PUBLIC UTILITIES

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BOARD OF PUBLIC UTILITIES

Advanced Metering Infrastructure (AMI) Data Access Standards

Adopted New Rules: N.J.A.C. 14:5-10

Proposed: September 2, 2025, at 57 N.J.R. 1949(a).

Adopted: June 30, 2026 by the New Jersey Board of Public Utilities, Christine Guhl Sadovy, President, Dr. Zenon Christodoulou, Ph.D., Michael Bange, Emma Rebhorn, and Joseph Coviello, Commissioners.

Filed: July 9, 2026, as R.2026 d.085, **with non-substantial changes** not requiring additional public notice and comment (see N.J.A.C. 1:30-6.3).

Authority: N.J.S.A. 48:2-12, 48:2-13, 48:2-16, 48:2-25, and 48:3-96.

BPU Docket Number: EX24090717.

Effective Date: August 3, 2026.

Expiration Date: January 17, 2030.

Summary of Public Comments and Agency Responses:

Written comments were received from: Atlantic City Electric Company (ACE), Jersey Central Power & Light Company (JCP&L), Public Service Electric & Gas Company (PSE&G), Rockland Electric Company (RECO), New Jersey Utilities Association (NJUA), New Jersey Division of Rate Counsel (Rate Counsel), Advanced Energy United (AEU), Calico Energy (Calico), CPower Energy Management (CPower), Energy Efficiency Alliance of New Jersey (EEA-NJ), Mission:data Coalition (Mission:data), Processor Innovations Corporation (PI), and the Retail Energy Supply Association (RESA).

General Comments

1. COMMENT: Calico recommended that Advanced Metering Infrastructure (AMI) data be made available at both the individual account and aggregated building levels. Calico stated that access to aggregated building data would allow building owners, managers, and municipalities to identify load patterns, peak demand opportunities, and efficiency measures. Calico stated that aggregated AMI data can deliver significant public value when paired with benchmarking data. Therefore, Calico recommended that the Board of Public Utilities (Board) explicitly include aggregated, building-level AMI data within the regulations.

RESPONSE: While the Board agrees with the premise that this data would be useful to other entities, the fundamental principle of customer ownership of the data takes precedence and must be protected.

2. COMMENT: EEA-NJ appreciated the Board's efforts in establishing standards for single-family homes and businesses, but notes a gap in addressing multifamily properties. EEA-NJ recommended enabling access to aggregated AMI data for building-level use, as current limitations hinder energy efficiency improvements and progress toward State climate goals.

RESPONSE: While the Board appreciates the potential of collecting building level data, the customer ownership of their data and control over the sharing of that data takes precedence.

3. COMMENT: Calico recommended expanding the utilities' existing mechanisms for data aggregation through New Jersey's benchmarking requirements to include AMI data.

RESPONSE: The Board thanks Calico for its comment. While the electric distribution companies (EDCs) currently may aggregate customer usage to the building level, AMI data's granularity requires a customer's consent to share as specified at N.J.A.C. 14:5-10.4. In order to preserve the customer's ownership of their data, the Board declines to make the recommended change at this time but will continue to consider this issue.

4. COMMENT: Rate Counsel commented that the proposed rules should require adequate EDC promotion of the data sharing options for ratepayers to understand and utilize the benefits of AMI data access.

RESPONSE: The Board thanks Rate Counsel for its comment. While not specified in the rule, the Board believes promotion of the use of AMI data will occur as a part of the rule implementation once the EDCs understand the scope and their obligations pursuant to the rules.

5. COMMENT: Rate Counsel recommended that the Board provide more information on the expected rate impacts of the proposed rules. Rate Counsel specifically requested clarification regarding how the proposed rules will have "minimal economic impacts" and that any additional costs for EDCs related to establishing secure portals, supporting IT infrastructure, software development, and cost for reconfiguration of meter settings will be "minimal."

