 | 0.9406 | 0.9341 | 0.9271 | 0.9193 | 0.9109 | 0.9019 | 0.8921 | 0.8815 | 0.8703 | 0.8583 | 0.8455 | 0.8319 | 0.8176 |
| 68 | 0.9503 | 0.9447 | 0.9385 | 0.9318 | 0.9243 | 0.9163 | 0.9076 | 0.8982 | 0.8881 | 0.8772 | 0.8656 | 0.8532 | 0.8400 | 0.8260 |
| 69 | 0.9538 | 0.9485 | 0.9427 | 0.9363 | 0.9292 | 0.9216 | 0.9133 | 0.9043 | 0.8945 | 0.8841 | 0.8729 | 0.8608 | 0.8480 | 0.8343 |
| 70 | 0.9572 | 0.9522 | 0.9468 | 0.9407 | 0.9340 | 0.9267 | 0.9189 | 0.9102 | 0.9009 | 0.8909 | 0.8801 | 0.8685 | 0.8560 | 0.8427 |
| 71 | 0.9604 | 0.9558 | 0.9506 | 0.9450 | 0.9386 | 0.9317 | 0.9242 | 0.9161 | 0.9071 | 0.8975 | 0.8872 | 0.8760 | 0.8640 | 0.8512 |
| 72 | 0.9635 | 0.9592 | 0.9544 | 0.9490 | 0.9431 | 0.9366 | 0.9295 | 0.9217 | 0.9132 | 0.9041 | 0.8942 | 0.8834 | 0.8719 | 0.8595 |
| 73 | 0.9665 | 0.9625 | 0.9579 | 0.9529 | 0.9474 | 0.9412 | 0.9346 | 0.9272 | 0.9191 | 0.9104 | 0.9010 | 0.8907 | 0.8796 | 0.8678 |
| 74 | 0.9693 | 0.9655 | 0.9613 | 0.9566 | 0.9514 | 0.9457 | 0.9394 | 0.9325 | 0.9248 | 0.9167 | 0.9077 | 0.8978 | 0.8873 | 0.8758 |
| 75 | 0.9719 | 0.9685 | 0.9645 | 0.9602 | 0.9553 | 0.9499 | 0.9441 | 0.9375 | 0.9304 | 0.9226 | 0.9141 | 0.9048 | 0.8947 | 0.8837 |
| 76 | 0.9743 | 0.9711 | 0.9676 | 0.9635 | 0.9590 | 0.9540 | 0.9485 | 0.9424 | 0.9357 | 0.9283 | 0.9203 | 0.9115 | 0.9019 | 0.8915 |
| 77 | 0.9766 | 0.9737 | 0.9704 | 0.9667 | 0.9624 | 0.9578 | 0.9527 | 0.9470 | 0.9406 | 0.9338 | 0.9263 | 0.9178 | 0.9088 | 0.8990 |
| 78 | 0.9788 | 0.9761 | 0.9730 | 0.9696 | 0.9657 | 0.9614 | 0.9567 | 0.9514 | 0.9455 | 0.9391 | 0.9320 | 0.9240 | 0.9155 | 0.9061 |
| 79 | 0.9807 | 0.9783 | 0.9754 | 0.9723 | 0.9687 | 0.9648 | 0.9604 | 0.9554 | 0.9500 | 0.9439 | 0.9374 | 0.9299 | 0.9219 | 0.9130 |
| 80 | 0.9826 | 0.9803 | 0.9778 | 0.9748 | 0.9715 | 0.9679 | 0.9638 | 0.9593 | 0.9541 | 0.9486 | 0.9424 | 0.9355 | 0.9280 | 0.9197 |
| 81 | 0.9842 | 0.9822 | 0.9798 | 0.9772 | 0.9742 | 0.9708 | 0.9670 | 0.9629 | 0.9581 | 0.9530 | 0.9473 | 0.9407 | 0.9338 | 0.9259 |
| 82 | 0.9858 | 0.9839 | 0.9818 | 0.9794 | 0.9765 | 0.9734 | 0.9701 | 0.9662 | 0.9618 | 0.9571 | 0.9517 | 0.9458 | 0.9392 | 0.9318 |
| 83 | 0.9872 | 0.9855 | 0.9836 | 0.9814 | 0.9788 | 0.9760 | 0.9729 | 0.9693 | 0.9653 | 0.9609 | 0.9560 | 0.9504 | 0.9443 | 0.9375 |
| 84 | 0.9885 | 0.9869 | 0.9852 | 0.9832 | 0.9809 | 0.9783 | 0.9755 | 0.9722 | 0.9685 | 0.9645 | 0.9600 | 0.9548 | 0.9491 | 0.9428 |
| 85 | 0.9897 | 0.9883 | 0.9867 | 0.9849 | 0.9828 | 0.9805 | 0.9779 | 0.9749 | 0.9715 | 0.9678 | 0.9637 | 0.9589 | 0.9537 | 0.9478 |

## Sub appendix A. 2 <br> Table I -

Distributions Beginning On And After July 1, 2004 100\% Joint And Survivor With Pop-Up

O\&R Participants

|  |  |  |  |  |  |  |  | Age | ioner |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| 20 | 0.9497 | 0.9458 | 0.9418 | 0.9375 | 0.9330 | 0.9282 | 0.9231 | 0.9177 | 0.9121 | 0.9061 | 0.8998 | 0.8931 | 0.8861 | 0.8788 | 0.8711 | 0.8631 |
| 21 | 0.9509 | 0.9471 | 0.9432 | 0.9389 | 0.9344 | 0.9297 | 0.9247 | 0.9193 | 0.9136 | 0.9077 | 0.9014 | 0.8948 | 0.8878 | 0.8805 | 0.8729 | 0.8649 |
| 22 | 0.9522 | 0.9485 | 0.9446 | 0.9404 | 0.9359 | 0.9312 | 0.9262 | 0.9209 | 0.9153 | 0.9094 | 0.9031 | 0.8965 | 0.8896 | 0.8824 | 0.8747 | 0.8667 |
| 23 | 0.9535 | 0.9498 | 0.9460 | 0.9419 | 0.9374 | 0.9327 | 0.9278 | 0.9226 | 0.9170 | 0.9111 | 0.9049 | 0.8983 | 0.8914 | 0.8842 | 0.8766 | 0.8686 |
| 24 | 0.9548 | 0.9512 | 0.9474 | 0.9433 | 0.9389 | 0.9343 | 0.9294 | 0.9243 | 0.9187 | 0.9129 | 0.9067 | 0.9002 | 0.8933 | 0.8861 | 0.8785 | 0.8706 |
| 25 | 0.9561 | 0.9526 | 0.9488 | 0.9448 | 0.9405 | 0.9359 | 0.9311 | 0.9260 | 0.9205 | 0.9147 | 0.9086 | 0.9020 | 0.8952 | 0.8881 | 0.8805 | 0.8726 |
| 26 | 0.9575 | 0.9540 | 0.9503 | 0.9463 | 0.9421 | 0.9376 | 0.9328 | 0.9277 | 0.9223 | 0.9166 | 0.9105 | 0.9040 | 0.8972 | 0.8901 | 0.8826 | 0.8748 |
| 27 | 0.9588 | 0.9553 | 0.9518 | 0.9479 | 0.9437 | 0.9392 | 0.9345 | 0.9295 | 0.9241 | 0.9184 | 0.9124 | 0.9060 | 0.8993 | 0.8922 | 0.8847 | 0.8769 |
| 28 | 0.9601 | 0.9567 | 0.9532 | 0.9494 | 0.9453 | 0.9409 | 0.9363 | 0.9313 | 0.9260 | 0.9204 | 0.9144 | 0.9081 | 0.9014 | 0.8943 | 0.8869 | 0.8791 |
| 29 | 0.9614 | 0.9581 | 0.9547 | 0.9509 | 0.9469 | 0.9426 | 0.9380 | 0.9332 | 0.9279 | 0.9223 | 0.9164 | 0.9101 | 0.9035 | 0.8966 | 0.8892 | 0.8815 |
| 30 | 0.9627 | 0.9595 | 0.9562 | 0.9525 | 0.9485 | 0.9443 | 0.9398 | 0.9350 | 0.9298 | 0.9243 | 0.9185 | 0.9123 | 0.9057 | 0.8988 | 0.8915 | 0.8838 |
| 31 | 0.9640 | 0.9609 | 0.9576 | 0.9540 | 0.9501 | 0.9460 | 0.9416 | 0.9369 | 0.9318 | 0.9264 | 0.9206 | 0.9145 | 0.9080 | 0.9012 | 0.8938 | 0.8863 |
| 32 | 0.9653 | 0.9623 | 0.9591 | 0.9556 | 0.9518 | 0.9477 | 0.9434 | 0.9387 | 0.9337 | 0.9284 | 0.9228 | 0.9167 | 0.9102 | 0.9035 | 0.8962 | 0.8887 |
| 33 | 0.9666 | 0.9637 | 0.9605 | 0.9571 | 0.9534 | 0.9494 | 0.9452 | 0.9407 | 0.9357 | 0.9305 | 0.9249 | 0.9189 | 0.9125 | 0.9059 | 0.8987 | 0.8913 |
| 34 | 0.9679 | 0.9650 | 0.9619 | 0.9586 | 0.9550 | 0.9511 | 0.9470 | 0.9425 | 0.9377 | 0.9326 | 0.9271 | 0.9211 | 0.9149 | 0.9083 | 0.9013 | 0.8938 |
| 35 | 0.9691 | 0.9663 | 0.9633 | 0.9601 | 0.9566 | 0.9528 | 0.9488 | 0.9444 | 0.9397 | 0.9346 | 0.9292 | 0.9234 | 0.9173 | 0.9107 | 0.9038 | 0.8965 |
| 36 | 0.9703 | 0.9676 | 0.9647 | 0.9616 | 0.9582 | 0.9545 | 0.9506 | 0.9463 | 0.9417 | 0.9367 | 0.9314 | 0.9257 | 0.9197 | 0.9133 | 0.9064 | 0.8992 |
| 37 | 0.9715 | 0.9689 | 0.9661 | 0.9631 | 0.9598 | 0.9562 | 0.9524 | 0.9482 | 0.9436 | 0.9389 | 0.9336 | 0.9280 | 0.9221 | 0.9158 | 0.9090 | 0.9019 |
| 38 | 0.9726 | 0.9701 | 0.9674 | 0.9645 | 0.9613 | 0.9578 | 0.9541 | 0.9500 | 0.9456 | 0.9409 | 0.9358 | 0.9303 | 0.9245 | 0.9183 | 0.9116 | 0.9046 |
| 39 | 0.9737 | 0.9713 | 0.9687 | 0.9659 | 0.9628 | 0.9594 | 0.9558 | 0.9519 | 0.9476 | 0.9430 | 0.9380 | 0.9326 | 0.9269 | 0.9209 | 0.9143 | 0.9074 |
| 40 | 0.9748 | 0.9725 | 0.9700 | 0.9673 | 0.9643 | 0.9610 | 0.9575 | 0.9537 | 0.9495 | 0.9450 | 0.9402 | 0.9350 | 0.9294 | 0.9234 | 0.9169 | 0.9102 |
| 41 | 0.9759 | 0.9737 | 0.9713 | 0.9686 | 0.9657 | 0.9626 | 0.9592 | 0.9555 | 0.9514 | 0.9471 | 0.9424 | 0.9373 | 0.9318 | 0.9260 | 0.9196 | 0.9130 |
| 42 | 0.9770 | 0.9748 | 0.9725 | 0.9699 | 0.9672 | 0.9641 | 0.9609 | 0.9573 | 0.9533 | 0.9491 | 0.9445 | 0.9395 | 0.9342 | 0.9285 | 0.9223 | 0.9158 |
| 43 | 0.9780 | 0.9759 | 0.9737 | 0.9712 | 0.9685 | 0.9656 | 0.9625 | 0.9590 | 0.9551 | 0.9511 | 0.9466 | 0.9418 | 0.9365 | 0.9310 | 0.9250 | 0.9186 |
| 44 | 0.9789 | 0.9769 | 0.9748 | 0.9725 | 0.9699 | 0.9670 | 0.9640 | 0.9607 | 0.9570 | 0.9531 | 0.9487 | 0.9440 | 0.9389 | 0.9335 | 0.9276 | 0.9214 |
| 45 | 0.9799 | 0.9780 | 0.9759 | 0.9737 | 0.9712 | 0.9685 | 0.9655 | 0.9624 | 0.9588 | 0.9550 | 0.9508 | 0.9462 | 0.9413 | 0.9360 | 0.9303 | 0.9242 |
| 46 | 0.9808 | 0.9789 | 0.9770 | 0.9748 | 0.9724 | 0.9698 | 0.9670 | 0.9639 | 0.9605 | 0.9568 | 0.9528 | 0.9483 | 0.9436 | 0.9384 | 0.9329 | 0.9269 |
| 47 | 0.9816 | 0.9799 | 0.9780 | 0.9759 | 0.9737 | 0.9712 | 0.9685 | 0.9655 | 0.9622 | 0.9586 | 0.9547 | 0.9504 | 0.9458 | 0.9409 | 0.9355 | 0.9297 |
| 48 | 0.9825 | 0.9808 | 0.9790 | 0.9771 | 0.9749 | 0.9725 | 0.9699 | 0.9670 | 0.9639 | 0.9604 | 0.9567 | 0.9525 | 0.9481 | 0.9433 | 0.9380 | 0.9324 |
| 49 | 0.9832 | 0.9817 | 0.9800 | 0.9781 | 0.9760 | 0.9737 | 0.9713 | 0.9685 | 0.9655 | 0.9622 | 0.9585 | 0.9545 | 0.9502 | 0.9456 | 0.9405 | 0.9351 |
| 50 | 0.9840 | 0.9825 | 0.9809 | 0.9791 | 0.9771 | 0.9749 | 0.9726 | 0.9699 | 0.9670 | 0.9638 | 0.9604 | 0.9565 | 0.9523 | 0.9479 | 0.9429 | 0.9377 |
| 51 | 0.9848 | 0.9833 | 0.9818 | 0.9801 | 0.9782 | 0.9761 | 0.9738 | 0.9713 | 0.9685 | 0.9655 | 0.9621 | 0.9584 | 0.9544 | 0.9502 | 0.9454 | 0.9403 |
| 52 | 0.9855 | 0.9841 | 0.9827 | 0.9811 | 0.9792 | 0.9772 | 0.9751 | 0.9727 | 0.9700 | 0.9671 | 0.9639 | 0.9603 | 0.9565 | 0.9523 | 0.9477 | 0.9428 |

## Sub appendix A. 2 <br> Table I -

Distributions Beginning On And After July 1, 2004 100\% Joint And Survivor With Pop-Up

O\&R Participants

|  | Age Of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| 53 | 0.9862 | 0.9849 | 0.9835 | 0.9820 | 0.9802 | 0.9783 | 0.9762 | 0.9739 | 0.9714 | 0.9686 | 0.9655 | 0.9621 | 0.9584 | 0.9544 | 0.9500 | 0.9453 |
| 54 | 0.9869 | 0.9856 | 0.9843 | 0.9828 | 0.9812 | 0.9793 | 0.9774 | 0.9752 | 0.9727 | 0.9701 | 0.9672 | 0.9639 | 0.9603 | 0.9565 | 0.9523 | 0.9477 |
| 55 | 0.9875 | 0.9863 | 0.9850 | 0.9837 | 0.9821 | 0.9803 | 0.9785 | 0.9764 | 0.9741 | 0.9715 | 0.9687 | 0.9656 | 0.9622 | 0.9585 | 0.9544 | 0.9501 |
| 56 | 0.9881 | 0.9870 | 0.9858 | 0.9844 | 0.9830 | 0.9813 | 0.9795 | 0.9776 | 0.9753 | 0.9729 | 0.9702 | 0.9672 | 0.9639 | 0.9605 | 0.9565 | 0.9524 |
| 57 | 0.9887 | 0.9876 | 0.9865 | 0.9852 | 0.9838 | 0.9822 | 0.9806 | 0.9787 | 0.9765 | 0.9742 | 0.9716 | 0.9688 | 0.9657 | 0.9623 | 0.9586 | 0.9545 |
| 58 | 0.9892 | 0.9882 | 0.9871 | 0.9860 | 0.9846 | 0.9831 | 0.9815 | 0.9797 | 0.9777 | 0.9755 | 0.9731 | 0.9703 | 0.9674 | 0.9641 | 0.9605 | 0.9567 |
| 59 | 0.9898 | 0.9888 | 0.9878 | 0.9867 | 0.9854 | 0.9840 | 0.9825 | 0.9807 | 0.9788 | 0.9768 | 0.9744 | 0.9718 | 0.9689 | 0.9659 | 0.9625 | 0.9588 |
| 60 | 0.9903 | 0.9894 | 0.9884 | 0.9874 | 0.9861 | 0.9848 | 0.9833 | 0.9817 | 0.9799 | 0.9779 | 0.9757 | 0.9732 | 0.9705 | 0.9676 | 0.9643 | 0.9608 |
| 61 | 0.9907 | 0.9899 | 0.9890 | 0.9880 | 0.9868 | 0.9855 | 0.9842 | 0.9827 | 0.9809 | 0.9790 | 0.9769 | 0.9746 | 0.9720 | 0.9692 | 0.9661 | 0.9627 |
| 62 | 0.9912 | 0.9904 | 0.9896 | 0.9886 | 0.9875 | 0.9863 | 0.9850 | 0.9835 | 0.9819 | 0.9801 | 0.9781 | 0.9758 | 0.9734 | 0.9707 | 0.9677 | 0.9645 |
| 63 | 0.9917 | 0.9909 | 0.9901 | 0.9892 | 0.9882 | 0.9870 | 0.9858 | 0.9844 | 0.9828 | 0.9811 | 0.9793 | 0.9771 | 0.9748 | 0.9722 | 0.9694 | 0.9664 |
| 64 | 0.9921 | 0.9914 | 0.9906 | 0.9897 | 0.9888 | 0.9877 | 0.9866 | 0.9852 | 0.9837 | 0.9821 | 0.9803 | 0.9783 | 0.9760 | 0.9737 | 0.9709 | 0.9680 |
| 65 | 0.9925 | 0.9918 | 0.9911 | 0.9903 | 0.9893 | 0.9883 | 0.9873 | 0.9860 | 0.9846 | 0.9831 | 0.9813 | 0.9794 | 0.9773 | 0.9750 | 0.9724 | 0.9697 |
| 66 | 0.9929 | 0.9923 | 0.9916 | 0.9908 | 0.9899 | 0.9890 | 0.9879 | 0.9868 | 0.9854 | 0.9840 | 0.9823 | 0.9805 | 0.9785 | 0.9763 | 0.9739 | 0.9713 |
| 67 | 0.9933 | 0.9927 | 0.9920 | 0.9913 | 0.9904 | 0.9896 | 0.9886 | 0.9875 | 0.9862 | 0.9849 | 0.9833 | 0.9815 | 0.9796 | 0.9776 | 0.9752 | 0.9727 |
| 68 | 0.9936 | 0.9930 | 0.9925 | 0.9918 | 0.9910 | 0.9902 | 0.9892 | 0.9882 | 0.9869 | 0.9856 | 0.9842 | 0.9825 | 0.9807 | 0.9788 | 0.9766 | 0.9742 |
| 69 | 0.9940 | 0.9934 | 0.9929 | 0.9922 | 0.9915 | 0.9907 | 0.9898 | 0.9888 | 0.9876 | 0.9865 | 0.9850 | 0.9835 | 0.9818 | 0.9799 | 0.9778 | 0.9756 |
| 70 | 0.9943 | 0.9938 | 0.9932 | 0.9926 | 0.9920 | 0.9912 | 0.9904 | 0.9894 | 0.9884 | 0.9872 | 0.9859 | 0.9844 | 0.9827 | 0.9810 | 0.9790 | 0.9769 |
| 71 | 0.9946 | 0.9941 | 0.9936 | 0.9931 | 0.9924 | 0.9917 | 0.9909 | 0.9900 | 0.9890 | 0.9879 | 0.9867 | 0.9852 | 0.9837 | 0.9820 | 0.9801 | 0.9781 |
| 72 | 0.9949 | 0.9944 | 0.9940 | 0.9934 | 0.9928 | 0.9922 | 0.9914 | 0.9906 | 0.9896 | 0.9886 | 0.9874 | 0.9861 | 0.9846 | 0.9830 | 0.9813 | 0.9793 |
| 73 | 0.9952 | 0.9947 | 0.9943 | 0.9938 | 0.9932 | 0.9926 | 0.9919 | 0.9911 | 0.9902 | 0.9892 | 0.9881 | 0.9868 | 0.9855 | 0.9840 | 0.9822 | 0.9805 |
| 74 | 0.9954 | 0.9950 | 0.9946 | 0.9942 | 0.9936 | 0.9930 | 0.9923 | 0.9916 | 0.9907 | 0.9898 | 0.9888 | 0.9876 | 0.9863 | 0.9849 | 0.9832 | 0.9815 |
| 75 | 0.9956 | 0.9953 | 0.9949 | 0.9945 | 0.9940 | 0.9934 | 0.9928 | 0.9921 | 0.9913 | 0.9904 | 0.9895 | 0.9883 | 0.9871 | 0.9857 | 0.9842 | 0.9825 |
| 76 | 0.9959 | 0.9956 | 0.9952 | 0.9948 | 0.9943 | 0.9937 | 0.9932 | 0.9926 | 0.9918 | 0.9910 | 0.9901 | 0.9889 | 0.9878 | 0.9865 | 0.9850 | 0.9835 |
| 77 | 0.9961 | 0.9958 | 0.9954 | 0.9951 | 0.9946 | 0.9941 | 0.9936 | 0.9930 | 0.9923 | 0.9915 | 0.9906 | 0.9896 | 0.9885 | 0.9873 | 0.9859 | 0.9845 |
| 78 | 0.9963 | 0.9960 | 0.9957 | 0.9953 | 0.9949 | 0.9945 | 0.9940 | 0.9934 | 0.9927 | 0.9920 | 0.9912 | 0.9902 | 0.9892 | 0.9880 | 0.9867 | 0.9853 |
| 79 | 0.9966 | 0.9963 | 0.9959 | 0.9956 | 0.9952 | 0.9948 | 0.9944 | 0.9938 | 0.9931 | 0.9925 | 0.9917 | 0.9908 | 0.9898 | 0.9887 | 0.9875 | 0.9862 |
| 80 | 0.9967 | 0.9964 | 0.9962 | 0.9959 | 0.9955 | 0.9951 | 0.9947 | 0.9942 | 0.9936 | 0.9929 | 0.9922 | 0.9913 | 0.9904 | 0.9894 | 0.9882 | 0.9870 |
| 81 | 0.9969 | 0.9967 | 0.9964 | 0.9961 | 0.9957 | 0.9954 | 0.9950 | 0.9945 | 0.9939 | 0.9934 | 0.9927 | 0.9918 | 0.9910 | 0.9900 | 0.9889 | 0.9877 |
| 82 | 0.9971 | 0.9968 | 0.9966 | 0.9963 | 0.9960 | 0.9956 | 0.9953 | 0.9949 | 0.9943 | 0.9938 | 0.9931 | 0.9923 | 0.9915 | 0.9906 | 0.9895 | 0.9884 |
| 83 | 0.9973 | 0.9970 | 0.9968 | 0.9966 | 0.9963 | 0.9959 | 0.9956 | 0.9952 | 0.9947 | 0.9941 | 0.9935 | 0.9928 | 0.9920 | 0.9912 | 0.9902 | 0.9891 |
| 84 | 0.9974 | 0.9972 | 0.9970 | 0.9968 | 0.9964 | 0.9962 | 0.9959 | 0.9955 | 0.9950 | 0.9945 | 0.9940 | 0.9932 | 0.9925 | 0.9917 | 0.9908 | 0.9898 |
| 85 | 0.9976 | 0.9974 | 0.9972 | 0.9969 | 0.9967 | 0.9964 | 0.9961 | 0.9958 | 0.9953 | 0.9949 | 0.9943 | 0.9937 | 0.9930 | 0.9922 | 0.9914 | 0.9904 |

## Sub appendix A. 2 <br> Table I -

Distributions Beginning On And After July 1, 2004 100\% Joint And Survivor With Pop-Up

O\&R Participants

|  |  |  |  |  |  |  |  | Age | ioner |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 |
| 20 | 0.8549 | 0.8462 | 0.8372 | 0.8278 | 0.8181 | 0.8080 | 0.7975 | 0.7867 | 0.7755 | 0.7637 | 0.7516 | 0.7390 | 0.7259 | 0.7124 | 0.6983 | 0.6839 |
| 21 | 0.8566 | 0.8480 | 0.8390 | 0.8296 | 0.8199 | 0.8098 | 0.7994 | 0.7885 | 0.7772 | 0.7655 | 0.7534 | 0.7408 | 0.7277 | 0.7141 | 0.7000 | 0.6856 |
| 22 | 0.8585 | 0.8498 | 0.8408 | 0.8315 | 0.8218 | 0.8117 | 0.8013 | 0.7904 | 0.7791 | 0.7674 | 0.7552 | 0.7426 | 0.7295 | 0.7159 | 0.7018 | 0.6873 |
| 23 | 0.8604 | 0.8517 | 0.8428 | 0.8335 | 0.8238 | 0.8137 | 0.8032 | 0.7924 | 0.7811 | 0.7693 | 0.7571 | 0.7445 | 0.7314 | 0.7178 | 0.7037 | 0.6892 |
| 24 | 0.8624 | 0.8537 | 0.8448 | 0.8355 | 0.8258 | 0.8157 | 0.8052 | 0.7944 | 0.7831 | 0.7714 | 0.7592 | 0.7465 | 0.7334 | 0.7198 | 0.7057 | 0.6911 |
| 25 | 0.8644 | 0.8558 | 0.8469 | 0.8376 | 0.8280 | 0.8178 | 0.8074 | 0.7966 | 0.7853 | 0.7735 | 0.7613 | 0.7487 | 0.7355 | 0.7219 | 0.7078 | 0.6932 |
| 26 | 0.8666 | 0.8580 | 0.8491 | 0.8398 | 0.8302 | 0.8201 | 0.8096 | 0.7988 | 0.7875 | 0.7757 | 0.7636 | 0.7509 | 0.7377 | 0.7241 | 0.7099 | 0.6953 |
| 27 | 0.8688 | 0.8602 | 0.8513 | 0.8421 | 0.8324 | 0.8224 | 0.8119 | 0.8011 | 0.7898 | 0.7781 | 0.7659 | 0.7532 | 0.7400 | 0.7264 | 0.7122 | 0.6976 |
| 28 | 0.8711 | 0.8625 | 0.8537 | 0.8444 | 0.8348 | 0.8248 | 0.8144 | 0.8036 | 0.7923 | 0.7805 | 0.7683 | 0.7556 | 0.7424 | 0.7287 | 0.7145 | 0.6999 |
| 29 | 0.8734 | 0.8649 | 0.8561 | 0.8469 | 0.8373 | 0.8273 | 0.8169 | 0.8061 | 0.7948 | 0.7830 | 0.7708 | 0.7581 | 0.7449 | 0.7312 | 0.7170 | 0.7024 |
| 30 | 0.8758 | 0.8673 | 0.8586 | 0.8494 | 0.8398 | 0.8298 | 0.8195 | 0.8087 | 0.7974 | 0.7857 | 0.7734 | 0.7608 | 0.7475 | 0.7339 | 0.7196 | 0.7049 |
| 31 | 0.8783 | 0.8699 | 0.8611 | 0.8520 | 0.8425 | 0.8325 | 0.8222 | 0.8114 | 0.8002 | 0.7884 | 0.7762 | 0.7635 | 0.7503 | 0.7366 | 0.7223 | 0.7076 |
| 32 | 0.8808 | 0.8725 | 0.8638 | 0.8547 | 0.8452 | 0.8353 | 0.8250 | 0.8142 | 0.8030 | 0.7912 | 0.7790 | 0.7663 | 0.7531 | 0.7394 | 0.7252 | 0.7104 |
| 33 | 0.8834 | 0.8751 | 0.8665 | 0.8575 | 0.8480 | 0.8381 | 0.8279 | 0.8172 | 0.8059 | 0.7942 | 0.7820 | 0.7693 | 0.7561 | 0.7424 | 0.7281 | 0.7134 |
| 34 | 0.8861 | 0.8779 | 0.8693 | 0.8603 | 0.8509 | 0.8411 | 0.8308 | 0.8202 | 0.8090 | 0.7973 | 0.7851 | 0.7724 | 0.7592 | 0.7455 | 0.7312 | 0.7164 |
| 35 | 0.8888 | 0.8807 | 0.8722 | 0.8633 | 0.8539 | 0.8441 | 0.8339 | 0.8233 | 0.8121 | 0.8004 | 0.7883 | 0.7756 | 0.7624 | 0.7487 | 0.7344 | 0.7196 |
| 36 | 0.8915 | 0.8835 | 0.8751 | 0.8662 | 0.8570 | 0.8472 | 0.8371 | 0.8265 | 0.8154 | 0.8037 | 0.7916 | 0.7790 | 0.7658 | 0.7521 | 0.7377 | 0.7230 |
| 37 | 0.8944 | 0.8864 | 0.8781 | 0.8693 | 0.8601 | 0.8504 | 0.8404 | 0.8298 | 0.8188 | 0.8072 | 0.7951 | 0.7824 | 0.7693 | 0.7555 | 0.7412 | 0.7264 |
| 38 | 0.8972 | 0.8894 | 0.8811 | 0.8724 | 0.8633 | 0.8537 | 0.8437 | 0.8333 | 0.8222 | 0.8107 | 0.7986 | 0.7860 | 0.7728 | 0.7591 | 0.7449 | 0.7300 |
| 39 | 0.9001 | 0.8923 | 0.8842 | 0.8756 | 0.8666 | 0.8571 | 0.8471 | 0.8367 | 0.8258 | 0.8143 | 0.8023 | 0.7897 | 0.7766 | 0.7629 | 0.7486 | 0.7338 |
| 40 | 0.9030 | 0.8954 | 0.8873 | 0.8788 | 0.8699 | 0.8605 | 0.8506 | 0.8403 | 0.8295 | 0.8180 | 0.8060 | 0.7935 | 0.7804 | 0.7668 | 0.7525 | 0.7377 |
| 41 | 0.9059 | 0.8984 | 0.8905 | 0.8821 | 0.8733 | 0.8640 | 0.8542 | 0.8440 | 0.8332 | 0.8218 | 0.8099 | 0.7974 | 0.7844 | 0.7708 | 0.7565 | 0.7418 |
| 42 | 0.9089 | 0.9014 | 0.8937 | 0.8854 | 0.8767 | 0.8675 | 0.8579 | 0.8477 | 0.8370 | 0.8257 | 0.8139 | 0.8015 | 0.7885 | 0.7749 | 0.7607 | 0.7459 |
| 43 | 0.9118 | 0.9046 | 0.8969 | 0.8888 | 0.8802 | 0.8712 | 0.8616 | 0.8515 | 0.8409 | 0.8297 | 0.8180 | 0.8057 | 0.7927 | 0.7792 | 0.7650 | 0.7503 |
| 44 | 0.9148 | 0.9077 | 0.9001 | 0.8921 | 0.8837 | 0.8748 | 0.8653 | 0.8554 | 0.8450 | 0.8338 | 0.8222 | 0.8099 | 0.7971 | 0.7836 | 0.7694 | 0.7548 |
| 45 | 0.9177 | 0.9107 | 0.9034 | 0.8955 | 0.8872 | 0.8785 | 0.8692 | 0.8594 | 0.8490 | 0.8380 | 0.8265 | 0.8143 | 0.8015 | 0.7881 | 0.7740 | 0.7594 |
| 46 | 0.9206 | 0.9138 | 0.9066 | 0.8990 | 0.8908 | 0.8822 | 0.8730 | 0.8634 | 0.8531 | 0.8423 | 0.8308 | 0.8188 | 0.8061 | 0.7928 | 0.7788 | 0.7642 |
| 47 | 0.9235 | 0.9169 | 0.9099 | 0.9024 | 0.8944 | 0.8859 | 0.8769 | 0.8674 | 0.8573 | 0.8466 | 0.8353 | 0.8233 | 0.8108 | 0.7976 | 0.7836 | 0.7691 |
| 48 | 0.9264 | 0.9200 | 0.9131 | 0.9057 | 0.8980 | 0.8896 | 0.8808 | 0.8715 | 0.8616 | 0.8510 | 0.8398 | 0.8280 | 0.8155 | 0.8024 | 0.7885 | 0.7741 |
| 49 | 0.9293 | 0.9230 | 0.9163 | 0.9091 | 0.9015 | 0.8934 | 0.8847 | 0.8756 | 0.8658 | 0.8554 | 0.8444 | 0.8327 | 0.8204 | 0.8074 | 0.7936 | 0.7793 |
| 50 | 0.9321 | 0.9260 | 0.9195 | 0.9125 | 0.9051 | 0.8971 | 0.8887 | 0.8797 | 0.8701 | 0.8599 | 0.8490 | 0.8375 | 0.8253 | 0.8124 | 0.7988 | 0.7846 |
| 51 | 0.9349 | 0.9289 | 0.9226 | 0.9158 | 0.9086 | 0.9008 | 0.8926 | 0.8838 | 0.8744 | 0.8643 | 0.8537 | 0.8423 | 0.8303 | 0.8176 | 0.8041 | 0.7900 |
| 52 | 0.9375 | 0.9318 | 0.9257 | 0.9191 | 0.9122 | 0.9046 | 0.8965 | 0.8879 | 0.8787 | 0.8689 | 0.8584 | 0.8472 | 0.8354 | 0.8228 | 0.8095 | 0.7955 |

## Sub appendix A. 2 <br> Table I -

Distributions Beginning On And After July 1, 2004 100\% Joint And Survivor With Pop-Up

O\&R Participants

|  |  |  |  |  |  |  |  | Age O | sioner |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 |
| 53 | 0.9402 | 0.9347 | 0.9288 | 0.9224 | 0.9156 | 0.9083 | 0.9004 | 0.8920 | 0.8831 | 0.8734 | 0.8631 | 0.8521 | 0.8405 | 0.8281 | 0.8149 | 0.8011 |
| 54 | 0.9428 | 0.9374 | 0.9318 | 0.9256 | 0.9190 | 0.9119 | 0.9043 | 0.8961 | 0.8874 | 0.8779 | 0.8679 | 0.8571 | 0.8457 | 0.8335 | 0.8205 | 0.8068 |
| 55 | 0.9454 | 0.9402 | 0.9347 | 0.9288 | 0.9224 | 0.9155 | 0.9081 | 0.9002 | 0.8917 | 0.8824 | 0.8726 | 0.8621 | 0.8509 | 0.8388 | 0.8261 | 0.8126 |
| 56 | 0.9478 | 0.9429 | 0.9376 | 0.9319 | 0.9257 | 0.9190 | 0.9118 | 0.9042 | 0.8959 | 0.8870 | 0.8774 | 0.8671 | 0.8560 | 0.8443 | 0.8317 | 0.8184 |
| 57 | 0.9502 | 0.9455 | 0.9404 | 0.9349 | 0.9290 | 0.9225 | 0.9155 | 0.9081 | 0.9001 | 0.8914 | 0.8821 | 0.8720 | 0.8613 | 0.8497 | 0.8374 | 0.8243 |
| 58 | 0.9525 | 0.9480 | 0.9431 | 0.9378 | 0.9321 | 0.9259 | 0.9192 | 0.9121 | 0.9043 | 0.8958 | 0.8867 | 0.8770 | 0.8665 | 0.8552 | 0.8431 | 0.8302 |
| 59 | 0.9548 | 0.9505 | 0.9457 | 0.9407 | 0.9352 | 0.9292 | 0.9228 | 0.9159 | 0.9083 | 0.9001 | 0.8914 | 0.8818 | 0.8716 | 0.8606 | 0.8488 | 0.8362 |
| 60 | 0.9570 | 0.9528 | 0.9483 | 0.9434 | 0.9382 | 0.9324 | 0.9263 | 0.9196 | 0.9123 | 0.9044 | 0.8959 | 0.8867 | 0.8767 | 0.8660 | 0.8545 | 0.8421 |
| 61 | 0.9591 | 0.9551 | 0.9508 | 0.9462 | 0.9411 | 0.9356 | 0.9297 | 0.9233 | 0.9163 | 0.9087 | 0.9004 | 0.8915 | 0.8818 | 0.8714 | 0.8601 | 0.8480 |
| 62 | 0.9611 | 0.9573 | 0.9532 | 0.9488 | 0.9440 | 0.9387 | 0.9330 | 0.9269 | 0.9202 | 0.9128 | 0.9049 | 0.8962 | 0.8868 | 0.8767 | 0.8657 | 0.8540 |
| 63 | 0.9630 | 0.9594 | 0.9555 | 0.9513 | 0.9467 | 0.9417 | 0.9362 | 0.9303 | 0.9239 | 0.9168 | 0.9091 | 0.9008 | 0.8918 | 0.8820 | 0.8713 | 0.8598 |
| 64 | 0.9649 | 0.9614 | 0.9578 | 0.9537 | 0.9494 | 0.9445 | 0.9393 | 0.9337 | 0.9276 | 0.9208 | 0.9134 | 0.9054 | 0.8966 | 0.8871 | 0.8767 | 0.8656 |
| 65 | 0.9667 | 0.9634 | 0.9599 | 0.9561 | 0.9519 | 0.9473 | 0.9423 | 0.9370 | 0.9311 | 0.9246 | 0.9175 | 0.9098 | 0.9013 | 0.8922 | 0.8821 | 0.8714 |
| 66 | 0.9685 | 0.9653 | 0.9620 | 0.9583 | 0.9543 | 0.9500 | 0.9453 | 0.9402 | 0.9345 | 0.9283 | 0.9215 | 0.9141 | 0.9059 | 0.8971 | 0.8874 | 0.8770 |
| 67 | 0.9701 | 0.9671 | 0.9639 | 0.9605 | 0.9567 | 0.9526 | 0.9480 | 0.9432 | 0.9378 | 0.9318 | 0.9254 | 0.9183 | 0.9105 | 0.9019 | 0.8926 | 0.8825 |
| 68 | 0.9717 | 0.9688 | 0.9658 | 0.9625 | 0.9589 | 0.9550 | 0.9507 | 0.9461 | 0.9410 | 0.9354 | 0.9291 | 0.9223 | 0.9148 | 0.9067 | 0.8977 | 0.8879 |
| 69 | 0.9732 | 0.9704 | 0.9676 | 0.9645 | 0.9611 | 0.9574 | 0.9533 | 0.9489 | 0.9441 | 0.9386 | 0.9328 | 0.9263 | 0.9191 | 0.9112 | 0.9026 | 0.8932 |
| 70 | 0.9746 | 0.9721 | 0.9693 | 0.9664 | 0.9632 | 0.9596 | 0.9558 | 0.9516 | 0.9470 | 0.9419 | 0.9363 | 0.9301 | 0.9233 | 0.9157 | 0.9074 | 0.8984 |
| 71 | 0.9759 | 0.9736 | 0.9709 | 0.9681 | 0.9651 | 0.9618 | 0.9582 | 0.9542 | 0.9498 | 0.9449 | 0.9397 | 0.9338 | 0.9272 | 0.9200 | 0.9121 | 0.9034 |
| 72 | 0.9773 | 0.9749 | 0.9725 | 0.9699 | 0.9670 | 0.9638 | 0.9604 | 0.9567 | 0.9526 | 0.9479 | 0.9429 | 0.9373 | 0.9311 | 0.9242 | 0.9166 | 0.9083 |
| 73 | 0.9785 | 0.9763 | 0.9740 | 0.9715 | 0.9688 | 0.9658 | 0.9626 | 0.9591 | 0.9551 | 0.9507 | 0.9460 | 0.9406 | 0.9348 | 0.9282 | 0.9210 | 0.9130 |
| 74 | 0.9797 | 0.9777 | 0.9754 | 0.9731 | 0.9705 | 0.9677 | 0.9646 | 0.9613 | 0.9576 | 0.9535 | 0.9490 | 0.9439 | 0.9383 | 0.9321 | 0.9252 | 0.9176 |
| 75 | 0.9808 | 0.9789 | 0.9768 | 0.9746 | 0.9721 | 0.9694 | 0.9666 | 0.9634 | 0.9600 | 0.9561 | 0.9518 | 0.9470 | 0.9417 | 0.9358 | 0.9292 | 0.9219 |
| 76 | 0.9819 | 0.9800 | 0.9780 | 0.9760 | 0.9737 | 0.9711 | 0.9685 | 0.9655 | 0.9623 | 0.9585 | 0.9545 | 0.9500 | 0.9450 | 0.9394 | 0.9331 | 0.9262 |
| 77 | 0.9829 | 0.9811 | 0.9793 | 0.9773 | 0.9751 | 0.9728 | 0.9702 | 0.9674 | 0.9643 | 0.9609 | 0.9570 | 0.9528 | 0.9481 | 0.9428 | 0.9368 | 0.9302 |
| 78 | 0.9839 | 0.9822 | 0.9805 | 0.9786 | 0.9766 | 0.9743 | 0.9719 | 0.9693 | 0.9664 | 0.9631 | 0.9595 | 0.9555 | 0.9510 | 0.9460 | 0.9403 | 0.9341 |
| 79 | 0.9847 | 0.9832 | 0.9816 | 0.9797 | 0.9779 | 0.9757 | 0.9735 | 0.9710 | 0.9683 | 0.9652 | 0.9618 | 0.9581 | 0.9538 | 0.9490 | 0.9437 | 0.9378 |
| 80 | 0.9856 | 0.9841 | 0.9826 | 0.9809 | 0.9791 | 0.9771 | 0.9749 | 0.9727 | 0.9701 | 0.9672 | 0.9641 | 0.9605 | 0.9565 | 0.9520 | 0.9469 | 0.9414 |
| 81 | 0.9865 | 0.9850 | 0.9836 | 0.9820 | 0.9803 | 0.9784 | 0.9764 | 0.9743 | 0.9718 | 0.9691 | 0.9661 | 0.9627 | 0.9590 | 0.9548 | 0.9500 | 0.9447 |
| 82 | 0.9873 | 0.9859 | 0.9845 | 0.9831 | 0.9814 | 0.9796 | 0.9778 | 0.9758 | 0.9735 | 0.9709 | 0.9682 | 0.9650 | 0.9615 | 0.9575 | 0.9529 | 0.9480 |
| 83 | 0.9880 | 0.9868 | 0.9855 | 0.9840 | 0.9825 | 0.9808 | 0.9790 | 0.9772 | 0.9751 | 0.9727 | 0.9700 | 0.9671 | 0.9637 | 0.9600 | 0.9558 | 0.9511 |
| 84 | 0.9888 | 0.9875 | 0.9863 | 0.9850 | 0.9835 | 0.9820 | 0.9803 | 0.9785 | 0.9765 | 0.9743 | 0.9718 | 0.9690 | 0.9659 | 0.9624 | 0.9584 | 0.9540 |
| 85 | 0.9894 | 0.9882 | 0.9871 | 0.9858 | 0.9845 | 0.9830 | 0.9815 | 0.9798 | 0.9780 | 0.9758 | 0.9735 | 0.9709 | 0.9680 | 0.9648 | 0.9609 | 0.9567 |

