

Grid Modernization Advisory Council (GMAC)

MEETING MINUTES

Thursday, May 01, 2025, 1:00 p.m.– 3:00 p.m.

Hybrid meeting

Councilors Present: Aurora Edington (designee for Joanna Troy), Kayla Burns (virtual, designee for Chris Modlish), Anna Vanderspek virtual, designee for Larry Chretien) Sarah Cullinan, Kate Tohme, Julie Curti (virtual), Amy McGuire (virtual), Kathryn Wright, Jonathan Stout (virtual), Kyle Murray, Marybeth Campbell (virtual), Dirk Lauinger (virtual, designee for Andy Sun), JS Rancourt (virtual), Manan Parikh (virtual, designee for Sarah Bresolin Silver)

Councilors Absent: Alex Worsley

Non-voting Councilors: Andrew Schneller (National Grid), Jake Dusling (Unitil, virtual, designee for Kevin Sprague), Digaunto Chatterjee (Eversource)

DOER Staff Present: Julia Fox, Colin Carroll, Aurora Edington, Chris Connolly, Marian Harkavy, Austin Dawson

Consultants Present: Tim Woolf, Kyle Schultz

Others Present: Brian Risinger (DPU), Meredith Boericke, (Eversource), Elli Ntakou (Eversource), Dan Marceau (National Grid), Nancy Israel (National Grid Counsel)

1. Call to Order

Aurora Edington, as designee for Deputy Commissioner Joanna Troy, called the meeting to order at 1:00 p.m.

2. Welcome, Roll Call, Agenda

Aurora Edington welcomed all participants to the GMAC meeting and took roll call for voting and non-voting members.

3. Public Comment

There were no public comments provided.

4. Meeting Minutes Review and Voting

Aurora Edington asked if there were any corrections or additions to the March 27, 2025 GMAC meeting minutes or April 24, 2025 Executive Committee meeting minutes. None were offered.

Councilor Julie Curti moved to approve the March 27, 2025 GMAC meeting minutes. Councilor Kyle Murray seconded. The motion carried.

Kyle Murray motioned to approve the April 24, 2025 Executive Committee meeting minutes. Councilor Sarah Cullinan seconded. The motion carried.

5. IEP Stakeholder Working Group Vote

Aurora Edington recapped the integrated energy planning (IEP) stakeholder working group. Councilor Kyle Murray self-nominated himself as the primary participant from the GMAC for the group. Kyle Murray noted he plans to regularly be there. Aurora Edington asked for an alternate, and Councilor Kathryn Wright volunteered as the alternate participant.

Aurora Edington asked for a motion. Sarah Cullinan motioned to approve Kyle Murray and Kathryn Wright as the GMAC representatives on the IEP stakeholder working group. Julie Curti seconded. The motion carried.

6. Updates on ESMP Activities

a. ESMP Phase II

Aurora Edington, representing DOER: Initial briefs and reply briefs were provided last month. The electric-distribution companies (EDCs) will file reply comments related to metrics and reporting in two weeks.

b. CESAG

Meredith Boericke, Eversource: Introduced herself as co-chair of the CESAG and gave a brief background of the CESAG, followed by an update of progress to date and goals. To date, they

have had three of eight planned meetings. The goal of the CESAG is to create a replicable community engagement framework to be used by the EDCs.

Councilor Kathryn Wright, Barr Foundation, Representing Environmental Justice Communities: What were the highlights of the first meeting (March 28)?

Meredith Boericke: The meeting was in-person in Worcester, and it was nice to have representation from folks in western Massachusetts. Mainly was to get to know everyone.

Councilor Sarah Cullinan, Massachusetts Clean Energy Center, Representing the Massachusetts Clean Energy Center: Once the CESAG has developed the framework, I would love to have it presented to the GMAC. Is the framework specifically supposed to address infrastructure projects, or also municipal engagement up the chain?

Meredith Boericke: This was born out of the ESMPs (electric-sector modernization plans). Focuses on large infrastructure projects expected to go to the siting board.

Aurora Edington: Echoes comment about EDCs presenting. Can EDCs present at July GMAC meeting (equity)?

Meredith Boericke: Happy to.

c. IEP Working Group

Meredith Boericke: No other updates. Hoping for kick off on 29th of May.

d. LTSP Working Group

Aurora Edington: Filing date for companies' LTSP proposal is extended to May 9th.

