COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC UTILITIES

	)	
Western Massachusetts Electric Company's	)	D.P.U. 09-05
Solar Program	)	
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STIPULATION AGREEMENT

June 18, 2009

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DEPARTMENT OF PUBLIC UTILITIES

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STIPULATION AGREEMENT

This Stipulation Agreement ("Agreement") is proposed by Western Massachusetts Electric Company ("WMECO" or "Company") and the Attorney General of Massachusetts (the "Attorney General") and (collectively, the "Stipulating Parties") pursuant to 220 C.M.R. 1.10(8) with regard to the Company's solar filing ("Filing") submitted under Section 58 of Chapter 169 of the Acts of 2008 ("Green Communities Act" or "GCA") on February 12, 2009.

PREAMBLE

This Agreement is intended to offer a partial settlement of the proceeding in the nature of stipulations designed to govern WMECO's 6 MW proposed solar photovoltaic ("PV") program ("Program"). The Stipulating Parties anticipate that the Department of Public Utilities ("Department") will conduct evidentiary hearings in this proceeding to examine the Filing and testimony filed by intervenors in determining whether to accept the stipulations. While approval of the stipulations will resolve the Company's Program and conclude its case, the Stipulating Parties request that the Department establish a second phase to this proceeding or other process to investigate fully a policy proposal for further implementation of solar PV deployment under the Green Communities Act through a Commonwealth-wide "pool" approach.

WHEREAS, the Stipulating Parties acknowledge that the Green Communities Act provides for the ownership of solar generation by electric companies;

WHEREAS, the Stipulating Parties have engaged in informal discovery, negotiations and discussions with regard to the matters specified in the articles of this Agreement;

WHEREAS, the Stipulating Parties have raised competing and disputed claims with regard to the various issues contained in the Filing, but wish to resolve those and other matters on mutually agreeable terms, and without establishing any new precedent or principle applicable to any other proceedings;

WHEREAS, the Stipulating Parties intend that customers receive the full value of the settled issues, and not some substitute regulatory treatment of lesser value either now or in the future, and agree that no terms of this Agreement or supporting attachments, schedules and calculations will be used or interpreted to diminish, in any way, the intended customer benefit related to this Agreement; and

WHEREAS, this Agreement is offered with the intent of resolving WMECO's Filing submitted on February 12, 2009, and thus simplify, reduce or avoid time consuming, costly or unnecessary proceedings.

NOW THEREFORE, in consideration of the exchange of promises and covenants herein contained, the legal sufficiency of which is hereby acknowledged, the Stipulating Parties agree, subject to approval by the Department, as follows:

ARTICLE 1

Overview of the Filing

1.1 On February 12, 2009, WMECO submitted to the Department its Filing. The Filing provided that in the initial Development Phase, 6 MW of solar capacity would be installed. This stage would begin in 2009 and be complete in 2010. The Filing also provided that in the next stage, the Deployment Stage, expected to last through 2012, an additional 9 MW will be built. The final stage, the Expansion Stage, called for a capacity build-out from between 15 MW and 50 MW.

1.2 The Company estimated its annual revenue requirements for 2009 through 2013 under its Filing as follows:

2009: 0

2010: $4,882,000

2011: $6,589,000

2012: $5,622, 000

2013: $4,910,000

1.3 In its Filing, WMECO requested a return on equity (“ROE”) of 10 percent, basing its request on WMECO’s rate settlement in D.P.U. 06-55.

1.4 In its Filing, WMECO stated that the revenue requirement for the Development Phase would be $42 million. WMECO further stated that its revenue requirement for the 9 MW Deployment Stage would be $63 million. In sum, WMECO’s filing stated that the impacts of these two stages of solar development would lead to an average rate impact of 0.8 percent for all customers in 2010, 1.1 percent in 2011 and 0.9 percent in 2012.

1.5 As an alternative to a fully litigated case, the Settling Parties agree to a revised solar development by WMECO that will maintain momentum for solar PV development in the Commonwealth, but will reduce the impacts on customers and allow for time to develop a Commonwealth-wide solar plan. Such a Commonwealth-wide solar plan is likely to yield a broader range of options, synergies and opportunities to lower costs to achieve Governor Patrick's 250 MW solar objective by 2017. It is also likely to provide clearer, more integrated coordination of solar development across the Commonwealth.

1.6 This Agreement shall only resolve those issues as specified in the numbered Articles 2 to 9.

ARTICLE 2
Overview of the Stipulations

2.1 The Department approves the Company's Program, as proposed in the Filing, as modified by the following six categories of stipulations:

(1) Program Structure: the scope, size and deployment of the Program.

(2) Cost pre-approval: the treatment of Program investments.

(3) Ratemaking: the specific design, implementation and ongoing use of a reconciling recovery mechanism for the Program's costs and expenses.

(4) Transparency: the application of competitive procurement methods, cost controls, supplier / contractor qualification, acceptance criteria and oversight features for the Program.

(5) Customer Value: the methods for minimizing the cost and maximizing the economic benefits of the Program.

(6) Financing: the capital structure and financing costs used in calculating the Program's costs.

2.2 The stipulations in each of these categories, as an integrated whole, allow WMECO to maintain momentum for solar PV deployment in the Commonwealth while allowing the option for consideration of a state-wide policy to further large scale deployments over 6 MW.

ARTICLE 3
Program Structure

3.1 The Department approves the following stipulations pertaining to Program structure:

(1) The size of WMECO's solar deployment under its Filing shall be no greater than 6 MW.

(2) The Program shall focus on larger-scale sites. WMECO will emphasize utility properties and under-served sites such as landfills, brownfields and development projects. Sites shall be selected with the objective of minimizing the rate impacts of the solar installations.

(3) Site selection must comply with the cost control criteria set forth in Article 6 of this Agreement.

(4) WMECO shall only deploy PV facilities larger than 200 kW.

(5) The Program shall be implemented during 2009, 2010, 2011 and 2012.