## Sub appendix A. 2 <br> Table I -

Distributions Beginning On And After July 1, 2004
100\% Joint And Survivor With Pop-Up
O\&R Participants

| AGE Of BENEFICIARY | Age Of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
| 20 | 0.6690 | 0.6537 | 0.6379 | 0.6219 | 0.6055 | 0.5888 | 0.5720 | 0.5549 | 0.5377 | 0.5204 | 0.5030 | 0.4855 | 0.4680 | 0.4505 |
| 21 | 0.6706 | 0.6553 | 0.6396 | 0.6235 | 0.6070 | 0.5903 | 0.5735 | 0.5564 | 0.5391 | 0.5218 | 0.5043 | 0.4868 | 0.4692 | 0.4517 |
| 22 | 0.6724 | 0.6570 | 0.6413 | 0.6251 | 0.6086 | 0.5919 | 0.5750 | 0.5579 | 0.5406 | 0.5232 | 0.5057 | 0.4881 | 0.4705 | 0.4529 |
| 23 | 0.6742 | 0.6588 | 0.6430 | 0.6268 | 0.6103 | 0.5936 | 0.5767 | 0.5595 | 0.5421 | 0.5247 | 0.5072 | 0.4895 | 0.4719 | 0.4543 |
| 24 | 0.6761 | 0.6607 | 0.6449 | 0.6287 | 0.6121 | 0.5953 | 0.5784 | 0.5611 | 0.5438 | 0.5263 | 0.5087 | 0.4910 | 0.4733 | 0.4556 |
| 25 | 0.6781 | 0.6627 | 0.6468 | 0.6306 | 0.6140 | 0.5972 | 0.5801 | 0.5629 | 0.5455 | 0.5279 | 0.5103 | 0.4926 | 0.4748 | 0.4571 |
| 26 | 0.6802 | 0.6647 | 0.6489 | 0.6326 | 0.6160 | 0.5991 | 0.5820 | 0.5647 | 0.5472 | 0.5297 | 0.5120 | 0.4942 | 0.4764 | 0.4586 |
| 27 | 0.6825 | 0.6670 | 0.6510 | 0.6347 | 0.6180 | 0.6011 | 0.5840 | 0.5667 | 0.5491 | 0.5315 | 0.5138 | 0.4959 | 0.4781 | 0.4603 |
| 28 | 0.6848 | 0.6692 | 0.6533 | 0.6369 | 0.6202 | 0.6033 | 0.5861 | 0.5687 | 0.5511 | 0.5335 | 0.5157 | 0.4978 | 0.4799 | 0.4620 |
| 29 | 0.6872 | 0.6716 | 0.6556 | 0.6392 | 0.6225 | 0.6055 | 0.5883 | 0.5709 | 0.5532 | 0.5355 | 0.5176 | 0.4997 | 0.4817 | 0.4638 |
| 30 | 0.6897 | 0.6741 | 0.6581 | 0.6417 | 0.6249 | 0.6079 | 0.5906 | 0.5731 | 0.5554 | 0.5377 | 0.5197 | 0.5017 | 0.4837 | 0.4657 |
| 31 | 0.6924 | 0.6768 | 0.6607 | 0.6442 | 0.6274 | 0.6103 | 0.5930 | 0.5755 | 0.5577 | 0.5399 | 0.5219 | 0.5038 | 0.4858 | 0.4677 |
| 32 | 0.6952 | 0.6795 | 0.6634 | 0.6469 | 0.6301 | 0.6129 | 0.5956 | 0.5780 | 0.5601 | 0.5423 | 0.5243 | 0.5061 | 0.4880 | 0.4698 |
| 33 | 0.6981 | 0.6824 | 0.6663 | 0.6498 | 0.6328 | 0.6156 | 0.5982 | 0.5806 | 0.5627 | 0.5448 | 0.5267 | 0.5084 | 0.4903 | 0.4720 |
| 34 | 0.7012 | 0.6854 | 0.6692 | 0.6527 | 0.6357 | 0.6185 | 0.6010 | 0.5833 | 0.5654 | 0.5474 | 0.5292 | 0.5109 | 0.4927 | 0.4744 |
| 35 | 0.7043 | 0.6886 | 0.6724 | 0.6558 | 0.6388 | 0.6215 | 0.6040 | 0.5862 | 0.5682 | 0.5501 | 0.5319 | 0.5135 | 0.4952 | 0.4768 |
| 36 | 0.7077 | 0.6919 | 0.6756 | 0.6590 | 0.6419 | 0.6246 | 0.6070 | 0.5892 | 0.5712 | 0.5530 | 0.5347 | 0.5163 | 0.4978 | 0.4794 |
| 37 | 0.7111 | 0.6953 | 0.6790 | 0.6623 | 0.6453 | 0.6279 | 0.6103 | 0.5924 | 0.5743 | 0.5561 | 0.5377 | 0.5191 | 0.5007 | 0.4821 |
| 38 | 0.7147 | 0.6989 | 0.6826 | 0.6659 | 0.6488 | 0.6313 | 0.6136 | 0.5957 | 0.5775 | 0.5592 | 0.5408 | 0.5222 | 0.5036 | 0.4850 |
| 39 | 0.7185 | 0.7026 | 0.6863 | 0.6695 | 0.6524 | 0.6349 | 0.6172 | 0.5992 | 0.5809 | 0.5626 | 0.5440 | 0.5254 | 0.5067 | 0.4880 |
| 40 | 0.7223 | 0.7065 | 0.6902 | 0.6734 | 0.6562 | 0.6387 | 0.6209 | 0.6028 | 0.5845 | 0.5661 | 0.5475 | 0.5287 | 0.5100 | 0.4912 |
| 41 | 0.7264 | 0.7105 | 0.6942 | 0.6774 | 0.6601 | 0.6426 | 0.6247 | 0.6066 | 0.5882 | 0.5697 | 0.5511 | 0.5322 | 0.5134 | 0.4945 |
| 42 | 0.7306 | 0.7148 | 0.6984 | 0.6815 | 0.6643 | 0.6467 | 0.6288 | 0.6106 | 0.5921 | 0.5736 | 0.5548 | 0.5359 | 0.5170 | 0.4980 |
| 43 | 0.7349 | 0.7191 | 0.7027 | 0.6859 | 0.6685 | 0.6509 | 0.6330 | 0.6147 | 0.5962 | 0.5776 | 0.5588 | 0.5397 | 0.5207 | 0.5016 |
| 44 | 0.7395 | 0.7236 | 0.7072 | 0.6904 | 0.6731 | 0.6554 | 0.6374 | 0.6191 | 0.6005 | 0.5818 | 0.5629 | 0.5438 | 0.5246 | 0.5055 |
| 45 | 0.7441 | 0.7283 | 0.7119 | 0.6951 | 0.6777 | 0.6600 | 0.6420 | 0.6236 | 0.6050 | 0.5862 | 0.5672 | 0.5480 | 0.5288 | 0.5095 |
| 46 | 0.7489 | 0.7331 | 0.7168 | 0.6999 | 0.6826 | 0.6648 | 0.6468 | 0.6283 | 0.6096 | 0.5908 | 0.5717 | 0.5524 | 0.5331 | 0.5137 |
| 47 | 0.7539 | 0.7381 | 0.7218 | 0.7049 | 0.6876 | 0.6698 | 0.6517 | 0.6333 | 0.6145 | 0.5956 | 0.5764 | 0.5571 | 0.5377 | 0.5181 |
| 48 | 0.7590 | 0.7433 | 0.7270 | 0.7101 | 0.6928 | 0.6750 | 0.6569 | 0.6384 | 0.6196 | 0.6006 | 0.5814 | 0.5619 | 0.5424 | 0.5228 |
| 49 | 0.7642 | 0.7486 | 0.7323 | 0.7155 | 0.6982 | 0.6804 | 0.6623 | 0.6437 | 0.6249 | 0.6058 | 0.5865 | 0.5670 | 0.5474 | 0.5277 |
| 50 | 0.7696 | 0.7541 | 0.7379 | 0.7211 | 0.7037 | 0.6860 | 0.6678 | 0.6493 | 0.6304 | 0.6113 | 0.5919 | 0.5723 | 0.5526 | 0.5327 |
| 51 | 0.7751 | 0.7597 | 0.7435 | 0.7268 | 0.7095 | 0.6918 | 0.6736 | 0.6551 | 0.6362 | 0.6170 | 0.5975 | 0.5778 | 0.5580 | 0.5381 |
| 52 | 0.7808 | 0.7654 | 0.7493 | 0.7327 | 0.7154 | 0.6977 | 0.6796 | 0.6610 | 0.6421 | 0.6229 | 0.6034 | 0.5836 | 0.5637 | 0.5437 |

[^12]Table I -
Distributions Beginning On And After July 1, 2004 100\% Joint And Survivor With Pop-Up O\&R Participants

|  | Age Of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
| 53 | 0.7865 | 0.7712 | 0.7553 | 0.7387 | 0.7216 | 0.7039 | 0.6858 | 0.6672 | 0.6483 | 0.6290 | 0.6095 | 0.5896 | 0.5697 | 0.5495 |
| 54 | 0.7924 | 0.7773 | 0.7614 | 0.7449 | 0.7279 | 0.7102 | 0.6922 | 0.6736 | 0.6547 | 0.6354 | 0.6159 | 0.5959 | 0.5759 | 0.5557 |
| 55 | 0.7983 | 0.7833 | 0.7677 | 0.7513 | 0.7343 | 0.7167 | 0.6988 | 0.6802 | 0.6613 | 0.6420 | 0.6224 | 0.6024 | 0.5823 | 0.5620 |
| 56 | 0.8044 | 0.7895 | 0.7740 | 0.7578 | 0.7409 | 0.7235 | 0.7055 | 0.6871 | 0.6681 | 0.6489 | 0.6293 | 0.6092 | 0.5891 | 0.5687 |
| 57 | 0.8104 | 0.7959 | 0.7805 | 0.7644 | 0.7476 | 0.7303 | 0.7125 | 0.6941 | 0.6752 | 0.6560 | 0.6364 | 0.6163 | 0.5961 | 0.5756 |
| 58 | 0.8166 | 0.8022 | 0.7870 | 0.7711 | 0.7545 | 0.7373 | 0.7196 | 0.7013 | 0.6825 | 0.6633 | 0.6437 | 0.6236 | 0.6034 | 0.5829 |
| 59 | 0.8228 | 0.8086 | 0.7936 | 0.7780 | 0.7615 | 0.7444 | 0.7269 | 0.7086 | 0.6899 | 0.6708 | 0.6512 | 0.6311 | 0.6109 | 0.5903 |
| 60 | 0.8290 | 0.8151 | 0.8003 | 0.7848 | 0.7686 | 0.7517 | 0.7343 | 0.7162 | 0.6976 | 0.6785 | 0.6589 | 0.6389 | 0.6187 | 0.5981 |
| 61 | 0.8352 | 0.8215 | 0.8070 | 0.7918 | 0.7757 | 0.7591 | 0.7418 | 0.7239 | 0.7054 | 0.6864 | 0.6669 | 0.6469 | 0.6267 | 0.6061 |
| 62 | 0.8414 | 0.8280 | 0.8138 | 0.7988 | 0.7830 | 0.7665 | 0.7494 | 0.7317 | 0.7133 | 0.6945 | 0.6751 | 0.6551 | 0.6349 | 0.6143 |
| 63 | 0.8476 | 0.8345 | 0.8205 | 0.8058 | 0.7902 | 0.7740 | 0.7571 | 0.7396 | 0.7214 | 0.7027 | 0.6834 | 0.6636 | 0.6434 | 0.6228 |
| 64 | 0.8537 | 0.8409 | 0.8272 | 0.8128 | 0.7975 | 0.7816 | 0.7649 | 0.7476 | 0.7296 | 0.7110 | 0.6919 | 0.6722 | 0.6521 | 0.6315 |
| 65 | 0.8597 | 0.8473 | 0.8340 | 0.8198 | 0.8049 | 0.7891 | 0.7728 | 0.7557 | 0.7379 | 0.7195 | 0.7006 | 0.6810 | 0.6609 | 0.6404 |
| 66 | 0.8657 | 0.8536 | 0.8406 | 0.8268 | 0.8121 | 0.7968 | 0.7806 | 0.7638 | 0.7462 | 0.7281 | 0.7093 | 0.6898 | 0.6700 | 0.6496 |
| 67 | 0.8716 | 0.8598 | 0.8472 | 0.8337 | 0.8194 | 0.8043 | 0.7885 | 0.7719 | 0.7547 | 0.7367 | 0.7182 | 0.6989 | 0.6792 | 0.6589 |
| 68 | 0.8774 | 0.8659 | 0.8537 | 0.8405 | 0.8266 | 0.8118 | 0.7964 | 0.7801 | 0.7631 | 0.7455 | 0.7271 | 0.7080 | 0.6884 | 0.6683 |
| 69 | 0.8830 | 0.8720 | 0.8601 | 0.8474 | 0.8337 | 0.8193 | 0.8042 | 0.7883 | 0.7716 | 0.7542 | 0.7361 | 0.7173 | 0.6979 | 0.6779 |
| 70 | 0.8886 | 0.8779 | 0.8663 | 0.8540 | 0.8408 | 0.8267 | 0.8120 | 0.7964 | 0.7800 | 0.7630 | 0.7451 | 0.7266 | 0.7074 | 0.6876 |
| 71 | 0.8940 | 0.8837 | 0.8725 | 0.8605 | 0.8477 | 0.8340 | 0.8197 | 0.8044 | 0.7884 | 0.7717 | 0.7542 | 0.7359 | 0.7170 | 0.6974 |
| 72 | 0.8992 | 0.8893 | 0.8785 | 0.8670 | 0.8545 | 0.8413 | 0.8273 | 0.8125 | 0.7968 | 0.7804 | 0.7632 | 0.7453 | 0.7266 | 0.7073 |
| 73 | 0.9043 | 0.8948 | 0.8844 | 0.8733 | 0.8612 | 0.8483 | 0.8348 | 0.8203 | 0.8051 | 0.7890 | 0.7723 | 0.7546 | 0.7362 | 0.7172 |
| 74 | 0.9092 | 0.9001 | 0.8902 | 0.8794 | 0.8678 | 0.8553 | 0.8421 | 0.8281 | 0.8132 | 0.7976 | 0.7812 | 0.7638 | 0.7459 | 0.7271 |
| 75 | 0.9140 | 0.9052 | 0.8956 | 0.8853 | 0.8741 | 0.8621 | 0.8493 | 0.8358 | 0.8212 | 0.8061 | 0.7900 | 0.7731 | 0.7554 | 0.7370 |
| 76 | 0.9185 | 0.9102 | 0.9010 | 0.8911 | 0.8803 | 0.8687 | 0.8564 | 0.8432 | 0.8291 | 0.8144 | 0.7987 | 0.7822 | 0.7649 | 0.7468 |
| 77 | 0.9230 | 0.9150 | 0.9062 | 0.8967 | 0.8863 | 0.8751 | 0.8632 | 0.8505 | 0.8369 | 0.8225 | 0.8073 | 0.7912 | 0.7743 | 0.7566 |
| 78 | 0.9272 | 0.9195 | 0.9112 | 0.9020 | 0.8921 | 0.8814 | 0.8700 | 0.8576 | 0.8445 | 0.8306 | 0.8158 | 0.8001 | 0.7836 | 0.7663 |
| 79 | 0.9313 | 0.9240 | 0.9160 | 0.9073 | 0.8977 | 0.8874 | 0.8764 | 0.8646 | 0.8519 | 0.8384 | 0.8240 | 0.8088 | 0.7927 | 0.7758 |
| 80 | 0.9351 | 0.9282 | 0.9206 | 0.9123 | 0.9031 | 0.8932 | 0.8827 | 0.8713 | 0.8591 | 0.8460 | 0.8322 | 0.8173 | 0.8017 | 0.7852 |
| 81 | 0.9388 | 0.9323 | 0.9250 | 0.9170 | 0.9083 | 0.8989 | 0.8888 | 0.8778 | 0.8661 | 0.8535 | 0.8401 | 0.8257 | 0.8105 | 0.7944 |
| 82 | 0.9424 | 0.9362 | 0.9293 | 0.9217 | 0.9133 | 0.9043 | 0.8946 | 0.8842 | 0.8728 | 0.8608 | 0.8478 | 0.8339 | 0.8192 | 0.8036 |
| 83 | 0.9457 | 0.9399 | 0.9333 | 0.9261 | 0.9182 | 0.9096 | 0.9003 | 0.8903 | 0.8794 | 0.8679 | 0.8554 | 0.8420 | 0.8278 | 0.8126 |
| 84 | 0.9490 | 0.9434 | 0.9372 | 0.9304 | 0.9228 | 0.9147 | 0.9058 | 0.8962 | 0.8859 | 0.8747 | 0.8627 | 0.8498 | 0.8361 | 0.8214 |
| 85 | 0.9521 | 0.9468 | 0.9410 | 0.9344 | 0.9273 | 0.9195 | 0.9111 | 0.9020 | 0.8920 | 0.8814 | 0.8699 | 0.8575 | 0.8443 | 0.8301 |

# Sub appendix A. 2 <br> Table J <br> Distributions Beginning On And After July 1, 2004 <br> 50\% Joint And Survivor With Pop-Up <br> O\&R Participants 

|  |  |  |  |  |  |  |  | Age of P | ner |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| 20 | 0.9742 | 0.9721 | 0.9700 | 0.9678 | 0.9653 | 0.9627 | 0.9600 | 0.9571 | 0.9540 | 0.9507 | 0.9472 | 0.9435 | 0.9396 | 0.9355 | 0.9311 | 0.9265 |
| 21 | 0.9748 | 0.9728 | 0.9708 | 0.9685 | 0.9661 | 0.9635 | 0.9609 | 0.9580 | 0.9549 | 0.9516 | 0.9481 | 0.9444 | 0.9405 | 0.9365 | 0.9321 | 0.9275 |
| 22 | 0.9755 | 0.9736 | 0.9715 | 0.9693 | 0.9669 | 0.9644 | 0.9617 | 0.9588 | 0.9558 | 0.9526 | 0.9491 | 0.9454 | 0.9415 | 0.9375 | 0.9331 | 0.9286 |
| 23 | 0.9762 | 0.9743 | 0.9722 | 0.9701 | 0.9677 | 0.9652 | 0.9625 | 0.9597 | 0.9567 | 0.9535 | 0.9501 | 0.9464 | 0.9425 | 0.9385 | 0.9342 | 0.9297 |
| 24 | 0.9769 | 0.9750 | 0.9730 | 0.9708 | 0.9685 | 0.9660 | 0.9634 | 0.9607 | 0.9576 | 0.9545 | 0.9511 | 0.9475 | 0.9436 | 0.9396 | 0.9353 | 0.9308 |
| 25 | 0.9776 | 0.9757 | 0.9737 | 0.9716 | 0.9693 | 0.9669 | 0.9643 | 0.9616 | 0.9586 | 0.9555 | 0.9521 | 0.9485 | 0.9447 | 0.9407 | 0.9364 | 0.9320 |
| 26 | 0.9783 | 0.9764 | 0.9745 | 0.9724 | 0.9702 | 0.9678 | 0.9652 | 0.9625 | 0.9596 | 0.9565 | 0.9531 | 0.9496 | 0.9458 | 0.9419 | 0.9376 | 0.9332 |
| 27 | 0.9790 | 0.9771 | 0.9753 | 0.9732 | 0.9710 | 0.9687 | 0.9662 | 0.9635 | 0.9605 | 0.9575 | 0.9542 | 0.9507 | 0.9469 | 0.9430 | 0.9388 | 0.9344 |
| 28 | 0.9796 | 0.9779 | 0.9760 | 0.9740 | 0.9719 | 0.9696 | 0.9671 | 0.9644 | 0.9615 | 0.9586 | 0.9553 | 0.9518 | 0.9481 | 0.9442 | 0.9400 | 0.9357 |
| 29 | 0.9803 | 0.9786 | 0.9768 | 0.9749 | 0.9727 | 0.9705 | 0.9680 | 0.9655 | 0.9626 | 0.9596 | 0.9564 | 0.9529 | 0.9493 | 0.9455 | 0.9413 | 0.9370 |
| 30 | 0.9810 | 0.9793 | 0.9776 | 0.9757 | 0.9736 | 0.9714 | 0.9690 | 0.9664 | 0.9636 | 0.9607 | 0.9575 | 0.9541 | 0.9505 | 0.9467 | 0.9426 | 0.9383 |
| 31 | 0.9817 | 0.9801 | 0.9783 | 0.9765 | 0.9744 | 0.9722 | 0.9699 | 0.9674 | 0.9647 | 0.9618 | 0.9587 | 0.9553 | 0.9518 | 0.9480 | 0.9439 | 0.9397 |
| 32 | 0.9823 | 0.9808 | 0.9791 | 0.9773 | 0.9753 | 0.9731 | 0.9709 | 0.9684 | 0.9657 | 0.9629 | 0.9598 | 0.9565 | 0.9530 | 0.9493 | 0.9453 | 0.9410 |
| 33 | 0.9830 | 0.9815 | 0.9798 | 0.9781 | 0.9761 | 0.9740 | 0.9718 | 0.9694 | 0.9668 | 0.9640 | 0.9610 | 0.9577 | 0.9543 | 0.9506 | 0.9467 | 0.9425 |
| 34 | 0.9837 | 0.9821 | 0.9806 | 0.9789 | 0.9770 | 0.9749 | 0.9728 | 0.9704 | 0.9678 | 0.9651 | 0.9621 | 0.9589 | 0.9555 | 0.9519 | 0.9480 | 0.9439 |
| 35 | 0.9843 | 0.9829 | 0.9813 | 0.9797 | 0.9778 | 0.9759 | 0.9737 | 0.9714 | 0.9689 | 0.9662 | 0.9634 | 0.9602 | 0.9569 | 0.9533 | 0.9494 | 0.9454 |
| 36 | 0.9849 | 0.9835 | 0.9821 | 0.9804 | 0.9786 | 0.9767 | 0.9747 | 0.9724 | 0.9700 | 0.9673 | 0.9645 | 0.9614 | 0.9581 | 0.9546 | 0.9509 | 0.9469 |
| 37 | 0.9856 | 0.9842 | 0.9827 | 0.9812 | 0.9795 | 0.9776 | 0.9756 | 0.9734 | 0.9710 | 0.9684 | 0.9657 | 0.9627 | 0.9595 | 0.9560 | 0.9523 | 0.9484 |
| 38 | 0.9861 | 0.9848 | 0.9834 | 0.9819 | 0.9803 | 0.9784 | 0.9765 | 0.9744 | 0.9720 | 0.9696 | 0.9669 | 0.9639 | 0.9607 | 0.9574 | 0.9538 | 0.9499 |
| 39 | 0.9867 | 0.9854 | 0.9841 | 0.9827 | 0.9810 | 0.9793 | 0.9774 | 0.9753 | 0.9731 | 0.9707 | 0.9680 | 0.9651 | 0.9621 | 0.9588 | 0.9552 | 0.9514 |
| 40 | 0.9873 | 0.9861 | 0.9848 | 0.9834 | 0.9818 | 0.9801 | 0.9783 | 0.9763 | 0.9741 | 0.9717 | 0.9692 | 0.9664 | 0.9634 | 0.9602 | 0.9566 | 0.9529 |
| 41 | 0.9878 | 0.9866 | 0.9854 | 0.9841 | 0.9826 | 0.9809 | 0.9792 | 0.9772 | 0.9751 | 0.9728 | 0.9703 | 0.9676 | 0.9646 | 0.9615 | 0.9581 | 0.9545 |
| 42 | 0.9883 | 0.9872 | 0.9861 | 0.9848 | 0.9833 | 0.9817 | 0.9800 | 0.9782 | 0.9761 | 0.9739 | 0.9715 | 0.9688 | 0.9659 | 0.9629 | 0.9596 | 0.9560 |
| 43 | 0.9889 | 0.9878 | 0.9866 | 0.9854 | 0.9840 | 0.9825 | 0.9808 | 0.9791 | 0.9770 | 0.9749 | 0.9726 | 0.9700 | 0.9672 | 0.9643 | 0.9610 | 0.9575 |
| 44 | 0.9894 | 0.9883 | 0.9873 | 0.9860 | 0.9847 | 0.9832 | 0.9817 | 0.9800 | 0.9780 | 0.9759 | 0.9737 | 0.9712 | 0.9685 | 0.9656 | 0.9624 | 0.9591 |
| 45 | 0.9898 | 0.9889 | 0.9878 | 0.9867 | 0.9854 | 0.9840 | 0.9825 | 0.9808 | 0.9790 | 0.9769 | 0.9748 | 0.9723 | 0.9697 | 0.9670 | 0.9639 | 0.9606 |
| 46 | 0.9903 | 0.9893 | 0.9883 | 0.9872 | 0.9860 | 0.9847 | 0.9832 | 0.9817 | 0.9798 | 0.9779 | 0.9758 | 0.9734 | 0.9710 | 0.9683 | 0.9653 | 0.9621 |
| 47 | 0.9907 | 0.9898 | 0.9889 | 0.9878 | 0.9867 | 0.9854 | 0.9840 | 0.9825 | 0.9807 | 0.9789 | 0.9768 | 0.9746 | 0.9721 | 0.9695 | 0.9667 | 0.9635 |
| 48 | 0.9911 | 0.9903 | 0.9894 | 0.9884 | 0.9872 | 0.9861 | 0.9847 | 0.9832 | 0.9816 | 0.9798 | 0.9778 | 0.9757 | 0.9733 | 0.9708 | 0.9680 | 0.9650 |
| 49 | 0.9915 | 0.9908 | 0.9899 | 0.9889 | 0.9879 | 0.9867 | 0.9854 | 0.9840 | 0.9824 | 0.9807 | 0.9788 | 0.9767 | 0.9745 | 0.9720 | 0.9693 | 0.9664 |
| 50 | 0.9920 | 0.9912 | 0.9904 | 0.9894 | 0.9884 | 0.9873 | 0.9861 | 0.9848 | 0.9832 | 0.9816 | 0.9798 | 0.9778 | 0.9756 | 0.9732 | 0.9706 | 0.9679 |
| 51 | 0.9924 | 0.9916 | 0.9908 | 0.9900 | 0.9890 | 0.9879 | 0.9867 | 0.9855 | 0.9840 | 0.9824 | 0.9807 | 0.9788 | 0.9767 | 0.9744 | 0.9719 | 0.9692 |
| 52 | 0.9927 | 0.9920 | 0.9912 | 0.9904 | 0.9895 | 0.9885 | 0.9874 | 0.9861 | 0.9847 | 0.9833 | 0.9816 | 0.9797 | 0.9777 | 0.9756 | 0.9732 | 0.9705 |

# Sub appendix A. 2 <br> Table J <br> Distributions Beginning On And After July 1, 2004 50\% Joint And Survivor With Pop-Up O\&R Participants 

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| 53 | 0.9930 | 0.9924 | 0.9917 | 0.9909 | 0.9900 | 0.9890 | 0.9880 | 0.9868 | 0.9855 | 0.9841 | 0.9825 | 0.9806 | 0.9787 | 0.9767 | 0.9743 | 0.9719 |
| 54 | 0.9934 | 0.9927 | 0.9920 | 0.9914 | 0.9905 | 0.9896 | 0.9886 | 0.9875 | 0.9861 | 0.9848 | 0.9833 | 0.9816 | 0.9798 | 0.9778 | 0.9755 | 0.9731 |
| 55 | 0.9937 | 0.9931 | 0.9925 | 0.9918 | 0.9910 | 0.9901 | 0.9891 | 0.9881 | 0.9869 | 0.9856 | 0.9841 | 0.9825 | 0.9807 | 0.9788 | 0.9766 | 0.9744 |
| 56 | 0.9940 | 0.9934 | 0.9929 | 0.9922 | 0.9914 | 0.9906 | 0.9897 | 0.9887 | 0.9875 | 0.9863 | 0.9849 | 0.9833 | 0.9816 | 0.9798 | 0.9777 | 0.9756 |
| 57 | 0.9943 | 0.9938 | 0.9932 | 0.9926 | 0.9918 | 0.9910 | 0.9902 | 0.9892 | 0.9881 | 0.9870 | 0.9856 | 0.9841 | 0.9826 | 0.9808 | 0.9789 | 0.9767 |
| 58 | 0.9946 | 0.9941 | 0.9935 | 0.9929 | 0.9923 | 0.9915 | 0.9907 | 0.9898 | 0.9887 | 0.9876 | 0.9864 | 0.9849 | 0.9834 | 0.9817 | 0.9798 | 0.9778 |
| 59 | 0.9949 | 0.9943 | 0.9938 | 0.9933 | 0.9926 | 0.9919 | 0.9912 | 0.9903 | 0.9892 | 0.9882 | 0.9870 | 0.9857 | 0.9842 | 0.9826 | 0.9809 | 0.9790 |
| 60 | 0.9951 | 0.9946 | 0.9941 | 0.9936 | 0.9930 | 0.9923 | 0.9916 | 0.9908 | 0.9898 | 0.9888 | 0.9877 | 0.9864 | 0.9850 | 0.9835 | 0.9818 | 0.9800 |
| 61 | 0.9954 | 0.9949 | 0.9945 | 0.9939 | 0.9934 | 0.9927 | 0.9920 | 0.9913 | 0.9903 | 0.9894 | 0.9883 | 0.9871 | 0.9858 | 0.9844 | 0.9827 | 0.9810 |
| 62 | 0.9956 | 0.9952 | 0.9947 | 0.9943 | 0.9937 | 0.9931 | 0.9925 | 0.9917 | 0.9909 | 0.9900 | 0.9889 | 0.9878 | 0.9865 | 0.9852 | 0.9836 | 0.9820 |
| 63 | 0.9958 | 0.9954 | 0.9950 | 0.9946 | 0.9940 | 0.9935 | 0.9928 | 0.9922 | 0.9913 | 0.9905 | 0.9895 | 0.9884 | 0.9872 | 0.9859 | 0.9845 | 0.9829 |
| 64 | 0.9960 | 0.9957 | 0.9952 | 0.9949 | 0.9944 | 0.9938 | 0.9932 | 0.9926 | 0.9918 | 0.9910 | 0.9901 | 0.9890 | 0.9879 | 0.9867 | 0.9852 | 0.9838 |
| 65 | 0.9963 | 0.9959 | 0.9955 | 0.9951 | 0.9947 | 0.9941 | 0.9936 | 0.9930 | 0.9922 | 0.9915 | 0.9906 | 0.9896 | 0.9885 | 0.9873 | 0.9860 | 0.9846 |
| 66 | 0.9965 | 0.9961 | 0.9958 | 0.9954 | 0.9949 | 0.9945 | 0.9939 | 0.9934 | 0.9927 | 0.9919 | 0.9911 | 0.9901 | 0.9891 | 0.9880 | 0.9868 | 0.9854 |
| 67 | 0.9966 | 0.9963 | 0.9960 | 0.9956 | 0.9952 | 0.9948 | 0.9942 | 0.9937 | 0.9930 | 0.9924 | 0.9916 | 0.9907 | 0.9897 | 0.9887 | 0.9875 | 0.9862 |
| 68 | 0.9968 | 0.9965 | 0.9962 | 0.9959 | 0.9954 | 0.9951 | 0.9945 | 0.9940 | 0.9934 | 0.9928 | 0.9920 | 0.9911 | 0.9903 | 0.9893 | 0.9882 | 0.9869 |
| 69 | 0.9970 | 0.9967 | 0.9964 | 0.9961 | 0.9957 | 0.9953 | 0.9948 | 0.9944 | 0.9938 | 0.9932 | 0.9925 | 0.9916 | 0.9908 | 0.9899 | 0.9888 | 0.9876 |
| 70 | 0.9971 | 0.9968 | 0.9966 | 0.9963 | 0.9960 | 0.9956 | 0.9951 | 0.9947 | 0.9941 | 0.9936 | 0.9929 | 0.9921 | 0.9913 | 0.9904 | 0.9894 | 0.9883 |
| 71 | 0.9973 | 0.9970 | 0.9968 | 0.9965 | 0.9961 | 0.9958 | 0.9954 | 0.9950 | 0.9945 | 0.9939 | 0.9933 | 0.9926 | 0.9918 | 0.9909 | 0.9900 | 0.9889 |
| 72 | 0.9974 | 0.9972 | 0.9969 | 0.9967 | 0.9964 | 0.9961 | 0.9957 | 0.9953 | 0.9948 | 0.9943 | 0.9937 | 0.9930 | 0.9923 | 0.9914 | 0.9905 | 0.9896 |
| 73 | 0.9976 | 0.9974 | 0.9971 | 0.9969 | 0.9966 | 0.9962 | 0.9959 | 0.9955 | 0.9951 | 0.9946 | 0.9940 | 0.9934 | 0.9927 | 0.9919 | 0.9910 | 0.9901 |
| 74 | 0.9977 | 0.9975 | 0.9973 | 0.9970 | 0.9968 | 0.9965 | 0.9962 | 0.9958 | 0.9953 | 0.9949 | 0.9944 | 0.9937 | 0.9931 | 0.9924 | 0.9915 | 0.9906 |
| 75 | 0.9978 | 0.9976 | 0.9974 | 0.9972 | 0.9970 | 0.9967 | 0.9964 | 0.9961 | 0.9956 | 0.9952 | 0.9947 | 0.9941 | 0.9935 | 0.9928 | 0.9920 | 0.9912 |
| 76 | 0.9980 | 0.9978 | 0.9976 | 0.9974 | 0.9971 | 0.9968 | 0.9966 | 0.9963 | 0.9959 | 0.9955 | 0.9950 | 0.9944 | 0.9939 | 0.9932 | 0.9925 | 0.9917 |
| 77 | 0.9981 | 0.9979 | 0.9977 | 0.9975 | 0.9973 | 0.9971 | 0.9968 | 0.9965 | 0.9961 | 0.9958 | 0.9953 | 0.9948 | 0.9942 | 0.9936 | 0.9929 | 0.9922 |
| 78 | 0.9982 | 0.9980 | 0.9978 | 0.9977 | 0.9974 | 0.9972 | 0.9970 | 0.9967 | 0.9963 | 0.9960 | 0.9956 | 0.9951 | 0.9946 | 0.9940 | 0.9933 | 0.9926 |
| 79 | 0.9983 | 0.9981 | 0.9979 | 0.9978 | 0.9976 | 0.9974 | 0.9972 | 0.9969 | 0.9965 | 0.9963 | 0.9959 | 0.9953 | 0.9949 | 0.9943 | 0.9937 | 0.9930 |
| 80 | 0.9984 | 0.9982 | 0.9981 | 0.9979 | 0.9977 | 0.9975 | 0.9974 | 0.9971 | 0.9968 | 0.9964 | 0.9961 | 0.9956 | 0.9952 | 0.9947 | 0.9941 | 0.9934 |
| 81 | 0.9985 | 0.9983 | 0.9982 | 0.9980 | 0.9979 | 0.9977 | 0.9975 | 0.9973 | 0.9970 | 0.9967 | 0.9963 | 0.9959 | 0.9954 | 0.9950 | 0.9944 | 0.9938 |
| 82 | 0.9985 | 0.9984 | 0.9983 | 0.9982 | 0.9980 | 0.9978 | 0.9977 | 0.9975 | 0.9971 | 0.9969 | 0.9965 | 0.9961 | 0.9957 | 0.9953 | 0.9947 | 0.9941 |
| 83 | 0.9987 | 0.9985 | 0.9984 | 0.9983 | 0.9981 | 0.9980 | 0.9978 | 0.9976 | 0.9973 | 0.9971 | 0.9968 | 0.9964 | 0.9960 | 0.9956 | 0.9950 | 0.9945 |
| 84 | 0.9987 | 0.9986 | 0.9985 | 0.9984 | 0.9982 | 0.9981 | 0.9979 | 0.9978 | 0.9975 | 0.9972 | 0.9970 | 0.9966 | 0.9962 | 0.9958 | 0.9953 | 0.9948 |
| 85 | 0.9988 | 0.9987 | 0.9986 | 0.9985 | 0.9983 | 0.9982 | 0.9980 | 0.9979 | 0.9976 | 0.9974 | 0.9972 | 0.9968 | 0.9965 | 0.9961 | 0.9957 | 0.9952 |

# Sub appendix A. 2 <br> Table J <br> Distributions Beginning On And After July 1, 2004 <br> 50\% Joint And Survivor With Pop-Up <br> O\&R Participants 

|  |  |  |  |  |  |  |  | Age of | ioner |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 |
| 20 | 0.9218 | 0.9167 | 0.9114 | 0.9058 | 0.9000 | 0.8938 | 0.8874 | 0.8806 | 0.8735 | 0.8660 | 0.8582 | 0.8499 | 0.8412 | 0.8320 | 0.8224 | 0.8123 |
| 21 | 0.9228 | 0.9177 | 0.9124 | 0.9069 | 0.9011 | 0.8949 | 0.8885 | 0.8818 | 0.8747 | 0.8672 | 0.8593 | 0.8510 | 0.8423 | 0.8332 | 0.8236 | 0.8135 |
| 22 | 0.9238 | 0.9188 | 0.9135 | 0.9080 | 0.9022 | 0.8961 | 0.8896 | 0.8830 | 0.8759 | 0.8684 | 0.8605 | 0.8523 | 0.8436 | 0.8344 | 0.8248 | 0.8147 |
| 23 | 0.9250 | 0.9200 | 0.9147 | 0.9092 | 0.9034 | 0.8973 | 0.8909 | 0.8842 | 0.8771 | 0.8696 | 0.8618 | 0.8535 | 0.8449 | 0.8358 | 0.8261 | 0.8160 |
| 24 | 0.9261 | 0.9211 | 0.9159 | 0.9104 | 0.9046 | 0.8985 | 0.8921 | 0.8855 | 0.8784 | 0.8709 | 0.8631 | 0.8549 | 0.8462 | 0.8371 | 0.8274 | 0.8174 |
| 25 | 0.9273 | 0.9223 | 0.9171 | 0.9117 | 0.9059 | 0.8998 | 0.8934 | 0.8868 | 0.8798 | 0.8723 | 0.8645 | 0.8562 | 0.8476 | 0.8385 | 0.8289 | 0.8188 |
| 26 | 0.9286 | 0.9235 | 0.9184 | 0.9129 | 0.9072 | 0.9011 | 0.8948 | 0.8882 | 0.8812 | 0.8737 | 0.8659 | 0.8577 | 0.8491 | 0.8400 | 0.8303 | 0.8203 |
| 27 | 0.9298 | 0.9248 | 0.9197 | 0.9143 | 0.9086 | 0.9025 | 0.8962 | 0.8896 | 0.8826 | 0.8752 | 0.8674 | 0.8592 | 0.8506 | 0.8415 | 0.8319 | 0.8218 |
| 28 | 0.9311 | 0.9262 | 0.9211 | 0.9157 | 0.9100 | 0.9040 | 0.8977 | 0.8911 | 0.8841 | 0.8767 | 0.8690 | 0.8608 | 0.8521 | 0.8431 | 0.8335 | 0.8235 |
| 29 | 0.9325 | 0.9276 | 0.9225 | 0.9171 | 0.9115 | 0.9055 | 0.8992 | 0.8927 | 0.8857 | 0.8783 | 0.8705 | 0.8624 | 0.8538 | 0.8448 | 0.8352 | 0.8252 |
| 30 | 0.9338 | 0.9290 | 0.9239 | 0.9186 | 0.9130 | 0.9070 | 0.9008 | 0.8943 | 0.8873 | 0.8800 | 0.8722 | 0.8641 | 0.8555 | 0.8465 | 0.8370 | 0.8269 |
| 31 | 0.9352 | 0.9304 | 0.9254 | 0.9201 | 0.9146 | 0.9086 | 0.9024 | 0.8959 | 0.8890 | 0.8817 | 0.8740 | 0.8659 | 0.8573 | 0.8483 | 0.8388 | 0.8288 |
| 32 | 0.9366 | 0.9319 | 0.9269 | 0.9216 | 0.9162 | 0.9103 | 0.9041 | 0.8976 | 0.8907 | 0.8835 | 0.8758 | 0.8677 | 0.8592 | 0.8502 | 0.8407 | 0.8307 |
| 33 | 0.9381 | 0.9334 | 0.9285 | 0.9233 | 0.9178 | 0.9119 | 0.9058 | 0.8994 | 0.8926 | 0.8853 | 0.8777 | 0.8696 | 0.8611 | 0.8522 | 0.8427 | 0.8327 |
| 34 | 0.9396 | 0.9350 | 0.9301 | 0.9249 | 0.9195 | 0.9137 | 0.9076 | 0.9012 | 0.8944 | 0.8872 | 0.8796 | 0.8716 | 0.8631 | 0.8542 | 0.8447 | 0.8348 |
| 35 | 0.9411 | 0.9365 | 0.9317 | 0.9266 | 0.9212 | 0.9155 | 0.9094 | 0.9031 | 0.8963 | 0.8892 | 0.8816 | 0.8736 | 0.8652 | 0.8563 | 0.8469 | 0.8370 |
| 36 | 0.9427 | 0.9381 | 0.9334 | 0.9284 | 0.9230 | 0.9173 | 0.9113 | 0.9050 | 0.8983 | 0.8912 | 0.8837 | 0.8758 | 0.8673 | 0.8585 | 0.8491 | 0.8392 |
| 37 | 0.9443 | 0.9398 | 0.9351 | 0.9301 | 0.9248 | 0.9192 | 0.9133 | 0.9070 | 0.9004 | 0.8933 | 0.8858 | 0.8779 | 0.8696 | 0.8607 | 0.8514 | 0.8415 |
| 38 | 0.9458 | 0.9414 | 0.9368 | 0.9319 | 0.9267 | 0.9211 | 0.9152 | 0.9090 | 0.9025 | 0.8954 | 0.8880 | 0.8801 | 0.8719 | 0.8631 | 0.8538 | 0.8440 |
| 39 | 0.9474 | 0.9431 | 0.9386 | 0.9337 | 0.9285 | 0.9230 | 0.9173 | 0.9111 | 0.9046 | 0.8976 | 0.8903 | 0.8825 | 0.8742 | 0.8655 | 0.8562 | 0.8464 |
| 40 | 0.9491 | 0.9448 | 0.9403 | 0.9355 | 0.9304 | 0.9250 | 0.9193 | 0.9133 | 0.9068 | 0.8999 | 0.8926 | 0.8849 | 0.8767 | 0.8680 | 0.8588 | 0.8490 |
| 41 | 0.9507 | 0.9465 | 0.9420 | 0.9374 | 0.9324 | 0.9270 | 0.9213 | 0.9154 | 0.9090 | 0.9022 | 0.8949 | 0.8873 | 0.8792 | 0.8706 | 0.8614 | 0.8517 |
| 42 | 0.9523 | 0.9482 | 0.9438 | 0.9393 | 0.9343 | 0.9291 | 0.9235 | 0.9176 | 0.9113 | 0.9046 | 0.8974 | 0.8898 | 0.8818 | 0.8732 | 0.8641 | 0.8545 |
| 43 | 0.9539 | 0.9499 | 0.9457 | 0.9411 | 0.9363 | 0.9311 | 0.9257 | 0.9198 | 0.9136 | 0.9070 | 0.8999 | 0.8924 | 0.8844 | 0.8759 | 0.8669 | 0.8573 |
| 44 | 0.9555 | 0.9516 | 0.9475 | 0.9430 | 0.9383 | 0.9332 | 0.9278 | 0.9221 | 0.9160 | 0.9094 | 0.9024 | 0.8950 | 0.8871 | 0.8787 | 0.8697 | 0.8602 |
| 45 | 0.9571 | 0.9533 | 0.9492 | 0.9449 | 0.9403 | 0.9353 | 0.9300 | 0.9244 | 0.9183 | 0.9119 | 0.9050 | 0.8976 | 0.8898 | 0.8815 | 0.8726 | 0.8632 |
| 46 | 0.9587 | 0.9550 | 0.9510 | 0.9468 | 0.9423 | 0.9374 | 0.9322 | 0.9267 | 0.9208 | 0.9144 | 0.9076 | 0.9003 | 0.8926 | 0.8844 | 0.8756 | 0.8663 |
| 47 | 0.9603 | 0.9566 | 0.9528 | 0.9487 | 0.9443 | 0.9395 | 0.9344 | 0.9290 | 0.9232 | 0.9169 | 0.9103 | 0.9031 | 0.8955 | 0.8874 | 0.8787 | 0.8695 |
| 48 | 0.9618 | 0.9583 | 0.9546 | 0.9505 | 0.9463 | 0.9416 | 0.9366 | 0.9314 | 0.9256 | 0.9194 | 0.9129 | 0.9059 | 0.8984 | 0.8904 | 0.8818 | 0.8727 |
| 49 | 0.9633 | 0.9599 | 0.9563 | 0.9524 | 0.9482 | 0.9437 | 0.9388 | 0.9337 | 0.9281 | 0.9221 | 0.9156 | 0.9087 | 0.9013 | 0.8934 | 0.8849 | 0.8760 |
| 50 | 0.9649 | 0.9616 | 0.9580 | 0.9543 | 0.9502 | 0.9458 | 0.9411 | 0.9360 | 0.9306 | 0.9246 | 0.9184 | 0.9115 | 0.9043 | 0.8965 | 0.8881 | 0.8793 |
| 51 | 0.9663 | 0.9632 | 0.9597 | 0.9561 | 0.9521 | 0.9479 | 0.9432 | 0.9383 | 0.9330 | 0.9272 | 0.9211 | 0.9144 | 0.9073 | 0.8996 | 0.8914 | 0.8827 |
| 52 | 0.9678 | 0.9647 | 0.9614 | 0.9579 | 0.9541 | 0.9499 | 0.9454 | 0.9407 | 0.9355 | 0.9298 | 0.9238 | 0.9173 | 0.9103 | 0.9028 | 0.8947 | 0.8861 |

