EDC RESPONSES TO GMAC RECOMMENDATIONS

Prepared by GMAC Consultants: Synapse Energy Economics

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Introduction

In September 2023, Massachusetts electric distribution companies (EDCs) submitted their draft electric system modernization plans (2023 ESMPs) to the Massachusetts Grid Modernization Advisory Council (GMAC). In November 2023, the GMAC issued a set of recommendations regarding how the 2023 ESMPs could be improved to better meet multiple state energy policy goals and statutory requirements. In January 2024, the EDCs submitted updated ESMPs (2024 ESMPs) to the Department of Public Utilities for review. In those ESMPs, the EDCs provided explanations of whether and how they complied with the GMAC recommendations.

The purpose of this document is to collate the EDC responses to the GMAC recommendations into one place. Each of the EDCs provide their own responses to the recommendations in several different documents. All of the responses are summarized in the tables below, with references to where they can be found in the 2024 ESMP filings. The tables below are organized according to the chapters in the 2024 ESMPs.

Further, the ESMPs provide some text explaining whether and how they accepted, accepted with modifications, or rejected the GMAC recommendations. That text is also provided below each of the tables. The GMAC recommendations are presented below in black text and the EDC's responses are provided below that in red text.

The GMAC consultants are currently preparing a set of comments on the 2024 ESMPs for the GMAC. This document will be an appendix to those comments.

This document does not provide any response from the GMAC consultants regarding the EDCs' responses below. Any such responses will be summarized in the forthcoming comments from the consultants.

Overarching Recommendations

Table 1. EDCs' Compliance with Overarching Recommendations

Recommendations	EDC Disposition	References
R-01. Whole-of-Business Planning	Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 1, 13, and 14 Exh. ES-ESMP-1, at Section 4.1.6 Exh. NG-ESMP-1, at Appendix Exh. UN-ESMP-1, at Section 1.7
R-02. Proposed Investment Status	Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 2 and 15 Exhs. ES-ESMP-1, NG-ESMP-1 and UN-ESMP-1 at Section 7.1 Exhs. ES-ESMP-1 and NG-ESMP-1 at Glossary Exh. UN-ESMP-1 at Definitions
R-03. Long-Term DG Planning Process	Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 2, 16, and 17
R-04. Interconnection Cost Allocation Methodology	Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 3 and 18 Exhibits ES-Stakeholder-1_2_3_4, pages 1 and 6
R-05. Streamlined Review of Group Studies	Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 3 and 19
R-06. Load Forecast Transparency	Adopted, but modified	Exhibits ES-Forecast-1_2, GMAC Recommendations, pages 1, 5, and 6
R-07. Investment Alternatives and Alternative Approaches to Financing Investments	Adopted, but modified	Exhibits ES-Bill Impacts-1_2, GMAC Recommendations, pages 1, 4, and 5 Exh. ES-ESMP-1, at Sections 4.1.7, 6.5 through 6.8, and 7.1; Exh. NG-ESMP-1, at Section 6.4 and 7.1; Exh. UN-ESMP-1, at Section 6.4.
R-08. Equity Working Group Recommendations	Adopted, but modified	Exhibits ES-Stakeholder-1_2_3_4, GMAC Recommendations, pages 1 and 7 Exhibit ES-Stakeholder-2; Exhibit NG-Stakeholder-2; Exhibit UN-Stakeholder-2.
R-09. Policies Supporting Distribution System Development	Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 4 and 20 Exhibit ES-ESMP-1, at Section 9.4; Exhibit NG-ESMP-1, at Section 6.4; Exhibit UN-ESMP-1, at Sections 7.3 and 9.6
R-10. Alternative Rate Designs	Adopted, but modified	Exhibits ES-Bill Impacts-1_2, GMAC Recommendations, pages 2 and 6 Exhibits ES-ESMP-1, NG-ESMP-1, and UN-ESMP-1, at Section 9.6
R-11. Standardized Definitions of Key Terms	Adopted	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 4 and 21 Exhibits ES-ESMP-1 and NG-ESMP-1 at Glossary Exhibit UN-ESMP-1, at Definitions

R-01. The EDCs should include in their ESMPs more detail on whole-of-business strategic planning, program implementation and investment timelines, and plans for continued sector-specific stakeholder engagement through either existing or new working groups. The ESMPs should be the central distribution system planning document and any filing in which the EDCs have received or requested cost recovery should be clearly described and connected. The GMAC and ESMP process represents an opportunity to ensure that the EDC distribution system plans meet the objectives in the Climate Law,

coordinate multiple investment streams, propose right-sized future investments, and ensure stakeholder engagement and input.

Rejected. This part of the recommendation seeks this ESMP to be the EDCs' respective "central distribution system planning document" that includes "any filing in which the EDCs have received or requested cost recovery" and "connect such filings" to the investments listed in each ESMP. If implemented, this recommendation would potentially create an ESMP that is beyond the scope of G.L. c. 164, § 92B(a), which states that the ESMPs should be plans to proactively upgrade the distribution system (and where applicable, transmission systems) to:

(1) improve grid reliability, communications and resiliency;

(2) enable increased, timely adoption of renewable energy and distributed energy resources;

(3) promote energy storage and electrification technologies necessary to decarbonize the environment and economy;

(4) prepare for future climate-driven impacts on the transmission and distribution systems;

(5) accommodate increased transportation electrification, increased building electrification and other potential future demands on distribution and, where applicable, transmission systems; and

(6) minimize or mitigate impacts on the ratepayers of the commonwealth, thereby helping the commonwealth realize its statewide greenhouse gas emissions limits and sublimits under chapter 21N.

These very important public policy goals are but a subset of goals that each EDC is required to plan their respective distribution systems to meet. Although each ESMP presented to the Department includes comprehensive details regarding each EDC's "whole-of-business" strategic planning, the statutory purpose of the ESMP is not to represent the entire planning scope for each EDC. The Department requires information on each EDC's broader distribution planning to be developed and presented to the Department on different timelines than the ESMPs, and include a series of detailed information supporting such filings. See e.g., D.P.U. 23-ARR-1. The ESMPs should remain focused on the information required by statute, for the purpose delineated by statute, and need not be laden with the myriad of information already required by Department precedent to be provided in other regulatory filings. The EDCs note that the Clean Energy Transmission Working Group issued its report on transmission planning in December 2023.

At minimum, the EDCs should all provide summary figures that show the timelines for how their grid planning and operational practices will evolve over time to meet the Commonwealth's policy goals and of different investments and program periods that impact their distribution systems, such as the Figure ES-1 "Key Progress and Plans" included in National Grid's New York Distribution System Implementation Plan.

Adopted, but modified. The EDCs adopt the second recommendation in GMAC Recommendation 1. Each EDCs has added summary figures depicting the timelines of their respective grid planning and

operational practices that will evolve over time to meet the Commonwealth's policy goals and of different investment and program periods that impact their respective distribution systems. These summary figures can be found here:

- *Exh. ES-ESMP-1, at Section 4.1.6;*
- *Exh. NG-ESMP-1, at Appendix;*
- *Exh. UN-ESMP-1, at Section 1.7.*

R-2. The ESMPs should be clear in identifying and describing which investments have been approved by the DPU, are pending before the DPU, or are newly proposed. For those investments that are not newly proposed, the ESMPs should identify which investments are already approved by the DPU, and which investments (and in what quantity) are under review in a current proceeding. Furthermore, the solutions listed in Section 6: 5- and 10-Year Planning Solutions should be clearly tied to the 5-year investment plans in Section 7, clearly identifying which regional projects are already funded (and if funded, which DPU Order has authorized the funding) and which are seeking to be funded through the ESMP proposal, if any. Across the three ESMPs, the EDCs should collaborate to streamline the terms they use to describe their investments and display the investments in a standardized manner.

Adopted, but modified. Each EDC has included a chart identifying and describing which investments have been approved by the Department, are pending before the Department, or are newly proposed. For those investments that are not newly proposed, the charts identify which investments are already approved by the Department, and which investments (and in what quantity) are under review in a current proceeding. Each chart also includes information regarding funding approved, or requested, for such investment. Please see:

- *Exh. ES-ESMP-1, at Section 7.1;*
- *Exh. NG-ESMP-1, at Section 7.1;*
- *Exh. UN-ESMP-1, at Section 7.1.*

Regarding consistency and streamlining of terms, each EDC has included a highly aligned-upon Glossary section, in which terms used to describe their respective investments will be defined. Please see:

- *Exh. ES-ESMP-1, at Glossary;*
- *Exh. NG-ESMP-1, at Glossary;*
- *Exh. UN-ESMP-1, at Definitions.*

Please note, however, that investments cannot be described in a perfectly standardized manner, given that each EDC has different investments in their respective ESMPs.

R-3. The ESMPs should propose a long-term proactive distribution system planning process for the interconnection of distributed generation (DG), utilizing the analysis process proposals and subsequent

comments submitted in D.P.U. 20-75. Proactive distribution system investments are critical to ensuring that DERs, including DG, can interconnect to the grid at a reasonable cost and in an expeditious manner to meet the Commonwealth's goals and that such investments to enable DERs are cost-effective. The proactive planning process should be as uniform across all three EDCs as possible, ensuring coordination of overarching assumptions and DER stakeholder engagement. The proposed long-term proactive distribution system planning process for the interconnection of distributed generation should include factors that drive development of DG by enabling hosting capacity in locations that benefit the Commonwealth as a whole and further the state's clean energy objectives. Factors should include land use, siting near load, and coordination with infrastructure upgrades necessary to meet overarching clean energy goals. Proactive planning should account for existing group studies and queue, as well as creating hosting capacity to meet service territory and subregion pro rata shares of DER development needed to meet the Commonwealth's objectives. Planning should account for the lapse in time between enabling hosting capacity and achieving installed capacity.

Adopted, but modified. The 2022 Climate Act requires an extensive amount of information to be included in an ESMP, but limits the Department's review to seven months from the date an ESMP is filed. Moreover, each EDC is required to submit their ESMP on the same date, further complicating the Department's review of these comprehensive plans in such a limited timeframe. In addition, the 2022 Climate Act, contemplates consideration by the Department of several issues that, standing alone, might require far longer than seven months to review. As such, the proactive distribution system planning process envisioned in GMAC-Recommendation-3 would be very difficult for the EDCs to develop and the Department to review and adjudicate in the time period allowed by statute.

However, the EDCs accept the purpose of the recommendation, and propose to work with interested stakeholders to develop long-term proactive distribution system planning proposals utilizing the analysis, process, proposals and comments submitted in D.P.U. 20-75. Through such process, the EDCs would endeavor to align where possible on such long-term planning methodologies and assumptions, and address the factors recommended by the GMAC in GMAC-Recommendation-3. Once the Department's adjudication of the ESMPs is completed (currently scheduled for first half of 2024), the EDCs will work with stakeholders during 2024 and the early part of the 2025-2029 ESMP term to this end and present their respective long-term planning proposals to the Department for its review in a proposed generic proceeding, with a goal of receiving Department feedback on such proposals in time for the 2030-2034 ESMPs.

R-4. The ESMPs should propose a long-term cost allocation methodology for proactive infrastructure upgrades to enable the interconnection of DG to succeed the reactive investment approval process conducted through the Provisional System Planning Program. The ESMPs should contemplate both a cost allocation methodology for medium and large DG and for small residential DG facilities. If this is not possible before the January filing, the EDCs should submit a detailed proposal and timeline for a stakeholder process that will develop a long-term cost allocation methodology. This proposal should include how stakeholder engagement and discussion will occur in parallel to the ESMP proceedings and should propose a date by which the EDCs will file a long-term cost allocation proposal at the DPU.

Adopted, but modified. The 2022 Climate Act requires an extensive amount of information to be included in an ESMP, but limits the Department's review to seven months from the date an ESMP is filed. Moreover, each EDC is required to submit their ESMP on the same date, further complicating the Department's review of these comprehensive plans in such a limited timeframe. In addition, the 2022 Climate Act, contemplates consideration by the Department of several issues that, standing alone, might require far longer than seven months to review. As such, a long-term cost allocation methodology for proactive infrastructure upgrades envisioned in GMAC-Recommendation-4 would be very difficult for the EDCs to develop and for the Department to review and adjudicate in the time period allowed by statute.

However, the EDCs accept the purpose of the recommendation, and propose to work with interested stakeholders to develop a long-term cost allocation methodology for proactive infrastructure upgrades for small, medium and large distributed generation facilities. Once the Department's adjudication of the ESMPs is complete (currently scheduled for the first half of 2024), the EDCs will work with stakeholders during 2024 and the early part of the 2025-2029 ESMP term to this end and present their long-term cost allocation methodology for proactive infrastructure upgrades to the Department for its review in a proposed generic proceeding, with a goal of receiving Department feedback on such proposals in time for the 2030-2034 ESMPs.

R-5. Extension of the Provisional System Planning Program as currently proposed in the ESMPs would require significant additional adjudicatory proceedings over the next five years and would not incorporate proactive system planning as required by the Climate Act. The EDCs should submit a detailed proposal for streamlining of the review of group studies over the next five years, including incorporation of group study solutions into long-term proactive system planning in advance of the next ESMP process. The proposal should include, at a minimum, batch review of existing group studies as well as application of the long-term proactive analysis process and cost allocation methodology in the interim between this and the next ESMP process. If an EDC proposes an interim alternative cost allocation approach for one or more group studies, the EDC should explain why it believes the group study or group studies are eligible for such alternative cost allocation. Relevant factors to such an assessment should include, for example, the overall costs and benefits associated with a proposed group study solution; the overall impacts to the grid; and how, considering the EDC's other ongoing and proposed investments, a proposed group study solution advances and aligns with the Commonwealth's objectives.

Adopted, but modified. The 2022 Climate Act requires an extensive amount of information to be included in an ESMP, but limits the Department's review to seven months from the date an ESMP is filed. Moreover, each EDC is required to submit their ESMP on the same date, further complicating the Department's review of these comprehensive plans in such a limited timeframe. In addition, the 2022 Climate Act, contemplates consideration by the Department of several issues that, standing alone, might require far longer than seven months to review. As such, a proposal for streamlining the review of group studies envisioned in GMAC-Recommendation-5 would be very difficult for the EDCs to develop and for the Department to review and adjudicate in the time period allowed by statute.

However, the EDCs accept the purpose of the recommendation, and propose to work with interested stakeholders to address refinements to the process for proposing capital investment projects (CIPs) in the future. The EDCs will work with stakeholders during the 2025-209 plan term to this end and present proposals for refining the CIP process to the Department for its review in a generic proceeding, with a goal of receiving Department feedback on such proposals in time for the 2030-2034 ESMPs.

R-6. The EDCs should be more transparent about the short-term (5- to 10-year) load forecast and long-term (out to 2050) electric demand assessment in their ESMPs and better leverage the stakeholder community in Massachusetts to develop future forecasts and demand assessments. Current forecasts in the ESMPs are not clear in describing underlying assumptions. The short-term load forecasts do not include sensitivities or uncertainties. The ESMPs do not analyze the impact of the adoption of new building energy codes. The ESMPs lack an explanation of how the forecasts specifically translate to the investments proposed in the ESMP, and therefore how changes in the load forecast may mitigate particular investments. More comprehensive stakeholder engagement in the forecasting process for future ESMPs is necessary across multiple sectors, including the transportation sector, buildings sector, and DER sectors. Existing working groups across these sectors should be leveraged to provide additional information, diverse perspectives, and support in forecast assumptions, scenarios, and uncertainties. Where necessary, new working groups should also be established to support forecast development and understanding in advance of the next ESMP.

Adopted, but modified. In the September 1, 2023 version of the ESMP, National Grid had included sensitivities, uncertainties and all underlying assumptions on their 5- and 10-year forecasts, in the Appendix to that ESMP. They were not included in Chapter 5 to avoid confusion, since National Grid plans to a single forecast. For the 2025-2029 ESMP, however, sensitives to the forecasts developed by the EDCs are not particularly meaningful to determine the need for each EDC's proposed proactive investments, given the near-term confidence in the various statistical inputs used by the EDCs for this coming term. The EDCs have better tied their respective forecasts to their 2025-2029 incremental ESMP investment proposals. Please see:

- *Exhs. ES-ESMP-1, at Sections 5.0, 5.1, 8.2. 8.3, 8.4; ES-Forecast-1*
- *Exhs. NG-ESMP-1, at Sections 5.1, 8.0, 8.1, 8.2, 8.3, 8.4; NG-Forecast-1*
- *Exhs. UN-ESMP-1, at Sections 5.1, 8.2, 8.3, and 8.4; Un-Forecast-1*

The EDCs will have much more time than was available this past year to engage stakeholders on the inputs for the forecasts to be used during the 2030-2034 plan term. Prior to the development of the submittal of the draft 2030-2034 ESMP to the GMAC in September of 2028, the EDCs will present stakeholders with opportunities to engage with EDCs on their respective then-initial forecasts. The EDCs will request and capture data from stakeholders that may allow the EDCs to refine such forecasts, as appropriate.