(6) The maximum amount of PV facilities commissioned in any one year from 2010 through 2012 will not exceed 3 MW, subject to the 6 MW limit.

ARTICLE 4
Cost Pre-Approval

4.1 The Program, as modified by the stipulations in Articles 2 through 9 in this Agreement (collectively, the "Cost Pre-Approval Method" or "CPAM") provides an appropriate method for ascertaining the solar PV generation costs pre-approved for Company recovery under the Green Communities Act.

4.2 WMECO shall utilize the CPAM as the basis for the Program's pre-approval.

4.3 The Department's consideration and acceptance of the CPAM establishes a method of obtaining cost pre-approval that is in accord with the Green Communities Act and shall be used by WMECO.

ARTICLE 5
Ratemaking

5.1 The fully-reconciling formula tariff, Solar Program Cost Adjustment ("SPCA") (attached hereto as Attachment A and incorporated into this Agreement), is an appropriate method of cost recovery for the investments in the Company's Program. Recovery should occur equitably across customer classes and recovery through a non-bypassable element of electric charges is appropriate.

5.2 The SPCA defines the form and function of this ratemaking as a reconciling tariff, with specific components, criteria, calculations and its formula for application in rates.

5.3 The Department approves the ratemaking mechanism applicable to WMECO's Program, as shown in the SPCA. In the event that the implementation of this mechanism occurs by way of another proceeding, the form and function of this ratemaking mechanism shall not change from that approved in this proceeding. The ratemaking mechanism defined in this Article 5 will become effective the earlier of (a) the effective date of the Department's approval of new rates for WMECO resulting from the Company's next filing for a general increase in base distribution rates under G. L. c. 164, § 94, or (b) January 1, 2011.

5.4 For purposes of this Agreement, the term "commissioning" shall mean the instant in which the Company interconnects a solar facility with its distribution system and commences commercial operation.

5.5 For purposes of the SPCA, incremental costs shall mean only those costs that are completely and directly incurred by, and necessary for, the Program. Under no circumstances may incremental costs include those direct or allocated costs represented or recoverable in whole or in part by any other rate, charge or tariff. WMECO will recover its incremental costs as part of the EXP component of the SPCA. For purposes of this calculation, such costs shall include, but not be limited to, the following categories: depreciation expense associated with solar facilities; property tax associated with solar facilities; return on solar investment; contractor costs associated with installation, operation and maintenance of solar facilities; consultant costs related to solar program; outside legal fees associated with solar program; host rental fees; any additional Company property and liability insurance specific to solar facilities; cost of new employees fully dedicated to the Program; and any paid overtime for existing employees conducting emergency repair or restoration work at solar facilities. These costs shall be tracked through the Company's accounting system with sufficient detail and clarity to permit incremental Program costs to be distinguished from other costs.

ARTICLE 6

Transparency

6.1 The Program shall make maximum possible use of Requests for Proposals ("RFPs") and competitive bidding for all material aspects of the Program, including but not limited to the procurement of technology, equipment, construction, maintenance and other key services utilized by the Program. For purposes of RFPs and competitive bidding, "material" shall mean any construction expenditure in excess of $150,000 and any annual expense in excess of $50,000.

6.2 Clearly defined cost controls, supplier / contractor qualification, pre-established acceptance criteria and self-regulating oversight features are important aspects of transparency and shall be utilized by WMECO in its Program.

6.3 The use of five control measures across the Program's deployment will help ensure adequate transparency and oversight. These five control measures pertain to:

(1) Site Selection

(2) Procurement Activities

(3) Contracting

(4) Project Execution

(5) Monitoring & Reporting

6.4 WMECO shall adhere to these measures for the Program.

(1) Site Selection:

(a) WMECO's evaluation of potential sites and projects shall first emphasize benefits of favorable site/project costs, economies of scale, PV system output, operating costs and then consider the benefits from community development, job creation, and electric system benefits.

(b) Project selection shall include a measure of the installation costs for a project that include all capital expenditures, including, but not limited to, those for site development, site design, site engineering, site construction and PV equipment. This cost figure will be stated on a dollars per kilowatt basis.

(c) The measure of installation costs allows for a common comparison of project costs that accommodates the variability attributable to certain types of sites and various site conditions.

(d) WMECO will use an Installation Cost Target ("ICT") as a threshold for determining the projects it will seek to develop under the Program. The ICT will be equal to $6,800/kW and may be increased by an adjustment factor of no more than 5% (to $7,140/kW). Article 6.4(3)(b) defines the use of this adjustment factor. WMECO shall develop projects with estimated installation costs that are likely to be below this target.

(2) Procurement Activities:

(a) WMECO will make maximum use of competitive bidding and RFPs to solicit proposals from qualified bidders to develop its solar projects under the Program, including, but not limited to, the necessary equipment and services.

(b) WMECO's selection criteria primarily will emphasize the estimated installation cost of a facility. WMECO will use the ICT to evaluate the responses to its solicitations.

(i) Facilities with estimated installation costs in excess of the ICT will not be eligible for development under WMECO's Program, unless the proposed facility qualifies in response to another competitive bidding solicitation.

(ii) WMECO may exclude projects that comply with the ICT but have site features or other factors that WMECO determines realistically present unreasonably high costs to customers.

(3) Contracting:

(a) Upon screening the response to its solicitations with the ICT, consistent with the other applicable stipulations in this Agreement, WMECO will enter into contract negotiations with responsive bidders representing the best value for customers. During these negotiations, WMECO will formalize the term, conditions and the applicable cost estimates.

(b) If necessary, WMECO may apply an adjustment factor (defined in Article 6.4(1)(d)) to modify the estimated installation cost of a project to (i) represent unique site/project characteristics, or (ii) facilitate contract negotiations, provided the negotiations improve customer value. No such features or negotiations shall result in a project exceeding the ICT.

