

The Energy Resilience and Efficiency Working Group Meeting Minutes

Tuesday, July 16, 2024, 9:00am-10:30am E.T.

Meeting Location: Online via Google Video

Attendees

Members

<i>Member Name</i>	<i>Affiliation</i>	<i>Present</i>
Sen. Katie Fry Hester	Maryland Senate	X
Del. Lorig Charkoudian	Maryland House of Delegates	X
Andrew Place	Maryland Department of the Environment	X
Landon Fahrig	Maryland Energy Administration	X
Maurice Simpson Jr.	Constellation	X
Christine Csizmadia	Nuclear Energy Institute	X
Carol Lane	X-Energy	
Jeff Shaw	SMECO	X
Nancy Sopko	US Wind	X
Mark Zucca	Potomac Edison	X

Participants: Stephanie Vo, Cindy Osorto, John Gloninger, Richard Ortt, Matt Bernstein, Bob Sadzinski, Mariana Rosales, Roger Austin, Allison Brown, Benjamin Baker, Bob Sadzinski, Boyu Yao, Bridget O'Toole, Christian Riordan, Emma Stoney, Haley Kotzker, Jamie Lopp, Jared DeLuccia, Joyce Lombardi, Kathryn Hastings, Layla Horeff, Mark Stewart, Rachel Lamb, Stephanie Wilcox, Stu Widom, Yury Dvorkin, Ziting Huang, Jeff Silva

Introduction

- Welcome, Roll Call, and Agenda
- **2024 Climate Law Highlights:** EmPOWER support (HB 864), Offshore Wind, Geothermal (HB 397/SB 570), Virtual Power Plants (HB 1256)
- **Agenda and Projected Timeline**

- By July 31, submit final ideas for recommendations. On August 13, presentation and recommendations voting, approved recommendations will be sent to the MCCC Steering Committee. Going forward, EREWG will focus on the study.

Survey Results

- **Opportunities and Best Practices**
 - Identify vulnerabilities, cost-effective electrification, energy storage
- **Expansion Opportunities**
 - Networked Geothermal, Community-Wide Approaches, Solar Site Identifications
- **Challenges**
 - Incentive & Regulatory Alignment, Addressing retirement of existing facilities, Severe weather considerations, Resiliency of state to generate enough energy, Funding sources from ratepayer to taxpayer, or finding new funding opportunities, Finding ideal locations for clean energy sites, Distribution and transmission needs, benefits from DER (Distributed Energy Resources)

Overview of the Electric Distribution System in Maryland - Mark Zucca, Potomac Edison

- **Current State of the Distribution Grid:** Improvements to the distribution system are triggered by increases in loads
- **Distributed Energy Resource Interconnection Rules**
 - Retail interconnections are managed by Maryland state regulations
 - “Causer pays”- if you want to connect, you pay the entire cost of grid upgrades
 - Detailed studies required to add a DER at each location
 - “Beneficiary pays”- costs spread among developers (MD adopting this approach), Advanced software for system modeling, but limitations exist
- **Distribution System Planning Process Advancements**
 - System planning involves looking at load flow at a periodic rate (short term = 12 months; long term = 5 years)
 - Steady load growth – shorter term, easier to predict
 - Modeling systems are really important for forecasts for both DER and load
- **DER and Energy Storage**
 - MD Energy Storage Pilot Program (approx. 8.5 MW) + Initiative (3,000 MW)
 - Benefits storage can provide to the distribution system
- **Distribution System Resiliency:** Focus on public safety via collaboration with state/county officials, MD Public Service Commission (PSC) Resiliency Work Group
- **Del. Charkoudian:** From a policy perspective, causer or beneficiary pays- neither approaches consider the broader community benefits. DERs should be an asset, not a liability. The second piece- We assume utilities are planning, but until we focus from a public policy perspective, utilities can make their decisions based on shareholder returns, make sure planning is supporting state policies and the laws we have passed.
- **Zucca:** The PSC working group is discussing this right now.

