NSTAR Electric Company d/b/a
Eversource Energy

Performance-Based Ratemaking Mechanism

2023 Annual Performance Report

Submitted to:

Massachusetts Department of Public Utilities

D.P.U. 24-137

September 16, 2024

EXECUTIVE SUMMARY

On November 30, 2022, the Department of Public Utilities (the "Department") approved a Performance Based Ratemaking ("PBR") Plan for NSTAR Electric Company d/b/a Eversource Energy's ("Eversource" or the "Company"), including performance metrics, as part of a base distribution rate proceeding docketed as D.P.U. 22-22. The PBR Plan approved in D.P.U. 22-22 commenced as of January 1, 2023, and the Company is now providing its first annual report including its progress under the approved performance metrics. D.P.U. 22-22, at 80-81, 126-127, 549.

Eversource proposed metrics in D.P.U. 22-22 that built on the metrics developed in response to the Department's directives in D.P.U. 17-05, approving the Company's previous five-year PBR Plan.[1] In D.P.U. 17-05, the Department directed the Company to develop metrics in three categories: (1) improvements to customer service/engagement; (2) reductions in system peak; and (3) strategic planning for climate adaptation. NSTAR Electric Company and Western Massachusetts Electric Company each d/b/a Eversource Energy, D.P.U. 17-05, at 412 (2017). In addition to addressing these directives from D.P.U. 17-05, the Company's proposal in D.P.U. 22-22 included metrics to account for changes to the Commonwealth's policy goals; namely, metrics for solar developer satisfaction, community solar access, electrification, and equity. Based on feedback received in D.P.U. 22-22, the Company's final metrics proposal included a total of ten

[1] The Company filed its proposed metrics for its first PBR Plan in docket D.P.U. 18-50 on June 20, 2018. The Department did not issue a decision on those proposed metrics; however, the Company continued to report on its proposed metrics as part of its annual PBR Plan adjustment filings submitted in Dockets D.P.U. 19-115, D.P.U. 20-96, D.P.U. 21-106, and D.P.U. 22-120. In recognition of its order in D.P.U. 22-22, including its approval of performance metrics associated with the D.P.U. 22-22 PBR Plan, the Department closed its proceeding in D.P.U. 18-50, finding that the performance metrics approved in D.P.U. 22-22 supersede those presented in D.P.U. 18-50, rendering the performance metrics proposed in D.P.U. 18-50 moot. D.P.U. 22-22, at 126, fn. 63.

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). D.P.U. 22-22, at 82-83. The Department approved the Company's proposed metrics with two notable exceptions: (1) the Department declined to adopt the Company's service-quality penalty and incentive framework; and (2) declined to approve the proposed electrification framework.

The Company now provides its first PBR Annual Report with the metrics that were approved in D.P.U. 22-22. Appendix A to this report presents the 2024 PBR Metrics Scorecard, providing a summary of results achieved in 2023. The Company's Performance Metrics are organized into the categories of: (1) Customer Satisfaction; (2) Customer Engagement; (3) Producer Satisfaction; (4) Producer/Developer Engagement; (5) Operations (6) Peak Demand Reduction; (7) Greenhouse Gas Reduction; (8) Resiliency; and (9) Equity; (10) Low-Income; (11) Resiliency. The metrics include both metrics with established baselines and targets, and metrics where data are still being collected to establish a baseline and target.[2] These metrics and the Company's performance drivers are discussed below.

[2] Currently all metrics are reporting only (i.e., there are no penalties or incentives associated with the metrics). However, the Company is conducting a stakeholder process that is expected to result in a metric proposal for any PBR Plan term beginning in 2027. The metrics that result from that stakeholder process will include a proposal for penalties and incentives consistent with the Department's directives. D.P.U. 22-22, at 126.

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I. Introduction

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The Company's Performance Metrics are designed to be clear, well-defined, and supported by objectively measurable data. In addition, the metrics are designed to be closely aligned with the Department's regulatory objectives and with broader state energy and environmental policies. The Company's approved Performance Metrics are organized into the categories of: (1) customer satisfaction (2) customer engagement; (3) producer satisfaction; (4) producer/developer engagement; (5) operations; (6) peak demand reduction; greenhouse gas reduction; (7) equity; (8) low-income; and (9) resiliency. D.P.U. 22-22, at 83-126.

II. Customer Satisfaction and Customer Engagement Metrics

A. Introduction

The Company proposed a total of five metrics in the categories of customer satisfaction, customer engagement and operations that were approved by the Department. First, the overall customer satisfaction metric utilizes J.D. Power's residential customer satisfaction score, which the Department found appropriately creates a focus on customer service and is based on data from J.D. Power, an independent source for this information. D.P.U. 22-22,

at 116. The Department also directed the Company to use a first quartile ranking instead of a specific numerical score to encourage Eversource's customer satisfaction to improve at rates above the average pace in the industry. Id. Should the Company fail to meet the first quartile ranking, the Department directed Eversource to 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. Id. In addition to the residential customer satisfaction score, the Company was directed to report on business customer satisfaction also using a first quartile ranking as its target. Id.

Second, the Company proposed the transactional customer satisfaction metric to report results of a customer survey focused on their satisfaction with the Company's: (1) unplanned outages; (2) planned outages; (3) website; and (4) the contact center. D.P.U. 22-22, at 116. The Department found 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 and finds that the interactions upon which customers will be surveyed are reasonable and important for the Company to track and target improvement. Id. at 117.

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 report a total count of interactions. Id. The Department recognized the benefits to customers of accessing service outage status, the expected downtime, and the cause of the outage during ERP events and approved the outage map metric. Id.

Lastly, the digital engagement metric measures the percentage of customer interactions that are digital. Id. at 118. The Department recognized the importance of this metric as customers rely on digital interactions to pay bills, report outages, receive service updates, etc. and that there are

benefits to tracking the percentage of digital engagements is an important component of this process. Id.

1. Improving the Customer Experience

Eversource takes its obligation to provide high-quality customer service very seriously. The customer satisfaction and engagement metrics reported in this filing arise from a process that began in 2016 to improve customer service. Beginning in mid-2016, in parallel with the development of the proposed D.P.U. 17-05 PBRM for filing at the Department, the Company initiated an extensive "ground-up" effort to scrutinize its customer-service offerings and assist in developing a prioritized, sequenced, multi-year effort for modernization of the customer-service function. As suggested in the Department's decision in D.P.U. 17-05, a key driver of this initiative was the need to adapt to a customer base that is increasingly savvy from a technology perspective, increasingly demanding of service options and flexibilities, and more reliant on mobile applications and devices to satisfy those demands. D.P.U. 17-05, at 408. This effort was fully focused on the identification of initiatives to improve customer satisfaction and customer engagement as part of the overall Customer Experience. The Company's previous PBR Plan included an extensive plan for improving the Customer Experience. The Company has continued to build on that promise to provide high-quality customer service.