R-7. The EDCs should include more discussion of investment alternatives and alternative approaches to financing investments, and clearly communicate these alternatives to stakeholders. The Climate Act

requires the EDCs to discuss investment alternatives (including changes in rate design, load management, flexible demand, dispatchable demand response)23 and alternative approaches to financing investments (including cost allocation between developers and ratepayers, and equitable allocation of costs across other states and populations).24 Given advancing technologies and opportunities to use time-varying rates, as well as challenges in siting and constructing infrastructure, the ESMPs should explore and proactively plan for alternatives to traditional utility investment such as incremental DERs and NWAs and ensure that investments minimize or mitigate impacts on ratepayers.

The discussion of investment alternatives should include which technologies were considered, the assumptions used regarding those technologies, a benefit-cost analysis supporting the evaluation of alternatives considered, and a narrative of why the EDCs chose their preferred solution. If an alternative investment was chosen, the EDCs should provide an explanation of the process and timeline by which that alternative investment will be sought. For technologies not considered, the EDCs should explain why.

Adopted, but modified. The EDCs have expanded their respective ESMPs to address investment alternatives and the assumptions used by the EDCs with respect to such alternatives. Please see:

- *Exh. ES-ESMP-1, at Sections 4.1.7, 6.5 through 6.8, and 7.1;*
- *Exh. NG-ESMP-1, at Section 6.4 and 7.1;*
- *Exh. UN-ESMP-1, at Section 6.4.*

With respect rate redesign and cost allocation methodologies for proactive investments, the 2022 Climate Act requires an extensive amount of information to be included in an ESMP, but limits the Department's review to seven months from the date an ESMP is filed. Moreover, each EDC is required to submit their ESMP on the same date, further complicating the Department's review of these comprehensive plans in such a limited timeframe. In addition, the 2022 Climate Act, contemplates consideration by the Department of several issues that, standing alone, might require far longer than seven months to review. As such, a full analysis of rate redesign options, and a long-term cost allocation methodology for proactive infrastructure upgrades envisioned in GMAC- Recommendation-7 would be very difficult for the EDCs to develop and for the Department to review and adjudicate in the time period allowed by statute.

However, as noted in response to GMAC-Recommendation-4 and GMAC-Recommendation-10, the EDCs propose to work with interested stakeholders to develop a long-term cost allocation methodology for proactive infrastructure upgrades for small, medium and large distributed generation facilities. They also support addressing rate redesign options with stakeholders and the Department in a generic proceeding.

R-8. The EDCs should review and respond to the recommendations included in the Memorandum of the GMAC Equity Working Group. The Memorandum of the GMAC Equity Working Group is included as Appendix A of this document.

Adopted, but modified. The EDC's responses to the EWG recommendations unrelated to metrics can be found here:

- *Exhibit ES-Stakeholder-2;*
- *Exhibit NG-Stakeholder-2;*
- *Exhibit UN-Stakeholder-2.*

With regard to the metrics proposed by the EWG, the 2022 Climate Act requires an extensive amount of information to be included in an ESMP, but limits the Department's review to seven months from the date an ESMP is filed. Moreover, each EDC is required to submit their ESMP on the same date, further complicating the Department's review of these comprehensive plans in such a limited timeframe. In addition, the 2022 Climate Act, contemplates consideration by the Department of several issues that, standing alone, might require far longer than seven months to review. As such, the review of the EWG metrics, and metrics generally, would be very difficult for the EDCs to develop and for the Department to review and adjudicate in the time period allowed by statute.

However, the EDCs accept the purpose of the recommendation, and propose to work with interested stakeholders to address metrics relating to the EDCs' respective incremental ESMP investments in a future phase of the ESMP dockets subsequent to the Department's review of the ESMPs.

R-9. The ESMPs should include a list of areas where effective state or local policy could help to direct more efficient or cost-effective development of the distribution system to further the Commonwealth's clean energy objectives. For instance, policies that direct or incentivize the location of or criteria for electrification adoption or DER siting, and in so doing provide more certainty in locations needing significant investment or where alternatives may be particularly effective. The EDCs and the GMAC should consider pursuing these areas as the focus of future collaborative policy development before the next 5-year ESMPs.

Adopted, but modified. Although the EDCs have not developed an exhaustive list of areas where effective state or local policy could help to direct more efficient development of the distribution system to further the Commonwealth's clean energy objectives, the ESMPs address discrete areas of potential state and local public policy changes here:

- *Exhibit ES-ESMP-1, at Section 9.4;*
- *Exhibit NG-ESMP-1, at Section 6.4;*
- *Exhibit UN-ESMP-1, at Sections 7.3 and 9.6.*

R-10. The ESMPs should describe in detail how alternative rate designs can be utilized, in both the short and long term, to manage load, mitigate peak demand, and reduce or delay the need for infrastructure investments. Additionally, the EDCs, the GMAC, and other stakeholders should remain engaged on rate design reform and on developing an approach to address rate design issues promptly and comprehensively. Such an approach should consider, among other things, AMI functionality, increased

DER adoption, and increased transportation and building electrification. Further, alternative rate design proposals must: (1) be fair and equitable; (2) consider affordability; and (3) be informed by careful study of potential impacts on customers, including low- to moderate-income (LMI) customers and customers in environmental justice communities (EJCs) and disadvantaged communities. To provide additional guidance through examples of specific rate design concepts, the GMAC recommends that: (1) based on concerns that they would reduce customers' ability to manage their bills and have disproportionate and adverse impacts on low-income ratepayers, alternative rate design proposals should avoid broadly imposing demand charges on residential customers; and (2) alternative rate design proposals should consider peak-time rebate programs that incentivize demand reduction.

Adopted, but modified. The 2022 Climate Act requires an extensive amount of information to be included in an ESMP, but limits the Department's review to seven months from the date an ESMP is filed. Moreover, each EDC is required to submit their ESMP on the same date, further complicating the Department's review of these comprehensive plans in such a limited timeframe. In addition, the 2022 Climate Act contemplates consideration by the Department of several issues that, standing alone, might require far longer than seven months to review. As such, an analysis of alternative rate designs that may be utilized in both the short and long term, to manage load, mitigate peak demand, and reduce or delay the need for infrastructure investments envisioned in GMAC Recommendation 10, would be very difficult for the EDCs to develop and for the Department to review and adjudicate in the time period allowed by statute.

However, the EDCs accept the purpose of the recommendation, and recommend that the Department open a generic proceeding to address rate redesign issues and possible rate redesign options or to other dockets currently open to consider such options (e.g., with respect to electric vehicle time-of-use rates, D.P.U. 23-84 and D.P.U. 23-85 and energy affordability in D.P.U. 24-15). The EDCs address various issues that might be considered by the Department in such a proceeding here:

- *Exhibit ES-ESMP-1, at Section 9.6;*
- *Exhibit NG-ESMP-1, at Section 9.6;*
- *Exhibit UN-ESMP-1, at Section 9.6.*

R-11. The EDCs should clearly define the terms "distributed generation" and "distributed energy resource" in their ESMPs and standardize across the three ESMPs. Where applicable, the EDCs should identify any difference between the term DER and the term DG as a defined term used by the DPU and subject to applicable DPU-approved tariffs, such as the Standards for Interconnection of Distributed Generation.

Adopted. The EDCs have aligned their definitions of DER and DG as far as reasonable; however, there are still minor differences. As such, Eversource and Unitil do not include energy efficiency as a DER. Eversource and Unitil also consider storage to be a DER, but not a DG. At this stage, the EDCs all have ongoing dockets utilizing their respective definitions and will work to get full alignment for the next filing.

For details on the definitions, please see:

- *Exhibit ES-ESMP-1, at Glossary;*
- *Exhibit NG-ESMP-1, at Glossary;*
- *Exhibit UN-ESMP-1, at Definitions.*

Section 2: Compliance with the Climate Act

Table 2. Summary of EDC Disposition to Compliance with the Climate Act Recommendations

Recommendations	EDC Disposition	References
R-12. Alignment of Recommendations with Objectives of Climate Act	Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 4 and 22
R-13. Detail on Alignment with Climate Act	Adopted	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 4 and 23 Section 2 of each ESMP Tables and citations in the Policy/Solutions testimony for each EDC

R-12. The GMAC recommendations listed within this document regarding the other sections of the ESMPs should be adopted to make them fully aligned with the objectives of the Climate Act.

Adopted, but modified. The EDCs address each of the GMAC's recommendations, by topic, in the second exhibit to each testimony.

The GMAC recommendations have not been adopted in full, however, as noted in each of the exhibits. Each EDC has submitted comprehensive testimony addressing how each ESMP is aligned with the Climate Act.

R-13. Section 2 should be expanded to provide more detail about how the ESMPs provide the information required by and are aligned with the objectives of the Climate Act. Specifically:

a. Instead of a simple reference to another section or subsection of the ESMP, Section 2 should include text explaining how the section or subsection is aligned with the Climate Act.

b. Section 2 should include a chart or table summarizing and mapping the requirements of the Climate Act with the specific location in the ESMP that demonstrates compliance with those requirements.

Adopted. Please see Section 2 of each ESMP and the Policy/Solutions testimony for each EDC for tables and citations responsive to this recommendation.

Section 3: Stakeholder Engagement

Table 3. Summary of EDC Disposition to Stakeholder Engagement Recommendations

Recommendations	EDC Disposition	References
R-14. Develop Goals and Reporting Metrics	Adopted, but modified	Exhibits ES-Stakeholder-1_2_3_4, GMAC Recommendations, pages 2, 8, and 9 Exhs. ES-ESMP-1, at Section 3.5, and ES-Stakeholder-1; Exhs. NG-ESMP-1, at Section 3.5, and NG-Stakeholder-1; Exhs. UN-ESMP-1, at Section 3.5, and UN-Stakeholder-1.
R-15. CESAG in GMAC Structure	Rejected	Exhibits ES-Stakeholder-1_2_3_4, GMAC Recommendations, pages 2 and 10 Exhs. ES-ESMP-1, at Section 3.5, and ES-Stakeholder-1; Exhs. NG-ESMP-1, at Section 3.5, and NG-Stakeholder-1; Exhs. UN-ESMP-1, at Section 3.5, and UN-Stakeholder-1.
R-16. CESAG Co-Chair Structure	Adopted, but modified	Exhibits ES-Stakeholder-1_2_3_4, GMAC Recommendations, pages 2 and 11 Exhs. ES-ESMP-1, at Section 3.5, and ES-Stakeholder-1; Exhs. NG-ESMP-1, at Section 3.5, and NG-Stakeholder-1; Exhs. UN-ESMP-1, at Section 3.5, and UN-Stakeholder-1.
R-17. CESAG Success Metrics	Adopted, but modified	Exhibits ES-Stakeholder-1_2_3_4, GMAC Recommendations, pages 2 and 12 Exh. ES-ESMP-1, at Section 3.5; Exh. NG-ESMP-1, at Sections 3.2, 3.3, and 3.5; Exh. UN-ESMP-1, at Section 3.5
R-18. Municipal Outreach	Adopted	Exhibits ES-Stakeholder-1_2_3_4, GMAC Recommendations, pages 3 and 13

R-14. The EDCs in coordination with the CESAG should develop goals and clear reporting metrics of success by which to measure the efficacy of proposed stakeholder engagement, including:

a. Clearly defined identification of stakeholder groups, historical concerns, and potential conflicts with other stakeholder groups' interests,

b. ESMP goals and outcomes for each stakeholder group,

c. Information stakeholders need to be well informed,

d. Information utility companies need to understand stakeholders' concerns,

e. Appropriate and diverse vehicles for meaningful dialogue, and

f. Methods for tracking, organizing, analyzing, and responding to stakeholder feedback in a way that provides transparency so that stakeholders know what input was incorporated and what input was not incorporated.

Adopted, but modified. As discussed in testimony and the ESMPs, the EDCs intend to co-lead the CESAG. At this time, the EDCs do not intend to pre-identify stakeholder involvement in the CESAG. Rather, the EDCs intend to tailor the CESAG to be the most representative of each EDC's service territory and their needs. The CESAG will be the avenue or forum to develop a statewide comprehensive stakeholder engagement framework that can be implemented prior to project development. The EDCs are establishing the CESAG to further enable continuous constructive engagement geared towards making the process of implementing the ESMP more transparent and increasing EDC accountability to impacted

stakeholders. The EDCs recognize the valuable role community-based organizations can play in developing trust with the communities they serve. The CESAG will enable co-development of a Community Engagement Framework to guide the EDCs on best ways to engage communities about proposed clean energy infrastructure projects and best practices for soliciting their feedback. The EDCs recognize that engaging stakeholders early and often is necessary and that those potentially impacted by this transition deserve to play a role in energy discussions that affect their lives.

Additionally, as discussed in response to GMAC Recommendation 8, the EDCs are requesting metrics be discussed subsequent to the Department's review of the ESMPs. Therefore, it is premature to develop reporting metrics beyond those already proposed.

Please refer to:

- *Exhs. ES-ESMP-1, at Section 3.5, and ES-Stakeholder-1;*
- *Exhs. NG-ESMP-1, at Section 3.5, and NG-Stakeholder-1;*
- *Exhs. UN-ESMP-1, at Section 3.5, and UN-Stakeholder-1.*

R-15. To avoid duplication, the GMAC recommends having the CESAG within the GMAC structure, possibly within the Equity Working Group. The DPU should review the proposed CESAG framework before a working group is established.

Rejected. The EDCs respectfully reject this recommendation because the CESAG and GMAC and/or Equity Working Group serve different purposes. At their core, the EDCs are responsible for providing safe and reliable energy to all customers. However, the EDCs believe reliability and energy justice goals can be accomplished simultaneously and that this balance will improve the collective success in achieving our shared clean energy goals. The CESAG is intended for the EDCs to partner with community-based organizations representing territories across the state. As the EDCs continue to build and enhance their community engagement efforts, it is important the EDCs remain continuously informed by the voices of the communities they serve. The EDCs will further this goal by directly partnering with community-based experts as part of this process. The best path towards successful and clear community engagement is to have a governing framework co-developed by those stakeholders that live in and engage with communities daily.

Please refer to:

- *Exhs. ES-ESMP-1, at Section 3.5, and ES-Stakeholder-1;*
- *Exhs. NG-ESMP-1, at Section 3.5, and NG-Stakeholder-1;*
- *Exhs. UN-ESMP-1, at Section 3.5, and UN-Stakeholder-1.*

R-16. The GMAC recommends that the CESAG have a co-chair structure, where the group is led in part by EDCs and GMAC.

Adopted, but modified. The EDCs agree the CESAG should have a co-chair structure. However, given the CESAG focus on developing best practices around stakeholder outreach and establishing a co-authored community engagement framework, the EDCs feel it is pivotal that a community-based organization serve as the CESAG co-chair.

Please refer to:

- *Exhs. ES-ESMP-1, at Section 3.5, and ES-Stakeholder-1;*
- *Exhs. NG-ESMP-1, at Section 3.5, and NG-Stakeholder-1;*
- *Exhs. UN-ESMP-1, at Section 3.5, and UN-Stakeholder-1.*

R-17. To clarify the CESAG's focus and measure its success, the GMAC recommends that the CESAG:

a. Develop consistent definitions of equity, inequity, and discrimination,

b. Include more specific definitions of equity,

c. Adopt quantifiable reporting metrics,

d. Develop a detailed explanation of the stakeholder engagement process (timeline, stakeholder groups, potential trainings, desired outcomes), and

e. Define parameters/process for community benefits agreements.

Adopted, but modified.

a., b. The EDCs have developed consistent definitions where possible.

c. As stated in Exhibits ES-Metrics-1, NG-Metrics-1, and UN-Metrics-1, the EDCs are requesting the Department review metrics subsequent to its review of the ESMP.

d. The EDCs provided additional detail on stakeholder engagement in their respective Stakeholder testimonies and ESMPs. However, currently, it is premature to develop a prescribed list of stakeholder groups, potential trainings, and desired outcomes as that will be the goal and outcome of the CESAG.

e. The parameters and process for developing community benefits agreements will be discussed as part of CESAG to ensure community-based organizations and experts are involved in the decision making.

