

NSTAR Gas Company, D.P.U. 21-107-A at 19-20 (October 28, 2022). The Department did not intend for these decisions to represent a wholesale shift in our standard that exogenous cost recovery must be subject to a significance threshold that is noncumulative. Therefore, the Department finds that NSTAR Electric must revise its proposed tariff to specify that the significance threshold is noncumulative, subject to the very limited circumstances noted above.³⁶

As noted above, the Company proposed an exogenous cost significance threshold of \$4 million for calendar year 2023, subject to annual adjustments thereafter based on changes in GDP-PI (Exhs. ES-CAH/DPH-1, at 84-86; ES-PBR/PLAN-1, at 7; ES-RDC-6, Sch. 1, at 455). Although the Department must consider the facts and circumstances of each case, the Department has previously found that an exogenous cost significance threshold was reasonable where it was equal to a multiple of 0.001253 times a company's total operating revenues. D.P.U. 20-120, at 97; D.P.U. 19-120, at 93-94; D.P.U. 18-150, at 66-67; D.P.U. 17-05, at 397; D.T.E. 03-40, at 491; D.T.E. 01-56, at 22-46; D.P.U. 96-50 (Phase I) at 293. Consistent with our precedent and facts of this case, the Department finds that \$4 million is a reasonable exogenous cost significance threshold for the Company, which has total operating revenues of \$3,136,349,876, and is implementing a multi-year PBR plan

³⁶ For example, the tariff could read: The significance threshold for Exogenous Costs is set at \$4 million for each individual event in calendar year 2023. The significance threshold must be noncumulative, subject to a finding that the exogenous costs arise from the same type of exogenous event addressed by the Department in NSTAR Gas Company, D.P.U. 21-107-A at 17-20 (October 28, 2022) and interpreted in subsequent decisions.

with the overall design approved herein (Exhs. ES-CAH/DPH-1, at 84-85; ES-REVREQ-2, Sch. 6 (Rev. 4)).³⁷

In addition, the Company has proposed that the exogenous cost significance threshold be subject to annual adjustments based on changes in GDP-PI as measured by the U.S. Bureau of Economic Analysis (Exh. ES-CAH/DPH-1, at 85). The Department is satisfied that this proposal appropriately considers the effects that inflation will have on the threshold in the later years of the PBR term. D.P.U. 19-120, at 94; D.P.U. 18-150, at 67; D.P.U. 17-05, at 398; D.T.E. 01-56, at 11-14; Eastern Enterprises/Colonial Gas Company, D.P.U. 98-128, at 56-57 (1999). Accordingly, we set the Company's threshold for exogenous cost recovery at \$4 million for each individual event in the first PBR year, ending December 31, 2023, subject to annual adjustments thereafter based on changes in GDP-PI as used in the PBR mechanism. Based on the foregoing analysis, the Department approves the Company's proposed exogenous cost factor, subject to our finding below as to Enterprise IT expenses.

Exogenous cost recovery requires that a company provide supporting documentation and rationale to the Department for a determination as to the appropriateness of the proposed exogenous cost. D.T.E. 99-19, at 25; D.P.U. 98-128, at 55; Bay State Gas Company, D.T.E. 98-31, at 17-18 (1998). Additionally, any company seeking recovery of an exogenous cost bears the burden of demonstrating the propriety of the exogenous cost and

³⁷ Multiplying NSTAR Electric's total operating revenue of \$3,136,349,876 by the factor of 0.001253 equals \$3,929,846.

D.P.U. 22-22

Page 75

that the proposed exogenous cost change is not otherwise reflected in the GDP-PI.

D.P.U. 96-50 (Phase I) at 292-293; D.P.U. 94-50, at 171. For these reasons, the Department does not prejudge the qualification of any future events as exogenous costs and will consider each proposal for recovery of exogenous costs on a case-by-case basis. At the time that it seeks exogenous cost recovery, the Company must demonstrate that the event meets both the definition and threshold for exogenous costs approved herein.

As noted above, the Company proposes to utilize the exogenous cost provision to recover the costs of certain Enterprise IT expenses, for which the initial threshold would be set at \$6 million (Exhs. ES-CAH/DPH-1, at 84-86; ES-PBR/PLAN-1, at 7; ES-RDC-6, Sch. 1, at 455). The Attorney General argues that NSTAR Electric's proposed inclusion of certain Enterprise IT expenses in the exogenous cost factor should be rejected because ESC will incur these costs, and that the Company already is compensated for IT costs through base distribution rates and the annual PBR adjustments (Attorney General Brief at 59-60). Further, the Attorney General asserts that the Company does not recognize or net out any economic benefits that accrue as a result of the implementation of the new IT systems (Attorney General Brief at 60). TEC and PowerOptions also argue that these expenses should be excluded from the exogenous cost provision (TEC/PowerOptions Brief at 13; TEC/PowerOptions Reply Brief at 8-9).

The Company's justification for including Enterprise IT expenses in the exogenous cost provision is tied to the proposed ten-year PBR plan term (Exh. ES-CAH/DPH-1, at 88-89). The Company acknowledges that a level of Enterprise IT expense will be

D.P.U. 22-22

Page 76

collected through base distribution rates and that will be subject to the annual PBR adjustment (Exh. ES-CAH/DPH-1, at 88). NSTAR Electric states, however, that over the proposed ten-year PBR term, the Company will be adding new systems and other systems will become fully amortized and drop off (Exh. ES-CAH/DPH-1, at 88). According to NSTAR Electric, it will be difficult for the Company to assess whether the amount of Enterprise IT expense that will be locked into base distribution rates will keep pace with actual costs and, therefore, the exogenous cost relief may be necessary (Exh. ES-CAH/DPH-1, at 89). Given that the Department has approved a five-year PBR plan term, we find that an exogenous cost provision applicable to Enterprise IT costs is unnecessary. Moreover, we find that the nature of the costs sought for exogenous cost treatment are inconsistent with the definition of exogenous costs approved herein. Thus, we deny this aspect of the Company's proposal. In its compliance filing, NSTAR Electric shall revise its PBR tariff accordingly.

j. PBR Adjusted Revenues

As noted above, the Attorney General argues that Solar Expansion Program investments should not be included in the base distribution rate revenue requirement portion of the PBR rate formula (Attorney General Brief at 117, citing Exh. AG-TN-1, at 9-10). In Section XIV.B.4 below, the Department approves the transfer of the unrecovered balance of these investments into base distribution rates. Here, the Department finds that it is appropriate to remove these costs from the PBR mechanism adjustment calculation and maintain the revenues associated with these solar facilities at the level approved in this proceeding until the Company's next base distribution rate case. The Solar Expansion

D.P.U. 22-22

Page 77

Program costs represent power generation costs, rather than distribution costs. Further, the costs associated with the Solar Expansion Program fall outside the Company's regular operations of safely and reliably delivering electricity to customers. Accordingly, the Company is not obligated to replace these assets when they retire, but it could continue to collect a revenue target that increases annually by the PBR mechanism. The Department has found it suitable to modify PBR plans or simplified incentive plans to exclude adjustments for certain types of costs. D.P.U. 18-150, at 73 (excluding solar facility costs from PBR adjustment); NSTAR Electric Company, D.P.U. 18-101 (2018), Exhs. NSTAR-DPH at 18; NSTAR-DPH-1, at 1 (certain storm costs excluded from PBR adjustment); D.P.U. 17-05, at 392 (removal of certain grid modernization investments); NSTAR Electric Company and NSTAR Gas Company, D.P.U. 08-56/D.P.U. 09-96, at 18-19 (2010) (removal of certain pension/post-retirement benefits other than pension ("PBOP") costs). The Department, therefore, directs the Company to revise the definition of PBR revenue to exclude the costs of the Solar Expansion Program approved in this proceeding, as well as other solar facilities that were approved in previous proceedings (see Section XIV.B.4 below).

6. PBR Tariff Provisions

As noted above, the Attorney General argues that, should the Department allow a PBR plan for NSTAR Electric, numerous provisions in the Company's proposed tariff should be revised to provide appropriate definitional and clarifying language (Attorney General Brief at 60-61). The Attorney General identifies 16 proposed revisions to the tariff (Attorney General Brief at 60-61).

D.P.U. 22-22

Page 78

Eight of the proposed revisions are no longer necessary given the Department's findings above regarding the PBR plan components. They are identified in the Attorney General's initial brief as proposed revisions (2), (5), (6), (7), (8), (9), (14) and (15). The Department approves five of the remaining proposed revisions that were agreed-upon by the Company. They are identified in the Attorney General's brief as proposed revisions (1), (4), (10), (11) and (16). The Company is directed to revise these provisions accordingly in the compliance filing.

Three contested proposed revisions remain. In proposed revision (3), the Attorney General argues that the definition of "Distribution Common Equity" in the proposed PBR plan tariff should reflect the removal of common equity associated with any: (1) unamortized acquisition premium and/or goodwill; and (2) non-distribution service investments and services (Attorney General Brief at 60-61). The Company disagrees with the Attorney General, "based on the Department's prior approvals, and method for calculating an ROE for earnings sharing purposes, as approved in D.P.U. 14-150, D.P.U. 17-05, and D.P.U. 19-120" (Company Brief at 79). The Company also asserts that its methodology in reporting the distribution-only ROE remains unchanged from what was approved in D.P.U. 17-05 as part of the existing PBR plan (Company Brief at 79). The Department finds that the definition of "Distribution Common Equity" in NSTAR Electric's proposed PBR plan tariff (Exh. ES-RDC-6, Sch. 2, at 235) is substantially similar to the language in the Company's current PBR plan tariff, M.D.P.U. No. 59E, § 1.04 (8). Further, the minor differences in the language between the two versions do not and should not be interpreted to

D.P.U. 22-22

Page 79

impact the method used to derive distribution common equity for purposes of the PBR plan. The Attorney General does not provide any additional support for her argument, and we see no compelling reason to revise the definition as proposed. As such, we decline to adopt the Attorney General's recommendation.

In proposed revision (12), the Attorney General argues that the definition of "Transmission Net Income" does not account for any changes in the net income that might arise from refunds to customers as a result of any contested charges at Federal Energy Regulatory Commission ("FERC") (Attorney General Brief at 61). The Company argues that no revisions are necessary because the "calculation of ROE remains unchanged from D.P.U. 17-05" (Company Brief at 79). The definition of Transmission Net Income" in the proposed PBR plan tariff (Exh. ES-RCD-6, Sch. 2, at 237) is unchanged from the definition approved in the Company's current PBR plan tariff, M.D.P.U. No. 59E, § 1.04 (20). Nevertheless, we find that it is reasonable for the Company to include clarifying language that the transmission net income will account for any refunds to customers resulting from favorable FERC decisions as to contested charges. We direct the Company to revise the language accordingly in the compliance filing.

Finally, in proposed revision (13), the Attorney General argues that the X factor should be defined as "the sum of the Productivity Trend differential and the Input Price Trend," without the addition of "negative 1.45 percent ..." (Attorney General Brief at 61). The Company argues that the language in this definition will depend on the X factor approved in this proceeding (Company Brief at 79-80). In Section IV.D.5.b above, the

Department approved an X factor of zero. The Attorney General does not provide any additional support for her argument, and we find that the X factor should be expressly stated in this section of the tariff. Accordingly, we direct the Company to revise the relevant tariff language in the compliance filing to set the X factor at zero.

7. Conclusion

In the sections above, the Department has reviewed the Company's PBR plan proposals and has found that, as approved, the PBR plan is more likely than current regulation to advance the Department's goals of safe, secure, reliable, equitable, and least-cost service and to promote the objectives of economic efficiency, cost control, lower rates, and reduced administrative burden in regulation. G.L. c. 25, § 1A. In addition, the Department has found that the PBR plan, as approved, will provide the Company with greater incentives to reduce costs than currently exist and should result in benefits to customers that are greater than would be present under current regulation. Further, the Department has found that the PBR plan, as approved, better satisfies our public policy goals and statutory obligations, including promotion of a safe and reliable electric distribution system, and of the Commonwealth's clean energy goals and mandates.³⁸

³⁸ The Department notes that many cost recovery mechanisms need to be considered to ensure that EDCs comply with policy goals and statutory obligations effective since the development of revenue decoupling. See D.P.U. 07-50-A at 10. With the discontinuance of full revenue decoupling, EDCs no longer would have a disincentive to pursue strategic electrification because they now would be able to retain the sales from increased load, which may also obviate the need for some capital trackers. Nonetheless, we remind NSTAR Electric that with an approved PBR plan with a

D.P.U. 22-22

Page 81

With the modifications required herein, the Department finds that the PBR plan appropriately balances ratepayer and shareholder risk, is in the public interest, and will result in just and reasonable rates pursuant to G.L. c. 164 § 94. Accordingly, the Department approves a PBR plan for the Company, subject to the modifications above. The Company, in its compliance filing, shall submit a revised PBR plan tariff consistent with the findings in this Order.

Further, the Company shall submit an annual PBR adjustment filing, including all information and supporting schedules necessary for the Department to review the proposed PBR adjustment for the subsequent rate year. Such information shall include the results and supporting calculations of the PBR adjustment factor formula, descriptions and accounting of any exogenous events, and an earnings sharing calculation for the year, two years prior to the rate adjustment. In addition, the Company shall file revised summary rate tables reflecting the impact of applying the base distribution rate changes provided in the PBR adjustment filing. The Company is directed to submit its annual PBR adjustment filing on or before September 15 of each year, commencing in 2023 and continuing for the five-year term of the PBR. Consistent with our findings above, the PBR shall continue in effect for a total of five consecutive years starting January 1, 2023, with the last adjustment taking effect on January 1, 2027, subject to the findings set forth above.

stay-out provision, the Company may not seek to terminate its effective PBR plan in order to discontinue revenue decoupling.

V. PBR PERFORMANCE METRICS

A. Introduction

The Company proposed a set of metrics as a component of its PBR proposal (Exhs. ES-CAH/DPH-1, at 10-11; ES-PBR-PLAN-1, at 4-5). The Company states that its proposed metrics are designed to provide transparency associated with the achievement of clean energy and customer service goals and to further the Company's mission of ensuring safe and reliable delivery of electric service (Exhs. ES-CAH/DPH-1, at 10-11; ES-METRICS-1, at 11). Further, the Company states that the proposed metrics are designed to further current Commonwealth policy goals (Exhs. ES-CAH/DPH-1, at 10-11; ES-METRICS-1, at 11). NSTAR Electric's proposed metrics were based initially on metrics developed for the Company's current PBR plan, following the Department's directive in D.P.U. 17-05, at 412, to develop metrics in three categories: (1) improvements to customer satisfaction and engagement; (2) reductions to system peak demand; and (3) strategic planning for climate adaptation and mitigation (Exh. ES-METRICS-1, at 10, 13). The Company proposed additional metrics to account for changes to the Commonwealth's policy goals, namely metrics for solar developer satisfaction, community solar access, electrification, and equity (Exh. ES-METRICS-1, at 41-42). During the proceeding, the Company proposed significant changes to its initially proposed set of metrics (Exhs. ES-METRICS-Rebuttal-1, at 9-32; ES-METRICS-Rebuttal-2).

By the close of the record in this proceeding, the Company proposed a total of ten reporting metrics, three penalty/incentive metrics, and two planning frameworks, across

eleven categories (customer satisfaction, customer engagement, producer satisfaction, producer/developer engagement, operations, peak demand reduction, greenhouse gas (“GHG”) reduction, electrification, equity/low-income, and resiliency) (Exh. ES-METRICS-Rebuttal-2; Company Brief at App. A). The Company proposes to report results on each metric as part of the annual PBR plan filings (Exh. ES-CAH/DPH-1, at 64-65). In addition, the Company proposes to provide a PBR performance report as part a five-year mid-term filing that summarizes performance on the metrics and recommendations for continuing, modifying, or augmenting the metrics (Exh. ES-CAH/DPH-1, at 93).

B. Company Proposal

1. Customer Satisfaction, Customer Engagement, and Operations Metrics

a. Introduction

The Company proposes the following five metrics in the categories of customer satisfaction and engagement and operations: (1) overall customer satisfaction in the Commonwealth (customer satisfaction); (2) transactional customer satisfaction (customer satisfaction); (3) customer usage of an outage map (customer engagement); (4) digital engagement (customer engagement); and (5) new customer connects (operations) (Exhs. ES-METRICS-1, at 22-27; ES-METRICS-Rebuttal-2, at 1-2).

b. Overall Customer Satisfaction Metric

The overall customer satisfaction metric is based on a survey conducted by J.D. Power that measures customer satisfaction using six factors: (1) power quality and reliability; (2) price; (3) billing and payment; (4) corporate citizenship; (5) communications;

and (6) customer service (Exhs. ES-METRICS-1, at 17; ES-METRICS-Rebuttal-2, at 1).

Customer responses to these separate segments are compiled into one final index score (Exh. ES-METRICS-Rebuttal-2, at 1). NSTAR Electric states that during the current PBR term, the Company consulted with J.D. Power to set a target for the customer satisfaction score of 720 by the end of 2022 (Exh. ES-METRICS-1, at 17-18).³⁹ NSTAR Electric reports that by 2020 it had achieved a score of 739; the Company proposes a target of 759 for 2027 (Exh. ES-METRICS-1, at 21-23). NSTAR Electric states that it set these targets based on the score needed to achieve first quartile ranking among eastern large utility group companies in 2021, and the Company proposes to adjust the targets to maintain that ranking (Exh. ES-METRICS-1, at 23 & n.4).

c. Transactional Customer Satisfaction Index

NSTAR Electric proposes a customer satisfaction index that is designed to measure customer satisfaction associated with: (1) unplanned outages; (2) planned outages; (3) website satisfaction; and (4) contact center (Exh. ES-METRICS-Rebuttal-1, at 19-20). The proposed index score would be developed by summing the scores of survey responses from customers following each type of transaction and dividing by the sum of all respondents

³⁹ In the current PBR term, NSTAR Electric has tracked customer satisfaction for both the entire Eversource Energy organization and the Company separately (Exh. ES-METRICS-1, at 16, 22). Going forward, the Company proposes to limit the metric to only its operations (Exh. ES-METRICS-1, at 16, 22).

(Exhs. ES-METRICS-Rebuttal-1, at 20; ES-METRICS-Rebuttal-2, at 1).⁴⁰ The Company proposes to include this metric in the Service Quality (“SQ”) penalty framework, described below (Exhs. ES-METRICS-Rebuttal-1, at 18-19; ES-METRICS-Rebuttal-2, at 1).⁴¹

d. Use of Outage Map Metric

The Company’s outage map provides customers with information such as estimated time of restoration, outage cause, and outage size so that customers can remain informed and make plans in the event of an outage (Exh. ES-METRICS-1, at 25-26). In prior years, the outage map usage metric has measured the total number of customer views of the outage map during both “blue sky” conditions and when the Company’s Emergency Response Plan (“ERP”) is triggered (Exh. ES-METRICS-1, at 25-26). In this proceeding, the Company proposes to report only on views during ERP events and to report engagements with the outage map as a percentage of total inbound customer communications during these events, rather than reporting a total count of interactions (Exh. ES-METRICS-1, at 25-26). The Company proposes that the calculation will be done on a per-ERP event basis and then

⁴⁰ The Company proposes to weight the transaction type by the associated number of survey responses (Exh. ES-METRICS-Rebuttal-1, at 20).