# Sub appendix A. 2 <br> Table J <br> Distributions Beginning On And After July 1, 2004 <br> 50\% Joint And Survivor With Pop-Up <br> O\&R Participants 

|  |  |  |  |  |  |  |  | Age | sioner |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 |
| 53 | 0.9692 | 0.9662 | 0.9631 | 0.9597 | 0.9559 | 0.9519 | 0.9476 | 0.9429 | 0.9379 | 0.9324 | 0.9265 | 0.9202 | 0.9134 | 0.9060 | 0.8981 | 0.8896 |
| 54 | 0.9706 | 0.9677 | 0.9647 | 0.9614 | 0.9578 | 0.9539 | 0.9497 | 0.9452 | 0.9404 | 0.9350 | 0.9292 | 0.9230 | 0.9164 | 0.9092 | 0.9014 | 0.8931 |
| 55 | 0.9719 | 0.9692 | 0.9662 | 0.9631 | 0.9596 | 0.9558 | 0.9518 | 0.9475 | 0.9427 | 0.9375 | 0.9320 | 0.9260 | 0.9194 | 0.9124 | 0.9047 | 0.8966 |
| 56 | 0.9732 | 0.9706 | 0.9678 | 0.9647 | 0.9614 | 0.9578 | 0.9539 | 0.9497 | 0.9451 | 0.9401 | 0.9347 | 0.9288 | 0.9225 | 0.9156 | 0.9081 | 0.9001 |
| 57 | 0.9745 | 0.9719 | 0.9692 | 0.9664 | 0.9632 | 0.9596 | 0.9559 | 0.9519 | 0.9474 | 0.9426 | 0.9373 | 0.9317 | 0.9254 | 0.9188 | 0.9115 | 0.9037 |
| 58 | 0.9757 | 0.9733 | 0.9708 | 0.9679 | 0.9649 | 0.9615 | 0.9579 | 0.9540 | 0.9497 | 0.9450 | 0.9399 | 0.9344 | 0.9284 | 0.9220 | 0.9148 | 0.9073 |
| 59 | 0.9769 | 0.9746 | 0.9721 | 0.9695 | 0.9665 | 0.9633 | 0.9598 | 0.9561 | 0.9520 | 0.9474 | 0.9426 | 0.9372 | 0.9314 | 0.9251 | 0.9182 | 0.9108 |
| 60 | 0.9780 | 0.9758 | 0.9735 | 0.9709 | 0.9681 | 0.9650 | 0.9617 | 0.9581 | 0.9542 | 0.9498 | 0.9451 | 0.9400 | 0.9343 | 0.9282 | 0.9215 | 0.9143 |
| 61 | 0.9791 | 0.9770 | 0.9748 | 0.9723 | 0.9697 | 0.9667 | 0.9635 | 0.9602 | 0.9563 | 0.9521 | 0.9476 | 0.9426 | 0.9372 | 0.9313 | 0.9247 | 0.9178 |
| 62 | 0.9802 | 0.9782 | 0.9761 | 0.9737 | 0.9712 | 0.9683 | 0.9653 | 0.9621 | 0.9584 | 0.9544 | 0.9500 | 0.9452 | 0.9400 | 0.9343 | 0.9280 | 0.9212 |
| 63 | 0.9812 | 0.9793 | 0.9773 | 0.9750 | 0.9727 | 0.9700 | 0.9671 | 0.9639 | 0.9604 | 0.9566 | 0.9524 | 0.9478 | 0.9428 | 0.9373 | 0.9312 | 0.9247 |
| 64 | 0.9822 | 0.9804 | 0.9784 | 0.9763 | 0.9740 | 0.9715 | 0.9687 | 0.9658 | 0.9624 | 0.9587 | 0.9547 | 0.9503 | 0.9454 | 0.9402 | 0.9343 | 0.9280 |
| 65 | 0.9831 | 0.9814 | 0.9795 | 0.9775 | 0.9754 | 0.9729 | 0.9703 | 0.9675 | 0.9643 | 0.9608 | 0.9570 | 0.9527 | 0.9481 | 0.9430 | 0.9373 | 0.9312 |
| 66 | 0.9840 | 0.9823 | 0.9806 | 0.9787 | 0.9766 | 0.9744 | 0.9718 | 0.9692 | 0.9661 | 0.9628 | 0.9592 | 0.9551 | 0.9506 | 0.9458 | 0.9403 | 0.9344 |
| 67 | 0.9848 | 0.9833 | 0.9816 | 0.9798 | 0.9779 | 0.9757 | 0.9733 | 0.9708 | 0.9679 | 0.9647 | 0.9612 | 0.9574 | 0.9531 | 0.9485 | 0.9432 | 0.9376 |
| 68 | 0.9856 | 0.9841 | 0.9826 | 0.9809 | 0.9790 | 0.9770 | 0.9747 | 0.9723 | 0.9696 | 0.9666 | 0.9633 | 0.9596 | 0.9556 | 0.9511 | 0.9460 | 0.9406 |
| 69 | 0.9864 | 0.9850 | 0.9835 | 0.9820 | 0.9802 | 0.9782 | 0.9761 | 0.9738 | 0.9712 | 0.9684 | 0.9652 | 0.9617 | 0.9578 | 0.9536 | 0.9488 | 0.9436 |
| 70 | 0.9872 | 0.9858 | 0.9844 | 0.9829 | 0.9813 | 0.9794 | 0.9774 | 0.9752 | 0.9728 | 0.9700 | 0.9670 | 0.9637 | 0.9601 | 0.9560 | 0.9515 | 0.9465 |
| 71 | 0.9879 | 0.9866 | 0.9853 | 0.9838 | 0.9823 | 0.9805 | 0.9786 | 0.9766 | 0.9743 | 0.9717 | 0.9689 | 0.9657 | 0.9622 | 0.9583 | 0.9540 | 0.9493 |
| 72 | 0.9885 | 0.9873 | 0.9861 | 0.9847 | 0.9833 | 0.9816 | 0.9798 | 0.9779 | 0.9757 | 0.9733 | 0.9706 | 0.9676 | 0.9643 | 0.9606 | 0.9565 | 0.9520 |
| 73 | 0.9891 | 0.9880 | 0.9868 | 0.9855 | 0.9842 | 0.9826 | 0.9809 | 0.9791 | 0.9771 | 0.9748 | 0.9722 | 0.9694 | 0.9663 | 0.9628 | 0.9589 | 0.9546 |
| 74 | 0.9898 | 0.9887 | 0.9876 | 0.9863 | 0.9850 | 0.9836 | 0.9820 | 0.9803 | 0.9784 | 0.9761 | 0.9738 | 0.9711 | 0.9681 | 0.9648 | 0.9611 | 0.9570 |
| 75 | 0.9904 | 0.9893 | 0.9882 | 0.9871 | 0.9859 | 0.9845 | 0.9830 | 0.9814 | 0.9796 | 0.9775 | 0.9753 | 0.9728 | 0.9700 | 0.9668 | 0.9633 | 0.9594 |
| 76 | 0.9909 | 0.9899 | 0.9889 | 0.9879 | 0.9867 | 0.9854 | 0.9840 | 0.9824 | 0.9807 | 0.9788 | 0.9767 | 0.9743 | 0.9717 | 0.9687 | 0.9653 | 0.9617 |
| 77 | 0.9914 | 0.9904 | 0.9896 | 0.9885 | 0.9874 | 0.9862 | 0.9849 | 0.9835 | 0.9818 | 0.9800 | 0.9780 | 0.9758 | 0.9733 | 0.9705 | 0.9674 | 0.9639 |
| 78 | 0.9919 | 0.9910 | 0.9901 | 0.9892 | 0.9882 | 0.9869 | 0.9857 | 0.9844 | 0.9829 | 0.9812 | 0.9793 | 0.9772 | 0.9748 | 0.9722 | 0.9692 | 0.9659 |
| 79 | 0.9923 | 0.9915 | 0.9907 | 0.9898 | 0.9888 | 0.9877 | 0.9866 | 0.9853 | 0.9839 | 0.9823 | 0.9805 | 0.9785 | 0.9763 | 0.9739 | 0.9711 | 0.9679 |
| 80 | 0.9928 | 0.9920 | 0.9913 | 0.9904 | 0.9894 | 0.9884 | 0.9873 | 0.9862 | 0.9848 | 0.9833 | 0.9817 | 0.9799 | 0.9777 | 0.9754 | 0.9727 | 0.9698 |
| 81 | 0.9932 | 0.9925 | 0.9917 | 0.9910 | 0.9900 | 0.9891 | 0.9881 | 0.9870 | 0.9858 | 0.9843 | 0.9828 | 0.9810 | 0.9791 | 0.9769 | 0.9743 | 0.9716 |
| 82 | 0.9936 | 0.9929 | 0.9922 | 0.9914 | 0.9906 | 0.9897 | 0.9888 | 0.9878 | 0.9866 | 0.9853 | 0.9838 | 0.9822 | 0.9803 | 0.9783 | 0.9759 | 0.9732 |
| 83 | 0.9940 | 0.9933 | 0.9926 | 0.9920 | 0.9912 | 0.9903 | 0.9894 | 0.9885 | 0.9874 | 0.9861 | 0.9848 | 0.9832 | 0.9815 | 0.9796 | 0.9774 | 0.9749 |
| 84 | 0.9943 | 0.9937 | 0.9931 | 0.9924 | 0.9917 | 0.9909 | 0.9901 | 0.9892 | 0.9881 | 0.9870 | 0.9857 | 0.9842 | 0.9827 | 0.9808 | 0.9788 | 0.9764 |
| 85 | 0.9947 | 0.9941 | 0.9935 | 0.9929 | 0.9922 | 0.9914 | 0.9906 | 0.9898 | 0.9889 | 0.9878 | 0.9865 | 0.9853 | 0.9837 | 0.9821 | 0.9801 | 0.9779 |

## Sub appendix A. 2 <br> Table J <br> Distributions Beginning On And After July 1, 2004 <br> 50\% Joint And Survivor With Pop-Up <br> O\&R Participants

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
| 20 | 0.8017 | 0.7906 | 0.7790 | 0.7669 | 0.7543 | 0.7412 | 0.7278 | 0.7138 | 0.6994 | 0.6846 | 0.6693 | 0.6536 | 0.6376 | 0.6212 |
| 21 | 0.8029 | 0.7917 | 0.7802 | 0.7681 | 0.7554 | 0.7424 | 0.7290 | 0.7150 | 0.7006 | 0.6858 | 0.6705 | 0.6548 | 0.6387 | 0.6223 |
| 22 | 0.8041 | 0.7930 | 0.7814 | 0.7693 | 0.7567 | 0.7436 | 0.7302 | 0.7162 | 0.7018 | 0.6870 | 0.6717 | 0.6560 | 0.6400 | 0.6235 |
| 23 | 0.8054 | 0.7943 | 0.7827 | 0.7706 | 0.7580 | 0.7450 | 0.7315 | 0.7175 | 0.7031 | 0.6883 | 0.6730 | 0.6573 | 0.6412 | 0.6247 |
| 24 | 0.8068 | 0.7957 | 0.7841 | 0.7720 | 0.7594 | 0.7463 | 0.7329 | 0.7189 | 0.7044 | 0.6896 | 0.6744 | 0.6586 | 0.6425 | 0.6260 |
| 25 | 0.8082 | 0.7971 | 0.7856 | 0.7734 | 0.7608 | 0.7478 | 0.7343 | 0.7203 | 0.7059 | 0.6910 | 0.6758 | 0.6600 | 0.6439 | 0.6274 |
| 26 | 0.8097 | 0.7986 | 0.7871 | 0.7750 | 0.7623 | 0.7493 | 0.7358 | 0.7218 | 0.7073 | 0.6925 | 0.6773 | 0.6615 | 0.6454 | 0.6289 |
| 27 | 0.8113 | 0.8002 | 0.7886 | 0.7765 | 0.7639 | 0.7509 | 0.7374 | 0.7234 | 0.7090 | 0.6941 | 0.6788 | 0.6630 | 0.6469 | 0.6304 |
| 28 | 0.8129 | 0.8018 | 0.7903 | 0.7782 | 0.7656 | 0.7525 | 0.7391 | 0.7251 | 0.7106 | 0.6958 | 0.6805 | 0.6647 | 0.6485 | 0.6320 |
| 29 | 0.8146 | 0.8035 | 0.7920 | 0.7799 | 0.7673 | 0.7543 | 0.7408 | 0.7268 | 0.7124 | 0.6975 | 0.6822 | 0.6664 | 0.6503 | 0.6337 |
| 30 | 0.8164 | 0.8054 | 0.7938 | 0.7817 | 0.7691 | 0.7561 | 0.7426 | 0.7287 | 0.7142 | 0.6993 | 0.6840 | 0.6682 | 0.6520 | 0.6355 |
| 31 | 0.8182 | 0.8072 | 0.7957 | 0.7836 | 0.7711 | 0.7580 | 0.7445 | 0.7305 | 0.7161 | 0.7012 | 0.6859 | 0.6701 | 0.6539 | 0.6373 |
| 32 | 0.8202 | 0.8092 | 0.7977 | 0.7856 | 0.7731 | 0.7600 | 0.7465 | 0.7326 | 0.7181 | 0.7032 | 0.6879 | 0.6721 | 0.6559 | 0.6393 |
| 33 | 0.8222 | 0.8113 | 0.7997 | 0.7877 | 0.7751 | 0.7621 | 0.7486 | 0.7346 | 0.7202 | 0.7053 | 0.6900 | 0.6741 | 0.6579 | 0.6413 |
| 34 | 0.8243 | 0.8134 | 0.8018 | 0.7898 | 0.7773 | 0.7643 | 0.7508 | 0.7368 | 0.7224 | 0.7075 | 0.6922 | 0.6763 | 0.6601 | 0.6435 |
| 35 | 0.8265 | 0.8156 | 0.8041 | 0.7921 | 0.7795 | 0.7665 | 0.7531 | 0.7391 | 0.7246 | 0.7098 | 0.6945 | 0.6786 | 0.6624 | 0.6457 |
| 36 | 0.8288 | 0.8179 | 0.8065 | 0.7945 | 0.7819 | 0.7689 | 0.7555 | 0.7415 | 0.7271 | 0.7122 | 0.6969 | 0.6810 | 0.6648 | 0.6481 |
| 37 | 0.8312 | 0.8203 | 0.8089 | 0.7969 | 0.7844 | 0.7714 | 0.7580 | 0.7440 | 0.7296 | 0.7147 | 0.6994 | 0.6835 | 0.6673 | 0.6506 |
| 38 | 0.8336 | 0.8228 | 0.8114 | 0.7995 | 0.7869 | 0.7740 | 0.7606 | 0.7466 | 0.7322 | 0.7173 | 0.7020 | 0.6861 | 0.6699 | 0.6532 |
| 39 | 0.8362 | 0.8254 | 0.8140 | 0.8021 | 0.7896 | 0.7767 | 0.7633 | 0.7493 | 0.7349 | 0.7201 | 0.7047 | 0.6888 | 0.6726 | 0.6559 |
| 40 | 0.8388 | 0.8281 | 0.8167 | 0.8048 | 0.7924 | 0.7795 | 0.7661 | 0.7522 | 0.7378 | 0.7229 | 0.7076 | 0.6917 | 0.6755 | 0.6588 |
| 41 | 0.8415 | 0.8308 | 0.8195 | 0.8077 | 0.7953 | 0.7824 | 0.7690 | 0.7552 | 0.7407 | 0.7259 | 0.7106 | 0.6947 | 0.6785 | 0.6618 |
| 42 | 0.8443 | 0.8337 | 0.8224 | 0.8106 | 0.7982 | 0.7854 | 0.7721 | 0.7583 | 0.7438 | 0.7290 | 0.7137 | 0.6978 | 0.6816 | 0.6648 |
| 43 | 0.8473 | 0.8366 | 0.8254 | 0.8137 | 0.8014 | 0.7886 | 0.7753 | 0.7614 | 0.7471 | 0.7322 | 0.7170 | 0.7011 | 0.6848 | 0.6681 |
| 44 | 0.8502 | 0.8396 | 0.8285 | 0.8169 | 0.8046 | 0.7918 | 0.7786 | 0.7648 | 0.7504 | 0.7356 | 0.7203 | 0.7045 | 0.6882 | 0.6715 |
| 45 | 0.8533 | 0.8428 | 0.8317 | 0.8201 | 0.8079 | 0.7952 | 0.7820 | 0.7682 | 0.7539 | 0.7391 | 0.7239 | 0.7080 | 0.6918 | 0.6750 |
| 46 | 0.8564 | 0.8460 | 0.8350 | 0.8235 | 0.8113 | 0.7986 | 0.7855 | 0.7718 | 0.7575 | 0.7428 | 0.7275 | 0.7117 | 0.6955 | 0.6788 |
| 47 | 0.8597 | 0.8494 | 0.8384 | 0.8269 | 0.8148 | 0.8022 | 0.7892 | 0.7755 | 0.7613 | 0.7465 | 0.7313 | 0.7155 | 0.6993 | 0.6826 |
| 48 | 0.8630 | 0.8527 | 0.8420 | 0.8305 | 0.8185 | 0.8060 | 0.7929 | 0.7793 | 0.7651 | 0.7505 | 0.7353 | 0.7195 | 0.7033 | 0.6866 |
| 49 | 0.8664 | 0.8563 | 0.8455 | 0.8342 | 0.8222 | 0.8098 | 0.7968 | 0.7833 | 0.7692 | 0.7546 | 0.7394 | 0.7236 | 0.7075 | 0.6908 |
| 50 | 0.8698 | 0.8598 | 0.8492 | 0.8379 | 0.8261 | 0.8137 | 0.8008 | 0.7874 | 0.7733 | 0.7588 | 0.7436 | 0.7280 | 0.7118 | 0.6951 |
| 51 | 0.8733 | 0.8634 | 0.8529 | 0.8418 | 0.8301 | 0.8178 | 0.8050 | 0.7916 | 0.7776 | 0.7631 | 0.7481 | 0.7324 | 0.7164 | 0.6997 |
| 52 | 0.8769 | 0.8671 | 0.8567 | 0.8457 | 0.8341 | 0.8219 | 0.8093 | 0.7960 | 0.7820 | 0.7676 | 0.7526 | 0.7370 | 0.7210 | 0.7044 |

[^13]
## Sub appendix A. 2 <br> Table J <br> Distributions Beginning On And After July 1, 2004 <br> 50\% Joint And Survivor With Pop-Up <br> O\&R Participants

| AGE OF BENEFICIARY | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
| 53 | 0.8805 | 0.8708 | 0.8606 | 0.8498 | 0.8383 | 0.8262 | 0.8136 | 0.8004 | 0.7866 | 0.7723 | 0.7574 | 0.7419 | 0.7258 | 0.7093 |
| 54 | 0.8841 | 0.8747 | 0.8646 | 0.8538 | 0.8425 | 0.8305 | 0.8181 | 0.8050 | 0.7913 | 0.7771 | 0.7623 | 0.7468 | 0.7309 | 0.7143 |
| 55 | 0.8878 | 0.8785 | 0.8686 | 0.8580 | 0.8468 | 0.8350 | 0.8227 | 0.8097 | 0.7961 | 0.7820 | 0.7673 | 0.7519 | 0.7361 | 0.7196 |
| 56 | 0.8915 | 0.8824 | 0.8726 | 0.8622 | 0.8512 | 0.8395 | 0.8273 | 0.8145 | 0.8010 | 0.7871 | 0.7725 | 0.7572 | 0.7414 | 0.7251 |
| 57 | 0.8953 | 0.8864 | 0.8767 | 0.8665 | 0.8556 | 0.8441 | 0.8321 | 0.8195 | 0.8061 | 0.7923 | 0.7778 | 0.7626 | 0.7469 | 0.7307 |
| 58 | 0.8990 | 0.8902 | 0.8809 | 0.8708 | 0.8601 | 0.8488 | 0.8369 | 0.8245 | 0.8113 | 0.7976 | 0.7832 | 0.7682 | 0.7526 | 0.7365 |
| 59 | 0.9028 | 0.8942 | 0.8850 | 0.8751 | 0.8646 | 0.8535 | 0.8418 | 0.8295 | 0.8165 | 0.8030 | 0.7888 | 0.7738 | 0.7585 | 0.7424 |
| 60 | 0.9065 | 0.8981 | 0.8891 | 0.8795 | 0.8692 | 0.8583 | 0.8468 | 0.8346 | 0.8218 | 0.8085 | 0.7944 | 0.7797 | 0.7644 | 0.7485 |
| 61 | 0.8352 | 0.9020 | 0.8932 | 0.8838 | 0.8737 | 0.8630 | 0.8518 | 0.8398 | 0.8272 | 0.8141 | 0.8002 | 0.7856 | 0.7705 | 0.7547 |
| 62 | 0.9139 | 0.9059 | 0.8973 | 0.8881 | 0.8783 | 0.8678 | 0.8568 | 0.8451 | 0.8327 | 0.8197 | 0.8061 | 0.7916 | 0.7767 | 0.7611 |
| 63 | 0.9175 | 0.9098 | 0.9014 | 0.8925 | 0.8828 | 0.8726 | 0.8618 | 0.8503 | 0.8381 | 0.8254 | 0.8119 | 0.7978 | 0.7830 | 0.7676 |
| 64 | 0.9210 | 0.9135 | 0.9055 | 0.8968 | 0.8874 | 0.8774 | 0.8668 | 0.8556 | 0.8436 | 0.8312 | 0.8179 | 0.8039 | 0.7894 | 0.7742 |
| 65 | 0.9246 | 0.9174 | 0.9095 | 0.9010 | 0.8919 | 0.8821 | 0.8718 | 0.8608 | 0.8491 | 0.8369 | 0.8240 | 0.8102 | 0.7959 | 0.7808 |
| 66 | 0.9280 | 0.9210 | 0.9134 | 0.9052 | 0.8963 | 0.8869 | 0.8769 | 0.8661 | 0.8547 | 0.8427 | 0.8299 | 0.8165 | 0.8024 | 0.7876 |
| 67 | 0.9314 | 0.9246 | 0.9173 | 0.9094 | 0.9007 | 0.8916 | 0.8818 | 0.8713 | 0.8601 | 0.8485 | 0.8360 | 0.8228 | 0.8089 | 0.7944 |
| 68 | 0.9347 | 0.9282 | 0.9211 | 0.9134 | 0.9051 | 0.8961 | 0.8867 | 0.8765 | 0.8657 | 0.8542 | 0.8420 | 0.8290 | 0.8155 | 0.8012 |
| 69 | 0.9379 | 0.9316 | 0.9248 | 0.9174 | 0.9093 | 0.9007 | 0.8915 | 0.8816 | 0.8710 | 0.8599 | 0.8480 | 0.8354 | 0.8221 | 0.8081 |
| 70 | 0.9410 | 0.9350 | 0.9284 | 0.9213 | 0.9135 | 0.9051 | 0.8962 | 0.8867 | 0.8764 | 0.8656 | 0.8540 | 0.8416 | 0.8287 | 0.8149 |
| 71 | 0.9440 | 0.9383 | 0.9319 | 0.9251 | 0.9175 | 0.9095 | 0.9009 | 0.8917 | 0.8817 | 0.8711 | 0.8599 | 0.8478 | 0.8352 | 0.8217 |
| 72 | 0.9469 | 0.9414 | 0.9354 | 0.9288 | 0.9215 | 0.9138 | 0.9055 | 0.8965 | 0.8868 | 0.8766 | 0.8657 | 0.8540 | 0.8417 | 0.8285 |
| 73 | 0.9497 | 0.9445 | 0.9387 | 0.9324 | 0.9254 | 0.9180 | 0.9100 | 0.9014 | 0.8920 | 0.8821 | 0.8715 | 0.8601 | 0.8481 | 0.8353 |
| 74 | 0.9525 | 0.9474 | 0.9419 | 0.9359 | 0.9292 | 0.9220 | 0.9143 | 0.9060 | 0.8970 | 0.8874 | 0.8772 | 0.8661 | 0.8544 | 0.8420 |
| 75 | 0.9551 | 0.9503 | 0.9449 | 0.9392 | 0.9328 | 0.9259 | 0.9185 | 0.9105 | 0.9019 | 0.8926 | 0.8827 | 0.8720 | 0.8607 | 0.8485 |
| 76 | 0.9576 | 0.9530 | 0.9479 | 0.9424 | 0.9363 | 0.9298 | 0.9227 | 0.9150 | 0.9066 | 0.8977 | 0.8882 | 0.8777 | 0.8668 | 0.8551 |
| 77 | 0.9600 | 0.9556 | 0.9508 | 0.9455 | 0.9397 | 0.9334 | 0.9266 | 0.9192 | 0.9112 | 0.9026 | 0.8934 | 0.8834 | 0.8728 | 0.8614 |
| 78 | 0.9622 | 0.9581 | 0.9535 | 0.9485 | 0.9430 | 0.9369 | 0.9305 | 0.9233 | 0.9157 | 0.9075 | 0.8986 | 0.8889 | 0.8787 | 0.8677 |
| 79 | 0.9644 | 0.9605 | 0.9562 | 0.9514 | 0.9461 | 0.9403 | 0.9341 | 0.9273 | 0.9200 | 0.9121 | 0.9036 | 0.8943 | 0.8844 | 0.8737 |
| 80 | 0.9664 | 0.9628 | 0.9587 | 0.9542 | 0.9490 | 0.9436 | 0.9377 | 0.9313 | 0.9242 | 0.9167 | 0.9084 | 0.8995 | 0.8900 | 0.8797 |
| 81 | 0.9685 | 0.9649 | 0.9611 | 0.9567 | 0.9520 | 0.9467 | 0.9411 | 0.9350 | 0.9282 | 0.9209 | 0.9131 | 0.9045 | 0.8953 | 0.8855 |
| 82 | 0.9703 | 0.9670 | 0.9634 | 0.9593 | 0.9547 | 0.9497 | 0.9444 | 0.9385 | 0.9321 | 0.9252 | 0.9177 | 0.9094 | 0.9007 | 0.8911 |
| 83 | 0.9721 | 0.9690 | 0.9655 | 0.9616 | 0.9574 | 0.9527 | 0.9476 | 0.9419 | 0.9358 | 0.9293 | 0.9221 | 0.9142 | 0.9058 | 0.8966 |
| 84 | 0.9739 | 0.9709 | 0.9676 | 0.9640 | 0.9598 | 0.9554 | 0.9506 | 0.9453 | 0.9394 | 0.9332 | 0.9263 | 0.9188 | 0.9107 | 0.9019 |
| 85 | 0.9755 | 0.9727 | 0.9696 | 0.9662 | 0.9622 | 0.9581 | 0.9535 | 0.9484 | 0.9429 | 0.9370 | 0.9304 | 0.9232 | 0.9155 | 0.9072 |

[^14]
## Sub Appendix A. 2

## Table K -

O\&R Participants

## For Distributions Beginning On and After July 1, 2004

## Reduction Factors For

## Vested Participant Spouse's Allowance Coverage

Applied for each year of coverage after termination of employment (or if later, from the time that the vested Participant has been given notice of his or her right to waive the vested Participant Spouse's Allowance) and before the earlier of death or the Annuity Starting Date.

| Vested Participant's Age Range | Factors per Year of Coverage |
| :---: | :---: |
|  | F |
| 60 and over | $80 \%$ |
| $55-59$ | $55 \%$ |
| $50-54$ | $35 \%$ |
| $45-49$ | $20 \%$ |
| $40-44$ | $15 \%$ |
| 39 and under | $10 \%$ |

The factors per year of coverage shall be pro-rated for months of coverage in the established age ranges in a manner determined by the Plan Administrator.

## Sub appendix A. 2

## Table L

## O\&R Participants

For purposes of calculating payment of Actuarial Equivalent which are otherwise not set forth in the Plan, the Plan Administrator has adopted the interest rate and mortality table described in Section 5.01(c)(3) as the interest rate and mortality table to be used on and after January 1, 2000 in all circumstances required by Code Section 417(e) and the regulations thereunder.

Sub appendix A. 3
Table A
CEI Participants
12 Year Certain and Life Annuity

| Pensioner Age | Factor | Pensioner Age |
| :---: | :---: | :---: |
| 25 | 0.9987 | 50 |
| 26 | 0.9986 | 51 |
| 27 | 0.9985 | 52 |
| 28 | 0.9984 | 53 |
| 29 | 0.9984 | 54 |
| 30 | 0.9982 | 55 |
| 31 | 0.9980 | 56 |
| 32 | 0.9979 | 57 |
| 33 | 0.9977 | 58 |
| 34 | 0.9976 | 59 |
| 35 | 0.9973 | 60 |
| 36 | 0.9970 | 61 |
| 37 | 0.9968 | 62 |
| 38 | 0.9965 | 63 |
| 39 | 0.9960 | 64 |
| 40 | 0.9956 | 65 |
| 41 | 0.9951 | 66 |
| 42 | 0.9946 | 67 |
| 43 | 0.9939 | 68 |
| 44 | 0.9932 | 69 |
| 45 | 0.9923 | 70 |
| 46 | 0.9915 | 71 |
| 47 | 0.9905 | 72 |
| 48 | 0.9895 | 73 |
| 49 | 0.9884 | 74 |
|  |  | 75 |

Factor
0.9872
0.9860
0.9846
0.9831
0.9813
0.9794
0.9770
0.9746
0.9716
0.9683
0.9644
0.9599
0.9549
0.9493
0.9428
0.9357
0.9276
0.9185
0.9085
0.8975
0.8854
0.8722
0.8578
0.8420
0.8249
0.8068

## Sub appendix A. 3

Table B

## 100\% Joint and Survivor Without Pop-Up CEI Participants

Age of Pensioner

| AGE OF BENEFICIARY | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

0.98220 .98060 .97900 .97720 .97530 .97330 .97100 .96860 .96590 .96310 .96000 .95670 .95320 .94940 .94540 .94090 .9363 0.98260 .98110 .97960 .97780 .97600 .97390 .97160 .96930 .96660 .96390 .96080 .95760 .95400 .95030 .94630 .94200 .9373 0.98310 .98170 .98010 .97840 .97660 .97460 .97230 .97000 .96740 .96470 .96170 .95840 .95500 .95130 .94730 .94300 .9383 0.98360 .98220 .98070 .97900 .97720 .97520 .97300 .97080 .96820 .96550 .96250 .95940 .95590 .95230 .94830 .94410 .9395 0.98400 .98270 .98120 .97950 .97780 .97590 .97370 .97150 .96900 .96640 .96340 .96030 .95690 .95330 .94930 .94520 .9406 0.98460 .98320 .98170 .98010 .97850 .97660 .97440 .97230 .96970 .96720 .96430 .96120 .95790 .95430 .95050 .94630 .9418 0.98510 .98370 .98230 .98070 .97910 .97720 .97510 .97310 .97060 .96810 .96520 .96220 .95890 .95540 .95160 .94740 .9430 0.98550 .98420 .98280 .98130 .97970 .97790 .97590 .97380 .97140 .96890 .96620 .96320 .96000 .95650 .95270 .94860 .9443 0.98600 .98470 .98340 .98190 .98040 .97860 .97660 .97460 .97220 .96980 .96710 .96420 .96100 .95760 .95390 .94990 .9455 0.98640 .98520 .98390 .98250 .98100 .97930 .97740 .97530 .97300 .97070 .96800 .96520 .96200 .95870 .95510 .95110 .9469 0.98690 .98570 .98450 .98310 .98160 .97990 .97810 .97610 .97390 .97160 .96900 .96620 .96310 .95990 .95630 .95240 .9482 0.98730 .98630 .98500 .98370 .98220 .98060 .97880 .97690 .97480 .97250 .97000 .96720 .96430 .96100 .95750 .95370 .9495 0.98780 .98670 .98550 .98420 .98290 .98130 .97950 .97770 .97560 .97340 .97090 .96830 .96530 .96220 .95880 .95500 .9509 0.98820 .98720 .98610 .98480 .98350 .98200 .98030 .97850 .97640 .97430 .97190 .96930 .96640 .96340 .96000 .95630 .9523 $\begin{array}{lllllllllllllllllllllllll}0.9887 & 0.9876 & 0.9866 & 0.9853 & 0.9841 & 0.9826 & 0.9810 & 0.9793 & 0.9772 & 0.9752 & 0.9729 & 0.9703 & 0.9676 & 0.9645 & 0.9613 & 0.9576 & 0.9537\end{array}$ 0.98900 .98810 .98710 .98590 .98470 .98330 .98160 .98000 .97810 .97610 .97380 .97140 .96860 .96580 .96250 .95900 .9552 0.98950 .98860 .98750 .98640 .98530 .98390 .98240 .98080 .97890 .97700 .97480 .97240 .96970 .96690 .96380 .96040 .9566 0.98990 .98900 .98800 .98700 .98590 .98450 .98300 .98150 .97970 .97790 .97580 .97340 .97090 .96810 .96510 .96170 .9581 0.99030 .98950 .98860 .98750 .98650 .98520 .98370 .98220 .98050 .97880 .97670 .97440 .97200 .96930 .96630 .96310 .9596 0.99070 .98990 .98900 .98800 .98700 .98580 .98440 .98300 .98130 .97960 .97760 .97540 .97310 .97050 .96760 .96450 .9610
 0.99140 .99070 .98990 .98900 .98810 .98690 .98560 .98440 .98280 .98120 .97940 .97740 .97520 .97280 .97010 .96720 .9639 0.99180 .99110 .99030 .98950 .98860 .98750 .98630 .98510 .98360 .98200 .98030 .97840 .97620 .97390 .97140 .96850 .9654 0.99220 .99150 .99080 .98990 .98910 .98810 .98690 .98580 .98430 .98290 .98120 .97930 .97730 .97510 .97250 .96980 .9668 0.99250 .99190 .99120 .99040 .98960 .98860 .98750 .98640 .98500 .98370 .98210 .98020 .97830 .97610 .97380 .97120 .9682 $0.99280 .99220 .99160 .99080 .9900 \quad 0.98910 .98810 .98700 .98570 .98440 .98290 .98120 .97920 .97720 .97500 .97240 .9696$ 0.99320 .99260 .99200 .99120 .99060 .98970 .98870 .98770 .98640 .98510 .98370 .98210 .98030 .97830 .97610 .97370 .9710 0.99350 .99300 .99240 .99170 .99100 .99020 .98920 .98830 .98700 .98590 .98450 .98290 .98120 .97930 .97730 .97490 .9723 0.99380 .99330 .99270 .99210 .99140 .99070 .9898 0.9889 0.98770 .98650 .98520 .9838 0.9821 0.98030 .97840 .97610 .9737 0.99410 .99360 .99310 .99250 .99190 .99110 .99030 .98940 .98830 .98730 .98600 .98460 .98300 .98130 .97940 .97730 .9749 0.99440 .99390 .99350 .99290 .99230 .99160 .99070 .99000 .98900 .98800 .98670 .98540 .98390 .98230 .98050 .97840 .9762

## Sub appendix A. 3 <br> Table B <br> 100\% Joint and Survivor Without Pop-Up CEI Participants

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 |
| 56 | 0.9947 | 0.9943 | 0.9938 | 0.9932 | 0.9927 | 0.9920 | 0.9912 | 0.9905 | 0.9895 | 0.9886 | 0.9875 | 0.9861 | 0.9847 | 0.9833 | 0.9815 | 0.9796 | 0.9774 |
| 57 | 0.9950 | 0.9946 | 0.9941 | 0.9936 | 0.9931 | 0.9925 | 0.9918 | 0.9910 | 0.9901 | 0.9892 | 0.9881 | 0.9869 | 0.9856 | 0.9842 | 0.9825 | 0.9807 | 0.9787 |
| 58 | 0.9953 | 0.9949 | 0.9944 | 0.9940 | 0.9935 | 0.9929 | 0.9922 | 0.9915 | 0.9907 | 0.9898 | 0.9888 | 0.9876 | 0.9864 | 0.9851 | 0.9835 | 0.9817 | 0.9798 |
| 59 | 0.9955 | 0.9952 | 0.9947 | 0.9943 | 0.9939 | 0.9933 | 0.9927 | 0.9920 | 0.9912 | 0.9904 | 0.9894 | 0.9884 | 0.9872 | 0.9859 | 0.9845 | 0.9828 | 0.9810 |
| 60 | 0.9958 | 0.9954 | 0.9950 | 0.9946 | 0.9943 | 0.9937 | 0.9931 | 0.9925 | 0.9917 | 0.9909 | 0.9901 | 0.9891 | 0.9880 | 0.9867 | 0.9854 | 0.9838 | 0.9821 |
| 61 | 0.9960 | 0.9957 | 0.9953 | 0.9949 | 0.9946 | 0.9941 | 0.9935 | 0.9929 | 0.9922 | 0.9915 | 0.9907 | 0.9897 | 0.9886 | 0.9875 | 0.9863 | 0.9848 | 0.9832 |
| 62 | 0.9962 | 0.9959 | 0.9956 | 0.9952 | 0.9949 | 0.9945 | 0.9939 | 0.9934 | 0.9927 | 0.9921 | 0.9913 | 0.9903 | 0.9894 | 0.9883 | 0.9871 | 0.9857 | 0.9842 |
| 63 | 0.9964 | 0.9962 | 0.9959 | 0.9955 | 0.9952 | 0.9948 | 0.9943 | 0.9938 | 0.9931 | 0.9926 | 0.9918 | 0.9909 | 0.9901 | 0.9891 | 0.9879 | 0.9867 | 0.9852 |
| 64 | 0.9967 | 0.9964 | 0.9961 | 0.9958 | 0.9955 | 0.9951 | 0.9947 | 0.9942 | 0.9936 | 0.9930 | 0.9923 | 0.9916 | 0.9907 | 0.9898 | 0.9887 | 0.9875 | 0.9861 |
| 65 | 0.9969 | 0.9967 | 0.9964 | 0.9961 | 0.9958 | 0.9954 | 0.9950 | 0.9946 | 0.9940 | 0.9935 | 0.9929 | 0.9922 | 0.9914 | 0.9905 | 0.9895 | 0.9883 | 0.9870 |
| 66 | 0.9971 | 0.9969 | 0.9967 | 0.9963 | 0.9961 | 0.9958 | 0.9953 | 0.9950 | 0.9944 | 0.9939 | 0.9934 | 0.9927 | 0.9920 | 0.9912 | 0.9902 | 0.9892 | 0.9880 |
| 67 | 0.9973 | 0.9971 | 0.9969 | 0.9966 | 0.9964 | 0.9960 | 0.9956 | 0.9953 | 0.9948 | 0.9944 | 0.9938 | 0.9932 | 0.9925 | 0.9918 | 0.9909 | 0.9899 | 0.9888 |
| 68 | 0.9975 | 0.9973 | 0.9971 | 0.9968 | 0.9966 | 0.9963 | 0.9959 | 0.9956 | 0.9952 | 0.9948 | 0.9943 | 0.9937 | 0.9930 | 0.9924 | 0.9916 | 0.9906 | 0.9896 |
| 69 | 0.9976 | 0.9975 | 0.9972 | 0.9970 | 0.9969 | 0.9966 | 0.9962 | 0.9960 | 0.9955 | 0.9952 | 0.9947 | 0.9941 | 0.9936 | 0.9929 | 0.9922 | 0.9913 | 0.9903 |
| 70 | 0.9978 | 0.9976 | 0.9975 | 0.9972 | 0.9971 | 0.9969 | 0.9965 | 0.9963 | 0.9958 | 0.9955 | 0.9951 | 0.9946 | 0.9940 | 0.9935 | 0.9927 | 0.9920 | 0.9910 |
| 71 | 0.9979 | 0.9978 | 0.9976 | 0.9975 | 0.9973 | 0.9971 | 0.9968 | 0.9965 | 0.9962 | 0.9959 | 0.9955 | 0.9950 | 0.9945 | 0.9940 | 0.9934 | 0.9926 | 0.9917 |
| 72 | 0.9981 | 0.9980 | 0.9978 | 0.9977 | 0.9975 | 0.9973 | 0.9971 | 0.9968 | 0.9965 | 0.9962 | 0.9958 | 0.9954 | 0.9949 | 0.9945 | 0.9939 | 0.9932 | 0.9924 |
| 73 | 0.9982 | 0.9981 | 0.9980 | 0.9978 | 0.9978 | 0.9975 | 0.9973 | 0.9971 | 0.9967 | 0.9965 | 0.9962 | 0.9958 | 0.9954 | 0.9949 | 0.9944 | 0.9937 | 0.9931 |
| 74 | 0.9984 | 0.9983 | 0.9981 | 0.9980 | 0.9979 | 0.9977 | 0.9975 | 0.9974 | 0.9970 | 0.9968 | 0.9965 | 0.9961 | 0.9958 | 0.9953 | 0.9948 | 0.9942 | 0.9936 |
| 75 | 0.9985 | 0.9984 | 0.9983 | 0.9981 | 0.9981 | 0.9979 | 0.9977 | 0.9976 | 0.9973 | 0.9971 | 0.9968 | 0.9965 | 0.9961 | 0.9958 | 0.9953 | 0.9947 | 0.9941 |
| 76 | 0.9986 | 0.9985 | 0.9984 | 0.9983 | 0.9983 | 0.9981 | 0.9979 | 0.9977 | 0.9975 | 0.9973 | 0.9971 | 0.9968 | 0.9965 | 0.9961 | 0.9957 | 0.9952 | 0.9946 |
| 77 | 0.9987 | 0.9987 | 0.9986 | 0.9984 | 0.9984 | 0.9983 | 0.9980 | 0.9980 | 0.9977 | 0.9976 | 0.9973 | 0.9970 | 0.9968 | 0.9965 | 0.9960 | 0.9956 | 0.9951 |
| 78 | 0.9988 | 0.9987 | 0.9987 | 0.9986 | 0.9985 | 0.9984 | 0.9983 | 0.9981 | 0.9979 | 0.9978 | 0.9976 | 0.9973 | 0.9971 | 0.9968 | 0.9964 | 0.9960 | 0.9955 |
| 79 | 0.9990 | 0.9989 | 0.9988 | 0.9987 | 0.9987 | 0.9986 | 0.9984 | 0.9983 | 0.9981 | 0.9980 | 0.9978 | 0.9975 | 0.9973 | 0.9971 | 0.9967 | 0.9963 | 0.9959 |
| 80 | 0.9990 | 0.9990 | 0.9989 | 0.9988 | 0.9988 | 0.9987 | 0.9985 | 0.9985 | 0.9983 | 0.9982 | 0.9980 | 0.9978 | 0.9975 | 0.9974 | 0.9971 | 0.9967 | 0.9963 |
| 81 | 0.9991 | 0.9990 | 0.9990 | 0.9989 | 0.9989 | 0.9988 | 0.9986 | 0.9986 | 0.9984 | 0.9983 | 0.9982 | 0.9980 | 0.9978 | 0.9976 | 0.9974 | 0.9970 | 0.9966 |
| 82 | 0.9992 | 0.9991 | 0.9991 | 0.9990 | 0.9990 | 0.9989 | 0.9988 | 0.9987 | 0.9986 | 0.9985 | 0.9983 | 0.9982 | 0.9980 | 0.9978 | 0.9976 | 0.9973 | 0.9969 |
| 83 | 0.9993 | 0.9992 | 0.9992 | 0.9991 | 0.9991 | 0.9990 | 0.9989 | 0.9989 | 0.9987 | 0.9986 | 0.9985 | 0.9983 | 0.9982 | 0.9980 | 0.9978 | 0.9976 | 0.9973 |
| 84 | 0.9993 | 0.9993 | 0.9993 | 0.9992 | 0.9992 | 0.9991 | 0.9990 | 0.9989 | 0.9988 | 0.9988 | 0.9986 | 0.9985 | 0.9984 | 0.9982 | 0.9981 | 0.9978 | 0.9975 |
| 85 | 0.9994 | 0.9993 | 0.9993 | 0.9993 | 0.9993 | 0.9992 | 0.9991 | 0.9991 | 0.9989 | 0.9989 | 0.9988 | 0.9986 | 0.9985 | 0.9984 | 0.9982 | 0.9980 | 0.9978 |

## Sub appendix A. 3

Table B
100\% Joint and Survivor Without Pop-Up CEI Participants

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 |
| 25 | 0.9314 | 0.9261 | 0.9205 | 0.9145 | 0.9083 | 0.9017 | 0.8947 | 0.8874 | 0.8797 | 0.8717 | 0.8632 | 0.8543 | 0.8449 | 0.8351 | 0.8247 | 0.8138 | 0.8024 |
| 26 | 0.9324 | 0.9271 | 0.9216 | 0.9156 | 0.9094 | 0.9029 | 0.8959 | 0.8886 | 0.8810 | 0.8729 | 0.8645 | 0.8557 | 0.8462 | 0.8364 | 0.8260 | 0.8151 | 0.8037 |
| 27 | 0.9335 | 0.9283 | 0.9227 | 0.9168 | 0.9106 | 0.9041 | 0.8972 | 0.8899 | 0.8823 | 0.8743 | 0.8659 | 0.8570 | 0.8476 | 0.8378 | 0.8274 | 0.8165 | 0.8051 |
| 28 | 0.9347 | 0.9295 | 0.9240 | 0.9181 | 0.9119 | 0.9054 | 0.8985 | 0.8912 | 0.8836 | 0.8756 | 0.8673 | 0.8584 | 0.8490 | 0.8392 | 0.8288 | 0.8180 | 0.8065 |
| 29 | 0.9359 | 0.9307 | 0.9252 | 0.9194 | 0.9133 | 0.9068 | 0.8999 | 0.8927 | 0.8851 | 0.8771 | 0.8688 | 0.8599 | 0.8506 | 0.8408 | 0.8304 | 0.8195 | 0.8081 |
| 30 | 0.9370 | 0.9320 | 0.9265 | 0.9207 | 0.9146 | 0.9082 | 0.9014 | 0.8942 | 0.8866 | 0.8786 | 0.8703 | 0.8615 | 0.8521 | 0.8424 | 0.8320 | 0.8212 | 0.8097 |
| 31 | 0.9383 | 0.9333 | 0.9279 | 0.9221 | 0.9160 | 0.9097 | 0.9028 | 0.8957 | 0.8882 | 0.8803 | 0.8719 | 0.8632 | 0.8539 | 0.8441 | 0.8337 | 0.8230 | 0.8115 |
| 32 | 0.9396 | 0.9346 | 0.9293 | 0.9236 | 0.9175 | 0.9112 | 0.9044 | 0.8974 | 0.8898 | 0.8820 | 0.8737 | 0.8649 | 0.8556 | 0.8459 | 0.8356 | 0.8247 | 0.9133 |
| 33 | 0.9409 | 0.9360 | 0.9307 | 0.9250 | 0.9191 | 0.9128 | 0.9061 | 0.8990 | 0.8916 | 0.8837 | 0.8755 | 0.8668 | 0.8574 | 0.8478 | 0.8374 | 0.8267 | 0.8153 |
| 34 | 0.9423 | 0.9374 | 0.9322 | 0.9266 | 0.9207 | 0.9144 | 0.9078 | 0.9008 | 0.8934 | 0.8856 | 0.8774 | 0.8686 | 0.8594 | 0.8498 | 0.8395 | 0.8287 | 0.8173 |
| 35 | 0.9438 | 0.9389 | 0.9337 | 0.9282 | 0.9224 | 0.9161 | 0.9095 | 0.9026 | 0.8953 | 0.8875 | 0.8793 | 0.8707 | 0.8615 | 0.8518 | 0.8416 | 0.8309 | . 08195 |
| 36 | 0.9452 | 0.9404 | 0.9353 | 0.9298 | 0.9241 | 0.9179 | 0.9114 | 0.9045 | 0.8972 | 0.8895 | 0.8813 | 0.8728 | 0.8636 | 0.8540 | 0.8438 | 0.8331 | 0.8217 |
| 37 | 0.9466 | 0.9419 | 0.9369 | 0.9315 | 0.9258 | 0.9197 | 0.9132 | 0.9064 | 0.8992 | 0.8916 | 0.8835 | 0.8750 | 0.8658 | 0.8563 | 0.8461 | 0.8354 | 0.8241 |
| 38 | 0.9481 | 0.9435 | 0.9385 | 0.9332 | 0.9276 | 0.9216 | 0.9152 | 0.9084 | 0.9013 | 0.8937 | 0.8857 | 0.8772 | 0.8681 | 0.8586 | 0.8485 | 0.8379 | 0.8266 |
| 39 | 0.9496 | 0.9451 | 0.9402 | 0.9350 | 0.9294 | 0.9235 | 0.9172 | 0.9106 | 0.9035 | 0.8959 | 0.8880 | 0.8796 | 0.8706 | 0.8611 | 0.8511 | 0.8404 | 0.8292 |
| 39 | 0.9496 | 0.9451 | 0.9402 | 0.9350 | 0.9294 | 0.9235 | 0.9172 | 0.9106 | 0.9035 | 0.8959 | 0.8880 | 0.8796 | 0.8706 | 0.8611 | 0.8511 | 0.8404 | 0.8292 |
| 40 | 0.9511 | 0.9467 | 0.9419 | 0.9367 | 0.9313 | 0.9255 | 0.9193 | 0.9127 | 0.9057 | 0.8982 | 0.8904 | 0.8820 | 0.8731 | 0.8637 | 0.8537 | 0.8431 | 0.8319 |
| 41 | 0.9527 | 0.9483 | 0.9437 | 0.9386 | 0.9333 | 0.9275 | 0.9214 | 0.9148 | 0.9079 | 0.9006 | 0.8929 | 0.8846 | 0.8757 | 0.8664 | 0.8564 | 0.8460 | 0.8348 |
| 42 | 0.9542 | 0.9500 | 0.9454 | 0.9404 | 0.9352 | 0.9296 | 0.9235 | 0.9171 | 0.9103 | 0.9030 | 0.8954 | 0.8872 | 0.8784 | 0.8692 | 0.8593 | 0.8489 | 0.8378 |
| 43 | 0.9558 | 0.9516 | 0.9472 | 0.9423 | 0.9372 | 0.9316 | 0.9257 | 0.9195 | 0.9127 | 0.9055 | 0.8980 | 0.8899 | 0.8812 | 0.8721 | 0.8622 | 0.8520 | 0.8409 |
| 44 | 0.9574 | 0.9533 | 0.9490 | 0.9442 | 0.9392 | 0.9338 | 0.9280 | 0.9218 | 0.9152 | 0.9081 | 0.9007 | 0.8927 | 0.8841 | 0.8751 | 0.8653 | 0.8551 | 0.8442 |
| 45 | 0.9589 | 0.9550 | 0.9508 | 0.9461 | 0.9412 | 0.9359 | 0.9302 | 0.9241 | 0.9177 | 0.9108 | 0.9034 | 0.8956 | 0.8871 | 0.8781 | 0.8685 | 0.8583 | 0.8475 |
| 46 | 0.9605 | 0.9566 | 0.9526 | 0.9480 | 0.9433 | 0.9381 | 0.9325 | 0.9266 | 0.9202 | 0.9135 | 0.9062 | 0.8985 | 0.8901 | 0.8813 | 0.8718 | 0.8617 | 0.8509 |
| 47 | 0.9621 | 0.9583 | 0.9543 | 0.9499 | 0.9453 | 0.9402 | 0.9348 | 0.9290 | 0.9228 | 0.9162 | 0.9090 | 0.9014 | 0.8932 | 0.8845 | 0.8751 | 0.8652 | 0.8546 |
| 48 | 0.9636 | 0.9600 | 0.9561 | 0.9518 | 0.9473 | 0.9424 | 0.9372 | 0.9315 | 0.9254 | 0.9189 | 0.9120 | 0.9045 | 0.8964 | 0.8878 | 0.8786 | 0.8688 | 0.8582 |
| 49 | 0.9651 | 0.9617 | 0.9579 | 0.9537 | 0.9494 | 0.9446 | 0.9395 | 0.9340 | 0.9280 | 0.9217 | 0.9149 | 0.9076 | 0.8996 | 0.8912 | 0.8821 | 0.8724 | 0.8620 |
| 50 | 0.9666 | 0.9633 | 0.9597 | 0.9556 | 0.9514 | 0.9468 | 0.9418 | 0.9364 | 0.9307 | 0.9245 | 0.9178 | 0.9107 | 0.9029 | 0.8947 | 0.8857 | 0.8762 | 0.8660 |
| 51 | 0.9681 | 0.9649 | 0.9614 | 0.9576 | 0.9535 | 0.9490 | 0.9441 | 0.9389 | 0.9333 | 0.9273 | 0.9209 | 0.9138 | 0.9063 | 0.8982 | 0.8893 | 0.8800 | 0.8699 |
| 52 | 0.9696 | 0.9665 | 0.9631 | 0.9594 | 0.9555 | 0.9511 | 0.9465 | 0.9414 | 0.9360 | 0.9302 | 0.9238 | 0.9170 | 0.9097 | 0.9017 | 0.8931 | 0.8839 | 0.8740 |
| 53 | 0.9710 | 0.9680 | 0.9648 | 0.9613 | 0.9575 | 0.9533 | 0.9487 | 0.9439 | 0.9386 | 0.9330 | 0.9269 | 0.9202 | 0.9130 | 0.9053 | 0.8969 | 0.8879 | 0.8782 |
| 54 | 0.9724 | 0.9696 | 0.9665 | 0.9631 | 0.9594 | 0.9554 | 0.9511 | 0.9464 | 0.9413 | 0.9358 | 0.9300 | 0.9235 | 0.9164 | 0.9090 | 0.9008 | 0.8920 | 0.8824 |
| 55 | 0.9738 | 0.9711 | 0.9681 | 0.9648 | 0.9614 | 0.9575 | 0.9533 | 0.9489 | 0.9440 | 0.9387 | 0.9329 | 0.9267 | 0.9199 | 0.9126 | 0.9046 | 0.8960 | 0.8867 |

