

Grid Modernization Advisory Council (GMAC)

MEETING MINUTES

Thursday, May 11, 2023

Hybrid Meeting

Councilors Present: Liz Anderson (virtual), Sarah Bresolin Silver, Marybeth Campbell (virtual), Larry Chretien, Kathryn Cox-Arslan (virtual), Jennifer Daloisio, Elizabeth Mahony, Amy McGuire, Kyle Murray, JS Rancourt (virtual), Andy Sun (virtual), Alex Worsley, Kathryn Wright

Non-Voting Councilors: Digaunto Chatterjee, Carol Sedewitz, Kevin Sprague (virtual)

Councilors Absent: None

DOER Staff Present: Joanna Troy (virtual), Aurora Edington, Austin Dawson, Sarah McDaniel (virtual)

Other Attendees: Lavelle Freeman (Eversource), Gerhardt Walker (Eversource), Juan Martinez (Eversource), Elton Prifti (National Grid), Shira Horowitz (National Grid), Jake Dusling (Unitil), John Bonazoli (Unitil), Fred Schaefer (Cadeo Group)

1. Call to Order

Commissioner Mahony, as Chair, called the meeting to order at 1:03 PM.

2. Welcome, Agenda, Roll Call

Commissioner Mahony – Commissioner Department of Energy Resources (DOER)

Commissioner Mahony welcomed all participants and walked through the agenda (slide 2).

Commissioner Mahony took roll call for voting and non-voting members. All voting and non-voting members present.

Final Meeting Minutes – Approved by GMAC

Commissioner Mahony updated the Council that Julie Curti (Metropolitan Area Planning Council, representing municipal or regional interests) and Jonathan Stout (Dana-Farber Cancer Institute, representing large commercial and industrial end-use customers) are anticipated to join the Council as full councilmembers beginning with the June meeting.

3. Review and Vote on Meeting Minutes

Commissioner Mahony asked for any changes to the April GMAC meeting minutes that were sent out.

Council Discussion and Vote

No changes requested on the GMAC meeting minutes. Sarah Bresolin Silver moved to adopt; Kyle Murray seconded. All present voted in favor, with none opposed or abstaining. The meeting minutes from the GMAC meeting on 4/13/2023 were approved by the Council.

Commissioner Mahony asked for any changes to the Executive Committee meeting minutes from Executive Committee members. No changes requested. Kyle Murray moved to adopt; Jennifer Daloisio seconded. All Executive Committee members present voted in favor, with none opposed or abstaining. The meeting minutes from the Executive Meeting on 04/24/2023 were approved by the Executive Committee.

4. Executive Committee updates

Commissioner Mahony provided an update on discussion and decisions made from the last Executive Committee meeting (slide 5). The Electric Distribution Companies (EDCs) will share a draft Electric Sector Modernization Plans (ESMP) outline by 06/02/2023.

Discussion:

Kyle Murray, Acadia Center, Representing the environmental advocacy community

Murray flagged for discussion of ESMP-relevant proceedings the recent Energy Facilities Siting Board (EFSB) ruling on storage. Commissioner Mahony acknowledged it was relevant to be included and clarified the EFSB found its statutory authority does not apply to storage.

Kathryn Wright, Barr Foundation, Representing the environmental justice community

Wright asked if the draft ESMP outlines are going to be made public. Commissioner Mahony clarified that all documents shared to the Council will be made public and the draft ESMP outlines will be posted online.

Carol Sedewitz, Representing National Grid

Sedewitz clarified that the outline will only be a table of contents of the topics to be covered in the ESMPs.

Commissioner Mahony provided a summary of the proposed process to incorporate feedback, including public comment, to GMAC deliberations (slide 5). GMAC members and members of the public may send written feedback to MA-GMAC@mass.gov by 06/09/2023 to inform a process for public feedback. GMAC members may also make comments in the June GMAC meeting. No questions/comments from Council on process.

Commissioner Mahony introduced a process for Councilor-initiated information requests to the EDCs (slide 6). No questions/comments from Council on the process.