⁴¹ The Company does not propose to apply the SQ penalty/incentive framework to the overall customer satisfaction metric because this measure is not necessarily representative of actual interactions with the Company (Exh. ES-METRICS-Rebuttal-1, at 19). NSTAR Electric states that for many customers, their interactions with the Company are limited to billing issues, and that these limited interactions can skew customer satisfaction based on factors that are outside the Company’s control (e.g., rising energy costs or increased demand due to weather) (Exh. ES-METRICS-Rebuttal-1, at 19).

D.P.U. 22-22

Page 86

averaged across all ERP events for the year, which is intended to account for annual variances in weather (Exhs. ES-METRICS-1, at 26; ES-METRICS-Rebuttal-2, at 1-2).

NSTAR Electric reports that in 2020, 58 percent of customer engagements during ERP events were with the outage map, and the Company proposes a customer engagement target of 75 percent by 2027 (Exhs. ES-METRICS-1, at 26; ES-METRICS-Rebuttal-2, at 1).

e. Digital Engagement Metric

The Company's digital engagement metric is designed to track the percentage of total customer engagements that are digital (Exh. ES-METRICS-1, at 27). Digital interactions include bill pay, outage reporting, text message interactions, mobile app interactions, outage status checks, and others, while non-digital customer engagements include customer service phone calls and manual payments (Exhs. ES-METRICS-1, at 27; ES-METRICS-Rebuttal-2, at 2). NSTAR Electric reports that 88 percentage of total customer engagements were digital in 2020, and the Company proposes a target of 91 percent by 2027 (Exhs. ES-METRICS-1, at 27; ES-METRICS-Rebuttal-2, at 2).

f. New Customer Connects Metric

NSTAR Electric proposes a new metric for the percentage of new customer connects completed in accordance with Company targets for timeliness of new service connections (Exhs. ES-METRICS-1, at 44; ES-METRICS-Rebuttal-2, at 3). Specifically, the new customer connects metric will measure the time from the creation of a work order to the point of installation of the customer's meter in number of business days, excluding hold

days⁴² (Exh. ES-METRICS-1, at 44). The Company proposes to calculate the metric as the percentage of new customer connects that meet certain performance targets out of the total number of new customer connects (Exh. ES-METRICS-1, at 44). The Company and stakeholders developed and agreed upon performance targets that vary depending on the type of service (*i.e.*, simple services, residential developments, complex residential, commercial developments, and commercial service) (Exh. ES-METRICS-1, at 45).⁴³ The Company proposes a target of 80 percent of connections within the agreed-upon range in year one and to increase the target by 2.5 percent each year until 90 percent is reached in year five (Exh. ES-METRICS-1, at 45-46). Finally, the Company proposes to include the new customer connects metric in the SQ Guidelines penalty framework,⁴⁴ as described below (Exhs. ES-METRICS-Rebuttal-1, at 21, 23; ES-METRICS-Rebuttal-2, at 3).

⁴² Hold days are delays that are defined as being outside of the Company's control, in the form of waiting for customer payment or waiting for customer permits or easements (Exh. ES-METRICS-1, at 44).

⁴³ Performance target ranges were developed during the Department's Working Group Meetings for Improving and Expediting the Process for new Electric and Gas Interconnections and range from five to eight business days for simple service to 63-121 days for residential developments (Exh. ES-METRICS-1, at 45).

⁴⁴ The SQ Guidelines refer to the guidelines adopted in Order Adopting Revised Service Quality Standards, D.P.U. 12-120-D (2015) and set forth at D.P.U. 12-120-D, Attachment A.

2. Producer Satisfaction and Producer/Developer Engagement Metrics

a. Introduction

The Company proposes metrics specifically related to the satisfaction and engagement of producer customers (“producers”), which the Company defines as customers that install a solar system (Exh. ES-METRICS-1, at 27-28). The Company proposes the following three producer satisfaction metrics: (1) a producer satisfaction survey (producer satisfaction); (2) hosting capacity map usage (producer/developer engagement); and (3) a solar development timeline (producer/developer engagement) (Exhs. ES-METRICS-1, at 27-28; ES-METRICS-Rebuttal-2).

b. Producer Satisfaction Survey

The Company states that the producer satisfaction survey will measure producer satisfaction associated with: (1) ease of enrollment; (2) ease of connection; (3) timeliness; and (4) helpfulness and communication during the interconnection process (Exh. ES-METRICS-Rebuttal-2, at 2-3). The survey was developed collaboratively by the Company and J.D. Power and is comprised of two surveys, one sent 65 days after the customer is interconnected and another sent 365 days after the customer is interconnected (Exhs. ES-METRICS-1, at 28; DPU 42-3). NSTAR Electric reports that, on a scale of one to ten, the Company scored an average of 7.01 in producer satisfaction in 2019, and the Company sets a target average of 7.5 producer satisfaction for 2027 (Exhs. ES-METRICS-1, at Table 1; ES-METRICS-Rebuttal-2, at 2-3).

c. Hosting Capacity Map Usage Metric

NSTAR Electric states that the hosting capacity map usage metric will measure the sum of visits to the Company's DG hosting capacity websites (Exhs. ES-METRICS-1, at 28-29; ES-METRICS-Rebuttal-2, at 3). The maps provide solar developers with information about remaining capacity at both the circuit and substation level and allow developers to make more informed decisions about the feasibility of adding DG to the distribution system (Exh. ES-METRICS-1, at 28-29). NSTAR Electric reports that it recorded 9,193 visits to the maps in 2020, and the Company proposes a target of over 18,000 visits by 2027 (Exhs. ES-METRICS-1, at 29; DPU 13-5).

d. Solar Development Timeline Metric

The Company states that the solar development timeline metric will measure the duration in business days from creation of a solar installation work order to completion (excluding hold days), and then will calculate the percentage of solar installations meeting certain timeline performance targets by dividing the number of solar installations that meet the targets by the total number of solar installations (Exhs. ES-METRICS-Rebuttal-1, at 20-21; ES-METRICS-Rebuttal-2, at 3). The Company proposes to include the solar development timeline metric in the SQ penalty framework (Exh. ES-METRICS-Rebuttal-1, at 20-21).

3. Proposed Incorporation of Three Metrics into SQ Penalty Framework

The Company proposes to include penalties and incentives for a subset of metrics, determining that such a framework would create transparency and accountability that can be

objectively measured (Exh. ES-METRICS-Rebuttal-1, at 22-24). The Company proposes to replace three metrics that also currently are required to be reported under the Department's SQ Guidelines (consumer complaints, consumer credit cases, and service appointments kept), with three of the proposed metrics discussed above (new customer connects, transactional customer satisfaction index, and the solar development timeline) (Exhs. ES-METRICS-Rebuttal-1, at 23; ES-METRICS-Rebuttal-2, at 1, 3).⁴⁵ The Company's proposed substitution would take place after three year of data is collected to establish a benchmark for each metric, after which the penalty threshold for each metric would be set at the mean plus one standard deviation, based on the data (Exh. ES-METRICS-Rebuttal-1, at 23).⁴⁶ The Company also proposes for a symmetrical incentive to apply to the metrics that are incorporated into the SQ framework (Exh. ES-METRICS-Rebuttal-1, at 23-24). The Company states that the SQ penalty framework is familiar to the stakeholders in this proceeding, as the SQ Guidelines have been extensively vetted before adoption by the Department (Exh. ES-METRICS-Rebuttal-1, at 24).

⁴⁵ NSTAR Electric states that it will continue to report on the original SQ Guidelines metrics to ensure that its performance does not diminish (Exh. ES-METRICS-Rebuttal-1, at 24).

⁴⁶ The Company proposes to apply the same methodology pursuant to the SQ Guidelines; specifically, the threshold benchmark would be set at the Company-specific mean plus one standard deviation using historical, Company-specific data with the benchmark adjusting every three years based on a rolling average until the tenth year when the benchmark becomes fixed (Exh. ES-METRICS-Rebuttal-1, at 23). In addition, under the Company's proposal, the three metrics would each be allocated a 15-percent weight in the SQ penalty framework (Exh. ES-METRICS-Rebuttal-1, at 23).

4. Peak Demand Reduction Metric

The Company proposes to track peak demand reductions from six measures:

(1) energy efficiency programs; (2) demand response programs; (3) company-owned storage; (4) company-owned solar; (5) upgrades to standard technologies; and (6) volt/volt-ampere reactive optimization (“VVO”) (Exhs. ES-METRIC-Rebuttal-2, at 4-6; DPU 49-1, at 3-4).

The Company explains that the measures target reductions to different, non-coincident peaks (e.g., demand response targets ISO New England Inc. (“ISO-NE”) system peak, and VVO targets a substation peak) (Exhs. DPU 41-3; DPU 68-9). Therefore, NSTAR Electric does not propose to aggregate the reductions across measures or set a common target based on system peak, but rather the Company intends to set separate baselines and targets for each peak reduction measure (Exh. ES-METRIC-Rebuttal-2, at 4-6; Tr. 5, at 404-407).

5. Climate Adaptation and Mitigation Plan

NSTAR Electric proposes to pursue an updated enterprise-wide⁴⁷ climate adaptation and mitigation plan, which focuses on bringing renewable energy to the region and reducing the Company’s own emissions (Exhs. ES-METRICS-1, at 39; ES-METRICS-2, at 3; DPU 23-2). In addition, the Company proposes to adopt a goal of reducing emissions by ten percent from a 2022 baseline by 2027 (Exhs. ES-METRICS-1, at 39-40; ES-METRICS-Rebuttal-2, at 6). NSTAR Electric states that emissions reductions will focus on enabling a cleaner mix of energy on the grid, improving efficiencies in distribution

⁴⁷ Enterprise-wide includes all of the utility operating companies in the Eversource Energy holding company system.

D.P.U. 22-22

Page 92

infrastructure to reduce system losses, reducing electricity and fuel use at facilities by upgrading heating ventilating air conditioning (“HVAC”) equipment and lighting to be more efficient, updating fleet vehicles with electric and hybrid models and using alternative fuel sources, and reducing sulphur hexafluoride leaks (Exhs. ES-METRICS-1, at 39-40; ES-METRICS-2, at 4-6).⁴⁸

The climate adaptation and mitigation plan also includes hardening the Company’s electric power system to withstand climate change impacts and engaging and supporting stakeholders to pursue a clean energy future (Exhs. ES-METRICS-1, at 39; ES-METRICS-2, at 3). Specifically, under the climate adaptation and mitigation plan, NSTAR Electric proposes continued development of a substation flood vulnerability model, evaluation of new equipment to improve performance in flooding conditions, and augmentation of the Company’s outage prediction model to include climate impacts (Exh. ES-METRICS-1, at 40).

6. Equity and Electrification Planning Frameworks

a. Introduction

Two metrics initially proposed by the Company related to equity and electrification objectives were ultimately repropose as planning frameworks (Exhs. ES-METRICS-1, at 42,

⁴⁸ The Company also notes that, as proposed, emission reductions measured against the target will also come from reducing methane leaks in the natural gas distribution system, as the Company’s emissions targets are enterprise-wide and include all operating companies across three states (Exhs. ES-METRICS-1, at 39; ES-METRICS-2, at 5; DPU 23-2).

46-49; ES-METRICS-Rebuttal-1, at 10-11).⁴⁹ As planning frameworks, the Company proposes to commit to a set of principles regarding electrification and equity consistent with the Commonwealth's policy priorities (Exh. ES-METRICS-Rebuttal-1, at 10). The Company's proposed planning frameworks include commitments to meet policy objectives and to increase transparency through annual reporting (Exh. ES-METRICS-Rebuttal-1, at 11, 17). Both planning frameworks would apply to capital investment projects of \$20 million or greater (Exh. ES-METRICS-Rebuttal-1, at 12).⁵⁰ As planning frameworks, the Company proposes not to measure a baseline or set targets (Exh. ES-METRICS-Rebuttal-1, at 11-12).

b. Electrification Enabling Investment Framework

The proposed electrification enabling investment framework ("electrification framework") guides future infrastructure to be sized to facilitate the Commonwealth's "All Options" pathway for meeting 2050 decarbonization goals (Exh. ES-METRICS-Rebuttal-1, at 13). See The Massachusetts 2050 Decarbonization Roadmap. Specifically, the electrification framework includes the following planning standards for future bulk station projects: (1) to enable 80 percent of the expected EV load for light duty vehicles based on

⁴⁹ The Company determined that the concepts of clean energy/electrification and equity are not well suited to a quantitative metric at this time (Exh. ES-METRICS-Rebuttal-1, at 10). Further, the Company also removed from its proposal a community solar access metric because the Department has not yet approved a community solar program (Exh. ES-METRICS-Rebuttal-1, at 10 & n.3).

⁵⁰ NSTAR Electric proposed the \$20-million threshold because this level is the minimum cost of substation expansion; the threshold is therefore intended to capture every substation expansion that would be needed for electrification enablement (Tr. 5, at 383).

unmanaged charging behavior; (2) to enable 50 percent of charging for medium and heavy duty EVs; (3) to provide four fast charging stations at 150 kilowatt hour (“kWh”) each for every 50 miles of interstate roadway covered within the Company’s service area with a 75-percent utilization; and (4) to enable conversion of 100 percent of residential and 78 percent of commercial heating load to heat pumps, and 22 percent of commercial heating load to electric heating (Exh. ES-METRICS-Rebuttal-1, at 13-14). The Company proposes to include in its annual PBR filing a report on any bulk station project initiated during the PBR plan term and how it complies with the electrification framework (Exh. ES-METRICS-Rebuttal-1, at 14).⁵¹

c. Equity Framework

NSTAR Electric proposes an equity framework that would be applied to projects in all Environmental Justice (“EJ”) communities (Exhs. ES-METRICS-Rebuttal-1, at 14-16; ES-METRICS-Rebuttal-3; RR-DPU-21).⁵² NSTAR Electric states that the equity framework consists of initial steps toward increased efforts to integrate equity considerations in the Company’s decision making and in community engagement (Exh. ES-METRICS-Rebuttal-1, at 15). The Company identifies the following five methods for increasing stakeholder

⁵¹ The Company also proposes to include an explanation for how its bulk station project is sized to meet the proposed criteria in the need assessment supporting an application for approval to site the project (Exh. ES-METRICS-Rebuttal-1, at 14).

⁵² The Company will adopt the Commonwealth’s definition of EJ Community as defined in Chapter 8 of the 2021 Climate Act, using the Executive Office of Energy and Environmental Affairs’ population criteria, or another definition promulgated by the Commonwealth (RR-DPU-21).

engagement on equity issues that will be applied through the framework: (1) rigorous EJ mapping; (2) identification of stakeholders and focused outreach to those stakeholders; (3) language translation and live interpretation services; (4) public engagement utilizing a variety of communication channels and in multiple languages, as applicable; and (5) collection of feedback (Exhs. ES-METRICS-Rebuttal-1, at 16-17; ES-METRICS-Rebuttal-3). NSTAR Electric proposes to include in its annual PBR filing a description of the Company's actions to implement the planning framework (Exh. ES-METRICS-Rebuttal-1, at 17-18).

7. Resiliency Metrics

In response to intervenor and Department requests, the Company developed two metrics related to system resiliency. First, based a recommendation by TEC and PowerOptions, the Company proposes a reporting metric on Momentary Average Interruption Frequency Index ("MAIFI"), and states that such reporting will be limited to devices with SCADA⁵³ visibility until advanced metering infrastructure ("AMI") meters are deployed (Exh. ES-METRICS-1, at 25-26; Company Brief at 123-124, App. A at 7).⁵⁴ Second, in response to a Department record request, the Company proposes "all-in" System Average Interruption Duration Index ("SAIDI") and System Average Interruption Frequency Index

⁵³ SCADA refers to the Supervisory Control and Data Acquisition system that monitors substations, transformers, and other electrical assets.

⁵⁴ The Company states that following deployment of AMI meters, momentary data from each customer will be integrated into the momentary outage dashboard to provide a more accurate MAIFI score (Exhs. METRICS-Rebuttal-1, at 26; DPU 68-7).

D.P.U. 22-22

Page 96

(“SAIFI”) metrics as part of its annual PBR metric reporting to measure system resiliency (RR-DPU-16). The Company states that, unlike current measures that exclude certain major event days, its proposed all-in metrics will capture all customer interruptions and customer interruption duration without excluding major event days (RR-DPU-16). NSTAR Electric states that by creating parallel SAIDI and SAIFI evaluations that include major events, the Company’s understanding and accounting of the impact of resiliency measures on reliability will improve (RR-DPU-16). Further, NSTAR Electric states that the all-in SAIDI and SAIFI metrics will remain reporting-only metrics until sufficient data has been collected to establish a baseline and target (RR-DPU-16).

8. Low-Income Terminations Metric

In response to a request from the Low-Income Network, the Company proposes to include a metric that will provide reports on low-income customer service terminations (for nonpayment and for accounts with past due balances at levels eligible for disconnect) by census tract (Exhs. ES-METRICS-Rebuttal-1, at 31; LI-ES 2-1). The Company proposes to report data starting pre-pandemic with the 2019 calendar year (Exhs. ES-METRICS-Rebuttal-1, at 31; LI-ES 2-1).

C. Positions of the Parties

1. Attorney General

a. Introduction

The Attorney General argues that the Company is generally proposing to reuse the metrics proposed in NSTAR Electric Company, D.P.U. 18-50, which have not yet been

approved and were shown by the Attorney General and other intervenors to be deeply flawed (Attorney General Brief at 65-66).⁵⁵ Further, the Attorney General contends that the Company's additional, new metrics proposed for the 2023-2027 PBR term are either flawed or underdeveloped and cannot measure or ensure whether the Company's proposed PBR plan delivers any benefits to ratepayers that would be attributable to the PBR mechanism (Attorney General Brief at 66; Attorney General Reply Brief at 10-11). In particular, the Attorney General claims that NSTAR Electric's proposed metrics are overly focused on incentivizing spending rather than achieving performance goals, and would, therefore, trigger increases in required revenues and customer rates (Attorney General Brief at 77, citing Exh. AG-DPL-PBR-Surrebuttal-1, at 13). According to the Attorney General, the Department should not approve any extension or replacement PBR plan for NSTAR Electric unless and until the Company identifies and corroborates meaningful benefits to ratepayers that can be attributed directly to, or enabled by, the substantial increase in annual revenues occasioned by the PBR plan and can be adequately measured and verified (Attorney General Brief at 66). Thus, the Attorney General asserts that the Department, the Company, and affected stakeholders all need to devote more thought and creativity to identify meaningful performance goals for a PBR plan – in terms of measurable performance outputs – before approving a PBR mechanism for NSTAR Electric (Attorney General Brief at 66).

