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September 30, 2022

Via Electronic Mail

Carmen D. Diaz, Acting Secretary
New Jersey Board of Public Utilities
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**Re: I/M/O Advanced Metering Infrastructure (“AMI”) Data Transparency,
Privacy & Billing
Minimum Filing Requirements for AMI Data Access Plans
BPU Docket Nos. EO20110716**

Dear Acting Secretary Diaz:

The Division of Rate Counsel (“Rate Counsel”) provides its comments regarding the Draft minimum filing requirements (“MFRs”) for electric distribution company (“EDC”) data access plans (“DAPs”) related to advanced metering infrastructure (“AMI”), published by the Staff of the New Jersey Board of Public Utilities (“Staff” or “Board Staff”) on July 29. The stated purpose of the MFRs is to enable a number of use cases designed to provide energy consumers with the ability and incentive to manage with their energy usage and select options that reduce energy consumption, or shift that consumption to times of day that alleviate strain on the electric grid.

Preliminary Statement

Rate Counsel supports the need for MFRs regarding EDC data access plans. However, as a threshold issue Rate Counsel continues to be concerned by the degree to which Staff assumes that AMI is cost-effective and that, even if AMI is not cost-effective, AMI will help achieve New Jersey’s Energy Master Plan goals. Both of these assumptions are unsupported. First, any analysis of an AMI program must be on a case-by-case basis, reviewing the specific facts of any individual EDC’s AMI deployment.

Second, Board Staff appears to rely heavily upon the Capstone and Gold Standards Reports from Navigant. Rate Counsel has previously shared with the Board and other interested parties our extensive critique of both reports.¹ The conclusions of those reports have never been fully vetted, nor has there been an opportunity to probe issues with methodology, calculations or any bias on the part of the authors of those reports. Neither report has been admitted as evidence in any proceeding or been subject to any type of peer review. They were simply “accepted” by the Board. The reports therefore lack any evidentiary value.

Additionally, Rate Counsel cautions that, just because a “smart” meter or its communications network can fulfill a certain function (e.g. commercial wireless data communications services), does not mean it should be used for that function. For instance, AMI should not be used to duplicate capabilities or services already available in the market, nor should requirements be established which cost more to implement than the incremental benefits they offer. Instead, every MFR should be subjected to a benefit-cost analysis prior to being set. Additionally, when evaluating the benefits of AMI, Rate Counsel notes that the level of benefits secured from AMI can vary widely by EDC. Therefore, the key to reducing AMI benefit variability, and to securing customer benefits from AMI in excess of customer costs, is to maximize the value of every available AMI’s technology capability as quickly as possible. Thus, strategies to maximize and accelerate the benefits of AMI capabilities, and in particular its greatest capability (data), make sense for the Board to pursue.

In addition, the AMI benefit-cost analyses submitted by the EDCs to date have themselves been the subject of a great degree of variability. In general, Rate Counsel is concerned that these benefit-cost analyses understate AMI bill impacts and overstate AMI benefits. Reliance on these analyses for purposes of cost recovery would be inappropriate. Standardization of benefit-cost analysis constructs is critical to determining the prudence of the EDC’s investments, and would also be beneficial in the evaluation of other grid modernization investments the EDCs may propose in the future.

As a result of these concerns, Rate Counsel has comments on the following subjects: 1) Comments on the MFRs; 2) A recommendation to develop performance metrics and reporting requirements for AMI deployments; and 3) A recommendation to develop MFRs for benefit-cost analyses to accompany any exceptional distribution business investments the EDCs may propose.

¹ See e.g., Direct Testimony of Paul J. Alvarez, I/M/O Petition of PSE&G for Approval of its Clean Energy Future - Energy Cloud (“CEF-EC”) Program on a Regulated Basis, BPU Docket No. EO18101115, at p. 49-53 (August 31, 2020).

Division of Rate Counsel Comments
Regarding Proposed MFRs for Data Access Plans

1. Customer Ownership and Sharing of Energy Related Data

Rate Counsel has no comments on this MFR.

2. AMI Data Provision Timelines

As noted in Rate Counsel's straw proposal comments, while Rate Counsel has no concerns about the 48-hour lag, Rate Counsel has three concerns regarding home area network ("HAN") connectivity to smart meters involving cost, cybersecurity, and customers residing in multi-family dwellings.

First, Rate Counsel notes that wireless HAN communication capabilities will incur an extra cost in meter procurement. Even if the incremental cost is just \$10 to \$20 per meter, for the 3.92 million AMI meters the EDCs propose to install, the decision to include HAN communication capabilities has significant cost implications. However, the EDCs have not provided any plans for utilizing meter-to-HAN communications capabilities, let alone demonstrated that such capabilities will deliver benefits to customers in excess of costs to customers. While Rate Counsel understands that AMI deployment is already underway, without additional information, it's unclear whether HAN communication capability will deliver customer benefits in excess of customer costs and would become another stranded asset.