(c) The Final Cost Estimate ("FCE") is the estimated cost for an individual facility resulting from WMECO's final analysis of contract negotiations. The FCE will include the ICT plus the adjustment of no more than 5%, described in Article 6.4(1)(d) . WMECO will use the FCE to measure execution performance.

(d) As appropriate, a contract that WMECO executes in connection with material aspects of the Program shall have appropriate cost overrun control provisions sufficient to protect customers.

(4) Project Execution:

(a) WMECO's cost for implementing an individual project will comply with an Actual Cost Threshold ("ACT").

(b) The ACT will be equal to the FCE plus an allowable contingency range of up to 10%. For example, if the FCE for a facility is $6,500/kW, the ACT will equal $7,150/kW ($6,500 plus 10%). Costs in excess of the ACT are recoverable, subject to approval by the Department, but shall not include a return on equity.

(c) In the event that actual costs exceed the ACT, WMECO shall notify the Stipulating Parties and the Department within 45 days of discovery that a cost overrun has occurred, together with a narrative explanation of the reason for the overrun and appropriate documentation.

(d) Upon receiving notification from WMECO and the narrative explanation, a signatory to this Agreement may request a technical session and/or a proceeding and evidentiary hearing to review the circumstances before the Department.

(5) Monitoring & Reporting:

(a) WMECO will provide the Department with periodic annual written reporting as frequently as circumstances merit.

(b) No later than November 1st of each year, WMECO shall provide the Department with an Annual Compliance Filing. This filing will provide the Department with updated cost estimates and detailed actual project costs. These estimates will reflect the results of competitive bidding and other pertinent analyses. WMECO will also update calculations prescribed under the SPCA (as approved by the Department in this proceeding) to reflect changes in the data for estimates and/or actual costs.

(c) The Parties agree that, no later than June 1st of each year, WMECO shall provide the Department and the Stipulating Parties with an Annual Program Status Filing. This filing will provide the Department with an update on the scope, schedule and cost of the active projects and the Program as a whole. The Company may also provide key findings pertaining to the performance of its PV systems.

(d) Upon commissioning each PV facility, WMECO will provide the Department and the other Stipulating Parties with notification of such commissioning.

ARTICLE 7

Renewable Energy and Tax Credits

7.1 Customers shall be credited with the value attributable to Energy, Capacity (where cost-effective) and Renewable Energy Credits ("RECs") as defined by prevailing regulations and over the life of the investments. WMECO will provide such credits to customers as an offset to the annual costs of the Program. WMECO is responsible for managing the activities necessary to fulfill such transactions and shall use its best efforts to maximize the value for such credits for the benefit of customers while giving preference to the objectives of both the Green Communities Act and the Commonwealth's energy policies.

7.2 In the event there are Federal and/or State incentives or other programs that are (a) applicable to the Company's solar facilities and (b) represent a demonstrable source of value to WMECO customers, the Company shall use diligent efforts to identify and promptly secure such benefits for customers during the service life of the Program, and promptly flow the credits back to customers through the SPCA.

7.3 The Investment Tax Credits ("ITCs"), as defined by prevailing regulations, shall be credited back to customers over the life of the investments or on a more accelerated basis if regulations permit. For ratemaking purposes, in the event WMECO divests in whole or in part any solar facilities addressed in this Agreement, any unamortized ITCs shall be provided to customers, to the maximum extent allowed by applicable law or regulation.

ARTICLE 8

Financing

8.1 The return on ratebase calculation in the Company's solar tariff shall be based upon, to the maximum extent practical, a cost of capital that is specific to WMECO's solar investments, allowing the Program's capital costs to be discretely tracked over the life of the investments and separate from the Company's other assets and investments.

8.2 The return on ratebase calculation will use a capital structure equal to the Company's 5-quarter average debt and equity ratios, as prescribed in the SPCA.

8.3 The return on ratebase shall use a fixed cost of equity equal to 9.00 percent. This rate shall remain in effect over the useful life of the Company's solar investments.

8.4 The return on ratebase calculation shall utilize an incremental cost of long-term debt, calculated as follows:

(1) The calculation of the cost of debt for solar facilities commissioned during 2010, 2011 and 2012 shall correspond with the long-term debt issued in those years, as defined in the SPCA.

(2) These rates shall remain in place for the life of the investment. In the event the debt issuances expire or are retired, the cost of debt attributable to that issuance shall be replaced by the incremental cost of debt issued to replace the original.

8.5 The long-term debt components that WMECO utilizes in the calculation of the SPCA shall be appropriately reflected in, and its impact eliminated from, the long-term debt components used in calculating WMECO's distribution rates, and any other applicable rates, to the maximum extent practical.

8.6 Attachment B is a narrative description of the procedure for determining long-term debt costs for the SPCA to assist with understanding this process with a model depicting a variety of potential scenarios. Attachment C provides an illustrative Return on Ratebase calculation.

ARTICLE 9

9.1 This Agreement shall not be deemed in any respect to constitute an admission by any party that any allegation or contention in this proceeding is true or false. Except as specified in this Agreement to accomplish the customer benefit intended by this Agreement, the entry of an order by the Department approving thise Agreement shall not in any respect constitute a determination by the Department as to the merits of any other issue.

9.2 This Agreement establishes no principles or precedent and shall not be deemed to foreclose any party from making any contention in any future proceeding investigation, except as to those issues and proceedings that are stated in this Agreement as being specifically resolved and terminated by approval of this Agreement. Nothing in this Agreement shall be construed to relieve the Company from its obligation of prudence in the execution of the Program.

9.3 This Agreement is the product of settlement negotiations. The Stipulating Parties agree that the content of those negotiations (including any workpapers or documents produced in connection with the negotiations) are confidential, that all offers of settlement are without prejudice to the position of any party or participant presenting such offer or participating in such discussion, and, except to enforce rights related to this Agreement or defend against claims made under this Agreement, that they will not use the content of those negotiations in any manner in these or other proceedings involving one or more of the parties to this Agreement, or otherwise.