For this second PBR Plan term, the Company is focused on preparing for its deployment of Advanced Meter Infrastructure ("AMI") and the investments that will form the foundation for advanced capabilities available through AMI. During 2023, the Company began this transformation by moving all Massachusetts customers to a common customer information system ("CIS"). This new, common CIS provides the foundation for an improved customer experience. Specifically, the new CIS is a foundational investment that will allow customers to take full advantage of the benefits of AMI (which will be deployed during this PBR Term). The Company's

customers will have increased access to their usage data and increased rate options (e.g., time varying rates) as this evolution takes place.

2. Measuring Customer Satisfaction and Engagement

The Company's customer satisfaction and engagement metrics were developed through collaboration with J.D. Power and are a continuation of the metrics proposed for the Company's first PBR Plan term (2017-2022). J.D. Power is an internationally recognized company that endeavors to measure customer satisfaction and engagement across a broad range of industries, including the electric distribution industry. And, as stated by the Department, working with and being benchmarked by a third-party is an appropriate method to account for outside variables in the development of customer satisfaction and engagement metrics.[3] D.P.U. 22-22, at 116.

The Company's performance on the customer metrics is presented in Table 1.0 below.

[33] The Company does not disagree that there are benefits associated with utilizing third-party research services to measure customer satisfaction, however, there are also potential challenges also involved. In 2025, J.D. Power is planning to significantly overhaul its methodology for measuring customer satisfaction among all utility customers and move to a completely different model. This new model will make historical trending efforts more difficult (i.e., it will be difficult to determine how the Company's performance compares pre-2025 and post-2025). Customer satisfaction is also become more impacted by factors outside the Company's control (i.e., supply prices). Accordingly, the Company anticipates proposing changes to its customer satisfaction metrics and has raised these concerns for discussion as part of the PBR Metric Stakeholder Group discussed in Section IX, below.

Table 1.0

SUMMARY OF CUSTOMER METRICS			
Measure	**Baseline**	**2027 Target**	**2023 Actual**
Overall Customer Satisfaction – Residential (MA)	3rd Quartile	1st Quartile[4]	3rd Quartile
Overall Customer Satisfaction - Business (MA)	3rd Quartile	1st Quartile[5]	4th Quartile
Transactional Customer Satisfaction Index	3 Year Benchmark Period 2023-2025		7.92
Usage of Outage Map	58%	75%	55.20%
Digital Engagement	83.20%	91%	89.90%

B. Overall Customer Satisfaction (MA) Metric

The Department has consistently recognized the importance of customer satisfaction through implementation of stringent service-quality guidelines that are applicable to all electric distribution companies in the Commonwealth. The Overall Customer Satisfaction (MA) metric is consistent with the Company's goals for implementing a PBR plan by creating a focus on its

[4] The Department directed the Company to target a first quartile ranking for each year of its PBR Plan term. D.P.U. 22-22, at 116.

[5] Similar to the residential customer satisfaction metric, the Department directed the Company to target a first quartile ranking on an annual basis. D.P.U. 22-22, at 116.

operations without the distraction of multiple rate case filings. In order to reach its performance target, Eversource aims to commit to ultimate success by implementing a multi-year suite of customer experience initiatives to drive improvements in customer satisfaction. Specifically, the Company has identified the following focal points: (1) start and stop of service; (2) outage communications; and (3) billing and payment. Eversource has put internal teams in place to address each of these three areas of customer experience that resulted in identification of over 70 capabilities of the Company to increase satisfaction in these key areas that was used to develop a Customer Experience Plan.

Prior to D.P.U. 22-22, the Company was tracking customer satisfaction through the J.D. Power's overall customer satisfaction ("OSAT") score. The Department determined in D.P.U. 22-22 that the Company's annual target should be a first quartile ranking instead of a specific numerical score stating that this measurement will encourage Eversource's customer satisfaction to improve at rates above the average pace in the industry. D.P.U. 22-22 at 116. If the Company fails to meet the first quartile ranking, the Department directed Eversource to 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 satisfaction. Id. Further, the Department directed the Company to include annual reporting on its J.D. Power business customer satisfaction ranking (with a first quartile ranking target). Id.

As shown in Table 1.0 above, the Company failed to reach the first quartile ranking by the end of 2023 for both the residential and business customer satisfaction rankings. However, the Company is making progress to improve its placement in quartile ranking. Further, the Company's third quartile ranking is primarily due to significant and persistent customer concerns about supply costs throughout 2023. The Price index within the J.D. Power study remained low in all four quarters of fielding in the 2023 study, which aligns with higher-than-normal energy supply costs. Energy supply costs are outside of the Company's control.

The Company also noted lower performance within the Corporate Citizenship index as well, which has a strong correlation with the Price index. Because the J.D. Power Overall Customer Satisfaction Index is a calculation that takes all its sub-indexes into account, lower scores in these areas act as a significant weight on final results. Despite these challenges, the Company also noted year-over-year improvements in two other segments of the J.D. Power study. Results in 2023 showed the Company improved in rankings relative to the East Large Region in the areas of Power Quality & Reliability and Customer Care, climbing 2 and 5 positions, respectively.

With regard to the business study, as noted above the Company placed in the fourth quartile in the 2023 J.D. Power Electric Business Satisfaction Survey final results. The Company does not subscribe to J.D. Power's Electric Business Study because it has been the Company's experience that satisfaction drives are substantially similar between the residential and business sectors. As a result, the Company does not have insight into the specific drivers of its 4th quartile business sector ranking. However, based on this previous experience with the J.D. Power Electric Business Study and research conducted internally by the Company's Voice of the Customer Team, the Company assumes that the drivers identified in the Residential study are similar to those that drive performance in the business study. The Company's analysis finds that the price factors identified above will have been the primary factor in holding satisfaction down among Business Sector customers.

The Company also notes that its customer initiatives for this PBR Plan Term are long-term initiatives that are expected to yield increased satisfaction results later in the plan term. As discussed above, the Company has focused in 2023 on deployment of a new, common CIS across the Massachusetts service territory. This project modernized the Company's customer system and will improve customers' experience with managing their usage, billing, etc. Some of these benefits including the presentation of payment arrangements on the bill and the automation of some manual bill processes are already available. It also allowed the Company to have all Massachusetts

customers on a single billing platform, enabling process consistency across Massachusetts service territories and consolidation of billing for customers receiving both electric and gas distribution service from Eversource. However, the full benefit of this initiative will not be realized until the Company has deployed AMI meters. This deployment is scheduled to begin in 2025 but will require customer education to ensure full engagement and realization of all associated benefits. It is also important to note that most companies in the J.D. Power peer group received approval and have had AMI deployed for many years; as a result these peer utilities have been able to deliver more technologically sophisticated customer experience elements than Eversource for several years. Accordingly, it is not unexpected that Eversource customer satisfaction would lag behind these other companies that have already begun delivering AMI benefits.

