

# ESMP Technical Deep Dive Discussion

*Session Recap & Summary*

December 12, 2023



## Background and Session Objectives

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*The EDCs have completed two stakeholder workshops focused on understanding the ESMPs, demand forecasts, infrastructure needs, and stakeholder/community engagement plans. An **additional workshop** was requested by the GMAC to conduct a more **technical discussion** on specific aspects of the ESMPs with utility experts. The additional session leveraged the pre-established Technical Standards Review Group (TSRG) meeting hosted on December 7.*

### Session Objectives:

- Discuss the current state of PV and storage **interconnection**, and discuss the EDCs' **infrastructure plans** necessary to enable increased integration of PV, storage, and beneficial electrification
- Provide an overview of the EDCs' **DERMS platform plans** (i.e., scope and pilot projects)
- Discuss EDCs' **NWA framework** and identify **specific locations/scenarios** where NWAs could be beneficial
- Encourage **open dialogue** and **collaboration** between utilities and DG stakeholders regarding specific technical challenges (e.g., interconnection standards, grid stability, and integration of renewable resources)

# Session Topics, Speakers, and Attendees

**Agenda topics** were solicited from GMAC stakeholder representatives to ensure the discussion topic best represented the stakeholder interests...

A neutral third-party provided session **facilitation** and **utility EDC technical experts** collaborated on materials creation and presentation...

The open session attracted **a diverse representation of DG stakeholders** interested in specific technical challenges...

**Massachusetts Technical Standards Review Group (TSRG)**

Date/Time: December 7, 2023  
Duration: 3 hours

**AGENDA**

- I. Session Objectives and Introductions – West Monroe Partners (5 minutes)**
  - a. Introductions
  - b. Review Scope and Objectives
  - c. Forum protocol
- II. ESMP Overview – EDCs (30 minutes presentation | 30 minutes Q&A)**
  - a. Utility Overview (territory, customer base, assets/infrastructure)
  - b. Clean Energy Targets and Objectives
  - c. Forecasting Methodology
  - d. EDC Forecast Assumptions
  - e. ESMP Summary (5-year, 10-year, 2035-2050)
- III. Technical Discussion – Facilitated by West Monroe Partners (40 minutes presentation | 45 minutes Q&A)**
  - a. Current State of Distribution Interconnection of PV and Storage
  - b. Infrastructure plans to enable PV, storage, and beneficial electrification
  - c. DERMS Platform Implementation
    - i. Solution Overview
    - ii. Pilots (Flexible Interconnection)
  - d. Non-Wires Alternatives
    - i. Framework & locations where opportunities for NWA are noted in ESMPs
    - ii. Proposed Grid Services Compensation Fund and studies

**Sam Uyeno**, West Monroe Partners  
*Partner, Session Facilitator*

**Gerhard Walker**, Eversource  
*Manager, Advanced Forecasting and Modeling*

**Lavelle Freeman**, Eversource  
*Director, Distribution System Planning*

**Sophia Zhang**, Eversource  
*Forecasting Lead*

**Elton Prifti**, National Grid  
*Director, Distribution Asset Mgmt. & Engineering*

**Emily Slack**, National Grid  
*Manager, Distribution Planning & Asset Mgmt.*

**Rain Xie**, National Grid  
*Manager, Electric Load Forecasting*

**Samer Arafa**, National Grid  
*Principal Engineer, Innovative Grid Solutions*

**Josh Tom**, National Grid  
*Director, Future of Electric for Customers*

**Kevin Sprague**, Unitil  
*Vice President, Engineering*



**The session attracted 100+ registrants including 63 attendees representing diverse stakeholders**



## Presentation Summary

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The discussion was comprehensive, covering both high-level strategic objectives and specific technical details, with an emphasis on collaboration and transparency with stakeholders:

- 1. Distributed Energy Resource (DER) Interconnections:** The meeting emphasized the importance of integrating DERs into the electric grid, discussing the current state of DER interconnections, and infrastructure plans to support their proliferation.
- 2. Utility Modernization Plans:** Representatives from Eversource, National Grid, and Unitil presented detailed modernization plans. These plans included forecasts for demand, DER integration, infrastructure needs, and investment strategies to meet future energy requirements and state decarbonization goals.
- 3. Non-Wire Alternatives (NWAs):** The utilities discussed exploring NWAs to meet energy demands, highlighting their potential benefits in certain areas.
- 4. Technical Aspects of Grid Modernization:** The session delved into the technical aspects of grid modernization, including the utilities' approaches to load forecasting, the impact of electrification, and the deployment of advanced technologies.
- 5. Stakeholder Engagement:** The meeting facilitated an open dialogue between utilities and stakeholders, addressing various questions and concerns about the modernization efforts and their impact on different parties.

## Q&A Summary

Overall, the questions reflected a keen interest in technical aspects of grid modernization, concerns about the pace and fairness of the interconnection process, and a desire for more effective use of existing data and technologies

Topic	Question Summary	Response Summary
<b>Integration of AI in System Planning and Interconnection Processes</b>	Question was raised about the use of historic data in planning models and whether the utilities were considering AI to expedite system planning and modeling	EDC response highlighted ongoing projects for interconnection automation but emphasized the need for human judgment in the process
<b>Synergies between AMI and DERMS Platforms</b>	Question about AMI (Advanced Metering Infrastructure) and DERMS (Distributed Energy Resource Management Systems) features and the importance of leveraging existing technologies to avoid duplication of costs or features	EDCs acknowledged this concern, outlining their plans for a data-sharing platform that integrates various technologies and systems
<b>Solar Development and Hosting Capacity</b>	Concerns expressed about potential interconnection bottlenecks and the ability of utilities to accommodate rapid solar deployment. There was question about the utilities' contingency plans if DER integration surpass the 2030 targets ahead of schedule	EDCs highlighted their commitment to interconnect customers and the use of CIPs and group studies to address hosting capacity constraints
<b>Cost Allocation and Timeliness of Interconnection Processes</b>	Raised concerns about the timeliness and fairness of the interconnection process, urging the utilities to streamline regulatory processes and adopt efficient cost allocation methodologies.	EDCs acknowledged these concerns and discussed their efforts to improve the process, including regulatory streamlining and strategic planning to proactively build infrastructure
<b>Dynamic Nature of the ESMP and Continuous Planning Updates</b>	Concerns that the plan would be static	EDCs emphasized that the ESMP is dynamic and subject to continuous updates based on load and DER trends
<b>Encouraging Stakeholder Engagement with Regulator</b>	Broader stakeholder outreach and engagement	EDCs addressed the broader role of stakeholders in influencing regulatory processes, suggesting they engage with state regulators and policymakers to facilitate faster process implementation