⁵⁵ Additionally, the Attorney General contends that the Company is unable to show that it has met its metrics for the 2018 to 2022 PBR term (Attorney General Brief at 66, 68).

Alternatively, if the Department approves NSTAR Electric's proposed PBR plan, the Attorney General argues that implementation of the PBR term should be delayed until the Company develops, and stakeholders review and comment on, metrics that ensure accountability, and will measure benefits that can be attributed to or enabled by the annual increase in PBR revenues (Attorney General Brief at 65-66). The Attorney General further asserts that the Department should require the Company and affected stakeholders to collaborate to identify documented outcomes that ensure progress in the clean energy transition and require the Company to document and demonstrate progress towards agreed-upon milestones and benchmarks (Attorney General Reply Brief at 13).

b. Overall Customer Satisfaction Metric

The Attorney General argues that the Company's proposed overall customer satisfaction metric does not represent a commitment to improve customer service and would not incentivize performance gains (Attorney General Brief at 70). The Attorney General contends that the customer satisfaction metric is the only customer-service-related metric that includes an objective, quantifiable target (Attorney General Brief at 68 n.73).⁵⁶ Further, the Attorney General claims that score improvements in prior years with and without a PBR plan in place indicate that a PBR plan is not essential to improve customer service (Attorney General Brief at 69). Finally, the Attorney General argues that the Company's proposed

⁵⁶ The Attorney General cites to the Eversource Energy organization's score of 711, which she argues fell short of the 2022 target of 720 set for the Company's current PBR term (Attorney General Brief at 69 n.74, citing Exh. ES-METRICS-1, Table 1).

D.P.U. 22-22

Page 99

2027 target score of 759 represents what it could achieve conducting business as usual and that it is unlikely to result in a first quartile ranking among industry peers in 2027 (Attorney General Brief at 70, citing Exh. ES-METRICS-1, at 23 n.4).

c. Customer Total Satisfaction Index and Solar Development Timeline

The Attorney General contends that while customer service improvements and adherence to a solar development timeline are important performance areas that the Department should track and measure, including these two measures in the existing SQ reporting is highly problematic (Attorney General Brief at 75, citing Exh. AG-DPL-PBR-Surrebuttal-1, at 9). First, the Attorney General argues that replacing the metrics would necessitate a consideration of whether the current cap placed on SQ penalties remains appropriate, considering potential asymmetry between the cost risk against ratepayers and the penalty risk for the Company (Attorney General Brief at 75, citing Exh. AG-DPL-PBR-Surrebuttal-1, at 11-12). Second, the Attorney General asserts that adding performance measures to the SQ Guidelines may weaken the existing penalty on the established SQ metrics if the Department were to make room for new metrics under the penalty cap (Attorney General Brief at 75). Finally, the Attorney General contends that including these prospective performance measures would be a departure from the Department's practice of reviewing its SQ Guidelines holistically and developing uniform metrics across all companies (Attorney General Brief at 75-76). Thus, the Attorney General asserts that further stakeholder consideration is needed before these metrics are implemented (Attorney General Brief at 76).

D.P.U. 22-22

Page 100

d. Peak Demand Reduction Metric

The Attorney General argues that NSTAR Electric's proposed peak demand reduction metric measures only the demand reduction results achieved under programs initiated prior to the Company's current PBR, rather than complying with the Department's directive in D.P.U. 17-05 to propose metrics that track peak demand reductions directly attributable to investments enabled by the PBR itself (Attorney General Brief at 70-71; Attorney General Reply Brief at 13, citing D.P.U. 17-05, at 409-410). Further, the Attorney General contends that the demand reduction targets (e.g., energy efficiency, company-owned solar, upgraded technology investments, and initiation of VVO) are all programs, initiatives, and results that already have been separately funded by ratepayers through explicit customer surcharges and cost recovery mechanisms (Attorney General Brief at 71-72). Thus, the Attorney General asserts that the Company cannot claim these reductions as ratepayer benefits from a PBR plan (Attorney General Brief at 72). Finally, according to the Attorney General, the Company has failed to implement the one metric that the Department ordered that could assess performance under the PBR, namely the percent demand reduction enabled by investments under the PBR plan (Attorney General Brief at 72-73, citing D.P.U. 17-05, at 410; Attorney General Reply Brief at 13).

e. Climate Adaptation and Mitigation Plan

The Attorney General argues that the Company's proposed climate adaptation and mitigation plan is simply a list of routine operations changes and not future commitments to mitigate emissions or harden infrastructure enabled by the PBR plan (Attorney General Brief

at 76). According to the Attorney General, the facilitation of new sources of renewable energy supply, company-owned solar, grid modernization investments in voltage reduction and VVO, and more aggressive vegetation management are already separately funded and incentivized by ratepayers, and certain storm hardening improvements are standard construction practices (Attorney General Brief at 76-77). Thus, the Attorney General rejects any notion that these measures are attributable to the Company's performance under a PBR plan (Attorney General Brief at 77).

f. Equity and Electrification Planning Frameworks

The Attorney General argues that the Company's proposals to develop frameworks for assessing progress on clean energy transition and electrification and an improvement of EJ contain no substantive measures (Attorney General Brief at 73, citing Exh. AG-DPL-PBR-Surrebuttal-1, at 6-9). The Attorney General maintains that the proposed electrification framework would shift significant risk of potential overbuilding and overspending onto ratepayers (Attorney General Brief at 73-74, 77-78, citing Exh. AG-DPL-PBR-Surrebuttal-1, at 8, 10).⁵⁷ Further, the Attorney General asserts that the proposed planning frameworks merit broader inquiry and examination and encourages the

⁵⁷ The Attorney General explains that if the Company were directed through an output-focused PBR metric to target 90 percent of future EV charging load as managed load rather than its currently proposed electrification framework that projects to plan all future bulk station upgrades to accommodate up to 80 percent of unmanaged EV charging load, it would enable substantial capital savings and far more capable systems for the Company and its ratepayers (Attorney General Brief at 77-78; Attorney General Reply Brief at 12-13, citing Exh. AG-DPL-PBR Surrebuttal-1, at 9-11).

D.P.U. 22-22

Page 102

Department to create a stakeholder review process before the Department allows the Company's proposed PBR plan (Attorney General Brief at 74). Moreover, the Attorney General contends that the electric sector modernization plan development process, required by the 2022 Clean Energy Act, will address the issues that the Company's electrification framework seeks to address, and, therefore, the Department should not approve new planning standards in advance of this legislatively mandated process (Attorney General Brief at 74).

Regarding the Company's proposed equity framework, the Attorney General argues that, if approved, the Department should make clear that demonstrating compliance with the framework does not necessarily satisfy any Company obligation to address EJ or other equity issues in proceedings before the Department (Attorney General Brief at 74 n.77).

2. DOER

a. Introduction

DOER contends that by changing some of its proposed metrics throughout the proceeding, NSTAR Electric demonstrated that the development of effective performance metrics should not only be the Company's responsibility, but rather should involve a broader, more transparent stakeholder process (DOER Brief at 20-21). Further, DOER claims that the Company's proposed metrics do not appropriately incentivize support for clean energy goals, nor do they measure progress under the PBR plan (DOER Brief at 19; DOER Reply Brief at 2).

Despite these concerns, DOER asserts that the proposed metrics should be approved (DOER Brief at 19). DOER, however, recommends that the Department convene a

D.P.U. 22-22

Page 103

stakeholder proceeding involving the EDCs to develop, over the next five years, more robust performance metrics that include performance incentives and direct benefits to ratepayers of the clean energy transition (DOER Brief at 10, 19-20; DOER Reply Brief at 2-3). In this regard, DOER asserts that the Grid Modernization Advisory Council could be the forum for coordination with stakeholders regarding comprehensive metrics (DOER Brief at 24; DOER Reply Brief at 3). Finally, DOER argues that approval of the Company's proposed metrics may provide additional information that can help develop more effective metrics, but that the Department should not consider the proposed metrics as the end goal (DOER Brief at 20).

b. Equity and Electrification Planning Frameworks

As noted above, the Company initially proposed two metrics related to equity and electrification, but later modified the proposals as planning frameworks (Exhs. ES-METRICS-1, at 42, 46-49; ES-METRICS-Rebuttal-1, at 10-11). DOER disagrees with the Company's position that equity and electrification are not well-suited to a quantitative metric and contends that tracking the benefits of the Company's investments on EJ populations and on electrification goals is both possible and necessary (DOER Brief at 22, citing Exh. ES-METRICS-Rebuttal-1, at 10). DOER supports the Department's approval of the equity and electrification frameworks but asserts that they should be further developed before the next PBR filing (DOER Brief at 21-23).

c. MAIFI

DOER supports the reporting on MAIFI and asserts that these outages will become increasingly important as residential electrification accelerates (DOER Reply Brief at 8, citing

D.P.U. 22-22

Page 104

Exh. TEC/PO-JDB-1, at 17; TEC Initial Brief at 12). Further, DOER contends that this metric and any subsequently refined metrics should be consistently applied to all EDCs in future proceedings (DOER Reply Brief at 8-9).

d. Low-Income Terminations Metric

DOER supports approval of the low-income terminations reporting metric (DOER Brief at 21). DOER asserts that maintaining this data would assist the Company and stakeholders in better understanding the scale of low-income ratepayer's service disconnections and assist in identifying potential new policies and programs that would support low-income ratepayers' avoiding disconnections (DOER Brief at 21, citing Exhs. ES-METRICS-Rebuttal-1, at 31; LI-ES 2-1).

3. Low-Income Network

The Low-Income Network supports implementation of the Company's proposed low-income terminations metric (Low-Income Network Letter in Lieu of Reply Brief at 1). According to the Low-Income Network, the reporting requirement associated with this metric will provide invaluable guidance about the many efforts that the Company is making to maintain affordable bills for low-income customers (Low-Income Network Letter in Lieu of Reply Brief at 1, citing Exh. LI-ES 2-1).

4. Acadia Center

Acadia Center argues that the Company's metrics do not meet the Department's standards and lack financial incentives and consequences (Acadia Center Brief at 15). In particular, Acadia Center contends that the proposed metrics do not go far enough, and that

D.P.U. 22-22

Page 105

they over-emphasize grid-side capital investment and ignore demand-side flexibility and management (Acadia Center Brief at 16, citing Exhs. AG-DLP-Surrebuttal-1, at 4; AG-DPL-1, at 3). Further, Acadia Center contends that the metrics do not measure benefits attributable to the PBR plan (Acadia Center Brief at 16, citing Exh. UMASS-EP/RS-1, at 59). In addition, Acadia Center asserts that the Department should adopt metrics that meaningfully reduce energy burdens, promote equity, help to accelerate decarbonization of buildings, and reward a utility for ensuring that consumers below the poverty level are on income-eligible rates (Acadia Center Brief at 16). Finally, Acadia Center suggests that a shared savings mechanism that pushes the Company to implement more non-wires alternatives may be useful (Acadia Center Brief at 16).

5. Cape Light Compact

a. Introduction

Cape Light Compact argues that the Department should expedite issuance of its Order in D.P.U. 18-50 to provide due process to intervenors, as the lack of a final decision is unfair to the parties who participated in that docket, and creates confusion as to how those issues will be considered in light of the Company's proposed changes to its metrics in the instant case (CLC Brief at 33-34). Further, Cape Light Compact contends that given the uncertainty over what measures the Company would use for emissions reductions in its climate adaptation and mitigation plan metric and uncertainty regarding how this proceeding interplays with D.P.U. 18-50, the Department should direct a compliance phase or

D.P.U. 22-22

Page 106

stakeholder review regarding the proposed metrics (CLC Reply Brief at 13-14, citing Attorney General Brief at 74, 78).

b. Climate Adaptation and Mitigation Plan

Cape Light Compact argues that light emitting diode (“LED”) lighting replacement should not be included in the Company’s climate adaptation and mitigation plan because the Company confirmed that it will complete such replacements by the end of 2022 and LED lighting has become industry standard (CLC Brief at 35-36, citing Exhs. ES-METRICS-Rebuttal-1, at 30; CLC-KFG-1, at 13; CLC-KFG-4; Tr. 5, at 366-367; CLC Reply Brief at 13, citing Company Brief at 124). Cape Light Compact asserts that if the Department approves the Company’s climate adaption and mitigation plan with LED lighting replacement included, then it should direct NSTAR Electric to expand its LED replacements to non-LED Rate S-1 (Company-owned) lighting to further reduce emissions (CLC Brief at 33, 36; CLC Reply Brief at 13-14). Finally, Cape Light Compact contends that, despite being outside of the Company’s intended scope of Company facility-related emissions, the climate adaption and mitigation plan should be allowed to evolve to where emissions reductions are necessary (CLC Brief at 36, citing Tr. 5, at 373).

6. CLF

CLF also argues that the use of LED lighting is now an industry standard (CLF Brief at 13). As such, CLF asserts that NSTAR Electric should not be rewarded for such measures and that LED lighting replacement should not be included as part of the climate adaptation and mitigation plan (CLF Brief at 13, citing Exh. CLC-KFG-1, at 13-15).

D.P.U. 22-22

Page 107

7. TEC and PowerOptions

TEC and PowerOptions argue that the Department should approve reporting on MAIFI as a PBR metric once AMI meters are deployed and also in the interim on an as-available basis (TEC/PowerOptions Brief at 12-13, citing Exhs. ES-METRICS-Rebuttal-1, at 26; DPU 68-7). TEC and PowerOptions assert that a MAIFI metric should have no associated penalties, since the goal is to improve visibility into the operation of the distribution system (TEC/PowerOptions Brief at 12-13).

8. UMass

a. Summary

UMass argues that establishing effective metrics is critical to an effective PBR plan but is difficult and requires stakeholder involvement and focused consideration (UMass Brief at 47). With respect to the Company's proposed metrics, UMass contends that they do not measure benefits that ratepayers may receive that are attributable to the PBR plan, and, therefore, they do not encourage the Company to leverage the PBR plan to customers' benefit (UMass Brief at 51, citing Exh. UMASS-EP/RS-1, at 59; Tr. 5, at 375-376). Further, UMass contends that although the Company's proposal to incorporate financial incentives for performance is a significant and potentially positive step, the proposal was made so late in the proceeding that it has not been fully developed with robust stakeholder engagement and requires refining to align the financial incentives with customer benefits (UMass Brief at 52, citing Exh. UMASS-EP/RS-1, at 59-60).

UMass asserts that the Department should deny NSTAR Electric's proposed PBR plan pending development of acceptable metrics, and then expedite a separate proceeding to finalize metrics (UMass Brief at 48). In this regard, UMass contends that it is the Company's burden to establish adequate metrics, including developing a sufficient record, and that the Department has the authority to reject rate changes if a company fails to meet its burden (UMass Reply Brief at 12 (internal citations omitted)). UMass asserts that delaying the implementation of the proposed PBR plan would not prevent the Department from approving new rates to address the Company's revenue deficiency, but rather would delay automatic rate increases associated with the PBR plan (UMass Reply Brief at 12).

b. Overall Customer Satisfaction Metric

UMass argues that NSTAR Electric's overall customer satisfaction metric should include the Company's ranking relative to peer companies instead of just the Company's absolute numerical score (UMass Brief at 53, citing Exh. UMASS-EP/RS-1, at 62-63, 67).⁵⁸ UMass contends that the Company's recent customer satisfaction scores are low compared to other comparable utilities in the region, and that reporting on relative rankings of customer satisfaction would drive the Company to provide a higher level of service (UMass Brief at 53, citing Exh. UMASS-EP/RS-1, at 63-64).

Additionally, UMass argues that NSTAR Electric should also report on the overall satisfaction of its business customers instead of just its residential ones, as business customers

⁵⁸ UMass asserts that the Company is amenable to reporting relative rankings (UMass Brief at 53, citing Tr. 5, at 399).

D.P.U. 22-22

Page 109

have different interests and priorities than residential customers (UMass Brief at 53, citing Exh. UMASS-EP/RS-1, at 62-64, 67). Finally, UMass supports the Company's transactional customer satisfaction metric, as it is more directly focused on the improvement of specific services to customers (UMass Brief at 53, citing Exhs. ES-METRICS-Rebuttal-1, at 18-20; ES-METRICS-Rebuttal-2, at 1; Tr. 5 at 390). However, UMass asserts that this metric alone does not remedy the absence of reporting on business customer satisfaction and relative rankings of customer satisfaction (UMass Brief at 53).

c. Peak Demand Reduction Metric

UMass argues that the Company's peak demand reduction metrics are inadequate since they would not track how the PBR plan resulted in peak demand reduction, but instead only report on the beneficial effects of programs unrelated to the PBR plan (UMass Brief at 53-54, citing Exhs. UMASS-EP/RS-1, at 64-65; ES-METRICS-Rebuttal-2, at 4-6; Tr. 5, at 408, 412-415, 417, 424).

d. Climate Adaptation and Mitigation Plan

UMass argues that because the Company's baselines are inconsistent with the Commonwealth's 1990 baseline, it is unclear whether NSTAR Electric's GHG emissions reduction targets align with Massachusetts policy or whether the Company's GHG reduction efforts are in any way connected to the PBR plan (UMass Brief at 54, citing Exh. UMASS-EP/RS-1, at 65-66; Tr. 5, at 401-402, 403). As such, UMass asserts that the Department should require the Company to present an analysis demonstrating how its own

emission reduction targets compare to the Commonwealth's targets and policy (UMass Brief at 54, citing Exh. UMASS-EP/RS-1, at 65-66, 68).

e. Electrification Framework

UMass asserts that the proposed electrification metrics are too open-ended and should instead focus on ensuring that the Company expeditiously delivers the information, and ultimately the implementation, needed for interested customers to convert to electrification (UMass Brief at 52, citing Exh. UMASS-EP/RS-1, at 60-61). According to UMass, the Company should provide annual reporting on customer upgrade requests for electrification that include information on the customer, upgrade, timeline, and load impact (UMass Brief at 52-53, citing Exh. UMASS-EP/RS-1, at 61-62, 67).

9. Company

a. Introduction⁵⁹

The Company rejects the notion that additional process is needed to further develop the metrics, and contends that the intervenors have been unwilling to provide concrete feedback during the instant proceeding (Company Reply Brief at 15, citing Attorney General Reply Brief at 10-13; Cape Light Compact Reply Brief at 13-14; UMass Reply Brief at 11-12).⁶⁰ Despite this contention, NSTAR Electric claims that the numerous iterations of

⁵⁹ On brief, the Company discusses the metrics proposed in its initial filing and the changes made during the proceeding (Company Brief at 95-117). In the interest of administrative efficiency, the focus of this section will be the Company's response to the issues raised by the intervenors.