C. Transactional Customer Satisfaction Index Metric

The transactional customer satisfaction index metric is a targeted measure of customer satisfaction that focuses on key interactions between the Company and its customers. For many customers, their interactions with the Company are limited to billing and/or payment of bills. 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). By including a metric that focuses on specific services that the Company provides to customers, the transactional customer satisfaction index metric is designed to provide greater transparency for how customers view the Company's performance during these specific transactions. This also provides Eversource with objective data for improving Company processes and improving customer satisfaction.

The transactional customer satisfaction index metric measures satisfaction related to the following specific transactions with the Company: (1) unplanned outages; (2) planned outages; (3) website satisfaction; and (4) contact center. Satisfaction related to these four transactions is measured using satisfaction surveys completed by customers following each transaction. With the

exception of outages, each of these transactions will require a specific interaction between the customer and Eversource. By including outages (both planned and unplanned), the Company is also including transactions that apply to all customers and that Eversource knows are high priority to its customers. For unplanned outages, the satisfaction survey is sent to all customers experiencing an outage of longer than twenty minutes. The Company determines the index score by taking the sum of all survey responses divided by the sum of all respondents. To ensure each transaction type is treated equally, the Company also weighs the transaction type based on the number of survey responses.

The Transactional Customer Satisfaction Index Metric is a new metric. Accordingly, the Company is collecting three years of data that will be used to establish a baseline and target for this metric. The Company's first year of data (2023) resulted in a score of 7.92. The Company will collect data during 2024 and 2025 that will be combined with the 2023 data to set the baseline and target.

D. Customer Engagement: Use of Outage Map Metric

The customer usage of an outage map metric tracks the number of unique views during the Company's Emergency Response Plan ("ERP") events and report engagements with the outage map as a percentage of total inbound customer communications during these ERP events. D.P.U. 22-22, at 117-118. The Company also tracked customer engagement with its outage map as part of its previous PBR Plan. However, the prior metric tracked the number of customer engagements with the outage maps on both ERP and blue-sky days. Based on its experience during the first PBR plan term, the Company determined that it is more relevant to track customer engagement during ERP events. The refined metric for this PBR Plan term measures engagements with the Company's outage map as a percentage of total customer engagements during ERP events.

Measuring as a percentage of total communications during an ERP event also allows for a year-by-year comparison that can account for variances in weather. The Company's performance

is measured based on the number of unique visits to the outage map during an ERP event and then averaged for all ERP events during that year. The Company set a target to increase that percentage to 75 percent by 2027 (or a 2 percent increase per year) which reflects a goal to continue to increase usage of the outage map over time, while also recognizing that the annual increase will likely decline over time. The Company's baseline for this metric is 58 percent (based on its 2020 data). The Company's score for 2023 was 55.2 percent. While this score is below the baseline, this decrease in engagement is largely due to a significant increase in customers using two-way SMS text messaging to check on outage status. This channel (SMS text) experienced growth of more than five times its 2020 baseline particularly during the seven major outage events in 2023; a positive trend that exceeded expectations. In other words, the 75% target did not anticipate the extent of the positive cannibalization in favor of a more satisfying digital interaction for customers. While this shift in how customers access outage information impacted the percentage of users engaging with the Company's outage map, more than 95% of customers continue to use of the digital channels offered by the Company to report and check their outage status.

E. Customer Engagement: Digital Engagement Metric

The second metric in the Customer Engagement Category is digital engagement that measures the percentage of interactions with customers that are digital. The Department approved this metric based on a determination that customers rely on digital interactions to pay bills, report outages, receive updates to improve customer experience and education. D.P.U. 22-22, at 118. Eversource offers customers state of the art on-line tools to manage their accounts, billing, and payments. Customers receive proactive alerts when their bill is available and when payment is received. Customers also receive proactive alerts regarding outages. There is also an option for customers to report a power outage or get the status of an outage via Eversource's two-way texting capabilities.

For this metric, the Company provides the Department with data on the number of "digital transactions," as a percentage of total transactions that are processed through the Company's digital platforms.[6] A digital transaction is defined as web/mobile app interactions, Interactive Voice Response ("IVR") interactions, alerts delivered, and two-way text interactions.

The Company evaluates customer engagement through self-service channels and alert notifications, emphasizing digital interactions. In 2023, digital interactions accounted for 89.9 percent of total interactions, reflecting an increase from 88.7 percent in 2022. This growth can be attributed to the continuous improvement of digital channels like the Eversource mobile app, proactive alerts, and customers' natural inclination towards utilizing self-service options as their preferred contact method. Eversource has set a target to increase digital engagement to 91 percent by 2027 in recognition of the fact that while the Company will continue to promote digital engagement, future increases will be smaller and are expected to plateau.

F. Operations Metrics: New Customer Connects

In the Operations category, the Department approved the new customer connects metric where the Company measures the time from creation of a work order until installation of a customer's meter, excluding hold days.[7] D.P.U. 22-22, at 118. The Company is developing a three (3) year benchmark period beginning in 2023 and ending with 2025 data. The 2023 actual data is in the table below.

[6] The Company calculates digital transactions using the following formula: Total Digital Transactions / (Total Digital Transactions + Total Analog Transactions).

[7] As explained above, hold days are excessive delays outside of the Company's control such as time waiting for permits or easements. While hold days are not included in the metric, the Department did direct the Company to also report on the number of hold days and reason for the hold days. D.P.U. 22-22, at 118.

2023 New Customer Connects

Type of Service	Definition of Type of Service	Number of Projects	2023 Business Days Excluding Hold Times Actuals	2023 Business days Including Hold Times
Simple Service	Connection in a handhole for underground or a single span of single-phase secondary. Time frame starts when all Customer Obligations including wiring inspection (WP) are complete.	5,637	16	45
Residential Developments	Underground Residential Developments ("URDs") for main electric infrastructure, not individual facilities	79	147	293
Complex Residential	Any residential service requiring design and/or external dependencies (Rights, Grant of Location, Verizon set poles, etc.)	11,506	38	84
Commercial Developments	Work required to deliver infrastructure for a commercial development, not individual facilities	29	196	357
Commercial Service	Any non-residential service requiring design	4,614	59	131

The table includes business days excluding hold times, and a separate column including hold times.

Hold times are defined as business days outside of Eversource control and include items such as:

1. Customer Holds: Holds due to Customer failure to Satisfy a Condition Precedent including the following
    a. Payment to Eversource;
    b. Customer completion of construction work; Construction (Customer completing their work);
    c. Customer completion of required inspections (e.g., municipal wiring inspection; and
    d. Providing access (e.g., obtaining an easement to allow Eversource equipment on private property).
2. Non-Customer Holds: holds attributable to a third-party or requirement that is not the sole responsibility of the customer including the following:

a. Verizon set poles;
b. Grant of Locations (access to location provided by the city, town, or state to place equipment – can be affected by both winter and summer dig moratoriums); and
c. Permits (e.g., railroad, Department of Conservation and Recreation, Massachusetts Water Resources Authority, municipal or state street opening, state highway).

