October 7, 2021

Aida Camacho-Welch Secretary of the Board 44 South Clinton Ave., 1st Floor Post Office Box 350 Trenton, NJ 08625-0350

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

Re: STRAW PROPOSAL ON ADVANCED METERING INFRASTRUCTURE (AMI) DATA TRANSPARENCY, PRIVACY & BILLING, Docket No. EO20110716

Dear Secretary Camacho-Welch:

Ceres, Environment New Jersey, New Jersey Sustainable Business Council, The Energy Efficiency Alliance of New Jersey, and The Natural Resources Defense Council ("Joint Commenters") are pleased to submit these comments on New Jersey's implementation of AMI. Joint Commenters offer the recommendations herein to help the Board of Public Utilities ("BPU") in the establishment of a comprehensive data ecosystem that accelerates New Jersey's transition to a clean energy economy by empowering consumers and unlocking a flexible, bidirectional, and communicative energy grid.

AMI will be key in achieving New Jersey's long-term clean energy and environmental objectives because it can change how utilities, customers, and third-party providers manage electricity. In the near term, it can aid the state in realizing more savings through energy efficiency and peak demand reduction programs. In the long term, it will lay the groundwork for a transition to a clean, resilient energy grid, serving as essential technology for distributed clean generation and microgrid/grid interaction.

From the 12 topics outlined by BPU Staff in the straw proposal, Joint Commenters have focused on two that tie all of the topics together and are most significant to ensuring AMI is regulated, implemented, and overseen properly to fully realize its benefits, all while remaining cost-effective.

1. 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

A) Customer Education

- B) Complementary programs with installation
- C) Benefits of Opt-Out versus Opt-In
- 2. Stakeholder Engagement
 - A) <u>Measurement of appropriate metrics to be reported during the roll out</u>
 B) <u>Method of Stakeholder Engagement</u>

Joint Commenters have expanded on these points below.

1. 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

A. <u>Customer Education</u>

Joint Commenters recommend a required inclusion of Customer Education for an introductory period such as 3 or 5 years of implementation. Through education, customers are empowered to make changes and improve their energy efficiency experience.¹ This education can manifest in the form of in person demonstration, online tutorials, and a video reference library, including how to use the various devices and optimize savings. Prioritizing customer education both pre- and post-installation enables proper use and optimization 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 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 access feedback on their energy usage and modify their energy habits to save money on their bills.

B. Offering Programs with Installation

AMI meters result in real energy efficiency savings and active demand reduction savings 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 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 the ratepayers for these programs are missing out on numerous benefits while still seeing the costs.

Accordingly, Joint Commenters recommend the inclusion of all three of the following categories of programs to offer alongside installation.

¹ 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 [hereinafter "NEEP 2017"]

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

<u>Data Access Platform</u>: 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.

<u>Behavioral Program and Consumer Payment</u>: This program will use real time data feedback plus behavioral science tools to enhance savings for residents and businesses. These programs can be applied generally to reducing monthly usage by providing insights into customer-specific usage patterns, such as home energy reports or high bill alerts. Via real-time alerts, they can be applied in times of need, such as lowering 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 to compensate them for providing this service. The inclusion of adequate compensation for customers who participate in certain peak reduction services, would result in increased customer participation and long-term participant retention.

<u>Time Varying Rates ("TVR")</u>: This program aligns 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 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.

C. Benefits of Opt-Out versus Opt-In

To maximize participation Joint Commenters recommend utilizing an Opt-Out Versus an Opt-In Program. Opt-In yields much lower participation and often only attracts customers that are more engaged.⁵ Other states have noticed this and have chosen opt-out policies. For example, in Maryland, Baltimore Gas and Electric's Smart Energy Rewards program is opt-out and has resulted in a 70% participation rate.⁶

Moreover, when a Cost Benefit Analysis is performed on Opt-In versus Opt-Out, the calculations are equally favorable to the Opt-Out option. In Massachusetts National Grid provided cost benefit analysis for an Opt-In versus Opt-Out policy. Their Opt-Out policy resulted in a benefit-cost ratio of 2.37 and an 87% participation rate, while the Opt-in option presented only a 14% participation rate and a benefit-cost ratio of 1.51.⁷

⁷ National Grid, 2022 – 2025 Grid Modernization Plan, Testimony and Exhibits of the Advanced Metering Infrastructure Panel-Exhibits NG-AMI-2, page 41 - 42

⁴ <u>Id</u>. at 16.

⁵ <u>Id</u>. at 35.

⁶ 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

2. Stakeholder Engagement

A) <u>Measurement of Appropriate Metrics to Be Reported During the Roll Out.</u>

Equally important as AMI's front end (education and engagement) is the back end of how the data is tracked. This information is critical to evaluation, measurement, and verification, as it provides real time feedback on a program's success. At the highest level, evaluation activities help stakeholders 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. These Joint Commenters have identified three metrics which are imperative to addressing the State's Energy and Energy Equality goals.

<u>Equity Metrics</u>: 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 gaps in participation based on incentives, marketing, or program design. These equity metrics could include: groups engaged in a community education campaign, specifically for senior citizens and other who lack familiarity with the technology, engagement of participants in environmental justice communities as defined by the new law, participation of single- and multi-family homes, and bill impacts of programs.

<u>Participation and Location Metrics</u>: 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. Alternatively, 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.

<u>Clean Energy Market Transformation Metrics</u>: Metrics that measure success toward state clean energy goals. AMI installation and resulting programs are key pieces of state efforts to lower energy use and transform to a clean energy grid. By identifying targets that also align with wider state clean energy goals, program implementers are 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 societal benefits of its AMI deployment such as commercial and industrial outage cost reduction, decreased energy costs, and energy conservation connected to AMI-based web portals.⁸

B) Method of Stakeholder Engagement

Joint Commenters' preference would be the use of a working group or other regular, open, and accessible format to report out on metrics for evaluation of AMI rollout.

⁸ NEEP 2017, at 7

A working group that looks at and reacts to this data can provide feedback and insight. This enables more transparency in the process and creates accountability. This working group could meet once a month, with every utility reporting out the success of programs based on predetermined metrics. The BPU may want to consider establishing this working group soon to come to a conclusion on the metrics. After metrics and reporting templates are agreed to, these meetings would become less frequent and could be phased out as an AMI metric update becomes part of the EE Monthly meeting process.

Conclusion

The Joint Commenters appreciate the opportunity to recommend how the BPU can implement AMI in a manner that is cost effective and accelerates New Jersey's transition to a clean energy economy by empowering consumers and unlocking a flexible and communicative energy grid.

Thank you for your time and consideration.

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