7. EDC Reliability and Resilience Planning

Jake Dusling (Unitil) gave an overview of EDCs' recent (last 5 years) reliability performance on slide 10. Jake noted 2020 was a hard year because there were multiple events that had a significant impact on reliability but were not deemed excludable events. He highlighted that there a lot of variables that go into reliability, so each EDC is slightly different.

Aurora Edington: Why do environmental justice (EJ) communities have better reliability from the rest of the system?

Jake Dusling, Unitil: For Unitil, is because most communities are located near the City of Worcester and have less trees.

Elli Ntakou, Eversource: Similar reasoning for Eversource. Infrastructure in cities tends to be more underground and has switching. When there is an outage, it tends to take out less people at a time.

Dan Marceau, National Grid: Dan provided an overview of slide 11. The EDCs perform engineering reliability reviews to take a look at how to remediate worst performing circuits. Customer-level data is more challenging to manage compared to circuit or feeder level. Trees are the number one cause of outages, so lots of work goes into vegetation management. Have weekly technical reliability meetings to talk about reliability on a system level. Also have more local meetings on the regional level. We have found that the focus on reliability across departments has been very beneficial.

Councilor Andrew Schneller, representing National Grid: Emphasizes that EDCs take reliability personally. Meetings are a reflection of culture. The worst performing feeder metrics pay attention to the circuits that are on the bottom five percent of circuits in terms of both duration and frequency (CKAIDI and CSAIFI). In year one, it is identified in ARRs. In year three, if it's still in the worst bottom, we need to fix it. So there's an equity component.

Aurora Edington: How do utilities think about all the different programs?

Councilor Andrew Schneller: In a case-by-case basis. Different issues require different solutions.

Councilor Sarah Cullinan: Question about ReBOT and Early Fault Detection. What is the reason for different approaches in different territories?

Councilor Andrew Schneller: For early fault detection, is still a pilot program. It has two benefits: 1. Early fault prediction; and 2. Forest fire management.

Councilor Sarah Cullinan: Is it under the grid modernization docket?

Councilor Andrew Schneller: No, in the ESMP docket. Have it under one circuit, are scaling.

Councilor Digaunto Chatterjee, representing Eversource: Eversource has a dashcam that gets information about system – are transformers broken, rusty, etc. The tool is about 95% accurate. Eversource has another tool that predicts faults based on momentary faults.

Elli Ntakou: It's a tool that is internally developed. Helps streamline decision making about where to go. It is a little more than the beta version right now.

Councilor Digaunto Chatterjee: The reason they had to develop something internally – looked at improvements they made four years before and four years after. There are many possible

improvements (e.g., undergrounding). Tool allows you to set an objective function (e.g., 5% improvement in SAIDI) or a budget maximum and comes up with recommended investments.

Elli Ntakou discussed resiliency planning (slides 12). EDCs are focused on targeted improvements. Review historical investment with a focus on reliability after severe storms. She also gave an example from Eversource (slide 13) where Eversource is targeting an area with multiple issues and is proposing to rebuild the backbone with spacers.

Councilor Digaunto Chatterjee: Bare wire means there's no insulation. Something can fall on the wire and cause an outage.

Councilor Sarah Cullinan: Do EDCs consider DERs such as solar and storage as options or compliments to resilience?

Councilor Digaunto Chatterjee: For resilience, yes and no. For resilience, we are really looking at a storm event. We need a solution that will keep customers energized for the duration of the event. They have applied the non-wires alternatives (NWA) tool to resiliency investments. Not because costs don't pan out, except for Provincetown because of the cost of rebuilding a circuit. In most other instances, we are trying to create a full microgrid.

Councilor Sarah Cullinan: What about customer-sited solutions?

Councilor Digaunto Chatterjee: Doesn't really make sense, we haven't really started to looking at it. In some cases, it lends itself to looking at both BTM and the front of the meter.

Councilor Andrew Schneller: It's something we're looking at; we've done it on Nantucket. National Grid has something proposed in New York where they have a long line through national forest, potentially putting a battery there instead of building another line. Not current standard solutions.

Councilor Sarah Cullinan: Are there plans to make them standard solutions considered alongside standard solutions?

Councilor Digaunto Chatterjee: To clarify, NWA is standard practice. Any project over \$3M must go through the NWA process.