Obtaining permits, in particular, can result in numerous hold days because the permits require review and approval periods. In addition, certain types of permits are not issued on a year-round basis. Street opening permits are affected by both a summer and winter moratorium. Depending on when an application is received, it may not be feasible to obtain the necessary permits quickly due to these permitting requirements.

The Company's score shall be calculated, after the three (3) year baseline is established, as the percentage of new customer connects that meet the baseline performance targets. This will provide transparency of how well the Company is facilitating new electrification and connections in a timely manner.

III. Producer Satisfaction and Producer/Developer Engagement Metrics

The Department approved three metrics designed to measure producer satisfaction and/or producer/developer engagement: (1) producer satisfaction survey; (2) hosting capacity usage map; and (3) solar development timeline metric. D.P.U. 22-22, at 119.[8]

A. Producer Satisfaction Survey

The Company developed this survey in collaboration with J.D. Power and it was launched in 2018. J.D. Power interviewed internal stakeholders to identify specific business objectives for the survey and designed the survey to capture actionable information. The responses to the survey are used to evaluate the Company's current internal practices and identify priority areas for improvement. This survey is specific to Eversource customers and administered internally through

[8] As noted above, the Department declined to adopt the Company's proposal to incorporate PBR metrics into the existing service quality incentive/penalty framework. Accordingly, the Department declined to include the solar development timeline metric into that framework. D.P.U. 22-22, at 119-120.

an automated process. There are two surveys that are sent to customers. The first is a full survey that targets customers 60 days after the customer has interconnected a distributed generation project. This timing allows for the customer to receive their first bill reflecting their net metered totals. The second survey is sent 365 days after the customer has interconnected a distribution generation project to follow-up with questions that measure whether or not having solar has met specific expectations regarding reliability and savings. Within the survey, the customer indicates their overall satisfaction with the Company on a scale of 1-10.[9] Appendix B provides dashboards for the 2023 survey results. The target for this metric (by 2027) is 7.5. In 2023, 975 Massachusetts respondents indicated an overall satisfaction score of 7.24 through year-end 2023 with many customers citing price increases as a major factor affecting their satisfaction with Eversource. The Company recognizes that Massachusetts respondents' satisfaction level has fluctuated over recent years. To address this, and increase satisfaction, the Company is implementing measures such as increased automation which will decrease the overall time frame from when the Company receives a completed application to the respondent receiving their first post- completion energy. The Company has also implemented more frequent and enhanced communications that are sent to customers throughout the interconnection process.

B. Producer/Developer Engagement: Hosting Capacity Usage Map Visits

The Company's second producer metric measures the number of visits to the Company's Hosting Capacity Map. In 2023, the Hosting Capacity Usage Map had 21,455 users, which is a significant increase of 4,087 users from the previous year, exceeding the target of more than 18,000 users by 2032. The Company expects usage to continue to increase as it works to improve the hosting capacity maps to include more detail and analytics.

[9] Notably, this survey question does not measure the customer's satisfaction with the process of interconnecting their distributed generation system, but only asks for the customer's general satisfaction level with the Company. Separate survey questions elicit feedback about the customer's interconnection experience.

In line with the intent of the Hosting Capacity Usage Map metric (i.e., to increase use of the map), the Company has implemented initiatives associated with mapping tools, and an interactive self-service application portal. Accurate, up-to-date maps of a utility's distribution system can play a useful role for both the utility and potential DER interconnection applicants. For the utility, having this information can support a more rapid review of an interconnection application on a specific feeder. For applicants, having access to a more dynamic version of the map, specifically one that indicates remaining hosting capacity for new DER projects, allows them to be more selective in the types of projects and their specifics (e.g., capacity, technology deployed, etc.) to pursue in a formal interconnection application. By increasing visibility into the characteristics and feasibility of individual circuits, these maps can save both customers and utilities time and money.

The Company published the first versions of the hosting capacity maps in Western and Eastern Massachusetts in November 2019 and March 2020, respectively. These first versions, which did not depend on the use of an advanced load flow tool, expeditiously provide key preliminary information to developers. The Company recognizes that hosting capacity maps are of critical importance to developers. As part of the Company's execution of its Grid Modernization Plan, the Company deployed an Advanced Load Flow tool that will ultimately support the development and deployment of subsequent versions of hosting capacity maps based on more sophisticated logic as calculated by the tool.

The Massachusetts Hosting Capacity maps provide solar developers with information about the current ability to integrate distributed generation at specific locations on the distribution system. The maps color code each distribution circuit on the Eversource system to show the remaining circuit capacity without major system upgrades. The maps also provide more detailed information about the circuit and substation name, whether the circuit is subject to an Affected

System Operator study, the remaining capacity at both the circuit and substation level and the existing and planned distributed generation capacity on the circuit.

C. Producer/Developer Engagement: Solar Development Timeline

The Producer and Developer Engagement category also includes the Company's new Solar Development Timeline metric which measures the duration from creation of a solar installation work order to completion, i.e., Permission to Operate ("PTO") in business days (excluding hold days), and then calculates the percentage of solar installations meeting certain timeline performance targets by the total number of solar installations. Id.

This Solar Development Timeline metric allows the Company to address a known area of dissatisfaction. While the Company is already subject to timeline requirements under the Timeline Enforcement Mechanism ("TEM") that is part of the Company's interconnection tariff, the TEM applies only to the engineering process for solar developments. The Solar Development Timeline metric holds the Company accountable time for its obligations to perform for its customers in a timely manner. Therefore, the metric addresses solar developers' dissatisfiers while furthering enablement of clean energy consistent with the goals of the Commonwealth and Department.

The biggest drivers of solar developers' dissatisfaction, in the Company's experience, are billing and PTO delays. The Solar Development Timeline metric closely mirrors the Company's New Customer Connects metric that measures the time from creation of a work order to completion in business days, excluding hold days, for solar installations.

The Company is developing a three (3) year benchmark period beginning in 2023 and ending with 2025 data. The 2023 actual data is presented in the table below.

2023 Solar Development Timeline

Type of Project	Definition of Type of Service	Number of Projects	2023 Business Days Excluding Hold Times Actuals	2023 Business days Including Hold Times
Simplified Service	DER projects that are 15kW or less single phase or 25kW or less Three phase	11,900	11.53	81.86
Expedited Projects	Projects that do not meet the Simplified requirements but do not need an Impact Study	617	44.95	172.76
Standard Projects	Projects that require Impact Studies	15	189.43	352.22

The table includes business days excluding hold times, and a separate column including hold times. Hold times are defined as business days outside of Eversource control and include items such as:

Customer Holds: Holds due to Customer failure to Satisfy a Condition Precedent including the following

d. Payment to Eversource;

e. Customer completion of construction work; Construction (Customer completing their work);

f. Customer completion of required inspections (e.g., municipal wiring inspection); and

g. Providing access (e.g., obtaining an easement to allow Eversource equipment on private property).