5. DOER letter on ESMP recommendations

Commissioner Mahony – Commissioner Department of Energy Resources (DOER)

Commissioner Mahony introduced the letter on recommendations (slide 7) for the ESMPs posted on the GMAC website. Commissioner Mahony clarified the letter is written on behalf of DOER, not the GMAC. No questions/comments from Council regarding the letter on recommendations.

6. DOER docket, working group summary & library preview

Commissioner Mahony introduced the relevant proceedings and working groups to comply with the requirements of the Climate Law of 2022 to “consider and summarize all proposed and related investments and alternatives that have been reviewed, are under consideration, or have been previously approved by the Department.”

Major relevant proceedings: D.P.U. 20-75; D.P.U. 21-80/81/82; D.P.U. 21-90/91/92; D.P.U. 22-22; D.P.U. 22-47 (slide 9)

Other relevant proceedings: D.P.U. 20-69-A; D.P.U. 20-75-C; D.P.U. 22-64; D.P.U. 22-65; D.P.U. 21-120 through 129; D.P.U. 18-150; D.P.U. 19-130; D.P.U. 22-22; D.P.U. 17-05; D.P.U. 23-ARR-01 through 04; and D.P.U. 23-SQ-10 through 13

Additional relevant proceedings added during discussion: D.P.U. 20-80

Relevant Working Groups: Energy Storage Interconnection Review Group (ESIRG); Technical Standards Review Group (TSRG); Advanced Metering Infrastructure (AMI) Stakeholder Working Group; and Clean Energy Transmission Working Group (CETWG)

Additional relevant working groups added during discussion: Gas System Enhancement Plan (GSEP) Working Group and the Electric Vehicle Intergovernmental Coordinating Council (EV ICC)

Discussion:

Kyle Murray, Acadia Center, Representing the environmental advocacy community

Murray asked if the CETWG had been established. Commissioner Mahony stated it was very close to being established. Murray also asked if the *Future of Gas* proceeding (D.P.U. 20-80) could be included in the relevant proceedings. Commissioner Mahony suggested an order may never come out of the proceeding and asked the Council if it wants to cover it and if so, how?

Digaunto Chatterjee, Representing Eversource

Chatterjee endorsed Murray's idea to include D.P.U. 20-80 due to importance of the intersection of electric and gas planning. Chatterjee also flagged that the upgrades outlined in the ESMPs will consider electrification, particularly in environmental justice (EJ) communities.

Liz Anderson, Massachusetts Office of the Attorney General

Anderson agreed with Murray and Chatterjee. Anderson recommended joint energy system planning should be included in the scope of the ESMPs and suggested that if utilities were not already doing joint energy system planning that the ESMP will hopefully spur it.

Sarah Bresolin Silver, ENGIE North America, Representing the energy storage industry

Bresolin acknowledged that the inclusion ESIRG and TSRG may encompass its many sub-working groups, but wanted to ensure the materials were inclusive of each sub-working groups' efforts.

Larry Chretien, Green Energy Consumers Alliance, Representing low- and middle-income residential consumers

Chretien asked if the Electric Vehicle Intergovernmental Coordinating Council (EV ICC) could be included. Commissioner Mahony agreed to it being added.

Digaunto Chatterjee, Representing Eversource

Chatterjee asked if there was a working group that focused on rates and incentives. Chatterjee explained that its 20- to 30-year forecast in its ESMP could consider charge management, building codes, etc. Commissioner Mahony stated that there was no such working group.

Sarah Bresolin Silver, ENGIE North America, Representing the energy storage industry

Bresolin explain that there is some work going on related to transmission retail rates.

Kathryn Wright, Barr Foundation, Representing the environmental justice community

Wright asked about the targets and subsector targets included in the Clean Energy and Climate Plan (CECP) and how the GMAC is planning to connect back to the state goals.

Kyle Murray, Acadia Center, Representing the environmental advocacy community

Murray supported Wright’s comment and reaffirmed that the CECP and the Massachusetts 2050 Decarbonization Roadmap are important context to the GMAC’s work and the ESMPs.