Elli Ntakou: From an analytical perspective, we think about how it will play out. It will get complicated. The cost to fix the system still exists. The value of lost load would go down.

Councilor Amy McGuire, Highland Electric Fleets, Representing the electric vehicle industry: Understands its complicated. What if anything is being done to integrate mutual aid agreements, there's no to little upfront cost to utility in cases when there is an existing asset (e.g., a school

bus that could do vehicle to grid)? What are EDCs doing to consider incorporating that, where there's little to no cost to utility?

Councilor Digaunto Chatterjee: Front of the meter solutions for reliability that aren't microgrids don't work. Has to be a pure microgrid application.

Councilor Amy McGuire: I am discussing a pure microgrid solution.

Councilor Digaunto Chatterjee: For reliability, in high peak days, we have to move load around. Historically they have used diesel generators if they can't move load around to make sure customers don't lose power. Are also looking at 250 KW of mobile batteries. We have purchased two. If there's a feasibility for doing so with the school bus (likely isn't as feasible) – think about Chelsea – they have to purchase a property and drive in a diesel generator – could possibly also drive in a school bus. Again, for a microgrid solution, a bus may or may not work. Would have to isolate circuit, needs to be predesigned to look at contribution of whatever the source is. Relay settings on each have to account for it.

Councilor Amy McGuire: Agrees with everything Digaunto said. In other places, they have developed plug and play options. If EDCs are looking at diesel generators, etc. there is probably a real opportunity to look at plug and play options for low cost. There's a lot of progress for affordably doing this.

8. Presentation on Annual Reliability Reports (ARRs) – Brian Ritzinger (DPU)

Brian Ritzinger, Director of the Division of Clean Energy and Resilience Engineering at the Department of Public Utilities (DPU), gave a presentation on what the DPU is, critical energy infrastructure, annual reliability reports, ESMP load forecasts and demand assessments.

CEII= Confidential Energy Infrastructure Information. Certain aspects of the ARRs are protected under the CEII exemption from public disclosure. DPU must weigh the competing interests of transparency and information with public safety and safe, reliable service. ARRs are filed annually on March 31. Massachusetts is currently a summer peaking system. EDCs provide 10-year summer and winter peak demand forecasts. EDCs list significant infrastructure projects and what is driving them. DPU has required EDCs to include in ESMPs a comparison of the base forecast in the ARRs and the 5- and 10-year forecasts in the ESMPs.

Councilor Sarah Cullinan: GMAC should be thinking about how the ARRs speak to the ESMPs and how/why they differ. ARRs have for a long time required the EDCs to do demand forecasting and capital planning for the next five years. Its iterative every year, must show how it changes. Are all the EDCs 5-year plans in the ESMPs the same as is in the ARRs?

Brian Ritzinger: ARR are informational filings, are not adjudicated, whereas the ESMPs are. Are now having companies identify in their proposed infrastructure projects what the drivers are for the projects. Next year, expects ARR to look a little different.

EDCs confirmed the 5-year forecasting in the ESMPs and the ARR is exactly the same.

Councilor Digaunto Chatterjee: Forecasts submitted in ESMPs are definitely different from recently submitted ARRs. Next ESMPs will use the same forecast as the ARRs of the same vintage. If there are differences in forecasts, it will result in EDCs changing investments.

Aurora Edington: Is thinking about biannual ESMP reports and various reporting processes. How to minimize the time spent writing and reviewing reports.

Brian Ritzinger: Wants to point out that ARRs are legislatively mandated. ESMPs are a broader range of discussions. ARRs are more specific. Service Quality filing and Emergency Response Filings all had a tremendous amount overlap. DPU has streamlined filings and tried to reduce the amount of effort.

9. Facilitated Discussion

Councilor Jonathan Stout led a facilitated discussion regarding reliability reporting. The big theme to drive home is how do the outputs that we get from the ARRs drive the ESMP investments? Question For EDCs: How does reliability planning go into ESMP and non-ESMP investments?

Councilor Digaunto Chatterjee: Most of Eversource's ESMP investments are driven by base load growth. Asked for incremental ESMP investments. Wouldn't distinguish between reliability core planning [and ESMP planning]. In internal budgeting, looking at all reliability, CIP. Long term, looking at incremental investments. Example: looking at a substation in Dorchester, is in ESMP investments.