9.4 This Agreement is consistent to the maximum extent possible, given the particular characteristics of solar energy development and the nature of this Agreement, with 220 C.M.R. § 9.00 *et seq.* To the extent that 220 C.M.R. § 9.00 *et seq.* is deemed to apply to the Program and this Agreement is considered in any respect not to be fully consistent with these regulations, the involved regulation is deemed waived by Department approval of this Agreement pursuant to 220 C.M.R. § 9.05.

9.5 The provisions of this Agreement are not severable. This Agreement is conditioned on its approval in full by the Department. This Agreement is also contingent upon the provision of accurate and truthful information by the Company during the settlement negotiation process.

9.6 If the Department does not approve this Agreement in its entirety, this filing shall be deemed to be withdrawn and shall not constitute a part of the record in any proceeding or used for any other purpose.

9.7 To the extent permitted by law, the Department shall have its usual jurisdiction to implement the terms of this Agreement. Nothing in this Agreement, however, shall be construed to prevent or delay the Attorney General from pursuing any cause of action related to this Agreement in court under G.L. c. 93A or otherwise.

9.8 Under no circumstances shall: (1) any charge under this Agreement or tariffs promulgated hereunder recover costs that are collected by the Company more than once, or through some other rate, charge or tariff; or (2) any charge recover costs more than once in any other rate, charge or tariff collected by the Company, it being acknowledged by the Stipulating Parties that such collection(s) described in this article unless fully refunded with interest, as soon as reasonably possible, shall constitute a breach of this Agreement when discovered and generally known, and be deemed to violate the involved tariffs.

9.9 Notwithstanding any provision in this Agreement to the contrary, no part of this Agreement shall be interpreted to interfere with the Attorney General’s rights to petition the Department under G.L. c. 164, §93, or otherwise under law or regulation, for a review of the Company for any reason.

9.10 The terms of this Agreement shall be governed by Massachusetts law and not the law of some other state. This Agreement shall be effective upon approval by the Department, regardless of any pending appeals or motions for reconsideration, clarification, or recalculation, and the obligations imposed in each Article shall expire on that date stated therein, if any.

9.11 The signatories listed below represent that they are authorized on behalf of their principals to enter into this Agreement.

WESTERN MASSACHUSETTS ELECTRIC COMPANY

By its attorney,

____

Stephen Klionsky
100 Summer Street, 23rd Floor
Boston, MA 02110
(617) 345-1066

MARTHA COAKLEY, ATTORNEY GENERAL

By,

____

Jed Nosal, Chief
Office of Ratepayer Advocacy
Attorney General's Office
One Ashburton Place
Boston, MA 02108
(617) 727-2200 x2106

June 18, 2009

ATTACHMENT A

WESTERN MASSACHUSETTS ELECTRIC COMPANY

MDPU No. 1044B

SOLAR PROGRAM COST ADJUSTMENT
(SPCA)

The Solar Program Cost Adjustment ("SPCA") shall recover from all customers taking service under the Company's rates only those Program costs incurred by the Company for providing its Program. These costs shall be constituted by any Program-related incremental costs as defined in the formula below and otherwise qualifying under the terms of the Stipulation Agreement dated June 18, 2009 in D.P.U. 09-05. The SPCA factor will be implemented no later than January 1, 2011, and each year thereafter, or as described herein.

$$\text{SPCA Factor} = \frac{\text{RR}}{\text{Estimated Calendar Year Kilowatt-hour Sales}}$$

Where RR is the total revenue requirement needed to recover the prior period cumulative actual solar investment and monthly operating expenses incurred throughout the prior calendar year and RR = EXP + [RB x ROR] – CR + ADJ + MB:

> Where the term "prior period" and/or "prior calendar year" represent the period prior to January 1 each year;

And where

- Estimated Calendar Year Kilowatt-hour Sales is the Company's best estimate based on its most current forecast.

- For purposes of the SPCA, incremental costs shall mean only those costs that are completely and directly incurred by, and necessary for, the Program. Incremental costs shall exclude those direct or allocated costs represented or recoverable in whole or part by any other rate, charge or tariff.

- EXP is the actual monthly operation and maintenance cost incurred throughout the prior calendar year incrementally caused by the Program, including but not limited to such expenses as payroll and associated employee costs, material and supplies, taxes, roof or land rental or lease payments or other consideration provided to host facilities and specific liability protection for Program facilities related to host facilities.
    - Should certain actual monthly expenses be unavailable at the time the SPCA Factor is calculated, the Company may use an estimate and reconcile such amount through the ADJ component.
    - Employee costs will exclude pension/PBOP costs recovered through the Company's Pension/PBOP Mechanism (PPAM) Tariff unless said tariff is terminated by the Department.

ATTACHMENT A

- There shall be no recovery for rental and lease payment for utility-owned property.

- RB is the rate base amounts associated with the facilities that have been commissioned prior to January 1st of each year. For purposes of this tariff, the commissioning date shall mean the instant in which the Company interconnects a solar facility with its distribution system and the facility commences commercial operation. RB will include, but is not limited to gross plant, depreciation reserve, accumulated deferred income taxes and a working capital allowance of 1.56 percent times RR (as may be changed from time to time by WMECO's most recent distribution rate case order). Rate base will be determined on a monthly basis reflecting the commissioning date of a solar facility. Should certain actual monthly rate base balances be unavailable at the time the SPCA factor is calculated, the Company may use an estimate and reconcile such balance through the ADJ component.

- ROR is rate of return used to calculate the return on the Company's solar investment. The ROR will be determined as follows:

ROR = WACDA + WACEA

Where

WACDA = LTDR x EMBCOD x GRCF

And

WACEA = ER x EC x GRCF

And where

LTDR = the average of the Company's actual long-term debt for the most recent five quarters divided by the average of the actual long-term debt and equity for the same five quarters.