## Sub appendix A. 3

Table B
100\% Joint and Survivor Without Pop-Up CEI Participants

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 |
| 56 | 0.9752 | 0.9725 | 0.9697 | 0.9666 | 0.9632 | 0.9596 | 0.9556 | 0.9513 | 0.9465 | 0.9414 | 0.9360 | 0.9300 | 0.9234 | 0.9163 | 0.9086 | 0.9001 | 0.8911 |
| 57 | 0.9765 | 0.9740 | 0.9713 | 0.9683 | 0.9651 | 0.9616 | 0.9578 | 0.9537 | 0.9492 | 0.9442 | 0.9390 | 0.9332 | 0.9268 | 0.9200 | 0.9124 | 0.9044 | 0.8955 |
| 58 | 0.9777 | 0.9754 | 0.9729 | 0.9700 | 0.9670 | 0.9637 | 0.9599 | 0.9560 | 0.9517 | 0.9470 | 0.9419 | 0.9364 | 0.9302 | 0.9237 | 0.9164 | 0.9086 | 0.9000 |
| 59 | 0.9790 | 0.9768 | 0.9743 | 0.9717 | 0.9688 | 0.9656 | 0.9621 | 0.9583 | 0.9543 | 0.9498 | 0.9449 | 0.9396 | 0.9337 | 0.9273 | 0.9203 | 0.9128 | 0.9044 |
| 60 | 0.9802 | 0.9781 | 0.9759 | 0.9733 | 0.9705 | 0.9675 | 0.9642 | 0.9606 | 0.9567 | 0.9525 | 0.9478 | 0.9427 | 0.9371 | 0.9310 | 0.9242 | 0.9170 | 0.9089 |
| 61 | 0.9814 | 0.9794 | 0.9772 | 0.9748 | 0.9722 | 0.9694 | 0.9662 | 0.9628 | 0.9591 | 0.9551 | 0.9507 | 0.9458 | 0.9404 | 0.9346 | 0.9281 | 0.9211 | 0.9134 |
| 62 | 0.9825 | 0.9807 | 0.9786 | 0.9763 | 0.9739 | 0.9712 | 0.9682 | 0.9650 | 0.9615 | 0.9576 | 0.9535 | 0.9489 | 0.9437 | 0.9382 | 0.9320 | 0.9252 | 0.9178 |
| 63 | 0.9837 | 0.9819 | 0.9799 | 0.9778 | 0.9755 | 0.9729 | 0.9702 | 0.9671 | 0.9638 | 0.9601 | 0.9562 | 0.9518 | 0.9470 | 0.9417 | 0.9358 | 0.9294 | 0.9222 |
| 64 | 0.9847 | 0.9830 | 0.9812 | 0.9792 | 0.9771 | 0.9746 | 0.9720 | 0.9691 | 0.9660 | 0.9626 | 0.9589 | 0.9547 | 0.9501 | 0.9451 | 0.9395 | 0.9334 | 0.9265 |
| 65 | 0.9857 | 0.9842 | 0.9825 | 0.9806 | 0.9786 | 0.9763 | 0.9738 | 0.9711 | 0.9681 | 0.9649 | 0.9615 | 0.9576 | 0.9532 | 0.9484 | 0.9431 | 0.9373 | 0.9308 |
| 66 | 0.9867 | 0.9853 | 0.9836 | 0.9818 | 0.9800 | 0.9778 | 0.9755 | 0.9730 | 0.9703 | 0.9672 | 0.9639 | 0.9603 | 0.9562 | 0.9517 | 0.9467 | 0.9411 | 0.9350 |
| 67 | 0.9876 | 0.9863 | 0.9848 | 0.9830 | 0.9814 | 0.9793 | 0.9772 | 0.9749 | 0.9723 | 0.9694 | 0.9663 | 0.9629 | 0.9590 | 0.9548 | 0.9501 | 0.9448 | 0.9390 |
| 68 | 0.9885 | 0.9872 | 0.9859 | 0.9843 | 0.9826 | 0.9808 | 0.9788 | 0.9766 | 0.9742 | 0.9715 | 0.9687 | 0.9654 | 0.9618 | 0.9578 | 0.9534 | 0.9485 | 0.9430 |
| 69 | 0.9894 | 0.9881 | 0.9869 | 0.9854 | 0.9839 | 0.9822 | 0.9803 | 0.9783 | 0.9760 | 0.9735 | 0.9708 | 0.9678 | 0.9645 | 0.9608 | 0.9566 | 0.9520 | 0.9468 |
| 70 | 0.9901 | 0.9891 | 0.9878 | 0.9865 | 0.9850 | 0.9835 | 0.9817 | 0.9798 | 0.9778 | 0.9755 | 0.9729 | 0.9702 | 0.9670 | 0.9636 | 0.9596 | 0.9554 | 0.9505 |
| 71 | 0.9909 | 0.9899 | 0.9888 | 0.9875 | 0.9862 | 0.9847 | 0.9831 | 0.9813 | 0.9794 | 0.9773 | 0.9750 | 0.9724 | 0.9695 | 0.9663 | 0.9626 | 0.9586 | 0.9541 |
| 72 | 0.9916 | 0.9907 | 0.9896 | 0.9884 | 0.9873 | 0.9859 | 0.9843 | 0.9828 | 0.9810 | 0.9790 | 0.9769 | 0.9745 | 0.9718 | 0.9689 | 0.9654 | 0.9617 | 0.9574 |
| 73 | 0.9923 | 0.9914 | 0.9905 | 0.9894 | 0.9883 | 0.9870 | 0.9856 | 0.9841 | 0.9824 | 0.9806 | 0.9787 | 0.9765 | 0.9739 | 0.9713 | 0.9680 | 0.9647 | 0.9607 |
| 74 | 0.9929 | 0.9921 | 0.9913 | 0.9902 | 0.9892 | 0.9880 | 0.9867 | 0.9853 | 0.9838 | 0.9822 | 0.9804 | 0.9783 | 0.9760 | 0.9735 | 0.9706 | 0.9675 | 0.9637 |
| 75 | 0.9936 | 0.9928 | 0.9920 | 0.9911 | 0.9901 | 0.9890 | 0.9879 | 0.9865 | 0.9852 | 0.9837 | 0.9820 | 0.9802 | 0.9780 | 0.9757 | 0.9730 | 0.9700 | 0.9666 |
| 76 | 0.9941 | 0.9934 | 0.9927 | 0.9918 | 0.9909 | 0.9900 | 0.9888 | 0.9877 | 0.9864 | 0.9850 | 0.9835 | 0.9818 | 0.9798 | 0.9777 | 0.9752 | 0.9725 | 0.9694 |
| 77 | 0.9946 | 0.9940 | 0.9933 | 0.9925 | 0.9917 | 0.9908 | 0.9898 | 0.9887 | 0.9876 | 0.9863 | 0.9849 | 0.9833 | 0.9815 | 0.9796 | 0.9773 | 0.9748 | 0.9720 |
| 78 | 0.9951 | 0.9945 | 0.9939 | 0.9931 | 0.9924 | 0.9916 | 0.9907 | 0.9897 | 0.9886 | 0.9874 | 0.9862 | 0.9848 | 0.9831 | 0.9814 | 0.9793 | 0.9770 | 0.9744 |
| 79 | 0.9955 | 0.9950 | 0.9944 | 0.9938 | 0.9931 | 0.9924 | 0.9915 | 0.9906 | 0.9896 | 0.9885 | 0.9874 | 0.9861 | 0.9846 | 0.9830 | 0.9811 | 0.9791 | 0.9767 |
| 80 | 0.9959 | 0.9955 | 0.9949 | 0.9943 | 0.9937 | 0.9930 | 0.9922 | 0.9914 | 0.9905 | 0.9896 | 0.9885 | 0.9874 | 0.9859 | 0.9846 | 0.9828 | 0.9809 | 0.9787 |
| 81 | 0.9963 | 0.9959 | 0.9954 | 0.9948 | 0.9943 | 0.9937 | 0.9930 | 0.9922 | 0.9913 | 0.9905 | 0.9896 | 0.9885 | 0.9872 | 0.9859 | 0.9844 | 0.9827 | 0.9806 |
| 82 | 0.9967 | 0.9963 | 0.9959 | 0.9953 | 0.9948 | 0.9942 | 0.9936 | 0.9929 | 0.9922 | 0.9913 | 0.9905 | 0.9896 | 0.9884 | 0.9872 | 0.9858 | 0.9842 | 0.9824 |
| 83 | 0.9970 | 0.9966 | 0.9963 | 0.9957 | 0.9953 | 0.9948 | 0.9942 | 0.9936 | 0.9929 | 0.9922 | 0.9914 | 0.9906 | 0.9894 | 0.9884 | 0.9871 | 0.9857 | 0.9841 |
| 84 | 0.9973 | 0.9970 | 0.9966 | 0.9961 | 0.9958 | 0.9953 | 0.9947 | 0.9942 | 0.9936 | 0.9929 | 0.9922 | 0.9914 | 0.9905 | 0.9895 | 0.9883 | 0.9871 | 0.9855 |
| 85 | 0.9976 | 0.9972 | 0.9970 | 0.9965 | 0.9962 | 0.9958 | 0.9952 | 0.9947 | 0.9942 | 0.9936 | 0.9929 | 0.9923 | 0.9914 | 0.9905 | 0.9894 | 0.9883 | 0.9870 |

## Sub appendix A. 3 <br> Table B <br> 100\% Joint and Survivor Without Pop-Up CEI Participants

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
| 25 | 0.7903 | 0.7777 | 0.7644 | 0.7507 | 0.7363 | 0.7214 | 0.7061 | 0.6902 | 0.6740 | 0.6573 | 0.6402 | 0.6229 | 0.6052 | 0.5873 | 0.5691 | 0.5507 | 0.5323 |
| 26 | 0.7916 | 0.7789 | 0.7657 | 0.7520 | 0.7376 | 0.7227 | 0.7074 | 0.6915 | 0.6752 | 0.6584 | 0.6414 | 0.6240 | 0.6064 | 0.5884 | 0.5702 | 0.5518 | 0.5333 |
| 27 | 0.7930 | 0.7803 | 0.7671 | 0.7534 | 0.7390 | 0.7241 | 0.7087 | 0.6928 | 0.6765 | 0.6598 | 0.6427 | 0.6253 | 0.6076 | 0.5896 | 0.5714 | 0.5529 | 0.5344 |
| 28 | 0.7944 | 0.7818 | 0.7686 | 0.7548 | 0.7404 | 0.7255 | 0.7102 | 0.6942 | 0.6779 | 0.6611 | 0.6440 | 0.6266 | 0.6089 | 0.5909 | 0.5726 | 0.5541 | 0.5356 |
| 29 | 0.7960 | 0.7834 | 0.7701 | 0.7564 | 0.7420 | 0.7270 | 0.7116 | 0.6957 | 0.6794 | 0.6626 | 0.6454 | 0.6280 | 0.6103 | 0.5922 | 0.5739 | 0.5554 | 0.5368 |
| 30 | 0.7976 | 0.7851 | 0.7718 | 0.7580 | 0.7437 | 0.7287 | 0.7132 | 0.6973 | 0.6809 | 0.6641 | 0.6470 | 0.6295 | 0.6117 | 0.5936 | 0.5753 | 0.5567 | 0.5381 |
| 31 | 0.7994 | 0.7868 | 0.7736 | 0.7598 | 0.7454 | 0.7304 | 0.7150 | 0.6990 | 0.6826 | 0.6658 | 0.6486 | 0.6311 | 0.6133 | 0.5952 | 0.5768 | 0.5582 | 0.5396 |
| 32 | 0.8013 | 0.7887 | 0.7754 | 0.7616 | 0.7472 | 0.7322 | 0.7168 | 0.7008 | 0.6844 | 0.6675 | 0.6504 | 0.6328 | 0.6150 | 0.5968 | 0.5784 | 0.5598 | 0.5411 |
| 33 | 0.8032 | 0.7906 | 0.7774 | 0.7636 | 0.7492 | 0.7342 | 0.7187 | 0.7027 | 0.6863 | 0.6694 | 0.6522 | 0.6346 | 0.6168 | 0.5986 | 0.5801 | 0.5614 | 0.5427 |
| 34 | 0.8053 | 0.7926 | 0.7795 | 0.7657 | 0.7512 | 0.7362 | 0.7208 | 0.7047 | 0.6883 | 0.6714 | 0.6542 | 0.6365 | 0.6186 | 0.6004 | 0.5819 | 0.5632 | 0.5444 |
| 35 | 0.8074 | 0.7949 | 0.7816 | 0.7679 | 0.7534 | 0.7384 | 0.7229 | 0.7069 | 0.6904 | 0.6735 | 0.6562 | 0.6386 | 0.6207 | 0.6024 | 0.5839 | 0.5651 | 0.5463 |
| 36 | 0.8097 | 0.7972 | 0.7840 | 0.7701 | 0.7557 | 0.7407 | 0.7253 | 0.7092 | 0.6927 | 0.6757 | 0.6584 | 0.6408 | 0.6228 | 0.6045 | 0.5859 | 0.5670 | 0.5482 |
| 37 | 0.8121 | 0.7996 | 0.7863 | 0.7726 | 0.7582 | 0.7431 | 0.7277 | 0.7116 | 0.6951 | 0.6781 | 0.6608 | 0.6431 | 0.6250 | 0.6067 | 0.5881 | 0.5692 | 0.5503 |
| 38 | 0.8146 | 0.8021 | 0.7889 | 0.7752 | 0.7607 | 0.7458 | 0.7303 | 0.7142 | 0.6977 | 0.6806 | 0.6633 | 0.6455 | 0.6275 | 0.6091 | 0.5904 | 0.5715 | 0.5525 |
| 39 | 0.8173 | 0.8048 | 0.7917 | 0.7779 | 0.7635 | 0.7485 | 0.7330 | 0.7169 | 0.7003 | 0.6833 | 0.6659 | 0.6481 | 0.6301 | 0.6116 | 0.5929 | 0.5739 | 0.5549 |
| 40 | 0.8201 | 0.8076 | 0.7945 | 0.7808 | 0.7664 | 0.7514 | 0.7358 | 0.7198 | 0.7032 | 0.6861 | 0.6687 | 0.6509 | 0.6328 | 0.6143 | 0.5955 | 0.5765 | 0.5574 |
| 41 | 0.8230 | 0.8106 | 0.7975 | 0.7838 | 0.7694 | 0.7544 | 0.7389 | 0.7228 | 0.7062 | 0.6891 | 0.6717 | 0.6538 | 0.6357 | 0.6172 | 0.5983 | 0.5792 | 0.5601 |
| 42 | 0.8260 | 0.8137 | 0.8006 | 0.7869 | 0.7726 | 0.7576 | 0.7421 | 0.7259 | 0.7094 | 0.6923 | 0.6748 | 0.6570 | 0.6388 | 0.6202 | 0.6013 | 0.5821 | 0.5629 |
| 43 | 0.8292 | 0.8169 | 0.8039 | 0.7902 | 0.7759 | 0.7609 | 0.7455 | 0.7294 | 0.7128 | 0.6956 | 0.6781 | 0.6603 | 0.6420 | 0.6234 | 0.6044 | 0.5852 | 0.5660 |
| 44 | 0.8325 | 0.8203 | 0.8073 | 0.7937 | 0.7794 | 0.7645 | 0.7490 | 0.7329 | 0.7163 | 0.6992 | 0.6816 | 0.6637 | 0.6454 | 0.6267 | 0.6078 | 0.5885 | 0.5692 |
| 45 | 0.8359 | 0.8237 | 0.8108 | 0.7973 | 0.7830 | 0.7681 | 0.7527 | 0.7366 | 0.7200 | 0.7029 | 0.6853 | 0.6674 | 0.6491 | 0.6303 | 0.6113 | 0.5919 | 0.5726 |
| 46 | 0.8395 | 0.8274 | 0.8145 | 0.8011 | 0.7869 | 0.7720 | 0.7566 | 0.7405 | 0.7239 | 0.7068 | 0.6892 | 0.6713 | 0.6529 | 0.6341 | 0.6151 | 0.5956 | 0.5762 |
| 47 | 0.8432 | 0.8312 | 0.8184 | 0.8050 | 0.7908 | 0.7760 | 0.7606 | 0.7446 | 0.7280 | 0.7109 | 0.6933 | 0.6754 | 0.6569 | 0.6381 | 0.6190 | 0.5995 | 0.5799 |
| 48 | 0.8469 | 0.8351 | 0.8224 | 0.8091 | 0.7950 | 0.7803 | 0.7649 | 0.7489 | 0.7324 | 0.7152 | 0.6976 | 0.6796 | 0.6612 | 0.6423 | 0.6232 | 0.6036 | 0.5840 |
| 49 | 0.8509 | 0.8391 | 0.8265 | 0.8133 | 0.7993 | 0.7846 | 0.7693 | 0.7534 | 0.7369 | 0.7197 | 0.7022 | 0.6841 | 0.6657 | 0.6468 | 0.6275 | 0.6079 | 0.5882 |
| 50 | 0.8549 | 0.8433 | 0.8308 | 0.8177 | 0.8038 | 0.7892 | 0.7739 | 0.7580 | 0.7416 | 0.7244 | 0.7069 | 0.6889 | 0.6704 | 0.6515 | 0.6321 | 0.6125 | 0.5927 |
| 51 | 0.8591 | 0.8475 | 0.8352 | 0.8222 | 0.8084 | 0.7939 | 0.7787 | 0.7629 | 0.7465 | 0.7294 | 0.7118 | 0.6938 | 0.6754 | 0.6564 | 0.6370 | 0.6173 | 0.5975 |
| 52 | 0.8633 | 0.8519 | 0.8398 | 0.8269 | 0.8132 | 0.7988 | 0.7838 | 0.7680 | 0.7516 | 0.7346 | 0.7171 | 0.6990 | 0.6805 | 0.6616 | 0.6422 | 0.6224 | 0.6025 |
| 53 | 0.8677 | 0.8565 | 0.8444 | 0.8317 | 0.8182 | 0.8039 | 0.7890 | 0.7733 | 0.7570 | 0.7400 | 0.7225 | 0.7045 | 0.6860 | 0.6670 | 0.6476 | 0.6278 | 0.6078 |
| 54 | 0.8721 | 0.8611 | 0.8492 | 0.8367 | 0.8233 | 0.8092 | 0.7944 | 0.7788 | 0.7626 | 0.7457 | 0.7282 | 0.7103 | 0.6918 | 0.6728 | 0.6533 | 0.6334 | 0.6134 |
| 55 | 0.8766 | 0.8658 | 0.8542 | 0.8418 | 0.8286 | 0.8146 | 0.7999 | 0.7845 | 0.7684 | 0.7515 | 0.7342 | 0.7163 | 0.6978 | 0.6789 | 0.6594 | 0.6395 | 0.6194 |

## Sub appendix A. 3

Table B
100\% Joint and Survivor Without Pop-Up CEI Participants


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0.88120 .87060 .85920 .84700 .83400 .82020 .80570 .79040 .77440 .75770 .74040 .72260 .70420 .68520 .66570 .64570 .6256 $\begin{array}{lllllllllllllllllll}0.8859 & 0.8755 & 0.8643 & 0.8524 & 0.8396 & 0.8260 & 0.8117 & 0.7965 & 0.7807 & 0.7641 & 0.7469 & 0.7292 & 0.7108 & 0.6919 & 0.6724 & 0.6524 & 0.6322\end{array}$ $\begin{array}{lllllllllllllllllllllllllllllllll}0.8905 & 0.8804 & 0.8696 & 0.8578 & 0.8453 & 0.8319 & 0.8178 & 0.8028 & 0.7872 & 0.7708 & 0.7537 & 0.7360 & 0.7177 & 0.6988 & 0.6794 & 0.6594\end{array}$ $\begin{array}{lllllllllllllllllllll}0.8953 & 0.8855 & 0.8748 & 0.8634 & 0.8510 & 0.8380 & 0.8241 & 0.8093 & 0.7938 & 0.7776 & 0.7607 & 0.7432 & 0.7250 & 0.7061 & 0.6867 & 0.6668 & 0.6466\end{array}$ $\begin{array}{lllllllllllllllllllllllllll}0.9001 & 0.8905 & 0.8802 & 0.8690 & 0.8570 & 0.8441 & 0.8305 & 0.8160 & 0.8008 & 0.7847 & 0.7680 & 0.7505 & 0.7325 & 0.7138 & 0.6944 & 0.6745 & 0.6543\end{array}$ 0.90480 .89560 .88550 .87470 .86290 .85040 .83710 .82280 .80780 .79190 .77540 .75820 .74030 .72160 .70240 .68250 .6624 $\begin{array}{lllllllllllllllllllllll}0.9096 & 0.9007 & 0.8909 & 0.8804 & 0.8690 & 0.8567 & 0.8437 & 0.8297 & 0.8150 & 0.7994 & 0.7831 & 0.7661 & 0.7484 & 0.7299 & 0.7107 & 0.6910 & 0.6708\end{array}$ $\begin{array}{lllllllllllllllllllllllllll}0.9143 & 0.9057 & 0.8963 & 0.8861 & 0.8750 & 0.8632 & 0.8504 & 0.8367 & 0.8224 & 0.8071 & 0.7910 & 0.7742 & 0.7567 & 0.7383 & 0.7194 & 0.6997 & 0.6796\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9190 & 0.9108 & 0.9017 & 0.8918 & 0.8812 & 0.8696 & 0.8572 & 0.8439 & 0.8298 & 0.8148 & 0.7991 & 0.7825 & 0.7652 & 0.7471 & 0.7283 & 0.7087 & 0.6888\end{array}$ $\begin{array}{llllllllllllllllllll}0.9236 & 0.9157 & 0.9070 & 0.8975 & 0.8872 & 0.8760 & 0.8640 & 0.8511 & 0.8374 & 0.8227 & 0.8073 & 0.7911 & 0.7740 & 0.7561 & 0.7375 & 0.7181 & 0.6983\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9281 & 0.9206 & 0.9122 & 0.9032 & 0.8932 & 0.8824 & 0.8708 & 0.8583 & 0.8449 & 0.8307 & 0.8155 & 0.7997 & 0.7829 & 0.7653 & 0.7470 & 0.7277 & 0.7081\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9325 & 0.9254 & 0.9174 & 0.9087 & 0.8992 & 0.8888 & 0.8776 & 0.8655 & 0.8525 & 0.8386 & 0.8239 & 0.8084 & 0.7920 & 0.7747 & 0.7566 & 0.7376 & 0.7182\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9368 & 0.9300 & 0.9224 & 0.9142 & 0.9051 & 0.8951 & 0.8843 & 0.8727 & 0.8601 & 0.8466 & 0.8324 & 0.8172 & 0.8012 & 0.7842 & 0.7664 & 0.7478 & 0.7285\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9409 & 0.9346 & 0.9274 & 0.9195 & 0.9108 & 0.9013 & 0.8910 & 0.8797 & 0.8677 & 0.8546 & 0.8408 & 0.8260 & 0.8104 & 0.7938 & 0.7764 & 0.7580 & 0.7390\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9450 & 0.9389 & 0.9322 & 0.9247 & 0.9164 & 0.9073 & 0.8976 & 0.8867 & 0.8751 & 0.8625 & 0.8491 & 0.8349 & 0.8197 & 0.8036 & 0.7865 & 0.7684 & 0.7498\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9489 & 0.9432 & 0.9368 & 0.9298 & 0.9220 & 0.9133 & 0.9039 & 0.8936 & 0.8825 & 0.8704 & 0.8575 & 0.8437 & 0.8290 & 0.8132 & 0.7966 & 0.7790 & 0.7607\end{array}$ $\begin{array}{lllllllllllllllllllllllllll}0.9526 & 0.9473 & 0.9413 & 0.9347 & 0.9272 & 0.9191 & 0.9102 & 0.9004 & 0.8897 & 0.8782 & 0.8658 & 0.8525 & 0.8382 & 0.8231 & 0.8069 & 0.7896 & 0.7717\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9562 & 0.9512 & 0.9456 & 0.9394 & 0.9324 & 0.9247 & 0.9162 & 0.9069 & 0.8969 & 0.8858 & 0.8739 & 0.8612 & 0.8474 & 0.8328 & 0.8170 & 0.8003 & 0.7829\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9595 & 0.9549 & 0.9497 & 0.9439 & 0.9374 & 0.9301 & 0.9222 & 0.9133 & 0.9037 & 0.8932 & 0.8819 & 0.8697 & 0.8565 & 0.8423 & 0.8271 & 0.8110 & 0.7940\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9628 & 0.9585 & 0.9536 & 0.9482 & 0.9421 & 0.9352 & 0.9278 & 0.9195 & 0.9104 & 0.9004 & 0.8897 & 0.8780 & 0.8654 & 0.8519 & 0.8373 & 0.8216 & 0.8051\end{array}$ 0.96580 .96180 .95730 .95230 .94660 .94020 .93320 .92540 .91690 .90740 .89730 .88620 .87420 .86110 .84710 .83200 .8161 $\begin{array}{llllllllllllllllllllllllll}0.9687 & 0.9650 & 0.9608 & 0.9561 & 0.9508 & 0.9450 & 0.9384 & 0.9311 & 0.9230 & 0.9142 & 0.9045 & 0.8940 & 0.8826 & 0.8702 & 0.8568 & 0.8423 & 0.8269\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9713 & 0.9680 & 0.9641 & 0.9598 & 0.9548 & 0.9494 & 0.9433 & 0.9364 & 0.9290 & 0.9206 & 0.9115 & 0.9016 & 0.8908 & 0.8790 & 0.8662 & 0.8523 & 0.8376\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9738 & 0.9708 & 0.9672 & 0.9632 & 0.9586 & 0.9536 & 0.9479 & 0.9415 & 0.9345 & 0.9267 & 0.9182 & 0.9088 & 0.8986 & 0.8875 & 0.8753 & 0.8620 & 0.8480\end{array}$ $\begin{array}{llllllllllllllllll}0.9761 & 0.9733 & 0.9700 & 0.9664 & 0.9622 & 0.9575 & 0.9522 & 0.9463 & 0.9398 & 0.9325 & 0.9246 & 0.9158 & 0.9062 & 0.8956 & 0.8841 & 0.8715 & 0.8580\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9783 & 0.9757 & 0.9728 & 0.9694 & 0.9655 & 0.9612 & 0.9563 & 0.9509 & 0.9448 & 0.9380 & 0.9306 & 0.9223 & 0.9133 & 0.9034 & 0.8925 & 0.8806 & 0.8678\end{array}$ $\begin{array}{llllllllllllllllll}0.9803 & 0.9779 & 0.9752 & 0.9722 & 0.9686 & 0.9646 & 0.9602 & 0.9551 & 0.9494 & 0.9432 & 0.9362 & 0.9286 & 0.9201 & 0.9108 & 0.9006 & 0.8893 & 0.8771\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9821 & 0.9800 & 0.9775 & 0.9747 & 0.9715 & 0.9678 & 0.9637 & 0.9590 & 0.9538 & 0.9480 & 0.9416 & 0.9345 & 0.9266 & 0.9179 & 0.9083 & 0.8976 & 0.8863\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9839 & 0.9819 & 0.9796 & 0.9770 & 0.9741 & 0.9708 & 0.9670 & 0.9627 & 0.9579 & 0.9526 & 0.9466 & 0.9401 & 0.9327 & 0.9246 & 0.9157 & 0.9056 & 0.8949\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9854 & 0.9836 & 0.9815 & 0.9792 & 0.9766 & 0.9735 & 0.9701 & 0.9662 & 0.9618 & 0.9568 & 0.9514 & 0.9453 & 0.9385 & 0.9309 & 0.9226 & 0.9133 & 0.9032\end{array}$

TABLE C
Sub appendix A. 3
Table C 100\% Joint and Survivor With Pop-Up CEI Participants

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 |

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$\begin{array}{llllllllllllllllllllllll}0.9818 & 0.9803 & 0.9787 & 0.9768 & 0.9750 & 0.9728 & 0.9705 & 0.9681 & 0.9654 & 0.9626 & 0.9595 & 0.9562 & 0.9526 & 0.9488 & 0.9447 & 0.9403 & 0.9356\end{array}$ 0.98230 .98080 .97920 .97740 .97560 .97350 .97110 .96880 .96610 .96330 .96030 .95700 .95350 .94970 .94560 .94130 .9366 $\begin{array}{llllllllllllllllllllllll}0.9828 & 0.9813 & 0.9797 & 0.9780 & 0.9761 & 0.9741 & 0.9718 & 0.9695 & 0.9668 & 0.9641 & 0.9611 & 0.9578 & 0.9543 & 0.9506 & 0.9466 & 0.9423 & 0.9376\end{array}$ 0.98320 .98180 .98020 .97850 .97670 .97470 .97250 .97020 .96760 .96490 .96190 .95860 .95520 .95150 .94750 .94320 .9386 0.98370 .98230 .98070 .97900 .97730 .97530 .97320 .97090 .96830 .96570 .96280 .95960 .95620 .95250 .94860 .94430 .9397 $\begin{array}{llllllllllllllllllllll}0.9841 & 0.9828 & 0.9812 & 0.9796 & 0.9779 & 0.9760 & 0.9738 & 0.9716 & 0.9691 & 0.9665 & 0.9636 & 0.9605 & 0.9571 & 0.9535 & 0.9496 & 0.9454 & 0.9408\end{array}$ 0.98460 .98320 .98180 .98020 .97860 .97660 .97460 .97230 .96990 .96730 .96450 .96130 .95810 .95450 .95060 .94640 .9420 $\begin{array}{llllllllllllllllllllllllll}0.9851 & 0.9837 & 0.9823 & 0.9808 & 0.9791 & 0.9773 & 0.9752 & 0.9731 & 0.9707 & 0.9681 & 0.9653 & 0.9623 & 0.9591 & 0.9555 & 0.9517 & 0.9476 & 0.9431\end{array}$ 0.98550 .98420 .98280 .98130 .97970 .97790 .97590 .97380 .97150 .96900 .96620 .96330 .96000 .95650 .95280 .94880 .9443 0.98590 .98470 .98330 .98180 .98040 .97860 .97660 .97460 .97220 .96980 .96710 .96420 .96100 .95760 .95390 .94990 .9456 0.98640 .98520 .98380 .98240 .98090 .97920 .97730 .97530 .97300 .97060 .96800 .96510 .96200 .95870 .95510 .95110 .9469 0.98680 .98560 .98430 .98290 .98150 .97990 .97790 .97610 .97380 .97150 .96890 .96610 .96300 .95980 .95620 .95230 .9481 0.98720 .98610 .98480 .98350 .98210 .98050 .97870 .97680 .97460 .97240 .96980 .96700 .96410 .96090 .95730 .95360 .9494 0.98760 .98650 .98540 .98400 .98270 .98110 .97930 .97750 .97530 .97320 .97070 .96810 .96510 .96190 .95850 .95480 .9507 0.98800 .98700 .98580 .98450 .98330 .98170 .98000 .97820 .97610 .97400 .97160 .96900 .96610 .96310 .95970 .95600 .9520 $\begin{array}{llllllllllllllllllllllllllll}0.9884 & 0.9874 & 0.9863 & 0.9850 & 0.9838 & 0.9823 & 0.9806 & 0.9789 & 0.9769 & 0.9748 & 0.9725 & 0.9699 & 0.9672 & 0.9642 & 0.9608 & 0.9573 & 0.9533\end{array}$ 0.98870 .98790 .98670 .98550 .98430 .98290 .98130 .97960 .97770 .97570 .97340 .97090 .96820 .96530 .96210 .95850 .9547 0.98920 .98820 .98720 .98600 .98490 .98350 .98190 .98030 .97850 .97650 .97430 .97190 .96920 .96630 .96320 .95980 .9560 0.98950 .98870 .98770 .98660 .98540 .98410 .98260 .98100 .97920 .97730 .97520 .97280 .97020 .96740 .96440 .96100 .9573 0.98990 .98900 .98810 .98700 .98590 .98470 .98320 .98170 .97990 .97810 .97600 .97370 .97130 .96850 .96550 .96230 .9587 0.99030 .98950 .98850 .98750 .98650 .98520 .98370 .98230 .98060 .97890 .97680 .97460 .97220 .96960 .96670 .96350 .9600 $\begin{array}{llllllllllllllllllllll}0.9906 & 0.9898 & 0.9889 & 0.9879 & 0.9869 & 0.9858 & 0.9844 & 0.9830 & 0.9813 & 0.9796 & 0.9777 & 0.9755 & 0.9732 & 0.9707 & 0.9679 & 0.9648 & 0.9614\end{array}$ 0.99090 .99020 .98930 .98840 .98740 .98630 .98490 .98360 .98200 .98040 .97850 .97640 .97420 .97170 .96900 .96590 .9627 0.99120 .99060 .98970 .98880 .98780 .98680 .98550 .98420 .98270 .98110 .97930 .97730 .97510 .97270 .97010 .96720 .9640 0.99160 .99080 .99010 .98920 .98840 .98730 .98610 .98480 .98340 .98180 .98010 .97820 .97610 .97380 .97120 .96840 .9653 0.99190 .99120 .99050 .98960 .98880 .98770 .98660 .98540 .98400 .98260 .98090 .97900 .97700 .97470 .97220 .96950 .9665 $\begin{array}{llllllllllllllllllllllllll}0.9922 & 0.9916 & 0.9908 & 0.9900 & 0.9892 & 0.9883 & 0.9871 & 0.9860 & 0.9846 & 0.9832 & 0.9816 & 0.9798 & 0.9778 & 0.9758 & 0.9734 & 0.9707 & 0.9677\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9925 & 0.9919 & 0.9912 & 0.9904 & 0.9896 & 0.9887 & 0.9876 & 0.9866 & 0.9852 & 0.9839 & 0.9824 & 0.9806 & 0.9787 & 0.9766 & 0.9744 & 0.9718 & 0.9690\end{array}$ 0.99280 .99220 .99160 .99080 .99000 .98910 .98810 .98710 .98580 .98460 .98300 .98140 .97950 .97760 .97540 .97290 .9702 0.99310 .99250 .99190 .99120 .99040 .98960 .98860 .98760 .98640 .98510 .98380 .98210 .98040 .97850 .97640 .97400 .9714 $\begin{array}{llllllllllllllllllllllllllll}0.9933 & 0.9927 & 0.9921 & 0.9915 & 0.9909 & 0.9900 & 0.9890 & 0.9881 & 0.9870 & 0.9858 & 0.9844 & 0.9829 & 0.9812 & 0.9794 & 0.9773 & 0.9751 & 0.972\end{array}$

## Sub appendix A. 3 <br> Table C <br> 100\% Joint and Survivor With Pop-Up <br> CEI Participants


0.99360 .99300 .99250 .99180 .99120 .99050 .98950 .98860 .98750 .98640 .98510 .98360 .98200 .98030 .97830 .97610 .9737 0.99380 .99330 .99280 .99220 .99160 .99080 .99000 .98910 .98800 .98700 .98570 .98430 .98270 .98110 .97920 .97710 .9748 0.99410 .99360 .99310 .99250 .99200 .99120 .99040 .98960 .98850 .98750 .98640 .98500 .98350 .98190 .98010 .97810 .9758 0.99430 .99390 .99340 .99280 .99230 .99160 .99080 .99000 .98900 .98810 .98690 .98560 .98420 .98270 .98100 .97900 .9769 0.99450 .99410 .99370 .99320 .99260 .99190 .99120 .99050 .98950 .98860 .98750 .98630 .98500 .98350 .98180 .97990 .9779 0.99470 .99440 .99390 .99350 .99290 .99230 .99160 .99090 .99000 .98920 .98810 .98690 .98560 .98420 .98270 .98080 .9788 0.99500 .99460 .99420 .99370 .99320 .99270 .99200 .99130 .99050 .98960 .98860 .98750 .98620 .98490 .98340 .98170 .9798 0.99520 .99480 .99440 .99400 .99350 .99300 .99240 .99170 .99090 .99010 .98910 .98810 .98690 .98570 .98420 .98260 .9807 0.99540 .99500 .99470 .99430 .99380 .99330 .99270 .99200 .99130 .99060 .98960 .98860 .98750 .98630 .98490 .98340 .9816 0.99560 .99530 .99490 .99450 .99410 .99360 .99300 .99240 .99170 .99100 .99020 .98910 .98810 .98690 .98570 .98420 .9825 0.99580 .99550 .99520 .99470 .99440 .99390 .99330 .99280 .99210 .99150 .99060 .98970 .98860 .98760 .98630 .98490 .9833 0.99590 .99570 .99540 .99500 .99460 .99420 .99360 .99320 .99250 .99180 .99110 .99020 .98920 .98820 .98700 .98570 .9841 0.99610 .99580 .99550 .99520 .99490 .99450 .99390 .99350 .9928 0.9923 0.99150 .99060 .98980 .98870 .98760 .98640 .9849 0.99630 .99610 .99580 .99550 .99510 .99480 .99420 .99380 .99320 .99270 .99200 .99120 .99030 .98940 .98820 .98700 .9857 0.99640 .99620 .99600 .99570 .99540 .99500 .99450 .99410 .99350 .99300 .99230 .99160 .99080 .98990 .98880 .98760 .9864 0.99670 .99640 .99610 .99580 .99560 .99520 .99480 .99440 .9938 0.9933 0.99270 .99200 .99120 .99040 .98940 .98830 .9870 0.99680 .99660 .99640 .99600 .99580 .99550 .99500 .99470 .99420 .99370 .99310 .99250 .99170 .99090 .99000 .98890 .9877 0.99700 .99670 .99650 .99620 .99600 .99570 .99530 .99500 .99440 .99400 .99350 .99280 .99210 .99140 .99050 .98950 .9883 0.99700 .99690 .99670 .99640 .99620 .99590 .99550 .99520 .99470 .99430 .99380 .99320 .99250 .99190 .99100 .99000 .9890 0.99720 .99700 .99680 .99660 .99640 .99610 .99570 .99550 .99500 .99460 .99410 .99360 .99300 .99220 .99140 .99060 .9896 0.99730 .99720 .99690 .99670 .99660 .99630 .99590 .99570 .99520 .99490 .99440 .99390 .99330 .99270 .99200 .99110 .9901 0.99750 .99730 .99710 .99690 .9968 0.9965 0.99620 .99590 .99550 .99520 .99480 .99420 .99360 .99310 .99240 .99160 .9907 $\begin{array}{llllllllllllllllllllllllll}0.9976 & 0.9974 & 0.9972 & 0.9971 & 0.9969 & 0.9967 & 0.9964 & 0.9962 & 0.9958 & 0.9955 & 0.9951 & 0.9946 & 0.9940 & 0.9935 & 0.9928 & 0.9920 & 0.9911\end{array}$ 0.99770 .99750 .99740 .99720 .99710 .99690 .99650 .99630 .99600 .99570 .99530 .99480 .99430 .99380 .99320 .99250 .9917 0.99780 .99770 .99750 .99730 .99720 .99700 .99680 .99650 .99620 .99590 .99560 .99510 .99460 .99420 .99360 .99290 .9921 0.99790 .99780 .99760 .99750 .99740 .99710 .99690 .99670 .99640 .99610 .99580 .99540 .99490 .99450 .99400 .99330 .9925 0.99800 .99790 .99780 .99760 .99750 .99730 .99710 .99690 .99660 .99640 .99600 .99560 .99520 .99480 .99430 .99370 .9930 0.99810 .99800 .99780 .99780 .99760 .99740 .99720 .99710 .99670 .99660 .99630 .99590 .99550 .99510 .99470 .99400 .9934 0.99820 .99810 .99800 .99780 .99780 .99760 .99740 .99720 .99700 .99670 .99650 .99610 .99580 .99540 .99500 .99440 .9938 0.99830 .99820 .99810 .99800 .99790 .99770 .99750 .99740 .99710 .99700 .99660 .99630 .99600 .99570 .99530 .99470 .9941

## Sub appendix A. 3 <br> Table C <br> 100\% Joint and Survivor With Pop-Up <br> CEI Participants

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 |
| 25 | 0.9307 | 0.925 | 0.9198 | 0.9138 | 0.9075 | 0.9009 | 0.8938 | 0.8866 | 0.8789 | 0.8708 | 0.8623 | 0.8534 | 0.8440 | 0.8342 | 0.8238 | 0.8129 | 0.8014 |
| 26 | 0.9317 | 0.9264 | 0.9208 | 0.9148 | 0.9086 | 0.9020 | 0.8950 | 0.8877 | 0.8800 | 0.8720 | 0.8636 | 0.8546 | 0.8452 | 0.8354 | 0.8250 | 0.8141 | 0.8027 |
| 27 | 0.9327 | 0.9275 | 0.9219 | 0.9159 | 0.9097 | 0.9031 | 0.8962 | 0.8889 | 0.8813 | 0.8732 | 0.8648 | 0.8560 | 0.8465 | 0.8367 | 0.8263 | 0.8155 | 0.8040 |
| 28 | 0.9338 | 0.9286 | 0.9230 | 0.9171 | 0.9110 | 0.9044 | 0.8975 | 0.8902 | 0.8826 | 0.8745 | 0.8662 | 0.8573 | 0.8479 | 0.8381 | 0.8277 | 0.8168 | 0.8053 |
| 29 | 0.9349 | 0.9298 | 0.9242 | 0.9184 | 0.9122 | 0.9057 | 0.8987 | 0.8916 | 0.8840 | 0.8760 | 0.8675 | 0.8587 | 0.8493 | 0.8396 | 0.8292 | 0.8183 | 0.8068 |
| 30 | 0.9361 | 0.9309 | 0.9255 | 0.9196 | 0.9135 | 0.9070 | 0.9001 | 0.8930 | 0.8853 | 0.8774 | 0.8690 | 0.8602 | 0.8508 | 0.8411 | 0.8307 | 0.8198 | 0.8084 |
| 31 | 0.9372 | 0.9322 | 0.9267 | 0.9209 | 0.9149 | 0.9084 | 0.9016 | 0.8944 | 0.8869 | 0.8789 | 0.8706 | 0.8618 | 0.8524 | 0.8426 | 0.8323 | 0.8215 | 0.8100 |
| 32 | 0.9385 | 0.9334 | 0.9280 | 0.9222 | 0.9162 | 0.9099 | 0.9030 | 0.8959 | 0.8884 | 0.8805 | 0.8722 | 0.8634 | 0.8540 | 0.8443 | 0.8340 | 0.8231 | 0.8117 |
| 33 | 0.9398 | 0.9347 | 0.9294 | 0.9237 | 0.9177 | 0.9114 | 0.9046 | 0.8975 | 0.8900 | 0.8821 | 0.8738 | 0.8651 | 0.8558 | 0.8461 | 0.8357 | 0.8249 | 0.8135 |
| 34 | 0.9410 | 0.9361 | 0.9308 | 0.9251 | 0.9192 | 0.9129 | 0.9061 | 0.8991 | 0.8917 | 0.8838 | 0.8756 | 0.8669 | 0.8576 | 0.8479 | 0.8376 | 0.8269 | 0.8154 |
| 35 | 0.9423 | 0.9374 | 0.9322 | 0.9266 | 0.9207 | 0.9145 | 0.9078 | 0.9008 | 0.8934 | 0.8856 | 0.8774 | 0.8687 | 0.8595 | 0.8499 | 0.8396 | 0.8288 | 0.8174 |
| 36 | 0.9437 | 0.9388 | 0.9336 | 0.9281 | 0.9223 | 0.9161 | 0.9095 | 0.9026 | 0.8952 | 0.8874 | 0.8793 | 0.8707 | 0.8615 | 0.8518 | 0.8416 | 0.8309 | 0.8195 |
| 37 | 0.9450 | 0.9403 | 0.9352 | 0.9296 | 0.9239 | 0.9178 | 0.9112 | 0.9044 | 0.8971 | 0.8894 | 0.8813 | 0.8726 | 0.8635 | 0.8540 | 0.8437 | 0.8330 | 0.8216 |
| 38 | 0.9464 | 0.9417 | 0.9366 | 0.9312 | 0.9256 | 0.9195 | 0.9130 | 0.9062 | 0.8990 | 0.8914 | 0.8833 | 0.8748 | 0.8656 | 0.8561 | 0.8460 | 0.8353 | 0.8240 |
| 39 | 0.9478 | 0.9431 | 0.9382 | 0.9329 | 0.9273 | 0.9212 | 0.9149 | 0.9081 | 0.9009 | 0.8934 | 0.8854 | 0.8769 | 0.8679 | 0.8584 | 0.8483 | 0.8376 | 0.8263 |
| 40 | 0.9492 | 0.9446 | 0.9398 | 0.9345 | 0.9290 | 0.9231 | 0.9168 | 0.9101 | 0.9030 | 0.8955 | 0.8876 | 0.8791 | 0.8702 | 0.8607 | 0.8507 | 0.8401 | 0.8288 |
| 41 | 0.9506 | 0.9461 | 0.9414 | 0.9362 | 0.9308 | 0.9249 | 0.9187 | 0.9121 | 0.9050 | 0.8976 | 0.8898 | 0.8814 | 0.8725 | 0.8632 | 0.8531 | 0.8426 | 0.8314 |
| 42 | 0.9521 | 0.9477 | 0.9430 | 0.9379 | 0.9325 | 0.9268 | 0.9207 | 0.9142 | 0.9072 | 0.8999 | 0.8921 | 0.8839 | 0.8750 | 0.8657 | 0.8557 | 0.8452 | 0.8341 |
| 43 | 0.9535 | 0.9492 | 0.9446 | 0.9396 | 0.9343 | 0.9287 | 0.9226 | 0.9162 | 0.9094 | 0.9021 | 0.8944 | 0.8863 | 0.8775 | 0.8683 | 0.8584 | 0.8480 | 0.8369 |
| 44 | 0.9549 | 0.9507 | 0.9462 | 0.9413 | 0.9362 | 0.9306 | 0.9247 | 0.9183 | 0.9116 | 0.9044 | 0.8968 | 0.8887 | 0.8801 | 0.8710 | 0.8611 | 0.8508 | 0.8398 |
| 45 | 0.9563 | 0.9522 | 0.9478 | 0.9431 | 0.9380 | 0.9326 | 0.9267 | 0.9205 | 0.9139 | 0.9068 | 0.8993 | 0.8913 | 0.8827 | 0.8737 | 0.8640 | 0.8537 | 0.8428 |
| 46 | 0.9578 | 0.9537 | 0.9495 | 0.9448 | 0.9399 | 0.9345 | 0.9288 | 0.9226 | 0.9162 | 0.9092 | 0.9018 | 0.8940 | 0.8855 | 0.8765 | 0.8669 | 0.8567 | 0.8459 |
| 47 | 0.9591 | 0.9553 | 0.9511 | 0.9465 | 0.9417 | 0.9365 | 0.9308 | 0.9248 | 0.9184 | 0.9116 | 0.9044 | 0.8966 | 0.8882 | 0.8794 | 0.8699 | 0.8598 | 0.8491 |
| 48 | 0.9606 | 0.9568 | 0.9527 | 0.9483 | 0.9435 | 0.9384 | 0.9329 | 0.9271 | 0.9208 | 0.9141 | 0.9070 | 0.8993 | 0.8911 | 0.8823 | 0.8729 | 0.8630 | 0.8523 |
| 49 | 0.9620 | 0.9583 | 0.9543 | 0.9499 | 0.9454 | 0.9404 | 0.9350 | 0.9293 | 0.9231 | 0.9166 | 0.9096 | 0.9021 | 0.8939 | 0.8854 | 0.8761 | 0.8663 | 0.8557 |
| 50 | 0.9633 | 0.9598 | 0.9559 | 0.9517 | 0.9472 | 0.9423 | 0.9371 | 0.9315 | 0.9255 | 0.9191 | 0.9122 | 0.9049 | 0.8969 | 0.8884 | 0.8792 | 0.8695 | 0.8591 |
| 51 | 0.9647 | 0.9612 | 0.9575 | 0.9534 | 0.9491 | 0.9443 | 0.9392 | 0.9337 | 0.9279 | 0.9216 | 0.9149 | 0.9077 | 0.8998 | 0.8915 | 0.8825 | 0.8729 | 0.8626 |
| 52 | 0.9660 | 0.9626 | 0.9590 | 0.9550 | 0.9508 | 0.9463 | 0.9413 | 0.9360 | 0.9303 | 0.9241 | 0.9176 | 0.9105 | 0.9028 | 0.8946 | 0.8858 | 0.8764 | 0.8662 |
| 53 | 0.9673 | 0.9641 | 0.9606 | 0.9567 | 0.9527 | 0.9482 | 0.9434 | 0.9382 | 0.9327 | 0.9267 | 0.9203 | 0.9133 | 0.9058 | 0.8978 | 0.8891 | 0.8798 | 0.8698 |
| 54 | 0.9686 | 0.9654 | 0.9621 | 0.9584 | 0.9544 | 0.9501 | 0.9454 | 0.9404 | 0.9350 | 0.9292 | 0.9230 | 0.9162 | 0.9089 | 0.9011 | 0.8925 | 0.8834 | 0.8736 |
| 55 | 0.9699 | 0.9669 | 0.9636 | 0.9600 | 0.9561 | 0.9520 | 0.9474 | 0.9426 | 0.9374 | 0.9317 | 0.9256 | 0.9191 | 0.9119 | 0.9042 | 0.8959 | 0.8870 | 0.8773 |