⁶⁰ In response to Cape Light Compact, the Company further notes that any adjustments made to the proposed metrics based on the record in D.P.U. 18-50 should only apply

D.P.U. 22-22

Page 111

the proposed metrics throughout the proceeding reflect the Company's effort to take feedback seriously and to incorporate it into its final proposals (Company Reply Brief at 16). The Company recommends that any further process should be conducted during the five-year PBR term, and that the Department should not delay implementation of the PBR plan (Company Reply Brief at 15). In response to DOER's recommendation for a stakeholder process that would address metrics for all EDCs, the Company notes that there are important differences across utilities that need to be considered when developing metrics, and, therefore, company-specific metrics are more appropriate than uniform metrics (Company Reply Brief at 17-18, citing DOER Brief at 3; Exh. DPU 63-4).

In response to intervenor arguments that metrics should be directly tied to PBR adjustments, the Company argues that the PBR mechanism is not designed to recover specific categories of costs, but rather is a formula designed to provide adequate support to meet policy goals (Company Brief at 117, citing Exh. DPU 13-10; Company Reply Brief at 17, 20). As such, the Company contends that it has designed metrics that can measure progress related to policy goals (Company Brief at 118). Further, the Company claims that progress on cost efficiency will not be determined through metrics, but rather based on a review of the drivers of a future request for rate increases (Company Reply Brief at 17, 20, citing Exh. DPU 13-1, at 1 n.1). Therefore, the Company asserts that the intervenors' arguments

on a prospective basis (Company Reply Brief at 19, citing Cape Light Compact Reply Brief at 14).

D.P.U. 22-22

Page 112

are insufficient to reach a conclusion that the proposed metrics are deficient (Company Reply Brief at 17, 19-20, citing Attorney General Brief at 12-13; UMass Reply Brief at 11-12).

b. Overall Customer Satisfaction Metric

In response to the Attorney General's arguments, NSTAR Electric contends that Eversource Energy's failure to meet the enterprise-wide customer satisfaction target was due to circumstances beyond the Company's control that affected affiliates outside of Massachusetts (Company Brief at 119; citing Attorney General Brief at 69; Exh. ES-METRICS-1, at 22). Thus, the Company claims that an enterprise-wide measure for judging the efficacy of the Company's PBR plan is inappropriate (Company Brief at 119).

Further, the Company disagrees with the Attorney General's assertion that the Company's overall customer satisfaction target represents a "business as usual" level of service (Company Brief at 119, citing Attorney General Brief at 69-70). NSTAR Electric argues that even if its 2027 target score will not result in a first quartile ranking, it still represents a measure of improvement, and it is appropriate to select a target based on the score currently necessary to get a first quartile ranking (Company Brief at 119, citing Exh. ES-METRICS-1, at 23).

c. Peak Demand Reduction Metric

The Company rejects the notion that energy efficiency and demand reduction measures are not enabled by the PBR plan (Company Brief at 121). In response to the Attorney General, NSTAR Electric contends that the programs included in the peak reduction metric represent a substantial portion of the Company's peak load management efforts and

D.P.U. 22-22

Page 113

removing them would provide an incomplete picture of the Company's peak reduction efforts (Company Brief at 121, citing Attorney General Brief at 70).

d. Climate Adaptation and Mitigation Plan

In response to the Attorney General's position that the proposed climate adaptation and mitigation plan reflects only what would otherwise be achieved without a PBR plan, NSTAR Electric reiterates that the objective of the PBR plan is to enable long-term planning that aligns with policy objectives, and that the Company's plan to reduce emissions is consistent with such Commonwealth policy objectives (Company Brief at 122, citing Attorney General Brief at 76; Tr. 7, at 477-478).

NSTAR Electric does not disagree with Cape Light Compact's assertions that LED lighting is industry standard practice, and that the Company will have completed its LED replacements by the end of 2022 (Company Brief at 124, citing Exh. DPU 68-22). NSTAR Electric, however, disagrees that LEDs, as a source of emissions reductions, should be removed from the climate adaption and mitigation plan (Company Brief at 124). The Company argues that it has been transparent about how to achieve its emissions reductions, and if it completes installation of LED bulbs, it will increase reliance on other measures to achieve its emissions reductions (Company Brief at 124-125, citing Cape Light Compact Brief at 34; Company Reply Brief at 19, citing Cape Light Compact Reply Brief at 13; Tr. 5, at 367). Further, NSTAR Electric disagrees with Cape Light Compact's recommendation to include non-LED Rate S-1 lighting in the climate adaption and mitigation plan (Company Brief at 125). According to the Company, including non-LED lighting would

D.P.U. 22-22

Page 114

result in a cost to ratepayers if completed prior to full depreciation, which is expected in approximately two years, at which point the non-LED lighting would be replaced with LEDs (Company Brief at 125, citing Exh. CLC-ES 2-4; RR-CLC-1).

e. Equity and Electrification Planning Frameworks

NSTAR Electric asserts that additional work is needed to gather information through direct communications with EJ communities, and, therefore, the Company proposed to replace its initially proposed equity index metric with the equity framework (Company Brief at 109, citing Exh. ES-METRICS-Rebuttal-1, at 15). Further, NSTAR Electric contends that by proposing equity and electrification frameworks (as opposed to metrics), the Company will have additional time to work with stakeholders to ensure that future metrics to measure progress on these objectives are robust and consistent with the evolving legislative landscape and regulatory and policy developments (Company Brief at 108, 110-111, citing Exh. ES-METRICS-Rebuttal-1, at 11, 14; RR-DPU-17; RR-DPU-18).

NSTAR Electric disagrees with the Attorney General that by converting the metrics into planning frameworks the Company eliminated substantive measures for equity and electrification (Company Brief at 121, citing Attorney General Brief at 73). NSTAR Electric argues that, although it will not be setting a target, the frameworks still will ensure that the Company consistently takes action to meet equity and electrification objectives (Company Brief at 121). Moreover, NSTAR Electric contends that, in lieu of these metrics, the Company has proposed new metrics not included in the initial filing and a penalty/incentive mechanism (Company Brief at 121). Thus, according to the Company, the conversion of two

D.P.U. 22-22

Page 115

metrics to frameworks did not diminish the accountability created by the proposed metrics (Company Brief at 121). Finally, NSTAR Electric asserts that the electrification framework ensures that the Company's ten-year planning process is in line with the Commonwealth's All Options pathway and does not encourage overspending, as suggested by the Attorney General (Company Brief at 122, citing Attorney General Brief at 78).

f. MAIFI

In response to TEC and PowerOptions' arguments regarding MAIFI reporting, the Company agrees to report MAIFI data for devices with SCADA visibility, so long as this metric would not be subject to penalties (Company Brief at 124). Further, the Company asserts that following deployment of AMI meters, MAIFI from each customer will be integrated into a momentary outage dashboard (Company Brief at 124, citing DPU 68-7).

D. Analysis and Findings

1. Review Criteria

As discussed in Section IV.D.5.a above, the Department has approved a PBR plan for NSTAR Electric with a five-year term. To measure the full range of benefits that will accrue under the PBR plan, the Department finds that it is appropriate to establish a set of broad performance metrics that are tied to the goals of the PBR plan and are consistent with the Department's regulatory objectives.

2. Proposed Metrics

a. Customer Satisfaction, Customer Engagement, and Operations Metrics

The Company proposes a total of five metrics in the categories of customer satisfaction, customer engagement, and operations. First, the overall customer satisfaction metric utilizes J.D. Power's residential customer satisfaction score (Exh. ES-METRICS-1, at 17). The Department finds that the overall customer satisfaction metric appropriately creates a focus on customer service and that J.D. Power is an appropriate independent source for this information (Exhs. ES-METRICS-Rebuttal-2, at 1; ES-CAH/DPH-1, at 112). As suggested by intervenors, the Department finds that the Company's annual target should be a first quartile ranking instead of a specific numerical score (Attorney General Brief at 70; UMass Brief at 53). This measurement will encourage NSTAR Electric's customer satisfaction to improve at rates above the average pace in the industry. If the Company fails to meet the first quartile ranking, NSTAR Electric should explain the aspect(s) of the score (i.e., a low category score in power quality and reliability, price, billing and payment, communications) that impacted the Company's ability to do so. Further, the Department agrees with the UMass's assertion that the Company's J.D. Power business customer satisfaction ranking also should be reported (UMass Brief at 53). Accordingly, the Department directs the Company to include annual reporting on its J.D. Power business customer satisfaction survey results and to target a first quartile ranking.

Second, the transactional customer satisfaction metric will report the results of a customer survey focused on their satisfaction with the Company's: (1) unplanned outages;

D.P.U. 22-22

Page 117

(2) planned outages; (3) website; and (4) the contact center (Exh. ES-METRICS-Rebuttal-1, at 19-20). The Company proposes to incorporate the metric into the SQ penalty framework, with a symmetrical incentive (Exh. ES-METRICS-Rebuttal-1, at 19). NSTAR Electric states that the proposed index, unlike the J.D. Power metric, reduces the effect on customer satisfaction of factors outside of the Company's control, such as rising energy costs or increased demand due to weather (Exh. ES-METRICS-Rebuttal-1, at 19). The Department finds that a customer satisfaction metric that removes the impact of certain energy cost increases that are outside of the Company's control is reasonable and useful, as it focuses more directly on improving specific services to customers. In addition, the Department finds that the interactions upon which customers will be surveyed are reasonable and important for the Company to track and target improvement. For these reasons, the Department approves the Company's transactional customer satisfaction metric. The Department, however, rejects the Company's proposal to incorporate this metric into the SQ penalty framework, as discussed in further detail below.

Third, the customer usage of an outage map metric will track the number of unique views during ERP events and report engagements with the outage map as a percentage of total inbound customer communications during these events, rather than reporting a total count of interactions (Exh. ES-METRICS-1, at 25-26). No intervenors commented on the use of outage map metric. The Department recognizes the benefits to customers of accessing service outage status, expected downtime, and the cause of the outage during ERP events. Accordingly, we approve the Company's use of the outage map metric.

D.P.U. 22-22

Page 118

Fourth, the digital engagement metric will measure the percentage of customer interactions that are digital (Exh. ES-METRICS-1, at 27). No intervenors commented on the digital engagement metric. The Department recognizes that customers rely on digital interactions to pay bills, report outages, receive service updates, etc. As such, there are benefits to providing convenient and accessible digital tools to customers and doing so can improve customer experience and education. It stands to reason that tracking the percentage of digital engagements is an important component in this process. Accordingly, the Department approves the Company's digital engagement metric.

Finally, the new customer connects metric is the percentage of new customer connections that meet the target timelines for different types of connections, excluding hold days (Exh. ES-METRICS-1, at 44). The Company is proposing to incorporate this metric into the SQ penalty framework, with a symmetrical incentive (Exhs. ES-METRICS-Rebuttal-1, at 21, 23; ES-METRICS-Rebuttal-2, at 3). No intervenors commented on the new customer connects metric. The Department recognizes the role that electrification will play in meeting the climate goals of the Commonwealth, thus ensuring timely connections for new customers is an important goal. Accordingly, the Department approves the new customer connects metric. We also direct the Company to report data on the number of hold days, and the reason for the hold days. The Department, however, disallows its inclusion in the SQ penalty framework, as discussed in further detail below.

b. Producer Satisfaction and Producer/Developer Engagement Metrics

The Company proposes a total of three metrics in the categories of producer satisfaction and producer/development engagement. The producer satisfaction survey metric will survey interconnecting customers 65 and 365 days after interconnection, and the hosting capacity map usage metric will track the number of hits to the hosting capacity map webpages (Exhs. ES-METRICS-1, at 28-29; ES-METRICS-Rebuttal-2, at 2-3; DPU 42-3). No intervenors commented on these producer satisfaction metrics. The Department acknowledges the increasing role of DER on the electric distribution system. We find that these two metrics are reasonable and appropriate to gauge the services provided to and satisfaction of producers. As such, we allow these metrics.

The third metric is the solar development timeline metric, which will measure the duration from creation of a solar installation work order to completion in business days (excluding hold days), and then will calculate the percentage of solar installations meeting certain timeline performance targets by dividing the number of solar installations that meet the targets by the total number of solar installations (Exhs. ES-METRICS-Rebuttal-1, at 20-21; ES-METRICS-Rebuttal-2, at 3). The Company proposes to incorporate the metric into the SQ penalty framework, with a symmetrical incentive (Exh. ES-METRICS-Rebuttal-1, at 20-21). No intervenors commented on the solar development timeline metric. We recognize the important role that solar power will play in meeting the Commonwealth's energy goals, and that timely connection of solar installations is important component in achieving these goals. Accordingly, the Department approves the

D.P.U. 22-22

Page 120

Company's proposed solar development timeline metric. The Department, however, disallows the metric's inclusion in the SQ penalty framework, as discussed in further detail below.

c. Incorporation of Three Metrics into SQ Penalty Framework

The Company proposes to incorporate the new customer connects, transactional customer satisfaction index, and the solar development timeline metrics into the Department's SQ Guidelines (Exhs. ES-METRICS-Rebuttal-1, at 23; ES-METRICS-Rebuttal-2, at 1, 3). The Company also proposes that a symmetrical incentive apply to the PBR metrics that are incorporated into the SQ penalty framework (Exh. ES-METRICS-Rebuttal-1, at 23-24). Several intervenors assert that effective metrics should include incentives and/or penalties (Attorney General Reply Brief at 11-12; DOER Brief at 10, 19-21; Acadia Center Brief at 15; UMass Brief at 52). The Department finds that, in some instances, incentives and penalties are important to the development of meaningful metrics. We recognize, however, that altering the SQ penalty formula may have unintended implications, such as weakening the penalties on existing SQ metrics. Further, the proposal to incorporate these three metrics into the SQ framework was introduced relatively late in the proceeding, and we conclude that the metrics may need refining over time to align the financial incentives with customer benefits. Based on these considerations, we find that the Company's proposal to incorporate these three metrics into the SQ framework warrants more focused attention. Further, we find it prudent for other stakeholders to have an opportunity to propose different potential methods of incorporating penalties and incentives into these metrics. To advance the effort of

D.P.U. 22-22

Page 121

developing appropriate PBR incentive and penalty metrics, the Company shall track and report the three metrics, without making the proposed changes to the SQ Guidelines. For developing a baseline and target for the transactional customer satisfaction and solar development timeline metrics, the Company should apply the SQ method for establishing a baseline and a target.⁶¹ As discussed in further detail below, the Department finds that tracking and reporting will inform a continued stakeholder dialog on metrics.

d. Peak Demand Reduction Metric

The Company proposes to track peak demand reductions from six programs and initiatives (Exhs. ES-METRICS-Rebuttal-2, at 4-6; DPU 49-1, at 3-4). Several intervenors contend that the proposed metric does not track the impact of investments enabled by the PBR plan, as the Department directed in D.P.U. 17-05 (Attorney General Brief at 70-71; Attorney General Reply Brief at 13; UMass Brief at 53-54). In D.P.U. 17-05 at 409-410, the Department identified system peak demand reduction as an important objective. We find that the Company's proposed peak demand reduction metric is an appropriate starting point for developing a more advanced system peak reduction metric. In particular, we find that reporting on the proposed peak demand reduction metric will provide important data to facilitate the evaluation of benefits associated with energy efficiency programs, demand response programs, company-owned storage, company-owned solar, upgrades to standard

⁶¹ NSTAR Electric proposed a baseline and a target based on previous years data for the new customer connects metric, and the Department approves that baseline and target (Exh. ES-METRICS-1, at 45-46).

D.P.U. 22-22

Page 122

technologies, and VVO. Based on these considerations, the Department approves this proposed metric. As the Company and stakeholders continue to develop a set of metrics, as discussed below, the parties should consider first whether peak demand reduction is a priority objective, and second, how to develop a robust measure for reductions to system peak demand that are under the Company's control.

e. Climate Adaptation and Mitigation Plan

As noted above, NSTAR Electric proposes to pursue an updated enterprise-wide climate adaptation and mitigation plan, which focuses on bringing renewable energy to the region and reducing the Company's own GHG emissions (Exhs. ES-METRICS-1, at 39; ES-METRICS-2, at 3; DPU 23-2). In particular, the Company proposes to adopt a goal of reducing emissions ten percent from a 2022 baseline by 2027 (Exhs. ES-METRICS-1, at 39-40; ES-METRICS-Rebuttal-2, at 6). The Company states that its proposed metrics are to be designed to create consistency with current Commonwealth policy goals (Exhs. ES-CAH/DPH-1, at 10-11; ES-METRICS-1, at 11). As such, the Company's GHG emissions reduction targets should align with decarbonization objectives in the 2021 Climate Act, and applicable sector-specific interim targets and sub-limits established pursuant to G.L. c. 21N, § 3A. The Company states that it tracks emissions at an enterprise-wide level, including its operating companies in its New Hampshire, Connecticut, and Massachusetts service territories (Exh. DPU 23-2). We conclude, however, that to align with Massachusetts decarbonization goals, it is more appropriate for the Company's emissions reduction goal to reflect GHG emissions and reductions in the Massachusetts service territory

D.P.U. 22-22

Page 123

only. Similarly, the Company's investments and programs during the PBR term must reflect an appropriate level of climate adaptation. Therefore, while we approve the climate adaption and mitigation plan, we direct the Company in its annual PBR filing to include a demonstration of how the plan is aligned with the objectives of the Commonwealth's decarbonization policies, including applicable sector-specific interim targets and sub-limits established pursuant to G.L. c. 21N, § 3A.

Finally, as discussed above, Cape Light Compact argues that LED lighting replacement should not be included in the Company's climate adaptation and mitigation plan (CLC Brief at 35-36, citing Exhs. ES-METRICS-Rebuttal-1, at 30; CLC-KFG-1, at 13; CLC-KFG-4; Tr. 5, at 366-367; CLC Reply Brief at 13, citing Company Brief at 124). Alternatively, Cape Light Compact asserts that, if the Department approves the Company's climate adaption and mitigation plan with LED lighting replacement included, then it should direct NSTAR Electric to expand its LED replacements to non-LED Rate S-1 (Company-owned) lighting to further reduce GHG emissions (CLC Brief at 33, 36; CLC Reply Brief at 13-14). The Company states that by the end of this calendar year, all Eversource Energy facilities will have undergone a lighting upgrade replacing inefficient fixtures with energy saving LEDs (Exh. DPU 68-22). In addition, the Company reports that it expects non-LED S-1 lighting to be phased out and replaced by LED streetlights in approximately two years (Exh. CLC-ES 2-4). Given these timeframes, the Department finds that it is unnecessary to include LED lighting replacement as part of the climate adaption and mitigation plan. In its annual PBR filings, the Company shall report on its compliance with

D.P.U. 22-22

Page 124

these timelines; if the Company does not meet these timelines, it shall report on the percentage of S-1 lighting categories of (a) LED and (b) non-LED.

f. Equity and Electrification Planning Frameworks

The Company proposes two planning frameworks through annual reporting, one for equity and one for electrification, applicable to capital investment projects of \$20 million or greater and designed to provide commitments to policy objectives and increase transparency (Exh. ES-METRICS-Rebuttal-1, at 10-12, 17). The Attorney General argues that the planning frameworks lack substantive measures and require further examination through a stakeholder process (Attorney General at 73). DOER supports the Department's approval of the frameworks but recommends tracking benefits of the Company's investments in a quantitative manner (DOER Brief at 22).