EMBCOD = the cost of debt issued during the period of solar investments made in 2010, 2011 and 2012. To the extent any of the bonds allocated through this formula mature prior to the total recovery of the solar investment, the formula will be updated to include the

ATTACHMENT A

components of the replacement bond. This component is calculated using the $SLTD_n$ components defined below.

ER	=	the Company's actual 5-quarter average equity ratio.
EC	=	the equity rate of 9.00 percent as described in Article 8.3.
GRCF	=	the gross revenue conversion factor applied to the rate of return necessary to recover the revenue requirement. In the case of the WACD, the factor is 1. The factor for the WACE is 1/(1- T) where T equals the effective tax rate for federal and state income tax the Company must recover to achieve 9.00 percent.
WACDA	=	the WACD adjusted for state and federal income taxes.
WACEA	=	the WACE adjusted for state and federal income taxes.

ATTACHMENT A

WESTERN MASSACHUSETTS ELECTRIC COMPANY

MDPU No. 1044B

SOLAR PROGRAM COST ADJUSTMENT
(SPCA)

- $SLTD_n$ is the long-term cost of debt associated with the Program investment and is included in the ROR in year n. The first year of solar investment is 2010.

$$SLTD_n = \frac{[\,2010SI / 2010TB\,] \quad x \quad 2010TB(@BIR)}{2010TSI}$$

Where

2010SI = 2010 solar investment commissioned.

2010TB = the new 2010 total bond issuance, if any.

2010TB(@BIR) = the amount of the 2010 total bond issue allocated to the 2010 solar investment at the total interest cost of that bond. If no bond is issued, then the Company's short-term component will be utilized.

2010TSI = the total solar investment through 2010 weighting the overall interest rate for each issuance.

And

$$SLTD_2 = \frac{[\,2011SI \;/\; 2011TB\,] \quad x \quad 2011TB(@BIR) \quad + \quad SLTD_{int1}}{2011TSI}$$

Where

2011SI = 2011 solar investment commissioned.

2011TB = the new 2011 total bond issuance, if any.

2011TB(@BIR) = the amount of the 2011 total bond issue allocated to the 2011 solar investment at the total interest cost of that bond.

$SLTD_{int1}$ = the interest amount calculated on the allocated portion of 2010TB(@BIR)

2011TSI = the total solar investment through 2011 weighting the overall interest rate for each issuance.

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WESTERN MASSACHUSETTS ELECTRIC COMPANY

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SOLAR PROGRAM COST ADJUSTMENT
(SPCA)

And where

$$SLTD_3 = \frac{[\,2012SI / 2012TB] \times 2012TB(@BIR) + SLTD_{int1} + SLTD_{int2}}{2012TSI}$$

Where

2012SI = 2012 solar investment commissioned.

2012TB = the new 2012 total bond issuance, if any.

2012TB(@BIR) = the amount of the 2012 total bond issue allocated to the 2012 solar investment at the total interest cost of that bond.

$SLTC_{int2}$ = the interest amount calculated on the allocated portion of 2011TB(@BIR)

2012TSI = the total solar investment through 2012 weighting the overall interest rate for each issuance.

To the extent any of the bonds allocated through this formula mature prior to the total recovery of the solar investment, the formula will be updated to include the components of the replacement bond.

- CR is the actual annual amount of revenues received for the previous 12-month period from the sale of the energy, capacity, renewable energy credits and any other non-customer revenue offsets that the Company is able to obtain from or for its solar facilities.

- ADJ is an adjustment reflecting the reconciliation of the prior period revenue requirement to true up differences resulting from actual and allowed revenue or the use of any estimated data Any under/over recoveries will include a carrying charge based on the monthly average balance at the customer deposit rate as described below.

- MB is the recovery of mobilization costs, which represent costs incurred to implement the program prior to Department approval.

ATTACHMENT A

SOLAR PROGRAM COST ADJUSTMENT
(SPCA)

The SPCA factor shall be established annually based on the actual Program revenue requirements needed to recover the solar investment and operating costs incurred to date.

The Company will reconcile any estimates used for the purpose of determining the SPCA factor. The Company will also reconcile the revenue allowed as a result of the approved SPCA factor with the actual revenue collected from customers. Any over- and under-recoveries occurring as a result of such reconciliation shall incur a carrying charge based on the monthly average reconciled balance as the customer deposit rate.

The first year's SPCA factor will be based on calendar-year data ending December of that year. Any over- or under-recoveries will be included as part of the ADJ component and shall be refunded to or collected from all customers on a per kilowatt-hour basis over the following twelve (12) months, with interest at the customer deposit rate not adjusted for taxes.

The Company may file to update data at any time should significant over- or under-recoveries occur and flow the updated through the tariff formula. If actual costs and revenues are unavailable for any month, said costs or revenues shall be estimated, subject to later adjustment through the ADJ component, for purposes of the foregoing calculation. Any adjustment of the SPCA factor shall be in accordance with a notice filed with the Department of Public Utilities ("Department") setting forth the amount of the proposed new factor, the amount of the increase or decrease, and the effective delivery charge in the Company's rates as adjusted to reflect the new factor. The notice shall further specify the effective date of such adjustments, which shall not be earlier than thirty (30) days after the filing of the notice, or such other date as the Department may authorize.

The operation of the SPCA is subject to Section 58 of Chapter 169 of the Acts of 2008 (as codified at G.L. c. 164, §1A(f)) and the other provisions of Chapter 164 of the General Laws.

ATTACHMENT B

Procedure for determining Long-Term Debt Costs for the SPCA

Year 1

Year 1 of the Program is 2010. The first Solar Investments are expected to be commissioned between 1/1/2010 and 12/31/2010. Solar Investments commissioned prior to 12/31/2010 are referred to as the "2010SI".

The SPCA tariff charge effective from 1/1/2011 through 12/31/2011 and recovers the capital investments and annual costs associated with the 2010SI. This charge is calculated in accordance with the formulae in the SPCA tariff, using the weighted average cost of debt attributable to 2010SI.