Kathryn Cox-Arslan, New Leaf Energy, Representing the distributed generation renewable energy industry

Cox-Arslan also supported Wright’s comment. Cox-Arslan asked about the connections between work done by the Independent System Operator – New England (ISO-NE) (e.g. Distributed Generation Forecasting Working Group) and the ESMPs.

Digaunto Chatterjee, Representing Eversource

Chatterjee explained that the ESMPs will have broad buckets that may include: future of distribution grid, reliability/resiliency, future of gas, stakeholder process, and the ESMP approach including base and incremental investments tied back to clean energy and climate goals. Chatterjee hopes that ISO-NE can use the EDCs planning to inform their forecasting.

JS Rancourt, DXS - Direct Expansion Solutions

Rancourt asked if Senator Barrett who asked to speak in the Zoom chat was going to be recognized. Commissioner Mahony explained that there is not a process for public comment; however, she checked with Senator Barrett who wanted to flag the Gas System Enhancement Plan (GSEP) Working Group as an additional relevant working group.

Jennifer Daloisio, Massachusetts Clean Energy Center, Representing the Massachusetts Clean Energy Center

Daloisio asked if Council members can get any pre-read material earlier due to volume. Commissioner Mahony stated staff will work to get any materials shared in a timely manner.

7. Topic 1: Planning 101

Lavelle Freeman (Director of Distribution System Planning, Eversource) presented on Eversource’s distribution planning.

Elton Prifti (Director of Engineering - Distribution Asset Management & Engineering, National Grid) presented on National Grid’s distribution planning.

Jake Dusling (Principal Engineer, Unitil) presented on Unitil’s distribution planning.

Discussion:

Larry Chretien, Green Energy Consumers Alliance, Representing low- and middle-income residential consumers

Chretien asked National Grid if its statement about the storage in queue overloading 25% of feeders was due to charging or discharging.

Elton Prifti, National Grid, Presenter & Carol Sedewitz, Representing National Grid

Prifti answered it is charging based on scheduling pursuant the Clean Peak Standard. Sedewitz confirmed it was due to batteries charging on feeders.

Kyle Murray, Acadia Center, Representing the environmental advocacy community

Murray acknowledged that we know we need storage and asked what the proposed solution was so we don't overload the system.

Digaunto Chatterjee, Representing Eversource

Chatterjee noted that D.P.U. 20-75-B reacted to the recurring interconnection backlog to enable solar and battery storage. Chatterjee suggested that the solution needs to be proactive. That it could include identifying optimal location for solar or battery storage and upgrading distribution system in those areas. Chatterjee also recommended that incentives/disincentives could be leveraged to build out infrastructure in line with the Commonwealth's clean energy goals.

Carol Sedewitz, Representing National Grid

Sedewitz noted that the ESIRG is doing a lot of work on this issue, including consideration of active resource integration, distribution energy resource management system (DERMS), etc. Sedewitz acknowledged that upgrades to the system will be essential due to the volume of load coming being so much greater than capacity and suggested those upgrades need to happen in smart, efficient, and economic ways.

Sarah Bresolin Silver, ENGIE North America, Representing the energy storage industry

Bresolin agreed that storage developers know they won't be able to build a project without a significant system upgrade. Bresolin asked if the Department of Public Utilities has ever approved upgrades proactively.

Elton Prifti, National Grid, Presenter

Prifti noted that they are working towards bringing things online and working with internal groups to make sure the system can run in a safe and reliable manner. In terms of Bresolin's question, only the 20-75-B provisional program dockets have been approved by the DPU as

forward-looking investments. They are currently the only avenue to getting proactive system investments approved.

Lavelle Freeman, Eversource, Presenter

Freeman noted planning is evolving and it may be appropriate to limit storage on distribution system so as not to disadvantage load customers. Freeman explained this is informed by EDCs receiving storage project proposals for all the headroom of proposed capital investment projects (CIPs).

Sarah Bresolin Silver, ENGIE North America, Representing the energy storage industry

Bresolin noted it may also apply to electric vehicles, building electrification, etc. Bresolin asked if the ESMPs are being used to identify grid needs for future grid interconnection projects for developers.