The Department expects our understanding of how to advance equity as an objective in the oversight of regulated utilities to evolve over time. The Department finds that the proposed framework would benefit from continued development and incorporation of stakeholder feedback to assist in this evolution. The proposed equity framework represents a first step, and is a reasonable and appropriate means, to collect useful data to inform future metrics. As such, the Department approves the equity framework. We note, however, that the Company's compliance with the framework would not necessarily satisfy any obligation to address EJ or other equity issues in proceedings before the Department.

Regarding the proposed electrification framework, the Attorney General contends that the proposal may create a risk of overbuilding and overspending that will be borne by

D.P.U. 22-22

Page 125

ratepayers, and that the Department should not approve new planning standards ahead of the legislatively mandated process prescribed in the 2022 Clean Energy Act (Attorney General Brief at 74). The Department acknowledges that the Company's planning standards for future bulk station projects have merit, and we recognize that the Company will need to conform with planning criteria that enable a decarbonized future. However, the Legislature's intent is for the comprehensive design and implementation of such standards within the electric sector modernization process outlined in 2022 Clean Energy Act, Section 92B. As such, we decline to approve a prescriptive planning framework related to long-term investments in advance of any legislatively mandated process. Accordingly, we do not approve the Company's electrification framework.

g. Resiliency Metrics and Low-Income Terminations Metric

The Company proposes metrics that were developed based on intervenor feedback, namely two metrics for resiliency (MAIFI and an all-in measure of SAIDI and SAIFI) and a low-income terminations reporting metric (Exhs. ES-METRICS-Rebuttal-1, at 31; LI-ES 2-1; RR-DPU-16; Company Brief at 124, App. A at 7). Intervenors support the approval of the MAIFI-related resiliency metric (DOER Reply Brief at 8-9; TEC/PowerOptions Brief at 12-13) and the low-income terminations metric (DOER Brief at 21; Low-Income Network Letter in Lieu of Reply Brief at 1). No intervenors commented on the all-in measure of SAIDI and SAIFI metric. The Department finds that each of the resiliency metrics and the low-income terminations metric are reasonable, reflects important policy goals, and reports

data in a way that promotes transparency. Accordingly, the Department approves the resiliency metrics and the low-income terminations metric.⁶²

3. Conclusion

Subject to the findings above, the Department approves the Company's proposed metrics, the proposed equity framework, and the proposed climate adaption and mitigation plan. We deny the Company's proposal to incorporate three proposed metrics into the SQ penalty framework. Further, the Department does not approve the Company's electrification framework. The Department finds that the approved suite of metrics will provide a means of monitoring both the Company's performance and progress toward achieving important policy goals of the Department and the Commonwealth.⁶³

The Department appreciates the participation and feedback offered by multiple intervenors. In particular, we acknowledge that several intervenors argued that the Company's metrics would benefit from additional stakeholder feedback, outside of a base distribution rate case proceeding (Attorney General Brief at 65; Attorney General Reply Brief at 13; DOER Brief at 20-21; DOER Reply Brief at 2-3; Cape Light Compact Reply Brief at 13-14; UMass Brief at 48). We recognize that the development of meaningful

⁶² The Department confirms that it is not approving any penalty associated with the MAIFI-related metric (Company Brief at 124).

⁶³ The metrics approved in this proceeding supersede those presented in D.P.U. 18-50. As no meaningful issues would remain in D.P.U. 18-50 and in the interest of administrative efficiency, the Department will conclude its investigation in D.P.U. 18-50 and close that docket.

D.P.U. 22-22

Page 127

performance metrics should not be the sole responsibility of the Company and should involve a broader, more transparent stakeholder process that will benefit from sharing data and assumptions. The Department also acknowledges that some metrics should incorporate financial incentives and consequences. Thus, while the Department is satisfied that the metrics proposed herein should be approved, subject to the findings above, we direct the Company to coordinate an inclusive stakeholder process over the course of the PBR term to continue to refine the metrics approved herein.

The first step of the stakeholder process should be to define a set of guiding objectives. Then, through the stakeholder process, the Company should refine the metrics approved here, as well as develop a narrow set of new metrics, as needed, to arrive at a comprehensive set of metrics that meet the Department's review criteria and that target improvements to the stakeholder group's stated objectives. Finally, while some reporting-only metrics are valuable for monitoring performance and sharing information and data, at least a subset of key metrics should be tied to incentives and penalties. As a general guideline, incentive/penalty mechanisms should be symmetrical.

The Department directs the Company to report on the progress of the metrics development process in the annual PBR filings. Specifically, the Company shall report on the number of stakeholder meetings held, a list of the stakeholders that participated, and meeting agendas and minutes. The Company shall report on any proposed mutually-agreed upon changes to the metrics approved herein, any new metrics, and any areas of disagreement among the stakeholders. The Department will consider the proposed metrics

D.P.U. 22-22

Page 128

during our review of the annual PBR filings based on the outcomes of the stakeholder process. The Department's expectation is that the Company and relevant stakeholders will reach agreement on a set of meaningful metrics that, if adopted by the Department, will remain in place should the Company decide to request an extension of the PBR plan term (see Section IV.D.5.a above). To the extent that NSTAR Electric seeks to continue the PBR plan approved herein after the five-year term expires, it shall submit a proposal that lists and defines the metrics that the Company and stakeholders have developed, reports on all other proposals that were considered, and summarizes the final positions of stakeholders on each metric. If the metrics are quantitative, the metrics may include symmetrical incentives and penalties for Department consideration. This proposal shall be filed at least six months in advance of the end of the PBR plan term.

Finally, the Department will consider opening a generic proceeding to direct the development of a common set of electric utility metrics or guidelines, by which future PBR plans can be guided. If a generic proceeding is opened, the Department may modify the foregoing directives relative to NSTAR Electric's stakeholder process.

VI. RATE BASE

A. Introduction

As of December 31, 2021, NSTAR Electric had a rate base of \$4,286,717,212 (Exh. ES-REVREQ-2, Sch. 29 (Rev. 4)). From this amount, the Company subtracted

D.P.U. 22-22

Page 129

\$191,528,926 to remove grid modernization, Solar Program investments,⁶⁴ and the associated deferred income tax for a total proposed rate base of \$4,095,188,286 (Exh. ES-REVREQ-2, Sch. 29 (Rev. 4)).⁶⁵ NSTAR Electric's total proposed rate base consists of: (1) \$5,304,246,946 in net utility plant in service; (2) \$57,121,673 in materials and supplies; and (3) \$54,964,283 in cash working capital, less (1) \$744,331,898 in accumulated deferred income taxes ("ADIT"); (2) \$532,319,565 in net FAS 109 regulatory liabilities; and (3) \$44,493,152 in customer deposits and advances (Exh. ES-REVREQ-2, Sch. 29 (Rev. 4)).

B. Plant Additions

1. Introduction

As of December 31, 2021,⁶⁶ NSTAR Electric proposes a utility plant in service balance of \$7,900,933,940 (Exh. ES-REVREQ-2, Sch. 29 (Rev. 4)). The reserve for depreciation balance as of the same date was \$2,596,686,994, yielding a net plant balance of \$5,304,246,946 (Exh. ES-REVREQ-2, Sch. 29 (Rev. 4)).

⁶⁴ The Company removed Solar Program costs associated with the former WMECo's solar facilities pursuant to G.L. c. 164, § 1A(f), as added by the Green Communities Act, and approved in a stipulation agreement in Western Massachusetts Electric Company, D.P.U. 09-05 (2009) (see n.165 below). The Department has allowed inclusion in rate base of the Solar Expansion Program investments, pursuant to our findings in Section XIV.B.4 below.

⁶⁵ NSTAR Electric's pro forma adjustment includes a decrease of \$201,017,135 in net utility plant less \$9,488,209 in accumulated deferred income taxes (Exh. ES-REVREQ-2, Sch. 29 (Rev. 4)).

⁶⁶ In Section IV.D.5.e above, the Department approved NSTAR Electric's proposal to include the Company's 2021 plant additions in rate base without regard to the size of the plant additions in relation to rate base.

2. Project Documentation

NSTAR Electric manages its capital authorization process in accordance with a project authorization policy (Exhs. ES-ADDITIONS-1, at 16; ES-ADDITIONS-11). The project authorization policy sets forth classifications based on the size and nature of a project and sets documentation requirements for each classification (Exh. ES-ADDITIONS-11E at 121-124). Specific projects are those that exceed or are expected to exceed certain cost thresholds (Exh. ES-ADDITIONS-11E at 121).⁶⁷ Each specific project requires a project authorization form, which includes: (1) a project description and objectives; (2) a scope and justification; (3) a financial evaluation; (4) a risk assessment; (5) alternatives considered; (6) a technology assessment (for information system projects only); (7) a project schedule; (8) project milestones; and (9) an implementation plan (Exh. ES-ADDITIONS-1, at 16-17). Annual programs, also known as blanket programs, consist of projects and work orders that are similar, small, or routine capital jobs performed over the course of a year with costs below the specific project thresholds (Exhs. ES-ADDITIONS-1, at 13; ES-ADDITIONS-11E,

⁶⁷ For most distribution operations projects placed in service between 2016 and 2021, the specific project threshold is \$100,000 in direct costs. For distribution operations projects placed in service between 2016 and 2017 in WMA, however, the threshold is \$100,000 in total costs. For transmission and shared services projects, the specific project threshold is \$500,000 (Exh. ES-ADDITIONS-1, at 34). Effective January 1, 2022, the Company increased the specific project threshold for all distribution operations projects from \$100,000 in direct costs to \$500,000 in total costs, aligning the requirements of distribution, transmission, and shared services projects (Exhs. ES-ADDITIONS-1, at 20; ES-ADDITIONS-11F at 154). The project authorization form threshold change does not pertain to any capital additions proposed for inclusion in rate base in this proceeding.

D.P.U. 22-22

Page 131

at 121). One project authorization form is prepared for the projects under an annual program (Exh. ES-ADDITIONS-11E, at 121).

For the purposes of documentation provision, NSTAR Electric provided several listings of its capital additions, including: (1) a summary of its total capital additions by year; (2) NSTAR Electric's plant in service by year reconciled to the respective FERC Form 1 accounts; and (3) a chronological list of all NSTAR Electric projects and work orders for specific projects with direct charges over \$100,000 and blanket work orders/programs, which includes cost estimates, revised estimates, actual direct costs, and cost variances (Exhs. ES-ADDITIONS-1, at 30-32; ES-ADDITIONS-2 & Supp.; ES-ADDITIONS-3 (East) & Supp.; ES-ADDITIONS-3 (West) (Rev.) & (Supp.); ES-ADDITIONS-4 (East) & Supp.; ES-ADDITIONS-4 (West) & Supp.). The Company further organizes its plant additions into the project classifications that reflect distinct documentation requirements, including: (1) specific projects with direct charges over \$100,000; (2) blanket work orders/programs with direct charges over \$100,000; (3) specific projects over \$50,000; (4) blanket programs over \$50,000; (5) specific projects under \$50,000; (6) blanket work orders and programs under \$50,000; and (7) shared services and transmission projects with total costs over \$500,000 (Exh. ES-ADDITIONS-1, at 27). To support the costs of the capital additions included in these listings, the Company provided copies of the project authorization forms,

D.P.U. 22-22

Page 132

supplemental project authorization forms,⁶⁸ variance analyses, delegate of authority approvals, and closing reports (Exhs. ES-ADDITIONS-1, at 33; ES-ADDITIONS-5 & Supp.).

3. Positions of the Parties

The Company argues that it has properly supported the net plant-in-service through December 31, 2021, with actual computations and thousands of pages of supporting documentation (Company Brief at 292). According to the Company, the supporting documentation includes project cover sheets, approved amounts, actual costs, cost variance information, and closure papers (Company Brief at 292, citing Exhs. ES-ADDITIONS-1, at 30-33; ES-ADDITIONS-4 (East) and (West) & Supps.; ES-ADDITIONS-5 & Supp.; ES-ADDITIONS-7 & Supp.; ES-ADDITIONS-12(b)). NSTAR Electric contends that the record demonstrates that the Company's capital additions submitted for approval in this case are prudently incurred and used and useful in providing service to customers (Company Brief at 292). Additionally, the Company argues that its capital budgeting and authorization process assures cost containment (Company Brief at 294, citing Exh. ES-ADDITIONS-1, at 12-18). Thus, NSTAR Electric asserts that its capital projects through December 31,

⁶⁸ The Company requires supplemental project authorization forms when project costs exceed or are expected to exceed the initially authorized budgeted amount by thresholds set based on the size of the project (Exh. ES-ADDITIONS-1, at 17-18).

2021, should be included in rate base (Company Brief at 300). No other party commented on the prudence of NSTAR Electric's plant additions on brief.⁶⁹

4. Standard of Review

For costs to be included in rate base, the expenditures must be prudently incurred, and the resulting plant must be used and useful to ratepayers. Western Massachusetts Electric Company, D.P.U. 85-270, at 20 (1986). The prudence test determines whether cost recovery is allowed at all, while the used and useful analysis determines the portion of prudently incurred costs on which the utility is entitled to a return. D.P.U. 85-270, at 25-27.

A prudence review involves a determination of whether the utility's actions, based on all that the utility knew or should have known at that time, were reasonable and prudent in light of the extant circumstances. Such a determination may not properly be made on the basis of hindsight judgments, nor is it appropriate for the Department merely to substitute its own judgment for the judgments made by the management of the utility. Attorney General v. Department of Public Utilities, 390 Mass. 208, 229-230 (1983). A prudence review must be based on how a reasonable company would have responded to the particular circumstances and whether the company's actions were in fact prudent in light of all circumstances that were known, or reasonably should have been known, at the time a decision was made. Boston Gas Company, D.P.U. 93-60, at 24-25 (1993); D.P.U. 85-270, at 22-23; Boston

⁶⁹ In Section XIV.A.3 and XIV.B.3 below, we address the Attorney General's position concerning NSTAR Electric's proposal to include costs in rate base associated with the Company's SMART Program and Solar Expansion Program investments.

D.P.U. 22-22

Page 134

Edison Company, D.P.U. 906, at 165 (1982). A review of the prudence of a company's actions is not dependent upon whether budget estimates later proved to be accurate but rather upon whether the assumptions made were reasonable, given the facts that were known or that should have been known at the time. Massachusetts-American Water Company, D.P.U. 95-118, at 39-40 (1996); D.P.U. 93-60, at 35; Fitchburg Gas and Electric Light Company, D.P.U. 84-145-A at 26 (1985).

The Department has cautioned utility companies that, as they bear the burden of demonstrating the propriety of additions to rate base, failure to provide clear and cohesive reviewable evidence on rate base additions increases the risk to the utility that the Department will disallow these expenditures. Massachusetts Electric Company, D.P.U. 95-40, at 7 (1995); D.P.U. 93-60, at 26; The Berkshire Gas Company, D.P.U. 92-210, at 24 (1993); Metropolitan District Commission v. Department of Public Utilities, 352 Mass. 18, 24 (1967). In addition, the Department has stated that:

In reviewing the investments ...that were made without a cost benefit analysis, the [c]ompany has the burden of demonstrating the prudence of each investment proposed for inclusion in rate base. The Department cannot rely on the unsupported testimony that each project was beneficial at the time the decision was made. The [c]ompany must provide reviewable documentation for investments it seeks to include in rate base.

D.P.U. 92-210, at 24.

5. Analysis and Findings

To demonstrate its cost control efforts, NSTAR Electric provided information regarding its capital planning and authorization process and project documentation, which included the Company's current and previous project authorization policies and corresponding

D.P.U. 22-22

Page 135

levels of documentation by project type and dollar threshold, as described above (Exhs. ES-ADDITIONS-1, at 32; ES-ADDITIONS-5). In addition, the Company responded to several Department information requests seeking more information on and clarification of the supporting documentation (e.g., Exhs. DPU 6-1 through DPU 6-10; DPU 17-1 through DPU 17-8; DPU 47-1 through DPU 47-9). Further, in addition to maintaining the project documentation required by the project authorization policy, the Company's project managers review invoices and labor costs charged to projects monthly to ensure that all associated costs are properly charged and senior management reviews the scope, size, design, and status of each ongoing project monthly (Exhs. ES-ADDITIONS-1, at 22-25; AG 9-4).

Based on our review of the Company's testimony, policies, and documentation, the Department finds that NSTAR Electric's cost control measures were reasonable and appropriate.⁷⁰ In addition, the record evidence demonstrates that the project costs associated with the Company's plant additions through December 31, 2021, were prudently incurred and

⁷⁰ As noted above, the Company revised its project authorization form threshold for specific projects from \$100,000 in direct costs to \$500,000 in total costs effective January 1, 2022. As there are no project costs subject to the new policy included in the Company's rate base and, therefore, no basis in this proceeding upon which to consider the impact of the Company's policy change, nothing in this Order shall be construed as a finding or determination on the reasonableness or appropriateness of the revised project authorization form threshold. The Department cautions NSTAR Electric that, while its project authorization form threshold has increased, projects of lower values remain subject to scrutiny and the requirement that a company maintain adequate documentation to support the prudence of its capital additions. D.P.U. 14-150, at 54-55.

D.P.U. 22-22

Page 136

the resulting plant additions are used and useful in providing service to ratepayers. As such, the Department allows these investments in the Company's plant in service.

6. Conclusion

Based on our findings above, the Department finds that the costs of NSTAR Electric's plant additions were prudently incurred, and the resulting plant is used and useful in providing service to the Company's customers. The Department allows a net plant balance of \$5,095,400,897. The allowed net plant balance reflects adjustments pursuant to Section XV.C.2 below and is shown on Schedule 4 below.

C. Cash Working Capital Allowance

1. Introduction

The purpose of conducting a cash working capital lead-lag study is to determine a company's "cash in-cash out" level of liquidity in order to provide the company an appropriate allowance for the use of its funds. Western Massachusetts Electric Company, D.P.U. 87-260, at 22-23 (1988). Such funds are either generated internally or through short-term borrowing. See D.P.U. 96-50 (Phase I) at 26. Department policy permits a company to be reimbursed for costs associated with the use of its funds and for the interest expense incurred on borrowing. D.P.U. 96-50 (Phase I) at 26; D.P.U. 87-260, at 22. The Department requires all electric and gas companies serving more than 10,000 customers to conduct a fully developed and reliable O&M lead-lag study. Fitchburg Gas and Electric Light Company, D.P.U. 11-01/D.P.U. 11-02, at 164 (2011). In the event that the lead-lag factor is not below 45 days, a company will face a high burden to justify the reliability of

D.P.U. 22-22

Page 137

such a study and the reasonableness of the steps the company has taken to minimize all factors affecting cash working capital requirements within its control, such as the collections lag. D.P.U. 11-01/D.P.U. 11-02, at 164.