The cost of debt rate to be utilized in calculating the SPCA tariff charge attributable to the 2010SI is referred to as "$SLTD_1$" and accommodates the following scenarios:

- If the Company does not issue any new corporate long term debt during 2010, then $SLTD_1$ will be set equal to the Company's weighted average cost of short term debt during 2010.
- If the Company issues new corporate long term debt during 2010, then the $SLTD_1$ will be set equal to the weighted average cost of long term debt issued during 2010.

Year 2

Year 2 of the Program is 2011. Solar Investments commissioned between 1/1/2011 and 12/31/2011 are referred to as the "2011SI".

The SPCA tariff charge effective from 1/1/2012 through 12/31/2012 recovers the capital investments and annual costs associated with the 2010SI and the 2011SI. This charge is calculated in accordance with the formulae in the SPCA tariff, using the weighted average of cost of debt attributable to the 2010SI and the 2011SI..

The cost of debt rate to be utilized in calculating the SPCA tariff charge attributable to the 2010 SI and the 2011SI is referred to as the "$SLTD_2$" and accommodates the following scenarios:

- If the Company does not issue any new corporate long term debt during either 2010 or 2011, then $SLTD_2$ will be set equal to the Company's weighted average cost of short term debt during 2011.
- If the Company issues new corporate LT debt during 2011 but did not issue any new long term debt during 2010, then $SLTD_2$ will be set equal to the weighted average cost of any new long term debt issued during 2011.
- If the Company issues new corporate LT debt during 2010 but does not issue any new long term debt during 2011, then the $SLTD_2$ shall be set equal to the weighted average cost of any new long term debt issued during 2010.
- If the Company issues new corporate LT debt during both 2010 and 2011, then the $SLTD_2$ will be set equal to the weighted average cost of any new long term debt issued during 2010 and during 2011.

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Year 3

Year 3 of the Program is 2012. Solar Investments commissioned between 1/1/2012 and 12/31/2012 are referred to as the "2012SI".

The SPCA tariff charge effective from 1/1/2013 through 12/31/2013 recovers the capital investments and annual costs associated with the 2010SI, the 2011SI, and the 2012SI. This charge is calculated in accordance with the formulae in the SPCA tariff, using the weighted average of the long term debt issued in 2010, 2011 and 2012.

The cost of debt rate to be utilized in calculating the SPCA tariff charge attributable to the 2010SI, the 2011 SI and the 2012SI shall be referred to as the "$SLTD_3$" and shall be determined as follows.

- If the Company does not issue any new corporate LT debt during either 2010, 2011, or 2012, then the $SLTD_3$ shall be set equal to the Company's weighted average cost of short term debt during 2012.
- If the Company issues new corporate long term debt during 2012 but did not issue any new long term debt during 2010 or 2011, then $SLTD_3$, will be set equal to the weighted average cost of any new long term debt issued during 2012.
- If the Company issues new corporate long term debt during 2011 but did not issue any new long term debt during 2010 or 2012, then the $SLTD_3$will be set equal to the weighted average cost of any new long term debt issued during 2011.
- If the Company issues new corporate long term debt during 2010 but did not issue any new long term debt during 2011 or 2012, then the $SLTD_3$ will be set equal to the weighted average cost of any new long term debt issued during 2010.
- If the Company issues new corporate long term debt during 2010 and 2011 but not during 2012, then $SLTD_3$ will be equal to the weighted average cost of new debt issued during 2010 and during 2011.
- If the Company issues new corporate long term debt during 2010 and 2012 but not during 2011, then $SLTD_3$ will be equal to the weighted average cost of new debt issued during 2012 during 2010.
- If the Company issues new corporate long term debt during 2011 and 2012 but not during 2010, then $SLTD_3$ will be set equal to the weighted average cost of new debt issued during 2012 during 2011
- If the Company issues new corporate long term debt during each of 2010, 2011, and 2012, then $SLTD_3$ shall be set equal to the weighted average cost of any new long term debt issued during 2010, 2011 and 2012.

Adjustments to WMECO cost of capital for non-SPCA Purposes

As defined in Articles 8.5 of this Agreement, any portion of any new corporate debt issued in 2010, 2011, or 2012 that is allocated to the 2010SI, the 2011SI, and the 2012SI, in the SPCA calculations, will be appropriately reflected in the Company's other tariff and ratemaking calculations.

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Simplified Calculations

Figures 1 and 2 provide simplified calculations to help explain the process for determining the LT debt costs for the Program and separating these debt costs from the Company's cost of capital for other purposes.

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Figure 1

SIMPLIFIED EXAMPLE OF WMECO SPCA COST OF CAPITAL EXAMPLE A - NO NEW DEBT ISSUED BEFORE SOLAR PROJECTS

($millions)