Please refer to:

- *Exh. ES-ESMP-1, at Section 3.5;*
- *Exh. NG-ESMP-1, at Sections 3.2, 3.3, and 3.5;*
- *Exh. UN-ESMP-1, at Section 3.5.*

R-18. The ESMPs articulate the concerns and interests municipalities have with engaging with the decision-making process and supporting the siting of infrastructure; however, additional detail and

structure is needed in the Municipal Outreach subsections with regards to how EDCs will effectively and proactively engage municipal officials and coordinate with municipalities on providing transparent information and supporting education and awareness around infrastructure improvements, particularly as the locations of needed infrastructure projects over the next 10 years are already well-established.

Adopted. Please refer to:

- *Exh. ES-ESMP-1, at Section 3.3;*
- *Exh. NG-ESMP-1, at Section 3.4;*
- *Exh. UN-ESMP-1, at Section 3.3.*

Section 4: Current State of the Distribution System

Table 4. Summary of EDC Disposition to Current State of the Distribution System Recommendations

Recommendations	EDC Disposition	References
R-19. Consistent Distribution System Data	Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 5 and 24
R-20. Consistent Distribution System Definitions, Tables, and Graphics	Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 5 and 25 Exhs. ES-ESMP-1 and NG-ESMP-1, at Section 4.2 Exh. UN-ESMP-1, at Section 4.1 Exhs. ES-ESMP-1 and NG-ESMP-1, at Glossary Exh. UN-ESMP-1 at Definitions
R-21. Load Reductions from NWAs, DERs, and Other Technologies	Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 6 and 26 Exh. ES-ESMP-1, at Sections 4.1.4, 4.3.7, 4.4.7, 4.5.7, and 4.6.7 Exh. NG-ESMP-1, at Section 4.1 Exh. UN-ESMP-1, at Sections 4.1.5 and 4.1.6
R-22. Substation Flooding Vulnerabilities	Eversource: Adopted National Grid and Until: Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 6 and 27 Exh. NG-ESMP-1, at Section 10.4.3; Exh. UN-ESMP-1, at Section 10.4

R-19. The ESMPs should use consistent methods across EDCs for presenting the following information regarding the current system:

a. The age and condition of existing infrastructure (substations, transformers, feeders, breakers, reclosers, and poles), including descriptions of the rationale that is used for determining when to replace each type of infrastructure,

b. Capacity deficiency for substation power transformers and feeders,

c. Existing DER capacity, including DERs online, in the queue, and current time to get through the queue, and broken out by type of DER: energy efficiency, demand response, heat pumps, DG, electric vehicles, and distributed storage,

d. DER hosting capacity, including estimates of excess capacity for substation power transformers and feeders, forecasted out for 10 years in the absence of new investments,

e. Reliability, including most relevant reliability reporting metrics and summary of outages by cause on blue-sky days,

f. Resilience, including all relevant "all-in" performance reporting metrics and summary of outages by cause on major event days, and

g. An assessment of the current distribution system hosting capacity of electrification and clean energy resources and a comparison of the corresponding 2025 interim Clean Energy and Climate Plan deployment targets for clean energy resources and electrification technologies.

Adopted, but modified. The EDCs will consider this recommendation for ESMP Section 4 for implementation in the next ESMP cycle and will attempt to implement this recommendation to the extent feasible in the next ESMP. However, for the current ESMP there is insufficient time between receipt of this recommendation and filing with the Department to achieve the degree of coordination and refinement necessary for the three EDCs to present the current state of their respective distribution systems using a common format and methodology in the identified areas. The EDCs will commit to spending additional time and resources on developing a common format and methodology in the identified areas in the next ESMP cycle, but the EDCs also acknowledge that complete alignment may be difficult to achieve given existing differences between the EDCs and their distribution systems.

R-20. The ESMPs should present all relevant distribution system information in a clearer and more transparent manner using consistent definitions, tables, and graphics.

Adopted, but modified. This recommendation for ESMP Section 4 is adopted in part for implementation in this ESMP cycle, to the extent it is feasible for each of the EDCs to insert tables and graphics consistent with those that appear in the other EDCs' ESMP Section 4 narratives. Further, the EDCs have attempted to use consistent definitions in their respective ESMP Section 4 narratives.

Examples of the implementation of this recommendation include Eversource and Unitil's inclusion of additional tables and charts showing summary DER information, consistent with information provided by National Grid. Likewise, National Grid has added a narrative summary of its sub-regions, which will align with Unitil's and Eversource's presentation of sub-regions. Please see examples of consistent tables here:

- *Exhibit ES-ESMP-1, at Section 4.2;*
- *Exhibit NG-ESMP-1, at Section 4.2;*
- *Exhibit UN-ESMP-1, at Section 4.1.*

Regarding consistency of definitions, each EDC has included a highly aligned-upon Glossary section, in which terms used to describe their respective distribution systems will be defined. Please see:

- *Exh. ES-ESMP-1, at Glossary;*
- *Exh. NG-ESMP-1, at Glossary;*
- *Exh. UN-ESMP-1, at Definitions.*

R-21. In areas of system constraint, the ESMPs should discuss how NWAs, DERs, and other technologies are currently acting to reduce load. Understanding the contribution of NWAs and DERs to the current functionality of the system is important in this section on the current state of the system. The ESMPs should also give greater consideration to mechanisms for deferring or avoiding new transmission spending, including using DERs and NWAs.

Adopted, but modified. This recommendation for ESMP Section 4 is accepted in part for implementation in this ESMP cycle. The EDCs will provide more information in ESMP Section 4 regarding NWAs, DERs, and other technologies that are currently acting to reduce load. The EDCs also note that consistent with GMAC Recommendation 7, they are incorporating discussion of NWAs as an alternative to traditional utility investment throughout each of their ESMPs.

- *Exh. ES-ESMP-1, at Sections 4.1.4, 4.3.7, 4.4.7, 4.5.7, and 4.6.7;*
- *Exh. NG-ESMP-1, at Section 4.1;*
- *Exh. UN-ESMP-1, at Sections 4.1.5 and 4.1.6.*

R-22. The EDCs should map the locations of their substations alongside projected sea level rise and floodplains for 2030 and 2050 to help readers better understand climate vulnerabilities and existing climate adaptations the EDCs have implemented for the current system.

This recommendation has been adopted by Unitil for implementation in this ESMP, while National Grid and Eversource adopt but modify this recommendation for implementation in the next ESMP cycle. National Grid and Eversource will map substations to projected sea level rise and floodplains, while Unitil maps substations to potential river flooding as they do not have sea-level rise concerns.

National Grid has provided a map of select higher risk substations mapped to projected sea level rise and floodplains, but has not provided complete maps of projected sea level rise and floodplain impacts given limitations of its developing Climate Change Risk Tool. National Grid will provide complete maps in the next ESMP. Eversource continues to evaluate which assets are impacted by sea level rise and flooding under the different climate scenarios studied and will provide complete results in the next ESMP.

Please refer to:

- *Exh. NG-ESMP-1, at Section 10.4.3;*
- *Exh. UN-ESMP-1, at Section 10.4.*

Section 5: 5- and 10-Year Electric Demand Forecast

Table 5. Summary of EDC Disposition to 5- and 10-Year Electric Demand Forecast Recommendations

Recommendations	EDC Disposition	References
R-23. DER Sensitivities	Adopted, but modified	Exhibits ES-Forecast-1_2, GMAC Recommendations, pages 2 and 7 Exhs. ES-ESMP-1, at Sections 8.2.5, 8.3.5, 9.2, 9.4; and ES-Forecast-1; Exhs. NG-ESMP-1, at Sections 8.2, 8.3, and 8.4; and NG-Forecast-1; Exhs. UN-ESMP-1, at Sections 5.1, 8.2, 8.3, and 8.4; and UN-Forecast-1.
R-24. Load Forecasting Tools	Adopted, but modified	Exhibits ES-Forecast-1_2, GMAC Recommendations, pages 2 and 8 Exhibits ES-ESMP-1, at Sections 5.0, 5.1.1-5.5.5, 8.2.5, 8.3.5, 8.4.4, and 9.2; Exhibits NG-ESMP-1, at Sections 5.1.1-5.7.7; Exhibits UN-ESMP-1, at Sections 5.0, 5.1, 8.1, 8.2, 8.3, and 8.4.
R-25. Demand Forecast Assumptions	Adopted	Exhibits ES-Forecast-1_2, GMAC Recommendations, pages 2 and 9 Exhs. ES-ESMP-1, at Sections 5.0, 8.2, 8.3, 8.4, 9.1, 9.2, and 9.4; and ES-Forecast-1; Exhs. NG-ESMP-1, at Sections 5.1, 8.2, 8.3, 8.4, 9.1, 9.3, and 9.4; and NG-Forecast-1; Exhs. UN-ESMP-1, at Sections 5.0, 5.1, 8.1, 8.2, 8.3, and 8.4; and UN-Forecast-1.
R-26. DER Forecast Assumptions	Adopted	Exhibits ES-Forecast-1_2, GMAC Recommendations, pages 2 and 10 Exhs. ES-ESMP-1, at Sections 5.0, 8.2, 8.3, and 8.4; and ES-Forecast-1; Exhs. NG-ESMP-1, at Section 5.1, 8.0, 8.1; and NG-Forecast-1; Exhs. UN-ESMP-1, at Sections 5.0, 5.1, 8.1, 8.2, 8.3, and 8.4; and UN-Forecast-1.
R-27. Consistent Load Forecasting	Adopted, but modified	Exhibits ES-Forecast-1_2, GMAC Recommendations, pages 2 and 11
R-28. Consistent Assumptions for Load Forecasting	Adopted, but modified	Exhibits ES-Forecast-1_2, GMAC Recommendations, pages 2 and 12 Exhs. ES-ESMP-1, at Section 5.0 - Review of Assumptions and Comparison Across EDCs; ES-Forecast-1; Exhs. NG-ESMP-1, at Section 5.1; NG-Forecast-1 Exhs. UN-ESMP-1, at Section 5.1; UN-Forecast-1.
R-29. 10-year Load Forecasts for New Customers and Each Type of DER	Adopted	Exhibits ES-Forecast-1_2, GMAC Recommendations, pages 3 and 13 Exh. ES-ESMP-1, at Sections 5.1.1, 5.2.1, 5.3.1, 5.4.1, 5.5.1; Exh. NG-ESMP-1, at Sections 5.1.1, 5.2.1, 5.3.1, 5.4.1, 5.5.1, 5.6.1, 5.7.1; Exh. UN-ESMP-1, at Section 5.1.8.

R-23. The ESMP load forecasts should include sensitivities that assume different levels of adoption of DERs and new building codes. A "high forecast" sensitivity should include assumptions about these technologies that would lead to higher loads than the base case forecast. Additionally, a "high load management" sensitivity should assume high levels of both passive and active load management. Each sensitivity should clearly identify the assumptions made for each resource type.

Adopted, but modified. The EDCs do not adopt this recommendation for the 5- and 10-year forecast (Section 5) as it serves a fundamentally different purpose than the long-term demand assessment (2035-2050, Section 8). Eversource and National Grid do not provide sensitives in the 5- and 10-year forecast because they must act on the results of the forecast in this planning horizon given current timelines to develop major capital projects. Adding additional sensitivities as recommended would not provide any

value for this shorter-term forecast and could put supply reliability at risk if plans consider scenarios that have a lower likelihood of developing. However, Unitil provides sensitivities on the 5- and 10-year forecasts for informational purposes only, but focuses on the calculated 5- and 10-year forecasts to ensure the reliability and safety of the electric system due to the short term nature of the forecast and timelines to develop major capital projects. The EDCs include load forecast sensitivities in Section 8 – 2035-2050 electric demand assessment.

For long-term demand assessment sensitivities, please refer to the following:

- *Exhs. ES-ESMP-1, at Sections 8.2.5, 8.3.5, 9.2, 9.4; and ES-Forecast-1;*
- *Exhs. NG-ESMP-1, at Sections 8.2, 8.3, and 8.4; and NG-Forecast-1;*
- *Exhs. UN-ESMP-1, at Sections 5.1, 8.2, 8.3, and 8.4; and UN-Forecast-1.*

R-24. The EDCs should provide a copy of their load forecasts, including a description of all inputs, assumptions, methods, results, and scenarios provided in a format that is reviewable. These should be in unlocked, fully functional, and linked Excel sheets.

Adopted, but modified. The EDCs will not provide live forecasting models. Forecasting tools are integrated data tools that are confidential, utilize confidential customer information, and cannot be readily provided. However, the EDCs agree to provide details on all inputs and results in tabular form within the report.

For additional detail on all inputs, please refer to the following:

- *Exhibits ES-ESMP-1, at Sections 5.0, 5.1.1-5.5.5, 8.2.5, 8.3.5, 8.4.4, and 9.2;*
- *Exhibits NG-ESMP-1, at Sections 5.1.1-5.7.7;*
- *Exhibits UN-ESMP-1, at Sections 5.0, 5.1, 8.1, 8.2, 8.3, and 8.4.*

R-25. In their demand forecasts, the ESMPs should detail the methodology used, the assumptions made, and any applicable uncertainties. All assumptions should include links and citation to relevant sources. The ESMPs should also include descriptions of how different factors such as policy, mass transit, climate change impacts, load management, electric vehicle charging infrastructure, new building codes, building weatherization, etc., impact the demand forecasts.

Adopted. The ESMPs and testimony discuss the methodology, assumptions and uncertainties. Further, the ESMPs and testimony discuss in detail the impact of the different factors listed above.

For discussion of the methodology, assumptions and uncertainties, please refer to the following:

- *Exhs. ES-ESMP-1, at Sections 5.0, 8.2, 8.3, 8.4, 9.1, 9.2, and 9.4; and ES-Forecast-1;*
- *Exhs. NG-ESMP-1, at Sections 5.1, 8.2, 8.3, 8.4, 9.1, 9.3, and 9.4; and NG-Forecast-1;*
- *Exhs. UN-ESMP-1, at Sections 5.0, 5.1, 8.1, 8.2, 8.3, and 8.4; and UN-Forecast-1.*

R-26. The ESMPs should describe how the forecasts of new DERs are derived, including whether and how they are consistent with Massachusetts goals described in the 2050 Clean Energy and Climate Plan.

Adopted. The forecasts of new DERs are consistent with the Massachusetts climate goals and are described in detail in the ESMP and testimony. For a discussion on DERs and climate goals, please refer to the following:

- *Exhs. ES-ESMP-1, at Sections 5.0, 8.2, 8.3, and 8.4; and ES-Forecast-1;*
- *Exhs. NG-ESMP-1, at Section 5.1, 8.0, 8.1; and NG-Forecast-1;*
- *Exhs. UN-ESMP-1, at Sections 5.0, 5.1, 8.1, 8.2, 8.3, and 8.4; and UN-Forecast-1.*

R-27. The three ESMPs should use consistent formatting and reporting resolution in their load forecasts.

Adopted, but modified. The EDCs aligned on formatting and reporting as much as possible before filing their respective ESMPs. The EDCs accept the intention behind the recommendation and commit to increase consistency with respect to formatting and reporting resolution in future ESMPs as much as practicable.

R-28. The three ESMPs should use consistent baseline data, assumptions, and methods for the long-term electric demand assessment, for instance using the same benchmarks and scenarios set forth by the Clean Energy and Climate Plans.

Adopted, but modified. The EDCs will consider this recommendation for the next ESMP. Consistent benchmarks and scenarios are and will continue to be used, but methods will not be common across the ESMPs. The EDCs accept the intention behind the recommendation and will align where possible; however, at times it may provide a more accurate forecast to use territory-specific data, assumptions or methodologies. The EDCs will clarify where data inputs, assumptions or methodologies may differ from one another. For a comparison of the EDCs' methodologies, please refer to the following:

- *Exhs. ES-ESMP-1, at Section 5.0 – Review of Assumptions and Comparison Across EDCs; ES-Forecast-1;*
- *Exhs. NG-ESMP-1, at Section 5.1; NG-Forecast-1*
- *Exhs. UN-ESMP-1, at Section 5.1; UN-Forecast-1.*

R-29. The ESMPs should provide 10-year load forecasts in tabular form that separately quantify expected load impacts from new customers, and each type of DER.