2. Company Proposal

NSTAR Electric conducted a lead-lag study to determine its cash working capital requirements (Exhs. ES-REVREQ-1, at 147; ES-REVREQ-5). Consistent with the lead-lag study approved in D.P.U. 17-05, at 121, the cash working capital associated with purchased power expense will be recovered through the Company's basic service cost adjustment provision, and the cash working capital associated with other operating expenses will be recovered through inclusion in the Company's rate base (Exh. ES-REVREQ-1, at 147). Each component uses revenue lag days and expense lead days to determine the cash working capital requirement (Exh. ES-REVREQ-1, at 148). NSTAR Electric conducted its lead-lag study using in-house personnel to update the net lag days associated with each component of its proposed cash working capital allowance (Exh. ES-REVREQ-1, at 147-156).

NSTAR Electric calculated a revenue lag to be used in both the O&M and basic service cash working capital net lag factors. The revenue lag consists of a "meter reading or service lag," "collection lag," and a "billing lag" (Exh. ES-REVREQ-1, at 149). The sum of the days associated with these three lag components is the total revenue lag experienced by NSTAR Electric (Exh. ES-REVREQ-1, at 149). NSTAR Electric calculated a meter reading or service lag of 15.21 days (Exhs. ES-REVREQ-1, at 149; ES-REVREQ-5, Sch. WC-2, at 1). This lag was derived by dividing the number of billing days in the test year by twelve

D.P.U. 22-22

Page 138

months and then in half to arrive at the midpoint of the monthly service periods (Exhs. ES-REVREQ-1, at 149; ES-REVREQ-5, Sch. WC-2, at 1). The collection lag, which reflects the time delay between the mailing of customer bills and the receipt of the billing revenues from customers, totaled 26.00 days (Exhs. ES-REVREQ-1, at 149-150; ES-REVREQ-5, Sch. WC-2, at 1). The collection lag was obtained by dividing the average daily accounts receivable balance by the average daily revenue amount to arrive at the collection lag (Exhs. ES-REVREQ-1, at 150; ES-REVREQ-5, Sch. WC-2, at 1). Finally, NSTAR Electric applied a billing lag of one day, based on the fact that most of its customers are billed the day after meters are read (Exhs. ES-REVREQ-1, at 150; ES-REVREQ-5, Sch. WC-2, at 1).⁷¹ Based on the foregoing, NSTAR Electric calculated a total revenue lag of 42.21 days by adding the number of days associated with each of the three revenue lag components (Exhs. ES-REVREQ-1, at 151; ES-REVREQ-5, Sch. WC-2, at 1).

NSTAR Electric's O&M cash working capital is comprised of O&M expense, payroll taxes, and property taxes (Exh. ES-REVREQ-1, at 152). NSTAR Electric pays these expenses to finance the activities conducted in service to customers before the Company receives payment from customers for those services (Exh. ES-REVREQ-1, at 152). To calculate the O&M expense lead period, NSTAR Electric disaggregated its O&M expense into eight major cost categories: net payroll; regulatory commission expenses; corporate insurance; other O&M; property taxes; FICA & Medicare; federal unemployment tax; and

⁷¹ NSTAR Electric made no adjustment in the lead-lag study to account for customers for which additional time is required to process bills (Exh. ES-REVREQ-1, at 150).

D.P.U. 22-22

Page 139

state unemployment tax (Exhs. ES-REVREQ-1, at 153; ES-REVREQ-5, Sch. WC-4).

NSTAR Electric reviewed test-year payments and calculated the lead days for each category based on either all payments or a sampling of payments (Exh. ES-REVREQ-1, at 153).

Once NSTAR Electric determined lead days for each category, it used the sum of the lead days weighted by dollars to arrive at an O&M expense lead of 9.27 days

(Exh. ES-REVREQ-5, Sch. WC-4). NSTAR Electric then subtracted the expense lead of 9.27 days from the revenue lag of 42.21 days to produce a net O&M expense lag of

32.95 days (Exhs. ES-REVREQ-1, at 155; ES-REVREQ-5, Sch. WC-1). NSTAR Electric derived an O&M expense cash working capital factor of 9.03 percent by dividing the net lag days of 32.95 by 365 days (Exh. ES-REVREQ-5, Sch. WC-1). The Company multiplied this factor by the total costs applicable to cash working capital⁷² of \$608,860,793 to calculate a cash working capital allowance of \$54,964,283 (Exhs. ES-REVREQ-1, at 155;

ES-REVREQ-2, Sch. 34 (Rev. 4)).

3. Positions of the Parties

On brief, NSTAR Electric summarizes its lead-lag study calculations and cash working capital requirements and asserts that the Company's calculations are consistent with Department precedent (Company Brief at 139-141). No other party addressed NSTAR Electric's proposed cash working capital calculations.

⁷² These costs are comprised of total O&M expense, less uncollectible accounts, plus taxes other than income taxes (Exh. ES-REVREQ-2, Sch. 34 (Rev. 4)).

D.P.U. 22-22

Page 140

4. Analysis and Findings

The Department has reviewed the evidence in support of NSTAR Electric's lead-lag study, and we conclude that NSTAR Electric properly calculated the total revenue lag of 42.21 days to be applied to both the O&M and basic service expense leads (Exhs. ES-REVREQ-1, at 151; ES-REVREQ-5(a), Sch. WC-2, at 1). Further, the Department finds that NSTAR Electric properly calculated the O&M expense lead of 9.27 days and the resulting net lag of 32.95 days (Exhs. ES-REVREQ-1, at 155; ES-REVREQ-5(a), Schs. WC-1, WC-4). NSTAR Electric's proposed O&M net lag factor of 32.95 days is lower than the Department's 45-day convention (Exhs. ES-REVREQ-1, at 155; ES-REVREQ-5(a), Sch. WC-1). Additionally, we find that NSTAR Electric's decision to perform a lead-lag study with in-house personnel was a cost-effective means to determine its cash working capital requirement (Exh. ES-REVREQ-1, at 147). See Bay State Gas Company, D.P.U. 12-25, at 97 (2012). For these reasons, the Department accepts NSTAR Electric's lead-lag study and the resulting O&M cash working capital factor of 9.03 percent (32.95 days/365 days).

Application of the O&M cash working capital factor of 9.03 percent to the level of O&M and taxes other than income tax expense authorized by this Order produces a cash working capital allowance of \$51,347,443. The derivation of this cash working capital allowance is provided in Schedule 6 of this Order.

D. Accumulated Deferred Income Taxes

1. Introduction

NSTAR Electric proposes an ADIT balance of \$744,331,898, comprising its total ADIT balance of \$1,266,840,909, less: (1) \$513,020,802 in ADIT associated with transmission service; (2) \$4,368,022 in ADIT related to grid-modernization-related investments; and (3) \$5,120,187 in ADIT associated with solar investments at the end of 2021 (Exh. ES-REVREQ-2, Sch. 1, at 4, Sch. 32 (Rev. 4)).⁷³

The Company's proposed ADIT balance includes property- and non-property-related ADIT (Exhs. ES-REVREQ-3, WP 32 (Rev. 4); AG 4-4; AG 24-3). Initially, the Company's non-property-related ADIT included a debit balance of \$19,268,711 in ADIT associated with what the Company identifies as "other pension expense" (Exhs. AG 13-8; AG 21-6). Of this amount, \$3,435,606 was associated with accelerated pension contributions; \$298,750 was associated with transmission-related pension expense; (\$6,123) was associated with amortization of plan loss; and \$15,540,478 was associated with a reclassification of property- and non-property-related ADIT that the Company represents was required for financial reporting purposes in compliance with Accounting Standards Update ("ASU") 2017-07 (Exhs. ES-RR/CCP/Comp-Rebuttal-1, at 38; AG 21-6; Tr. 1, at 122-124).

⁷³ In its initial filing, NSTAR Electric proposed an ADIT balance of \$733,301,500 based on an adjusted test-year-end balance that included ADIT associated with estimated plant additions during 2021 (Exhs. ES-REVREQ-1, at 146; ES-REVREQ-2, Sch. 1, at 4, Sch. 32). During the proceeding, NSTAR Electric updated all of its rate base line items to reflect balances as of December 31, 2021 (Exh. ES-REVREQ-2, Sch. 1, at 4, Sch. 32 (Rev. 1)).

The Company subsequently revised its proposed “other pension expense” ADIT debit balance amount from \$19,268,711 to \$3,605,623 by removing the reclassified amount of \$15,540,478 from the calculation and revising the remaining amounts as follows: \$3,509,996 associated with accelerated pension contributions; \$103,087 associated with transmission-related pension expense; and (\$7,460) associated with amortization of plan loss (Exh. AG 24-5).

2. Positions of Parties

a. Attorney General

The Attorney General contends that the Company has not explained why its ADIT balances associated with “other pension expense” should be included in rate base and, therefore, did not justify including in rate base the proposed debit balance of \$3,509,996 in ADIT associated with accelerated pension contributions (Attorney General Brief at 181-183, citing Exhs. ES-RR/Comp-Rebuttal-1, at 38; AG 21-6; AG 24-5; Attorney General Reply Brief at 46-47).⁷⁴ The Attorney General argues that related to “other pension expense” ADIT should be excluded from rate base, and she calculates a rate base adjustment of \$2,448,102⁷⁵ based on the Company’s allocation to its distribution operations (Attorney

⁷⁴ The Attorney General pointed out that the only significant remaining item to decrease the Company’s proposed ADIT is \$3,509,996 while the rest of the items are either eliminated after her recommended adjustment or are immaterial (Attorney General Reply Brief at 47).

⁷⁵ In her rebuttal testimony, Attorney General calculated the adjustment as \$2,361,907 (Exh. AG-DJE-Surrebuttal-1, Sch. DJE-3S).

D.P.U. 22-22

Page 143

General Brief at 181-183, citing Exhs. AG-DJE-1, at 12-14; AG 24-5; Attorney General Reply Brief at 46-47).

In support of her position, the Attorney General contends that while NSTAR Electric initially proposed the inclusion of \$15,540,478 in its “other pension expense” balance based on the requirements of ASU 2017-07, the Company properly removed it, but still did not sufficiently explain the remaining ADIT items associated with “other pension expense” (Attorney General Brief at 182, citing Exhs. ES-RR/CPP/Comp-Rebuttal-1, at 38; AG 24-5; Attorney General Reply Brief at 47). More specifically, the Attorney General asserts that NSTAR Electric does not attempt to explain or justify the inclusion in rate base of the remaining \$3,509,996 “other pension expense” associated with accelerated pension contributions, and instead offers what the Attorney General considers to be an irrelevant description of the elements of its pension adjustment mechanism (“PAM”) (Attorney General Reply Brief at 47 & n. 24). According to the Attorney General, the list of PAM elements is irrelevant to the issue of whether it is appropriate to include in rate base the ADIT related to accelerated pension contributions (Attorney General Reply Brief at 47 & n. 24).

b. Company

The Company argues that it adequately explained that the remaining ADIT items related to other pension expense are not recovered through the PAM, and, therefore, these items are appropriately included in the base distribution ADIT (Company Brief at 221-222, citing Exhs. AG 21-6; AG 24-5; Tr. 1, at 122-125; Company Reply Brief at 64). First, regarding the \$3,509,996 in ADIT associated with accelerated pension contribution, the

D.P.U. 22-22

Page 144

Company contends that it does not recover contributions to the pension plan through the PAM, and instead, it recovers only actual pension and PBOP O&M-related costs (Company Brief at 222, citing Exhs. ES-RDC-6, Sch. 2; AG 24-5). Further, the Company claims that because it recovers carrying charges on the pension and PBOP prepaid or liability balances net of deferred taxes through the PAM, pension-related contributions are not recoverable through the PAM (Company Brief at 222; Company Reply Brief at 64). In addition, NSTAR Electric asserts that because a portion of its pension and PBOP costs are capitalized, there would be an associated ADIT included in rate base (Company Brief at 221, citing Tr. 1, at 122-125).

Next, the Company argues that the amount of ADIT related to “amortization of plan losses” is included in base distribution ADIT because it is not recovered through the PAM (Company Brief at 222; Company Reply Brief at 65). Finally, the Company asserts that amounts attributable to “transmission” represent unadjusted test-year amounts that are further adjusted in its revenue requirement workpapers (Company Brief at 221-222, citing Exh. ES-REVREQ-3, WP 32, Cols. (F), (H); Company Reply Brief at 65). Therefore, NSTAR Electric contends that its transmission-related ADIT would be adjusted twice if the Department adopts the Attorney General’s recommended adjustment (Company Brief at 222; Company Reply Brief at 65).

3. Analysis and Findings

Deferred income taxes arise because of the differences between the tax and book treatment of certain transactions, including the use of accelerated depreciation and the

D.P.U. 22-22

Page 145

treatment of certain operating expenses for income tax purposes. Fitchburg Gas and Electric Light Company, D.T.E. 99-118, at 33 (2001); Essex County Gas Company, D.P.U. 87-59, at 27 (1987). This difference accumulates and becomes a source of interest-free funds provided by ratepayers and available to the utility to further invest until it is needed to fund the taxes due and payable in the later years. Therefore, ADIT represents an offset to rate base. D.P.U. 87-59, at 63; AT&T Communications of New England, D.P.U. 85-137, at 31 (1985); Boston Edison Company, D.P.U. 1350, at 42-43 (1983); Boston Edison Company, D.P.U. 18200, at 33-34 (1975).

Regarding the Company's revised "other pension expense" ADIT debit balance, if an expense has been deferred on the utility's books and ratepayers were not burdened with the costs, the expense does not exist for ratemaking purposes. Commonwealth Electric Company, D.P.U. 89-114/90-331/91-80 (Phase One) at 24-30 (1991); Massachusetts Electric Company, D.P.U. 89-194/195, at 66 (1990). As such, merely categorizing the deferred income taxes as "other pension expenses" that are not recovered through the PAM does not automatically justify their inclusion in the Company's distribution-related rate base. Therefore, in this instance, the Department examines each item associated with the Company's reported other pension expense ADIT debit balance.

First, the Department finds that the Company has appropriately excluded the debit balance of \$103,087 in transmission-related other pension expense ADIT from its proposed ADIT (Exhs. ES-REVREQ-3, WP 32 (Rev. 4); AG 24-5). Next, the Department examines the amortization of pension plan loss related ADIT balance of (\$7,460) (Exh. AG 24-5).

D.P.U. 22-22

Page 146

According to the Company's annual returns filed to the Department, NSTAR Electric's defined pension costs are accounted for in accordance with accounting guidelines, and this treatment is consistent with the Department-approved PAM (Exh. AG 1-2, Att. (1)(d) at 100).⁷⁶ Moreover, this liability or asset is remeasured annually and amortized as the actuarial gains and losses and net periodic benefit cost for the pension, which is consistent with the provisions set forth in the PAM (Exh. AG 1-2, Att. (1)(d) at 100). See NSTAR Electric Company and NSTAR Gas Company, D.P.U. 21-132 (2021). The financial statements of the Company's Annual Returns filed with the Department also note that the unamortized portion of above-mentioned liability or asset is amortized through accumulated other comprehensive income to "Other Income" (Exh. AG 1-2, Att. (1)(d) at 134). The record also shows that the Company recorded the net deferred tax asset as of December 31, 2020 (Exh. AG 1-2, Att. (1)(d) at 134). Through this reclassification process, the Company recognizes the defined pension plan related gain or loss annually. In addition, the record shows that NSTAR Electric recorded other income increase of \$5.8 million in 2020 and \$10.9 million in 2021 from PAM (Exh. AG 1-2, Att. (1)(d) at 60; AG 1-2 (Supp.), Att. (1)(d) at 61). Moreover, the PAM increases the Company's overall earnings for financial reporting purposes though increasing "Other Income" to meet its pension obligation

⁷⁶ Specifically, the liability or asset recorded to recognize the funded status of the Company's retiree benefit plans is offset by a regulatory asset or liability in the case of a benefit plan asset in lieu of a charge to Accumulated Other Comprehensive Income/(Loss), reflecting ultimate recovery from customers through rates (Exh. AG 1-2, Att. (1)(d) at 134).

D.P.U. 22-22

Page 147

(Exh. AG 1-2, Att. (1)(d) at 45, 57). Based on the evidence discussed above, there is insufficient information to support the pension plan loss ADIT (Exh. AG 1-2, Att. (1)(d)). Further, the Company neither explained its pension plan loss nor provided justification for inclusion of other pension expense ADIT in rate base ADIT other than it is not recovered through the PAM (Exhs. AG 21-6; ES-RR/CPP/Comp-Rebuttal-1, at 38; Tr. 1, at 122). Therefore, the Department declines to include the ADIT for pension plan loss in the Company's ADIT balance.

Finally, the Department addresses whether the ADIT debit balance of \$3,509,996 associated with accelerated pension contributions should be included in rate base. According to the Company, the reason this ADIT balance needs to be included in rate base is because it is not recoverable in the PAM (Exhs. AG 21-6; Company Brief at 222). The Company, however, has not explained the costs associated with accelerated pension contributions that appear in the record in this proceeding (Exhs. AG 21-6; AG 24-5; Tr. 1, at 122).⁷⁷ While the label "accelerated pension contributions" suggests increased amount of pension contributions, it does not provide the reason in context such as the triggers of these accelerated payments and whether they are burdens of the customers. Therefore, the Department finds that the Company has not provided clear and cohesive reviewable evidence

⁷⁷ For example, the Company provided information about accelerated share-based compensation and provided the ADIT amount attributable to the CEO and CFO who were vested as of January 1, 2021, according to the Company's long-term incentive plan (RR-DPU-25 & Att.). The Company could have provided similar information on its executive pension contributions policies to support its proposed accelerated pension contributions ADIT.

D.P.U. 22-22

Page 148

to support the ADIT associated with accelerated pension contributions. In proceedings brought under G.L. c. 164, § 94, the petitioning utility bears the burden of proof by presenting a clear and reasonable analysis. D.T.E. 99-118, at 7, citing Fryer v. Department of Public Utilities, 374 Mass. 685, 690 (1978); Fitchburg Gas and Electric Light Company v. Department of Public Utilities, 375 Mass. 571, 578-579 (1978); see also Metropolitan District Commission, 352 Mass. 18, 24.⁷⁸ Therefore, the Department disallows the inclusion of (\$7,460) associated with the accelerated pension contributions in the Company's ADIT balance.