## Sub appendix A. 3 <br> Table C <br> 100\% Joint and Survivor With Pop-Up <br> CEI Participants

Age of Pensioner

0.97110 .96820 .96500 .96160 .95790 .95380 .94940 .94480 .93970 .93420 .92830 .92190 .91490 .90750 .89930 .89060 .8812 0.97230 .96950 .96640 .96310 .95960 .95570 .95140 .94690 .94200 .93670 .93100 .92470 .91800 .91070 .90270 .89420 .8850 0.97350 .97070 .96780 .96460 .96120 .95750 .95340 .94900 .94420 .93910 .93360 .92750 .92090 .91390 .90620 .89790 .8888 0.97460 .97200 .96920 .96610 .96280 .95920 .95530 .95100 .94650 .94150 .93620 .93040 .92400 .91720 .90960 .90150 .8926 0.97570 .97320 .97060 .96760 .96440 .96090 .95710 .95310 .94860 .94390 .93880 .93320 .92690 .92030 .91300 .90510 .8965 0.97680 .97440 .97180 .96890 .96590 .96260 .95900 .95500 .95080 .94620 .94130 .93590 .92990 .92350 .91630 .90870 .9003 0.97780 .97560 .97310 .97030 .96740 .96420 .96070 .95700 .95290 .94850 .94370 .93850 .93270 .92660 .91970 .91230 .9042 0.97880 .97660 .97430 .97170 .96890 .96580 .96250 .95880 .95500 .95070 .94610 .94110 .93560 .92960 .92300 .91580 .9079 0.97980 .97770 .97550 .97290 .97020 .96730 .96410 .96070 .95690 .95290 .94850 .94370 .93830 .93260 .92620 .91930 .9117 0.98080 .97870 .97650 .97420 .97160 .96890 .96580 .96250 .95890 .95500 .95080 .94620 .94100 .93550 .92940 .92270 .9154 0.98170 .97970 .97770 .97530 .97290 .97020 .96730 .96420 .96070 .95710 .95300 .94860 .94370 .93840 .93250 .92610 .9190 0.98250 .98070 .97880 .97650 .97420 .97160 .96880 .96590 .96260 .95900 .95520 .95100 .94630 .94120 .93550 .92940 .9226 0.98340 .98170 .97980 .97760 .97550 .97300 .97030 .96750 .96440 .96100 .95730 .95330 .94880 .94400 .93850 .93260 .9260 0.98420 .98260 .98080 .97870 .97660 .97430 .97170 .96900 .96600 .96280 .95940 .95550 .95120 .94660 .94140 .93580 .9294 $\begin{array}{llllllllllllllllllllllllllll}0.9850 & 0.9834 & 0.9817 & 0.9797 & 0.9778 & 0.9755 & 0.9731 & 0.9705 & 0.9677 & 0.9646 & 0.9613 & 0.9577 & 0.9536 & 0.9491 & 0.9442 & 0.9388 & 0.9327\end{array}$ 0.98570 .98430 .98260 .98070 .97890 .97670 .97440 .97190 .96920 .96630 .96320 .95970 .9558 0.9516 0.94690 .94180 .9359 0.98650 .98500 .98350 .98170 .97990 .97780 .97570 .97340 .97070 .96800 .96510 .96170 .95800 .95400 .94950 .94460 .9391 0.98720 .98580 .98430 .98270 .98090 .97900 .97690 .97460 .97230 .96960 .96680 .96370 .96020 .95640 .95210 .94740 .9421 0.98780 .98650 .98510 .98350 .98190 .98000 .97810 .97600 .97360 .97120 .96850 .96550 .96220 .95860 .95450 .95010 .9450 0.98850 .98720 .98590 .98440 .98280 .98110 .97920 .97720 .97500 .97260 .97010 .96730 .96410 .96070 .95680 .95260 .9478 0.98910 .98790 .98670 .98520 .98370 .98200 .98020 .97840 .97620 .97400 .97160 .96900 .96590 .96270 .95910 .95510 .9505 0.98970 .98850 .98740 .98590 .98460 .98300 .98120 .97950 .97750 .97540 .97310 .97060 .96770 .96470 .96120 .95740 .9531 $\begin{array}{lllllllllllllllllllllllllll}0.9902 & 0.9891 & 0.9880 & 0.9867 & 0.9854 & 0.9838 & 0.9823 & 0.9805 & 0.9786 & 0.9767 & 0.9746 & 0.9722 & 0.9695 & 0.9666 & 0.9633 & 0.9597 & 0.9557\end{array}$ 0.99080 .98980 .98870 .98740 .98620 .98470 .98310 .98150 .97980 .97790 .97590 .97360 .97110 .96840 .96530 .96190 .9580 0.99130 .99030 .98930 .98810 .98690 .98550 .98400 .98250 .98080 .97910 .97720 .97500 .97270 .97010 .96710 .96400 .9603 0.99180 .99090 .98990 .98870 .98760 .98630 .98490 .98350 .98190 .98010 .97840 .97640 .97410 .97170 .96900 .96590 .9624 0.99220 .99140 .99040 .98930 .98830 .98710 .98570 .98440 .98280 .98120 .97950 .97770 .97550 .97330 .97070 .96780 .9646 0.99270 .99190 .99100 .98990 .98890 .98780 .98650 .98520 .98380 .98230 .98070 .97890 .97690 .97480 .97230 .96970 .9666 $\begin{array}{llllllllllllllllllllllll}0.9931 & 0.9923 & 0.9915 & 0.9905 & 0.9896 & 0.9884 & 0.9872 & 0.9860 & 0.9847 & 0.9833 & 0.9818 & 0.9801 & 0.9782 & 0.9762 & 0.9739 & 0.9714 & 0.9685\end{array}$ 0.99360 .99280 .99200 .99110 .99010 .98910 .98790 .98680 .98550 .98420 .98280 .98120 .97940 .97760 .97540 .97300 .9703

## Sub appendix A. 3

Table C
100\% Joint and Survivor With Pop-Up
CEI Participants

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
| 25 | 0.7893 | 0.7767 | 0.7635 | 0.7497 | 0.7354 | 0.7205 | 0.7052 | 0.6893 | 0.6731 | 0.6564 | 0.6394 | 0.6221 | 0.6045 | 0.5866 | 0.5684 | 0.5500 | 0.5316 |
| 26 | 0.7905 | 0.7780 | 0.7647 | 0.7510 | 0.7366 | 0.7217 | 0.7064 | 0.6905 | 0.6743 | 0.6575 | 0.6405 | 0.6232 | 0.6056 | 0.5876 | 0.5694 | 0.5510 | 0.5326 |
| 27 | 0.7919 | 0.7793 | 0.7660 | 0.7523 | 0.7379 | 0.7230 | 0.7077 | 0.6918 | 0.6755 | 0.6587 | 0.6417 | 0.6244 | 0.6067 | 0.5887 | 0.5705 | 0.5521 | 0.5336 |
| 28 | 0.7933 | 0.7807 | 0.7675 | 0.7536 | 0.7393 | 0.7244 | 0.7090 | 0.6931 | 0.6768 | 0.6601 | 0.6430 | 0.6256 | 0.6079 | 0.5899 | 0.5717 | 0.5532 | 0.5347 |
| 29 | 0.7947 | 0.7821 | 0.7689 | 0.7551 | 0.7407 | 0.7258 | 0.7104 | 0.6945 | 0.6782 | 0.6614 | 0.6443 | 0.6269 | 0.6092 | 0.5912 | 0.5729 | 0.5544 | 0.5359 |
| 30 | 0.7963 | 0.7837 | 0.7704 | 0.7567 | 0.7423 | 0.7274 | 0.7120 | 0.6960 | 0.6797 | 0.6629 | 0.6458 | 0.6283 | 0.6106 | 0.5926 | 0.5743 | 0.5557 | 0.5372 |
| 31 | 0.7979 | 0.7853 | 0.7721 | 0.7583 | 0.7439 | 0.7290 | 0.7136 | 0.6976 | 0.6812 | 0.6644 | 0.6473 | 0.6298 | 0.6121 | 0.5940 | 0.5757 | 0.5571 | 0.5385 |
| 32 | 0.7997 | 0.7871 | 0.7738 | 0.7600 | 0.7456 | 0.7307 | 0.7152 | 0.6993 | 0.6829 | 0.6661 | 0.6489 | 0.6315 | 0.6137 | 0.5955 | 0.5772 | 0.5586 | 0.5400 |
| 33 | 0.8015 | 0.7888 | 0.7756 | 0.7619 | 0.7475 | 0.7325 | 0.7171 | 0.7011 | 0.6847 | 0.6678 | 0.6507 | 0.6331 | 0.6153 | 0.5972 | 0.5787 | 0.5601 | 0.5415 |
| 34 | 0.8034 | 0.7908 | 0.7776 | 0.7638 | 0.7494 | 0.7344 | 0.7190 | 0.7030 | 0.6865 | 0.6697 | 0.6525 | 0.6349 | 0.6171 | 0.5989 | 0.5804 | 0.5618 | 0.5431 |
| 35 | 0.8054 | 0.7928 | 0.7796 | 0.7658 | 0.7514 | 0.7364 | 0.7210 | 0.7049 | 0.6885 | 0.6716 | 0.6544 | 0.6368 | 0.6189 | 0.6007 | 0.5823 | 0.5635 | 0.5448 |
| 36 | 0.8075 | 0.7949 | 0.7817 | 0.7679 | 0.7535 | 0.7385 | 0.7230 | 0.7070 | 0.6906 | 0.6737 | 0.6564 | 0.6388 | 0.6209 | 0.6027 | 0.5842 | 0.5654 | 0.5466 |
| 37 | 0.8097 | 0.7972 | 0.7840 | 0.7701 | 0.7558 | 0.7408 | 0.7253 | 0.7092 | 0.6928 | 0.6759 | 0.6586 | 0.6410 | 0.6230 | 0.6047 | 0.5862 | 0.5674 | 0.5486 |
| 38 | 0.8120 | 0.7995 | 0.7863 | 0.7725 | 0.7581 | 0.7431 | 0.7276 | 0.7116 | 0.6951 | 0.6781 | 0.6609 | 0.6432 | 0.6252 | 0.6069 | 0.5883 | 0.5695 | 0.5506 |
| 39 | 0.8144 | 0.8019 | 0.7887 | 0.7750 | 0.7606 | 0.7456 | 0.7301 | 0.7141 | 0.6976 | 0.6806 | 0.6633 | 0.6456 | 0.6275 | 0.6092 | 0.5906 | 0.5717 | 0.5527 |
| 40 | 0.8169 | 0.8044 | 0.7913 | 0.7776 | 0.7632 | 0.7482 | 0.7327 | 0.7167 | 0.7002 | 0.6832 | 0.6658 | 0.6481 | 0.6301 | 0.6116 | 0.5930 | 0.5740 | 0.5551 |
| 41 | 0.8196 | 0.8071 | 0.7940 | 0.7803 | 0.7659 | 0.7509 | 0.7354 | 0.7194 | 0.7029 | 0.6859 | 0.6685 | 0.6507 | 0.6327 | 0.6142 | 0.5955 | 0.5765 | 0.5575 |
| 42 | 0.8223 | 0.8099 | 0.7968 | 0.7831 | 0.7687 | 0.7538 | 0.7384 | 0.7223 | 0.7057 | 0.6887 | 0.6713 | 0.6535 | 0.6354 | 0.6170 | 0.5982 | 0.5791 | 0.5601 |
| 43 | 0.8251 | 0.8128 | 0.7998 | 0.7861 | 0.7717 | 0.7568 | 0.7413 | 0.7253 | 0.7088 | 0.6917 | 0.6743 | 0.6565 | 0.6384 | 0.6198 | 0.6010 | 0.5819 | 0.5628 |
| 44 | 0.8281 | 0.8158 | 0.8028 | 0.7892 | 0.7749 | 0.7600 | 0.7445 | 0.7284 | 0.7119 | 0.6948 | 0.6774 | 0.6596 | 0.6414 | 0.6228 | 0.6040 | 0.5848 | 0.5657 |
| 45 | 0.8312 | 0.8189 | 0.8059 | 0.7924 | 0.7781 | 0.7633 | 0.7478 | 0.7317 | 0.7152 | 0.6981 | 0.6807 | 0.6628 | 0.6446 | 0.6260 | 0.6072 | 0.5880 | 0.5687 |
| 46 | 0.8343 | 0.8221 | 0.8092 | 0.7957 | 0.7815 | 0.7666 | 0.7512 | 0.7352 | 0.7187 | 0.7016 | 0.6841 | 0.6663 | 0.6480 | 0.6294 | 0.6104 | 0.5912 | 0.5719 |
| 47 | 0.8376 | 0.8255 | 0.8127 | 0.7992 | 0.7850 | 0.7702 | 0.7549 | 0.7388 | 0.7223 | 0.7052 | 0.6877 | 0.6699 | 0.6516 | 0.6329 | 0.6140 | 0.5946 | 0.5753 |
| 48 | 0.8409 | 0.8289 | 0.8162 | 0.8028 | 0.7887 | 0.7739 | 0.7586 | 0.7426 | 0.7261 | 0.7090 | 0.6915 | 0.6737 | 0.6553 | 0.6367 | 0.6176 | 0.5983 | 0.5789 |
| 49 | 0.8444 | 0.8325 | 0.8198 | 0.8066 | 0.7925 | 0.7778 | 0.7625 | 0.7465 | 0.7301 | 0.7130 | 0.6955 | 0.6776 | 0.6593 | 0.6406 | 0.6215 | 0.6021 | 0.5826 |
| 50 | 0.8480 | 0.8361 | 0.8236 | 0.8104 | 0.7964 | 0.7818 | 0.7665 | 0.7506 | 0.7342 | 0.7172 | 0.6997 | 0.6818 | 0.6634 | 0.6447 | 0.6256 | 0.6061 | 0.5866 |
| 51 | 0.8516 | 0.8399 | 0.8275 | 0.8143 | 0.8005 | 0.7859 | 0.7707 | 0.7549 | 0.7385 | 0.7215 | 0.7040 | 0.6861 | 0.6678 | 0.6490 | 0.6299 | 0.6104 | 0.5908 |
| 52 | 0.8554 | 0.8438 | 0.8315 | 0.8184 | 0.8047 | 0.7902 | 0.7751 | 0.7593 | 0.7429 | 0.7260 | 0.7086 | 0.6907 | 0.6724 | 0.6536 | 0.6344 | 0.6149 | 0.5952 |
| 53 | 0.8591 | 0.8477 | 0.8356 | 0.8227 | 0.8090 | 0.7946 | 0.7796 | 0.7639 | 0.7476 | 0.7307 | 0.7133 | 0.6954 | 0.6771 | 0.6583 | 0.6391 | 0.6195 | 0.5998 |
| 54 | 0.8630 | 0.8517 | 0.8397 | 0.8270 | 0.8134 | 0.7992 | 0.7843 | 0.7686 | 0.7524 | 0.7356 | 0.7182 | 0.7004 | 0.6821 | 0.6633 | 0.6441 | 0.6245 | 0.6047 |
| 55 | 0.8670 | 0.8558 | 0.8440 | 0.8314 | 0.8180 | 0.8038 | 0.7891 | 0.7735 | 0.7574 | 0.7407 | 0.7234 | 0.7056 | 0.6873 | 0.6685 | 0.6493 | 0.6296 | 0.6098 |

## Sub appendix A. 3 <br> Table C

Age of Pensioner

| AGE OF BENEFICIARY | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

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0.87090 .86000 .84830 .83580 .82270 .80870 .79400 .77860 .76260 .74590 .72870 .71090 .69270 .67390 .65470 .63510 .6152 0.87490 .86420 .85270 .84050 .82740 .81360 .79910 .78380 .76790 .75130 .73420 .71650 .69830 .67950 .66030 .64070 .6209 0.87900 .86850 .85710 .84510 .83220 .81860 .80430 .78910 .77340 .75690 .73990 .72230 .70410 .68540 .66630 .64660 .6267 0.88300 .87280 .86170 .84980 .83710 .82360 .80950 .79450 .77890 .76260 .74570 .72820 .71010 .69150 .67240 .65270 .6329 0.88710 .87710 .86620 .85460 .84210 .82880 .81490 .80010 .78460 .76850 .75170 .73430 .71640 .69780 .67870 .65910 .6393 0.89120 .88140 .87070 .85940 .84710 .83410 .82030 .80570 .79050 .77450 .75790 .74060 .72280 .70430 .68530 .66570 .6459 0.89520 .88570 .87530 .86410 .85210 .83930 .82580 .81140 .79640 .78060 .76420 .74710 .72940 .71100 .69210 .67260 .6528 0.89930 .89000 .87990 .86900 .85720 .84470 .83140 .81730 .80250 .78680 .77060 .75360 .73610 .71780 .69900 .67960 .6599 0.90330 .89420 .88440 .87370 .86230 .85000 .83700 .82310 .80850 .79310 .77700 .76030 .74290 .72490 .70620 .68690 .6672 0.90730 .89840 .88890 .87850 .86740 .85530 .84260 .82900 .81470 .79950 .78370 .76710 .75000 .73210 .71350 .69430 .6748 0.91110 .90260 .89340 .88330 .87240 .86070 .84820 .83490 .82080 .80590 .79030 .77410 .75710 .73940 .72100 .70190 .6825 0.91500 .90670 .89780 .88800 .87740 .86600 .85390 .84080 .82700 .81240 .79710 .78110 .76430 .74680 .72860 .70970 .6904
 $\begin{array}{llllllllllllllllllllll}0.9224 & 0.9148 & 0.9064 & 0.8973 & 0.8873 & 0.8765 & 0.8650 & 0.8525 & 0.8394 & 0.8253 & 0.8106 & 0.7952 & 0.7789 & 0.7619 & 0.7441 & 0.7257 & 0.7067\end{array}$ 0.92600 .91860 .91050 .90170 .89210 .88160 .87040 .85840 .84550 .83180 .81740 .80230 .78630 .76950 .75200 .73380 .7150 0.92950 .92240 .91470 .90620 .89680 .88670 .87590 .86410 .85160 .83830 .82420 .80940 .79370 .77720 .76000 .74200 .7235 $\begin{array}{lllllllllllllllllllllll}0.9329 & 0.9262 & 0.9186 & 0.9105 & 0.9015 & 0.8917 & 0.8812 & 0.8698 & 0.8577 & 0.8447 & 0.8309 & 0.8164 & 0.8011 & 0.7849 & 0.7680 & 0.7503 & 0.7320\end{array}$ 0.93620 .92970 .92250 .91470 .90600 .89660 .88640 .87540 .86360 .85090 .83760 .82340 .80850 .79260 .77610 .75860 .7406 0.93940 .93320 .92630 .91880 .91050 .90140 .89150 .88090 .86950 .85720 .84420 .83040 .81580 .80030 .78410 .76690 .7492 $\begin{array}{lllllllllllllllllllllllllll}0.9424 & 0.9366 & 0.9300 & 0.9228 & 0.9147 & 0.9060 & 0.8965 & 0.8862 & 0.8753 & 0.8634 & 0.8507 & 0.8373 & 0.8231 & 0.8080 & 0.7920 & 0.7753 & 0.7579\end{array}$ 0.94540 .93980 .93350 .92660 .91890 .91060 .90150 .89150 .88090 .86940 .85720 .84410 .83030 .81550 .80000 .78350 .7665 $\begin{array}{lllllllllllllllllllllll}0.9483 & 0.9429 & 0.9369 & 0.9303 & 0.9230 & 0.9149 & 0.9062 & 0.8966 & 0.8864 & 0.8752 & 0.8634 & 0.8508 & 0.8374 & 0.8230 & 0.8078 & 0.7917 & 0.7750\end{array}$ 0.95100 .94600 .94020 .93390 .92690 .91920 .91080 .90160 .89180 .88100 .86950 .85730 .84430 .83040 .81560 .79980 .7836 0.95360 .94880 .94330 .93740 .93070 .92330 .91520 .90640 .89690 .88660 .87550 .86380 .85120 .83760 .82320 .80800 .7920 0.95610 .95150 .94640 .94070 .93430 .92720 .91960 .91110 .90190 .89210 .88140 .87000 .85780 .84470 .83070 .81590 .8003 0.95850 .95420 .94930 .94380 .93780 .93100 .92370 .91560 .90690 .89730 .88710 .87610 .86430 .85170 .83820 .82370 .8085 $\begin{array}{lllllllllllllllllllllll}0.9608 & 0.9567 & 0.9521 & 0.9469 & 0.9412 & 0.9347 & 0.9277 & 0.9200 & 0.9116 & 0.9025 & 0.8926 & 0.8821 & 0.8708 & 0.8585 & 0.8454 & 0.8314 & 0.8167\end{array}$ 0.96310 .95920 .95480 .94980 .94440 .93830 .93160 .92420 .91620 .90750 .89800 .88800 .87700 .86520 .85250 .83890 .8247 0.96520 .96150 .95730 .95270 .94750 .94170 .93540 .92830 .92070 .91230 .90330 .89360 .88310 .87170 .85950 .84640 .8326 0.96720 .96370 .95980 .95540 .95040 .94500 .93900 .93230 .92500 .91700 .90840 .89910 .88910 .87810 .86640 .85370 .8403

## Sub appendix A. 3 <br> Table D

## 50\% Joint and Survivor With Pop-Up <br> Age of CEI Participants

Pensioner

| AGE OF BENEFICIARY | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

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0.99080 .99000 .98920 .98820 .98730 .98630 .98500 .98380 .98240 .98090 .97930 .97760 .97570 .97380 .97160 .96920 .9667 0.99110 .99030 .98940 .98850 .98760 .98660 .98540 .98410 .98280 .98130 .97980 .97800 .97620 .97420 .97210 .96980 .9672 0.99130 .99060 .98970 .98880 .98790 .98690 .98570 .98450 .98310 .98180 .98010 .97840 .97660 .97460 .97250 .97030 .9677 0.99150 .99080 .99000 .98910 .98820 .98720 .98600 .98490 .98350 .98210 .98060 .97890 .97710 .97520 .97310 .97080 .9683 0.99170 .99110 .99020 .98940 .98860 .98750 .98640 .98520 .98390 .98260 .98100 .97930 .97750 .97570 .97360 .97140 .9689 0.99200 .99130 .99050 .98970 .98890 .98790 .98670 .98560 .98430 .98300 .98150 .97980 .97810 .97620 .97420 .97190 .9695 0.99220 .99160 .99080 .99000 .98920 .98820 .98710 .98600 .98470 .98340 .98190 .98030 .97860 .97670 .97470 .97250 .9701 0.99250 .99180 .99100 .99030 .98950 .98850 .98740 .98630 .98510 .98380 .98240 .98080 .97910 .97720 .97530 .97310 .9707 0.99270 .99200 .99130 .99060 .98980 .98880 .98780 .98680 .98550 .98430 .9828 0.9812 0.97960 .97780 .97590 .97370 .9714 0.99290 .99230 .99160 .99080 .99000 .98920 .98810 .98720 .98590 .98470 .98330 .9818 0.9801 0.97830 .97650 .97430 .9720 $\begin{array}{llllllllllllllllllllllllll}0.9931 & 0.9925 & 0.9919 & 0.9911 & 0.9904 & 0.9895 & 0.9885 & 0.9875 & 0.9863 & 0.9851 & 0.9838 & 0.9823 & 0.9807 & 0.9789 & 0.9770 & 0.9749 & 0.9727\end{array}$ 0.99340 .99270 .99210 .99140 .99070 .98990 .98890 .98790 .98670 .98560 .98420 .98270 .98120 .97950 .97760 .97560 .9734 0.99350 .99300 .99240 .99170 .99100 .99020 .98920 .98830 .98710 .98600 .98470 .98320 .98170 .98000 .97820 .97620 .9740 $\begin{array}{lllllllllllllllllllllllll}0.9937 & 0.9932 & 0.9926 & 0.9919 & 0.9913 & 0.9905 & 0.9895 & 0.9886 & 0.9875 & 0.9864 & 0.9852 & 0.9838 & 0.9822 & 0.9806 & 0.9788 & 0.9769 & 0.9747\end{array}$ 0.99390 .99340 .99290 .99220 .99160 .99080 .98990 .98900 .98790 .98680 .98560 .98420 .98280 .98120 .97940 .97750 .9754 0.99420 .99360 .99310 .99250 .99180 .99110 .99020 .98940 .98830 .98730 .98610 .98470 .98330 .9818 0.9800 0.97810 .9761 0.99440 .99390 .99330 .99270 .99210 .99140 .99060 .98970 .98870 .98770 .98650 .98530 .98380 .98240 .98070 .97880 .9768 0.99450 .99410 .99350 .99290 .99240 .99170 .99090 .99010 .98910 .98810 .98690 .98570 .98440 .98290 .98130 .97950 .9775 $\begin{array}{lllllllllllllllllllllllllll}0.9947 & 0.9943 & 0.9938 & 0.9932 & 0.9927 & 0.9920 & 0.9912 & 0.9904 & 0.9895 & 0.9886 & 0.9874 & 0.9862 & 0.9849 & 0.9835 & 0.9819 & 0.9802 & 0.9782\end{array}$ 0.99490 .99450 .99400 .99350 .99290 .99230 .99150 .99080 .98990 .98890 .98780 .98670 .98540 .98400 .98250 .98080 .9789 0.99510 .99470 .99420 .99370 .99320 .99250 .99180 .99110 .99020 .98930 .98830 .98710 .98590 .98460 .98310 .98140 .9796 0.99530 .99490 .99440 .99390 .99340 .99280 .99210 .99140 .99050 .98970 .98870 .98760 .98640 .98510 .98370 .98200 .9803 0.99540 .99500 .99470 .99410 .99370 .99310 .99240 .99170 .99090 .99010 .98910 .98810 .98690 .98570 .98420 .98270 .9810 0.99560 .99530 .99480 .99430 .99390 .99330 .99270 .99200 .99130 .99050 .98960 .98850 .98740 .98620 .98480 .98330 .9816 0.99580 .99540 .99500 .99460 .99420 .99360 .99300 .99230 .99160 .99090 .98990 .98890 .98790 .98670 .98540 .98390 .9823 0.99590 .99550 .99520 .99480 .99440 .99390 .99330 .99260 .99190 .99120 .99030 .98940 .98830 .98720 .98600 .98450 .9830 0.99610 .99580 .99540 .99400 .99460 .99410 .99350 .99290 .99220 .99150 .99070 .9898 0.9888 0.98770 .98650 .98510 .9836 0.99620 .99590 .99550 .99520 .99480 .99430 .99380 .99320 .99250 .99190 .99110 .99020 .98920 .98820 .98700 .98570 .9842 0.99640 .99610 .99580 .99540 .99500 .99450 .99400 .99350 .99280 .99220 .99140 .99060 .98970 .98870 .98760 .98630 .9849 $\begin{array}{lllllllllllllllllllllllll}0.9965 & 0.9962 & 0.9959 & 0.9955 & 0.9952 & 0.9948 & 0.9942 & 0.9938 & 0.9931 & 0.9925 & 0.9918 & 0.9909 & 0.9901 & 0.9891 & 0.9881 & 0.9868 & 0.9855\end{array}$ 0.99670 .99640 .99610 .99580 .99540 .99500 .99450 .99410 .99340 .99290 .99210 .99130 .99050 .98960 .98850 .98730 .9860

## Sub appendix A. 3

Table D
50\% Joint and Survivor With Pop-Up CEI Participants

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |  | 35 | 36 | 37 | 38 | 39 | 40 | 41 |

 0.99690 .99670 .99640 .99600 .99580 .99540 .99500 .99450 .99400 .99350 .9928 0.9921 0.99130 .99050 .98950 .98840 .9872 0.99700 .99680 .99650 .99620 .99600 .99560 .99520 .99470 .99420 .99370 .99310 .99250 .99170 .99090 .99000 .98890 .9877 0.99710 .99700 .99670 .99630 .99610 .99580 .99530 .99500 .99450 .99400 .99340 .99280 .99200 .99130 .99040 .98940 .9883 0.99730 .99700 .99680 .99660 .99630 .99600 .99560 .99520 .99470 .99430 .99370 .99310 .99240 .99170 .99080 .98990 .9888 0.99730 .99720 .99690 .99670 .99650 .99620 .99580 .99540 .99490 .99450 .99400 .99340 .99270 .99210 .99120 .99030 .9893 0.99750 .99730 .99710 .9968 0.9966 0.99630 .99590 .99560 .99520 .9948 0.9943 0.99370 .99310 .99240 .99170 .99080 .9898 0.99760 .99740 .99720 .99690 .99680 .99650 .99620 .99590 .99540 .99510 .99450 .99400 .99340 .99280 .99210 .99120 .9903 0.99770 .99750 .99730 .99710 .99690 .99660 .99630 .99600 .99560 .99530 .99480 .99430 .99370 .99310 .99240 .99160 .9907 0.99780 .99760 .99750 .99720 .99710 .99690 .99650 .99620 .99580 .99550 .99510 .99460 .99400 .99350 .99270 .99200 .9912 0.99780 .99770 .99750 .99740 .99720 .99700 .99660 .99640 .99600 .99580 .99530 .9948 0.9943 0.99380 .99310 .99240 .9916 0.99800 .99780 .99770 .99750 .99730 .99710 .99680 .99660 .99620 .99590 .99550 .99500 .99460 .99410 .99340 .99280 .9920 0.99810 .99790 .99780 .99760 .99750 .99720 .99700 .99680 .99640 .99610 .99570 .99530 .99490 .99440 .99380 .99310 .9924 0.99810 .99800 .99780 .99770 .99760 .99740 .99710 .99690 .99660 .99640 .99600 .99560 .99510 .99460 .99410 .99350 .9927 0.99820 .99810 .99800 .99780 .99770 .99750 .99720 .99710 .99670 .99650 .99620 .99580 .99530 .99490 .99440 .99380 .9931 0.99830 .99820 .99810 .99790 .99780 .99760 .99740 .99720 .99690 .99670 .99630 .99590 .99560 .99510 .99470 .99410 .9934 0.99840 .99830 .99810 .99800 .99790 .99770 .99750 .99740 .99700 .99690 .99660 .99620 .99590 .99550 .99500 .99440 .9938 0.99840 .99840 .99820 .99810 .99810 .99790 .99760 .99750 .99720 .99700 .99670 .99640 .99600 .99570 .99520 .99470 .9941
 0.99860 .99850 .99840 .99830 .99820 .99800 .99790 .99770 .99750 .99730 .99700 .9968 0.9965 0.99610 .99570 .99530 .9948 0.99870 .99860 .99850 .99840 .99830 .99820 .99800 .99790 .99760 .99750 .99730 .99690 .99660 .99640 .99600 .99550 .9950 0.99870 .99870 .99860 .99840 .99840 .99830 .99800 .99800 .99770 .99760 .99730 .99710 .99690 .99650 .99620 .99580 .9953 0.99870 .99870 .99860 .99850 .99850 .99830 .99820 .99800 .99790 .99770 .99750 .99720 .99700 .9968 0.9964 0.99600 .9955 0.99880 .99870 .99870 .99860 .99860 .99840 .99830 .99820 .99800 .99790 .99760 .99740 .99720 .99690 .99660 .99620 .9958 0.99890 .99880 .99870 .99870 .99870 .99850 .99830 .99830 .99810 .99790 .99780 .99750 .99730 .99710 .99680 .99640 .9960 0.99900 .99890 .99880 .99870 .99870 .99860 .99840 .99830 .99820 .99810 .99790 .99770 .99750 .99720 .99700 .99660 .9962 0.99900 .99900 .99890 .99880 .99880 .99860 .99850 .99850 .99830 .99820 .99800 .99780 .99760 .99740 .99710 .99680 .9965 0.99900 .99900 .99900 .99890 .99880 .99870 .99860 .99860 .99830 .99830 .99810 .99790 .99780 .99750 .99730 .99700 .9966 $0.99910 .9990 \quad 0.99900 .99890 .99890 .99880 .99860 .99860 .99850 .99840 .99820 .99810 .99780 .99770 .99740 .99720 .9969$ 0.99910 .99910 .99900 .99900 .99900 .99890 .99870 .99870 .99860 .99850 .99830 .99820 .99800 .99780 .99760 .99730 .9970

## Sub appendix A. 3

Table D
50\% Joint and Survivor With Pop-Up
CEI Participants

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 |

## 25

 $\begin{array}{lllllllllllllllllllllllll}0.9646 & 0.9618 & 0.9588 & 0.9555 & 0.9522 & 0.9485 & 0.9446 & 0.9405 & 0.9362 & 0.9316 & 0.9268 & 0.9216 & 0.9161 & 0.9104 & 0.9041 & 0.8976 & 0.8905\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9652 & 0.9623 & 0.9594 & 0.9561 & 0.9527 & 0.9491 & 0.9453 & 0.9412 & 0.9369 & 0.9323 & 0.9275 & 0.9224 & 0.9169 & 0.9111 & 0.9049 & 0.8984 & 0.8914\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9658 & 0.9630 & 0.9600 & 0.9567 & 0.9534 & 0.9498 & 0.9459 & 0.9419 & 0.9376 & 0.9331 & 0.9283 & 0.9232 & 0.9177 & 0.9119 & 0.9057 & 0.8992 & 0.8922\end{array}$ $\begin{array}{llllllllllllllllllll}0.9664 & 0.9636 & 0.9606 & 0.9574 & 0.9541 & 0.9505 & 0.9467 & 0.9427 & 0.9384 & 0.9338 & 0.9291 & 0.9240 & 0.9185 & 0.9128 & 0.9066 & 0.9001 & 0.8931\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9670 & 0.9643 & 0.9613 & 0.9581 & 0.9548 & 0.9513 & 0.9474 & 0.9434 & 0.9392 & 0.9347 & 0.9300 & 0.9249 & 0.9194 & 0.9137 & 0.9075 & 0.9010 & 0.8940\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9676 & 0.9649 & 0.9620 & 0.9588 & 0.9556 & 0.9520 & 0.9482 & 0.9442 & 0.9400 & 0.9355 & 0.9308 & 0.9258 & 0.9203 & 0.9146 & 0.9085 & 0.9020 & 0.8951\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9683 & 0.9656 & 0.9627 & 0.9596 & 0.9563 & 0.9528 & 0.9490 & 0.9451 & 0.9409 & 0.9364 & 0.9317 & 0.9267 & 0.9212 & 0.9156 & 0.9094 & 0.9030 & 0.8961\end{array}$ $\begin{array}{llllllllllllllllllll}0.9690 & 0.9663 & 0.9634 & 0.9603 & 0.9571 & 0.9536 & 0.9499 & 0.9459 & 0.9418 & 0.9373 & 0.9327 & 0.9277 & 0.9223 & 0.9166 & 0.9105 & 0.9041 & 0.8972\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9696 & 0.9670 & 0.9642 & 0.9611 & 0.9579 & 0.9545 & 0.9508 & 0.9469 & 0.9427 & 0.9383 & 0.9337 & 0.9287 & 0.9233 & 0.9177 & 0.9116 & 0.9052 & 0.8983\end{array}$ $\begin{array}{llllllllllllllllllll}0.9703 & 0.9677 & 0.9649 & 0.9619 & 0.9587 & 0.9553 & 0.9517 & 0.9478 & 0.9437 & 0.9393 & 0.9347 & 0.9298 & 0.9244 & 0.9189 & 0.9128 & 0.9064 & 0.8995\end{array}$ $\begin{array}{llllllllllllllllllll}0.9711 & 0.9684 & 0.9657 & 0.9627 & 0.9596 & 0.9562 & 0.9526 & 0.9488 & 0.9447 & 0.9404 & 0.9358 & 0.9309 & 0.9256 & 0.9200 & 0.9140 & 0.9077 & 0.9008\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9717 & 0.9692 & 0.9665 & 0.9635 & 0.9605 & 0.9572 & 0.9535 & 0.9498 & 0.9457 & 0.9414 & 0.9369 & 0.9320 & 0.9268 & 0.9212 & 0.9152 & 0.9089 & 0.9021\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9725 & 0.9700 & 0.9673 & 0.9644 & 0.9614 & 0.9581 & 0.9545 & 0.9508 & 0.9468 & 0.9426 & 0.9380 & 0.9332 & 0.9280 & 0.9225 & 0.9166 & 0.9103 & 0.9035\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9732 & 0.9707 & 0.9681 & 0.9652 & 0.9623 & 0.9590 & 0.9556 & 0.9519 & 0.9479 & 0.9437 & 0.9392 & 0.9344 & 0.9293 & 0.9238 & 0.9179 & 0.9116 & 0.9049\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9740 & 0.9716 & 0.9690 & 0.9661 & 0.9632 & 0.9600 & 0.9565 & 0.9529 & 0.9490 & 0.9448 & 0.9404 & 0.9357 & 0.9305 & 0.9252 & 0.9193 & 0.9131 & 0.9064\end{array}$ $\begin{array}{lllllllllllllllllll}0.9747 & 0.9723 & 0.9698 & 0.9670 & 0.9642 & 0.9610 & 0.9576 & 0.9541 & 0.9502 & 0.9460 & 0.9417 & 0.9370 & 0.9319 & 0.9266 & 0.9207 & 0.9146 & 0.9079\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9755 & 0.9731 & 0.9706 & 0.9679 & 0.9651 & 0.9620 & 0.9586 & 0.9551 & 0.9514 & 0.9473 & 0.9430 & 0.9384 & 0.9333 & 0.9280 & 0.9222 & 0.9161 & 0.9095\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9762 & 0.9740 & 0.9715 & 0.9688 & 0.9660 & 0.9631 & 0.9597 & 0.9563 & 0.9525 & 0.9486 & 0.9443 & 0.9398 & 0.9347 & 0.9295 & 0.9238 & 0.9177 & 0.9112\end{array}$ $\begin{array}{lllllllllllllllll}0.9769 & 0.9747 & 0.9724 & 0.9698 & 0.9670 & 0.9640 & 0.9609 & 0.9574 & 0.9537 & 0.9499 & 0.9456 & 0.9411 & 0.9362 & 0.9311 & 0.9254 & 0.9194 & 0.9129\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9777 & 0.9756 & 0.9732 & 0.9707 & 0.9680 & 0.9651 & 0.9619 & 0.9586 & 0.9550 & 0.9512 & 0.9470 & 0.9426 & 0.9377 & 0.9326 & 0.9270 & 0.9211 & 0.9147\end{array}$ $\begin{array}{llllllllllllllllll}0.9784 & 0.9763 & 0.9741 & 0.9716 & 0.9690 & 0.9662 & 0.9631 & 0.9598 & 0.9563 & 0.9525 & 0.9484 & 0.9441 & 0.9393 & 0.9342 & 0.9287 & 0.9229 & 0.9165\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9792 & 0.9772 & 0.9749 & 0.9725 & 0.9700 & 0.9672 & 0.9641 & 0.9610 & 0.9575 & 0.9538 & 0.9498 & 0.9455 & 0.9408 & 0.9359 & 0.9304 & 0.9247 & 0.9183\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9799 & 0.9779 & 0.9758 & 0.9734 & 0.9710 & 0.9682 & 0.9653 & 0.9621 & 0.9588 & 0.9551 & 0.9512 & 0.9470 & 0.9424 & 0.9375 & 0.9322 & 0.9265 & 0.9203\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9806 & 0.9787 & 0.9766 & 0.9743 & 0.9719 & 0.9693 & 0.9664 & 0.9634 & 0.9600 & 0.9565 & 0.9527 & 0.9485 & 0.9440 & 0.9392 & 0.9339 & 0.9283 & 0.9222\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9813 & 0.9795 & 0.9775 & 0.9752 & 0.9729 & 0.9703 & 0.9675 & 0.9645 & 0.9613 & 0.9579 & 0.9541 & 0.9500 & 0.9456 & 0.9409 & 0.9357 & 0.9302 & 0.9242\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9821 & 0.9803 & 0.9783 & 0.9761 & 0.9738 & 0.9714 & 0.9686 & 0.9658 & 0.9626 & 0.9592 & 0.9556 & 0.9516 & 0.9473 & 0.9426 & 0.9376 & 0.9322 & 0.9263\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9828 & 0.9810 & 0.9791 & 0.9770 & 0.9748 & 0.9724 & 0.9698 & 0.9669 & 0.9638 & 0.9606 & 0.9570 & 0.9532 & 0.9489 & 0.9444 & 0.9394 & 0.9341 & 0.9283\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9834 & 0.9817 & 0.9799 & 0.9779 & 0.9758 & 0.9734 & 0.9709 & 0.9681 & 0.9652 & 0.9619 & 0.9585 & 0.9547 & 0.9506 & 0.9462 & 0.9413 & 0.9361 & 0.9304\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9841 & 0.9824 & 0.9807 & 0.9787 & 0.9767 & 0.9744 & 0.9719 & 0.9693 & 0.9664 & 0.9633 & 0.9600 & 0.9563 & 0.9523 & 0.9480 & 0.9432 & 0.9381 & 0.9326\end{array}$ $\begin{array}{llllllllllllllllllll}0.9847 & 0.9832 & 0.9815 & 0.9796 & 0.9776 & 0.9754 & 0.9730 & 0.9705 & 0.9677 & 0.9646 & 0.9614 & 0.9578 & 0.9539 & 0.9497 & 0.9451 & 0.9402 & 0.9346\end{array}$

