

MASSACHUSETTS ELECTRIC COMPANY
NANTUCKET ELECTRIC COMPANY
GRID MODERNIZATION FACTOR

1.0 APPLICABILITY

This Grid Modernization Factor (“GMF”) tariff provides for the recovery of incremental costs associated with the Company’s Grid Modernization Plan (“GMP”) approved by the Department of Public Utilities (the “Department”). To be eligible for recovery, GMP costs must: (1) be preauthorized by the Department; (2) be incremental relative to the Company’s current investment practices or new types of technology for capital investments; (3) be incremental to those costs that the Company currently recovers through its base distribution rates for operation and maintenance (“O&M”) expenses and solely attributable to preauthorized grid modernization investments; (4) be prudently incurred; (5) have aggregate total expenditures for preauthorized Eligible GMP Projects less than the four-year expenditure cap determined by the Department; and (6) be recorded as in-service by December 31 of each GMP Investment Year.

The Company’s rates for retail Delivery Service are subject to adjustment to reflect the operation of this GMF tariff. The Grid Modernization Factor (“GMF”), as defined herein, shall be applied to all retail delivery service kilowatt-hours (“kWhs”) as determined in accordance with the provisions of Section 3.0 below. The GMF shall be determined annually by the Company, subject to the Department’s review and approval. The operation of this GMF tariff is subject to Chapter 164 of the General Laws.

2.0 DEFINITIONS

- 2.1 Accumulated Deferred Income Taxes (ADIT) means the accumulated deferred income taxes associated with cumulative Eligible GMP Investments as of the end of the respective GMP Investment Year. For the year in which the Eligible GMP Investment was placed into service, the accumulative deferred income taxes will be determined on a monthly basis. The accumulated deferred income taxes for subsequent years shall be calculated based upon the average of the beginning and ending calendar year balances.
- 2.2 Accumulated Reserve for Depreciation (ARD) means the Accumulated Reserve for Depreciation, including net salvage, associated with cumulative Eligible GMP Investments as of the end of the respective GMP Investment Year. For the year in which the Eligible GMP Investment was placed into service, the Accumulated Reserve for Depreciation will be determined on a monthly basis. The Accumulated Reserve for Depreciation for subsequent years shall be calculated based upon the average of the beginning and ending calendar year balances.
- 2.3 Allowed O&M Expense (O&M) is the incremental O&M expense that is incurred by the Company as a result of implementing its GMP and is solely attributable to preauthorized grid modernization investments, including incremental GMP development and evaluation costs, the cost of which is not being recovered in base distribution rates or through another cost recovery mechanism. Eligible O&M costs are the actual monthly GMP-

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related O&M expenses incurred in the GMP Investment Year prior to the Recovery Year. Allowed O&M Expense is subject to the requirements of Section 4.0 and will exclude pension and post-retirement benefits other than pension costs recovered through any other reconciling mechanism.

- 2.4 Depreciation Expense (DEPR) is the annual depreciation expense associated with the average annual cumulative Eligible GMP Investments placed into service through the end of the calendar year prior to the Recovery Year. For the year during which the Eligible GMP Investment is placed into service, the Company shall calculate depreciation expense for use in the GMP Revenue Requirement by (1) dividing the annual depreciation accrual rates determined in the Company's most recent base distribution rate case by 12, and (2) applying the resulting rate to the average monthly plant balances during the year. Depreciation expense for subsequent years may be calculated based on the average of the beginning and end of year plant balances.
- 2.5 Eligible GMP Investments are the cumulative capitalized costs of Eligible GMP Projects recorded as in-service, including net salvage, and are used and useful at the end of the GMP Investment Year that is prior to the GMP Recovery Year.
- 2.6 Eligible GMP Project is a project contained in the Company's GMP and preauthorized by the Department to be eligible for cost recovery as a project which contributes towards achieving the Department's grid modernization objectives to: (1) optimize system performance by attaining optimal levels of grid visibility, command and control, and self-healing; (2) optimize system demand by facilitating consumer price-responsiveness; and (3) interconnect and integrate distributed energy resources.
- 2.7 GMF is the Grid Modernization Factor that recovers the annual GMP Revenue Requirement approved by the Department.
- 2.8 GMP is the Company's five-year Grid Modernization Plan which includes a four-year short-term investment plan consisting of Eligible GMP Projects, plus a five-year strategic plan outlining how the Company intends to meet the Department's grid modernization objectives.
- 2.9 GMP Investment Year is the annual period beginning on January 1 and ending on December 31.
- 2.10 Recovery Year is the 12-month period for which the GMF is in effect beginning on May 1 and ending on April 30 of each year.
- 2.11 GMP Revenue Requirement is the revenue requirement associated with GMP plant-in-service associated with Eligible GMP Investments for each GMP Investment Year prior to the Recovery Year and will be the sum of the Pre-Tax Return, Depreciation Expense, Property Taxes, plus Allowed O&M Expense, less actual external funding received by the Company through the applicable GMP Investment Year, where the GMP Revenue

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Requirement components are as defined herein. For the year in which an Eligible GMP Investment is placed into service, the GMP Revenue Requirement will be calculated on a monthly basis. The GMP Revenue Requirement for subsequent years shall be calculated based upon the average of the beginning and ending calendar year balances. The GMP Revenue Requirement will be calculated to recover (1) the monthly revenue requirement for Eligible GMP Investments placed into service in the GMP Investment Year immediately prior to the Recovery Year; (2) the average annual revenue requirement for the calendar year ending December 31 of the GMP Investment Year immediately prior to the Recovery Year, for cumulative Eligible GMP Investments placed into service in GMP Investment Years two years prior to the Recovery Year; and (3) Allowed O&M Expense.