Non Customer Holds: holds attributable to a third-party or requirement that is not the sole responsibility of the customer including the following:

h. Verizon set poles;

i. Grant of Locations (i.e., access granted by the city, town or state to place equipment – can be affected by both winter and summer dig moratoriums); and

j. Permits (e.g., railroad, Department of Conservation and Recreation, Massachusetts Water Resources Authority, municipal or state street opening, state highway).

Obtaining permits, in particular, can result in numerous hold days because they require review and approval periods. In addition, certain types of permits are not issued on a year-round basis. Street opening permits are affected by both a summer and winter moratorium. Depending on when

an application is received, it may not be feasible to obtain the necessary permits quickly due to these permitting requirements. In addition, Standard Projects may be extended due to the following:

1. Distribution Group Studies;
2. New FERC Transmission Group Studies;
3. ISO required Affected System Operator (ASO) Studies; and
4. CIP and ESMP Infrastructure construction.

The Company's score shall be calculated, after the three (3) year baseline is established, as the percentage of Solar Projects that meet the baseline performance targets. This will provide transparency of how well the Company is facilitating bringing online new renewable solar projects in a timely manner.

IV. Peak Demand Reduction Metrics

A. Introduction

The Department approved the Company's proposal to continue tracking peak demand reductions from six programs and initiatives: (1) Energy Efficiency; (2) Demand Response; (3) Company-Owned Storage; (4) Company-Owned Solar; (5) Upgrading Standard Technology; and (6) Volt/VAR Optimization. The Department found that the Company's proposed peak demand reduction metric is an appropriate starting point for developing a more advanced system peak reduction metric. D.P.U. 22-22, at 121. As discussed below, the Company has initiated a PBR metric stakeholder working group consistent with the Department's directives in D.P.U. 22-22. As part of that working group the Company and stakeholders will consider whether peak demand reduction is a priority objective, and if so, how to develop a robust measure for reductions to system peak demands that are under the Company's control. D.P.U. 22-22, at 122.

The Department has recognized that customers benefit from peak demand reductions through lower capacity and commodity prices. D.P.U. 17-05, at 409-410; see also, D.P.U. 16-178

(2017) (approving Eversource's demand reduction demonstration offerings); Three-Year Energy Efficiency Plan, D.P.U. 15-160 through D.P.U. 15-169, at 93 (2016); Order on Bill Impacts, D.P.U. 08-50-D at 11 (2012). In addition, the Department has adopted peak demand reduction as one of the four broad objectives for Grid Modernization in the Commonwealth. D.P.U. 12-76-B at 2, 9-12 (2014).

From an economic perspective, reducing peak load may reduce both capacity and energy costs. Reducing load during peak times may have the long-term impact of lowering the amount of capacity that the regional grid operator, ISO-NE, needs to procure in the Forward Capacity Market ("FCM"), possibly leading to lower costs. As noted above, many of the highest energy cost hours occur during times of peak demand. Reducing peak loads (i.e., reducing the demand portion of the supply and demand price equation) during high load hours may lower real time Locational Marginal Prices ("LMP").

Reducing peak demand may also have the beneficial impact of delaying or deferring planned distribution capital infrastructure upgrades (when demand is not at peak levels the capacity on the distribution system may not be fully utilized) (see also D.P.U. 15-122/15-123, Exhibit EVERSOURCE-GMP, at 46). Distribution infrastructure upgrades are sometimes necessary because equipment becomes overloaded or because increased loads require new reliability solutions. To the extent that upgrades are needed due to growing demand during peak times, the activities in the Company's Peak Demand Reduction metrics may be able to delay or defer those upgrades. In turn, this would result in financial and reliability benefits for customers.

B. Peak Demand Reduction Target

The Company's overarching Peak Demand Reduction Target is to reduce peak demand by 344 MW from the baseline by 2024 and by 374 MW from the baseline by 2027. The Company has made measurable progress in 2023 toward completion of its peak demand reduction goal as demonstrated in Table 2.0 below.

Table 2.0

SUMMARY OF COMPANY-CONTROLLED PEAK DEMAND REDUCTION METRICS (In MWs)				
Measure	**2023 MW**	**Baseline MW**	**Target MW**	**Timeline for Target**
Energy Efficiency	263.3	95.6	298.6[10]	2024
Demand Response	69.7	25.2	149.4	2024
Company-Owned Storage	0	0	A target cannot be established until the system is in service and the Company gains experience in the area	NA
Company-Owned Solar	15.72	3.13	17.02	2027
Upgrading Standard Technology	0.537	0	3.96	2027
Volt/VAR Optimization	2.6	2.1	14.4	2027

C. Energy Efficiency

The Company utilized its existing non-dispatchable energy efficiency portfolio, which contains a diverse set of energy and load reducing measures, to produce reductions to peak demand. The Company set a target of 298.6 MW for energy efficiency contributions to peak load reduction through 2024. The Company will update this target for the remainder of the PBR Plan term following the Department's approval of its next three-year Energy Efficiency Plan (to be filed in October 2024). The Company achieved 263.3 MW by the end of 2023.

[10] The Company included a target of 315.28 MW for Energy Efficiency in its filings in D.P.U. 22-22 that was approved by the Department. However, this target should have been 298.6 MW based on the Company's 2022-2024 Energy Efficiency Plan. The inclusion of a 315.28 target was inadvertent and was not based on the Company's current Energy Efficiency Plan data or programs. The Company also notes that it will update its Energy Efficiency and Demand Response targets following Department approval of the 2025-2027 Energy Efficiency Plan (to be filed in October 2024). Accordingly, it is not yet known how this inadvertent error related to the 2024 Energy Efficiency target will impact the Company's overall performance on the 2027 peak reduction metric.

D. Demand Response

Following the successful implementation of a series of demonstration projects approved by the Department in D.P.U. 16-178 and as part of the 2019-2021 and 2022-2024 Energy Efficiency Plans, the Company developed a suite of solutions that can be actively dispatched to reduce or shift load during peak times. The Company can currently control technologies like behind the meter battery storage, thermal storage, software and controls, and economic demand response as part of the overall demand reduction metric. See D.P.U. 16-178, at 31-34 (2017). The Company has developed contracts with vendors that would allow the Company to actively dispatch these assets for 20 to 40 hours per year. The Company's Energy Efficiency team works closely with the load forecasting and operations teams to determine when system peaks may be occurring and will dispatch the demand response assets accordingly.

The Company continuously works with independent, third-party Evaluation, Measurement and Verification ("EM&V") vendors and the Energy Efficiency Advisory Council's EM&V consultant to assess the impacts of active demand response resources. Since 2019, multiple independent evaluations have been completed on the Company's peak demand reduction programs, verifying the claimed savings values. These calculation methodologies draw from existing ISO-NE methodologies and other national best practices.

In 2023, the Company achieved a total peak load reduction of 69.7 MW from active demand response resources. The Company set a baseline of 25.2 MW with a target of 149.4 MW by 2024.

E. Company-Owned Energy Storage

In May 2022, Eversource completed Phase I commissioning and placed the Outer Cape BES in-service. Phase II, which includes microgrid commissioning, was placed into service in December 2022. See Appendix C for more detailed update on the status of the Outer Cape BESS.