Adopted. The EDCs are providing the 10-year load forecast in tabular form. Please refer to the following:

- *Exh. ES-ESMP-1, at Sections 5.1.1, 5.2.1, 5.3.1, 5.4.1, 5.5.1;*
- *Exh. NG-ESMP-1, at Sections 5.1.1, 5.2.1, 5.3.1, 5.4.1, 5.5.1, 5.6.1, 5.7.1;*
- *Exh. UN-ESMP-1, at Section 5.1.8.*

Section 6: 5- and 10-Year Planning Solutions

Table 6. Summary of EDC Disposition to 5- and 10-Year Planning Solutions Recommendations

Recommendations	EDC Disposition	References
R-30. Relevant Reporting Metrics, Baselines, and Targets	Adopted, but modified	Exhibits ES-Metrics-1_2, GMAC Recommendations, pages 1, 3, and 4 Exh. ES-ESMP-1, at Section 9.2, Figure 9-4 Exh. NG-ESMP-1, at Sections 6.5.1, 6.6.2, 6.7.2, 6.8.2, 6.9.1, 6.10.1 Exh. UN-ESMP-1, at Sections 5.1 and 6.5. Exh. ES-ESMP-1, at 6.6.1, 6.7.1, 6.8.1., and 9.5 Exh. NG-ESMP-1, at Section 6.0; Exh. UN-ESMP-1, at Sections 6.4 and 6.5. Exhs. ES-ESMP-1, NG-ESMP-1, and UN-ESMP-1 at Section 10 Exhibits ES-Policy Solutions-1_2
R-31. Alternative Options	Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 6 and 28
R-32. Decarbonization Goals	Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 6 and 29 Exhibits ES-Net Benefits-1_2_3_5, GMAC Recommendations, pages 1 and 4 Exhs. ES-ESMP-1, NG-ESMP-1, and UN-ESMP-1 at Sections 7.1.3 and 7.1.4
R-33. Transmission Level Cost Estimates	Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 6 and 30 Exh. ES-ESMP-1, at Section 6.7 Exh. NG-ESMP-1, at Section 6.4 Exh. UN-ESMP-1, at Sections 6.4 and 9
R-34. Incremental DERs to Alleviate Grid Issues	Adopted	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 7 and 31 Exh. ES-ESMP-1, at Sections 6.5, 6.7 and 9.3 Exh. NG-ESMP-1, at Sections 6.3, 6.4, and 9.3 Exh. UN-ESMP-1, at Sections 6.4, and 9.3
R-35. Optimization of DER Integration	Adopted	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 7 and 32 Exh. ES-ESMP-1, at Sections 6.1, 6.3, 9.4, and 9.5 Exhs. NG-ESMP-1 and UN-ESMP-1 at Sections 6.4 and 9.3
R-36. Grid Service Study and Grid Compensation Fund Implementation	Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 7 and 33 Exhibit ES-ESMP-1, at Section 6.9.2 Exhibit NG-ESMP-1, at Section 6.4.2.5, Section 6.11.2.5 Exhibit UN-ESMP-1, at Section 6.3.2
R-37. Alternative Options	Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 7 and 34 Exh. ES-ESMP-1, at Sections 6.5, 6.7, 9.1, and 9.3; Exhs. NG-ESMP-1 and UN-ESMP-1 at Sections 6.4 and 9.3
R-38. Evolution of Distribution System Planning	Adopted	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 7 and 35 Exh. ES-ESMP-1, at Section 10.5; Exh. NG-ESMP-1, at Section 6.4.2; Exh. UN-ESMP-1, at Section 6.2.
R-39. Time-Varying Rate Design	Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 7 and 36 Exhibits ES-Bill Impacts-1_2, GMAC Recommendations, pages 2 and 7
R-40. AMI Implementation	Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 8 and 37 Exh. ES-ESMP-1, at Section 6.3.1.9; Exh. NG-ESMP-1, at Section 6.3.2; Exh. UN-ESMP-1, at Section 6.3.1
R-41. NWA Criteria Description	Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 8 and 38 Exh. ES-ESMP-1, at Section 9.3 Exhs. NG-ESMP-1 and UN-ESMP-1, at Section 6.4 and 9.3

Recommendations	EDC Disposition	References
R-42. NWA Criteria Assessment	Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 8 and 39 Exhs. ES-ESMP-1 and NG-ESMP-1, at Section 9.3 Exh. NG-ESMP-1, at Sections 6.4 and 9.3
R-43. Stakeholder Engagement and Community Feedback	Adopted	Exhibits ES-Stakeholder-1_2_3_4, GMAC Recommendations, pages 3 and 14 Exh. ES-ESMP-1, at Section 3; Exh. NG-ESMP-1, at Section 3.5; Exh. UN-ESMP-1, at Section 3.
R-44. Transmission System Upgrades in ESMPs	Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 9, 40, and 41 Exh. ES-ESMP-1, at Section 6.7 Exh. NG-ESMP-1, at Section 6.4.2.7 Exh. UN-ESMP-1, at Section 6.4
R-45. ESMPs Dependent on Transmission System Upgrades	Adopted, but modified	Exhibits ES-Net Benefits-1_2_3_5, GMAC Recommendations, pages 1 and 5
R-46. Consistency in ESMPs	Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 9 and 42
R-47. Proposed Investments that are Not New	Adopted	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 9 and 43
R-48. Expand Stakeholder Participation	Adopted, but modified	Exhibits ES-Stakeholder-1_2_3_4, GMAC Recommendations, pages 3 and 15

R-30. The planning solutions should be documented using relevant reporting metrics, baselines, and targets, such as:

a. System-wide increases in DER hosting capacity in MWs by year,

b. System-wide capacity increases in MWs by year, and

c. System-wide reliability/resilience improvements (interruption and duration, with and without major events) by year.

Adopted, but modified. This recommendation for ESMP Section 6 has been accepted in part by Eversource, National Grid, and Unitil to different extents. Insofar as this recommendation requests the use of reporting metrics, the EDCs propose to work with interested stakeholders to address metrics relating to the EDC's respective incremental ESMP investments in a future phase of the ESMP dockets. Please see the EDC's response to GMAC-Recommendation-8.

a. Unitil adopts this recommendation while Eversource and National Grid adopt this recommendation as modified. Please see:

- *Exh. ES-ESMP-1, at Section 9.2, Figure 9-4 (Eversource has included system-wide increase in DER hosting capacity in MW by 5-year increments from 2025 to 2050, and expanded its Section 9 narrative to further explain each relevant reporting metric listed in the figure.);*

- *Exh. NG-ESMP-1, at Sections 6.5.1, 6.6.2, 6.7.2, 6.8.2, 6.9.1, 6.10.1 (National Grid shows hosting capacity by project in each subregion's Major Projects);*
- *Exh. UN-ESMP-1, at Sections 5.1 and 6.5.*

b. *Unitil adopts this recommendation while Eversource and National Grid adopt this recommendation as modified. Please see:*

- *Exh. ES-ESMP-1, at 6.6.1, 6.7.1, 6.8.1., and 9.5 (Eversource provides DER hosting capacity increase by project using relevant reporting metrics such as Reserved Operational Capacity, Enabled Electrification, and Enabled Ground Mounted DER Capacity);*
- *Exh. NG-ESMP-1, at Section 6.0;*
- *Exh. UN-ESMP-1, at Sections 6.4 and 6.5.*

c. *The EDCs adopt this recommendation as modified. The EDCs note that the incremental ESMP investments have been proposed largely based on projected load growth but may also provide ancillary benefits to reliability and resiliency. Incremental ESMP investments will be evaluated for reliability and resiliency as part of internal processes. Where feasible, the EDCs have incorporated additional discussion on system-wide reliability and resiliency in their respective ESMPs. Please see:*

- *Exh. ES-ESMP-1, at Section 10;*
- *Exh. NG-ESMP-1, at Section 10;*
- *Exh. UN-ESMP-1, at Section 10.*

Additionally, reliability and resiliency are discussed in each EDC's testimony:

- *Exhibit ES-Policy Solutions-1;*
- *Exhibit NG-Policy Solutions-1;*
- *Exhibit UN-Policy Solutions-1.*

R-31. The ESMPs should consider alternative options to incremental (i.e., newly proposed) capital spending, such as EDC investment in and support of incremental DERs. The ESMPs should present the costs of such alternative options and compare them with the costs of the incremental investments. The ESMPs should explain which alternatives were not adopted and why. The discussion of investment alternatives should include which technologies were considered, the assumptions used regarding those technologies, a benefit-cost analysis supporting the evaluation of alternatives considered, and a narrative of why the EDCs chose their preferred solution. If an alternative investment was chosen, the EDCs should provide an explanation of the process and timeline by which that alternative investment will be sought. For technologies not considered, the EDCs should explain why those technologies were not considered.

Adopted, but modified. Please see the EDCs' response to GMAC-Recommendation-7.

R-32. The ESMPs should clarify and quantify how state decarbonization goals are accounted for and to what extent in each EDC territory, and demonstrate that across all service territories, the goals are accounted for in full.

Adopted, but modified. The EDCs' respective ESMPs include a greenhouse gas emission assessment. Although the EDCs used different underlying assumptions for some aspects of their modeling, overall their forecasts aim to enable greenhouse gas emission reductions via electrification consistent with the Commonwealth's Net Zero goal by 2050, as apportioned for their respective service territories. The EDCs note that they are not responsible for enabling 100 percent of the Commonwealth's climate goals, as municipal light plants, self-generating customers, and other sectors of the economy also bear responsibility for ensuring progress towards a Net Zero future. Additionally, although the EDCs seek to enable electrification in their respective service territories as a means to help the Commonwealth meet its Net Zero goal, it is the EDCs' customers that must choose to use electricity in new ways and participate in desired pathways to reduce greenhouse gas emissions. For discussion of greenhouse gas emission reductions enabled by the EDCs, please see:

- *Exh. ES-ESMP-1, at Sections 7.1.3 and 7.1.4;*
- *Exh. NG-ESMP-1, at Sections 7.1.3 and 7.1.4;*
- *Exh. UN-ESMP-1, at Sections 7.1.3 and 7.1.4.*

R-33. The ESMPs should include estimates of transmission level costs that are likely to be driven by distribution level investments.

Adopted, as modified. The EDCs will include in their respective ESMPs discussion of transmission level costs where identifiable; however, the EDCs are not each positioned to provide similar information. For example, Eversource is able to identify high-level transmission costs associated with the approved and pending CIP solutions previously filed with the Department, but Unitil neither has a CIP project nor owns any transmission for which it could independently develop estimates of transmission level costs. Moreover, transmission level costs for the majority of the investments proposed by the EDCs have simply not yet been identified given the stage of development of these projects. The Clean Energy Transmission Working Group (CETWG) December 2023 report to the Legislature discusses how transmission is planned, how it is paid for, the benefits it provides to the electric grid and to the consumers that fund it, and impediments to transmission development. The CETWG Report recommends actions at the federal, regional, and state levels in connection with transmission infrastructure.

Please see:

- *Exh. ES-ESMP-1, at Section 6.7;*
- *Exh. NG-ESMP-1, at Section 6.4;*
- *Exh. UN-ESMP-1, at Sections 6.4 and 9.2.*

R-34. The ESMPs should explicitly discuss how incremental DERs can be used by the EDCs to alleviate grid issues.

Adopted. Please see:

- *Exh. ES-ESMP-1, at Sections 6.5, 6.7 and 9.3;*
- *Exh. NG-ESMP-1, at Sections 6.3, 6.4, and 9.3;*
- *Exh. UN-ESMP-1, at Sections 6.4, and 9.3.*

R-35. The EDCs should consider and discuss additional ways to optimize DER integration to minimize the costs associated with DER integration while maximizing system benefits. Maximizing the benefits of DER integration will likely include locational analysis and geographically targeted deployments of DER, utilization of grid services and capacity benefits from DG, and other approaches and considerations.

Adopted. Please see:

- *Exh. ES-ESMP-1, at Sections 6.1, 6.3, 9.4, and 9.5;*
- *Exh. NG-ESMP-1, at Sections 6.4 and 9.3;*
- *Exh. UN-ESMP-1, at Sections 6.4 and 9.3.*

R-36. The EDCs should identify the expected process and timelines for implementing the Grid Service Study and the Grid Compensation Fund, as well as the potential cost range for the fund and how the cost range was determined.

Adopted, as modified. The EDCs are working with MassCEC on the Grid Service Study in parallel with this ESMP process. National Grid and Eversource will not fund the Study through the ESMP, while Unitil has proposed to fund the study through the ESMP. The intent is for the Study to occur imminently in 2024, such that the results of the study would inform the EDCs' locational grid services offerings through the Grid Services Compensation Fund as soon as 2025. The EDCs are using different methodologies to develop process, timelines, and cost range for the Grid Services Compensation Fund. For Eversource and Unitil, an outcome of the Grid Service Study is to develop process and timelines for the Grid Compensation Fund. Additional information has been incorporated into their respective discussions of the Grid Service Study and their Grid Services Compensation Funds. National Grid provides additional information on its Grid Services Compensation Fund, including costs, how costs were determined, process, and timelines, in Section 6.4.2.4, and has added additional information on the Grid Service Study to Section 6.11.2.5.

- *Exhibit ES-ESMP-1, at Section 6.9.2;*
- *Exhibit NG-ESMP-1, at Section 6.4.2.5, Section 6.11.2.5;*
- *Exhibit UN-ESMP-1, at Section 6.3.2.*

R-37. The ESMPs should map alternative investment options more closely to projections and forecasts to show how the EDCs can help reduce capital investment or increase DER adoption.

Adopted, but modified. The EDCs have expanded their respective ESMPs to address investment alternatives to incremental ESMP investments and the assumptions used by the EDCs with respect to such alternatives. Please see:

- *Exh. ES-ESMP-1, at Sections 6.5, 6.7, 9.1, and 9.3;*
- *Exh. NG-ESMP-1, at Sections 6.4 and 9.3;*
- *Exh. UN-ESMP-1, at Sections 6.4 and 9.3.*

R-38. The ESMPs should identify how distribution system planning will evolve based on climate impacts and describe and integrate climate change impacts into the near-term planning solutions.

Adopted. Please see:

- *Exh. ES-ESMP-1, at Section 10.5;*
- *Exh. NG-ESMP-1, at Section 6.4.2;*
- *Exh. UN-ESMP-1, at Section 6.2.*

The EDCs note that this topic is also addressed in Section 10 of the ESMPs.

R-39. With regards to time-varying rate (TVR) design, the ESMPs should provide the following:

a. Consideration of default, opt-out TVR for basic service customers, as well as consideration of TVR options for all distribution customers, and a review of experiences in states that have implemented opt-out TVR for basic service.

b. A specific timeline for the implementation of TVR (excluded in Eversource's ESMP) and how the TVRs will maximize customers' opportunities to control as much of their energy bill as possible, including distribution, transmission, energy, and capacity.

Adopted, but modified. Please refer the EDCs response to GMAC Recommendation-10.

R-40. The ESMPs should discuss the implementation timeline for advanced metering infrastructure (AMI) and how the EDCs are working toward the development of a statewide uniform data access protocol and platform. Understanding when and how the data for AMI meters will be available to customers and their retail suppliers will be important and the ESMPs should provide information related to data sharing and meter access for AMI. At a minimum, the protocol should consider the granularity in which customer bills will be settled, how bulk transfers of AMI data will be completed, and how real-time access to data will be implemented to enable demand response participation.

Adopted, but modified. The EDCs accept the first portion of the recommendation regarding the implementation timeline for Advanced Metering Infrastructure ("AMI"). Please see:

- *Exh. ES-ESMP-1, at Section 6.3.1.9;*
- *Exh. NG-ESMP-1, at Section 6.3.2;*
- *Exh. UN-ESMP-1, at Section 6.3.1.*

For the second portion of the recommendation regarding AMI data sharing and data portal in the ESMP, this issue is currently scheduled for discussion at the AMI stakeholder working group, which will be followed by a summary report filing to the Department, and potential Department guidance on the topic. Any implementation plans offered by the EDCs at this juncture would be premature and deficient for lack of stakeholder input.

R-41. The ESMPs should provide a more complete description of their current and proposed NWA criteria and propose how the criteria will specifically enable the contribution of NWA to the investment solution sets. The ESMPs should describe how system peak demand and/or feeder or circuit-level peaks can be managed through NWAs. NWAs may be achieved through a variety of different DERs and interventions, including DG, demand response, managed charging, and rate design. NWAs may have either EDC or third-party ownership.

Adopted, but modified, insofar as the first two sentences provide a recommendation to the EDCs, whereas the last two sentences provide general statements about NWAs.