	beginning balances - total company					annual expenditures - total company			new issuances during year			"solar" capitalization						beginning balances - EDC only		
year	equity	LT debt	wtd avg LT debt rate	ST debt	annual ST debt rate	EDC capex	solar capex	total exp	new LT debt issued	new LT debt rate	new equity issued	"incr solar LT debt"	"solar debt rate"	"solar equity"	cum "solar LT debt"	cum "solar LT debt rate"	cum "solar equity"	EDC equity	EDC LT debt	EDC LT debt rate
1	$ 250.00	**$ 250.00**	**5.00%**	**$ 20.00**	**6.00%**	**$ 20.00**		$ 20.00	**$ -**	8.00%	$ -			$ -	$ -		$ -	$ 250.00	$ 250.00	5.00%
2	$ 250.00	$ 250.00	5.00%	$ 40.00	**6.10%**	**$ 20.00**		$ 20.00	**$ -**	8.10%	$ -			$ -	$ -		$ -	$ 250.00	$ 250.00	5.00%
3	$ 250.00	$ 250.00	5.00%	$ 60.00	**6.20%**	**$ 20.00**	**$ 10.00**	$ 30.00	**$ -**	8.20%	$ -		6.20%	$ -	$ -		$ -	$ 250.00	$ 250.00	5.00%
4	$ 250.00	$ 250.00	5.00%	$ 90.00	**6.30%**	**$ 20.00**	**$ 10.00**	$ 30.00	**$ 50.00**	8.30%	$ 50.00	**$10.00**	8.30%	$ 10.00	$ 10.00	**8.30%**	$ 10.00	$ 250.00	$ 250.00	5.00%
5	$ 300.00	$ 300.00	5.55%	$ 20.00	**6.40%**	**$ 30.00**	**$ 10.00**	$ 40.00	**$ -**	8.40%	$ -	**$5.00**	8.30%	$ 5.00	$ 15.00	**8.30%**	$ 15.00	$ 290.00	$ 290.00	5.46%
6	$ 300.00	$ 300.00	5.55%	$ 60.00	**6.50%**	**$ 30.00**	**$ 10.00**	$ 40.00	**$ 50.00**	8.50%	$ 50.00	**$5.00**	8.50%	$ 5.00	$ 20.00	**8.35%**	$ 20.00	$ 285.00	$ 285.00	5.41%
7	$ 350.00	$ 350.00	5.97%	$ -	**6.60%**	**$ 20.00**		$ 20.00	**$ -**	8.60%	$ -			$ -	$ 20.00	**8.35%**	$ 20.00	$ 330.00	$ 330.00	5.83%
8	$ 350.00	$ 350.00	5.97%	$ 20.00	**6.70%**	**$ 30.00**		$ 30.00	**$ -**	8.70%	$ -			$ -	$ 20.00	**8.35%**	$ 20.00	$ 330.00	$ 330.00	5.83%
9	$ 350.00	$ 350.00	5.97%	$ 50.00	**6.80%**	**$ 30.00**		$ 30.00	**$ -**	8.80%	$ -			$ -	$ 20.00	**8.35%**	$ 20.00	$ 330.00	$ 330.00	5.83%
10	$ 350.00	$ 350.00	5.97%	$ 80.00	**6.90%**	**$ 40.00**		$ 40.00	**$ 50.00**	8.90%	$ 50.00			$ -	$ 20.00	**8.35%**	$ 20.00	$ 330.00	$ 330.00	5.83%
11	$ 400.00	$ 400.00	6.34%	$ 20.00		$260.00	$ 40.00	$300.00	$150.00		$150.00	$20.00		$ 20.00				$ 380.00	$ 380.00	6.23%

In year 3, $10.0 solar project is commissioned. Because company has not issued any new LT debt since this project began, the SPCA to recover this investment is based upon the company capitalization structure and the incremental cost of ST debt of 6.2%, until new LT debt is issued in future years.

In year 4, a second $10.0 project is commissioned. Because company did issue new LT debt during this year, the SPCA to recover both the year 3 and year 4 investments is now based the cumulative solar investment share of new LT debt at the cost of new debt (i.e., $5 in year 3 and $5 in year 4 = $10 total @ 8.3%).

In year 5, a third $10.0 project is commissioned. The company did not issue new debt during this year. The SPCA to recover the year 3, 4, and 5 investments is based upon $15 at LT debt rate of 8.3% from the new debt issuance in year 4. In essence, $15 of the $50 new debt issuance in year 4 has been "allocated or assigned" to the solar projects.

In year 6 a fourth $10.0 project is commissioned. The company did issue new debt in this year at a higher rate than in year 4. The SPCA going forward is now based upon $15 at LT debt rate of 8.3% and $5 at LT debt rate of 8.5%.

Solar LT Debt

year	amount	rate	wtd rate
4	$ 15.00	8.30%	8.30%
6	$ 5.00	8.50%	8.35%
cum	$ 20.00	8.35%	

EDC LT Debt

year	amount	rate	wtd rate
1	$ 250.00	5.00%	5.00%
4	$ 35.00	8.30%	5.41%
6	$ 45.00	8.50%	5.83%
10	$ 50.00	8.90%	6.23%
cum	$ 380.00	6.23%	

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Figure 2

SIMPLIFIED EXAMPLE OF WMECO SPCA COST OF CAPITAL EXAMPLE A - ISSUE NEW DEBT BEFORE SOLAR PROJECTS

($millions)