As of the end of 2023, the Company did not report any Company-owned Storage peak reduction and accordingly does not yet have enough data to set a baseline or a target.

F. Company-Owned Solar

To date, the Department has authorized Eversource to own and operate up to 70 MW of solar generation facilities, and the Company has constructed 22 solar generation facilities totaling 70 MW in Massachusetts. The Company set a target of 17.02 MW by the end of the PBR Plan term, 2027.

During the peak hours of 2023, the sum of average production from company-owned solar facilities during the ISO NE top 40 peak hours of 2023 was 15.72 MWs. The actual AC power production data is the average for the hour interval. The information is derived from the revenue grade production meter or inverter information from the PowerTrack data acquisition system that is installed at all of the Company's solar facilities. Of note, ISO-NE peak hours are generally occurring later in the day when solar production is reduced. In 2023, more than half of the top 40 ISO-NE peak hours were after 5pm with the latest peak hour ending at 9pm. This phenomenon is a direct result of significant increases in solar capacity across the New England region. Given this trend, solar projects, including those owned by Eversource, will have a reduced impact on the ISO-NE peak as additional solar capacity is connected to the grid.

G. Upgrading Standard Technology

Newer transformers are more efficient and typically result in less load loss. During the Company's first PBR Term approved in D.P.U. 17-05, the Company replaced old transformers with new low load loss transformers and will continue to track the number of new transformer installations on an annual basis. The Company calculated the peak load reductions from replacing transformers by reviewing the size of the transformers being installed, the amount of average load on the transformers, developing an average load factor, and considering the efficiency gains from the new transformers. The Company used this information to establish a per transformer peak load reduction number. The Company determined total peak load reduction from upgrading standard technology by multiplying the number of transformers replaced by the per transformer savings value.

The Company set a target of replacing 14,000 transformers and estimated that these investments in technology upgrades would contribute about 3.96 MWs of peak load reduction toward the Peak Demand Reduction Target by the end of 2027. In 2023, the Company replaced approximately 1,898 older, less efficient transformers with new higher efficiency units. Based on the average peak loading of a transformer and the average efficiency gain, the Company estimates a savings of 0.537 MW at peak from the 2023 replacements.

H. Volt/VAR Optimization

One of the capabilities of the modern grid is advanced technologies aimed at reducing energy consumption and optimizing demand using voltage and VAR optimization ("VVO"). To this end, as part of the Company's Grid Modernization Plans ("GMPs"), the Company deployed VVO functionality. The sensing equipment and advanced analytics allow for energy reductions through a VVO program. A VVO program aims to reduce service voltage to customers by using

control software to collect power and voltage data from feeders in real-time and immediately sending commands to substation transformers, line regulators, and capacitor banks to ensure that power and voltage quality for all customers stay within an appropriate tolerance range. The Company provided a detailed update in its 2024 Grid Modernization Annual Report filed in in D.P.U. 24-40 on July 1, 2024, discussing progress in its VVO program in 2023; the VVO section of the 2024 Grid Modernization Annual Report is provided as Appendix D.

In total, the Company has deployed VVO equipment on approximately 208 MW of load at the Piper, Agawam, Silver, Podick, Gunn and Oswald substations. VVO on/off testing was not conducted in 2023 because the system was fully enabled throughout the year. Based on 2022 on/off testing at each substation, the approximate peak load reduction was found to be 1.8 percent. Based on this value, the Company calculates that VVO has contributed approximately 2.6 MW of peak load reduction toward the Peak Demand Reduction Target as of 2023. Using the assumption of 143 MW of peak load at the Silver, Piper, and Agawam substations, where VVO schemes were enabled, the total peak load reduction value from this activity is calculated as follows:

VVO Reduction Equation: (143 MW peak demand assumption of VVO circuits) *

(1.8% reduction in total demand due to VVO) = 2.6 MW.

Peak demand reduction was lower than the original 3.8 MW estimate for 2023 due to the inability to control the devices with the centralized VVO logic in the new DMS system at Gunn and Oswald. The DMS is the software used to issue commands to field devices to optimize system performance. This system is expected to be in service in June 2025. In addition, there were equipment challenges with previously deployed devices at the Podick, Silver, Piper, and Agawam substations. The Podick, Silver, Piper, and Agawam equipment challenges are expected to be corrected by winter 2024. The Company is forecasting an 11.8 MW reduction by 2026 relative to a baseline for 2.1 MW, as a result of the Company's Grid Modernization Plan. Additional deployments will occur in 2026 and 2027 with a goal of achieving a target of 14.4 MW.

V. Climate Adaptation Plan

A. Overview of Climate Adaptation Plan

The Company filed an updated Climate Adaptation and Mitigation Plan ("CAMP") in D.P.U. 22-22 that built on the progress made during Eversource's first PBR Plan term. The updated CAMP is an Eversource Energy-enterprise-wide plan that focuses on interconnecting renewable energy to the region and reducing Eversource Energy's own operational greenhouse gas ("GHG") emissions, hardening its systems to withstand climate change impacts, and engaging and supporting stakeholders in the pursuit of a cleaner energy future.

The Company also adopted a goal of reducing its operational emissions by 10% from a 2022 baseline by 2027. The Company's emission reductions from our operations will be focused on (1) enabling a cleaner mix of energy in the grid and improving efficiencies in distribution infrastructure that will help reduce distribution system losses while reducing the carbon intensity of system losses; (2) reducing methane leaks in the natural gas distribution system by replacing aging leak-prone pipes and pursuing innovative pilots for building heating and cooling; (3) reducing electricity and fuel use at facilities through energy efficiency measures such as upgrading HVAC equipment with more efficient models; (4) updating fleet vehicles with electric and hybrid models in addition to utilizing alternative fuel sources; and (5) reducing SF6 gas leaks, including exploring new technologies serving as substitutes for this insulator gas. As of the end of 2023, the Company reduced GHG emissions by 9 percent compared to 2022.[11]

The updated Climate Adaptation and Mitigation Plan also builds on the actions taken during the previous PBR Plan term (2018-2022) with respect to system hardening in response to the impacts of climate change. These system hardening efforts include continued development of

[11] The Company's greenhouse gas emissions were 615,916 MT CO2e for 2022. While this number is considered "final" at this time, it could be revised before the end of the PBR Plan term. This revision can occur if the Company undergoes a divestiture or acquisition (in those instances the Company would revise the emission amount to remove or add emissions, as appropriate), if the emission calculation methodology is changed, or emission factors are updated.

the Company's substation flood vulnerability model, evaluation of new equipment to improve performance in flooding conditions and augmentation of the outage prediction model to include climate impacts.

The Department approved the Company's updated CAMP in D.P.U. 22-22. The Department also directed the Company to include in its annual PBR filing a demonstration of how the climate adaption and mitigation plan is aligned with the objectives of the Commonwealth's decarbonization policies, including applicable sector-specific interim targets and sublimits established pursuant to G.L. c. 21N, § 3A.

