Submitted electronically via: board.secretary@bpu.nj.gov

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Secretary of the Board
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Re: Straw Proposal On Advanced Metering Infrastructure (AMI) Data Transparency, Privacy & Billing, Docket No. EO20110716

Secretary Camacho-Welch:

On behalf of Northeast Energy Efficiency Partnerships (NEEP)[1], I am pleased to submit comments on the Straw Proposal on Advanced Metering Infrastructure (AMI) Data Transparency, Privacy & Billing, Docket No. EO20110716. NEEP is a non-profit whose mission is to accelerate regional collaboration to promote advanced energy efficiency and related solutions in homes, buildings, industry, and communities.

NEEP applauds the New Jersey Board of Public Utilities (BPU) for initiating the full implementation of AMI technology in New Jersey. AMI provides two-way communication that not only improves current operations, but also enables the growth of innovative and flexible smart grid technology. Because of its ability to integrate resources and provide granular energy data, AMI will be an integral part of New Jersey's clean energy grid. Yet the level of benefits the state sees from AMI will depend on many factors, including access to data, metrics for accountability, and interaction with customers. By creating inclusive and thoughtful implementation policies for AMI, the BPU and New Jersey's electric distribution companies (EDCs) can lay the groundwork for success as the state capitalizes on this investment in the future.

Below, NEEP has identified general recommendations to guide the deployment of AMI infrastructure and use in New Jersey. In addition to the comments provided, NEEP has tools and resources available and can provide direct technical assistance. NEEP would also be happy to participate in any working groups as AMI is implemented.

Section 2: Adoption of Standardized Customer Privacy Requirements

AMI technology will provide more data points than current energy meters, but it is important to have statewide standards, tools, and other techniques around data privacy to allow for secure access. NEEP applauds Staff's recommendation that each utility adopt a clear standard that all data generated by AMI

[1] These comments are offered by NEEP staff and do not necessarily represent the view of the NEEP Board of Directors, sponsors or partners. NEEP is a 501 (c)(3) non-profit organization that does not lobby or litigate.

meters belongs to the customers and to make this data available on a rolling basis as the meters are installed.

Access to this data will allow customers, implementers, and other parties to see detailed and real time grid information. For program implementers, granular data on energy usage can be aggregated to provide detailed load forecasts and help integrate distributed energy resources. Additionally, this data can be used to identify innovative active demand solutions to extract more value from resources already on the grid without the need for additional capital. Customers will be able to see and respond to real time variation in the cost of delivering energy.

To ensure secure and standardized practices around this data throughout the state, NEEP recommends using the Green Button Connect My Data (GBC) as a statewide standard for sharing customer data and enabling third party applicants. Establishing the GBC standard and best practices provides customers with access to third party programs and platforms, creating open competition in the marketplace and allowing for additional businesses to improve the consumer experience.

Section 3: Using AMI to Drive Efficient Achievement of New Jersey's Clean Energy Goals, and Positioning New Jersey Grid to Appropriately Account for Clean Energy Attributes

NEEP applauds Staff's recommendation that the BPU enshrine the principles that AMI data must assist New Jersey in efficiently and effectively achieving its clean energy goals. AMI presents the opportunity to empower customers to make changes and improve their energy efficiency experience. But in order to do so, customer education and programs should be a component of every stage of the rollout of AMI, from installation to feedback on Time-Varying-Rates (TVR) programs. Below NEEP has outlined recommendations to enhance this priority throughout implementation with consumer education and programs that ensure all customers receive the benefits of AMI investment.

Customer Education

Customer education can be valuable in engaging residential and commercial customers with this technology. This section highlights high-level suggestions for the BPU and EDCs to consider as they continue to develop plans.

NEEP recommends prioritizing customer education pre-, at, and post-installation of AMI meters. Pre-installation education is a key first introductory step into AMI. This can help guide customers by covering what the device is and how the energy information will be used and stored. At time of installation, customers can be educated about how to access and use the data that will be immediately available to them. This data should be provided in an easily digestible format such as a web-based app that also includes existing or complementary digital engagement tools to learn more about the data and programs available. At post-installation, it is important to inform customers of the various programs available to them and how the programs can benefit the customers through incentives or rebates.