- 2.12 Grid Mod Role is a grid modernization position created for the specific purpose of implementing the Company's GMP.
- 2.13 Gross Plant Investments are the capitalized costs of Eligible GMP Investments recorded on the Company's books for Eligible GMP Investments. Actual capitalized cost of Eligible GMP Investments shall include applicable overhead and burden costs subject to the test provided in Section 5.0.
- 2.14 Pre-Tax Rate of Return (PTRR) shall be the after-tax weighted average cost of capital established by the Department in the Company's most recent base distribution rate case, adjusted to a pre-tax basis by using currently effective federal and state income tax rates applicable to the period for which the GMP Revenue Requirement is calculated.
- 2.15 Property Tax Expense (PTE) means the property taxes calculated based on Eligible net GMP Investments multiplied by the Property Tax Rate. Property taxes will be excluded in the GMP Revenue Requirement in the first Recovery Year following the GMP Investment Year in which the eligible taxable plant went into service. Property taxes will be included in the GMP Revenue Requirement beginning in the second Recovery Year at 50% of the annual property tax amount. In subsequent years, the GMP Revenue Requirement will reflect a full year of property taxes.
- 2.16 Property Tax Rate is the Company's composite property tax rate determined in the Company's most recent base distribution rate case, calculated as the ratio of total annual property taxes paid to total taxable net plant in service.
- 2.17 Rate Base (RB) is the investment value upon which the Company is permitted to earn its authorized rate of return.

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3.0 GRID MODERNIZATION FACTOR (“GMF”)

3.1 Rate Formula

$$GMF_c = \frac{(GMR + PPRA) \times DRA_c}{FkWh_c}$$

Where:

c Designates a separate factor for the following rate classes: R-1/R-2, G-1, G-2, G-3, and Streetlighting.

GMF_c The Grid Modernization Factor, by rate class, as defined in Section 2.7.

GMR The GMP Revenue Requirement as defined in Section 2.11.

PPRA The Past Period Reconciliation Amount defined as the difference between (a) the amount authorized to be recovered through the prior year’s GMFs as approved by the Department and (b) the actual revenue billed through the applicable GMFs. Interest calculated on the average monthly balance using the customer deposit rate, as outlined in 220 CMR 26.09, shall also be included in the PPRA.

DRA_c The Distribution Revenue Allocator representing the percentage of final revenue requirement allocated to each rate class as determined in the Company’s most recent general rate case as follows:

Rate R-1/R-2	60.6%
Rate G-1	12.0%
Rate G-2	10.7%
Rate G-3	16.3%
Streetlighting	0.4%

FkWh_c The forecasted kWh to be delivered to the Company’s retail delivery service customers.

3.2 Request for GMFs

The Company shall submit annually to the Department its proposed GMFs by March 15 to become effective for usage on and after May 1.

3.3 Application of GMFs on Customer Bills

For billing purposes, the GMF will be included with the distribution kWh charge on customers’ bills.

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4.0 ELIGIBILITY FOR RECOVERY AS ALLOWED O&M EXPENSE

To be eligible for inclusion in Allowed O&M Expense as an incremental expense and recoverable through the GMF tariff, the Company shall demonstrate that all O&M expenses incurred as a result of grid modernization activities and proposed for recovery through the GMF are:

- (1) incremental to the representative level of O&M expenses recovered through all other rates billed by the Company to its customers; and
- (2) directly related to preauthorized grid modernization activities.

4.1 Internal Labor

Internal labor expense eligible for recovery as Allowed O&M Expense shall consist of:

- (i) the cost of non-employee individuals hired into Grid Mod Roles created after the end of the test year for the Company's most recent base distribution rate case;
- (ii) the cost of non-employee individuals hired into Grid Mod Roles created on or before the end of the test year for the Company's most recent base distribution rate case, provided that the Company can demonstrate that the associated costs are not already recovered through any other rate;
- (iii) the cost of employees who have transferred to a Grid Mod Role and who were hired after the most recent test year provided that the internal transfer was originally hired into a new position whose labor expense is not reflected in base distribution rates; and
- (iv) the cost of employees who have transferred to a Grid Mod Role and who were employees prior to the end of the test year used to establish current base distribution rates, provided the requirements set forth in Section 4.1.2 have been met. The Company shall separately account for the cost of employees hired into Grid Mod Roles, and maintain documentation regarding the dates of hire, names of employees, detailed job descriptions and responsibilities, titles, salaries, and specific activities performed by each Grid Mod Role in each applicable GMP Investment Year.