Based on the evidence, the ADIT amounts reviewed above are the unadjusted balance at the end of 2021 (Exhs. ES-REVREQ-3, WP 32 (Rev. 4); AG 4-4; AG 4-5; AG 13-8; AG 24-3; AG 24-4; AG 24-5). The unadjusted disallowance totals \$3,502,536 (i.e., \$3,509,996 + (\$7,460)). The Department will derive the representative amount of this total attributable to transmission expense (Exh. ES-REVREQ-3, WP 32 (Rev. 4)). This is accomplished by taking the rate-year total non-property rate base ADIT of \$102,452,015, divided by the total adjusted test-year ADIT of \$129,108,171 to derive a factor of 79.35 percent reflecting the portion of ADIT net of that related to transmission

⁷⁸ The burden of proof is the duty imposed upon a proponent of a fact whose case requires proof of that fact to persuade the factfinder that the fact exists or, where a demonstration of non-existence is required, to persuade the factfinder of the non-existence of that fact. D.T.E. 03-40, at 52; D.T.E. 01-56-A at 16; D.T.E. 99-118, at 7.

(Exh. ES-REVREQ-3, WP 32 (Rev. 4)).⁷⁹ Based on the above, the unadjusted disallowance total of \$3,502,536 multiplied by the factor of 79.35 percent, results in an adjusted disallowance amount of \$2,779,262. Accordingly, the Department increases the Company's rate base ADIT by \$2,779,262.

VII. OPERATION AND MAINTENANCE EXPENSES

A. Employee Compensation and Benefits

1. Introduction

When determining the reasonableness of a company's employee compensation expense, the Department reviews the company's overall employee compensation expense to ensure that its compensation decisions result in a minimization of unit-labor costs. Boston Gas Company, Essex Gas Company, and Colonial Gas Company, D.P.U. 10-55, at 234 (2010); D.P.U. 96-50 (Phase I) at 47; Cambridge Electric Light Company, D.P.U. 92-250, at 55 (1993). This approach recognizes that the different components of compensation (e.g., wages and benefits) are, to some extent, substitutes for each other and that different combinations of these components may be used to attract and retain employees. D.P.U. 92-250, at 55. In addition, the Department requires a company to demonstrate that its total unit-labor cost is minimized in a manner supported by its overall business strategies. D.P.U. 92-250, at 55.

⁷⁹ The total adjusted test-year ADIT is derived from the unadjusted test-year amount minus the non-rate base ADIT (Exh. ES-REVREQ-3, WP 32, Cols. (D), (E), (H) (Rev. 4)).

D.P.U. 22-22

Page 150

A company is required to provide a comparative analysis of its compensation expenses to enable a determination of reasonableness by the Department. D.P.U. 96-50 (Phase I) at 47. The Department evaluates the per-employee compensation levels, both current and proposed, relative to the companies in the utility's service territory and utilities in the region that compete for similarly skilled employees. D.P.U. 96-50 (Phase I) at 47; D.P.U. 92-250, at 56; Bay State Gas Company, D.P.U. 92-111, at 103 (1992); Massachusetts Electric Company, D.P.U. 92-78, at 25-26 (1992).

NSTAR Electric's employee compensation program is based on a total rewards philosophy and includes base pay, variable compensation, and employee benefits (Exh. ES-SL-1, at 3-6). During the test year, NSTAR Electric booked \$164,257,262 net of capitalization in payroll expense for union and non-union personnel, including base wages of \$144,810,736 and overtime pay of \$19,446,526 (Exh. ES-REVREQ-2, Sch. 10, at 4-5 (Rev. 4)). After a normalization adjustment and removal of transmission-related costs, the Company proposed a total test-year adjusted union and non-union payroll expense of \$144,958,862 (Exh. ES-REVREQ-2, Sch. 10 (Rev. 4)). NSTAR Electric proposes to increase its union and non-union payroll expense by \$13,138,311, which is net of a rate-year transmission increase allocation of \$1,772,843 (see Exh. ES-REVREQ-2, Sch. 10 (Rev. 4)).

2. Non-Union Wages

a. Introduction

NSTAR Electric proposes to increase the test-year adjusted non-union payroll expense based on: (1) a non-union wage increase of three percent effective April 1, 2021; (2) a

D.P.U. 22-22

Page 151

non-union wage increase of three percent effective April 1, 2022; and (3) a non-union wage increase of three percent effective April 1, 2023 (Exhs. ES-SL-1, at 12; ES-REVREQ-2, Sch. 10, at 3, 4 (Rev. 4)).

The Company determined its non-union wage increases based on a comparative analysis of non-union base salaries and total compensation against median base salaries and total compensation in the energy/utility and general industry sectors in the Northeast, using studies performed by Towers Watson (Exhs. ES-SL-1, at 13-16; ES-SL-5; ES-SL-6). The Company also analyzed whether its actual and proposed merit wage increases were in line with the market by surveying the actual and projected wage increases in the energy/utility and general industry sectors (Exhs. ES-SL-1, at 14, 23; ES-SL-7). In addition, the Company provided a historical comparison of non-union base wage increases to union base wage increases (Exhs. ES-SL-1, at 21; ES-SL-5).

b. Positions of the Parties

NSTAR Electric asserts that its non-union employees' compensation costs are reasonable because the Company establishes the base pay for each position in NSTAR Electric and ESC against similar jobs at other employers in the same competitive market (Company Brief at 225, citing Exhs. ES-SL-1, at 10; ES-SL-5; ES-SL-6; ES-SL-7). The Company claims to set the base pay range between 90 percent and 110 percent of the median market rate for its managers to differentiate base compensation among employees with varied skills, experiences, and level of responsibility (Company Brief at 225, citing Exh. ES-SL-1, at 11). The Company also contends that its job-scope level structure along with base pay

D.P.U. 22-22

Page 152

provides a total cash compensation that is competitive to the energy/utility and general industry sectors (Company Brief at 222-223, 225, citing Exhs. ES-SL-1, at 4; AG 8-75; AG 8-78; AG 8-78; DPU 22-1; DPU 22-2; DPU 22-3; DPU 22-4; DPU 61-1; DPU 61-3; RR-DPU-23; RR-DPU-24; RR-DPU-25; RR-DPU-28; Tr. 5, at 506-507; Tr. 6 at 643, 645-646, 648-650). According to the Company, increases to base pay may take place through merit increases, promotions, progressions on job-scope levels, and market adjustment when deemed necessary (Company Brief at 225-226). With respect to the 2023 payroll increase to non-union employees, the Company claims that management made a commitment to provide the raise on April 1, 2023 (Company Brief at 226, citing RR-DPU-50). Based on these considerations, the Company asserts that it has demonstrated the non-union employee compensation is reasonable and, therefore, should be approved (Companies Brief at 225). No other party addressed this issue on brief.

c. Analysis and Findings

The Department has reviewed the test-year payroll amount and we find that it is verifiable and provides an appropriate basis upon which the Company developed the proposed rate-year non-union payroll expense (Exhs. ES-REVREQ-2, Sch. 10, at 2, 4-5 (Rev. 4); DPU 18-8, Atts. (a), (b); DPU 18-9 & Att.; DPU 40-7 & Att.). The Department's well-established standard for post-test year non-union payroll adjustments requires a company to demonstrate that: (1) the non-union salary increase is scheduled to become effective no later than six months after the date of the Department's Order; (2) if the increase has not occurred, there is an express commitment by management to grant the increase; (3) there is a

D.P.U. 22-22

Page 153

historical correlation between union and non-union raises; and (4) the non-union increase is reasonable. Boston Edison Company, D.P.U. 85-266-A/85-271-A at 107 (1986); D.P.U. 96-50 (Phase I) at 42; D.P.U. 95-40, at 21; Fitchburg Gas and Electric Light Company, D.P.U. 1270/1414, at 14 (1983).

Two of the Company's proposed non-union wage increases occurred before the issuance of the Department's Order, one on April 1, 2021, and the other on April 1, 2022 (Exhs. ES-SL-1, at 12; ES-REVREQ-4, Sch. 13). Additionally, on August 2, 2022, the Company provided a management commitment letter stating that at least a three-percent payroll increase for non-union employees will take place for the scheduled wage increase in 2023 (Tr. 6, at 616-617; RR-DPU-50). Based on this information, the Department finds that non-union salary increases are scheduled to become effective no later than six months after this Order, and there is a commitment by management to grant the 2023 increase that has not yet occurred.

In addition, Eversource provided a historical correlation of non-union and union wage increases and demonstrated that it has awarded non-union and union pay increases every year since 2013 (Exh. AG 1-41, Att.). Between 2013 and 2020, union wage increases were between 2.5 percent and 3.25 percent, and non-union wage increases were 3.0 percent (Exh. AG 1-41, Att.). Based on this information, the Department finds that a sufficient correlation exists between union and non-union wage increases. See Fitchburg Gas and Electric Light Company, D.P.U. 07-71, at 76 (2008); Essex County Gas Company, D.P.U. 85-59-A at 18 (1988).

D.P.U. 22-22

Page 154

With respect to the reasonableness of the non-union wage increases, the Company annually reviews their current and projected salary levels against external energy/utility companies and the general industry to determine if they are competitive to the market median (Exh. ES-SL-1, at 13; Tr. 6, at 618). Specifically, NSTAR Electric compared its current and projected annual base salaries for non-union employees against median annual salaries for comparable positions in the Northeast by using survey data from a Towers Watson study (Exhs. ES-SL-1, at 14-17; ES-SL-5; ES-SL-6; ES-SL-7; AG 32-4; AG 32-5; AG 32-6). This comparison showed that non-union base salary and total cash compensation are two percent above market median for NSTAR Electric, and one percent above market median for ESC (Exhs. ES-SL-1, at 15-16; ES-SL-5; ES-SL-6). The result of the comparison also demonstrated that the non-union employees merit increase of three percent is consistent with the energy industry practice (Exhs. ES-SL-1, at 17-19; ES-SL-7; AG 32-10, Att. at 37). The Department finds that the Company has demonstrated that its total proposed compensation is competitive with the market median and, therefore, is reasonable.

Based on the above, the Department finds that Eversource has demonstrated:

- (1) non-union salary increases are scheduled to become effective no later than six months after the Department's Order; (2) there is an express management commitment to grant a three percent non-union wage increase that is scheduled to occur after the date of this Order;
- (3) there is a historical correlation between union and non-union payroll increases; and
- (4) the non-union wage increases are reasonable. Accordingly, we allow the Company's adjusted non-union payroll expense.

3. Union Wages

a. Introduction

NSTAR Electric proposes to increase the test-year adjusted union payroll expense based on: (1) Local 12004 union wage increases of three percent effective April 1, 2021, April 1, 2022, and April 1, 2023; (2) Local 369 union wage increases of three percent effective June 2, 2021, June 2, 2022, and June 2, 2023; and (3) Local 455 union wage increases of three percent effective October 1, 2021, and October 1, 2022 (Exhs. ES-SL-1, at 10; ES-REVREQ-2, Sch. 10, at 3, 4 (Rev. 4)).

b. Positions of the Parties

The Company asserts that the union employee wages are primarily negotiated through the collective-bargaining process (Company Brief at 226). Further, NSTAR Electric claims that it determines the competitiveness of the union employees' compensation by analyzing the hourly wages of its union employees against median hourly wages of other Companies' employees in the Northeast (Company Brief at 226, citing Exhs. ES-SL-1, at 8; ES-SL-2). As such, the Company asserts that it has demonstrated its union employees' wages are reasonable and that the Department should approve them (Company Brief at 226). No other party addressed this issue on brief.

c. Analysis and Findings

The Department has reviewed the test-year payroll amount and we find that it is verifiable and provides an appropriate basis upon which the Company developed the proposed rate-year union payroll expense (Exhs. ES-REVREQ-2, Sch. 10, at 2, 4-5 (Rev. 4);

D.P.U. 22-22

Page 156

DPU 18-8, Atts. (a), (b); DPU 18-9 & Att.; DPU 40-7 & Att.). The Department's standard for post-test-year union payroll adjustments requires that three conditions be met: (1) the proposed increase must take effect before the midpoint of the first twelve months after the date of the Department's Order; (2) the proposed increase must be known and measurable (i.e., based on signed contracts between the union and the company); and (3) the proposed increase must be reasonable. D.P.U. 11-01/D.P.U. 11-02, at 174; D.P.U. 96-50 (Phase I) at 43; D.P.U. 95-40, at 20; D.P.U. 92-250, at 35.

The Company's proposed union payroll adjustments appropriately include only those increases that have been granted before July 1, 2023, the midpoint of the first twelve months after the Department's Order in this proceeding (Exhs. ES-REVREQ-2 (Rev. 3), Sch. 10, at 3, 4). The union payroll increases that occurred in 2021 and 2022, as well as those scheduled to occur in 2023 are based on signed collective bargaining agreements between the Company and the respective unions (Exhs. ES-SL-1, at 9-10; ES-SL-3; AG 1-41, Att.; AG 1-42, Atts. (c), (f), (i); AG 1-43, Att.). Thus, the Department finds that the proposed union wage increases are known and measurable.

Further, with respect to the reasonableness of the union wage increases, the Company submitted a comparison of their average union wages with other employers in the Northeast (Exhs. ES-SL-1, at 9; ES-SL-2). The analysis provided demonstrates that hourly rates paid to the Company's union employees are comparable to the median hourly rates other employers in the region pay for the union employees (Exhs. ES-SL-2; AG 32-2; AG 32-3).

D.P.U. 22-22

Page 157

Thus, we find that the Company has demonstrated the reasonableness of the union wage increases. Accordingly, we allow the Company's adjusted union payroll expense.

4. Incentive Compensation

a. Introduction

NSTAR Electric's incentive compensation expense represents the portion of wages and salaries paid to non-union employees as part of the total cash compensation, and it is paid in March or April for performance in the prior year (Exh. ES-SL-1, at 21-23). During the test year, NSTAR Electric booked \$16,503,810 in incentive compensation expense, net of a transmission allocation and a normalizing adjustment (Exh. ES-REVREQ-2, Sch. 11, at 1, 2 (Rev. 4)). NSTAR Electric proposes \$9,682,635 for target-level incentive compensation expense in the rate year (Exhs. ES-REVREQ-1, at 70; ES-REVREQ-2, Sch. 11, at 1, 2 (Rev. 4)). Under the Company's proposal, the rate-year amount includes the test-year incentive compensation expense at the target level of \$8,877,981 and a payroll escalation adjustment of \$804,654 (Exhs. ES-REVREQ-1, at 69; ES-REVREQ-2, Sch. 11, at 2 (Rev. 4); Tr. 14, at 1529).

NSTAR Electric states that the proposed rate-year incentive compensation expense is lower than the test year because the Company: (1) normalized the test-year level of expense to remove out-of-period and non-recurring items; (2) reduced the revenue requirement to reflect incentive compensation at target levels; and (3) removed the cash incentive for both

D.P.U. 22-22

Page 158

the chief executive officer (“CEO”) and chief financial officer (“CFO”), consistent with the Department’s findings in D.P.U. 17-05 and D.P.U. 19-120 (Exh. ES-REVREQ-1, at 68).⁸⁰

b. Positions of the Parties

The Company asserts that its incentive compensation program is designed to award employees based on individual performance against the predetermined goals once the incentive pool is established after reaching its business objectives (Company Brief at 227). NSTAR Electric contends that to ensure its employees are committed to meeting customers’ needs, it sets employee performance goals based on providing safe and reliable services at reasonable costs to customers (Company Brief at 227). Further, NSTAR Electric claims that its total compensation approach is designed to be competitive in the energy/utility and general industrial sectors, thus the incentive compensation remains a necessary mechanism for the Company to stay competitive in the labor market (Company Brief at 222, 227). In addition, NSTAR Electric argues that the incentive compensation included in the revenue requirement is at target level despite the payout exceeding the target level, and that the Company has removed the cash incentive compensation attributable to the Company’s CEO and CFO consistent with the Department’s previous findings in D.P.U. 17-05 and D.P.U. 19-120 (Company Brief at 228). Therefore, the Company asserts that it has demonstrated its

⁸⁰ The Department recognizes that Eversource Energy’s incentive compensation contains non-cash share-based incentive compensation in addition to the cash incentive compensation (Exh. DPU 61-7; RR-DPU-25). The Department directs the Company to include as part of its proposed revenue requirement in its next base distribution rate case, clearly identifiable information and contemporaneous records on share-based incentive compensation.

D.P.U. 22-22

Page 159

incentive compensation expense is reasonable and that the Department should approve it (Company Brief at 227-228). No other party addressed this issue on brief.

c. Analysis and Findings

The Department has traditionally allowed incentive compensation expenses to be included in a utility's cost of service if: (1) the expenses are reasonable in amount, and (2) the incentive plan is reasonably designed to encourage good employee performance.

D.P.U. 07-71, at 82-83; D.P.U. 89-194/195, at 34. For an incentive plan to be reasonable in design, it must both encourage good employee performance and result in benefits to ratepayers. D.P.U. 93-60, at 99.

The Department first considers whether the Company's incentive compensation plan is reasonable in design. The record shows that the incentive compensation program for non-union employees is based on individual performance as collaboratively determined by the employee and the employee's supervisor for goals to achieve safety, reliability, and reasonable costs of service to NSTAR Electric's customers (Exh. ES-SL-1, at 22-24; Tr. 6, at 656-667). Each employee's incentive compensation depends on the employee's individual performance and achievement of predetermined goals each year (Exh. ES-SL-1, at 23). Specifically, every February, Eversource Energy holds a compensation committee meeting to review the performance for the previous year and set out the incentive pool available for award (Tr. 6, at 657). An employee's incentive compensation is then tied to the result of the employee's performance review within the team, *i.e.*, an employee can earn up to 200 percent of the target level if the performance review rating is "top achiever," while

D.P.U. 22-22

Page 160

another employee on the same team would not receive an incentive award if the performance review rating results in a “did not meet expectations” determination (Exh. ES-SL-1, at 23; Tr. 6, at 665-671).⁸¹ This performance review process creates a competitive environment for employees to commit to meeting their goals of providing safe and reliable services at reasonable costs to customers (Exh. ES-SL-1, at 28; Tr. 6, at 665-667). Therefore, the Department finds NSTAR Electric’s incentive compensation plan is reasonable in design.

Next, the Department considers whether the Company’s incentive compensation expenses are reasonable in amount. NSTAR Electric asserts that it: (1) reduced the incentive compensation expense to the target level of \$8,877,981; and (2) added a payroll escalation adjustment of \$804,654 to reflect the rate year expense (Exhs. ES-REVREQ, at 69; ES-REVREQ-2, Sch. 11, at 2 (Rev. 4); Tr. 14, at 1529). According to the Company, test-year incentive compensation at target before transmission adjustment was \$9,984,671 (Exh. ES-REVREQ-2, Sch. 11, at 2 (Rev. 4)).⁸² However, in response to an information request, the Company provided total incentive compensation payout in 2020 of \$9,450,872 (Exh. DPU 61-6, Att.).⁸³ Thus, although the Company maintains that it has been paying the

⁸¹ A performance review has five levels: top achiever, exceed expectations, meet expectations, improvement needed, and did not meet expectations (Tr. 6, at 670).

⁸² The \$9,984,671 amount excludes the incentive compensation amount of \$555,360 for the CEO and CFO (Exhs. ES-REVREQ-2, Sch. 11, at 2 (Rev. 4); DPU 22-4).