The EDCs accept the first clause of the first sentence recommending the ESMPs include a more complete assessment of current NWA criteria but decline to propose new NWA criteria or how the criteria will specifically enable the contribution of NWAs to the investment solution sets, as recommended in the second clause of the first sentence. The EDCs have not applied NWA criteria to every proposal included in their incremental ESMP investments. Indeed, it would be contorted to apply NWA criteria to technological and communications investments that are necessary for developing future capabilities, including the future implementation of NWAs. The EDCs accept the second sentence and will describe how NWAs can manage peak system demand and/or feeder or circuit-level peaks. For descriptions of NWAs in the ESMPs, please see:

- *Exh. ES-ESMP-1, at Section 9.3;*
- *Exh. NG-ESMP-1, at Section 6.4 and 9.3;*
- *Exh. UN-ESMP-1, at Section 6.4 and 9.3.*

R-42. The EDCs should provide a more complete assessment of their current and proposed NWA criteria and propose how the criteria will specifically enable the contribution of NWAs to the investment solution sets.

Adopted, but modified. The EDCs accept the first clause of the first sentence recommending the ESMPs include a more complete assessment of current NWA criteria but decline to propose new NWA criteria or how the criteria will specifically enable the contribution of NWAs to the investment solution sets, as recommended in the second clause of the first sentence. The EDCs have not applied NWA criteria to

every proposal included in their incremental ESMP investments. Indeed, it would be contorted to apply NWA criteria to technological and communications investments that are necessary for developing future capabilities, including the future implementation of NWAs.

- *Exh. ES-ESMP-1, at Section 9.3;*
- *Exh. NG-ESMP-1, at Sections 6.4 and 9.3;*
- *Exh. UN-ESMP-1, at Section 9.3.*

R-43. The ESMPs should clarify how stakeholder engagement and community feedback will occur for all solutions presented.

Adopted. The EDCs will use the Community Engagement Stakeholder Advisory Group process for large distribution (and transmission) infrastructure projects which need siting approval, whereas the EDCs' equity frameworks will be applied to other project types, including in-flight and previously approved projects. Please see:

- *Exh. ES-ESMP-1, at Section 3;*
- *Exh. NG-ESMP-1, at Section 3.5;*
- *Exh. UN-ESMP-1, at Section 3.*

R-44. Investments in and load impacts on the distribution system unavoidably have an impact on the transmission system. The ESMPs should clarify whether there are any transmission system upgrades included in the plans and, if so, should include timelines and cost estimates for those investments. For any transmission system upgrades that require additional analysis to identify specific upgrades or cost estimates, the ESMPs should provide a description of the analysis that the EDCs will conduct, the process which the EDC or Transmission Owner will seek approval for such upgrades, and the timeline for the analysis through construction and approval process. The ESMPs should describe how the EDCs have coordinated with ISO-NE and Transmission Owners to identify transmission system upgrades associated with ESMP capital investments and propose a plan for future coordination. To maintain affordability, the ESMPs should encourage greater coordination with ISO-NE and Transmission Owners to identify mechanisms for deferring or avoiding new transmission spending, including using strategically located distributed energy resources, demand response, and other ratemaking mechanisms.

Adopted, but modified. The EDCs will include in their respective ESMPs discussion of transmission level upgrades and costs where identifiable; however, the EDCs are not positioned to provide similar information. For example, Eversource is able to identify transmission upgrades and high-level costs associated with its approved and pending CIP solutions previously filed with the Department, but Unitil neither has a CIP project nor owns any transmission for which it could independently develop estimates of transmission level costs. National Grid notes that the associated transmission system investments will be made by the Company's transmission affiliate and operator, New England Power Company (NEP), and descriptions of the associated transmission components for its ESMP investments are included where applicable. Moreover, transmission level costs for the majority of the investments proposed by the EDCs

have simply not yet been identified given the stage of development of these projects. The Clean Energy Transmission Working Group (CETWG) December 2023 Report to the Legislature discusses how transmission is planned, how it is paid for, the benefits it provides to the electric grid and to the consumers that fund it, and impediments to transmission development. The Report recommends actions at the federal, regional, and state levels in connection with transmission infrastructure.

Please see:

- *Exh. ES-ESMP-1, at Section 6.7;*
- *Exh. NG-ESMP-1, at Section 6.4.2.7;*
- *Exh. UN-ESMP-1, at Section 6.4.*

R-45. When discussing the benefits of the ESMPs and of specific investments, the ESMPs should make clear the extent to which the delivery of such benefits depends upon and/or assumes the construction of associated transmission upgrades.

Adopted, but modified. Where incremental ESMP investments rely on transmission upgrades, this is noted in the net benefit assessment. For example, the ESMP investments will help ensure that customer adoption is not delayed or otherwise hindered by the ability of the distribution system to serve customers safely, reliably, and affordably during the Commonwealth's clean energy transition. While the ESMP investments in network upgrades and CIPs aim to alleviate capacity constraints for the future electrification of transportation and buildings, transmission upgrades may also be needed to support capacity upgrades. Please see:

- *Exh. ES-Net Benefits-1, and related exhibits referenced therein;*
- *Exh. NG-Net Benefits-1, and related exhibits referenced therein;*
- *Exh. UN-Net Benefits-1, and related exhibits referenced therein.*

R-46. The EDCs should strive to use consistent terminology, methods, assumptions, and presentation formats across all three ESMPs.

Adopted, but modified. The EDCs will consider this recommendation for ESMP Section 6 for implementation in the next ESMP cycle and will attempt to implement this recommendation to the extent feasible in the next ESMP. However, for the current ESMP there is insufficient time between receipt of this recommendation and filing with the Department to achieve the degree of coordination and refinement necessary for the three EDCs to present their 5- and 10-year solutions using the exact same format, methodology, and assumptions. The EDCs have achieved considerable alignment in Section 6 to date.

R-47. The ESMPs should clearly identify and describe which investments have been approved by the DPU, are pending before the DPU, or are newly proposed. For those investments that are not newly proposed, the ESMPs should identify which investments are already approved by the DPU, and which

investments (and in what quantity) are either under review in a current proceeding, or about to be under review in a forthcoming proceeding.

Adopted. Please see the EDCs' response to GMAC-Recommendation-2.

R-48. The ESMPs should propose a process to expand GMAC and general stakeholder participation to allow stakeholders to provide input before and during the development of the next ESMP, instead of providing input only after the ESMP is developed.

Adopted, but modified. The EDCs will consider this recommendation for ESMP Section 6 for implementation in the next ESMP cycle, as the proposed process should occur in the early stages of ESMP development. The EDCs note that this recommendation is in addition to existing commitments to improve stakeholder participation on individual projects.

Section 7: 5-Year Electric Sector Plan

Table 7. Summary of EDC Disposition to 5-Year Electric Sector Plan Recommendations

Recommendations	EDC Disposition	References
R-49. Direct Mapping of Proposed Investments to Benefits and Costs	Adopted, but modified	Exhibits ES-Net Benefits-1_2_3_5, GMAC Recommendations, pages 1 and 6 Exh. ES-Net Benefits-3; Exh. NG-Net Benefits-3; Exh. UN-Net Benefits-3.
R-50. Standardized Approaches	Adopted, but modified	Exhibits ES-Net Benefits-1_2_3_5, GMAC Recommendations, pages 1 and 7
R-51. Rigor in GHG Emission Reduction Benefits	Adopted	Exhibits ES-Net Benefits-1_2_3_5, GMAC Recommendations, pages 2 and 8 Exh. ES-Net Benefits-3; Exh. NG-Net Benefits-3; Exh. UN-Net Benefits-3
R-52. Standardized Process for Solution Prioritization and Selection	Rejected	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 9 and 44
R-53. Differentiate Near- from Long-Term Needs	Adopted	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 10 and 45 Exh. ES-ESMP-1, at Sections 6.5.1, 6.6.1, 6.7.1, and 6.8.1 Exh. NG-ESMP-1, at Sections_6.4.2 and 7.1.1 Exh. UN-ESMP-1, at Section 7.1
R-54. Cost Recovery of Investments	Adopted	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 10 and 46 Exh. ES-Bill Impacts-1; Exh. NG-ESMP-1, at Section 7.1; Exhs. UN-ESMP-1, at Section 7.1 and UN-Bill Impacts-1
R-55. Federal Grant Proposals and Awarded Funding	Adopted	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 10 and 47 Exhs. ES-ESMP-1, NG-ESMP-1 and UN-ESMP-1 at Section 7.1.2

R-49. The EDCs should provide a direct mapping of the proposed investments to benefits and costs. The EDCs could consider including a table with columns on investment area, specified proposed investment/projects, costs of the projects, expected benefits, and a quantification of those benefits.

Adopted, but modified. The EDCs have incorporated a mapping of their proposed investments to net benefits and costs in the Net Benefits Analysis Report exhibit within their respective net benefits testimonies. Please see:

- *Exh. ES-Net Benefits-3;*
- *Exh. NG-Net Benefits-3;*
- *Exh. UN-Net Benefits-3.*

R-50. The EDCs should standardize approaches across utilities for presenting key elements of the ESMPs, such as quantitative and monetary projections of benefits, projections of revenue requirements (customer cost), projections of GHG emissions and compliance with emission targets, and acceptable levels of risk underlying the incremental, newly proposed investments, etc.

Adopted, but modified. The EDCs will consider this recommendation for ESMP Section 7 for implementation in the next ESMP cycle. Notwithstanding, the EDCs took a joint approach towards many aspects of this ESMP to drive more standardization in the way that information is presented within the filing, including the net benefits analysis. The EDCs hired West Monroe to drive a common approach to the net benefit analysis so that the Department of Public Utilities, GMAC participants, and all other reviewers with interests across the Commonwealth can review the net benefits associated with each Company's proposed investments similarly across all EDCs. While differences exist between the EDCs with respect to their proposed incremental ESMP investments, the outputs of the ESMP and the net benefits analysis have been standardized to the extent possible, and the EDCs will collectively work towards more standardization in future ESMP cycles.

R-51. The ESMPs should provide additional detail and rigor regarding GHG emission reduction benefits, including:

a. The incremental GHG impacts (in tons, by year) of the incremental investments, and

b. How those incremental GHG impacts will help the EDCs meet the EDC's GHG emissions reduction targets (in tons, by year).

Adopted.

a. The incremental GHG reduction by year as a result of the incremental ESMP investments are shown in:

- *Exh. ES-Net Benefits-3;*
- *Exh. NG-Net Benefits-3;*
- *Exh. UN-Net Benefits-3.*

b. The GHG emission reduction benefits are a significant part of the net benefits analysis, and a driving force behind the proposed incremental ESMP investments. The net benefits analysis contained within the Net Benefits testimony and associated exhibits provides details around GHG reduction benefits, which are primarily derived from enablement of electrification of heat and transportation, and the increase in hosting capacity to connect new solar. The net benefit analysis assumes customer adoption of clean energy solution following the implementation of incremental investments, in line with adoption rates.

R-52. The EDCs should propose a standardized process for solution prioritization, selection, and investment-deferral decisions. Further, the EDCs should develop and codify standardized processes for engaging with stakeholders throughout the investment decision-making process.

Rejected. The EDCs are different companies with different organizational structures and different decision-making methodologies. Notwithstanding, the EDCs are committed to engaging with stakeholders through their proposed CESAG and equity framework processes.

R-53. The ESMPs should clearly distinguish between investments proposed for near-term needs (load growth, DER growth, reliability/resilience) and investments proposed in anticipation of future needs. The nearer term the need, the more specific the data an ESMP should include to substantiate the need (location-specific load forecasts, DER forecasts, or historical reliability reporting metrics, as examples).

Adopted. Please see:

- *Exh. ES-ESMP-1, at Sections 6.5.1, 6.6.1, 6.7.1, and 6.8.1;*
- *Exh. NG-ESMP-1, at Sections_6.4.2 and 7.1.1;*
- *Exh. UN-ESMP-1, at Section 7.1.*

R-54. The EDCs should make updates to their investment summaries to improve clarity of and increase standardization across their investment proposals. The EDCs should clearly identify the investments in the 5-year plan that have been approved by the DPU, are pending before the DPU, or are newly proposed investments. For any investments that an EDC plans to seek cost recovery through a mechanism in an approved, pending, or forthcoming rate case, the EDC should clearly identify the mechanism through which the company plans to seek cost recovery. For any investments that an EDC plans to seek cost recovery through a mechanism in a pending or forthcoming proceeding other than a rate case or ESMP proceeding, the EDC should identify the proceeding and describe the mechanism.

Adopted. Please see the EDCs' response to GMAC-Recommendation-2.

For descriptions of proposed cost recovery, please also see:

- *Exh. ES-Bill Impacts-1;*
- *Exh. NG-ESMP-1, at Section 7.1;*
- *Exhs. UN-ESMP-1, at Section 7.1 and UN-Bill Impacts-1*

R-55. The ESMPs should clearly explain whether and how federal grant proposals and awarded federal funding will impact or offset proposed investments that would otherwise have been borne by ratepayers. The ESMPs should describe if the proposed federal funding projects are in addition or incremental to what would otherwise have been planned and/or needed through the ESMP.

Adopted. Please see:

- *Exh. ES-ESMP-1, at Section 7.1.2;*
- *Exh. NG-ESMP-1, at Section 7.1.2;*
- *Exh. UN-ESMP-1, at Section 7.1.2.*

Section 8: 2035–2050 Policy Drivers: Electric Demand Assessment

Table 8. Summary of EDC Disposition to Electric Demand Assessment Recommendations

Recommendations	EDC Disposition	References
R-56. Consistent Assumptions for Demand Assessment	Adopted, but modified	Exhibits ES-Forecast-1_2, GMAC Recommendations, pages 3 and 14 Exhs. ES-ESMP-1, at Section 8.1, and ES-Forecast-1; Exhs. NG-ESMP-1, at Sections 8.0 and 8.1, and NG-Forecast-1; Exhs. UN-ESMP-1, at Sections 8.1, 8.2, 8.3, and 8.4, and UN-Forecast-1.
R-57. Integration of 10-year and Long-Term Forecasts	Adopted	Exhibits ES-Forecast-1_2, GMAC Recommendations, pages 3 and 15 Exhs. ES-ESMP-1, at Sections 5.0 and 8.0, and ES-Forecast-1; Exhs. NG-ESMP-1, at Section 8.0, and NG-Forecast-1; Exhs. UN-ESMP-1, at Section 8.0, and UN-Forecast-1.
R-58. Long-Term Demand Assessment Sensitivities	Adopted, but modified	Exhibits ES-Forecast-1_2, GMAC Recommendations, pages 3 and 16 Exhs. ES-ESMP-1, at Sections 5.0, 8.0, 8.2, 8.3, 8.4, 9.2 and 9.4; and ES-Forecast-1; Exhs. NG-ESMP-1, at Sections 5.1, 8.0, 8.1, 8.2, 8.3, 8.4 and NG-Forecast-1; Exhs. UN-ESMP-1, at Sections 5.1, 8.0, 8.1, 8.2, 8.3, and 8.4; and UN-Forecast-1.
R-59. Accounting for Decarbonization Goals in Demand Assessment	Adopted, but modified	Exhibits ES-Forecast-1_2, GMAC Recommendations, pages 3 and 17 Exhs. ES-ESMP-1, at Section 8.1, and ES-Forecast-1; Exhs. NG-ESMP-1, at Sections 5.1, 8.0, 8.1 and NG-Forecast-1; Exhs. UN-ESMP-1, at Sections 5.0, 8.0, and 8.1; and UN-Forecast-1.
R-60. Information on Winter Peak Load Projections	Adopted	Exhibits ES-Forecast-1_2, GMAC Recommendations, pages 4 and 18 Exhs. ES-ESMP-1, at Sections 5.0, 5.1.8, 5.2.8, 5.3.8, 5.4.8, 5.5.8, 8.1, 8.2, 9.2, 9.4, and ES-Forecast-1; Exhs. NG-ESMP-1, at Section 8.0, and NG-Forecast-1; Exhs. UN-ESMP-1, at Sections 8.0, 8.1, 8.2, 8.3, and 8.4, and UN-Forecast-1.
R-61. Expand and Develop Demand Management Programs	Adopted	Exhibits ES-Forecast-1_2, GMAC Recommendations, pages 4 and 19 Exh. ES-ESMP-1, at Sections 8.2.4; Exh. NG-ESMP-1, at Section 8.2.4, 8.3.4, 6.4.2.5, 6.5.2 - 6.10.2, and 6.11.2; Exh. UN-ESMP-1, at Section 8.2.4.
R-62. Investments Informed by Long-Term Forecasts	Adopted	Exhibits ES-Forecast-1_2, GMAC Recommendations, pages 4 and 20 Exhs. ES-ESMP-1, at Section 8.0, and ES-Forecast-1 Exhs. NG-ESMP-1, at Sections 8.0, 9.0 and NG-Forecast-1 Exhs. UN-ESMP-1, at Sections 8 and 9, and UN-Forecast-1

R-56. The three ESMPs should aim for standardization through use of consistent baseline data, assumptions, and methods for the long-term electric demand assessment, such as using the same benchmarks and scenarios set forth by the Clean Energy and Climate Plans.