4.1.1 New Hires

Non-employee individuals hired into Grid Mod Roles and thereby becoming employees of the Company were not employees whose cost was included in the test year in the Company's most recent general rate case; therefore, the cost of these employees is not recovered in base distribution rates approved in that general rate case.

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The Company may, at the time of the filing of a general rate case, propose to recover certain ongoing administrative costs, such as the cost of incremental employees, through base distribution rates. If the Company, in the context of a future rate proceeding, opts not to incorporate such costs in base distribution rates, the Company would be required to demonstrate that such costs were not included for recovery in base distribution rates and adjust the test year accordingly to exclude the costs.

4.1.2 Internal Transfers

Annually, as a component of the Annual GMP Cost Recovery Filing described in Section 6.2, the Company shall perform a test to determine whether existing employees transferred into Grid Mod Roles are incremental employees and their costs are not otherwise recovered through any other rate.

If the incremental role is filled by an internal transfer employed by the Company who was an employee as of the end of the test year for the most recent base-rate proceeding, the employee will only be considered as incremental when a new employee is hired to backfill the transferred employee's prior position.

If the transferred employee's prior position was backfilled by a new employee making at least the same gross salary (or more) as the transferred employee was making in their former role, then the labor and labor-related costs associated with the transferred employee that are charged to the program as expense would be deemed recoverable.

If the Company backfills the transferred employee's prior position but does so at a total compensation, representing salary and labor-related overheads, less than the gross salary of the employee reflected in base distribution rates who was transferred to the program, the Company will deduct the difference in compensation from the amount recoverable through the GMF.

If the Company does not backfill the transferred employee's prior position, the employee's labor expense will be eligible for recovery through the GMF when the Company credits the GMF for the associated labor expense already reflected in base distribution rates. The Company will not refund the expense reflected in base distribution rates during the first year of recovery of the transferred employee's cost through the GMF. If a backfill has not occurred by the start of the second year of recovery of the transferred employee's expenses through the GMF, the Company shall credit, with interest at the customer deposit rate, the associated labor expense reflected in base distribution rates, adjusted for any applicable rate adjustments approved by the Department.

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5.0 OVERHEAD AND BURDEN ADJUSTMENTS

For purposes of GMF calculations, the actual overhead and burdens shall be reduced to the extent that actual O&M overhead and burdens in a given year are less than the amount included in base distribution rates as determined in the Company's most recent base distribution rate case. Such reduction shall be the difference between the actual O&M overhead and burdens and the amount included in base distribution rates.

In addition, the percentage of capitalized overhead and burdens assigned to GMF projects shall be set equal to the ratio of GMF to non-GMF direct costs in any given year.

6.0 FILINGS WITH THE DEPARTMENT

6.1 GMP Term Filing.

The Department preauthorized the Company's first three-year short term investment plan Eligible GMP Projects and spending cap in D.P.U. 15-120 (2018), establishing three years of GMP spending for the GMP Investment Years 2018 through 2020 (first authorization term). The Department extended the first authorization term by one year, establishing four years of GMP spending for the GMP Investment Years 2018 through 2021 in D.P.U. 15-120-D (2020). In D.P.U. 20-69-A (2021), the Department established that by July 1, 2021, the Company shall submit its next GMP term filing that shall include a second four-year short term investment plan for GMP Investment Years 2022 through 2025 (second authorization term). The operation of this GMF tariff is applicable to Eligible GMP Investment and Allowed O&M Expense associated with the first two GMP terms (2018 through 2021, and 2022 through 2025).

6.2 Annual GMP Cost Recovery Filing.

The annual GMP cost recovery filing shall be submitted to the Department by March 15 and include, but not be limited to:

- (1) Full project documentation of all Eligible GMP Projects' capital investment recorded as in-service during the Prior GMP Investment Year and documentation of Allowed O&M Expense, with narrative providing justification that the costs meet the cost recovery eligibility requirements in Section 1.0;
- (2) Supporting documentation demonstrating that the costs sought for recovery are preauthorized, incremental, prudently incurred, in service, and used and useful (where applicable);
- (3) Any cost variances as defined in the Company's capital authorization policies;
- (4) A demonstration that the proposed factors are calculated appropriately;

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- (5) Bill impacts; and
- (6) Demonstration that aggregate total of expenditures for preauthorized Eligible GMP Projects is under the four-year expenditure cap determined by the Department. This information shall also be included in the Term Report indicated below.

6.3 Grid Modernization Annual Report.

The Grid Modernization Annual Report shall be submitted to the Department by July 1 following the completion of the GMP Investment Year.

6.4 Grid Modernization Term Report.

The Grid Modernization Term Report shall be submitted to the Department by July 1 following the completion of the four-year short term investment plan.