## Sub appendix A. 3

Table D
50\% Joint and Survivor With Pop-Up CEI Participants

Age of Pensioner

| AGE OF BENEFICIARY | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

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71
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84 85
 $\begin{array}{lllllllllllllllllllllllll}0.9860 & 0.9845 & 0.9829 & 0.9812 & 0.9794 & 0.9774 & 0.9751 & 0.9727 & 0.9701 & 0.9673 & 0.9643 & 0.9609 & 0.9572 & 0.9533 & 0.9488 & 0.9442 & 0.9390\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9866 & 0.9852 & 0.9837 & 0.9820 & 0.9803 & 0.9783 & 0.9761 & 0.9738 & 0.9713 & 0.9686 & 0.9657 & 0.9624 & 0.9589 & 0.9550 & 0.9508 & 0.9462 & 0.9411\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9871 & 0.9858 & 0.9844 & 0.9827 & 0.9810 & 0.9792 & 0.9771 & 0.9749 & 0.9725 & 0.9698 & 0.9671 & 0.9640 & 0.9605 & 0.9568 & 0.9527 & 0.9482 & 0.9433\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9877 & 0.9864 & 0.9850 & 0.9835 & 0.9819 & 0.9801 & 0.9781 & 0.9760 & 0.9737 & 0.9711 & 0.9684 & 0.9654 & 0.9620 & 0.9585 & 0.9545 & 0.9502 & 0.9454\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9883 & 0.9870 & 0.9857 & 0.9842 & 0.9827 & 0.9810 & 0.9790 & 0.9770 & 0.9748 & 0.9724 & 0.9698 & 0.9669 & 0.9637 & 0.9602 & 0.9563 & 0.9522 & 0.9476\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9888 & 0.9877 & 0.9863 & 0.9849 & 0.9835 & 0.9818 & 0.9800 & 0.9780 & 0.9759 & 0.9736 & 0.9711 & 0.9683 & 0.9652 & 0.9619 & 0.9581 & 0.9541 & 0.9497\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9893 & 0.9882 & 0.9870 & 0.9856 & 0.9842 & 0.9826 & 0.9808 & 0.9790 & 0.9770 & 0.9747 & 0.9724 & 0.9697 & 0.9667 & 0.9636 & 0.9600 & 0.9561 & 0.9518\end{array}$ $\begin{array}{llllllllllllllllllll}0.9898 & 0.9888 & 0.9876 & 0.9862 & 0.9849 & 0.9834 & 0.9817 & 0.9799 & 0.9780 & 0.9759 & 0.9736 & 0.9710 & 0.9681 & 0.9651 & 0.9617 & 0.9579 & 0.9538\end{array}$ $\begin{array}{llllllllllllllllllll}0.9903 & 0.9893 & 0.9881 & 0.9869 & 0.9856 & 0.9841 & 0.9826 & 0.9809 & 0.9790 & 0.9770 & 0.9748 & 0.9724 & 0.9696 & 0.9667 & 0.9634 & 0.9599 & 0.9558\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9908 & 0.9898 & 0.9888 & 0.9875 & 0.9863 & 0.9849 & 0.9834 & 0.9818 & 0.9800 & 0.9780 & 0.9759 & 0.9736 & 0.9710 & 0.9683 & 0.9650 & 0.9616 & 0.9578\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9912 & 0.9903 & 0.9892 & 0.9881 & 0.9869 & 0.9856 & 0.9842 & 0.9826 & 0.9809 & 0.9791 & 0.9771 & 0.9749 & 0.9723 & 0.9698 & 0.9667 & 0.9634 & 0.9597\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9916 & 0.9908 & 0.9898 & 0.9887 & 0.9876 & 0.9863 & 0.9849 & 0.9835 & 0.9819 & 0.9801 & 0.9782 & 0.9761 & 0.9737 & 0.9712 & 0.9683 & 0.9652 & 0.9616\end{array}$ $\begin{array}{llllllllllllllllllll}0.9921 & 0.9912 & 0.9903 & 0.9892 & 0.9882 & 0.9870 & 0.9856 & 0.9843 & 0.9828 & 0.9810 & 0.9793 & 0.9773 & 0.9750 & 0.9726 & 0.9698 & 0.9668 & 0.9634\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9925 & 0.9916 & 0.9908 & 0.9898 & 0.9888 & 0.9876 & 0.9863 & 0.9850 & 0.9836 & 0.9820 & 0.9803 & 0.9784 & 0.9763 & 0.9740 & 0.9712 & 0.9685 & 0.9652\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9929 & 0.9920 & 0.9912 & 0.9903 & 0.9893 & 0.9883 & 0.9871 & 0.9857 & 0.9844 & 0.9829 & 0.9813 & 0.9795 & 0.9774 & 0.9752 & 0.9727 & 0.9700 & 0.9669\end{array}$ $\begin{array}{llllllllllllllllllll}0.9932 & 0.9925 & 0.9917 & 0.9907 & 0.9899 & 0.9888 & 0.9877 & 0.9865 & 0.9852 & 0.9837 & 0.9823 & 0.9805 & 0.9786 & 0.9765 & 0.9741 & 0.9716 & 0.9685\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9936 & 0.9929 & 0.9921 & 0.9912 & 0.9904 & 0.9894 & 0.9883 & 0.9872 & 0.9859 & 0.9846 & 0.9832 & 0.9815 & 0.9797 & 0.9777 & 0.9754 & 0.9730 & 0.9702\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9939 & 0.9932 & 0.9925 & 0.9917 & 0.9908 & 0.9900 & 0.9889 & 0.9878 & 0.9867 & 0.9854 & 0.9840 & 0.9825 & 0.9807 & 0.9788 & 0.9767 & 0.9744 & 0.9718\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9943 & 0.9936 & 0.9929 & 0.9921 & 0.9913 & 0.9904 & 0.9895 & 0.9884 & 0.9873 & 0.9861 & 0.9848 & 0.9834 & 0.9817 & 0.9800 & 0.9779 & 0.9758 & 0.9732\end{array}$ $\begin{array}{llllllllllllllllllll}0.9945 & 0.9939 & 0.9932 & 0.9925 & 0.9918 & 0.9909 & 0.9900 & 0.9891 & 0.9880 & 0.9869 & 0.9857 & 0.9842 & 0.9827 & 0.9811 & 0.9791 & 0.9770 & 0.9746\end{array}$ $\begin{array}{llllllllllllllllllll}0.9948 & 0.9942 & 0.9936 & 0.9929 & 0.9922 & 0.9914 & 0.9905 & 0.9896 & 0.9886 & 0.9875 & 0.9864 & 0.9851 & 0.9836 & 0.9821 & 0.9802 & 0.9783 & 0.9760\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9951 & 0.9945 & 0.9940 & 0.9933 & 0.9927 & 0.9919 & 0.9910 & 0.9902 & 0.9892 & 0.9882 & 0.9871 & 0.9859 & 0.9845 & 0.9830 & 0.9813 & 0.9794 & 0.9773\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9954 & 0.9949 & 0.9943 & 0.9937 & 0.9930 & 0.9923 & 0.9915 & 0.9907 & 0.9898 & 0.9889 & 0.9878 & 0.9867 & 0.9853 & 0.9840 & 0.9823 & 0.9806 & 0.9786\end{array}$ $\begin{array}{llllllllllllllllllllllllllll}0.9957 & 0.9952 & 0.9946 & 0.9940 & 0.9934 & 0.9927 & 0.9920 & 0.9912 & 0.9904 & 0.9894 & 0.9885 & 0.9874 & 0.9861 & 0.9848 & 0.9838\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9959 & 0.9954 & 0.9949 & 0.9943 & 0.9938 & 0.9931 & 0.9924 & 0.9917 & 0.9909 & 0.9900 & 0.9891 & 0.9880 & 0.9869 & 0.9857 & 0.9842 & 0.9827 & 0.9809\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9961 & 0.9956 & 0.9952 & 0.9946 & 0.9941 & 0.9935 & 0.9928 & 0.9921 & 0.9913 & 0.9905 & 0.9897 & 0.9887 & 0.9876 & 0.9865 & 0.9851 & 0.9836 & 0.9820\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9964 & 0.9960 & 0.9955 & 0.9949 & 0.9944 & 0.9938 & 0.9932 & 0.9926 & 0.9918 & 0.9910 & 0.9903 & 0.9894 & 0.9883 & 0.9872 & 0.9859 & 0.9846 & 0.9830\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9965 & 0.9962 & 0.9958 & 0.9952 & 0.9948 & 0.9942 & 0.9936 & 0.9930 & 0.9923 & 0.9915 & 0.9908 & 0.9900 & 0.9889 & 0.9880 & 0.9867 & 0.9855 & 0.9840\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9968 & 0.9964 & 0.9960 & 0.9955 & 0.9951 & 0.9945 & 0.9939 & 0.9933 & 0.9927 & 0.9920 & 0.9913 & 0.9906 & 0.9896 & 0.9887 & 0.9875 & 0.9864 & 0.9849\end{array}$

## Sub appendix A. 3

Table D
50\% Joint and Survivor With Pop-Up CEI Participants

Age of Pensioner

| 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

$\begin{array}{lllllllllllllllllll}0.8822 & 0.8744 & 0.8658 & 0.8570 & 0.8475 & 0.8375 & 0.8271 & 0.8161 & 0.8046 & 0.7926 & 0.7800 & 0.7670 & 0.7535 & 0.7394 & 0.7248 & 0.7097 & 0.6942\end{array}$
 $\begin{array}{llllllllllllllllllllllll}0.8838 & 0.8760 & 0.8675 & 0.8586 & 0.8492 & 0.8393 & 0.8288 & 0.8178 & 0.8063 & 0.7943 & 0.7818 & 0.7688 & 0.7552 & 0.7411 & 0.7266 & 0.7114 & 0.6959\end{array}$ $\begin{array}{lllllllllllllllllllllllllll}0.8847 & 0.8768 & 0.8684 & 0.8595 & 0.8501 & 0.8401 & 0.8298 & 0.8187 & 0.8073 & 0.7952 & 0.7827 & 0.7697 & 0.7561 & 0.7421 & 0.7275 & 0.7124 & 0.6969\end{array}$ $\begin{array}{llllllllllllllllllll}0.8856 & 0.8777 & 0.8693 & 0.8605 & 0.8510 & 0.8412 & 0.8307 & 0.8197 & 0.8082 & 0.7962 & 0.7837 & 0.7707 & 0.7572 & 0.7431 & 0.7285 & 0.7133 & 0.6979\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.8866 & 0.8787 & 0.8703 & 0.8615 & 0.8521 & 0.8422 & 0.8318 & 0.8207 & 0.8093 & 0.7973 & 0.7847 & 0.7718 & 0.7583 & 0.7442 & 0.7295 & 0.7144 & 0.6989\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.8876 & 0.8798 & 0.8714 & 0.8625 & 0.8532 & 0.8432 & 0.8329 & 0.8219 & 0.8104 & 0.7984 & 0.7859 & 0.7729 & 0.7594 & 0.7453 & 0.7307 & 0.7156 & 0.7001\end{array}$ $\begin{array}{llllllllllllllllllllll}0.8887 & 0.8808 & 0.8725 & 0.8637 & 0.8543 & 0.8444 & 0.8340 & 0.8231 & 0.8116 & 0.7996 & 0.7871 & 0.7741 & 0.7606 & 0.7465 & 0.7319 & 0.7168 & 0.7013\end{array}$ $\begin{array}{llllllllllllllllllllll}0.8898 & 0.8820 & 0.8736 & 0.8648 & 0.8554 & 0.8456 & 0.8352 & 0.8243 & 0.8129 & 0.8008 & 0.7883 & 0.7754 & 0.7619 & 0.7478 & 0.7332 & 0.7180 & 0.7025\end{array}$ $\begin{array}{lllllllllllllllllllll}0.8910 & 0.8832 & 0.8749 & 0.8661 & 0.8567 & 0.8469 & 0.8365 & 0.8255 & 0.8142 & 0.8022 & 0.7897 & 0.7767 & 0.7632 & 0.7491 & 0.7346 & 0.7194 & 0.7039\end{array}$ $\begin{array}{lllllllllllllllllllll}0.8922 & 0.8844 & 0.8761 & 0.8674 & 0.8580 & 0.8482 & 0.8379 & 0.8269 & 0.8156 & 0.8036 & 0.7911 & 0.7782 & 0.7647 & 0.7506 & 0.7360 & 0.7208 & 0.7054\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.8934 & 0.8857 & 0.8775 & 0.8687 & 0.8594 & 0.8496 & 0.8393 & 0.8284 & 0.8170 & 0.8050 & 0.7926 & 0.7796 & 0.7662 & 0.7521 & 0.7375 & 0.7223 & 0.7069\end{array}$ $\begin{array}{llllllllllllllllllllll}0.8948 & 0.8871 & 0.8789 & 0.8701 & 0.8609 & 0.8511 & 0.8408 & 0.8299 & 0.8186 & 0.8066 & 0.7941 & 0.7812 & 0.7677 & 0.7537 & 0.7391 & 0.7240 & 0.7085\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.8962 & 0.8886 & 0.8803 & 0.8716 & 0.8624 & 0.8527 & 0.8424 & 0.8315 & 0.8202 & 0.8082 & 0.7958 & 0.7829 & 0.7694 & 0.7554 & 0.7408 & 0.7257 & 0.7102\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.8977 & 0.8901 & 0.8819 & 0.8732 & 0.8640 & 0.8543 & 0.8440 & 0.8332 & 0.8218 & 0.8099 & 0.7975 & 0.7846 & 0.7712 & 0.7571 & 0.7426 & 0.7274 & 0.7120\end{array}$ $\begin{array}{llllllllllllllllllllll}0.8992 & 0.8917 & 0.8835 & 0.8749 & 0.8657 & 0.8559 & 0.8458 & 0.8349 & 0.8237 & 0.8117 & 0.7994 & 0.7865 & 0.7731 & 0.7590 & 0.7445 & 0.7294 & 0.7139\end{array}$ $\begin{array}{llllllllllllllllllll}0.9008 & 0.8932 & 0.8852 & 0.8766 & 0.8675 & 0.8578 & 0.8476 & 0.8368 & 0.8256 & 0.8137 & 0.8013 & 0.7885 & 0.7750 & 0.7610 & 0.7465 & 0.7314 & 0.7159\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9024 & 0.8949 & 0.8869 & 0.8784 & 0.8693 & 0.8597 & 0.8495 & 0.8387 & 0.8275 & 0.8157 & 0.8033 & 0.7905 & 0.7771 & 0.7631 & 0.7486 & 0.7335 & 0.7180\end{array}$ $\begin{array}{lllllllllllllllllllllllllll}0.9042 & 0.8967 & 0.8887 & 0.8802 & 0.8712 & 0.8616 & 0.8515 & 0.8408 & 0.8296 & 0.8177 & 0.8055 & 0.7926 & 0.7793 & 0.7653 & 0.7508 & 0.7357 & 0.7203\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9060 & 0.8985 & 0.8906 & 0.8822 & 0.8732 & 0.8636 & 0.8536 & 0.8429 & 0.8317 & 0.8199 & 0.8077 & 0.7949 & 0.7815 & 0.7676 & 0.7531 & 0.7380 & 0.7226\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9078 & 0.9004 & 0.8925 & 0.8842 & 0.8752 & 0.8657 & 0.8557 & 0.8451 & 0.8340 & 0.8222 & 0.8100 & 0.7972 & 0.7839 & 0.7700 & 0.7556 & 0.7405 & 0.7251\end{array}$ $\begin{array}{llllllllllllllllllll}0.9097 & 0.9024 & 0.8946 & 0.8863 & 0.8774 & 0.8679 & 0.8579 & 0.8474 & 0.8364 & 0.8246 & 0.8124 & 0.7997 & 0.7864 & 0.7726 & 0.7581 & 0.7431 & 0.7276\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9116 & 0.9044 & 0.8966 & 0.8884 & 0.8796 & 0.8702 & 0.8603 & 0.8498 & 0.8387 & 0.8271 & 0.8150 & 0.8023 & 0.7891 & 0.7752 & 0.7608 & 0.7458 & 0.7304\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9136 & 0.9064 & 0.8988 & 0.8906 & 0.8819 & 0.8725 & 0.8628 & 0.8523 & 0.8413 & 0.8297 & 0.8176 & 0.8050 & 0.7918 & 0.7780 & 0.7636 & 0.7487 & 0.7333\end{array}$ $\begin{array}{llllllllllllllllllllllllllll}0.9156 & 0.9085 & 0.9010 & 0.8929 & 0.8842 & 0.8750 & 0.8653 & 0.8549 & 0.8440 & 0.8325 & 0.8204 & 0.8078 & 0.7947 & 0.7809 & 0.7666 & 0.7516 & 0.7363\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9177 & 0.9108 & 0.9033 & 0.8953 & 0.8867 & 0.8775 & 0.8679 & 0.8576 & 0.8467 & 0.8353 & 0.8233 & 0.8108 & 0.7977 & 0.7840 & 0.7697 & 0.7548 & 0.7394\end{array}$ $\begin{array}{llllllllllllllllllll}0.9199 & 0.9130 & 0.9056 & 0.8977 & 0.8892 & 0.8801 & 0.8706 & 0.8603 & 0.8496 & 0.8382 & 0.8263 & 0.8138 & 0.8008 & 0.7872 & 0.7729 & 0.7581 & 0.7428\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9220 & 0.9153 & 0.9080 & 0.9001 & 0.8918 & 0.8828 & 0.8733 & 0.8632 & 0.8525 & 0.8412 & 0.8294 & 0.8170 & 0.8041 & 0.7905 & 0.7763 & 0.7615 & 0.7463\end{array}$ $\begin{array}{lllllllllllllllllllllllllllll}0.9242 & 0.9176 & 0.9104 & 0.9027 & 0.8944 & 0.8855 & 0.8762 & 0.8662 & 0.8556 & 0.8444 & 0.8327 & 0.8204 & 0.8075 & 0.7940 & 0.7799 & 0.7650 & 0.7499\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9265 & 0.9199 & 0.9129 & 0.9053 & 0.8971 & 0.8884 & 0.8791 & 0.8692 & 0.8587 & 0.8476 & 0.8360 & 0.8238 & 0.8110 & 0.7976 & 0.7835 & 0.7688 & 0.7537\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9287 & 0.9224 & 0.9154 & 0.9079 & 0.8998 & 0.8912 & 0.8821 & 0.8724 & 0.8620 & 0.8510 & 0.8395 & 0.8274 & 0.8147 & 0.8013 & 0.7873 & 0.77276\end{array}$

## Sub appendix A. 3

Table D
50\% Joint and Survivor With Pop-Up CEI Participants

Age of Pensioner

| AGE OF BENEFICIARY | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

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0.93100 .92470 .91790 .91060 .90270 .89420 .88520 .87560 .86530 .85450 .84300 .83110 .81840 .80520 .79130 .77680 .7618 0.93330 .92720 .92040 .91330 .90550 .89720 .88830 .87880 .86870 .85790 .84670 .8348 0.8223 0.80920 .79550 .78100 .7661 0.93560 .92960 .92310 .91600 .90840 .90020 .89150 .88210 .87220 .86160 .85050 .83870 .82640 .81330 .79970 .78540 .7706 0.93790 .93200 .92560 .91880 .91130 .90330 .89480 .88550 .87580 .86530 .85440 .84280 .83050 .81760 .80410 .78990 .7752 0.94020 .93450 .92830 .92160 .91420 .90640 .89800 .88890 .87930 .86910 .85830 .84690 .83480 .82200 .80860 .79450 .7800 0.94240 .93690 .93090 .9244091720 .90950 .90130 .89240 .88300 .87290 .86220 .85100 .83910 .82650 .81330 .79930 .7849 $\begin{array}{llllllllllllllllllllll}0.9448 & 0.9394 & 0.9335 & 0.9272 & 0.9202 & 0.9127 & 0.9046 & 0.8959 & 0.8867 & 0.8768 & 0.8663 & 0.8552 & 0.8435 & 0.8311 & 0.8181 & 0.8042 & 0.7899\end{array}$ 0.94690 .94180 .93610 .92990 .92320 .91580 .90790 .89940 .89040 .88070 .87040 .85950 .84800 .83570 .82290 .80930 .7951 0.94920 .94420 .93860 .93260 .92610 .91890 .91130 .90300 .89410 .88460 .87450 .86380 .85250 .84050 .82780 .81430 .8004 $\begin{array}{lllllllllllllllllllllll}0.9513 & 0.9465 & 0.9412 & 0.9354 & 0.9289 & 0.9220 & 0.9146 & 0.9065 & 0.8978 & 0.8886 & 0.8787 & 0.8682 & 0.8572 & 0.8453 & 0.8328 & 0.8196 & 0.8058\end{array}$ 0.95350 .94890 .94370 .93810 .93180 .92510 .91790 .91010 .90160 .89250 .88290 .87260 .86180 .85010 .83790 .82480 .8113 0.95560 .95110 .94610 .94070 .93470 .92820 .92120 .91350 .90540 .89650 .88700 .87700 .86640 .85510 .84300 .83020 .8169 0.95770 .95330 .94850 .94330 .93750 .93120 .92440 .91700 .90910 .90040 .89120 .88140 .87110 .85990 .84810 .83550 .8225 0.95960 .95550 .95090 .94590 .94030 .93420 .92760 .92040 .91270 .90440 .89540 .88590 .87580 .86490 .85330 .84100 .8282 0.96150 .95760 .95320 .94830 .94300 .93710 .93070 .92380 .91630 .90820 .89950 .89020 .88040 .86970 .85850 .84640 .8339 0.96340 .95970 .95540 .95070 .94560 .93990 .93380 .92710 .91990 .91200 .90370 .89460 .88500 .87460 .86370 .85180 .8395 $\begin{array}{llllllllllllllllllllll}0.9653 & 0.9616 & 0.9576 & 0.9532 & 0.9482 & 0.9428 & 0.9368 & 0.9303 & 0.9234 & 0.9158 & 0.9076 & 0.8989 & 0.8896 & 0.8795 & 0.8688 & 0.8573 & 0.8453\end{array}$ 0.96700 .96360 .95970 .95550 .95070 .94550 .93980 .93360 .92690 .91950 .91160 .90320 .89410 .88430 .87390 .86270 .8510 0.96870 .96540 .96170 .95770 .95310 .94810 .94270 .93670 .93020 .92310 .91550 .90740 .89860 .88910 .87890 .86810 .8567 0.97040 .96720 .96370 .95980 .95550 .95070 .94550 .93970 .93350 .92670 .91930 .91150 .90300 .89380 .88400 .87340 .8623 0.97200 .96900 .96560 .96190 .95780 .95320 .94820 .94270 .93670 .93010 .92310 .91550 .90730 .89840 .88890 .87860 .8678 0.97350 .97060 .96740 .96390 .95990 .95550 .95080 .94550 .9398 0.9334 0.92670 .91940 .91150 .90290 .89370 .88370 .8733 0.97490 .97220 .96920 .96590 .96200 .95790 .95340 .94820 .94270 .93670 .93030 .92320 .91560 .90730 .89840 .88880 .8786 0.97620 .97380 .97080 .96760 .96410 .96010 .95570 .95100 .94570 .93990 .93370 .92690 .91960 .91160 .90310 .89370 .8840 0.97760 .97520 .97250 .96950 .96600 .96220 .95810 .95350 .94840 .94300 .93690 .93050 .92350 .91580 .90750 .89860 .8891 0.97880 .97660 .97400 .97110 .96790 .96420 .96040 .95590 .95120 .94590 .94020 .93400 .92720 .91990 .91200 .90330 .8941 0.98000 .97790 .97540 .97270 .96960 .96620 .96250 .95830 .9538 0.9487 0.94330 .93740 .93090 .92390 .91620 .90790 .8991 0.98120 .97910 .97680 .97430 .97140 .96820 .96470 .96060 .95630 .95150 .94630 .94060 .93450 .92780 .92040 .91240 .9039 0.98220 .98040 .97820 .97580 .97310 .97000 .96660 .96290 .95870 .95410 .94920 .94380 .93790 .93150 .92450 .91680 .9087


## Sub appendix A. 3

Table E
50\% Joint and Survivor Without Pop-Up CEI Participants

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |

0.99100 .99030 .98940 .98850 .98760 .98650 .98530 .98410 .98260 .98120 .97960 .97790 .97600 .97410 .97190 .96960 .9671 0.99120 .99050 .98970 .98870 .98780 .98680 .98560 .98440 .98300 .98160 .98010 .97830 .97650 .97460 .97240 .97010 .9676 0.99140 .99080 .98990 .98900 .98810 .98720 .98590 .98480 .98340 .98200 .98040 .97870 .97700 .97500 .97290 .97060 .9682 0.99170 .99100 .99020 .98930 .98850 .98740 .98630 .98520 .98380 .98250 .98100 .97930 .97750 .97550 .97350 .97120 .9688 0.99200 .99130 .99050 .98960 .98880 .98780 .98670 .98550 .98420 .98290 .98140 .97970 .97800 .97610 .97400 .97180 .9694 0.99220 .99150 .99080 .98990 .98920 .98820 .98700 .98600 .98460 .98340 .98180 .98020 .97850 .97660 .97460 .97240 .9700 0.99250 .99180 .99100 .99030 .98950 .98850 .98740 .98630 .98500 .98380 .98240 .98070 .97900 .97720 .97520 .97300 .9706 $\begin{array}{llllllllllllllllllllllllll}0.9927 & 0.9920 & 0.9913 & 0.9906 & 0.9898 & 0.9888 & 0.9878 & 0.9867 & 0.9855 & 0.9843 & 0.9828 & 0.9812 & 0.9795 & 0.9777 & 0.9758 & 0.9737 & 0.9713\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9929 & 0.9923 & 0.9916 & 0.9909 & 0.9901 & 0.9892 & 0.9881 & 0.9872 & 0.9859 & 0.9847 & 0.9833 & 0.9818 & 0.9801 & 0.9783 & 0.9764 & 0.9743 & 0.9720\end{array}$ 0.99310 .99250 .99190 .99120 .99040 .98960 .98850 .98750 .98630 .98510 .98380 .98230 .98070 .97890 .97700 .97490 .9727 0.99340 .99280 .99210 .99150 .99070 .98990 .98890 .98800 .98670 .98560 .98430 .9828 0.9812 0.97950 .97760 .97560 .9734 0.99360 .99300 .99240 .99180 .99110 .99020 .98930 .98830 .98720 .98610 .98480 .98330 .98180 .98010 .97830 .97630 .9741 0.99390 .99330 .99270 .99210 .99140 .99060 .98960 .98870 .98760 .98650 .98520 .9838 0.9824 0.98070 .97890 .97700 .9749 0.99410 .99360 .99300 .99230 .99170 .99090 .99000 .98910 .98810 .98700 .98580 .98440 .98300 .98130 .97960 .97770 .9755 0.99430 .99380 .99320 .99260 .99200 .99130 .99040 .98950 .98840 .98740 .98630 .98500 .98350 .98200 .98030 .97840 .9763 0.99450 .99400 .99350 .99290 .99230 .99160 .99070 .98990 .98890 .98790 .98670 .98550 .98410 .98260 .98090 .97910 .9770 0.99470 .99420 .99380 .99320 .99260 .99190 .99110 .99030 .98930 .98840 .98720 .9860 0.9847 0.98320 .98160 .97980 .9779 $\begin{array}{llllllllllllllllllllll}0.9949 & 0.9944 & 0.9940 & 0.9935 & 0.9929 & 0.9922 & 0.9915 & 0.9907 & 0.9897 & 0.9889 & 0.9877 & 0.9865 & 0.9852 & 0.9838 & 0.9822 & 0.9805 & 0.9786\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9951 & 0.9947 & 0.9942 & 0.9937 & 0.9931 & 0.9925 & 0.9918 & 0.9911 & 0.9902 & 0.9892 & 0.9882 & 0.9870 & 0.9858 & 0.9845 & 0.9829 & 0.9812 & 0.9794\end{array}$ 0.99530 .99490 .99440 .99400 .99340 .99280 .99210 .99140 .99050 .98970 .98870 .98760 .98630 .98510 .98360 .98190 .9801 0.99550 .99510 .99470 .99420 .99370 .99310 .99240 .99180 .99090 .99010 .98910 .98810 .98690 .98570 .98420 .98260 .9809 0.99570 .99530 .99490 .99440 .99400 .99340 .99280 .99210 .99130 .99060 .98960 .98850 .98740 .98620 .98480 .98330 .9816 0.99590 .99550 .99520 .99470 .99430 .99370 .99310 .99250 .99170 .99090 .99010 .98910 .98800 .98680 .98550 .98400 .9824 0.99610 .99570 .99530 .99490 .99460 .99400 .99340 .99280 .99210 .99140 .99050 .98950 .98850 .98740 .98610 .98470 .9831 0.99620 .99590 .99550 .99520 .99480 .99430 .99370 .99320 .99250 .99180 .99090 .99000 .98900 .98790 .98670 .98540 .9838 0.99640 .99610 .99580 .99540 .99500 .99450 .99400 .99350 .99280 .99210 .99140 .99050 .98960 .98850 .98730 .98600 .9845 0.99660 .99630 .99600 .99560 .99530 .99480 .99430 .99380 .99310 .99250 .99170 .99090 .99000 .98910 .98790 .98670 .9853 0.99670 .99640 .99610 .99580 .99550 .99510 .99460 .99410 .99340 .99290 .99220 .99140 .99050 .98960 .98850 .98730 .9860 0.99690 .99670 .99640 .99600 .99570 .99540 .99480 .99440 .99380 .99330 .99260 .9918 0.9910 0.99010 .98910 .98800 .9867 $0.9970 \quad 0.9968 \quad 0.99650 .99620 .9960$ 0.9956 0.99510 .99470 .99410 .99360 .99290 .99220 .99140 .99060 .98960 .98850 .9873 0.99720 .99700 .99670 .99640 .99620 .99580 .99530 .99500 .99440 .99390 .99330 .99260 .99190 .99110 .99010 .98910 .9880

## Sub appendix A. 3

Table E
50\% Joint and Survivor Without Pop-Up CEI Participants

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 |
| 56 | 0.9973 | 0.9971 | 0.9969 | 0.9966 | 0.9963 | 0.9960 | 0.9956 | 0.9953 | 0.9947 | 0.9942 | 0.9937 | 0.9930 | 0.9924 | 0.9916 | 0.9907 | 0.9897 | 0.9886 |
| 57 | 0.9975 | 0.9973 | 0.9970 | 0.9968 | 0.9966 | 0.9963 | 0.9959 | 0.9955 | 0.9950 | 0.9946 | 0.9940 | 0.9934 | 0.9927 | 0.9920 | 0.9912 | 0.9902 | 0.9892 |
| 58 | 0.9976 | 0.9974 | 0.9972 | 0.9969 | 0.9968 | 0.9965 | 0.9961 | 0.9958 | 0.9953 | 0.9949 | 0.9944 | 0.9937 | 0.9931 | 0.9925 | 0.9917 | 0.9908 | 0.9898 |
| 59 | 0.9977 | 0.9975 | 0.9974 | 0.9971 | 0.9969 | 0.9966 | 0.9963 | 0.9960 | 0.9955 | 0.9952 | 0.9947 | 0.9941 | 0.9936 | 0.9929 | 0.9922 | 0.9913 | 0.9903 |
| 60 | 0.9978 | 0.9977 | 0.9975 | 0.9973 | 0.9971 | 0.9969 | 0.9965 | 0.9962 | 0.9958 | 0.9955 | 0.9950 | 0.9945 | 0.9939 | 0.9933 | 0.9927 | 0.9919 | 0.9910 |
| 61 | 0.9980 | 0.9978 | 0.9976 | 0.9975 | 0.9973 | 0.9971 | 0.9967 | 0.9965 | 0.9961 | 0.9958 | 0.9954 | 0.9948 | 0.9943 | 0.9938 | 0.9931 | 0.9923 | 0.9915 |
| 62 | 0.9981 | 0.9980 | 0.9978 | 0.9976 | 0.9975 | 0.9972 | 0.9969 | 0.9967 | 0.9963 | 0.9961 | 0.9956 | 0.9952 | 0.9946 | 0.9942 | 0.9935 | 0.9928 | 0.9920 |
| 63 | 0.9982 | 0.9981 | 0.9979 | 0.9978 | 0.9976 | 0.9974 | 0.9971 | 0.9969 | 0.9965 | 0.9963 | 0.9959 | 0.9955 | 0.9950 | 0.9945 | 0.9940 | 0.9932 | 0.9925 |
| 64 | 0.9983 | 0.9982 | 0.9981 | 0.9979 | 0.9978 | 0.9976 | 0.9973 | 0.9971 | 0.9967 | 0.9965 | 0.9962 | 0.9958 | 0.9953 | 0.9948 | 0.9944 | 0.9937 | 0.9930 |
| 65 | 0.9984 | 0.9983 | 0.9982 | 0.9981 | 0.9979 | 0.9977 | 0.9975 | 0.9973 | 0.9970 | 0.9967 | 0.9964 | 0.9960 | 0.9956 | 0.9952 | 0.9947 | 0.9942 | 0.9934 |
| 66 | 0.9985 | 0.9984 | 0.9983 | 0.9981 | 0.9981 | 0.9979 | 0.9977 | 0.9975 | 0.9972 | 0.9970 | 0.9966 | 0.9963 | 0.9959 | 0.9955 | 0.9951 | 0.9946 | 0.9939 |
| 67 | 0.9986 | 0.9985 | 0.9984 | 0.9983 | 0.9982 | 0.9980 | 0.9978 | 0.9977 | 0.9973 | 0.9972 | 0.9970 | 0.9966 | 0.9962 | 0.9958 | 0.9954 | 0.9949 | 0.9944 |
| 68 | 0.9987 | 0.9987 | 0.9985 | 0.9984 | 0.9984 | 0.9982 | 0.9980 | 0.9978 | 0.9976 | 0.9974 | 0.9971 | 0.9969 | 0.9965 | 0.9961 | 0.9957 | 0.9953 | 0.9948 |
| 69 | 0.9988 | 0.9987 | 0.9987 | 0.9985 | 0.9984 | 0.9983 | 0.9981 | 0.9980 | 0.9977 | 0.9976 | 0.9973 | 0.9971 | 0.9968 | 0.9965 | 0.9960 | 0.9956 | 0.9952 |
| 70 | 0.9989 | 0.9988 | 0.9987 | 0.9986 | 0.9986 | 0.9984 | 0.9983 | 0.9981 | 0.9979 | 0.9978 | 0.9976 | 0.9973 | 0.9970 | 0.9968 | 0.9964 | 0.9960 | 0.9955 |
| 71 | 0.9990 | 0.9989 | 0.9988 | 0.9987 | 0.9987 | 0.9986 | 0.9984 | 0.9983 | 0.9981 | 0.9979 | 0.9977 | 0.9975 | 0.9972 | 0.9970 | 0.9967 | 0.9963 | 0.9959 |
| 72 | 0.9990 | 0.9990 | 0.9989 | 0.9988 | 0.9988 | 0.9986 | 0.9985 | 0.9984 | 0.9983 | 0.9981 | 0.9979 | 0.9977 | 0.9975 | 0.9972 | 0.9969 | 0.9966 | 0.9962 |
| 73 | 0.9991 | 0.9990 | 0.9990 | 0.9989 | 0.9989 | 0.9988 | 0.9986 | 0.9986 | 0.9983 | 0.9983 | 0.9981 | 0.9979 | 0.9977 | 0.9975 | 0.9972 | 0.9969 | 0.9965 |
| 74 | 0.9992 | 0.9991 | 0.9990 | 0.9990 | 0.9990 | 0.9989 | 0.9987 | 0.9986 | 0.9985 | 0.9984 | 0.9982 | 0.9981 | 0.9978 | 0.9977 | 0.9974 | 0.9971 | 0.9968 |
| 75 | 0.9993 | 0.9992 | 0.9991 | 0.9990 | 0.9990 | 0.9989 | 0.9989 | 0.9988 | 0.9986 | 0.9986 | 0.9984 | 0.9982 | 0.9981 | 0.9978 | 0.9977 | 0.9973 | 0.9970 |
| 76 | 0.9993 | 0.9993 | 0.9992 | 0.9991 | 0.9991 | 0.9991 | 0.9989 | 0.9989 | 0.9987 | 0.9987 | 0.9985 | 0.9984 | 0.9982 | 0.9981 | 0.9978 | 0.9976 | 0.9973 |
| 77 | 0.9993 | 0.9993 | 0.9993 | 0.9992 | 0.9992 | 0.9992 | 0.9990 | 0.9990 | 0.9989 | 0.9988 | 0.9987 | 0.9985 | 0.9984 | 0.9982 | 0.9981 | 0.9978 | 0.9976 |
| 78 | 0.9994 | 0.9994 | 0.9993 | 0.9993 | 0.9993 | 0.9992 | 0.9991 | 0.9991 | 0.9989 | 0.9989 | 0.9988 | 0.9986 | 0.9985 | 0.9984 | 0.9982 | 0.9980 | 0.9977 |
| 79 | 0.9995 | 0.9994 | 0.9994 | 0.9993 | 0.9993 | 0.9993 | 0.9992 | 0.9992 | 0.9990 | 0.9990 | 0.9989 | 0.9988 | 0.9986 | 0.9985 | 0.9984 | 0.9982 | 0.9980 |
| 80 | 0.9995 | 0.9995 | 0.9994 | 0.9994 | 0.9994 | 0.9993 | 0.9992 | 0.9992 | 0.9991 | 0.9991 | 0.9990 | 0.9989 | 0.9988 | 0.9987 | 0.9985 | 0.9984 | 0.9981 |
| 81 | 0.9996 | 0.9996 | 0.9995 | 0.9994 | 0.9995 | 0.9994 | 0.9993 | 0.9993 | 0.9992 | 0.9992 | 0.9991 | 0.9990 | 0.9988 | 0.9988 | 0.9987 | 0.9985 | 0.9983 |
| 82 | 0.9996 | 0.9996 | 0.9996 | 0.9995 | 0.9995 | 0.9995 | 0.9994 | 0.9994 | 0.9992 | 0.9992 | 0.9992 | 0.9991 | 0.9990 | 0.9989 | 0.9988 | 0.9987 | 0.9985 |
| 83 | 0.9996 | 0.9996 | 0.9996 | 0.9996 | 0.9995 | 0.9995 | 0.9994 | 0.9995 | 0.9993 | 0.9993 | 0.9992 | 0.9992 | 0.9991 | 0.9990 | 0.9989 | 0.9988 | 0.9986 |
| 84 | 0.9996 | 0.9996 | 0.9996 | 0.9996 | 0.9996 | 0.9995 | 0.9995 | 0.9995 | 0.9994 | 0.9994 | 0.9993 | 0.9992 | 0.9992 | 0.9991 | 0.9990 | 0.9989 | 0.9987 |
| 85 | 0.9997 | 0.9996 | 0.9996 | 0.9996 | 0.9996 | 0.9996 | 0.9995 | 0.9995 | .9995 | 0.9995 | 0.9994 | 0.9993 | 0.9992 | 0.9992 | 0.9991 | 0.9990 | 0.9989 |

## Sub appendix A. 3

Table E
50\% Joint and Survivor Without Pop-Up CEI Participants

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 42 | 43 | 44 | 45 | 45 | 47 | 418 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 |

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0.96450 .96160 .95860 .95530 .95190 .94830 .94440 .94030 .93600 .93140 .92660 .92150 .91590 .91010 .90390 .89740 .8903 0.96510 .96220 .95920 .95590 .95260 .94900 .94510 .94110 .93670 .93210 .92740 .92220 .91670 .91090 .90470 .89820 .8912 0.96570 .96280 .95980 .95660 .95330 .94970 .94580 .94170 .93740 .93290 .92810 .92300 .91750 .91170 .90550 .89900 .8920 0.96620 .96350 .96050 .95730 .95390 .95040 .94650 .94250 .93830 .93370 .92890 .92380 .91840 .91260 .90640 .89990 .8929 0.96690 .96410 .96110 .95800 .95470 .95110 .94730 .94330 .93910 .93450 .92980 .92470 .91920 .91350 .90730 .90080 .8939 $\begin{array}{lllllllllllllllllllllll}0.9675 & 0.9648 & 0.9619 & 0.9587 & 0.9554 & 0.9519 & 0.9481 & 0.9442 & 0.9399 & 0.9354 & 0.9307 & 0.9256 & 0.9201 & 0.9145 & 0.9083 & 0.9018 & 0.8949\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9682 & 0.9654 & 0.9626 & 0.9595 & 0.9562 & 0.9527 & 0.9490 & 0.9450 & 0.9408 & 0.9363 & 0.9316 & 0.9266 & 0.9212 & 0.9154 & 0.9093 & 0.9029 & 0.8959\end{array}$ 0.96890 .96620 .96340 .96020 .95700 .95350 .94980 .94590 .94170 .93730 .93260 .92760 .92220 .91660 .91040 .90400 .8971 0.96960 .96690 .96410 .96100 .95790 .95440 .95070 .94680 .94260 .93830 .93360 .92870 .92330 .91760 .91150 .90510 .8982 0.97030 .96770 .96490 .96190 .95870 .95530 .95170 .94780 .94370 .93930 .93470 .92970 .92440 .91880 .91270 .90630 .8995 $\begin{array}{lllllllllllllllllllllllll}0.9711 & 0.9685 & 0.9658 & 0.9628 & 0.9596 & 0.9563 & 0.9526 & 0.9488 & 0.9447 & 0.9404 & 0.9358 & 0.9309 & 0.9256 & 0.9200 & 0.9140 & 0.9077 & 0.9008\end{array}$ 0.97180 .96930 .96660 .96360 .96050 .95720 .95360 .94980 .94580 .94150 .93700 .93210 .9268 0.9213 0.91530 .90890 .9021 0.97260 .97010 .96740 .96450 .96150 .95820 .95460 .95090 .94690 .94260 .93820 .93330 .92800 .92260 .91660 .91040 .9036 0.97340 .97100 .96830 .96550 .96240 .95920 .95570 .95200 .94810 .94390 .93940 .93460 .92940 .92400 .91810 .91180 .9051 0.97420 .97180 .96920 .96640 .96350 .96030 .9568 0.9531 0.94920 .94510 .94070 .93600 .93080 .92540 .91950 .91330 .9067 0.97500 .97260 .97010 .96730 .96450 .96130 .95790 .95440 .95050 .94640 .94200 .93730 .93220 .92690 .92110 .91490 .9083 0.97580 .97350 .97100 .96830 .96550 .96240 .95910 .95560 .95170 .94770 .94340 .9388 0.9337 0.92850 .92270 .91660 .9100 0.97660 .97440 .97190 .96930 .96650 .96350 .96020 .95680 .95300 .94910 .9448 0.9402 0.93530 .93010 .92430 .91830 .9118 $\begin{array}{llllllllllllllllllllllllll}0.9774 & 0.9753 & 0.9729 & 0.9703 & 0.9676 & 0.9646 & 0.9614 & 0.9580 & 0.9543 & 0.9505 & 0.9463 & 0.9417 & 0.9369 & 0.9317 & 0.9261 & 0.9200 & 0.9136\end{array}$ 0.97830 .97610 .97380 .97130 .96860 .96580 .96260 .95930 .95570 .95180 .94780 .94330 .93850 .93340 .92780 .92190 .9155 0.97900 .97700 .97480 .97230 .96970 .96690 .96380 .96060 .95710 .95330 .94930 .94490 .94010 .93520 .92960 .92380 .9175 0.97990 .97780 .97570 .97330 .97080 .96810 .96510 .96190 .95840 .95480 .95080 .94650 .94180 .93690 .93150 .92580 .9195 0.98070 .97870 .97660 .97430 .97190 .96920 .96630 .96320 .95990 .95620 .95240 .94820 .94360 .93870 .93340 .92770 .9216 0.98150 .97960 .97750 .97530 .97300 .97040 .96750 .96450 .96130 .95770 .95390 .94990 .94530 .94060 .93540 .92970 .9237 0.98230 .98040 .97850 .97630 .97410 .97150 .96880 .96590 .96270 .95930 .95560 .95160 .94710 .94250 .93740 .93190 .9259 0.98310 .98130 .97940 .97730 .97510 .97270 .97000 .96720 .96410 .96080 .95720 .95320 .94890 .94440 .93940 .93400 .9282 0.98380 .98210 .98030 .97830 .97610 .97390 .97120 .96850 .96550 .96220 .9588 0.9550 0.95080 .94640 .94150 .93620 .9305 0.98460 .98300 .98120 .97920 .97720 .97500 .97250 .96980 .96700 .96380 .96050 .95670 .95270 .94830 .94350 .93840 .9328 0.98530 .98380 .98210 .98020 .97820 .97610 .97370 .97120 .96840 .96530 .96200 .95850 .95460 .95030 .94560 .94060 .9351 $\begin{array}{llllllllllllllllllllllllll}0.9860 & 0.9846 & 0.9830 & 0.9812 & 0.9793 & 0.9772 & 0.9749 & 0.9724 & 0.9698 & 0.9668 & 0.9637 & 0.9602 & 0.9564 & 0.9523 & 0.9478 & 0.9429 & 0.9376\end{array}$ 0.98670 .98530 .98390 .98210 .98030 .97830 .97610 .97380 .97110 .96830 .96530 .96200 .95820 .95440 .94990 .94520 .9400