Additionally, it is valuable to provide customers with information about how they can change or modify their energy habits to save money on their bills and provide feedback on their energy usage.

Offering Customer Programs with Installation

AMI meters' ability to result in real energy efficiency savings and active demand reduction savings occurs only when meter installation is accompanied by additional program offerings "that enable, motivate, and support customers to take actions and make changes to modify their energy use."[2] NEEP encourages the BPU to consider requiring customer programs such as behavioral and time varying rates (TVR) with the installation of the meters. Other states that have not included these programs in the initial installation of meters have faced numerous barriers to implementing them at a later date, which results in the likelihood of them not being offered.[3] This means that ratepayers are missing out on benefits while still seeing the costs.

Below NEEP has outlined 3 categories of programs the BPU and EDC's can consider offering alongside installation.

- Data Access Platform: This program will ensure that the granular data available from AMI meters is provided to customers in real time and an easily digestible format. This program would consist of a portal that disaggregates the energy usage of the building for a resident or business owner and delivers insights. This information empowers consumers to understand energy usage. In Vermont, Green Mountain Power found that access to this data improved customer understanding of energy usage. To read more about this program and others in the northeast region, see NEEP's report on Advanced Metering Infrastructure: Utility Trends and Cost-Benefit Analyses in the NEEP Region.

- Behavioral Program: This program will use real time data feedback plus the tools of behavioral science to enhance savings for residents and businesses. These programs can be applied generally to reduce monthly usage by providing insights into customer-specific usage patterns, such as home energy reports or high bill alerts, or in times of need, such as a resource to lower peak demand at certain hours. Providing this information to customers empowers them to take actions to reduce or modify their energy use in ways that benefit the grid and receive money for providing this service.

- Time Varying Rates: This program works to align rates with market and system costs to incentivize customers to shift energy usage, lowering demand on the grid when it is needed most.[4] TVR can be established by time of day and by season to align with daily and seasonal variations in power generation costs and market demand. These programs can be offered in

[2] Rachel Gold, Corri Waters, and Dan York, Leveraging Advanced Metering Infrastructure to Save Energy, American Council for An Energy Efficient Economy, January 2020, page iv, available at: https://www.aceee.org/sites/default/files/publications/researchreports/u2001.pdf.
[3] Id.
[4] Id. at 16.

different formats such as critical peak pricing (CPP) which assess a higher energy rate for a limited number of hours to deter energy usage or TVR that encourage homeowners to shift certain appliance usage to different times.

Ensuring programs are offered alongside and after installation will not only enhance the benefits of AMI but other program offerings as well. This data can be used in customer targeting and recruitment practices for other programs, such as proactive outreach to enroll customers in other programs offered by the utility such as efficiency products or weatherization based on abnormal usage patterns.

Opt-Out and Opt-In Programs

In addition to considering these three programs as part of AMI implementation, NEEP encourages the BPU and EDCs to consider opt-out instead of opt-in policies, unless enrolling in a program will create a financial cost for customers. Using opt-in policies can result in higher customer participation resulting in even more savings seen by program administrators and a higher program success rate. For example, in Maryland, Baltimore Gas and Electric's Smart Energy Rewards programs is opt-out and has resulted in a 70% participation rate.[5] In Massachusetts', where AMI is also being considered, EDCs have included cost-benefit analysis that compares opt-in and opt-out policies. In one filing, the opt-out policy resulted in a benefits cost test of 2.37 and an 87% participation rate; while the opt-in option presented only a 14% participation rate and benefit cost analysis of 1.51.[6] This lack of participation plagues programs across the nation, as national research has shown that opt-in yields much lower participation and often only attracts customers that are more engaged.[7]

Leading with Equity

AMI information can alleviate inequities that perpetuate in the energy space if programs are designed appropriately. NEEP encourages the BPU and EDCs to consider ways to prioritize overburdened communities and reduce energy costs through these programs. On the consumer side, AMI can empower consumers to know more about energy usage and give them tools to lower their energy bills. For implementers, access to this data can allow for more inclusive and thoughtful program design.