Kevin Sprague, Representing Unitil

Sprague noted that Unitil was not involved in the group study process in D.P.U. 20-75.

Carol Sedewitz, Representing National Grid

Sedewitz noted the ESMP is an opportunity to put together a plan of what EDCs need to do to achieve its goals. Sedewitz stated the 10-year forecast will be more granular and the 2050 view will be policy-driven and more directional.

Marybeth Campbell, Worcester Community Action Council, Representing a local agency administering the low-income weatherization program

Campbell noted as the low-income voice that there would be significant disruption and cost to low-income and EJ communities. Campbell recommended looking into local newspapers across the Commonwealth to learn about local issues with permitting and siting. Campbell reminded the Council it is never too early to receive stakeholder input, to engage with customers. Campbell also noted that ratepayer parity is another issue worth further consideration as it relates to distribution system investments.

Kyle Murray, Acadia Center, Representing the environmental advocacy community

Murray suggested it may be helpful to have a learning session on best practices for stakeholder impact. Murray also asked if he was looking to open a business and wanted onsite storage, when in the process would he learn about the suitability of a location for onsite storage.

Digaunto Chatterjee, Representing Eversource

Chatterjee explained that the battery storage industry is focusing on three primary purposes: (1) large storage on transmission system to displace fossil fuel generation; (2) lowering system peak, which can be done by finding the best place to locate battery storage and building there; and (3)

displacing capacity on distribution system to increase hosting capacity. Chatterjee stated that traditional distribution system investment will be cheaper than storage utilized for the third purpose. In response to Campbell’s comment on low-income and EJ communities, Chatterjee suggested electrification incentives could be directed to disadvantaged communities and that system headroom can be published by zip code for electrification investments to drive state incentives in those disadvantaged communities.

Elton Prifti, National Grid, Presenter

In response to Murray’s question about onsite storage considerations for opening a business, Prifti recommended engaging the utilities early in the process. Prifti acknowledged that utility system data portals may not provide all the answers new businesses may seek but they are a starting source for information until the businesses reach out to the utilities.

Marybeth Campbell, Worcester Community Action Council, Representing a local agency administering the low-income weatherization program

Campbell agreed on prioritizing disadvantaged communities. Campbell also noted that the Community Action Programs that participate in the Low-Income Energy Affordability Network (LEAN) also work with communities with old housing stock and that lingering issues need to be resolved with DHCD, including non-energy related work.

Amy McGuire, Highland Electric Fleets, Representing the electric vehicle industry

McGuire expressed hope that the ESMPs are comprehensive and consider the integration of all incentives, planning, and investments.

Commissioner Mahony thanked the Council for its discussion.

Break from 2:54 pm to 3:03 pm.

8. Topic 2: Forecasting 101

Gerhardt Walker (Manager, Advanced Forecasting and Modeling, Eversource) presented on Eversource’s load forecasting.

Shira Horowitz (Director of Load Forecasting, National Grid) presented on National Grid’s load forecasting.

Jake Dusling (Principal Engineer, Unitil) presented on Unitil’s load forecasting.

Fred Schaefer (Principal, Cadeo Group) presented on distributed energy resources (DER) and load forecasting considerations.

Discussion:

Larry Chretien, Green Energy Consumers Alliance, Representing low- and middle-income residential consumers

Chretien asked National Grid for the 2050 Massachusetts heat maps of energy efficiency, demand response, electric vehicles, and heat pumps similar to the ‘2050 Ground-mounted PV Forecast Heatmap’ on slide 9 of National Grid’s Load Forecasting presentation. Chretien expressed particular interest in the heatmap for electric vehicles. Chretien also asked if the Advanced Clean Cars II and Advanced Clean Trucks, which will significantly impact EVs in the near-term were included in the forecasting. Horowitz (National Grid, Presenter) confirmed that their forecasting already considers the impacts of Advanced Clean Cars II and Advanced Clean Trucks. Chretien suggested that managed charging enabled by AMI will be essential to meeting the Commonwealth’s goals given permitting and siting constraints for distribution system upgrades.