Adopted, but modified. The EDCs already have extensive consistency in their assumptions and base line data where it concerns state policy objectives. The EDCs will consider expanding this consistency to other data sets based on this recommendation for the next ESMP. The EDCs will confer and assess how, to the extent feasible, they can further standardize these categories for the next ESMP. However, there are practical and reasonable reasons for differences in the EDCs' data, assumptions, and methodologies based on the differing regions they service. For a discussion of similarities and differences in data, assumptions and methodologies, please refer to the following:

- *Exhs. ES-ESMP-1, at Section 8.1, and ES-Forecast-1;*

- *Exhs. NG-ESMP-1, at Sections 8.0 and 8.1, and NG-Forecast-1;*
- *Exhs. UN-ESMP-1, at Sections 8.1, 8.2, 8.3, and 8.4, and UN-Forecast-1.*

R-57. The ESMPs should directly integrate their 10-year and long-term forecasts and demonstrate a continuity between the two, or otherwise explain any discontinuity. Forecasts should reflect expectations for how the system will change without unrealistic step changes while still meeting the Commonwealth's climate goals.

Adopted. National Grid and Unitil forecasts are continuous. Eversource differentiates between the 10-year forecast and the long-term assessment because the long-term assessment is not used to authorize capital projects. Given this, the long-term demand assessment allows for a wide variety of different scenarios based on adoption speeds and technologies to be considered. However, this is not the case for the 10-year forecast since Eversource must execute capacity deficiencies immediately to ensure timely completion. The long-term assessment can, on the other hand, be used to evaluate the impact of policy decisions and technology choices on the long-term load peak. With these different objectives of each forecast, the underlying methodologies and data sets are specifically geared and developed to achieve the best results. Please refer to the following for an explanation of those different purposes:

- *Exhs. ES-ESMP-1, at Sections 5.0 and 8.0, and ES-Forecast-1;*
- *Exhs. NG-ESMP-1, at Section 8.0, and NG-Forecast-1;*
- *Exhs. UN-ESMP-1, at Section 8.0, and UN-Forecast-1.*

R-58. The ESMPs should include long-term demand assessment sensitivities, consistent with the sensitivities recommended above for the 5- and 10-year forecasts. All assumptions used in these sensitivities should be clearly explained, and scenarios with more ambitious levels of incremental DERs to mitigate load growth should be evaluated.

Adopted, but modified. The ESMPs provide long-term data assessment sensitivities, but do not include short-term sensitivities. Please refer to the following:

- *Exhs. ES-ESMP-1, at Sections 5.0, 8.0, 8.2, 8.3, 8.4, 9.2 and 9.4; and ES-Forecast-1;*
- *Exhs. NG-ESMP-1, at Sections 5.1, 8.0, 8.1, 8.2, 8.3, 8.4 and NG-Forecast-1;*
- *Exhs. UN-ESMP-1, at Sections 5.1, 8.0, 8.1, 8.2, 8.3, and 8.4; and UN-Forecast-1.*

Please also refer to the EDCs' response to GMAC Recommendation 57.

R-59. The ESMPs should clarify and quantify how state decarbonization goals are accounted for in the long-term demand assessment and to what extent in each EDC territory and demonstrate that across all service territories the goals are accounted for in full. The ESMPs should explain how the EDCs will collaborate to achieve the Commonwealth's 2050 targets.

Adopted, but modified. The ESMPs describe how the Commonwealth decarbonization goals are accounted for in the long-term demand assessments and how the ESMPs support those goals. Further, the Net Benefits testimony and Net Benefits Analysis Report for each EDC discusses the ESMPs in relation to the Commonwealth's climate goals. Please refer to the following for a description of how decarbonization goals are accounted for in the long-term demand assessments:

- *Exhs. ES-ESMP-1, at Section 8.1, and ES-Forecast-1;*
- *Exhs. NG-ESMP-1, at Sections 5.1, 8.0, 8.1 and NG-Forecast-1;*
- *Exhs. UN-ESMP-1, at Sections 5.0, 8.0, and 8.1; and UN-Forecast-1.*

R-60. The ESMPs should include information on winter peak load projections and how to consider them. Achieving the Commonwealth's emissions reduction goals once the grid has shifted to a winter peak will require a granular look at our grid emissions on the coldest nights, when heat pumps are running the hardest, and at their lowest efficiency. The impacts of DERs could have more importance than otherwise expected when focusing on these winter cold peak events.

Adopted. The ESMPs describe the winter peak load projections and considerations. All EDCs expect to be fully winter peaking by the time the 2050 objectives are achieved, and all models show, in detail, the impact of air sourced heat pumps on the grid during the coldest of days. Grid emissions as a whole are a function of the ISO-NE bulk fleet at the time, and include achievement of decarbonization goals across all of the New England states and cannot be addressed in the ESMP above the EDCs' role in enabling the targeted DER capacities, which all EDCs have shown.

Please refer to the following:

- *Exhs. ES-ESMP-1, at Sections 5.0 and 8.1 for achieving emissions reduction by following the state objectives and Sections 5.1.8, 5.2.8, 5.3.8, 5.4.8, 5.5.8, 8.2, and 9.2 and 9.4 for impacts of heating electrification; and ES-Forecast-1;*
- *Exhs. NG-ESMP-1, at Section 8.0, and NG-Forecast-1;*
- *Exhs. UN-ESMP-1, at Sections 8.0, 8.1, 8.2, 8.3, and 8.4, and UN-Forecast-1.*

R-61. The ESMPs should explicitly state the detailed steps and timeline to expand and develop demand management programs to reduce peak load.

Adopted. As described in additional detail in the ESMPs, the EDCs already have robust demand management programs under the Mass Save program. The Mass Save Program Administrators are continually revising and improving those programs, including adding measures and refining dispatch strategies to maximize grid benefits. The EDCs anticipate continuing to leverage the Mass Save programs to support grid needs. The EDCs account for the load-reducing impact of energy efficiency and demand response programs in the electric load forecasts that they use to plan necessary infrastructure upgrades. This has helped offset investment because the EDCs already rely upon significant load reductions from those programs. For a description of the demand management programs, please refer to the following:

- *Exh. ES-ESMP-1, at Sections 8.2.4;*
- *Exh. NG-ESMP-1, at Section 8.2.4, 8.3.4, 6.4.2.5, 6.5.2 - 6.10.2, and 6.11.2;*
- *Exh. UN-ESMP-1, at Section 8.2.4.*

R-62. The ESMPs should clearly articulate how the long-term load forecasts inform the need for investments in both the short and long term.

Adopted. The EDCs added additional detail on how the long-term forecasts inform the need for investments in both the short and long term. Please refer to the following:

- *Exhs. ES-ESMP-1, at Section 8.0, and ES-Forecast-1*
- *Exhs. NG-ESMP-1, at Sections 8.0, 9.0 and NG-Forecast-1*
- *Exhs. UN-ESMP-1, at Sections 8 and 9, and UN-Forecast-1*

Section 9: 2035–2050 Solution Set – Building a Decarbonized Future

Table 9. Summary of EDC Disposition to Building a Decarbonized Future Recommendations

Recommendations	EDC Disposition	References
R-63. DER Effectiveness on Winter Peaking Days	Adopted	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 10 and 48 Exh. ES-ESMP-1, at Section 9.4 Exh. NG-ESMP-1, at Section 9.1.1 Exh. UN-ESMP-1, at Section 9.1
R-64. Alternative Options	Adopted	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 11 and 49 Exh. ES-ESMP-1, at Section 9.5 Exh. NG-ESMP-1, at Sections 9.5 and 7.1.2 Exh. UN-ESMP-1, at Sections 9.2 and 9.3

R-63. Given that the EDCs predict that they will switch to winter peaking, the ESMPs should identify and emphasize DERs that are most effective at reducing winter peak demands on the coldest days.

Adopted. The EDCs incorporated additional discussion of the switch to winter peaking electric distribution systems and identify and emphasize DERs that are most effective at reducing winter peak demands on the coldest days in their ESMP Section 9 narratives. The EDCs discuss how infrastructure need can be minimized by different technologies that may be incentivized for use.

Please see:

- *Exh. ES-ESMP-1, at Section 9.4;*
- *Exh. NG-ESMP-1, at Section 9.1.1;*
- *Exh. UN-ESMP-1, at Section 9.1.*

R-64. The ESMPs should consider alternative options to long-term capital spending similar to the consideration of options for the 5- and 10-year planning solutions. This should include EDC investment in and support of incremental DERs.

Adopted. The EDCs will incorporate additional discussion of alternative options to long-term capital spending into their ESMP Section 9 narratives on 2035-2050 solution sets, including investment in and support of incremental DERs. Please see:

- *Exh. ES-ESMP-1, at Section 9.5;*
- *Exh. NG-ESMP-1, at Sections 9.5 and 7.1.2;*
- *Exh. UN-ESMP-1, at Sections 9.2 and 9.3.*

Section 10: Reliable and Resilient Distribution System

Table 10. Summary of EDC Disposition to Reliable and Resilience Distribution System Recommendations

Recommendations	EDC Disposition	References
R-65. Publicize Climate Vulnerability Assessments	Adopted	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 11 and 50 Exh. ES-ESMP-1, at Section 10.1 Exh. NG-ESMP-1, at Sections 10.2, 10.4, and 10.5 Exh. UN-ESMP-1, at Section 10.4
R-66. Standardize Climate Change Risk and Planning Tools and Forecasting	Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 11 and 51
R-67. Resilience Priorities and Measures	Adopted	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, page 11 and 52 Exh. ES-ESMP-1, at Sections 10.3 and 10.5 Exh. UN-ESMP-1, at Section 10.3
R-68. Quantitative Justification for Reliability and Resilience Investments	Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 11 and 53 Exhibits ES-Net Benefits-1_2_3_5, GMAC Recommendations, pages 2 and 9 Exhs. ES-ESMP-1 and UN-ESMP-1, at Section 10.3 Exhibits ES-Net Benefits-1, NG-Net Benefits-1, UN-Net-Benefits-1, and related exhibits referenced therein
R-69. Incorporation of Heat Island Modeling into Plans	Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 11 and 54

R-65. The EDCs should make their climate vulnerability assessments public. If the climate vulnerability assessments are not complete, the ESMPs should describe the expected timeline, date of completion, and method by which they will notify stakeholders of the finished assessments.

Adopted. The EDCs will make their climate vulnerability assessments public when they are completed, and the EDCs will incorporate into their ESMP Section 10 narratives additional discussion of the expected

timeline for completion, date of completion, and method by which the EDCs will notify stakeholders of the finished assessments. Please see:

- *Exh. ES-ESMP-1, at Section 10.1;*
- *Exh. NG-ESMP-1, at Sections 10.2, 10.4, and 10.5;*
- *Exh. UN-ESMP-1, at Section 10.4.*

D.P.U. 24-10 Addendum: Eversource provides additional discussion of and maps from their climate vulnerability assessment in ESMP Section 10.4. Eversource will provide an update to the GMAC when its climate vulnerability assessment becomes public.

D.P.U. 24-11 Addendum: National Grid notes that its climate vulnerability assessment is under development and expects it will be completed by the end of 2024.

D.P.U. 24-12 Addendum: Unitil provides additional discussion from their climate vulnerability assessment work in ESMP Section 10.4. The work completed by Unitil to date is the first step in a detailed process for evaluating the effect climate change may have on the electric system. The Company is still evaluating the resources and timeframe required to address all aspects of a climate vulnerability plan. The Company provides public information on its climate vulnerability assessment in its annual sustainability report.

R-66. The EDCs should standardize their climate change risk and planning tools, as well as forecasting windows and parameters.

Adopted, but modified. The EDCs will consider this recommendation for ESMP Section 10 for implementation in the next ESMP cycle. It will not be feasible to standardize climate change risk and planning tools, as well as climate change forecasting windows and parameters, for this ESMP cycle. However, the EDCs will commit to considering this recommendation for the next ESMP cycle. The EDCs may establish a working group to further the discussion and coordination between the EDCs on the possibility of developing a standardized climate change risk methodology.

R-67. The ESMPs should include more details on their ongoing and proposed resilience priorities and climate adaptation measures, including the cost estimates of their resilience investments.

This recommendation for ESMP Section 10 has been adopted by Eversource and Unitil and rejected by National Grid. Eversource and Unitil incorporate additional discussion of their ongoing and proposed resilience priorities and climate adaptation measures into their ESMP Section 10 narrative. Please see:

- *Exh. ES-ESMP-1, at Sections 10.3 and 10.5;*
- *Exh. UN-ESMP-1, at Section 10.3.*

D.P.U. 24-11 Addendum: Rejected. National Grid has not requested incremental funding for resiliency investments through its ESMP. Further, National Grid has already included substantial information in its ESMP Section 10 narrative regarding its ongoing and proposed resilience priorities and climate adaptation measures. If National Grid requests incremental funding for resiliency investments through its

ESMP in a future ESMP cycle, it will consider the need to provide additional detail and cost estimates for such proposed investments.

R-68. The ESMPs should justify incremental, newly proposed reliability and resilience investments using quantitative data such as improvements to SAIDI/SAIFI, as well as using benefit-cost analyses.25 The ESMPs should describe how the EDCs are coordinating their climate vulnerability assessments and their approaches for managing climate vulnerability.

Adopted, but modified. This recommendation for ESMP Section 10 has been accepted in part by Eversource, National Grid, and Unitil to different extents. Regarding the first part of the recommendation, Eversource and Unitil will incorporate discussion of their work to quantify impacts on reliability metrics across the suite of ESMP investments into their respective ESMP Section 10 narratives. Please see:

- *Exh. ES-ESMP-1, at Section 10.3;*
- *Exh. UN-ESMP-1, at Section 10.3.*

Quantitative net benefits resulting from reliability and resilience investments are captured as part of the net benefits analysis. Please see:

- *Exhibit ES-Net Benefits-1, and related exhibits referenced therein;*
- *Exhibit NG-Net Benefits-1, and related exhibits referenced therein;*
- *Exhibit UN-Net Benefits-1, and related exhibits referenced therein.*

Additionally, regarding the second part of the recommendation, Eversource, National Grid, and Unitil will coordinate on approaches to managing climate vulnerability. The EDCs expect this coordination may result in more consistent approaches to addressing climate vulnerability issues in the next ESMP cycle.

D.P.U. 24-11 Addendum: National Grid has not requested incremental funding for reliability and resiliency investments through this ESMP, as those are considered core investments and are part of the recent rate case filing in D.P.U. 23-150. Further, National Grid is not able to quantify improvements to reliability metrics from individual investments.

R-69. The EDCs should incorporate local and regional heat island modeling into the plans and use this to inform near- and long-term action.

Adopted, but modified. The EDCs will consider this recommendation for ESMP Section 10 for implementation in the next ESMP cycle. For the current ESMP, there is insufficient time between receipt of this recommendation and filing with the Department to conduct heat island modeling and consider how it could be used to inform the plans.

D.P.U. 24-11 Addendum: While National Grid does not directly address heat islands in this ESMP, it does discuss forecasted temperature increase and subsequent impact on equipment ratings. National Grid would like to align with the other EDCs on the use of future ambient temperature increases in future load

forecasting, and coordinate with the other EDCs on how heat island modeling may be implemented for future ESMP cycles. Pursuing alignment between the EDCs on this issue would be consistent with other GMAC recommendations suggesting consistency in methodology and presentation is important for the ESMPs.