One near-term action that can be taken is to require that implementers use this new data to tailor customer targeting and recruitment in programs, allowing for a proactive approach in energy efficiency programs. By targeting customers that have a higher than average load for heating or another large appliance, companies can identify participants with the highest energy burden first and target appropriate programs where they are needed the most. The BPU and EDCs could also consider ways to

[5] Baltimore Gas and Electric. 2019. Baltimore Gas and Electric Company Semi-Annual Report for First and Second Quarter—January 1 through June 30, 2019. Case No. 9494, August 15. Baltimore: Maryland PSC (Public Service Commission). webapp.psc.state.md.us/newIntranet/Casenum/NewIndex3_VOpenFile.cfm?FilePath=//Coldfusion/Casenum/9400-9499/9494/\151.pdf.

[6] National Grid, 2022 – 2025 Grid Modernization Plan, Testimony and Exhibits of the Advanced Metering Infrastructure Panel- Exhibits NG-AMI-2, page 41 - 42.

[7] ACEEE AMI at 35.

engage small and local businesses with the information available since these businesses may have a disadvantage compared to larger businesses because they have less resources to dedicate to optimizing their energy usage.[8]

Section 12: Stakeholder Engagement

NEEP applauds the BPU for proposing metrics as part of AMI implementation. Metrics and tracking and reporting are important components of evaluation, measurement, and verification as they provide real time feedback on a program's success. At the highest level, evaluation activities help to see what is actually happening due to a policy, program, or event, and to understand what it means for the future. These activities provide accountability, understanding, transparency, and the ability to identify improvements and optimize performance.

It is important to identify proper tracking metrics and to ensure public access to the information. To identify proper metrics, NEEP recommends identifying metrics that set clear and reasonable measurements. NEEP has outlined policy areas below and corresponding metrics for BPU and EDCs to consider:

- **Equity Metrics**: Metrics that align with a state's equity goals can ensure that programs designed to meet these goals are successful. Tracking these metrics can also allow implementers and other stakeholders to find any gaps in participation based on incentives, marketing, or program design. These equity metrics could include: income level of homes served, number of participants, single- or multi-family homes; and energy burden or impact on energy bills.
- **Participation and Location Metrics**: Metrics that indicate where program participation is occurring, such as participation by zip code. This number can show where programs are most successful in reaching the most customers, allowing for replication. Alternately, it will also show areas with the least participation. Similar to an equity metric, this allows for implementers and regulators to identify gaps and best practices in programs, which can improve performance down the line.
- **Clean Energy Market Transformation Metrics**: These are metrics that measure success toward state clean energy goals. AMI installation and resulting programs are a key piece of states' efforts to lower energy use and transform to a clean energy grid. By identifying targets that also align with wider state clean energy goals, programs implementers can be encouraged to design programs that better align with state policy, and regulators can understand the impact and ability of AMI programs to achieve these goals. Some metrics to consider tracking and publishing include: numbers of active demand devices enrolled, number of participants in TVR events, usage on billing app platforms, and consumer bill savings. In Vermont, Green Mountain Power (GMP) measures the societal benefits of its AMI deployment through metrics such as

[8] ACEEE AMI at 15.

commercial and industrial outage cost reduction, decreased energy costs, and energy conservation connected to AMI-based web portals.[9]

Conclusion

NEEP appreciates the opportunity to provide comment as the BPU and EDCs plan the implementation of AMI in the state. NEEP hopes that these comments are able to provide insight and technical guidance to align the rollout of AMI with state climate and equity goals.

Sincerely,

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[9] Northeast Energy Efficiency Partnerships, Advanced Metering Infrastructure: Utility Trends and Cost Benefit Analyses in the NEEP Region, page 7, February 2017, available at https://neep.org/sites/default/files/resources/AMI%20FINAL%20DRAFT%20report%20-%20CT%20format.pdf.