⁸³ The total accrual and payout analysis provided by the Company shows that the total payout of incentive compensation in 2020 is the sum of \$7,806,768 and \$1,644,104 (Exh. DPU 61-6, Att.).

D.P.U. 22-22

Page 161

incentive compensation above target every year since 2010, the actual amount paid in 2020 (i.e., \$9,450,872) is less than the target level amount it proposes to include in its revenue requirement (i.e., \$9,984,671) (Tr. 6, at 629).

The Department has reviewed the record to determine the derivation of the Company's incentive compensation at target level. The Company states that incentive compensation is a percentage of fixed salary (Tr. 6, at 620-621, 663; Tr. 14, at 1529). NSTAR Electric's test-year incentive compensation amount at target, however, is presented in the Company's revenue requirement exhibit as a hard coded number rather than a percentage multiplying by fixed salary (Exh. ES-REVREQ-2, Sch. 11, at 2 (Rev. 4); Tr. 6, at 620-621, 663; Tr. 14, at 1529). NSTAR Electric attributes this presentation to difficulty in producing information based on the various incentive compensation payout percentages applied to different employee levels and employee groups, so the Company instead relies on the test-year booked expense (Tr. 14, at 1525). Similarly, incentive compensation allocated to NSTAR Electric from ESC based on the Company's accounting records through a cost allocation process and not is determined by multiplying the base salary by the target incentive percentage applicable to each position (Exh. AG 1-36 & Att.(a); Tr. 14, at 1511-1528).

Moreover, the Company presented allocated incentive compensation at target for some employees that exceeds 100 percent of the allocated base salary, e.g., incentive compensation at target amount of \$3,028 on a base salary of \$38; \$5,936 on \$29; and \$6,860 on \$1.29 (Exh. AG 1-36, Att. (a), lines 62, 255, 472). In addressing this irregularity, the Company suggested the Department examine the total amount allocated to NSTAR Electric instead of

D.P.U. 22-22

Page 162

evaluating individual records, as the allocation method relies on the actual expenses (Tr. 14, at 1517).

Upon examining the evidence, the Department is unable to confirm the accuracy and reasonableness the Company's proposed test-year target level incentive compensation amount. At most, the record shows that the Company's incentive compensation expense is initially budgeted and accrued at target level each year based on percentages of fixed salary, and then adjusted upward around November or December once the mid-year management review determines that the incentive pool will be above the target level (Exhs. AG 1-36, Atts. & Supps.; DPU 22-4, Att.; Tr. 6, at 620-621; 658-659; 663; 668-669). The record, however, does not explain why the total incentive compensation payout is less than the target amount the Company proposes to include in its revenue requirement. Thus, the Department is not convinced that the test-year incentive compensation expense accurately represents the incentive compensation expense at target level. As such, the Department will not rely on the Company's proposed target level of incentive compensation to determine the allowed incentive compensation expense.

In determining the correct incentive compensation expense at target, the Department relies on the Company's derivation method of incentive compensation at target, i.e., multiplying the base salary by the target incentive percentages (Exh. AG 1-36; Tr. 6, at 663; Tr. 14, at 1529). In light of the various target incentive percentages assigned to different level of employees, the Department finds it necessary to calculate a weighted average percentage for NSTAR Electric and ESC respectively in calculating the

D.P.U. 22-22

Page 163

representative target level of incentive compensation expense (Tr. 14, at 1524-1525).

According to information provided by the Company, the overall weighted average percentage is the sum of each employee category's derived weighted average percentage, i.e., the ratio of number of employees to the number of total employees multiplied by the percentage of the target incentive compensation (see RR-DPU-51 & Atts. (b), (c)). This calculation produces a weighted average of 9.98 percent for NSTAR Electric and 9.47 percent for ESC, and when multiplied by the Department approved non-union employee⁸⁴ base salaries for the rate year, \$20,565,307 for NSTAR Electric and \$55,631,228 for ESC, produce the incentive compensation at target level of \$2,052,418 for NSTAR Electric and \$5,268,227 for ESC, which total \$7,320,695 (Exh. ES-REVREQ-2, Sch. 10, at 3 (Rev. 4); RR-DPU-51 & Atts. (c), (b)).⁸⁵ Finally, because base salaries include a transmission portion, the Department adjusts the incentive compensation expense to exclude transmission related expense (Exh. ES-REVREQ-2, Sch. 10, at 2, 5 (Rev. 4)). The transmission-related payroll expense of \$21,333,143 divided by the total rate-year payroll expense of \$179,430,316 derives the factor of 11.89 percent, and when multiplied by the Department-calculated total incentive compensation at target level of \$7,320,695, reflects \$870,431 of transmission

⁸⁴ The Company offers the incentive compensation plan to non-union employees only (Tr. 14, at 1512-1514; RR-DPU-51, at 1).

⁸⁵ The Company includes the incentive compensation at target percentage information for employees of NSTAR Electric and ESC and excludes ESC employees whose salaries are never allocated to NSTAR Electric as well as the incentive compensation attributable to the CEO and CFO (Tr. 14, at 1523-1524; RR-DPU-51 & Atts. (b), (c)).

related incentive compensation (Exh. ES-REVREQ-2, Sch. 10, at 2 (Rev. 4)). Therefore, the total distribution related incentive compensation expense at target level is \$6,450,264 (Exh. ES-REVREQ-2, Sch. 10, at 2 (Rev. 4)). Accordingly, the Department approves a total incentive compensation expense of \$6,450,264 and reduces the proposed incentive compensation by \$3,232,371.⁸⁶

5. Employee Health Care Benefits

a. Introduction

NSTAR Electric's health care benefit program includes comprehensive medical, dental, vision, and prescription drug benefits that the Company states are designed to maintain the health of employees and their eligible dependents (Exh. ES-MPS-1, at 4). In conjunction with health benefits, NSTAR Electric also offers wellness programs to help manage and improve employee health, which the Company states helps to moderate health benefit costs over time (Exh. ES-MPS-1, at 4). The Company also sponsors retirement income and health programs to contribute to employees' future financial security (Exh. ES-MPS-1, at 4). The Company states that these benefits are provided in the form of a defined contribution plan and, for a closed group of employees, a defined benefit pension plan (Exh. ES-MPS-1, at 4). Upon retirement, employees who meet certain age and service milestones are also eligible to participate in post-retirement medical plans (Exh. ES-MPS-1, at 4).

⁸⁶ \$9,682,635 - \$6,450,264 = \$3,232,371.

D.P.U. 22-22

Page 165

NSTAR Electric presents an adjusted test-year employee benefits expense of \$15,617,670, net of capitalization (Exh. ES-REVREQ-2, Sch. 13, at 1 (Rev. 4)). The Company proposes to increase employee benefits expense by \$8,119,338 (Exh. ES-REVREQ-2, Sch. 13, at 1 (Rev. 4)). The Company determines the increases through adjustments of two categories of benefits: (1) medical, dental, and vision expense; and (2) expense exclusion related to pension and PBOP (Exh. ES-REVREQ-1, at 71-72). The proposed increases of employee benefits expense are supported by a 4.8 percent and 4.7 percent annual working rate increase for 2021 and 2022 respectively (Exhs. ES-MPS-2; DPU 51-6). A “working rate” represents the per-employee expected insurance claim levels for the following year and is provided by the Company’s benefits consultants and external vendor partners, Cigna and Express Scripts (Exhs. ES-DPH-1, at 58; DPU 45-34).

b. Positions of the Parties

NSTAR Electric argues that the Department should approve its employee health care benefits cost because: (1) the proposed costs are reasonable; (2) the Company has taken appropriate steps to control health care expense of the employees; and (3) the post-test-year adjustments based on the working rate are known and measurable (Company Brief at 228-237). No other party addressed this issue on brief.

c. Analysis and Findings

To be included in rates, health care expenses must be reasonable. D.P.U. 92-78, at 29-30. In addition, any post-test-year adjustments to health care expense must be known and measurable. D.T.E. 01-56, at 60; D.P.U. 96-50 (Phase I) at 46; D.P.U. 92-78, at 29;

D.P.U. 22-22

Page 166

North Attleboro Gas Company, D.P.U. 86-86, at 8 (1986). Further, companies must demonstrate that they have acted to contain their health care costs in a reasonable, effective manner. D.T.E. 01-56, at 60; D.P.U. 96-50 (Phase I) at 46; Nantucket Electric Company, D.P.U. 91-106/91-138, at 53-54 (1991).

As an initial matter, the Company derives its rate-year employee benefits costs using the number of active employees participating in the benefits program, which effectively excludes costs related to pension/PBOP from distribution rates (Exhs. ES-REVREQ-1, at 71; ES-REVREQ-2, Schs. 8, at 2; 13, at 3 (Rev. 4); DPU 26-3). This treatment is consistent with Department precedent. D.P.U. 17-05, at 324; D.P.U. 14-150, at 155.

Next, the Department finds that NSTAR Electric's employee benefits costs are reasonable, and that the Company has implemented reasonable and effective measures to contain these costs (Exhs. ES-MPS-1, at 8-11; AG 1-52). For example, the Company introduced a high deductible health plan that encourages consumerism (Exhs. ES-MPS-1, at 8; AG 1-52). The Company also offers opt-out credits to those employees who have alternative health care coverage and elect not to participate in the plans (Exh. AG 1-52). Further, NSTAR Electric consolidated medical carriers so over 98 percent of employee claims are on in-network basis that are more cost effective (Exh. ES-MPS-1, at 7). In addition, the Company negotiated a three-year agreement with a single pharmacy benefit manager coupled with step therapy programs, which provides deeper discounts for prescription drugs, lower administration fees, larger rebates, and utilization-management programs such as step therapy program that encourages the use of lower-cost generic

D.P.U. 22-22

Page 167

medications (Exh. ES-MPS-1, at 9-10). NSTAR Electric also put its medical and prescription drug programs out to bid to ensure competitive pricing, resulting in all medical plans administered by Blue Cross and Blue Shield of Massachusetts and all prescription drug plans administered by Express Scripts effective January 1, 2019, which yields estimated \$1.1 million in savings each year (Exhs. ES-MPS-1, at 11; AG 1-52).

Finally, the Department finds the proposed employee benefits expense based on the working rates developed by the Company's benefits consultant is known and measurable because they are derived from its total plan expense and actual claim data (Exhs. ES-MPS-1, at 11-12; ES-MPS-2; DPU 26-11; DPU 51-6, Att.). The working rates are calculated based on the Company's actual insurance claims and cost trends experienced in the two years prior to the rate year, and, therefore, we conclude that the Company's working rates are sufficiently correlated to its own experience rather than broad-based insurance entities (Exh. DPU 51-6). D.P.U. 18-150, at 241-242; Boston Gas Company and Colonial Gas Company, D.P.U. 17-170, at 103 (2018); D.P.U. 17-05, at 154; D.P.U. 15-155, at 176-177. Based on the foregoing, the Department accepts the Company's proposed health care benefit expenses.

6. Employee Service Awards

a. Introduction

During the test year, the Company recorded \$20,727 in employee service awards to residual O&M expense (Exhs. DPU 61-5; AG 8-22, Att.). Under the award program, eligible employees are each presented with a paper certificate and an opportunity to choose a

D.P.U. 22-22

Page 168

non-monetary service award gift in recognition of their service (Exh. AG 8-22; Tr. 6, at 676). The value of the award starts at \$50 for five years of service and the maximum value is \$275 for 50 years of service (Exh. AG 8-22).

b. Positions of Parties

i. Attorney General

The Attorney General argues that NSTAR Electric failed to demonstrate the employee service award provides any direct benefits or value to ratepayers (Attorney General Brief at 125, citing Exh. AG 8-22; Tr. 1, at 87; Tr. 6, at 677; Attorney General Reply Brief at 37). Further, the Attorney General contends that the Company failed to support its claim that employee service awards increase employee retention (Attorney General Brief at 125, citing Exh. ES-RR/PPP/Comp-Rebuttal-1, at 16–18). In particular, she claims that there is insufficient evidence to establish that selecting a non-cash award from a third-party vendor influences an employee’s decision to remain with the Company (Attorney General Brief at 125, citing Tr. 6, at 89).⁸⁷ In addition, the Attorney General argues that the Company failed to justify the costs are reasonable even if the employee service awards theoretically benefit ratepayers or are standard in the market (Attorney General Reply Brief at 38). In this regard, the Attorney General notes that the Company does not separately

⁸⁷ The Attorney General contends that during the evidentiary hearings, the Company’s witness could not recall receiving an award separate from the paper certificate, or even if she went to the vendor website to choose the award (Attorney General Brief at 125, citing Tr. 1, at 89).

D.P.U. 22-22

Page 169

identify costs for the paper certificate and the non-cash award (Attorney General Reply Brief at 38, n. 19).

Based on these considerations, the Attorney General asserts that the Company is free to recognize its employees' service to the Company, either with paper certificates or other awards, but ratepayers should not pay for the expense (Attorney General Brief at 126; Attorney General Reply Brief at 38). Accordingly, the Attorney General recommends removing the entire amount of employee service award costs from the Company's proposed cost of service (Attorney General Brief at 126; Attorney General Reply Brief at 38).

ii. Company

The Company argues that Attorney General's claims regarding employee service awards are inaccurate and should be disregarded (Company Brief at 170-173). First, NSTAR Electric contends that the employee service awards are standard in the market and must be viewed as part of a complete compensation and benefits package designed to ensure the Company's offering is competitive (Company Brief at 171-172, citing Exh. ES-RR/PPP/Comp-Rebuttal-1, at 18; Tr. 1, at 87; Tr. 6, at 678-679). Based on surveys the Company relied upon, it claims that 70 percent of industries offer employee service awards to retain employees (Company Reply Brief at 43, citing Exh. ES-RR/PPP/Comp-Rebuttal-1, at 16).

Second, NSTAR Electric contends that, contrary to the Attorney General's assertion, the Company has demonstrated that customers benefit from the retention of skilled and highly qualified employees to provide safe and reliable service (Company Reply Brief at 44, citing

D.P.U. 22-22

Page 170

Exhs. ES-RR/CPP/Comp-Rebuttal-1, at 16-18; AG 8-22). NSTAR Electric states long-term employees acquire institutional knowledge and share it with newer employees, thereby facilitating the learning curves and ensuring effective and efficient customer assistance (Company Brief at 172). In addition, the Company maintains that it is reasonable and prudent to encourage employees who are approaching retirement age to stay in their positions as part of its standard succession planning (Company Brief at 172).

Finally, NSTAR Electric takes issue with Attorney General's claim that the Company failed to demonstrate the employee service awards have an influence on an employee's decision to remain with the Company (Company Brief at 172-173). In this regard, the Company maintains that its witness testified regarding the importance of being acknowledged for her ten years of work in providing safe and reliable service to customers (Company Brief at 172-173, citing Tr. 1, at 87, 90-91; Tr. 6, at 678-679).

c. Analysis and Findings

The Company bears the burden of demonstrating that proposed employee service award costs benefit Massachusetts ratepayers, are reasonable, and were prudently incurred. D.P.U. 11-01/D.P.U. 11-02, at 323; D.T.E. 03-40, at 140-141; Oxford Water Company, D.P.U. 1699, at 13 (1984). This standard applies whether the expenses were incurred at the parent level or at the service company level. D.T.E. 03-40, at 140-141.

The Company explained that the employee service award program is designed to recognize service, to keep employees engaged, and to retain skilled employees to operate the electric and customer service systems and pass along institutional knowledge to newer

D.P.U. 22-22

Page 171

employees (Exhs. ES-RR/CPP/Comp-Rebuttal-1, at 16-18; AG 8-22; Tr. 1, at 87; Tr. 6, at 678). While the prospect of receiving an employee service award alone may not achieve these results, the recognition is part of an overall compensation and benefit package intended attract quality employees who will best serve the Company, and, by extension, customers (Exh. ES-RR/CPP/Comp-Rebuttal-1, at 18; Tr. 1, at 87; Tr. 6, at 678). The Department finds that attracting and maintaining skilled employees ultimately benefits customers through the sustained provision of safe and reliable service (Exhs. ES-RR/CPP/Comp-Rebuttal-1, at 16-18; AG 8-22; Tr. 1, at 87). We are not persuaded by the Attorney General's arguments to the contrary.

Further, the Department finds that the modest costs of the employee service award program are reasonable and prudently incurred (Exhs. DPU 26-5, Att.; DPU 61-5; Tr. 1, at 88). Cf. D.P.U. 10-55, at 454-455 & n.288 (expenditures related to shipping executives' wine collection and private school tuition found to be the type of expenses that would not have met Department standard for recovery). In this regard, given the overall costs, we find that it was unnecessary for the Company to segregate the costs of the paper certificate and the award as a prerequisite for recovery. Based on the foregoing considerations, the Department allows the Company to include \$20,727 in its proposed cost of service.

B. Depreciation Expense

1. Introduction

During the test year, NSTAR Electric booked \$214,446,872 in depreciation expense (Exhs. ES-REVREQ-1, at 112; ES-REVREQ-2, Sch. 25). The Company initially proposed a

D.P.U. 22-22

Page 172

rate-year depreciation expense of \$231,820,683, based on the application of proposed accrual rates resulting from its depreciation study to the Company's projected account balances of depreciable plant as of December 31, 2021 (Exhs. ES-REVREQ-1, at 111-114; ES-REVREQ-2, Sch. 1, at 3, Sch. 25). During the proceeding, the Company updated its proposed depreciation expense to \$224,693,975 to reflect the most up-to-date balances of plant in service (Exhs. ES-REVREQ-2, Sch. 1, at 3, Sch. 25 (Rev. 4); ES-REVREQ-3, WP 25 (Rev. 4)).

NSTAR Electric's proposed depreciation accrual rates are the result of a depreciation study as of December 31, 2020, for all electric plant (Exhs. ES-JJS-1, at 2, 5; ES-JJS-2, at 6, 9; ES-JJS-3). The Company estimated the service life and net salvage⁸⁸ characteristics for depreciable plant accounts, and next used the service life and net salvage estimates to calculate composite remaining lives and annual depreciation accrual rates for each account (Exhs. ES-JJS-1, at 7-8; ES-JJS-2, at 9). To determine service lives, the Company used the retirement rate method to create life tables, which, when plotted, show an original survivor curve that is then compared to Iowa Curves⁸⁹ to determine an average service life for each

⁸⁸ Net salvage is the resulting difference between the gross salvage of an asset when it is disposed less its associated cost of removal from service (Exh. ES-JJS-1, at 13).

⁸⁹ Iowa Curves are frequency distribution curves initially developed at the Iowa State College Engineering Experiment Station during the 1920s and 1930s; 18 curve types were initially published in 1935, and four additional survivor curves were identified in 1957 (Exhs. ES-JJS-1, at 9-10; ES-JJS-2, at 15). Boston Edison Company/Cambridge Electric Light Company/Commonwealth Electric Company/Canal Electric Company, D.T.E. 06-40, at 66-67 n. 44 (2006). These curves are widely accepted in determining average life frequencies for utility plant.