Presumably, meter-to-HAN capability would be used to inform customers of energy prices in real time, or to inform customers of demand response events. But multiple communication and technology channels are already available to inform customers and their HANs of energy prices or demand response events in real time. Further, to Rate Counsel's knowledge, no EDCs or competitive retailers have implemented real time pricing plans or peak-time rebate (demand response) programs in New Jersey. Based on these facts, Rate Counsel questions whether benefits to customers will exceed costs. Rather than establish meter-to-HAN communications as an MFR, Rate Counsel recommends that the EDCs develop a cost-effective business case for the meter-to-HAN communications, and then decide upon the options, if any, they consider appropriate. Rate recovery for investments that do not deliver positive financial benefits that outweigh the costs to ratepayers would not be deemed prudent or result in just and reasonable rates.

Second, Rate Counsel agrees with RECO that the meter-to-HAN communications capability provides a potential vector for cyberhackers to exploit. While security controls may be adequate today, cybersecurity threats are continuously evolving and the consequences of a breach could be very grave. For example, more information is needed regarding the ability of a bad actor to access the remote disconnect switches of meters to shut off power to premises, or worse, to access disconnect switches throughout a community. Therefore, Rate Counsel recommends eliminating meter-to-HAN as an MFR

and instead requiring the EDCs to develop a cost-effective business case for meter-to-HAN communications that provides robust cybersecurity measures, and then offer the options of any they consider appropriate.

Finally, Rate Counsel is concerned that meter-to-HAN communications capabilities seem tailored to single-family dwellings. In Multi-family dwellings, meters may be located far from a residence, and wireless communications will not be able to receive data from meter-to-HAN. Rate Counsel is aware that power-line communications (“PLC”) technology has been available for years, though typically between meters and utilities, not meters and HANs. Given that hundreds of thousands of New Jersey families live in multi-family dwellings with remotely-located meters, Rate Counsel believes it important for potential solutions to this issue be explored before agreeing that meter-to-HAN communications should be an MFR. If meter-to-HAN communications can be proven valuable, it may make sense to install wireless meter-to-HAN in single-family residences and PLC meter-to-HAN in multi-family residences. This limitation on the usefulness of meter-to-HAN technology in multi-family dwellings will reduce the likelihood of its financial benefits outweighing the costs to ratepayers.

3. Adoption of Standardized Customer Privacy and Cybersecurity Requirements

Rate Counsel recommends that any third party wishing to access customer data be required to agree to the same data privacy and security standards with which the EDCs themselves comply. Rate Counsel also recommends adding the requirement that all software applications must be easily and quickly removable either by the customer or at the customer’s request.

4. Reporting Metrics

Rate Counsel has no concerns about this MFR and endorses it as written. AMI deployment should not only advance State policy goals, but also reduce customer bills. Due to AMI’s high cost, these goals cannot be met if the customer benefits projected by the EDCs in their AMI applications are not secured. Indeed, without a significant, ongoing commitment by the Board and Staff to hold the EDCs accountable for AMI outcomes, significant and unnecessary bill increases from AMI deployments will result.

5. Data Granularity and Appropriate Rollout Schedule

Rate Counsel has no concerns about this MFR and endorses it as written.

6. Additional Data Fields

Rate Counsel has several minor concerns on this MFR which nonetheless warrant consideration. First, the term “Published AMI Data set” is not defined. This term should be defined and related data privacy protections, such as the removal of all customer personally-identifiable information, should be

extended to this feature. Further, as this MFR is essentially a feature designed to support research, Rate Counsel recommends it be incorporated into the “Appropriate Utility Use of AMI Data” MFR.

7. Ensuring Fair Access and Competition

Rate Counsel has no comments on this MFR.

8. Billing and Settlements

Rate Counsel agrees that AMI data should be used to settle energy and peak load contribution (“PLC”) charges by customer, by hour, and notes this MFR is critical to securing market-wide AMI benefits; however, this proposed MFR provides no details. As PSE&G notes, this change is likely to involve a fairly significant increase in data administration requirements for the EDCs. Rate Counsel recommends this MFR be expanded to provide such details. For example, each EDC should be required to submit a plan, complete with budgets, timelines, and target dates, for settling energy and PLC charges by customer, by hour.

9. Format of Data Sharing

Rate Counsel has no comments about this MFR.

10. Emergency Responder Access

As with meter-to-HAN capability, Rate Counsel believes the practicality and value of this MFR should be explored before requiring it. There is no information in the record regarding whether first responders see a need for this information via the portal versus current means of obtaining it. The EDCs’ online outage status maps provide basic information about location and number of outages. It is unclear what additional information first responders are asking be provided. Without their input it is difficult to evaluate the benefit of this capability. Rate Counsel encourages more market research with first responders to determine their emergency operating processes and associated needs before making this an MFR that could result in costly investments in capabilities first responders may not find valuable.

11. Appropriate Utility Use of AMI Data

Rate Counsel has no objection to this MFR. However, due to concerns about cybersecurity and “bad actors,” Rate Counsel recommends that AMI data should not be transferred or stored outside the United States’ jurisdiction. Also, as described above, Rate Counsel recommends incorporating the “Additional Data Fields” MFR into this MFR.

Conclusion

Rate Counsel appreciates the opportunity to comment on this important topic.

Respectfully,

BRIAN O. LIPMAN, DIRECTOR
DIVISION OF RATE COUNSEL

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