	beginning balances - total company					annual expenditures - total company			new issuances during year			"solar" capitalization						beginning balances - EDC only		
year	**equity**	**LT debt**	**wtd avg LT debt rate**	**ST debt**	**avg ST debt rate**	**EDC capex**	**solar capex**	**total exp**	**new LT debt issued**	**new LT debt rate**	**new equity issued**	**"incr solar LT debt"**	**"solar debt rate"**	**"solar equity"**	**cum "solar LT debt"**	**cum "solar LT debt rate"**	**cum "solar equity"**	**EDC equity**	**EDC LT debt**	**EDC LT debt rate**
1	$ 250.00	**$ 250.00**	**5.00%**	**$ 60.00**	**6.00%**	**$ 20.00**		$ 20.00	**$ -**	8.00%	$ -			$ -	$ -		$ -	$ 250.00	$ 250.00	5.00%
2	$ 250.00	$ 250.00	5.00%	$ 80.00	**6.10%**	**$ 20.00**		$ 20.00	**$ 50.00**	8.10%	$ 50.00			$ -	$ -		$ -	$ 250.00	$ 250.00	5.00%
3	$ 300.00	$ 300.00	5.52%	$ -	**6.20%**	**$ 20.00**	**$ 10.00**	$ 30.00	**$ -**	8.20%	$ -			$ -	$ -		$ -	$ 300.00	$ 300.00	5.52%
4	$ 300.00	$ 300.00	5.52%	$ 30.00	**6.30%**	**$ 20.00**	**$ 10.00**	$ 30.00	**$ -**	8.30%	$ -	**$10.00**	8.10%	$ 10.00	$ 10.00	**8.10%**	$ 10.00	$ 300.00	$ 300.00	5.52%
5	$ 300.00	$ 300.00	5.52%	$ 60.00	**6.40%**	**$ 30.00**	**$ 10.00**	$ 40.00	**$ 50.00**	8.40%	$ 50.00	**$5.00**	8.40%	$ 5.00	$ 15.00	**8.20%**	$ 15.00	$ 290.00	$ 290.00	5.43%
6	$ 350.00	$ 350.00	5.93%	$ -	**6.50%**	**$ 30.00**	**$ 10.00**	$ 40.00	**$ -**	8.50%	$ -	**$5.00**	8.40%	$ 5.00	$ 20.00	**8.25%**	$ 20.00	$ 335.00	$ 335.00	5.83%
7	$ 350.00	$ 350.00	5.93%	$ 40.00	**6.60%**	**$ 20.00**		$ 20.00	**$ -**	8.60%	$ -			$ -	$ 20.00	**8.25%**	$ 20.00	$ 330.00	$ 330.00	5.79%
8	$ 350.00	$ 350.00	5.93%	$ 60.00	**6.70%**	**$ 30.00**		$ 30.00	**$ -**	8.70%	$ -			$ -	$ 20.00	**8.25%**	$ 20.00	$ 330.00	$ 330.00	5.79%
9	$ 350.00	$ 350.00	5.93%	$ 90.00	**6.80%**	**$ 30.00**		$ 30.00	**$ 50.00**	8.80%	$ 50.00			$ -	$ 20.00	**8.25%**	$ 20.00	$ 330.00	$ 330.00	5.79%
10	$ 400.00	$ 400.00	6.29%	$ 20.00	**6.90%**	**$ 40.00**		$ 40.00	**$ -**	8.90%	$ -			$ -	$ 20.00	**8.25%**	$ 20.00	$ 380.00	$ 380.00	6.18%
11	$ 400.00	$ 400.00	6.29%	$ 60.00		$260.00	$ 40.00	$300.00	$150.00		$150.00	$20.00		$ 20.00				$ 380.00	$ 380.00	6.18%

In year 3, $10.0 solar project is commissioned. Because company issued new LT debt in year 2, the SPCA to recover this investment is based upon the company capitalization structure and the incremental cost of LT debt in year 2 @ 8.1%.

In year 4, a second $10.0 project is commissioned. Because company issued new LT debt year 2, the SPCA to recover both the year 3 and year 4 investments is now based the cumulative solar investment share of new LT debt at the cost of new debt issued in year 2 (i.e., $10 total @ 8.1%).

In year 5, a third $10.0 project is commissioned. The company did issue new debt during this year. The SPCA to recover the year 3, 4, and 5 investments is based upon $10 at LT debt rate of 8.1% from the new debt issuance in year 2, and $5 in new debt issued in year 5 at 8.4%

In year 6 a fourth $10.0 project is commissioned. The company did not issue new debt in this year . The SPCA going forward is now based upon $10 at LT debt rate of 8.1% and $10 at LT debt rate of 8.4%.

Solar LT Debt

year	amount	rate	wtd rate
2	$ 10.00	8.10%	8.10%
5	$ 10.00	8.40%	8.25%
cum	$ 20.00	8.25%	

EDC LT Debt

year	amount	rate	wtd rate
1	$ 250.00	5.00%	5.00%
2	$ 40.00	8.10%	5.43%
5	$ 40.00	8.40%	5.79%
9	$ 50.00	8.80%	6.18%
cum	$ 380.00	6.18%	

Cost of Debt Calculations

Solar Investments	2010	20,000,000	
	2011	10,000,000	
	2012	15,000,000	
		45,000,000	
WMECO Bond Issue	Year	Issuance	BIR
	2010	50,000,000	6.0%
	2011	75,000,000	7.0%
	2012	25,000,000	5.0%
		150,000,000	

$SLTD_1$	=	**{ (2010SI**	/	**2010TB)**	x	**2010TB@BIR }**	=	**($SLTD_1$ Interest**	+	**SLTD int)**	/	**TSI**	=	**$SLTD_1$**
		20,000,000	/	50,000,000	x	6.0%	=	1,200,000	+	0	/	20,000,000	=	6.0%
$SLTD_2$	=	**{ (2011SI**	/	**2011TB)**	x	**2011TB@BIR }**	=	**($SLTD_2$ Interest**	+	**SLTD int1)**	/	**TSI**	=	**$SLTD_2$**
		10,000,000	/	75,000,000	x	7.0%	=	700,000	+	1,200,000	/	30,000,000	=	6.3%
$SLTD_3$	=	**{ (2012SI**	/	**2012TB)**	x	**2012TB@BIR }**	=	**($SLTD_3$ Interest**	+	**SLTD int2)**	/	**TSI**	=	**$SLTD_3$**
		15,000,000	/	25,000,000	x	5.0%	=	750,000	+	1,900,000	/	45,000,000	=	5.9%

Return on Ratebase Caluclations

ROR	=	WACDA	+	WACEA				
2010 WACDA	=	(LTDR	x	EMBCOD)	x	GRCF	=	WACDA
		50%	x	6.0%	x	1.00	=	3.00%
2010 WACEA	=	(ER	x	EC)	x	GRCF	=	WACEA
		50%	x	9.0%	x	1.65	=	7.43%
2010 ROR	=							10.43%
2011 WACDA	=	(LTDR	x	EMBCOD)	x	GRCF	=	WACDA
		50%	x	6.3%	x	1.00	=	3.15%
2011 WACEA	=	(ER	x	EC)	x	GRCF	=	WACEA
		50%	x	9.0%	x	1.65	=	7.43%
2011 ROR	=							10.58%
2012 WACDA	=	(LTDR	x	EMBCOD)	x	GRCF	=	WACDA
		50%	x	5.9%	x	1.00	=	2.95%
2012 WACEA	=	(ER	x	EC)	x	GRCF	=	WACEA
		50%	x	9.0%	x	1.65	=	7.43%
2012 ROR	=							10.38%