## Sub appendix A. 3

Table E
50\% Joint and Survivor Without Pop-Up CEI Participants

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 42 | 43 | 44 | 45 | 45 | 47 | 418 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 |
| 56 | 0.9874 | 0.9861 | 0.9846 | 0.9830 | 0.9813 | 0.9794 | 0.9773 | 0.9750 | 0.9726 | 0.9698 | 0.9670 | 0.9637 | 0.9602 | 0.9563 | 0.9521 | 0.9475 | 0.9424 |
| 57 | 0.9881 | 0.9868 | 0.9855 | 0.9839 | 0.9823 | 0.9804 | 0.9785 | 0.9763 | 0.9739 | 0.9714 | 0.9686 | 0.9654 | 0.9620 | 0.9583 | 0.9542 | 0.9498 | 0.9449 |
| 58 | 0.9887 | 0.9876 | 0.9863 | 0.9848 | 0.9832 | 0.9815 | 0.9796 | 0.9775 | 0.9753 | 0.9728 | 0.9701 | 0.9672 | 0.9638 | 0.9604 | 0.9563 | 0.9521 | 0.9473 |
| 59 | 0.9894 | 0.9883 | 0.9870 | 0.9856 | 0.9842 | 0.9825 | 0.9807 | 0.9788 | 0.9766 | 0.9742 | 0.9717 | 0.9689 | 0.9657 | 0.9623 | 0.9585 | 0.9544 | 0.9498 |
| 60 | 0.9901 | 0.9890 | 0.9877 | 0.9864 | 0.9850 | 0.9835 | 0.9818 | 0.9799 | 0.9778 | 0.9756 | 0.9733 | 0.9705 | 0.9675 | 0.9643 | 0.9606 | 0.9567 | 0.9523 |
| 61 | 0.9906 | 0.9896 | 0.9885 | 0.9872 | 0.9859 | 0.9845 | 0.9828 | 0.9811 | 0.9791 | 0.9770 | 0.9747 | 0.9722 | 0.9693 | 0.9662 | 0.9627 | 0.9589 | 0.9547 |
| 62 | 0.9912 | 0.9902 | 0.9892 | 0.9880 | 0.9868 | 0.9854 | 0.9839 | 0.9822 | 0.9803 | 0.9784 | 0.9762 | 0.9738 | 0.9710 | 0.9681 | 0.9648 | 0.9612 | 0.9572 |
| 63 | 0.9918 | 0.9909 | 0.9899 | 0.9888 | 0.9876 | 0.9863 | 0.9848 | 0.9833 | 0.9815 | 0.9797 | 0.9777 | 0.9754 | 0.9728 | 0.9699 | 0.9668 | 0.9634 | 0.9595 |
| 64 | 0.9923 | 0.9915 | 0.9906 | 0.9895 | 0.9884 | 0.9872 | 0.9858 | 0.9844 | 0.9827 | 0.9810 | 0.9790 | 0.9768 | 0.9744 | 0.9718 | 0.9688 | 0.9655 | 0.9618 |
| 65 | 0.9929 | 0.9920 | 0.9912 | 0.9902 | 0.9892 | 0.9880 | 0.9867 | 0.9853 | 0.9838 | 0.9822 | 0.9804 | 0.9783 | 0.9760 | 0.9735 | 0.9707 | 0.9676 | 0.9642 |
| 66 | 0.9933 | 0.9926 | 0.9917 | 0.9908 | 0.9899 | 0.9888 | 0.9876 | 0.9863 | 0.9849 | 0.9833 | 0.9817 | 0.9797 | 0.9776 | 0.9753 | 0.9726 | 0.9697 | 0.9664 |
| 67 | 0.9938 | 0.9931 | 0.9924 | 0.9914 | 0.9906 | 0.9896 | 0.9884 | 0.9873 | 0.9859 | 0.9845 | 0.9829 | 0.9812 | 0.9791 | 0.9769 | 0.9744 | 0.9716 | 0.9685 |
| 68 | 0.9943 | 0.9936 | 0.9928 | 0.9921 | 0.9912 | 0.9904 | 0.9892 | 0.9882 | 0.9869 | 0.9856 | 0.9841 | 0.9824 | 0.9805 | 0.9785 | 0.9761 | 0.9736 | 0.9706 |
| 69 | 0.9947 | 0.9941 | 0.9934 | 0.9926 | 0.9919 | 0.9910 | 0.9900 | 0.9890 | 0.9878 | 0.9866 | 0.9852 | 0.9837 | 0.9819 | 0.9800 | 0.9778 | 0.9754 | 0.9727 |
| 70 | 0.9950 | 0.9945 | 0.9939 | 0.9932 | 0.9925 | 0.9917 | 0.9908 | 0.9898 | 0.9887 | 0.9875 | 0.9863 | 0.9849 | 0.9832 | 0.9815 | 0.9794 | 0.9772 | 0.9746 |
| 71 | 0.9954 | 0.9949 | 0.9943 | 0.9937 | 0.9931 | 0.9923 | 0.9915 | 0.9906 | 0.9896 | 0.9885 | 0.9873 | 0.9860 | 0.9845 | 0.9829 | 0.9809 | 0.9789 | 0.9765 |
| 72 | 0.9958 | 0.9953 | 0.9948 | 0.9942 | 0.9936 | 0.9929 | 0.9921 | 0.9913 | 0.9904 | 0.9894 | 0.9883 | 0.9871 | 0.9857 | 0.9841 | 0.9824 | 0.9805 | 0.9783 |
| 73 | 0.9961 | 0.9957 | 0.9952 | 0.9946 | 0.9941 | 0.9935 | 0.9927 | 0.9920 | 0.9912 | 0.9902 | 0.9892 | 0.9881 | 0.9868 | 0.9854 | 0.9838 | 0.9820 | 0.9799 |
| 74 | 0.9965 | 0.9960 | 0.9956 | 0.9951 | 0.9946 | 0.9940 | 0.9933 | 0.9927 | 0.9918 | 0.9910 | 0.9901 | 0.9890 | 0.9878 | 0.9866 | 0.9851 | 0.9835 | 0.9815 |
| 75 | 0.9968 | 0.9964 | 0.9960 | 0.9955 | 0.9951 | 0.9945 | 0.9939 | 0.9932 | 0.9925 | 0.9918 | 0.9909 | 0.9900 | 0.9888 | 0.9877 | 0.9863 | 0.9848 | 0.9830 |
| 76 | 0.9971 | 0.9967 | 0.9963 | 0.9958 | 0.9955 | 0.9950 | 0.9943 | 0.9938 | 0.9932 | 0.9924 | 0.9917 | 0.9908 | 0.9898 | 0.9887 | 0.9874 | 0.9861 | 0.9845 |
| 77 | 0.9973 | 0.9970 | 0.9966 | 0.9962 | 0.9959 | 0.9954 | 0.9948 | 0.9943 | 0.9937 | 0.9931 | 0.9924 | 0.9916 | 0.9906 | 0.9897 | 0.9886 | 0.9873 | 0.9858 |
| 78 | 0.9976 | 0.9972 | 0.9970 | 0.9965 | 0.9962 | 0.9958 | 0.9953 | 0.9948 | 0.9942 | 0.9937 | 0.9930 | 0.9924 | 0.9915 | 0.9906 | 0.9895 | 0.9884 | 0.9871 |
| 79 | 0.9978 | 0.9975 | 0.9972 | 0.9969 | 0.9965 | 0.9962 | 0.9957 | 0.9953 | 0.9947 | 0.9943 | 0.9937 | 0.9930 | 0.9922 | 0.9915 | 0.9905 | 0.9894 | 0.9881 |
| 80 | 0.9979 | 0.9977 | 0.9974 | 0.9971 | 0.9968 | 0.9965 | 0.9961 | 0.9957 | 0.9952 | 0.9948 | 0.9942 | 0.9936 | 0.9929 | 0.9922 | 0.9913 | 0.9904 | 0.9892 |
| 81 | 0.9982 | 0.9979 | 0.9977 | 0.9974 | 0.9972 | 0.9968 | 0.9965 | 0.9961 | 0.9957 | 0.9952 | 0.9948 | 0.9942 | 0.9936 | 0.9930 | 0.9921 | 0.9913 | 0.9902 |
| 82 | 0.9983 | 0.9982 | 0.9979 | 0.9976 | 0.9974 | 0.9971 | 0.9968 | 0.9964 | 0.9961 | 0.9957 | 0.9952 | 0.9948 | 0.9942 | 0.9936 | 0.9928 | 0.9921 | 0.9911 |
| 83 | 0.9985 | 0.9983 | 0.9982 | 0.9978 | 0.9977 | 0.9974 | 0.9970 | 0.9968 | 0.9964 | 0.9960 | 0.9957 | 0.9953 | 0.9947 | 0.9942 | 0.9935 | 0.9928 | 0.9919 |
| 84 | 0.9987 | 0.9985 | 0.9983 | 0.9981 | 0.9979 | 0.9976 | 0.9974 | 0.9971 | 0.9967 | 0.9965 | 0.9961 | 0.9957 | 0.9952 | 0.9947 | 0.9941 | 0.9935 | 0.9928 |
| 85 | 0.9988 | 0.9986 | 0.9985 | 0.9982 | 0.9981 | 0.9979 | 0.9976 | 0.9973 | 0.9971 | 0.9968 | 0.9965 | 0.9961 | 0.9956 | 0.9952 | 0.9946 | 0.9941 | 0.9935 |

## Sub appendix A. 3

Table E
50\% Joint and Survivor Without Pop-Up CEI Participants

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 42 | 43 | 44 | 45 | 45 | 47 | 418 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 |

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$\begin{array}{llllllllllllllllllll}0.8828 & 0.8749 & 0.8665 & 0.8576 & 0.8481 & 0.8382 & 0.8277 & 0.8167 & 0.8052 & 0.7932 & 0.7806 & 0.7676 & 0.7541 & 0.7400 & 0.7254 & 0.7102 & 0.6948\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.8837 & 0.8757 & 0.8673 & 0.8584 & 0.8490 & 0.8391 & 0.8286 & 0.8176 & 0.8062 & 0.7940 & 0.7815 & 0.7685 & 0.7550 & 0.7409 & 0.7263 & 0.7111 & 0.6957\end{array}$ 0.88450 .87660 .86820 .85940 .84990 .83990 .82950 .81850 .80710 .79500 .78250 .76950 .75590 .74180 .72730 .71210 .6966 $\begin{array}{llllllllllllllllllllllllllllll}0.8854 & 0.8776 & 0.8691 & 0.8603 & 0.8508 & 0.8409 & 0.8305 & 0.8195 & 0.8080 & 0.7960 & 0.7835 & 0.7704 & 0.7569 & 0.7428 & 0.7282 & 0.7130 & 0.6975\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.8864 & 0.8785 & 0.8702 & 0.8613 & 0.8519 & 0.8420 & 0.8316 & 0.8205 & 0.8091 & 0.7970 & 0.7845 & 0.7715 & 0.7580 & 0.7439 & 0.7293 & 0.7141 & 0.6986\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.8874 & 0.8796 & 0.8712 & 0.8624 & 0.8529 & 0.8430 & 0.8327 & 0.8217 & 0.8102 & 0.7982 & 0.7857 & 0.7726 & 0.7591 & 0.7450 & 0.7304 & 0.7152 & 0.6997\end{array}$ $\begin{array}{llllllllllllllllllllllllllll}0.8885 & 0.8807 & 0.8723 & 0.8635 & 0.8541 & 0.8442 & 0.8338 & 0.8228 & 0.8114 & 0.7994 & 0.7869 & 0.7739 & 0.7603 & 0.7462 & 0.7316 & 0.7165\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.8896 & 0.8818 & 0.8735 & 0.8647 & 0.8553 & 0.8454 & 0.8351 & 0.8241 & 0.8126 & 0.8007 & 0.7881 & 0.7751 & 0.7616 & 0.7475 & 0.7329 & 0.7177 & 0.7023\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.8908 & 0.8830 & 0.8747 & 0.8660 & 0.8566 & 0.8467 & 0.8364 & 0.8254 & 0.8140 & 0.8020 & 0.7895 & 0.7765 & 0.7629 & 0.7489 & 0.7343 & 0.7191 & 0.7036\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.8921 & 0.8844 & 0.8761 & 0.8673 & 0.8580 & 0.8481 & 0.8377 & 0.8268 & 0.8154 & 0.8034 & 0.7909 & 0.7779 & 0.7644 & 0.7503 & 0.7357 & 0.7205 & 0.7050\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.8934 & 0.8857 & 0.8774 & 0.8687 & 0.8594 & 0.8495 & 0.8392 & 0.8283 & 0.8169 & 0.8049 & 0.7925 & 0.7795 & 0.7659 & 0.7519 & 0.7373 & 0.7221 & 0.7066\end{array}$ $\begin{array}{llllllllllllllllllllll}0.8949 & 0.8871 & 0.8789 & 0.8701 & 0.8609 & 0.8511 & 0.8407 & 0.8299 & 0.8185 & 0.8065 & 0.7941 & 0.7811 & 0.7676 & 0.7535 & 0.7389 & 0.7238 & 0.7082\end{array}$ $\begin{array}{lllllllllllllllllllllllllll}0.8963 & 0.8886 & 0.8804 & 0.8717 & 0.8624 & 0.8527 & 0.8424 & 0.8315 & 0.8201 & 0.8082 & 0.7957 & 0.7828 & 0.7693 & 0.7553 & 0.7406 & 0.7254 & 0.7099\end{array}$ $\begin{array}{llllllllllllllllllllll}0.8979 & 0.8902 & 0.8820 & 0.8734 & 0.8642 & 0.8544 & 0.8441 & 0.8332 & 0.8219 & 0.8099 & 0.7975 & 0.7846 & 0.7711 & 0.7571 & 0.7425 & 0.7273 & 0.7118\end{array}$ $\begin{array}{llllllllllllllllllllllllllll}0.8995 & 0.8918 & 0.8837 & 0.8751 & 0.8659 & 0.8562 & 0.8459 & 0.8351 & 0.8238 & 0.8119 & 0.7994 & 0.7865 & 0.7731 & 0.7590 & 0.7444 & 0.7292 & 0.7137\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9011 & 0.8936 & 0.8855 & 0.8768 & 0.8677 & 0.8580 & 0.8479 & 0.8371 & 0.8257 & 0.8138 & 0.8014 & 0.7885 & 0.7751 & 0.7611 & 0.7465 & 0.7313 & 0.7158\end{array}$ $\begin{array}{lllllllllllllllllllll}0.9029 & 0.8954 & 0.8873 & 0.8788 & 0.8697 & 0.8600 & 0.8498 & 0.8391 & 0.8278 & 0.8159 & 0.8036 & 0.7907 & 0.7773 & 0.7633 & 0.7487 & 0.7336 & 0.7180\end{array}$ $\begin{array}{llllllllllllllllllllllllllll}0.9047 & 0.8972 & 0.8893 & 0.8807 & 0.8717 & 0.8621 & 0.8520 & 0.8412 & 0.8300 & 0.8182 & 0.8058 & 0.7930 & 0.7796 & 0.7656 & 0.7510 & 0.7359 & 0.7204\end{array}$ $\begin{array}{llllllllllllllllllllllll}0.9067 & 0.8992 & 0.8913 & 0.8828 & 0.8738 & 0.8642 & 0.8542 & 0.8435 & 0.8323 & 0.8205 & 0.8082 & 0.7953 & 0.7820 & 0.7680 & 0.7535 & 0.7383 & 0.7229\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9086 & 0.9012 & 0.8934 & 0.8850 & 0.8760 & 0.8665 & 0.8565 & 0.8459 & 0.8347 & 0.8230 & 0.8107 & 0.7979 & 0.7845 & 0.7705 & 0.7560 & 0.7410 & 0.7254\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9106 & 0.9033 & 0.8955 & 0.8872 & 0.8783 & 0.8689 & 0.8589 & 0.8483 & 0.8372 & 0.8255 & 0.8133 & 0.8005 & 0.7872 & 0.7733 & 0.7588 & 0.7437 & 0.7282\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9127 & 0.9055 & 0.8978 & 0.8896 & 0.8807 & 0.8714 & 0.8614 & 0.8509 & 0.8399 & 0.8282 & 0.8161 & 0.8033 & 0.7900 & 0.7761 & 0.7616 & 0.7466 & 0.7311\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9149 & 0.9078 & 0.9001 & 0.8920 & 0.8832 & 0.8739 & 0.8641 & 0.8536 & 0.8426 & 0.8310 & 0.8188 & 0.8062 & 0.7930 & 0.7791 & 0.7647 & 0.7496 & 0.7341\end{array}$ $\begin{array}{lllllllllllllllllllllllllll}0.9172 & 0.9101 & 0.9025 & 0.8945 & 0.8858 & 0.8765 & 0.8668 & 0.8564 & 0.8455 & 0.8340 & 0.8219 & 0.8093 & 0.7961 & 0.7822 & 0.7678 & 0.7528 & 0.7374\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9195 & 0.9125 & 0.9050 & 0.8970 & 0.8885 & 0.8793 & 0.8696 & 0.8593 & 0.8485 & 0.8370 & 0.8250 & 0.8124 & 0.7993 & 0.7855 & 0.7711 & 0.7561 & 0.7407\end{array}$ $\begin{array}{lllllllllllllllllllllll}0.9218 & 0.9150 & 0.9076 & 0.8997 & 0.8912 & 0.8822 & 0.8726 & 0.8623 & 0.8516 & 0.8402 & 0.8283 & 0.8157 & 0.8027 & 0.7889 & 0.7747 & 0.7597 & 0.7443\end{array}$ $\begin{array}{llllllllllllllllllllll}0.9242 & 0.9174 & 0.9102 & 0.9025 & 0.8941 & 0.8851 & 0.8756 & 0.8655 & 0.8548 & 0.8435 & 0.8317 & 0.8192 & 0.8062 & 0.7925 & 0.7783 & 0.7634 & 0.7481\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9266 & 0.9200 & 0.9129 & 0.9053 & 0.8970 & 0.8881 & 0.8788 & 0.8688 & 0.8582 & 0.8470 & 0.8353 & 0.8229 & 0.8099 & 0.7963 & 0.7821 & 0.7672 & 0.7520\end{array}$ $\begin{array}{llllllllllllllllllllllllll}0.9291 & 0.9227 & 0.9156 & 0.9081 & 0.9000 & 0.8913 & 0.8820 & 0.8721 & 0.8617 & 0.8506 & 0.8389 & 0.8267 & 0.8138 & 0.8002 & 0.7861 & 0.7713 & 0.7561\end{array}$ $\begin{array}{lllllllllllllllllllllllll}0.9317 & 0.9254 & 0.9185 & 0.9111 & 0.9031 & 0.8945 & 0.8854 & 0.8756 & 0.8653 & 0.8543 & 0.8428 & 0.8306 & 0.8178 & 0.8044 & 0.7903 & 0.7756 & 0.7604\end{array}$ $\begin{array}{lllllllllllllllllllllllllll}0.9343 & 0.9281 & 0.9213 & 0.9141 & 0.9062 & 0.8978 & 0.8888 & 0.8792 & 0.8691 & 0.8582 & 0.8467 & 0.8347 & 0.8221 & 0.8087 & 0.7947 & 0.7801 & 0.7650\end{array}$

## Sub appendix A. 3

Table E
50\% Joint and Survivor Without Pop-Up CEI Participants

|  | Age of Pensioner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE OF BENEFICIARY | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |

## 56

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84 85
0.93680 .93090 .92420 .91720 .90950 .90120 .89240 .88290 .87290 .86210 .85080 .83900 .82640 .81320 .79930 .78470 .7698 0.93940 .93360 .92720 .92030 .91280 .90470 .89600 .88670 .87690 .86620 .85510 .84340 .83100 .81790 .80410 .78960 .7747 0.94210 .93640 .93020 .92350 .91620 .90830 .89980 .89060 .88100 .87050 .85950 .84800 .83560 .82270 .80910 .79470 .7799 0.94480 .93930 .93320 .92670 .91960 .91180 .90350 .89460 .88510 .87490 .86410 .85260 .84050 .82780 .81420 .80000 .7854 0.94740 .94200 .93620 .92990 .92300 .91540 .90740 .89860 .88940 .87930 .86870 .85750 .84560 .83290 .81960 .80560 .7910 0.95000 .94490 .93930 .93310 .92640 .91920 .91130 .9028 0.8937 0.88390 .87350 .86250 .85080 .83830 .82520 .81130 .7969 0.95260 .94770 .94230 .93640 .92990 .92280 .91520 .90690 .89810 .88850 .87840 .86760 .85610 .84390 .83090 .81720 .8030 $\begin{array}{lllllllllllllllllllllllll}0.9553 & 0.9505 & 0.9453 & 0.9396 & 0.9334 & 0.9265 & 0.9192 & 0.9111 & 0.9026 & 0.8932 & 0.8833 & 0.8727 & 0.8615 & 0.8495 & 0.8368 & 0.8233 & 0.8093\end{array}$ 0.95770 .95320 .94830 .94290 .93680 .93020 .92310 .91530 .90700 .89790 .88830 .87800 .86700 .85530 .84280 .82950 .8158 0.96020 .95590 .95120 .94600 .94020 .93390 .92710 .91960 .91150 .90270 .89340 .88330 .87260 .86110 .84890 .83590 .8224 0.96270 .95860 .95410 .94910 .94360 .93760 .93100 .92380 .91590 .90750 .89840 .88870 .87830 .86710 .85510 .84250 .8291 0.96510 .96120 .95690 .95220 .94690 .94110 .93480 .92790 .92040 .91220 .90350 .89400 .88390 .87310 .86140 .84900 .8360 0.96740 .96370 .95960 .95520 .95020 .94470 .93860 .93200 .92480 .91690 .90850 .89940 .88960 .87900 .86780 .85570 .8429 0.96960 .96610 .96230 .95810 .95340 .94810 .94240 .93600 .92910 .92160 .91350 .90470 .89530 .88510 .87410 .86230 .8500 0.97170 .96850 .96480 .96090 .95640 .95140 .94600 .94000 .93340 .92620 .91850 .91000 .90090 .89110 .88040 .86900 .8570 0.97370 .97080 .96740 .96360 .95940 .95470 .94960 .94380 .93760 .93070 .92330 .91530 .90650 .89710 .88690 .87580 .8641 0.97570 .97290 .96970 .96620 .96220 .95780 .95300 .94760 .94170 .93510 .92800 .92040 .91200 .90290 .89310 .88250 .8712 0.97760 .97500 .97200 .96870 .96500 .96080 .95630 .95120 .94560 .93950 .93270 .92540 .91740 .90870 .89930 .88900 .8782 0.97940 .97690 .97420 .97110 .96770 .96380 .95950 .95470 .94940 .94360 .93720 .93030 .92270 .91450 .90540 .89560 .8852 0.98110 .97880 .97630 .97340 .97010 .96650 .96260 .95800 .95310 .94760 .94160 .93510 .92790 .92000 .91140 .90200 .8920 0.98260 .98060 .97820 .97550 .97260 .96910 .96540 .96130 .95660 .95150 .94590 .93970 .93290 .92540 .91720 .90830 .8988 $\begin{array}{llllllllllllllllllllllll}0.9841 & 0.9822 & 0.9800 & 0.9776 & 0.9748 & 0.9716 & 0.9682 & 0.9643 & 0.9600 & 0.9552 & 0.9498 & 0.9441 & 0.9377 & 0.9306 & 0.9228 & 0.9143 & 0.9053\end{array}$ 0.98540 .98370 .98170 .97950 .97690 .97400 .97080 .96720 .96320 .95870 .95370 .94830 .94220 .93560 .92830 .92020 .9116 0.98680 .98520 .98330 .98130 .97890 .97620 .97320 .96990 .96620 .96190 .95730 .95220 .94660 .94030 .93350 .92590 .9178 0.98800 .98650 .98480 .98290 .98080 .97830 .97550 .97240 .96900 .96500 .96080 .95600 .95080 .94490 .93840 .93130 .9236 0.98910 .98770 .98610 .98450 .98240 .98020 .97770 .97480 .97170 .96800 .96400 .95960 .95470 .94930 .94320 .93650 .9292 0.99010 .98880 .98750 .98590 .98410 .98190 .97960 .97700 .97410 .97070 .96710 .96290 .95840 .95340 .94770 .94140 .9346 0.99100 .98990 .98860 .98720 .98550 .98360 .98160 .97910 .97640 .97330 .96990 .96620 .96190 .95720 .95190 .94600 .9397 0.99180 .99080 .98960 .98840 .98690 .98510 .98330 .98100 .97860 .97570 .97260 .96910 .96520 .96080 .95600 .95040 .9445 $\begin{array}{lllllllllllllllllllllllllllll}0.9927 & 0.9918 & 0.9907 & 0.9895 & 0.9882 & 0.9865 & 0.9848 & 0.9828 & 0.9806 & 0.9779 & 0.9750 & 0.9719 & 0.9683 & 0.9643 & 0.9597 & 0.9547 & 0.9492\end{array}$

THE CONSOLIDATED EDISON
RETIREMENT PLAN
PART II (b)
APPENDICES
Effective as of January 1, 2001
Favorable Determination Letter Issued
April 9, 2003
Subject to the Following Amendments and Clarifications:

- Clarified on May 2, 2002
- Amended December 13, 2001
- Amended April 2003 In Accordance with

IRS Issuance of Favorable Determination Letter;

- Amended August 2004 for

2004 Agreement Between Local Union 503 of the
International Brotherhood of Electrical Workers, AFL-CIO ;

- Amended August 2004, for O\&R Management Employees Changes Concurrent with O\&R Hourly Employees;
- Amended August 2004 for Agreement Between Local 1-2 of the Utility Workers Union of America, AFL-CIO;
- Amended July 2004 for Updated Factors for O\&R Optional Forms; and
- Amended and Restated October 2004 for Miscellaneous Changes


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## APPENDIX B

## B. 1 List of Participating Employers

For purposes of Section 10.03, the following sets forth (a) the Affiliates, other than CECONY, that are Employers, (b) the effective date of each Employer's participation; and (c) if applicable, which Employees are either newly covered Participants or continue their participation in the Plan. The list of Employers is subject to change from time to time. Effective as of October 2004, the Board of Trustees has approved the participation of the Affiliates.

Name of Company
Consolidated Edison Development, Inc.
Consolidated Edison Solutions, Inc.
Consolidated Edison Communications, Inc.
Consolidated Edison Energy, Inc.
Orange and Rockland Utilities, Inc.

Consolidated Edison Energy Massachusetts, Inc.

Competitive Shared Services, Inc

Effective Date of
Participation
May 1, 1996 June 1, 2000
May 1, 1997
February 1, 1999
March 1, 1998
July, 1999

July 18, 1999

January 1, 2004

Eligible Employees
CECONY Transferred Participants
Lakewood Participants
CECONY Transferred Participants
CECONY Transferred Participants
CECONY Transferred Participants
Transferred O\&R Management Participants
O\&R Management Participants,
O\&R Hourly Participants,
CEI Participants
Employees who were employed by WMECO at the WMECO Facilities, who became CEEM Employees upon the acquisition of the WMECO Facilities by CEEM and any Employee hired by CEEM after July, 1999 to work at the WMECO Facilities.
Only CECONY Transferred Participants and Transferred O\&R Management Participants

## APPENDIX C

## Provisions Applicable to O\&R Participants <br> Transferred to or Hired by <br> CECONY or a CEI Affiliate

## C. 1 Scope of Appendix C

The Pension Allowance payable to an Employee who transfers directly from O\&R after O\&R became an Affiliate or is hired by CECONY or a CEI Affiliate on or after O\&R became an Affiliate and who had been an O\&R Management Participant ("Transferred O\&R Management Participant") shall be determined in accordance with the provisions of this Appendix C.

## C. 2 Determination of Pension Allowance for Transferred O\&R Management Participants

(a) CECONY Post-Transfer Benefit. The Pension Allowance payable to a Transferred O\&R Management Participant, or to the Surviving Spouse of a Transferred O\&R Participant, shall be determined initially in accordance with the pension formula applicable to a CECONY Management Participant set forth in Appendix F, Section F.2. For the purpose of that benefit determination: (1) the Transferred O\&R Management Participant’s Vesting Service shall be determined as if O\&R had, at all times, been an Affiliate; (2) the Transferred O\&R Management Participant's number of Years of Accredited Service applicable in the CECONY Management Participant's formula shall be determined by disregarding all periods of employment with O\&R prior to the date on which he or she became a Transferred O\&R Management Participant; and (3) for the purpose of determining the applicability of the percentage multipliers specified in the CECONY Management Participant formula in Appendix F, Sections F.2(A)(a)(i),(ii),(iii), and (iv), and for the purpose of determining his or her eligibility for, but not the amount of, early retirement benefits in accordance with the CECONY

Management Participant formula, his or her Accredited Service shall be determined by treating his or her employment with O\&R as if it were employment as a CECONY Management Participant. Accredited Service as a Transferred O\&R Management Participant, for purposes of this calculation, is not counted for the purpose of determining the amount of any early retirement benefits. No portion of the Pension Allowance determined in accordance with this subparagraph will be payable to the Transferred O\&R Management Participant or to the Surviving Spouse of the Transferred O\&R Management Participant, except to the extent provided in Section C.2(c).
(b) Frozen O\&R Benefit. The Pension Allowance payable to the Transferred O\&R Management Participant, or to the Surviving Spouse of the Transferred O\&R Participant, under the terms and formula of the O\&R Plan or of the O\&R Benefit Formula included in this Plan, whichever plan formula is applicable (the "O\&R Formula"), as of the date of becoming a Transferred O\&R Management Participant ("Transfer Date"), shall be determined as if the Transferred O\&R Management Participant had terminated employment from O\&R on the Transfer Date. The Transferred O\&R Management Participant's period of employment as a CECONY Management Participant shall be taken into account: (1) in determining whether his or her accrued benefit under the O\&R Formula is non-forfeitable, (2) in determining his or her eligibility for early retirement under the O\&R Formula, and (3) in determining whether and to what extent the benefit under the O\&R Formula is subject to reduction for commencement prior to Normal Retirement Age.
(c) O\&R All Service Benefit. The amount payable to the Transferred O\&R Participant, or to the Surviving Spouse of the Transferred O\&R Management Participant, will be determined under the terms of the O\&R Plan or the formula for O\&R Participants in Appendix F, Section F3, whichever is applicable, determined as if the Transferred O\&R Management

Participant had remained an O\&R Management Participant throughout the period that he or she was a CECONY Management Participant.
(d) The Transferred O\&R Management Participant’s Pension Allowance shall be the greater of (1) the CECONY Post Transfer Benefit, plus the Frozen O\&R Benefit, or (2) the O\&R All Service Benefit.
(e) For the purpose of determining the CECONY Post Transfer Benefit, the Frozen O\&R Benefit and the O\&R All Service Benefit, each benefit shall be expressed as an annuity for the life of the Transferred O\&R Management Participant, or the Surviving Spouse of the Transferred O\&R Management Participant, as applicable, commencing on the later of (i) the first day of the month following the Transferred O\&R Management Participant's termination of employment, or (ii) the first date on which annuity payments to the Transferred O\&R Participant, or the Surviving Spouse of the Transferred O\&R Management Participant, as applicable, are payable in accordance with the terms of the O\&R Management Participant formula in Appendix F, Section F.3.
(f) A Transferred O\&R Management Participant may elect an optional form of benefit as provided under Section 5.02 available to CECONY Participants for any benefits payable determined in accordance with Section C.2(a) and available to an O\&R Participant for any benefits payable determined in accordance with Sections C.2(b) or C.2(c).
(g) A Transferred O\&R Management Participant shall receive the cost of living adjustment applicable to CECONY Participants under Article XI of the Plan with respect to any benefits payable determined in accordance with Section C.2(a) of this Appendix C, and the cost of living adjustment applicable to O\&R Participants under Article XI of the Plan with respect to any benefits payable determined in accordance with Sections C.2(b) or C.2(c) of this Appendix C.

## APPENDIX D

## Provisions Applicable to Participants Employed at Facilities Purchased from Western Massachusetts Electric Company

## D. 1 Effective Date and Scope of Appendix D

This Appendix D shall be effective as of July 18, 1999, the closing date of the acquisition of the electric power generation facilities of Western Massachusetts Electric Company ("WMECO Facilities") by Consolidated Edison Energy Massachusetts, Inc. ("CEEM"). CEEM had been a wholly-owned subsidiary of Consolidated Edison Energy, Inc., which itself is an Affiliate of the Company. CEEM is now a wholly-owned subsidiary of Consolidated Edison Development, Inc., which is also an Affiliate of the Company.

## D. 2 WMECO Employees Hired on or after January 1, 2000

For purposes of this Appendix D, the term "WMECO Employee" means an Eligible Employee who is employed at the WMECO Facilities. A WMECO Employee hired on or after January 1, 2000, shall be a CEI Participant, and shall receive the benefit determined under the formula for a CEI Participant set forth in Article IV of the Plan.

## D. 3 Benefit Provisions Applicable to WMECO Employees Prior to January 1, 2000

Notwithstanding any provision to the contrary, the benefits payable to a WMECO Employee who was employed at the WMECO Facilities prior to January 1, 2000 ("WMECO Participant") shall be determined solely in accordance with the terms of this Appendix D. The Pension Allowance payable from the Plan to a WMECO Participant shall be equal to the excess of (i) an amount determined in accordance with the provisions of the Northeast Utilities Service

Company Retirement Plan, as in effect on July 18, 1999, ("NU Plan") determined as if the WMECO Participant had remained a participant in the NU Plan until his or her termination of employment from an Employer, over (ii) the amount actually payable to such WMECO Participant from the NU Plan, determined by taking into account his or her termination from employment as of July 18, 1999 and as if he or she elected to commence receipt of his or her Pension Allowance on the same Annuity Starting Date as the date benefits commence under the NU Plan. Each WMECO Participant shall be $100 \%$ vested in and have a nonforfeitable right to his or her Pension Allowance.

## APPENDIX E

## Determination of Amounts Payable from 401(h) Account

## E. 1 Amount Payable from 401(h) Account.

Pursuant to Section 12.06, payment shall be made from the $401(\mathrm{~h})$ Account to provide benefits under the Retiree Health Plan for eligible CECONY Management Participants, CECONY Transferred Participants, and CEI Participants employed by CECONY ("CECONY Management Retiree Health Participants") and their covered dependents and for eligible CECONY Weekly Participants ("CECONY Weekly Retiree Health Participants") and their covered dependents. The CECONY Management Retiree Health Participants and the CECONY Weekly Retiree Health Participants shall be referred to hereinafter as the "CECONY Retiree Health Participants". In any Plan Year, the 401(h) Account will pay benefits for CECONY Management Retiree Health Participants if and only to the extent that the total amount payable for such benefits exceeds the sum of (i) the amount of contributions required from the CECONY Management Retiree Health Participants for such Plan Year, plus (ii) the product of \$3,000 times the number of CECONY Management Retiree Health Participants determined as of the beginning of such Plan Year.

In any Plan Year, the $401(\mathrm{~h})$ Account will pay benefits for CECONY Weekly Retiree Health Participants, if and only to the extent that the total amount payable for such benefits exceeds the sum of (i) the amount of contributions required from the CECONY Weekly Retiree Health Participants for such Plan Year, plus (ii) the product of $\$ 4,000$ times the number of CECONY Weekly Retiree Health Participants determined as of the beginning of such Plan Year.

For the purpose of the foregoing sentences, the term "Retiree Health Participant" shall not mean a "key employee", within the meaning of Code Section 416(i). The term "CECONY Retiree Health Participant" includes the spouse of such a CECONY Retiree Health Participant, provided that such spouse is eligible for benefits under the Retiree Health Plan, and the Surviving Spouse of such a CECONY Retiree Health Participant, provided that such Surviving Spouse is eligible for benefits under the Retiree Health Plan.

## E. 2 Time and Manner of Payment from 401(h) Account.

All payments made from the 401(h) Account to provide benefits under the Retiree Health Plan shall be made at the time and in the manner directed by the Plan Administrator.

## APPENDIX F

## Normal Retirement Benefit Formulas

## F. 1 Benefit Formula for CECONY Weekly Participants.

A. Normal Retirement Benefit for CECONY Weekly Participant.
(a) The annual normal retirement Pension Allowance payable upon retirement on or after Normal Retirement Date to a CECONY Weekly Participant whose employment with the Company or an Affiliate commenced on or after January 1, 1990 shall be equal to the sum of (i), (ii) and (iii):
(i) $1.5 \%$ of the Participant's Final Average Pay multiplied by his or her Years of Accredited Service not in excess of 24;
(ii) $2.0 \%$ of such Final Average Pay multiplied by his or her Years of Accredited Service in excess of 24 but not in excess of 30;
(iii) $0.5 \%$ of such Final Average Pay multiplied by his or her Years of Accredited Service in excess of 30 years.

Solely for determining Years of Accredited Service in Sections F.1.A. (a) (i), (ii) and (iii), above, periods of less than 12 months shall be a prorated part of a Year of Accredited Service.
(b) The annual normal retirement Pension Allowance payable upon retirement on or after Normal Retirement Date to a CECONY Weekly Participant who (i) terminated employment from CECONY during the month of June 1989; (ii) was in the employ of CECONY at any time during the period from July 1 , 1989 through December 31, 1989; or (iii) terminated employment from CECONY with a right to a vested Pension Allowance prior to July 1, 1989 and is re-employed and repays any Cash Out shall be equal to the greater of (i) or (ii):
(i) the Pension Allowance determined under F.1.A.(a) above or;
(ii) the Pension Allowance determined by computing $2.2 \%$ of Total Salary and increasing the result by $0.125 \%$ for each calendar month of Accredited Service in excess of 30 years.

## F. 2 Benefit Formula for CECONY Management Participant.

A. Normal Retirement Benefit for CECONY Management Participant.
(a) The annual normal retirement Pension Allowance payable upon retirement on or after Normal Retirement Date to a CECONY Management Participant whose employment with CECONY commenced on or after January 1, 1990 and prior to January 1, 2001 or to any such CECONY Management Participant who terminated with a vested Pension Allowance, is re-employed and repays, if applicable, his or her Cash Out shall be equal to the sum of (i), (ii), (iii), and (iv):
(iii) $1.5 \%$ of the CECONY Management Participant's Final Average Salary multiplied by his or her Years of Accredited Service not in excess of 24;
(iv) $2.0 \%$ of such Final Average Salary multiplied by his or her Years of Accredited Service in excess of 24 but not in excess of 30;
(v) $0.35 \%$ of such Final Average Salary in excess of the Social Security Taxable Wage Base multiplied by his or her Years of Accredited Service not in excess of 30 ; and
(vi) $0.5 \%$ of such Final Average Salary multiplied by his or her Years of Accredited Service in excess of 30 years.

Solely for determining Years of Accredited Service in subsections (a) (i), (ii), (iii) and (iv), above periods of less than 12 months shall be a prorated part of a Year of Accredited Service.
(b) The annual normal retirement Pension Allowance payable upon retirement on or after Normal Retirement Date to a CECONY Management Participant, whose employment with the Employer commenced prior to January 1, 1983 and who was on the Employer's active payroll during 1989, or who terminated employment with a right to a vested Pension Allowance prior to December 31, 1982 and was thereafter re-employed and repaid any Cash Out received shall be equal to the greater of (i) or (ii):
(vii) the Pension Allowance determined under F.2.A.(a) above;
(viii) the benefit determined by computing $2.2 \%$ of Total Salary and increasing the result by $0.125 \%$ for each calendar month of Accredited Service in excess of 30 years.

## F. 3 Benefit Formula for O\&R Participant

A. Normal Retirement Benefit for O\&R Participant. The annual normal retirement Pension Allowance payable upon retirement on or after the Normal Retirement Date to an O\&R Participant shall be as follows:
(a) For an O\&R Participant who retires on or after July 1, 1997 and on or before January 1, 2001:
(ix) Calculation of "future service": $2 \%$ of O\&R Participant's Annual Compensation received during his or her Accredited Service for each Year of Accredited Service after December 31, 1992, provided that the amount shall be computed as if Accredited Service had continued and he or she had received Annual Compensation at the rate being paid to him or her immediately prior to retirement for an additional two (2) years after retirement, plus
(x) Calculation of "past service": (x) $1 \frac{1}{2} \% \%$ of O\&R Participant's Annual Compensation as of January 1, 1993, multiplied by (y) the number of Years of Accredited Service prior to January 1, 1993, but not less than
(xi) the Pension Allowance accrued up to January 1, 1993.
(b) For an O\&R Participant who retires after January 1, 2001 and on or before January 1, 2003:
(xii) Calculation of "future service": 2\% of O\&R Participant's Annual Compensation received during his or her Accredited Service for each Year of Accredited Service after December 31, 1995, provided that the amount shall be computed as if Accredited Service had continued and he or she had received Annual Compensation at the rate being paid to him or her immediately prior to retirement for an additional two (2) years after retirement, plus
(xiii) Calculation of "past service": (x) $1 \frac{1}{2} \%$ of O\&R Participant's Annual Compensation as of January 1, 1996, multiplied by (y) the number of Years of Accredited Service prior to January 1, 1996, but not less than
(xiv) the Pension Allowance accrued up to January 1, 1996.
(c) For an O\&R Participant who retires after January 1, 2003 and on or before January 1, 2005
(i) Calculation of "future service": $2 \%$ of O\&R Participant's Annual Compensation received during his or her Accredited Service for each Year of Accredited Service after December 31, 1997, provided that the amount shall be computed as if

Accredited Service had continued and he or she had received Annual Compensation at the rate being paid to him or her immediately prior to retirement for an additional two (2) years after retirement, plus
(ii) Calculation of "past service": (x) $11 / 2 \%$ of O\&R Participant's Annual Compensation as of January 1, 1998, multiplied by (y) the number of Years of Accredited Service prior to January 1, 1998, but not less than
(iii) the Pension Allowance accrued up to January 1, 1998.
(d) For an O\&R Participant who retires after January 1, 2005 and on or before January 1, 2008:,
(i) Calculation of "future service": $2 \%$ of O\&R Participant's Annual Compensation received during his or her Accredited Service for each Year of Accredited Service after December 31, 1999, provided that the amount shall be computed as if Accredited Service had continued and he or she had received Annual Compensation at the rate being paid to him or her immediately prior to retirement for an additional two (2) years after retirement, plus
(ii) Calculation of "past service": (x) $1 \frac{1}{2} \%$ of O\&R Participant's Annual Compensation as of January 1, 2000, multiplied by (y) the number of Years of Accredited Service prior to January 1, 2000, but not less than
(iii) the Pension Allowance accrued up to January 1, 2000.
(e) For an O\&R Participant who retires after January 1, 2008:,
(i) Calculation of "future service": 2\% of O\&R Participant's Annual Compensation received during his or her Accredited Service for each Year of Accredited Service after December 31, 2002, provided that the amount shall be computed as if

Accredited Service had continued and he or she had received Annual Compensation at the rate being paid to him or her immediately prior to retirement for an additional two (2) years after retirement, plus
(ii) Calculation of "past service": (x) $1 \frac{1}{2} \%$ of O\&R Participant's Annual Compensation as of January 1, 2003, multiplied by (y) the number of Years of Accredited Service prior to January 1, 2003, but not less than
(iii) the Pension Allowance accrued up to January 1, 2003.
(f) Solely for purposes of calculating the "future service" benefit of an O\&R Participant, Annual Compensation means his or her actual Compensation and does not mean his or her annual rate of compensation.
(g) If greater than the Pension Allowance determined in (a) to (c) above, the Pension Allowance of the O\&R Participant will be determined pursuant to Code Section 411 (c)(2)(B) based solely upon the Participant's Accumulated Contributions.
(h) The Pension Allowance of an employee of the former Orange and Rockland Electric Company who became an O\&R Participant as of January 1, 1963 shall be the same as if he or she had been employed at all times by O\&R and had become an O\&R Participant when first eligible for participation. There shall be deducted from his or her Pension Allowance amounts to which he or she is entitled under Annuity Contract No. 544 of The Equitable Life Assurance Society of the United States which is held by the Trustee in the Trust.
(i) The Pension Allowance of an employee of the former Rockland Gas Co., who became an O\&R Participant as of June 30, 1969 shall be the same as if he or she had been employed at all times by O\&R and had become an O\&R Participant when first eligible for participation, provided that there shall be paid to him or her and deducted from his or her Pension Allowance amounts to which he or she is entitled under Annuity Contract No. 820 of the Equitable Life Assurance Society of the United States which is held by the Trustee in the Trust.

## APPENDIX G

## Special Pension Adjustment

## G. 1 Special Pension Adjustment.

A. Effective April 1, 2001, there will be an increase of $\$ 50$ per month ("Special Pension Adjustment") in the monthly Pension Allowance payments to those, other than the Participants and Surviving Spouses excluded by reason of paragraph B below, CECONY Management Participants, CECONY Weekly Participants, and the Surviving Spouses of CECONY Management Participants and CECONY Weekly Participants whose Monthly Pension Allowance payment only as of, and in, March 2001 is equal to or less than $\$ 1,000$ a month.
B. The Special Pension Allowance shall not be payable to a terminated vested CECONY Participant who is not a Rule of 75 Participant, a Surviving Spouse of a terminated vested CECONY Participant who is not a Rule of 75 Participant, an alternate payee, whether or not the alternate payee is in pay status, or to a non-spouse Beneficiary without regard to the fact that such person may otherwise satisfy the dollar amount.

## APPENDIX H

## Provisions Applicable to CECONY Participants at Fossil-Fueled Divested Operations

## H. 1 Effective Date and Scope of Appendix H.

This Appendix H shall be effective as of January 1, 1999 and shall be applied to the determination of benefits payable to CECONY Participants at Divested Operations. For the purpose of this Appendix H, the term "CECONY Participant at Divested Operations" shall mean a CECONY Participant who, as of the date of the divestiture ("Divestiture"), had been assigned to one of CECONY's fossil fuel electricity generation facilities in New York City ("Divested Operations"), and who remained in the employ of the buyer, or successor thereto, of the Divested Operations ("Divestiture Buyer") subsequent to CECONY's Divestiture of such facilities in 1999.

## H. 2 Treatment of CECONY Participants at Divested Operations.

(a) Solely for purposes of determining whether a CECONY Participant at Divested Operations is entitled to apply the favorable actuarial discount factors and early retirement subsidiaries available to a Rule of 75 Participant, the Accredited Service of a CECONY Participant at Divested Operations shall be determined by adding to his or her Accredited Service credited prior to the Divestiture his or her "Post Divestiture Service." "Post Divestiture Service" means the period of employment with the Divestiture Buyer determined as if the Post Divestiture Service were employment with CECONY, including the application of Section 3.02 to the Post Divestiture Service. No portion of any Post Divestiture Service shall be taken into account for benefit accrual or computation of the amount of such Employee's benefit under the Plan. Post

Divestiture Service shall not be taken into account for any period after a Participant's Annuity Starting Date.
(b) A CECONY Participant at Divested Operations who had not earned a nonforfeitable right to one hundred percent ( $100 \%$ ) of his or her accrued pension as of the day immediately prior to the Divestiture in accordance with the provisions of Section 4.05(a), shall nonetheless be fully and nonforfeitably vested in one hundred percent $(100 \%)$ of his or her accrued pension, as of the date of the Divestiture.
(c) For purposes of determining the value of a Participant's Surviving Spouse's benefits, the Accredited Service of a CECONY Participant at Divested Operations shall be determined in accordance with the provisions of Section H(2)(a).
(d) For purposes of determining whether a CECONY Participant at Divested Operations has satisfied the conditions requisite for a Disability Pension Allowance under Section 4.06 of the Plan, the Accredited Service of a CECONY Participant at Divested Operations shall be determined by adding to his or her Accredited Service prior to the Divestiture of his or her Post Divestiture Service.