Kathryn Wright, Barr Foundation, Representing the environmental justice community

Wright asked for clarification from Chatterjee about the ISO-NE DG forecasting projection not aligning with the EDCs’ forecasting.

Digaunto Chatterjee, Representing Eversource

Chatterjee responded that the divergence has increased in past years. Chatterjee explained that Eversource does bottom-up level forecasting whereas ISO-NE does top-level forecasting. Chatterjee stated that Eversource has participated in the forecasting efforts, including recommendations provided to ISO-NE that have helped to improve their DG forecasting.

Kathryn Wright, Barr Foundation, Representing the environmental justice community

Wright noted the explanation was helpful and wants to make sure that the connection between distribution and transmission processes are under consideration.

Digaunto Chatterjee, Representing Eversource

Chatterjee explained that load growth in the Boston area and in the City of Boston are significant enough in forecasting that it will trigger transmission constraints.

Shira Horowitz, National Grid, Presenter

Horowitz noted that beyond the 10-year forecast released by ISO-NE, they publish forecasts for EV and heat pump adoption, along with associated load profiles and that those forecasts are generally aligned with the EDCs’ forecasts.

Kyle Murray, Acadia Center, Representing the environmental advocacy community

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Murray asked if the forecasting runs various scenarios that could result from regulatory changes or if it focuses on the current state of policy and regulation.

Gerhardt Walker, Eversource, Presenter

Walker explained that forecasting in the long-term includes policy-driven considerations but in the near-term that is more difficult.

Digaunto Chatterjee, Representing Eversource

Chatterjee noted that ESMPs should not be restricted to current regulations or incentives and could include recommendations such as an adder for economically efficient siting of DG.

Shira Horowitz, National Grid, Presenter

Horowitz explained that forecasting includes multiple scenarios, the baseline represents current programs and policies, and the other forecasted scenarios reflect increases and decreases from the baseline.

Gerhardt Walker, Eversource, Presenter

Walker explained that EDCs need to plan conservatively; that capacity needs to exist as back-up if customer-driven policies of load shifting and reduction aren't sufficient.

Fred Schaefer, Cadeo Group, Presenter

Schaefer stated that policy should be an input in the forecasting, not an output.

Amy McGuire, Highland Electric Fleets, Representing the electric vehicle industry

McGuire noted that there is both managed charging and managed discharging with electric vehicles. She asked what the EDCs think about including a list of needs, a wish list, or potential policy recommendations (e.g. managed charging/discharging) in the ESMPs.

Digaunto Chatterjee, Representing Eversource

Chatterjee reaffirmed that the ESMPs won't be restricted to current policy. Chatterjee noted that considering the demand elasticity of certain customer segments is important in aiming to reduce load.

Amy McGuire, Highland Electric Fleets, Representing the electric vehicle industry

McGuire suggested that the EDCs are in the unique position to inform those efforts in the ESMPs and flagged that it is important to segment customer-owned vehicles out from fleet vehicles.

JS Rancourt, DXS - Direct Expansion Solutions

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Rancourt asked if the GMAC was the place for digging into technical issues. Commissioner Mahony stated that wasn't fully figured out, that pre-reading is published on the GMAC website, the Council could contemplate subcommittees, and the EDCs are able and willing to accept information from all parties. Commissioner Mahony suggested the Executive Committee can take up this question and can contemplate additional topics of discussion or additional follow ups.

9. Close & Next Steps

Commissioner Mahony explained the next steps (slide 14). The Executive Committee reconvenes on May 16, 2023. The GMAC reconvenes on June 15, 2023 in hybrid mode.

Commissioner Mahony thanked the Council and closed the GMAC meeting at 4:02 p.m.

Meeting Materials:

- Meeting agenda
- Meeting presentation slides
- Draft meeting minutes from the GMAC meeting on 13 April 2023
- Executive Committee slides

Information Request

- During its forecasting presentation to the GMAC Meeting on 5/11/2023, National Grid showed slide 9 summarizing its 2050 ground-mounted PV forecast heatmap and referenced other similar heatmaps available for other technologies. A councilmember requests that National Grid provide heatmaps for the other available 2050 forecast predictions.