Overview of PJM & Recent FERC Orders Presentation - Matt Bernstein, PJM

- **PJM as Part of the Eastern Interconnection**
 - PJM serves 13 states + DC, does not own any equipment but manages flow
- **PJM's Role as a Regional Transmission Organization**
 - Planning (e.g., urban planning); Operations (e.g., air traffic control - matching supply with demand); Markets (e.g., RFP Process - energy market pricing)
- **PJM Existing Installed Capacity Mix**
 - Natural gas has replaced coal as the plurality (~50%) of PJM's installed capacity
 - Growing number of renewables coming onto the system
- Coal will eventually be eliminated due to deactivation of those systems
- Proposed capacity (over 226,000 MW) that can come onto the system, a combination of renewables and storage.
- **2005 – 2023 PJM Average Emissions:** CO₂, NO_x, SO_x decreases due to coal to natural gas transition
- **2023 and 2024 Electricity demand forecasts:** Growth due to policy and data centers
- **FERC Order 1920 Overview:** Require providers to issue Long Term Planning mechanisms for every 20 years
- **FERC Order 1922 Overview:** Directs PJM to create market rules for DER aggregation participation in energy services markets (wholesale, capacity, ancillary)

EREWG Member Discussion

- Del. Charkoudian: I have concerns about the long-term planning processes, but I am hopeful about the 1920 FERC Order. It is important to recognize PJM's role (or lack thereof) in meeting grid goals. In the past, PJM has prevented us from doing so, but should be a central piece of our thinking on how we engage with them. We can find something that works for PJM and Maryland. One recommendation for this group is to continue Maryland's efforts to protect ratepayers, which requires PJM cooperation.
- Andrew Place: On the 1920 note- would this do anything to anticipate Brandon Shores + Wagner closures?
- Del. Charkoudian: Proactive transmission planning- Brandon Shores said they were shifting to a different fuel. They are both in a constrained zone- with proactive planning, we can plan long-term for these constrained zones via bringing in different energy sources. We could have considered alternatives, instead, we were in a crisis with Exelon and having ratepayers pay Brandon Shores to pay online, this could have been avoided with proactive planning.
- Bernstein: As part of 1920 implementation, it requires engagement with the state. We are working with scenario development with entities, including policy assumptions from PSC to bring attention to PJM.
- Place: There is no mechanism for the obligation of PJM for planning. On the point of Brandon Shores, is it possible to plan for these uncertainties? We don't know the economic drivers for

when a plant closes, there are dynamics in the system that drive those changes. For example, Maryland's Climate Solutions Now Act (CSNA). When will increased demand come onto the system? How can you plan for 100,000 electric vehicles, or heat pumps, when and where will that be arriving? We don't have an aggregate sensor of how much uptake and generation will be built, does that entail a possibility that planning can't solve these problems?

- Bernstein: The Industrial Security Awareness Council Of Central Maryland (ISAC) did recently better define its role within transmission assumptions to PJM- they developed a state policy workbook, which tracks different policies that considers planning and transmission. It is a collaborative process with states and PJM in determining resources that should be considered in a planning process. The workbook will be an expanding process as we develop the framework and will be a foundational component for Order 1920 assumptions. We have an opportunity to consider electrification policies and how they will be implemented in PJM modeling. We have implemented some in the load forecast, and also received policies for load planning. Continued process for policy engagement and load forecasting process- requires a collaboration from ISAC and states for assumptions. We envision an engaging series of assumptions for planning scenarios through Order 1920.
- Place: In the planning process, we must have actionable items. Can we live in a world with anticipation that these changes may or may not occur? Can we have built new wires/etc. into the system to anticipate a closure?
- Sen. Hester: I want to know why the flexibility of PJM is necessary for the 1920 order.
- Bernstein: The intent behind the flexibility, we were requesting to see what flexibility will be afforded in terms of long-term planning. FERC denied the re-hearing for PJM flexibility.

Public Comment

- Jeff Silva: Energy storage must use renewable energy as its charging source to promote and hasten the payback of climate beneficial grid design and generation projects. Storage with fossil fuel sourced is counterproductive to MD's CSNA goals.