Section 11: Integrated Gas-Electric Planning

Table 11. Summary of EDC Disposition to Integrated Gas-Electric Planning Recommendations

Recommendations	EDC Disposition	References
R-70. Transition Details	Rejected	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 12 and 55
R-71. Integrated Energy Planning Details	Rejected	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 12 and 56
R-72. Joint Utility Planning Working Group	Adopted, but modified	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 12 and 57
R-73. Gas Utility Rate Impacts on Electric Customers	Rejected	Exhibits ES-Bill Impacts-1_2, GMAC Recommendations, pages 2 and 8
R-74. Costs and Benefits to Gas Utility	Rejected	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 12 and 58 Exhibits ES-Net Benefits-1_2_3_5, GMAC Recommendations, pages 2 and 10 Exhibits ES-Net Benefits-1, NG-Net Benefits-1, UN-Net-Benefits-1, and related exhibits referenced therein
R-75. Integrated Energy Planning Compliance with Climate Act and CECP	Rejected	Exhibits ES-Policy Solutions-1_2, GMAC Recommendations, pages 12 and 59 Exhibits ES-Forecast-1_2, GMAC Recommendations, pages 4 and 21
R-76. Reduction of GHG emissions from both the Electricity and Gas Industries Compliance with Climate Act	Adopted, but modified	Exhibits ES-Net Benefits-1_2_3_5, GMAC Recommendations, pages 2 and 11

R-70. The ESMPs should detail how the transition from gas to electric will be coordinated, detail how and where the systems overlap, and identify recommendations for how the transition should occur, ideally down to the street-by-street level.

Rejected. The Department has recently addressed coordinated planning between gas and electric utilities in its D.P.U. 20-80-B Order, addressing the role of gas local distribution companies ("LDCs") as the Commonwealth achieves its target 2050 climate goals. The Department noted that, going forward, evaluation of any proposed gas investments will have to take place in the context of joint electric and gas system planning. D.P.U. 20-80-B at 131. The Department emphasized that joint electric and gas utility planning must occur in a broad stakeholder context so that the LDCs and electric distribution companies exclusively are not defining the process and outcome. Id. Further, the Department stated that the LDCs and electric distribution companies should consult with stakeholders regarding such a joint planning

process that, while it is not Department led, may lead to proposals for Department review. Id. at 131-132.

To this end, the electric distribution companies propose in Section 11 of their ESMPs to start a gas and electric coordinated planning working group with representatives from the different Commonwealth electric and gas utilities as well as key stakeholders. Moreover, Section 11 describes some of the scope and objectives for this working group, in alignment with the Department's directives described above.

Furthermore, Eversource is offering an initial proposal for a coordinated integrated energy planning approach for discussion with stakeholders over the coming months, both in its ESMP docket and forums to be proposed by Eversource related to the Department's guidance in D.P.U. 20-80-B. Please see Section 11 of Exhibit ES-ESMP-1 to review this proposal.

R-71. The ESMPs should provide more details regarding how integrated energy planning will be undertaken in the future.

Rejected. Please see the EDCs' response to GMAC Recommendation 70.

R-72. The Joint Utility Planning Working Group should focus on short- and long-term capital investment plans for both electric and gas utilities.

Adopted, but modified. Please see the EDCs' response to GMAC Recommendation 70. The Joint Utility Planning Working Group will focus on a broad set of issues associated with integrated planning, including, but not limited to, short- and long-term capital investment plans for electric and gas companies.

R-73. When estimating how proposed investments will impact rates, the ESMPs should account for the rate impacts on gas utility customers as well as electric customers, as gas utility impacts are inextricably linked to electric utility investments and rate impacts.

Rejected. The EDCs are providing traditional bill impact analyses with their ESMPs, focused on the bill impacts of their respective incremental ESMP investments on electric customers, holding other variables equal. Although gas utilities' bill impacts on their customers are an important consideration for gas utilities, they are outside the scope of the EDCs' ESMPs.

R-74. When estimating net benefits from proposed investments, the ESMPs should account for the costs and benefits to gas utility customers.

Rejected. The EDCs have presented their respective Net Benefits analyses here:

- *Exhibit ES-Net Benefits-1, and related exhibits referenced therein;*
- *Exhibit NG-Net Benefits-1, and related exhibits referenced therein;*
- *Exhibit UN-Net Benefits-1, and related exhibits referenced therein.*

The ESMPs are statutorily focused on proactive electric distribution (and, where applicable, transmission) investments. Over time, as integrated planning becomes more mature, the EDCs may be able to provide information grounded in practice and experience regarding the potential benefits of incremental ESMP investments on gas utility customers, but such information is not available for the 2025-2029 ESMP term.

R-75. The ESMPs should provide more detail on how integrated energy planning will be used to comply with the Climate Act and align with the forecasts in the Clean Energy and Climate Plan.

Rejected. Please see the EDCs' response to GMAC Recommendation 70.

R-76. The ESMPs should describe how the proposed ESMP investments will affect the reduction of GHG emissions from both the electricity and gas industries, and how these emission levels will meet the requirements of the Climate Act.

Adopted, but modified. As part of the EDCs' net benefits analyses, the EDCs' consultant discusses how ESMP investments are influencing the reduction of GHG emissions, specifically those that enable electric vehicles and electric heat pumps. The GHG emissions reduction benefits are captured as a monetized benefit via the societal cost of carbon, as well as non-monetized, quantified benefit with the net GHG emission reductions. The following exhibits address GHG emission reduction benefits that are associated with each EDC's proposed ESMP investments:

- *Exh. ES-Net Benefits-1, and related exhibits referenced therein;*
- *Exh. NG-Net Benefits-1, and related exhibits referenced therein;*
- *Exh. UN-Net Benefits-1, and related exhibits referenced therein.*

However, the EDCs are not calculating GHG emission reductions related to gas infrastructure. The ESMPs are statutorily focused on proactive electric distribution (and, where applicable, transmission) investments. Over time, as integrated planning becomes more mature, the EDCs may be able to provide information grounded in practice and experience regarding the potential GHG reduction benefits of incremental ESMP investments on gas utility customers, but such information is not available for the 2025-2029 ESMP term.

Section 12: Workforce, Economic, and Health Benefits

Table 12. Summary of EDC Disposition to Workforce, Economic, and Health Benefits Recommendations

Recommendations	EDC Disposition	References
R-77. Incremental Impacts on Workforce, Jobs, GHG Emissions, and Health	Adopted, but modified	Exhibits ES-Net Benefits-1_2_3_5, GMAC Recommendations, pages 2 and 12
R-78. Integrate Workforce Benefits and Jobs in Macroeconomic Benefits	Adopted	Exhibits ES-Net Benefits-1_2_3_5, GMAC Recommendations, pages 2 and 13 Exh. ES-ESMP-1, at Section 12.4; Exh. NG-ESMP-1, at Section 12.4; Exh. UN-ESMP-1, at Section 12.4
R-79. Net Macroeconomic Impacts	Rejected	Exhibits ES-Net Benefits-1_2_3_5, GMAC Recommendations, pages 3 and 14
R-80. Workforce Benefits	Adopted, but modified	Exhibits ES-Metrics-1_2, GMAC Recommendations, pages 1, 5, and 6 Exhibits ES-Stakeholder-1_2_3_4, GMAC Recommendations, pages 3, 16, and 17 Exhs. ES-ESMP-1, NG-ESMP-1, and UN-ESMP-1 at Section 12.2 Exh. ES-ESMP-1 at Sections 12.2 and 12.3 Exh. NG-ESMP-1 at Section 12.3 Exh. UN-ESMP-1 at Section 12.2

R-77. The EDCs should specifically present the incremental impacts of their proposals on workforce, jobs, GHG emissions, and health, as well as how such investments will help the EDCs meet the state's GHG emissions reduction targets. This requires, at least, presenting one scenario with the proposed investments and one without.

Adopted, but modified. As part of the net benefits analysis, the EDCs have presented net benefits analysis across these benefit categories, both quantitatively and qualitatively. However, the EDCs are not analyzing the net benefits of the scenario without the proposed investments, as the evaluation of the ESMP benefits should focus on the incremental benefits that are provided as part of the proposed portfolio of investments. If the Department accepts the portfolio of proposed ESMP investments, the EDCs estimate the associated net benefits. Conversely, if the ESMP investments are rejected, then there will be no associated net benefits to further the Commonwealth's climate goals. Please refer to:

- *Exh. ES-Net Benefits-1, and related exhibits referenced therein;*
- *Exh. NG-Net Benefits-1, and related exhibits referenced therein;*
- *Exh. UN-Net Benefits-1, and related exhibits referenced therein.*

R-78. The ESMPs should better integrate the discussion of workforce benefits with the estimates of job creation in the macroeconomic analysis.

Adopted. The EDCs attempted to better integrate workforce benefits with the estimates of job creation in the macroeconomic analysis. Please refer to:

- *Exh. ES-ESMP-1, at Section 12.4;*
- *Exh. NG-ESMP-1, at Section 12.4;*
- *Exh. UN-ESMP-1, at Section 12.4.*

R-79. The analysis of macroeconomic impacts in the ESMPs should be a net analysis that accounts for job losses as well as job gains. It should also account for the macroeconomic effects of changes to electric and gas utility rates.

Rejected. In the first draft of the ESMP, the EDCs utilized the U.S. Department of Commerce Bureau of Economic Analysis RIMS II tool to estimate the impacts of total ESMP planned capital spending for jobs in the region. The current ESMP includes the impacts on jobs from the total planned and the incremental ESMP spending. The EDCs will not be calculating job loss impacts as it is out of scope for the ESMP.

R-80. Regarding workforce benefits, the ESMPs should:

a. Include reporting metrics related to the training programs, ideally aligned with those produced by the Equity Working Group,

b. Identify specific strategies to address the lack of diversity in the energy sector, c. Specify which types of jobs are expected to grow because of the ESMP, as well as what existing workers will be supported to transition to new jobs,

c. Establish a unified approach to a statewide workforce plan,

d. Include a workforce organization chart in the ESMP, and

e. Leverage existing resources and infrastructure to integrate clean tech education, curriculum, and opportunities.

Adopted, but modified.

a. Please refer to the EDCs' response to GMAC Recommendation 8.

b. The EDCs adopt this recommendation.

Eversource will continue to address diversity in the energy sector with strategies highlighted in Exh. ES-ESMP-1 at Sections 12.2 and 12.3, which include developing a robust pipeline of electric distribution and clean energy workers.

National Grid will continue to progress the strategic workforce development efforts outlined in its ESMP to build a pipeline of diverse talent from underrepresented and historically marginalized communities. Please refer to Exh. NG-ESMP-1 at Section 12.3.

Unitil describes its strategies in Exh. UN-ESMP-1 at Section 12.3. Unitil's talent acquisition team continues to identify opportunities to improve the lack of diversity in our company.

c. The EDCs adopt this recommendation. Please refer to:

- *Exh. ES-ESMP-1 at Section 12.2;*
- *Exh. NG-ESMP-1 at Section 12.2;*
- *Exh. UN-ESMP-1 at Section 12.2.*

d. *The EDCs will review this recommendation and will consider it for future ESMPs. However, the EDCs have their own respective workforce needs and constructs to their employment agreements, so a unified approach may not be feasible.*

e. *Rejected. Each EDC's organizational charts are extensive and not readily adaptable for inclusion in their respective ESMP. There is not a single organizational chart that can cover the individuals engaged in the ESMP or cover all aspects of the company from regulatory (filing and cost recovery), operations (construction, operations and maintenance), engineering (planning and design), accounting (cost records), procurement (equipment purchasing and contracting), information technology (cyber security, data and integration), customer relations (education and outreach), and human resources (recruiting, training and retention) to name a few.*

f. *The EDCs adopt this recommendation. Please refer to:*

- *Exh. ES-ESMP-1 at Sections 12.2 and 12.3;*
- *Exh. NG-ESMP-1 at Section 12.3;*
- *Exh. UN-ESMP-1 at Section 12.2.*

Section 13: Conclusion

Table 13. Summary of EDC Disposition to Conclusion Recommendations

Recommendations	EDC Disposition	References
R-81. Additional Reporting Metrics	Adopted, but modified	Exhibits ES-Metrics-1_2, GMAC Recommendations, pages 2 and 7
R-82. Quantification Methods for Metrics	Adopted, but modified	Exhibits ES-Metrics-1_2, GMAC Recommendations, pages 2 and 8
R-83. Measurement of Incremental Impacts	Adopted, but modified	Exhibits ES-Metrics-1_2, GMAC Recommendations, pages 2 and 9
R-84. Detailed Reporting Metrics	Adopted, but modified	Exhibits ES-Metrics-1_2, GMAC Recommendations, pages 2 and 10
R-85. Net Benefits	Rejected (ad); Adopted, but modified (e, f)	Exhibits ES-Net Benefits-1_2_3_5, GMAC Recommendations, pages 3, 15, and 16
R-86. Rate-Impact Analysis	Adopted, but modified	Exhibits ES-Bill Impacts-1_2, GMAC Recommendations, pages 3 and 9
R-87. Benefits for LMI and EJC Customers	Adopted	Exhibits ES-Net Benefits-1_2_3_5, GMAC Recommendations, pages 3 and 17 Exhibit ES-ESMP-1, at Section 7.1.4.3; Exhibit NG-ESMP-1, at Section 7.1.4.3; Exhibit UN-ESMP-1, at Section 7.1.4.3.
R-88. Appendix for Reporting Metrics	Adopted, but modified	Exhibits ES-Metrics-1_2, GMAC Recommendations, pages 2 and 11

R-81. The ESMPs should include additional reporting metrics that are tied to the ESMP proposals, such as achievement dates, improvements to reliability reporting metrics such as SAIDI and SAIFI, increase in DER hosting capacity, GHG emissions reductions, power quality, smart inverter controls, and the use of distributed energy resource management systems (DERMS).

Adopted, but modified. With regard to metrics, the 2022 Climate Act requires an extensive amount of information to be included in an ESMP, but limits the Department's review to seven months from the date an ESMP is filed. Moreover, each EDC is required to submit their ESMP on the same date, further complicating the Department's review of these comprehensive plans in such a limited timeframe. In addition, the 2022 Climate Act, contemplates consideration by the Department of several issues that, standing alone, might require far longer than seven months to review. As such, the review of metrics would be very difficult for the EDCs to develop and for the Department to review and adjudicate in the time period allowed by statute.

However, the EDCs accept the purpose of the recommendation, and propose to work with interested stakeholders to address metrics relating to the EDCs' respective incremental ESMP investments in a future phase of the ESMP dockets. The EDCs have proposed metrics associated with their incremental ESMP investments, as addressed in:

- *Exh. ES-Metrics-1;*

- *Exh. NG-Metrics-1;*
- *Exh. UN-Metrics-1.*

R-82. The reporting metrics proposed in the ESMPs should include specific metrics and quantification methods for determining the incremental impact of proposed investments. For example, the ESMPs should explain in detail how resilience will be measured, how the EDCs will identify which customers benefit, and how GHG emission reductions will be determined.

Adopted, but modified. Please see the EDCs' response to GMAC Recommendation 81.

R-83. The reporting metrics proposed in the ESMPs should identify the incremental impacts of the proposed EDC investments, and should describe how the EDCs will measure those incremental impacts.

Adopted, but modified. Please see the EDCs' response to GMAC Recommendation 81.

R-84. The reporting metrics proposed in the ESMPs should include sufficient detail to enable review and implementation, including definitions. For example, the ESMPs should clearly define "major ESMP infrastructure projects," including the categories in which such investments fall.

Adopted, but modified. Please see the EDCs' response to GMAC Recommendation 81.

R-85. As the EDCs are assessing net benefits for their filing with the DPU:

a. The types of costs and benefits to be included in the net benefits analysis (i.e., the cost-effectiveness "test") should be identified up front. The EDCs should begin with the cost-effectiveness tests used in Massachusetts for energy efficiency, but should also include safety, security, reliability of service, affordability, equity, and reductions in GHG emissions.

b. All benefits and costs should be compared with a reference case that includes all the EDC investments that have already been installed or are in the process of being installed.

c. Alternative cases should be designed to evaluate the net benefits of incremental, newly proposed investment projects, relative to the reference case, and each incremental, newly proposed project should ideally be evaluated and justified on its own merits. These incremental projects should be compared against alternative options, including incremental DERs and NWAs. If it is not practical to evaluate each incremental project, then some projects should be bundled into logical groupings of interrelated projects.

d. The benefits should seek to identify the locational benefits of different siting options within each service territory.

e. Uncertainty can be addressed in benefit-cost analyses (BCAs) by applying sensitivities to those assumptions that are most uncertain and affect the results the most.

f. The ESMPs should identify a discount rate for calculating present-value dollars. The GMAC recommends using a low-risk discount rate, as used for energy efficiency programs in Massachusetts.

Rejected (a- d); Adopted, but modified (e, f).