Eversource's pursuit to addressing climate change is detailed in its comprehensive CAMP.[12] The CAMP includes information about actions to enhance system resiliency, stakeholder engagement and promotion of equity while mitigating our impact and adapting to a changing climate. It includes descriptions of activities, strategies and performance updates that support Commonwealth's decarbonization policies.

Eversource takes an integrated approach across its business segments to determine how to contribute to the Commonwealth's decarbonization policies including addressing sector-specific targets. This includes ongoing support to enable a clean energy transition while maintaining focus on the safe and reliable delivery of its services.

The Company also works with customers to make informed decisions concerning energy consumption, through their engagement in the MassSave energy efficiency incentives. This has supported several of the sector limits including the Residential Heating and Cooling and Commercial & Industrial Heating and Cooling targets. Residents and business can take advantage of programs for improved weatherization and reduced energy demand by using lighting and HVAC energy efficiency measures and transitioning building heating and hot water demands away from

[12] Eversource's CAMP is available at the following link: https://www.eversource.com/content/docs/default-source/community/eversource-camp-plan.pdf.

fossil fuels.

Finally, Eversource has looked internally to curb emissions from the Company's operations, which support the Commonwealth's overall vision for a net zero GHG Emission future. Introduced in 2019, the Company has been working toward an ambitious goal to achieve carbon neutrality by 2030 for its scope 1 and scope 2 emissions. This goal focuses attention on pursuing reductions in five key areas: line loss, facilities, fleet, methane emissions from the natural gas distribution networks, and sulfur hexafluoride (SF6).

B. Demonstration of Alignment with Commonwealth's Decarbonization Policies

Pursuant to G.L. c. 21N, § 3A, the Company includes its demonstration of its alignment with the Commonwealth's decarbonization policies with the ultimate goal of reducing greenhouse gas emissions limits by 2050. In 2023, the Company undertook the following initiatives referenced in D.P.U. 22-22 to demonstrate compliance:

- ***Electric Power Sector: Enabling a cleaner mix of Energy in the grid and improving the efficiencies in distribution infrastructure that will reduce distribution system losses while reducing the carbon intensity of system losses.***

  Eversource continues to work closely with the Commonwealth to permit transmission build out and interconnections to bring cleaner and renewable energy onto the grid which thereby is helping reduce the carbon intensity of system losses. In 2023, the Company participated in the ESMP process to detail upcoming programs and projects that will serve customers and the region as they move to an electrified economy.

  The Company is working to improve system efficiency and reduce line losses through optimized reactive-power dispatch to reduce GHG emissions. Allowing distribution voltages to remain within prescribed ranges without fluctuating rapidly as additional DER (characterized by intermittent output) is added to the system will also reduce line loss.

Finally, Volt-VAR optimization technology improves the efficiency of power delivery on the distribution system and helps reduce line loss.

- ***Natural Gas Distribution and Service Sector: Reducing methane leaks in the natural gas distribution system by replacing aging leak-prone pipes and pursuing innovative pilots for building heating and cooling***

  In 2023, the Company replaced approximately 10 percent of its leak-prone bare-steel and cast-iron mains and associated services.

- ***Commercial & Industrial Heating and Cooling Sector: Reducing electricity and fuel use at facilities through energy efficiency measures such as upgrading HVAC equipment with more efficient models***

  In 2023, the Company installed six Building Management Systems (BMS) at large facilities (over 20,000 ft^2) that support more efficient running of building HVAC and other operating systems. All interior lighting at Eversource Massachusetts facilities were upgraded to LED by the end of 2022.

- ***Transportation Sector: Updating fleet vehicles with electric and hybrid models in addition to utilizing alternative fuel sources.***

  In 2023, Eversource replaced 41 percent of its fleet diesel with a biofuel blend and 28 percent of the Company's distribution bucket trucks utilized hybrid technology.

- ***Industrial Processes Sector: Reducing SF6- leaks including exploring new technologies serving as substitutes for this insulator gas;***

In 2023, Eversource worked with industry partners to pilot SF6-free equipment in a first-ever application of an EconiQ 345 kV circuit breaker at an Eversource substation in East Haddam, Connecticut. Additionally, in anticipation of additional non-SF6 solutions coming to market, the

Company has designed certain equipment, including a substation in Cambridge, Massachusetts, to be ready to accommodate these alternative gases as they become commercially and technically viable.

Additional information on Eversource's leading emissions reduction programs and efforts to decarbonize the region to support the Commonwealth's goals can be found in the 2023 Sustainability Report and Appendix A of the CAMP.

C. LED Streetlighting Program

In addition to reporting on the Company's progress implementing the CAMP, the Department directed the Company to report on its progress of phasing out non-LED S-1 lighting and replacing with LED streetlights. D.P.U. 22-22. As the Company reported in D.P.U. 22-22, it expected to deplete its inventory of high-pressure sodium ("HPS") lamps within approximately two years. D.P.U. 22-22, at 123 citing Exh. CLC-ES-2-4. As of the date of this filing, the Company has not depleted such inventory but has ceased replacement of failed lamps with non-LED lighting.[13] The Company replaces failed S-1 lighting with LED lamps; however, this transition to LED is not yet complete. The Company will provide additional updates in its annual PBR Report until such time as all S-1 lighting has transitioned to LED lamps.

VI. Equity Framework

The Company's initial proposal in D.P.U. 22-22 included an equity index metric designed to report energy efficiency, demand response, heating electrification, and electric vehicle infrastructure investments in environmental justice communities, as well as bill credits to environmental justice communities for solar projects. However, after further consideration the Company revised its proposal to include an equity framework to ensure that EJ communities are being served equitably in the delivery of products and programs, as well as in development of

[13] The Company has a small inventory of HPS lamps for contingencies but has ceased the purchase of any new HPS lamps.

projects for new and upgraded infrastructure. The equity framework is designed to incorporate EJ issues, considerations and priorities into the Company's planning and investment processes by engaging directly with these communities to meet the needs of each EJ community while balancing the needs of all customers.

The path to equity is a journey and the Equity Framework represents the Company's initial step towards increased efforts to further integrate environmental and equity considerations in its decision-making processes and overall community engagement. By implementing the framework, the Company will be able to better understand the needs and interests of each EJ community and to tailor its approach in response to those needs and interests through meaningful, targeted communications strategies. Eversource's goal of engaging with each EJ community to better understand their interests and needs is at the core of the Equity Framework.

In D.P.U. 22-22, the Company proposed an equity planning framework applicable to capital investment projects of $20 million or greater and designed to provide commitments to policy objectives and increase transparency. The Department approved the Company's equity framework with the caveat that the framework would not satisfy any obligation or address environmental justice ("EJ") or other equity issues in proceedings before the Department. D.P.U. 22-22, at 124. Please refer to Section B below for a list of those projects.