## APPENDIX I

## Provisions Applicable to O\&R Participants Under O\&R's Pension Protection Program

I.1. Definitions. The following words and phrases as used in this Appendix I shall have the meaning indicated below:
(a) "Buyer" shall mean the entity which purchased the Electric Generating Assets, and any other entity which is aggregated with the Buyer under Code Sections 414(b), (c), (m), or (o).
(b) A Production Employee's termination by the Buyer, O\&R, or an affiliated company shall be for "Cause" if (i): he or she is convicted of a crime or engaged in an act of moral turpitude; (ii) he or she breaches any of his or her obligations under any employment agreement governing his or her employment; (iii) he or she is grossly negligent or engages in gross misconduct in the performance of his or her duties for the Buyer; (iv) he or she repeatedly fails to follow written policies or guidelines that have been expressly approved by the Buyer; (v) he or she is discharged as a result of poor or unsatisfactory performance for the Buyer; or (vi) where applicable, he or she breaches any of his or her fiduciary duties as an office or director of the Buyer.
(c) "Divestiture Date" means the effective date of the sale of the Electric Generating Assets.
(d) "Electric Generating Assets" means the electric generating assets of O\&R allocated to O\&R’s Electric Production Division.
(e) "50/10 Employee" means a Production Employee who (i) will have reached at least age 50 by the last day of the Plan Year in which the Divestiture Date occurs, and (ii) would have had at least 10 years of Vesting Service by the last day of the Plan Year in which the Divestiture Date occurs if his or her employment had continued with O\&R until such last day. Notwithstanding the foregoing and except as otherwise provided in Section 3 (f) of this Appendix I, "Limitations of the Program and Special Rules", a 50/10 Employee shall not include any Production Employee who declines an offer of employment from the Buyer for a position for which he or she had applied.
(f) "40/20 Employee" means a Production Employee who (i) will have reached at least age 40 by the last day of the Plan Year in which the Divestiture Date occurs, and (ii) would have had at least 20 years of Vesting Service by the last day of the Plan Year in which the Divestiture Date occurs if his or her employment had continued with O\&R until such last day. Notwithstanding the foregoing and except as otherwise provided in Section 3.f. of this Appendix I, "Limitations of the Program and Special Rules," a 40/20 Employee shall not include any Production Employee who declines an offer of employment from the Buyer for a position for which he or she had applied.
(g) "Production Employee" shall mean an O\&R Employee, other than an O\&R Employee who is covered by a collective bargaining agreement (unless included under the terms of a voluntary termination program in which he or she elects to participate and which provides for participation in the Program), who (i) as of the Divestiture Date is an Employee of the Electric Production Division, and ceases
to be employed by, and by action of, O\&R, and its Affiliates as a result of the sale of the Electric Generating Assets; (ii) as of the Divestiture Date is not an Employee of the Electric Production Division but provides support to such division, and ceases to be employed on or before December 31, 1999 by, and by action of, O\&R and its Affiliates for reasons other than Cause as a result of the sale of the Electric Generating Assets; or (iii) as of a date established under a voluntary termination program created by $O \& R$ in connection with the sale of the Electric Generating Assets, is not an Employee of the Electric Production Division but provides support to such division, and ceases to be employed by O\&R and its Affiliates as a result of his or her election to terminate employment in connection with such voluntary termination program.
(h) "Program" shall mean the Pension Protection Program, as set forth in this Appendix I, and as amended (if at all) from time to time hereafter. A series of charts to be used in the interpretation of the Program are also set forth in Appendix I.
(i) "Protection Period" shall mean the period which begins on the Divestiture Date and which ends on the fifth anniversary of such Divestiture Date.

## I.2. Protections under the Program.

(j) 50/10 Employees. If a 50/10 Employee: (i) declines to apply for employment with the Buyer; (ii) applies for, but is not offered, employment with the Buyer (or declines a position which is described in Section 3.f. of this Appendix I or a position for which he or she did not apply); (iii) is hired by the Buyer but is substantially involuntarily terminated prior to his or her Annuity Starting Date by

## APPENDICES

the Buyer for reasons other than Cause within the Protection Period; or (iv) is hired by the Buyer and remains employed with the Buyer until the end of the Protection Period and does not have an Annuity Starting Date before the end of the Protection Period, he or she shall have 5 years of Vesting Service and 5 years of age added under the Plan to his or her actual Vesting Service and age, respectively, determined as of the Divestiture Date, for purposes of determining his or her eligibility for an early retirement Pension Allowance and for calculating the pre-age 65 early retirement Pension Allowance reduction (if any) but not for purposes of calculating his or her accrued benefit. Notwithstanding the foregoing, a 50/10 Employee described in the preceding sentence who is age 49 as of the Divestiture Date shall be deemed for the purpose of early retirement Pension Allowance eligibility to have retired at age 55, but, as provided in Section 3.6 of this Appendix 1, his or her Pension Allowance cannot commence prior to actual age 55.

A 50/10 Employee who is hired by the Buyer, but who prior to the end of the Protection Period either voluntarily commences receiving Plan benefits while employed by the Buyer or voluntarily terminates employment with the Buyer, shall have his or her eligibility for an early retirement Pension Allowance, and the calculation of the pre-age 65 early retirement Pension Allowance reduction (if applicable) but not the amount of his or her accrued benefit, determined by treating as Vesting Service his or her service with the Buyer from the Divestiture Date until the earlier of his or her Annuity Starting Date or his or her employment termination with the Buyer, and his or her age as of the earlier of such dates.

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A 50/10 Employee who terminates employment prior to age 55 shall not be eligible for an early retirement Pension Allowance; provided, however, that a $50 / 10$ Employee who voluntarily terminates employment with the Buyer in the calendar year of the Divestiture Date shall be deemed for purposes of early retirement Pension Allowance eligibility and for purposes of the 85 -point determination to have terminated employment as of the earlier of his or her Annuity Starting Date or the last day of such calendar year. His or her Pension Allowance cannot commence prior to actual age 55.

In the event that a $50 / 10$ Employee receives a post-Divestiture Date grant of age and service in accordance with the preceding paragraphs of this Section, and elects to commence receipt of his or her benefits under the Plan prior to his or her Normal Retirement Date, the reduction for early commencement shall be computed based upon the greater of (i) his or her actual age at the Annuity Starting Date or (ii) his or her actual age at the Divestiture Date, as increased by the applicable grant of additional age under the Program, as set forth above.
(k) 40/20 Employees. A 40/20 Employee who declines to apply for employment with the Buyer, who applies for but is not offered employment by the Buyer (or declines a position which is described in Section 3.f. of this Appendix I or a position for which he or she did not apply), or who is involuntarily terminated by the Buyer for reasons other than Cause within the Protection Period (in each case, a "Covered 40/20 Employee"), and who elects to begin receiving benefits prior to his or her Normal Retirement Date will have the reduction for early commencement, but not his or her accrued benefit calculated using the early

## APPENDICES

retirement Pension Allowance factors set forth in Section 4.04(c) based upon his or her age as of his or her Annuity Starting Date. Notwithstanding the foregoing, a Covered 40/20 Employee shall have 5 years of Vesting Service and 5 years of age added under the Plan to his or her Vesting Service and age, respectively, determined as of the Divestiture Date, and to the extent that the sum of his or her age and Vesting Service as of the Divestiture Date, as so adjusted, totals at least 85 , there shall be no reduction if the Annuity Starting Date precedes the Normal Retirement Date. A 40/20 Employee who is hired by the Buyer and who either voluntarily terminates employment during the Protection Period or remains employed with the Buyer until the end of the Protection Period will not be a Covered $40 / 20$ Employee, and will be eligible only for a vested Pension Allowance determined under Section 4.05(c) without regard to the Program.
(1) Other Production Employees. Any Production Employee who is a Participant and has less than 5 years of Vesting Service as of the Divestiture Date, and who was not already $100 \%$ vested in accordance with the Change in Control provisions of the Prior Plan, shall be $100 \%$ vested under the Plan as of the Divestiture Date and shall be eligible to receive a vested Pension Allowance if they accrue any Accredited Service under the Plan.

## I.3. Limitations of the Program and Special Rules.

(m) Production Employees' benefits under the Plan which have accrued as of the Divestiture Date shall not increase thereafter as a result of the Program, nor does the Program affect the amount which is payable to Production Employees commencing at their Normal Retirement Date.

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(n) Notwithstanding the Program, no benefits can commence under the Plan to a Production Employee prior to his or her actual attainment of age 55.
(o) The $\$ 600$ per month supplement described in Section 4.04(c)(iv) shall be available to a Production Employee only if his or her Annuity Starting Date is within the Protection Period and such Production Employee: (i) is at least age 60 but less than age 62 as of his or her Annuity Starting Date; and (ii) in the event of a voluntary termination from the Buyer, is at least age 60 as of the date of such voluntary termination.
(p) No Disability Pension Allowance shall commence to a Production Employee after the Divestiture Date.
(q) Each 50/10 Employee and 40/20 Employee who has not had an Annuity Starting Date shall be eligible for a Spouse's Pension Allowance under Section 4.08. Such eligibility for a Spouse's Allowance shall cease upon: (i) voluntary termination from the Buyer within the Protection Period prior to retirement eligibility (for this purpose, a 50/10 Employee who terminates employment with the Buyer in the calendar year of the Divestiture Date shall be treated as retirement eligible if he or she is at least age 55 and has at least 10 years of Vesting Service by the end of such calendar year); or (ii) the end of the Protection Period in the case of a $40 / 20$ Employee who has not voluntarily terminated employment with the Buyer prior to that date. A 50/10 Employee or 40/20 Employee who has not had an Annuity Starting Date but who ceases to be eligible for a Spouse's Allowance, and any Production Employee who is not a 50/10 Employee or 40/20 Employee and who has not had an Annuity Starting Date, shall be eligible for a vested O\&R Participant Spouse's Allowance under Section 4.08.

## APPENDICES

(r) For purposes of the Program, a Production Employee shall not be deemed to have been offered employment by the Buyer if he or she declines employment with the Buyer which would require (i) more than a $10 \%$ reduction in his or her total compensation (salary plus the target benefit under the Orange and Rockland Utilities, Inc. Annual Team Incentive Plan ("ATIP")) immediately prior to the Divestiture Date, or (ii) assignment to another geographic location which is more than 50 miles from his or her place of employment immediately prior to the Divestiture Date. Similarly, if a Production Employee accepts an offer of employment with the Buyer, he or she will be deemed to have an involuntary termination of employment during the Protection Period for a reason other than Cause if he or she terminates employment following (i) a reduction in pay to a level more than $10 \%$ below his or her total compensation (salary plus the target benefit under the O\&R Annual Team Incentive Plan ("ATIP")) immediately prior to the Divestiture Date, or (ii) reassignment to another location which is more than 50 miles from his or her place of employment immediately prior to the Divestiture Date.
(s) If the Program is included in a voluntary termination program offered by O\&R in connection with the sale of the Electric Generating Assets, O\&R may elect to provide (on a uniform basis with respect to all Participants to whom such program is offered) that a Participant who terminates employment under such program shall have (i) any grants of age and Vesting Service for early retirement reduction calculation purposes added to his or her actual age and Vesting Service as of a date specified in the voluntary termination program, which date is other than the Divestiture Date; and (ii) a five-year, Protection Period which begins on such specified date rather than on the Divestiture Date.

## APPENDIX I

## ATTACHMENT I

## Summary of Pension Allowance to be Provided by

## O\&R to Employees Affected by the Southern Energy Divestiture.

Production Employees will receive their vested accrued Pension Allowance from the Plan based on service and pay up to the Divestiture Date. The Pension Allowance payable under the Plan will be subject to adjustment each year after benefit payments commence by the Pension Benefit Adjustment (PBA) described in Section 11.06 of the Plan.

Production Employees may elect to receive their pension benefits prior to the normal retirement age/date described in the Plan. However, if they do elect to commence their Pension Allowance early, the Pension Allowance will be reduced and/or subsidized as described in the following tables. The following tables summarize the provisions of Appendix I to the Plan; in the event of a conflict, the provisions of Appendix I will control.

## Attachment I. 1 Union Employees Hired by Southern Energy

Age and VS as of the Divestiture Date

1. Age 65 (regardless of VS)
2. Age 62+ with $10+$ VS
3. Age 60-62 with $10+$ VS
4. Age 55-59 with $10+$ VS
5. Under 55 with $10+$ VS
6. Any age with under 10 VS
(a)

If employee elects to start $O \& R$ Pension Allowance at Divestiture Date
$100 \%$ of AB
100\% AB
$100 \%$ of $A B$ and $\$ 600$ supplement to 62

AB reduced for age at commencement:

- $4 \% / Y r$. Prior to 60
- no reduction with 85 points

Not applicable

Not applicable

## Attachment I. 2 Management Employees Hired by Southern Energy



## Management Employees Hired by Southern Energy <br> If employee delays commencement of O\&R Benefits until sometime after Divestiture Date

|  |  | If employee terminates//retires from Southern Energy within 5 years of Divestiture Date |  | If employee remains employed at Southern Energy more than 5 years after Divestiture Date |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Age and VS <br> as of the <br> Divestiture <br> Date | If employee hired by Southern elects to start O\&R payments at Divestiture Date | If Southern Energy involuntarily terminates employee | If employee voluntarily terminates from Southern Energy | If employee elects to start O\&R pension within 5 years of divestiture | If employee elects to start O\&R pension more than 5 years after divestiture |
| 1. Age 65 | 100\% of AB | Same as column a | Same as column a | Same as column a | Same as column a |
| 2. Age 62+ with 10+ VS | 100\% of AB | Same as column a | Same as column a | Same as column a | Same as column a |
| 3. Age 60-62 with 10+ VS | $100 \%$ of AB and \$600/mo. <br> Supplement up to 62 | Same as column a | Same as column a | Same as column a | 100\% of AB |
| 4. Age 55-59 with 10+ VS | AB reduced for age at commencement: <br> - $0 \%$ if 85 points at divestiture, otherwise <br> - $4 \% / \mathrm{yr}$. prior to 60 . <br> No pension protection coverage if involuntarily terminated later. | Regardless of when benefit commences or points at divestiture: <br> - $100 \%$ of AB , and <br> - \$600/mo. Supplement to 62 if benefit commences between 60 and 62 within the 5-year protection period. | AB reduced for age at commencement: <br> - $0 \%$ if 85 points at termination (counting <br> points for actual <br> service up to <br> termination), otherwise <br> - $4 \% / \mathrm{yr}$. For <br> commencement prior to 60. <br> \$600/mo. Supplement to 60 if termination occurs after age 60, and if benefits commence at 60-62 within the 5-year protection period. | Same as column c, but no age or service points after benefits commence, and \$600/mo. Supplement to 62 if commencement occurs after age 60 but before age 62. | $100 \%$ of AB , but not eligible for $\$ 600 / \mathrm{mo}$. Supplement. |

# Attachment I. 3 Addendum 1 <br> Chart for Management Employees Affected by Asset Sales <br> But Not Hired by Southern Energy and not Eligible to Participate in a Voluntary Severance Program 

1. Age 65
2. Age 62+ with $10+$ VS
3. Age 60-62 with $10+$ VS
4. Age 55-59 with $10+$ VS

Employee Does Not Apply for Employment with Southern, or Applies but is Not Offered Employment
$100 \%$ of $\mathrm{AB} \quad$ Same as column $\mathbf{a}$
$100 \%$ of AB Same of column $\underline{\mathbf{a}}$
$100 \%$ of AB and $\$ 600 / \mathrm{mo}$. supplement up to 62 . Same as column $\mathbf{a}$
Regardless of when benefit commences or points at $A B$ reduced for age at commencement: divestiture:

- $100 \%$ of AB , and
- $\$ 600 / \mathrm{mo}$. supplement to 62 if benefit commences between 60 and 62 within the 5 year protection period.

AB reduced based on age/service as of the divestiture with 5 added to each:

- $0 \%$ if 85 points at commencement (counting points for 5 years after divestiture; i.e., if 75 points at divestiture), otherwise
- $4 \% / \mathrm{yr}$. for commencement prior to 60 (reduction based on greater of (i) actual age or (ii) sum of age at divestiture +5 ).

AB available between the ages of 55 and 65 adjusted for age at commencement:

- $0 \%$ if 85 points at commencement (counting points for 5 years after divestiture; i.e., if 75 points at divestiture), otherwise
- $4 \% / \mathrm{yr}$. For commencement prior to 60.

AB available between the ages of 55 and 65 adjusted for age at commencement:

- 6\%/yr. prior to 65.
$A B$ vested at divestiture regardless of service and made available at age 65.

AB available at age 55-65, but 6\%/yr. reduction prior to 65.

Same as column $\mathbf{~ a . ~}$

Same as column a.
(a) No employee described in this Addendum I will be eligible for a disability benefit from the O\&R Plan after the Divestiture Date.
(b) An employee who declines an offer of employment with Southern (except as otherwise provided in footnote 6) will be eligible for a vested Participant Spouse's Allowance prior to the employee's Annuity Starting Date, unless coverage is waived. Employees who did not apply for employment with Southern and who are covered under the Pension Protection Program will be treated as actively employed and their spouses will be entitled to a precommencement Spouse's Allowance for which there is no coverage charge; provided, however, that Spouse's Allowance coverage will cease as of the end of the 5-year protection period in the case of 40/20 employees.

# Attachment I. 4 Addendum II - Chart for Management and Union Employees <br> Eligible for a Voluntary Severance Program <br> Age and ES as of the Employee's Termination Date <br> Employee Terminates Employment under Voluntary Severance Program 

1. Age 65
2. Age 62+ with $10+$ VS
3. Age 60-62 with $10+$ VS
4. Age 55-59 with $10+$ VS
5. Age 50-54 with $10+$ VS
(Note: benefits cannot in any case begin until actual age 55)
6. Age 40-49 with $20+\mathrm{VS}$
7. Any age under 50 with $10-19$ VS
8. Any age with under 10 VS
$100 \%$ of AB
$100 \%$ of AB
$100 \%$ of $A B$ and $\$ 600 / \mathrm{mo}$. Supplement up to 62.
Regardless of when benefit commences or points at termination:

- $100 \%$ of AB , and
- $\$ 600 / \mathrm{mo}$. Supplement to 62 if benefit commences between 60 and 62 within the 5 -year protection period which begins on the date of termination.
AB reduced based on age/service as of the termination with 5 added to each:
- $0 \%$ if 85 points at commencement (counting points for 5 years after termination; i.e., if 75 points at termination), otherwise
- $4 \% / \mathrm{yr}$. for commencement prior to 60 (reduction based on greater of (i) actual age or (ii) sum of age at termination +5 ).
AB available between the ages of 55 and 65 adjusted for age at commencement:
- $0 \%$ if 85 points at commencement (counting points for 5 years after termination; i.e., if 75 points at divestiture), otherwise
- $4 \% / \mathrm{yr}$. for commencement prior to 60.

AB available between the ages of 55 and 65 adjusted for age at commencement:

- $6 \% /$ yr. prior to 65.

AB vested at termination regardless of service and made available at age 65.
(a) No Employee described in this Addendum II will be eligible for a disability benefit from the O\&R Plan after termination of employment.
(b) 50/10 and 40/20 Employees who terminate employment covered under the VSP will be treated as actively employed and their spouses will be entitled to a pre-commencement Spouse's Allowance for which there is no coverage charge; provided, however, that Spouse's Allowance coverage will cease as of the end of the 5-year protection period in the case of 40/20 employees.

## Provisions Applicable to Affected Indian Point ("IP") Employees.

## J. 1 Effective Date and Scope of Appendix J.

This Appendix $J$ shall not become effective unless and until the closing of the sale of CECONY's nuclear-fueled electricity generating facilities at Indian Point ("IP") occurs. This Appendix J shall be applied to the determination of benefits payable to a CECONY Management Participant or CECONY Weekly Participant who, as of the date of the closing of the sale of IP ("IP Divestiture"), had been assigned to IP, and who remains in the employ of the buyer, or successor thereto, of the IP ("Divestiture Buyer") subsequent to IP Divestiture in 2001 ("Affected IP Employees").

## J. 2 Treatment of Affected IP Employee.

(a) Solely for purposes of determining whether an Affected IP Employee is entitled to apply the favorable actuarial discount factors and early retirement subsidies available to a Rule of 75 Participant, the Accredited Service of an Affected IP Employee shall be determined by adding to his or her Accredited Service credited prior to the IP Divestiture his or her "Post Divestiture Service." "Post Divestiture Service" means the period of employment with the Divestiture Buyer determined as if the Post Divestiture Service were employment with CECONY, including the application of Section 3.02 to the Post Divestiture Service, provided, however, that Post Divestiture Service shall not be taken into account for purposes of benefit accrual or computation of the amount of the Affected IP Employee's benefit under the Plan. Post Divestiture Service shall not be taken into account for any period after a Participant's Annuity Starting Date.
(b) An Affected IP Employee who had not earned a nonforfeitable right to one hundred percent $(100 \%)$ of his or her accrued Pension Allowance as of the day immediately prior to the IP Divestiture shall become fully and nonforfeitably vested in one hundred percent ( $100 \%$ ) of his or her Pension Allowance as of the date of the IP Divestiture.
(c) For purposes of determining the value of an Affected IP Employee's Surviving Spouse's benefits, the Accredited Service of an Affected IP Employee shall be determined in accordance with the provisions of Appendix J, Section J.2(a).

## APPENDIX J

## Provisions Applicable to CECONY Support Employee re: Voluntary Retirement Incentive-Support Organizations Program

## K. 1 Effective Date and Scope of Appendix K.

Effective July 1, 1999, and notwithstanding any other provision of the Plan, the provisions of this Appendix K shall be applicable and available to those "CECONY Support Employees," as defined in Appendix K, Section K.2, who meet the eligibility criteria set forth in Section K.3. The provisions of this Appendix K shall be applicable only during the limited period of time and on the other terms and conditions set forth in this Appendix K.

## K. 2 CECONY Support Employees.

The term "CECONY Support Employee" means an Eligible Employee who, as of June 1, 1999, was employed by CECONY in a department that provided support to the Divestiture Operations, as defined in Appendix H. A list of those departments in which CECONY Support Employees were employed as of June 1, 1999 is set forth in Section K 8.

## K. 3 Eligibility Criteria.

A CECONY Support Employee satisfies the eligibility criteria for the Voluntary Retirement Incentive-Support Organizations Program, if, as of December 31, 1999, she or he or she attained age 53, and the sum of his or her age and Years of Accredited Service, as of August 31, 1999, but projected to December 31, 1999, is seventy-five (75) or more. For the purpose of determining the sum of the CECONY Support Employee's age and Years of Accredited Service, projected to December 31, 1999, a CECONY Support Employee shall be deemed to have continued in employment with the CECONY until December 31, 1999.

## K. 4 Retirement under Voluntary Retirement Incentive - Support Organizations Program.

A CECONY Support Employee who satisfies the eligibility criteria set forth in Section K. 3 and who elects during the period from July 1, 1999 through August 16, 1999, on a form furnished by and filed with CECONY, to accept the retirement incentives described in Section K.5, shall retire with an effective date of September 1, 1999. A CECONY Support Employee's election to retire shall be revocable until the close of business on the seventh day following the end of the election period, or August 23, 1999. If the CECONY determines that deferral is warranted by business necessity or extraordinary circumstances, CECONY may require a CECONY Support Employee who has made an election in accordance with this Section to defer his or her effective date of retirement until no later than January 1, 2000.

## K. 5 Special Retirement Benefits under Voluntary Retirement Incentive - Support Organizations.

The retirement benefits payable to a CECONY Support Employee who elects to retire, pursuant to Section K.4, under the Voluntary Retirement Incentive Support Organizations Programs, shall be determined as follows:
(a) For purposes of determining the number of Years of Accredited Service, the CECONY Support Employee's termination from employment shall be deemed to occur on December 31, 1999.
(b) The CECONY Support Employee's Final Average Salary or Pay shall be determined as if he or she had remained in employment until December 31, 1999 and his or her Annual Basic Straight Time Compensation had remained unchanged from the rate in effect at July 1, 1999.
(c) For purposes of Appendix F.1.A(b), Section I(b), or Section F.2.A(b), the CECONY Support Employee's Total Salary shall be determined as if he or she had remained in employment until December 31, 1999 and his or her rate of pay had remained unchanged from the rate in effect on July 1 , 1999.
(d) For purposes of Section 4.04(b)(iv), the discount factor in Table A for all ages equal to or greater than age 55 shall be deemed to be 1.000 .
(e) In addition to the benefit determined in accordance with subsections (c) and (d) above, the CECONY Support Employee shall receive a special lump sum amount ("Special Lump Sum") which shall be equal to the sum of:
(i) $33 \%$ of his or her Final Average Salary or Pay, plus
(ii) $2 \%$ of his or her Final Average Salary or pay multiplied by his or her Years of Accredited Service, provided, however, that Years of Accredited Service in excess of $33^{1 / 2}$ shall not be taken into account.
(f) For purposes of determining the amount of the Special Lump Sum, a CECONY Support Employee's Years of Accredited Service shall be determined by deeming his or her date of termination of employment as December 31, 1999. his or her Final Average Salary or Pay shall be determined by taking into account the provisions of Section K. 5 subparagraph (b). The Special Lump Sum shall be payable in accordance with the provisions of Section K.5, subparagraph (g).
(g) The CECONY Support Employee may elect to receive the Special Lump Sum in the form of a single lump sum payment payable as soon as practicable after the CECONY Support Employee's effective date of retirement. If the CECONY Support Employee is married, such election shall be given effect only if his or her spouse provides written consent thereto, on a form furnished by the Plan Administrator and witnessed by a Notary Public. If the CECONY Support Employee does not make the election described in the foregoing sentence, then the Special Lump Sum shall be payable as an annuity in accordance with the provisions of Section K. 5 subparagraph (h).

## APPENDICES

(h) If the Special Lump Sum is payable as an annuity, such annuity shall commence on the same date and be payable in the same form as the CECONY Support Employee's Pension Allowance determined in accordance with the applicable benefit formula, giving effect to any election by the CECONY Support Employee in accordance with Article 5. The amount of such annuity shall be determined by first converting the Special Lump Sum into an annuity for the life of the CECONY Support Employee, on the basis of the Adjusted IRS Interest Rate and the IRS Mortality Table, and on the basis of the CECONY Support Employee's age as of January 1, 2000, and then by applying the adjustment factor, if any, applicable to the CECONY Support Employee's Pension Allowance, pursuant to any election made by the CECONY Support Employee in accordance the provisions of Article 5.
(i) In the event that the actual retirement date of a CECONY Support Employee is deferred, pursuant to Section K.4, then upon his or her actual retirement, his or her retirement benefits shall be determined in accordance with subparagraphs (a) and (b), except that: (i) his or her period of Accredited Service from September 1, 1999 through his or her actual date of retirement shall be added to the Accredited Service otherwise determined in accordance with subparagraph (a); and (ii) subparagraphs (b) and (c) shall be applied by (A) substituting for "December 31, 1999" a date that is later than December 31, 1999 by the same number of months that the CECONY Support Employee's actual date of retirement is later than September 1, 1999, and (B) by substituting for "July 1, 1999" the earlier of October 1, 1999 or the day next preceding his or her actual date of retirement.

## APPENDICES

(j) If a CECONY Support Employee whose retirement is deferred pursuant Section K. 4, dies prior to his or her actual date of retirement, any election made by such CECONY Support Employee in accordance with Article 5 shall be given effect in the same manner as if the first day of the month that includes his or her date of death had been his or her Annuity Starting Date, and the Special Lump Sum shall be payable in accordance with the election made by the Employee pursuant to subparagraph (g). If the CECONY Support Employee had elected to receive the Special Lump Sum as a single lump sum payment, then such amount shall be paid to his or her Surviving Spouse, or, if there is no Surviving Spouse, to his or her Beneficiary, or, if there is no Beneficiary, to his or her beneficiary under the group term life insurance policy maintained by CECONY at the time of his or her death, on the first day of the month following his or her date of death.
(k) For purposes of the Cost of Living Adjustment provisions and entitlements, Article 11, any CECONY Support Employee whose actual retirement date is deferred until January 1, 2000 and whose Pension Allowance commenced in January 2000 shall be deemed to have had his or her Pension Allowance commenced to be paid prior to December 31, 1999 and shall be entitled to the annual adjustment to be made in April 2000.

## APPENDICES

## K. 6 Treatment of Certain Employees Retiring after March 31, 1999 but prior to August 1, 1999

An Eligible Employee of CECONY, who would have been a CECONY Support Employee within the meaning of Section K. 1 and who would have satisfied the eligibility criteria set forth in Section K.2, except that he or she retired from the employment of CECONY after March 31, 1999 and prior to August 1, 1999, shall nonetheless be entitled to the retirement incentives described in Section K.5. For purposes of subparagraphs (b) and (c) of Section K.5, the date next preceding his or her actual date of retirement shall be substituted for "July 1, 1999", and provided, further, however, that any increase in his or her Allowance benefit resulting from the application of subparagraphs (a), (b), (c) or (d), of Section K. 5 shall be payable effective September 1, 1999 and, for the purpose of subparagraph (h) of Section K.5, he or she shall be deemed to have commenced to receive his or her Pension Allowance as of September 1, 1999.
K. 7 Voluntary Nature of Retirement Incentive; Acceptance and Release. No Employee shall be obligated to accept any retirement incentive, and an Employee's election to accept the retirement incentive described in this Appendix K shall be purely voluntary. As a condition to an Employee's receipt of the additional benefits described in this Appendix K, CECONY shall have the right to obtain from the Employee a waiver and or release of claims against CECONY and/or the Plan, based upon or arising out of termination of employment, consistent with the requirements of the federal Age Discrimination in Employment Act, as amended by the Older Workers Benefit Protection Act.
K. 8 Support Departments for Purposes of Appendix K. For purposes of this Appendix K, the following departments shall be deemed to have provided support to the Divestiture Operation: Central Services; Finance; Law; Central Public Affairs; Energy Management; and Fossil Power Engineering, Construction and Support.

## APPENDIX K

TABLE 1 - O\&R PARTICIPANT
ILLISTRATIVE PENSION BENEFIT ADJUSTMENT CALCULATION ASSUMING ANNUAL INFLATION EXCEEDS CAP IN LATER YEARS

| Retirement Date | 1993 |
| :--- | ---: |
| Monthly Pension Payment | $\$ 2,000$ |

—Pension Benefit Adjustment-

| Year | CPI-U <br> (a) | Amount Inflation (b) | Cum. Inflation (c) | PUO Threshold <br> (d) | Excess over Threshold (e) | 75\% of Cum. <br> Excess Prior <br> Yr. <br> (f) | $\begin{aligned} & \text { Cum. } \\ & \text { 3\% Cap } \\ & \text { (g) } \end{aligned}$ | Annual PUO Percent Increases <br> (h) | Cum. PBA <br> (i) | PBA increase Effective June 1 (j) | Monthly Pension Payment (k) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | (d-f) |  |  | (75\% x c) | (3\% Term) | (j/k) | (Lesser for g) |  | (dif. Col.k) | (\$2,000 x i) |
| 1992 | 140.3 |  |  |  |  |  |  |  |  |  |  |
| 1993 | 144.5 | 2.99\% | 2.99\% | 20\% |  |  |  |  |  |  | \$2,000.00 |
| 1994 | 149.6 | 3.55\% | 6.63\% | 20\% |  |  |  |  |  |  | \$2,000.00 |
| 1995 | 155.6 | 4.01\% | 10.91\% | 20\% |  |  |  |  |  |  | \$2,000.00 |
| 1996 | 161.2 | 3.60\% | 14.90\% | 20\% |  |  |  |  |  |  | \$2,000.00 |
| 1997 | 168.0 | 4.22\% | 19.74\% | 20\% |  |  |  |  |  |  | \$2,000.00 |
| 1998 | 172.5 | 2.60\% | 22.29\% | 20\% | 2.95\% |  | 1 |  |  |  | \$2,000.00 |
| 1999 | 178.5 | 3.40\% | 27.23\% | 20\% | 7.23\% | 2.21\% | 3.00\% | 2.01\%(A) | 2.01\% | 40.20 | \$2,040.20 |
| 2000 | 182.6 | 2.30\% | 30.15\% | 20\% | 10.15\% | 5.42\% | 6.09\% | 2.61\% | 5.42\% | 60.20 | \$2,100.40 |
| 2001 | 189.0 | 3.50\% | 34.71\% | 20\% | 14.71\% | 7.61\% | 9.27\% | 1.73\% | 7.61\% | 43.00 | \$2,152.20 |
| 2002 | 195.0 | 3.17\% | 30.99\% | 20\% | 18.99\% | 11.05\% | 12.55\% | 2.65\% | 11.03\% | 60.40 | \$2,220.40 |
| 2003 | 210.0 | 7.69\% | 49.60\% | 20\% | 29.60\% | 14.24\% | 15.93\% | 2.30\% | 14.24\% | 64.20 | \$2,284.80 |
| 2004 | 225.0 | 7.14\% | 60.37\% | 20\% | 40.37\% | 22.26\% | 19.41\% | 5.77\% | 19.41\% | 103.40 | \$2,388.20 |
| 2005 | 205.5 | 3.00\% | 45.00\% | 20\% | 25.00\% | 15.64\% | 19.41\% | 2.76\% | 15.64\% | 61.60 | \$2,312.80 |
| 2006 | 209.7 | 3.00\% | 49.43\% | 20\% | 29.43\% | 10.81\% | 22.99\% | 2.74\% | 18.81\% | 63.40 | \$2,376.20 |
| 2007 | 215.9 | 3.00\% | 53.91\% | 20\% | 33.91\% | 22.07\% | 26.60\% | 2.74\% | 22.07\% | 65.20 | \$2,441.40 |
| 2008 | 222.4 | 3.00\% | 50.53\% | 20\% | 38.53\% | 25.43\% | 30.40\% | 2.75\% | 25.43\% | 67.20 | \$2,500.60 |
| 2009 | 229.1 | 3.00\% | 63.29\% | 20\% | 43.29\% | 20.90\% | 34.39\% | 2.77\% | 28.90\% | 69.40 | \$2,578.00 |
| 2010 | 236.0 | 3.00\% | 68.18\% | 20\% | 40.10\% | 32.47\% | 38.42\% | 2.77\% | 32.47\% | 71.40 | \$2,649.40 |
| 2011 | 243.0 | 3.00\% | 73.23\% | 20\% | 53.23\% | 36.14\% | 42.50\% | 2.77\% | 36.14\% | 73.40 | \$2,722.00 |
| 2012 | 250.3 | 3.00\% | 78.43\% | 20\% | 58.43\% | 39.92\% | 46.85\% | 2.78\% | 39.92\% | 75.60 | \$2,798.40 |
| 2013 | 257.8 | 3.00\% | 83.70\% | 20\% | 63.70\% | 43.02\% | 51.26\% | 2.79\% | 43.82\% | 78.00\% | \$2,876.40 |

Note: All calculations performed with Cumulative information. Annual information derived by subtraction.

TABLE 2 -O\&R PARTICIPANT
ILLISTRATIVE PENSION BENEFIT ADJUSTMENT CALCULATION ASSUMING ANNUAL INFLATION EXCEEDS CAP IN EARLY YEARS

| Retir <br> Mon | Payme | 1993 $\$ 2,00$ |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | -Pension | enefit Adjust | ent- |  |  |  |  |
| Year | CPI-U <br> (a) | Annual Inflation (b) | Cum. Inflation (c) | PUO Threshold <br> (d) | Excess over Threshold (e) | 75\% of Cum. Excess Prior Yr. (f) | $\begin{aligned} & \text { Cum. } \\ & \text { 3\% Cap } \end{aligned}$ (g) | Annual PBA Percent Increases <br> (h) | Cum. <br> (i) | PUA increase Effective June 1 (j) | Monthly Pension Payment <br> (k) |
|  |  |  |  |  | (d-f) | (75\% X c) | (3\% Term) | ( $/$ / $\mathbf{~ ) ~}$ | (Lesser for g) | (dif. Col.k) | (\$2,000 x i) |
| 1992 | 140.3 |  |  |  |  |  |  |  |  |  |  |
| 1993 | 144.5 | 2.99\% | 2.99\% | 20\% |  |  |  |  |  |  | \$2,000.00 |
| 1994 | 140.7 | 2.91\% | 5.99\% | 20\% |  |  |  |  |  |  | \$2,000.00 |
| 1995 | 152.0 | 2.22\% | 8.34\% | 20\% |  |  |  |  |  |  | \$2,000.00 |
| 1996 | 156.0 | 2.43\% | 11.19\% | 20\% |  |  |  |  |  |  | \$2,000.00 |
| 1997 | 162.0 | 3.05\% | 15.47\% | 20\% |  |  |  |  |  |  | \$2,000.00 |
| 1998 | 165.5 | 2.16\% | 17.96\% | 20\% |  |  |  |  |  |  | \$2,000.00 |
| 1999 | 172.0 | 3.93\% | 22.59\% | 20\% | 2.59\% |  | 1 |  |  |  | \$2,000.00 |
| 2000 | 185.0 | 7.56\% | 31.06\% | 20\% | 11.86\% | 1.94\% | 3.00\% | 1.94\% | 1.94\% | 30.00 | \$2,038.00 |
| 2001 | 190.0 | 7.03\% | 41.15\% | 20\% | 21.13\% | 8.90\% | 6.09\% | 4.07\% | 6.09\% | 83.00 | \$2,121.00 |
| 2002 | 210.0 | 6.06\% | 49.68\% | 20\% | 29.68\% | 15.05\% | 9.27\% | 3.00\% | 9.27\% | 63.60 | \$2,185.40 |
| 2003 | 223.0 | 6.19\% | 58.95\% | 20\% | 30.95\% | 22.26\% | 12.55\% | 3.00\% | 12.55\% | 65.60 | \$2,251.00 |
| 2004 | 239.0 | 7.17\% | 70.35\% | 20\% | 50.35\% | 29.21\% | 15.93\% | 3.00\% | 15.93\% | 67.60 | \$2,318.60 |
| 2005 | 253.0 | 5.86\% | 80.33\% | 20\% | 60.35\% | 37.76\% | 19.41\% | 3.00\% | 19.41\% | 69.60 | \$2,500.20 |
| 2006 | 264.0 | 4.35\% | 88.17\% | 20\% | 60.17\% | 45.25\% | 22.99\% | 3.00\% | 22.99\% | 71.60 | \$2,459.00 |
| 2007 | 271.0 | 2.65\% | 93.16\% | 20\% | 73.16\% | 51.13\% | 26.60\% | 3.00\% | 26.68\% | 73.80 | \$2,533.60 |
| 2008 | 279.0 | 2.95\% | 98.06\% | 20\% | 78.06\% | 54.07\% | 30.40\% | 3.00\% | 30.40\% | 76.00 | \$2,609.60 |
| 2009 | 288.0 | 3.23\% | 105.27\% | 20\% | 85.27\% | 59.15\% | 34.39\% | 3.00\% | 34.39\% | 78.20 | \$2,687.00 |
| 2010 | 297.0 | 3.13\% | 111.69\% | 20\% | 91.69\% | 63.95\% | 30.42\% | 3.00\% | 30.42\% | 80.00 | \$2,768.40 |
| 2011 | 305.0 | 2.69\% | 117.39\% | 20\% | 97.39\% | 68.77\% | 42.50\% | 3.01\% | 42.50\% | 85.20 | \$2,851.60 |
| 2012 | 315.0 | 3.20\% | 124.52\% | 20\% | 104.52\% | 73.04\% | 46.85\% | 2.99\% | 46.85\% | 85.40 | \$2,937.00 |
| 2013 | 325.0 | 3.17\% | 131.65\% | 20\% | 111.65\% | 78.39\% | 51.26\% | 3.00\% | 51.26\% | 80.70\% | \$3,025.20 |

Note: All calculations performed with Cumulative information. Annual information derived by subtraction.

TABLE 3 - O\&R PARTICIPANT
ILLISTRATIVE PENSION BENEFIT ADJUSTMENT CALCULATION ASSUMING ANNUAL INFLATION EXCEEDS CAP IN EARLY YEARS

| Retirement Date | 1993 |
| :--- | ---: |
| Monthly Pension Payment | $\$ 2,000$ |

—Pension Benefit Adjustment-

| Year | CPI-U <br> (a) | Annual Inflation (b) | Cum. Inflation (c) | PUO Threshold <br> (d) | Excess over Threshold (e) | 75\% of Cum. <br> Excess Prior Yr. <br> (f) | $\begin{aligned} & \text { Cum. } \\ & \text { 3\% Cap } \\ & \text { (g) } \end{aligned}$ | Annual PBA Percent Increases <br> (h) | Cum. <br> (i) | PUA increase Effective June 1 (j) | Monthly Pension Payment (k) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | (d-f) | (75\% X c) | (3\% Term) | ( $/ \mathrm{k}$ ) | (Lesser forg) | (dif. Col.k) | (\$2,000 x i) |
| 1992 | 140.3 |  |  |  |  |  |  |  |  |  |  |
| 1993 | 144.5 | 2.99\% | 2.99\% | 20\% |  |  |  |  |  |  | \$2,000.00 |
| 1994 | 149.6 | 3.53\% | 6.63\% | 20\% |  |  |  |  |  |  | \$2,000.00 |
| 1995 | 155.6 | 4.01\% | 10.91\% | 20\% |  |  |  |  |  |  | \$2,000.00 |
| 1996 | 161.2 | 3.60\% | 14.90\% | 20\% |  |  |  |  |  |  | \$2,000.00 |
| 1997 | 160.0 | 4.22\% | 19.74\% | 20\% |  |  |  |  |  |  | \$2,000.00 |
| 1998 | 172.5 | 2.68\% | 22.95\% | 20\% | 7.95\% |  | 1 |  |  |  | \$2,000.00 |
| 1999 | 178.5 | 3.40\% | 27.23\% | 20\% | 7.23\% | 2.21\% | 3.00\% | 2.01\%(A) | 2.01\% | 40.20 | \$2,040.20 |
| 2000 | 182.6 | 2.30\% | 30.15\% | 20\% | 10.15\% | 5.42\% | 6.09\% | 2.61\% | 5.42\% | 60.20 | \$2,100.40 |
| 2001 | 189.0 | 3.50\% | 34.71\% | 20\% | 14.71\% | 7.61\% | 9.27\% | 1.75\% | 7.61\% | 43.00 | \$2,152.20 |
| 2002 | 195.0 | 3.17\% | 38.99\% | 20\% | 18.99\% | 11.03\% | 12.55\% | 2.65\% | 11.03\% | 60.40 | \$2,220.40 |
| 2003 | 210.0 | 7.69\% | 49.68\% | 20\% | 29.60\% | 14.24\% | 15.93\% | 2.30\% | 14.24\% | 64.20 | \$2,284.80 |
| 2004 | 225.0 | 7.14\% | 60.37\% | 20\% | 40.37\% | 22.26\% | 19.41\% | 5.77\% | 19.41\% | 103.40 | \$2,388.20 |
| 2005 | 245.0 | 8.89\% | 74.63\% | 20\% | 54.63\% | 30.28\% | 22.99\% | 5.36\% | 22.99\% | 71.60 | \$2,459.80 |
| 2006 | 270.0 | 10.20\% | 92.44\% | 20\% | 72.44\% | 40.97\% | 26.68\% | 6.67\% | 26.68\% | 73.00 | \$2,533.60 |
| 2007 | 296.0 | 9.63\% | 110.98\% | 20\% | 90.98\% | 54.35\% | 30.40\% | 7.65\% | 30.40\% | 76.00 | \$2,609.60 |
| 2008 | 315.0 | 6.42\% | 124.52\% | 20\% | 104.52\% | 60.24\% | 34.59\% | 7.22\% | 34.39\% | 78.20 | \$2,687.80 |
| 2009 | 335.0 | 6.55\% | 130.77\% | 20\% | 118.77\% | 78.39\% | 38.42\% | 4.01\% | 38.42\% | 80.60 | \$2,768.40 |
| 2010 | 350.0 | 6.87\% | 155.17\% | 20\% | 135.17\% | 89.08\% | 42.50\% | 4.76\% | 42.50\% | 83.70 | \$2,851.60 |
| 2011 | 379.0 | 5.87\% | 170.14\% | 20\% | 150.14\% | 101.37\% | 46.05\% | 5.15\% | 46.05\% | 85.40 | \$2,937.00 |
| 2012 | 400.0 | 5.54\% | 185.10\% | 20\% | 165.10\% | 112.61\% | 51.26\% | 4.40\% | 51.26\% | 88.20 | \$3,025.20 |
| 2013 | 430.0 | 7.50\% | 206.49\% | 20\% | 186.49\% | 123.83\% | 55.80\% | 4.16\% | 55.00\% | 90.80\% | \$3,116.00 |

Note: (A) Excess over 20\% threshold is greater than $\qquad$ yr. inflation rate in initial year of PBA adjustment. Use $75 \%$ of prior year inflation or $75 \%$ excess over threshold to calculate PBA. All later years calc. are cumulative. All calculations performed with Cumulative information. Annual information derived by subtraction.

## APPENDIX L

## Provisions Applicable to Participants <br> Employed at the Lakewood Plant

## M. 1 Effective Date and Scope of Appendix M

This Appendix M shall be effective as of June 1, 2000, the closing date of the acquisition of the natural gas fueled electric generation facility known as the Lakewood Cogeneration Facility ("Lakewood Plant") by Consolidated Edison Development, Inc. ("CED").

## M. 2 Lakewood Participants

For purposes of this Appendix M, the term "Lakewood Participant" means an Eligible Employee who is employed at the Lakewood Plant. A Lakewood Participant shall be a CEI Participant, and shall receive the benefit determined under the formula for a CEI Participant set forth in Article IV of the Plan.

## M. 3 Benefit Provisions Applicable to Lakewood Participants as of June 1, 2000

Notwithstanding any provision to the contrary, a Lakewood Participant who was employed at the Lakewood Plant as of June 1, 2000 shall be fully and nonforfeitably vested in $100 \%$ of his or her Pension Allowance ("Special Lakewood Participant"). Years of service of a Special Lakewood Participant as a Participant in the Pension Plan for Employees of Consumers Power Company shall be counted as Years of Accredited Service for purposes of calculating his or her Pension Allowance under the formula for a CEI Participant.


[^0]:    1 Bond Number, if Bonds are no longer held by Securities Depository.

[^1]:    246721 -Consolidated Edison Retirement Plan - Appendices Amended 2004

[^2]:    246721 -Consolidated Edison Retirement Plan - Appendices Amended 2004

[^3]:    246721 -Consolidated Edison Retirement Plan - Appendices Amended 2004

[^4]:    246721 -Consolidated Edison Retirement Plan - Appendices Amended 2004

[^5]:    246721 -Consolidated Edison Retirement Plan - Appendices Amended 2004

[^6]:    246721 -Consolidated Edison Retirement Plan - Appendices Amended 2004

[^7]:    Note: Ages for determination of option reduction: Step 1: Determine Participant's nearest age in terms of years and months at the date payments commence. Step 2: Determine difference in Participant's and contingent annuitant's dates of birth to nearest year. Step 3: Spouse’s nearest age is Participant's nearest age in Step 1 plus or minus difference determined in Step 2.

[^8]:    Note: Ages for determination of option reduction: Step 1: Determine Participant's nearest age in terms of years and months at the date payments commence. Step 2: Determine difference in Participant's and contingent annuitant's dates of birth to nearest year. Step 3: Spouse’s nearest age is Participant's nearest age in Step 1 plus or minus difference determined in Step 2.

[^9]:    Note: Ages for determination of option reduction: Step 1: Determine Participant's nearest age in terms of years and months at the date payments commence. Step 2: Determine difference in Participant's and contingent annuitant's dates of birth to nearest year. Step 3: Spouse’s nearest age is Participant's nearest age in Step 1 plus or minus difference determined in Step 2.

[^10]:    Note: $\quad$ Ages for determination of option reduction: Step 1: Determine Participant's nearest age in terms of years and months at the date payments commence. Step 2: Determine difference in Participant's and contingent annuitant's dates of birth to nearest year. Step 3: Spouse’s nearest age is Participant's nearest age in Step 1 plus or minus difference determined in Step 2.

[^11]:    246721 -Consolidated Edison Retirement Plan - Appendices Amended 2004

[^12]:    246721 -Consolidated Edison Retirement Plan - Appendices Amended 2004

[^13]:    246721 -Consolidated Edison Retirement Plan - Appendices Amended 2004

[^14]:    246721 -Consolidated Edison Retirement Plan - Appendices Amended 2004

[^15]:    249120 Consolidated Edison Retirement Plan - Appendices Amended 2004