The EDCs have provided net benefits analysis specific to their incremental ESMP investments here:

- *Exh. ES-Net Benefits-1, and related exhibits referenced therein;*
- *Exh. NG-Net Benefits-1, and related exhibits referenced therein;*
- *Exh. UN-Net Benefits-1, and related exhibits referenced therein.*

The EDCs collectively hired West Monroe to provide a consistent methodology and approach for analyzing the net benefits of their respective incremental ESMP investments. Due to the unique nature of the ESMPs, West Monroe and the EDCs worked diligently to determine the most reasonable and supportable net benefits analysis approach for this ESMP and leveraged industry best practices from several applicable sources for these types of electric utility investments, including the National Standard Practice Manual ("NSPM") and United States Department of Energy's ("DOE") Modern Distribution Grid to build the relevant regulatory cost tests that apply to this proceeding. There have been several recent Department filings in the Commonwealth where the EDCs had prepared and filed cost-benefit models and analyses, such as the grid modernization and AMI implementation plan (D.P.U. 21-81) and 2022-2024 Three-Year Energy Efficiency Plan filings (D.P.U. 21-120 through D.P.U 21-129), as well as many recent grid modernization filings that have been completed in jurisdictions across the country, such as Michigan utilities five-year distribution system plans (U-20147) and the Dominion Energy Virginia grid transformation plan (PUR-2023-00051). To the extent possible, West Monroe performed sensitivities to determine conservative input values and net benefits capture methods that have been utilized, scrutinized, and accepted in past proceedings by the Department, and are shown in the Net Benefits Analysis Report for each EDC:

- *Exhibit ES-Net Benefits-3;*
- *Exhibit NG-Net Benefits-3;*
- *Exhibit UN-Net Benefits-3.*

R-86. The ESMPs should conduct a comprehensive rate-impact analysis to assess how the ESMPs will minimize or mitigate rate impacts. The rate-impact analysis should:

a. Account for incremental costs of infrastructure investments, reduced sales from DERs that reduce electricity load, and increased sales from DERs that increase electricity load,

b. Follow the same structure as the BCA in terms of the definition of the reference case and alternative cases,

c. Follow the same structure of the BCA in terms of alternative cases and incremental investment projects, and

d. Inform decisions on which investments to make and when.

Adopted, but modified. The EDCs have presented their respective bill impact analyses here:

- *Exhibit ES-Bill Impacts-1, and related exhibits referenced therein;*
- *Exhibit NG-Bill Impacts-1, and related exhibits referenced therein;*
- *Exhibit UN-Bill Impacts-1, and related exhibits referenced therein.*

These bill impact analyses address the Department's directive for the EDCs to provide bill impacts across a 1-year, 3-year and 5-year horizon, using traditional Department bill impact methodologies.

R-87. The ESMPs should articulate how benefits will be experienced by LMI and EJC customers relative to other customers.

Adopted. The EDCs have commented on specific EJC and LMI benefits attributable to the EDCs' respective incremental ESMP investments, here:

- *Exhibit ES-ESMP-1, at Section 7.1.4.3;*
- *Exhibit NG-ESMP-1, at Section 7.1.4.3;*
- *Exhibit UN-ESMP-1, at Section 7.1.4.3.*

R-88. The ESMPs should present all reporting metrics in an appendix, including all the equity reporting metrics and all the other ESMP reporting metrics.

Adopted, but modified. Please see the EDCs' response to GMAC Recommendation 81.

Section 14: Equity Working Group Recommendations

Table 14. Summary of EDC Disposition to Equity Working Group Recommendations

Recommendations	EDC Disposition	References
EWG-1. EJ and Equity Metrics	Adopted, but modified	Exhibits ES-Metrics-1_2, GMAC Recommendations, pages 2 and 12 Exhibits ES-Stakeholders-1_2_3_4, GMAC Recommendations, pages 4 and 18
EWG-2. Plainspoken Public-Facing Materials	Adopted, but modified	Exhibits ES-Stakeholders-1_2_3_4, GMAC Recommendations, pages 4 and 19 Exh. ES-ESMP-1, at Section 3.5 Exh. NG-ESMP-1, at Section 3.4 Exh. UN-ESMP-1, at Section 3.4
EWG-3. Consolidate Overlapping Stakeholder Engagement Efforts	Adopted, but modified	Exhibits ES-Stakeholders-1_2_3_4, GMAC Recommendations, page 4 and 20
EWG-4. Early Stakeholder Engagement	Adopted, but modified	Exhibits ES-Stakeholders-1_2_3_4, GMAC Recommendations, page 4 and 21 Exhs. ES-ESMP-1, at Section 3; ES-Stakeholder-1; Exhs. NG-ESMP-1, at Section 3; NG-Stakeholder-1; Exhs. UN-ESMP-1, at Section 3; UN-Stakeholder-1.
EWG-5. Community-Based Organization Representation	Adopted	Exhibits ES-Stakeholders-1_2_3_4, GMAC Recommendations, page 4 and 22 Exhs. ES-ESMP-1, at Section 3.5; ES-Stakeholder-1; Exhs. NG-ESMP-1, at Section 3.5; NG-Stakeholder-1; Exhs. UN-ESMP-1, at Section 3.5; UN-Stakeholder-1.
EWG-6. Equity-Related Data Tracking and Reporting	Adopted, but modified	Exhibits ES-Stakeholders-1_2_3_4, GMAC Recommendations, page 4 and 23
EWG-7. Including EJ Communities in Workforce Development Plans	Adopted, but modified	Exhibits ES-Stakeholders-1_2_3_4, GMAC Recommendations, page 4 and 24 NG-ESMP-1 Section 12.3 ES-ESMP-1 Section 12.2 and Section 12.3 UN-ESMP-1 Sections 12.2 and 12.3
EWG-8. Grid Mod Planning and Environmental Burdens and Benefits	Adopted, but modified	Exhibits ES-Stakeholders-1_2_3_4, GMAC Recommendations, page 5 and 25
EWG-9. Community Benefits Agreements	Adopted, but modified	Exhibits ES-Stakeholders-1_2_3_4, GMAC Recommendations, page 5 and 26 Exhs. ES-ESMP-1, at Section 3.5; ES-Stakeholder-1; Exhs. NG-ESMP-1, at Section 3.5; NG-Stakeholder-1; Exhs. UN-ESMP-1, at Section 3.5; UN-Stakeholder-1.
EWG-10. Rates, Incentives, and Benefits for Customers	Adopted, but modified	Exhibits ES-Stakeholders-1_2_3_4, GMAC Recommendations, page 5 and 27
EWG-11. Priority Access for EJ Communities	Rejected	Exhibits ES-Stakeholders-1_2_3_4, GMAC Recommendations, page 5 and 28
EWG-12. Rectify Differences in Service Quality	Rejected	Exhibits ES-Stakeholders-1_2_3_4, GMAC Recommendations, page 5 and 29

EWG-1. Procedural: Environmental justice and equity metrics should reflect the impact of the work, not just efforts. For example, the utilities offered to track attendance and the number of community

engagement meetings. Metrics should also include how the EDCs responded to customer concerns and which suggestions were implemented.

Adopted, but modified. With regard to metrics, the 2022 Climate Act requires an extensive amount of information to be included in an ESMP, but limits the Department's review to seven months from the date an ESMP is filed. Moreover, each EDC is required to submit their ESMP on the same date, further complicating the Department's review of these comprehensive plans in such a limited timeframe. In addition, the 2022 Climate Act contemplates consideration by the Department of several issues that, standing alone, might require far longer than seven months to review. As such, the review of metrics, would be very difficult for the Department to review and adjudicate in the time period allowed by statute.

However, the EDCs accept the purpose of the recommendation, and propose to work with interested stakeholders to address metrics relating to the EDCs' respective incremental ESMP investments in a future phase of the ESMP dockets. The EDCs have proposed metrics associated with their incremental ESMP investments, as addressed in:

- *Exhibit ES-Metrics-1*
- *Exhibit NG-Metrics-1*
- *Exhibit UN-Metrics-1*

EWG-2. Procedural: All public-facing materials should be reviewed for plainspoken language, visualizations, clarity, transparency, and completeness.

Adopted, but modified. Although the EDCs will strive to review public-facing materials addressing the qualities noted in the recommendation, it is not feasible for all public-facing materials to be reviewed for plainspoken language. Moreover, clarity, transparency and completeness are qualities that are subjective. The EDCs will endeavor to elicit stakeholder feedback regarding specific recommendations improving the breadth of understanding of their respective public-facing ESMP-related materials, in an effort to expand the public's receptivity to the information provided in such materials. This is also one of the objectives of the CESAG.

Please refer to:

- *Exh. ES-ESMP-1, at Section 3.5*
- *Exh. NG-ESMP-1, at Section 3.4*
- *Exh. UN-ESMP-1, at Section 3.4*

EWG-3. Procedural: The EDCs should work to consolidate overlapping stakeholder engagement efforts to maximize the use of participants' time.

Adopted, but modified. The EDCs will work to consolidate stakeholder engagement where such engagement is intended to exchange information that is not specific to any individual EDC. The EDCs will

need to continue to engage stakeholders on a company-specific basis where the effort is intended to engage stakeholders on a company-specific proposal or issue. The CESAG will allow for a structured opportunity for the EDCs and community-based organizations to co-develop a single statewide comprehensive stakeholder engagement framework. This will enable the execution of one cohesive approach to enhanced community outreach.

EWG-4. Procedural: Stakeholder engagement should begin at the very earliest planning stages for all project types that will have impacts on consumers, including, but not limited to, rate impacts, service reliability, construction, disruptions, etc. Specific stakeholder engagement requirements within the ESMP process, including but not limited to adequate community notification, community compensation, and awareness can be referenced in the Advanced Energy Group Grid Modernization Task Force Recommendations.

Adopted, but modified. The EDCs will begin stakeholder engagement earlier in the planning process for specific projects pursued based on Department approval of their respective 2025-2029 ESMP. This engagement will be informed by the CESAG and community-based experts as the EDCs and community-based organizations develop a Community Engagement Framework. Please refer to the following for a discussion on stakeholder engagement:

- *Exhs. ES-ESMP-1, at Section 3; ES-Stakeholder-1;*
- *Exhs. NG-ESMP-1, at Section 3; NG-Stakeholder-1;*
- *Exhs. UN-ESMP-1, at Section 3; UN-Stakeholder-1.*

EWG-5. Procedural: Community-based organizations and community leaders should have representation and leadership within working groups created by the ESMPs (e.g., CESAG).

Adopted. Community-based organizations will have majority representation and co-leadership at CESAG. Please refer to the following for a discussion on CESAG:

- *Exhs. ES-ESMP-1, at Section 3.5; ES-Stakeholder-1;*
- *Exhs. NG-ESMP-1, at Section 3.5; NG-Stakeholder-1;*
- *Exhs. UN-ESMP-1, at Section 3.5; UN-Stakeholder-1.*

EWG-6. Procedural: The EDCs should track and publish baseline equity-related data and continue to provide regular progress updates.

Adopted, but modified. This recommendation is related to metrics. With regard to metrics, the 2022 Climate Act requires an extensive amount of information to be included in an ESMP, but limits the Department's review to seven months from the date an ESMP is filed. Moreover, each EDC is required to submit their ESMP on the same date, further complicating the Department's review of these comprehensive plans in such a limited timeframe. In addition, the 2022 Climate Act contemplates consideration by the Department of several issues that, standing alone, might require far longer than

seven months to review. As such, the review of metrics would be very difficult for the EDCs to develop and for the Department to review and adjudicate in the time period allowed by statute.

However, the EDCs accept the purpose of the recommendation, and propose to work with interested stakeholders to address metrics relating to equity in a future phase of the ESMP dockets. The EDCs have proposed metrics associated with their incremental ESMP investments, as addressed in:

- *Exhibit ES-Metrics-1*
- *Exhibit NG-Metrics-1*
- *Exhibit UN-Metrics-1*

EWG-7. Recognition: The ESMPs should provide detailed workforce development plans to recruit, hire, train, and retain people from disadvantaged communities and EJCs.

Adopted, but modified.

National Grid provided a workforce development strategy in Section 12.3 of the ESMP.

Eversource provides comprehensive workforce and training strategies in Section 12.2 and Section 12.3 of its ESMP.

Unitil provides information on workforce development in ESMP Sections 12.2 and 12.3.

EWG-8. Recognition: The EDCs should publicize linkages between grid modernization planning and overall environmental burdens and benefits, particularly related to environmental impacts that have historically disproportionately affected EJCs and disadvantaged communities. Benefits of grid modernization should include reduced greenhouse gas emissions, improved air quality, improved health outcomes, and reduced excess mortality

Adopted, but modified. The EDCs take all of these factors into account when creating their respective ESMPs. The benefits of grid modernization are included in the net benefits analysis. Please refer to the following:

- *Exh. ES-Net Benefits-1*
- *Exh. NG-Net Benefits-1*
- *Exh. UN-Net Benefits-1*

EWG-9. Recognition: The EDCs should work with local organizations in communities hosting distribution infrastructure to develop the community benefits agreements referenced in the ESMPs. Local collaboration can help ensure the agreements recognize and respond to community concerns.

Adopted, but modified. To ensure that communities that host clean energy infrastructure directly benefit from the infrastructure that is built in their community, a connection between the clean energy infrastructure and specific benefits received for hosting that infrastructure is necessary. Such community

benefits agreements (CBA) can take shape as individual EDCs work with a clean energy host community to develop a community benefits agreement specific to that community. No two communities are created equal. CBAs will be developed and executed on an individual host community basis. As CBAs are developed with host communities, the EDCs will take feedback and lessons learned from that process back to the CESAG to further ensure all EDCs and community-based organizations continue to re-think and formulate new methods and approaches to drive benefits of this just transition across the Commonwealth. Please refer to the following for a discussion of community benefits agreements:

- *Exhs. ES-ESMP-1, at Section 3.5; ES-Stakeholder-1;*
- *Exhs. NG-ESMP-1, at Section 3.5; NG-Stakeholder-1;*
- *Exhs. UN-ESMP-1, at Section 3.5; UN-Stakeholder-1.*

EWG-10. Distributive: Rates, incentives, and benefits associated with grid modernization should be clearly spelled out for consumers along with how to access assistance for customers in arrears. The benefits and requirements for programs which will provide an opportunity for consumers to participate on the grid must also be transparently explained. The ESMPs need to include the net benefits for customers after considering the anticipated costs of grid upgrades to help the GMAC, DPU, and other stakeholders determine what is fair and reasonable. The ESMPs should also include distributional equity analysis plans to understand the impacts and keep energy burdens at a manageable level for customers across all income groups, regardless of whether net benefits are provided

Adopted, but modified. With respect rate redesign and cost allocation methodologies for proactive investments, the 2022 Climate Act requires an extensive amount of information to be included in an ESMP, but limits the Department's review to seven months from the date an ESMP is filed. Moreover, each EDC is required to submit their ESMP on the same date, further complicating the Department's review of these comprehensive plans in such a limited timeframe. In addition, the 2022 Climate Act contemplates consideration by the Department of several issues that, standing alone, might require far longer than seven months to review. As such, a full analysis of rate redesign options, even if able to be developed by the EDCs in time for consideration by the Department in the present ESMP dockets, would be very difficult to review and adjudicate in the time period allowed by statute. The EDCs support addressing rate redesign options and customer energy burdens with stakeholders and the Department in a generic proceeding. Additionally, the EDCs look forward to participating in D.P.U. 24-15, recently opened by the Department. However, the Net Benefit Analysis does include the benefits associated with grid modernization for the proposed ESMP investments. Please see Exhibits ES-Net Benefits-1, NG-Net Benefits-1, and UN-Net Benefits-1 for the net benefit analysis testimony.

EWG-11. Distributive: Disadvantaged communities, EJCs, and LMI customers should have priority access to innovative financing, technology, energy-efficiency upgrades, building weatherization, and electrification adoption

Rejected. Recommendation-EWG-11 is better suited for the Energy Efficiency Advisory Council and the respective three-year energy efficiency plans of the Massachusetts Program Administrators.

EWG-12. Distributive: The EDCs should work to rectify any existing differences in service quality by working with disadvantaged communities and EJCs. The EDCs should also work to rectify anticipated future differences in service quality in communities whose infrastructure is vulnerable to climate change impacts, as identified by the EDCs' climate vulnerability assessments.

Rejected. The EDCs disagree with the premise of this recommendation. Service quality is system-wide and reviewed in separate service quality proceedings. On average, EJCs do not experience worse reliability performance than non-EJCs in the EDCs' service territory.