Councilor Andrew Schneller: Reliability is a core utility requirement. ESMP is different from reliability core investments. Whenever they do a project, there is a reliability benefit, but reliability is not a driver of any ESMP investments.

Tim Woolf, GMAC Consultant, Synapse: That seems very different from what Digaunto just said.

Councilor Andrew Schneller: National Grid just had a rate case.

Jake Dusling: Planning in general is reliability based. Another component of overall planning, which the EDCs would call reliability planning. Is targeted planning to address reliability.

Councilor Jonathan Stout, PowerOptions, Representing large commercial and industrial end-use customers: Thinks about power quality, not just reliability, from his perspective working for large hospitals, etc.

Councilor Digaunto Chatterjee: Power quality is nuanced. Some customers may experience unique power quality related interruptions.

Councilor Andrew Schneller: Outages impact customers. Power quality is case by case.

Aurora Edington: How should GMAC dive into reliability aspect of the ESMPs? What don't we understand? We've heard a lot of current reliability processes and reports. The question is, does it make sense, do we understand what they're doing?

Councilor JS Rancourt, DXS - Direct Expansion Solutions, Representing the building electrification industry: From building electrification perspective, are putting inverter driven heat pumps in buildings. Are greater buildings, very efficient. Inverter means get the AC convert to DC, convert back to AC. Means systems are more sensitive to "bad power". Do see certain areas with more failure rates, could be attributed to power. You might not know you've had an incident. Some solutions adding extra behind the meter protections. Often get asked do you recommend adding extra protection in this area. Is hard to answer – they're not sure. Hoping machines continue to improve but are sensitive to changes in power quality.

Councilor Jonathan Stout: Wants to echo JS' perspective. A lot of hospitals put in infrastructure to look at blips that can't be metered. Wants to bring all of what reliability means into this process. Ensure investments are made in such a way that is equitable. Don't want to be socializing costs for one member.

Councilor Digaunto Chatterjee: Offer to JS to reach out to Eversource. If there's a specific building and you're starting to see issues, you would love to do a comprehensive study.

Councilor Andrew Schneller: Rolling AMI out will help.

10. Close and Next Steps

Councilor Andrew Schneller: A letter came to GMAC from Town of Nantucket. Concern that National Grid wasn't doing enough to allow DER on the island. Pointed to reliability incidents in the past year. Clarified that there was no actual damage to the cable and that National Grid has never denied DER installations on Nantucket. Thinks there may have been some miscommunication. Will be setting up a meeting with the town. Have a detailed plan where they inspect cables with frequency. We are looking at other solutions to address growing load. Nantucket is unique in that it has peak in summer and not winter – are looking at additional roll-on generation so they can serve island reliability at n-1-1 level.

Brian Ritzinger: For benefit of others, can he clarify what 3VO is?

Councilor Andrew Schneller: 3VO is protecting equipment from faults. When you connect DER equipment, there is potential that it could cause damage to the system.

Councilor Sarah Cullinan: Also appreciates Nantucket submitting letter to GMAC. Highlights need for communities to have access to information to do the planning they want to do. May also be helpful for the July 17 event that GMAC is planning. Understanding that it is focused on community leaders. GSHP a consideration for Nantucket?

Councilor Andrew Schneller: Letter was helpful, gave insight into how Nantucket understands their source. They will be doing a non-wires alternative on Nantucket to try to bring down the load.

Councilor Sarah Cullinan: Keep hearing desire from stakeholders she interfaces with how they can find ESMP related information specific to their town. Understands it's a lot of work but would really help with transparency.

Aurora Edington: September GMAC meeting is really about planning, identifying spectrum of engagement, priority topic areas. Heads up GMAC members will be receiving a survey and short interviews in advance of the September meeting. Substation tours coming up. National Grid has a tour planned for next Friday. If you can make it please follow up. You are welcome to bring or send a staff member.

Aurora Edington, as acting Chair, adjourned the meeting at 3:04 p.m.

Respectfully submitted,
Kyle Schultz
Synapse Energy Economics

Meeting Attachments

- Meeting Agenda
- Meeting Slide Deck
- Draft March 27 GMAC Meeting Minutes
- Draft April 24 ExCom Meeting Minutes
- Reliability Topic Brief
- April Activity Tracker
- Kyle Murray Self Nomination for IEP Working Group
- Public Comment – Town of Nantucket