

SOLAR PROGRAM COST ADJUSTMENT
(SPCA)

1.01 Purpose

The Solar Program Cost Adjustment (“SPCA”) shall recover from all customers taking service under the Company’s rates only those Solar Program costs incurred by the Company for providing its Solar Program. The Solar Program consists of three solar facilities commissioned by the Company: (1) a 1.8 MW solar facility located on eight acres of brownfield property in Pittsfield, MA (the “Silver Lake Solar Facility”); (2) a 2.3 MW solar facility on twelve acres of brownfield property located in Springfield, MA (the “Indian Orchard Solar Facility”); and (3) a 3.9 MW solar facility on 22 acres of a landfill located in Springfield, MA (the “Cottage Street Solar Facility”). 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 and as amended in D.P.U. 13-50.

1.02 Effective Date

The SPCA factor will be implemented no later than January 1, 2011, and each year thereafter, or as described herein.

1.03 SPCA Formula

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

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 $\text{RR} = \text{EXP} + [\text{RB} \times \text{ROR}] - \text{CR} + \text{ADJ} + \text{MB}$:

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.

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- 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 unless said tariff is terminated by the Department.
- There shall be no recovery 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 the Company'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.
- BDRA is the Base Distribution Revenue Allocator.
- ROR is rate of return used to calculate the return on the Company's solar investment. The ROR will be determined as follows:

$$\text{ROR} = \text{WACDA} + \text{WACEA}$$

Where

$$\text{WACDA} = \text{LTDR} \times \text{EMBCOD} \times \text{GRCF}$$

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WACEA= $ER \times EC \times GRCF$

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 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 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.

- $SLTD_n$ 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.

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

Where

2010SI = 2010 solar investment commissioned.

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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

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

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.

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.

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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.

Effective February 1, 2018, the SPCA shall be calculated for the Western Massachusetts territory only. The revenue requirement calculated herein shall be allocated to all rate classes by applying the Base Distribution Revenue Allocator as follows:

Service Territory/Area	Rate Classes	Distribution Revenue Allocator
Western Massachusetts	R-1/R-2	48.027%
Western Massachusetts	R-3/R-4	8.114%
Western Massachusetts	23/24/G-0/T-0	19.596%
Western Massachusetts	G-2/T-4	8.650%
Western Massachusetts	T-2	11.156%
Western Massachusetts	T-5	3.720%

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Western Massachusetts	S-1/S-2	0.707%
Total		100.000%

Effective January 1, 2019, the revenue requirement calculated herein shall be allocated to all rate classes by applying the Base Distribution Revenue Allocator for each territory as shown below.

Service Territory/Area	Rate Classes	Distribution Revenue Allocator
All	R-1/R-2	41.145%
All	R-3/R-4	4.575%
Greater Boston	G-1/T-1	3.446%
Greater Boston	G-2/T-2	27.907%
Greater Boston	G-3/WR	7.998%
Cambridge	G-0/G-1/G-6	0.829%
Cambridge	G-2	1.329%
Cambridge	G-3/SB1	0.856%
Cambridge	G-4	0.012%
Cambridge	G-5	0.018%
South Shore, Cape Cod, Martha's Vineyard	G-1/G-7	3.930%
South Shore, Cape Cod, Martha's Vineyard	G-2	1.088%
South Shore, Cape Cod, Martha's Vineyard	G-3	0.610%
South Shore, Cape Cod, Martha's Vineyard	G-4	0.008%
South Shore, Cape Cod, Martha's Vineyard	G-5	0.053%
South Shore, Cape Cod, Martha's Vineyard	G-6	0.008%
Western Massachusetts	23/24/G-0/T-0	2.626%
Western Massachusetts	G-2/T-4	1.159%
Western Massachusetts	T-2	1.495%
Western Massachusetts	T-5	0.498%
Eastern Massachusetts	S-1/S-2	0.315%
Western Massachusetts	S-1/S-2	0.095%
Total		100.000%

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.

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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 at 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.

1.04 Information to be filed with the Department

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.

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