The equity framework was developed by Eversource as a multipronged strategic approach to serving customers with an intentional focus on EJ communities to enable equitable outcomes for all communities and customers served by Eversource. The Equity Framework is a deliberate initiative to increase engagement and communication with historically marginalized communities. It aims to meet the following goals: (1) improve communication effectiveness with EJ communities; (2) increase engagement with the Company's customers; (3) augment investment and operational activity by listening to EJ communities and seeking to balance equity, resiliency and affordability; (4) make systems more efficient and dependable to support clean energy

integration; and (5) increase inclusion and education of community members by increasing access to programs and services to EJ communities. This reporting will hold the Company accountable and allow for stakeholder input; the reporting can also be used to inform a future equity metric. The equity framework has been implemented with accompanying processes and control to embed the equity principles in the Company's daily decisions as detailed below.

A. Approach of the Equity Framework

Eversource has identified five methods to identify, connect and engage with members of EJ communities, organizations and individuals while developing and delivering capital infrastructure projects: (1) EJ Mapping: identify EJ communities and populations relevant to project/program, utilizing the Commonwealth's environmental justice map viewer; (2) Stakeholder Mapping & Engagement: identify and communicate with communities and stakeholders to determine historical engagement and potential project/program; (3) Language Translation Services: identify languages spoken in communities where projects are being developed; (4) Public Engagement: host public project engagement processes, including through non-traditional and community-based communication channels; and (5) Feedback: solicit input from communities about projects, track outreach events, interactions, materials and communications.

B. Capital Investment Projects of $20 million or greater

The Company has incorporated the Equity Framework into the Capital Project Development Process to further Operationalize Equity for all projects. The Company has revised project initiation and approval documentation and forms, added an Equity Checklist and an EJ Impact field to the Project Solutions database. During 2023, four Massachusetts Distribution projects exceeded the $20 million investment level and are captured here:

Project Name	EJ Mapping	Stakeholder Mapping & Engagement	Language Translation Services	Public Engagement	Feedback
Martha's Vineyard Reliability and 91 Cable Replacement Projects	X	X	X	X	X
Somerville Station #402 Expansion	X	X	X	X	X
Mystic - East Eagle - Chelsea Reliability Project	X	X	X	X	X
Greater Cambridge Energy Program (GCEP) Station 8025	X	X	X	X	X

VII. Low-Income Terminations Metric

Eversource proposed the Low-Income Terminations Metric in response to a request from the Low-Income Weatherization and Fuel Assistance Program Network in D.P.U. 22-22. The metric tracks low-income customer service terminations annually, by month, and starting pre-pandemic with the full 2019 calendar year and includes percent and number of low-income customers by census tract areas for each of the following: (1) service terminations for non-payment; and (2) accounts with past balances at levels eligible for disconnect. This includes insight into year-round overall financial health of low-income customers, including during winter moratorium. For calendar year 2023, the Company reported 3,605 low-income terminations. The additional details are presented in the "Low Income Terminations" tab of Appendix A. As shown in Appendix A, only a small percentage of eligible Low-Income Accounts were terminated in any month of 2023 (less than 2.2 percent). The Company has continued to engage with its Low-Income customers to avoid terminations through enrollment in its arrearage management or payment plans, whenever possible.

VIII. Resiliency Metrics

A. All-In SAIDI and SAIFI Metric

The all-in SAIDI and SAIFI metrics capture all customer interruptions and customer

interruption duration without excluding major event days. By creating parallel SAIDI and SAIFI evaluation that includes outages during major events in its calculation (i.e., the all-in metrics), these two versions of SAIDI and SAIFI metrics are used to distinguish and measure system performance during major events for system resiliency purposes. Further, because reliability is a subset of resiliency, the continuum of the customer experience from blue sky to black sky is best represented by using parallel, comparably devised metrics. This is also the best approach for understanding and accounting for the impact of resiliency measures on reliability and vice-versa. The Company has not proposed a baseline or a target for these resiliency metrics. The metrics have been approved as reporting only until sufficient data has been collected to establish a baseline and target based on experience in a future proceeding. D.P.U. 22-22, at 125-126 (citing Exh. RR-DPU-16).

In 2023, the Company's all-in SAIDI score was 176.643 and its all-in SAIFI score was 0.875.

B. Momentary Average Interruption Frequency Index ("MAIFI") Metric

In 2020, Eversource initiated a project to develop momentary outage analytics and insights utilizing Supervisory Control and Data Acquisition ("SCADA") sensor, outage information, customer information and geographical data. The goal of the project was to provide the fundamental platform to compile and track momentary interruptions, which helps to calculate MAIFI. At this time, calculation of MAIFI is limited to devices that have SCADA visibility, therefore momentary outages caused by a non-SCADA device such as a TripSaver cannot be measured.

In response to feedback from The Energy Consortium ("TEC"), the Company proposed and the Department approved the MAIFI Metric which reports on MAIFI data for devices with

SCADA visibility.[14] D.P.U. 22-22, at 125-126. Following AMI deployment, the Company will be able to accurately measure momentary outages for each customer. Id. For 2023, the Company reported a 0.3 MAIFI score for all devices with SCADA visibility.

IX. Metric Stakeholder Group

The Department's final order in D.P.U. 22-22 directed the Company to "coordinate an inclusive stakeholder process over the course of the PBR term to continue to refine the metrics approved herein." D.P.U. 22-22, at 127. Eversource initiated this stakeholder process with a first meeting on March 19, 2024.At that March 19, 2024 meeting, stakeholders determined that a third-party facilitator would be beneficial to the process. Accordingly, the Company retained a third-party facilitator for these meetings. The Department of Energy Resources also suggested that it would be helpful for the Company to retain a third-party to provide an overview of PBR metrics, in general. The Company retained London Economics International ("LEI") to provide this informational overview regarding development of PBR metrics and how PBR metrics work together with other components of a PBR Plan. LEI presented on this topic at the July 2, 2024 PBR metric stakeholder meeting. At the July 2, 2024 PBR metric stakeholder meeting it was also determined that the first substantive topic would be customer satisfaction metrics. A meeting was held on September 3, 2024. The Company presented on possible revisions to its customer satisfaction and customer engagement metrics at the September 3, 2024 meeting. The next meeting is scheduled for October 1, 2024[15] and will be an opportunity for stakeholders to react to the Company's September 3, 2204 presentation and/or to present their own proposals for customer satisfaction and engagement metrics. Copies of the meeting agendas, presentations, and minutes

[14] MAIFI data is not available for outages caused by a non-SCADA device such as trip saver. As AMI is deployed, the Company will incorporate momentary data for each customer into the momentary outage dashboard to provide an accurate (complete) MAIFI score.

[15] Stakeholder meetings are planned for the first Tuesday of each month from 10 a.m. to noon.

from the first three meetings are provided with this report as Appendix E.[16]

[16] The September 3, 2024 meeting minutes have not been approved yet by stakeholders. These draft meeting minutes have been circulated to stakeholders for review and feedback. Accordingly, the minutes are subject to change following the October 1, 2024 meeting.