RESPONSE: The stakeholder process allowed the Board to weigh the needs of customers, third parties, and the EDCs in the development of the rules. As this rulemaking has occurred largely after the deployment of AMI meters by the EDCs, the Board has created rules largely conforming with the equipment and capabilities of the EDCs' currently deployed equipment. For this reason, the Board believes that this should minimize any incremental costs required to comply with the rulemaking.

6. COMMENT: Rate Counsel commented that the language of the Board's analysis on economic impact does not quantify the ratepayer-funded implementation costs prescribed in the proposed rulemaking or their impact on ratepayers. Rate Counsel recommended that the Board further analyze the economic impact pursuant to N.J.S.A. 52:14B-4(a)(2) and N.J.A.C. 1:30-2.1. Rate Counsel further commented that affordability of utility rates is not discussed in the proposed rules and the Board should look at the overall bill impact of providing additional ratepayer costs for AMI data sharing implementation, offshore wind development, energy efficiency programs, electric vehicles, and other infrastructure by isolating the proposed rules.

RESPONSE: The Board thanks Rate Counsel for its comment. The economic impact statement required pursuant to N.J.S.A. 52:14B-4(a)(2) calls for a description of a rulemaking's social and economic impact, rather than a quantification of costs, and the Board provided such a description in the notice of proposal. The rulemaking was designed to minimize potential costs associated with the rulemaking's implementation. Wherever possible, compromises were made in recognition that the AMI network has already been largely deployed and to ensure the requirements of the rulemaking line up with existing configurations and capabilities of the EDCs. It is difficult, if not impossible, to quantify what the ratepayer funded implementation costs will be prior to evaluating the way the EDCs implement the rule requirements and reviewing the actual costs and the prudency of those costs in a base rate case. While comments regarding other programs are outside the scope of this rulemaking, affordability and rate impact are always a consideration of the programs the Board implements. It is the goal of this rulemaking to leverage the data collected with AMI to facilitate conservation and other opportunities for ratepayers to reduce their usage and their bills.

7. COMMENT: PI recommended incorporating into the proposed rulemaking, residential ratepayers' right to local self-access and use of their own "non-validated" AMI electric demand data through AMI-compliant local secure wireless communication between smart meter and a customer-owned home area network (HAN) gateway device in which BPU Docket EO20110716 (Advanced Metering Infrastructure Work Session) failed to identify.

RESPONSE: Ensuring that customers have access to AMI data is a primary goal of this rulemaking. N.J.A.C. 14:5-10.3(b) requires EDCs to provide access to non-validated data to all customers upon request through a customer-purchased electronic monitoring device or HAN. The Board does not believe that additional provisions are necessary to accomplish this goal.

8. COMMENT: PSE&G recommended that the various entity types seeking access to customer data be defined, as the rulemaking refers to several different entities interchangeably. PSE&G further recommended that a licensing or registration requirement for the entities would ensure customer privacy and security and allow access to be restricted in the event of bad actors.

RESPONSE: The term "third parties" is meant to encompass all entities that may need access to AMI data in addition to third-party suppliers. As noted in response to comments regarding N.J.A.C. 14:5-10.6(a), the Board will establish a process to vet third parties and create a list of entities that are approved as eligible to be authorized by customers to receive AMI data. The Board is revising N.J.A.C. 14:5-10.6 upon adoption for greater clarity, and intends to set out additional details on this process in a Board order.

9. COMMENT: PSE&G stated that, while it appreciated the additional language to include Board mandated programs to AMI use cases, PSE&G was concerned the proposed rulemaking is overly broad. PSE&G suggested that the rulemaking be limited to use cases that examine other AMI benefits. PSE&G further stated that they did not object to requiring opening competition to authorized third parities.

RESPONSE: The Board thanks PSE&G for its comment. The rulemaking applies broadly by design as the possible use cases for AMI data are still expanding and should not be limited.

10. COMMENT: PSE&G stated that it is prepared to provide anonymized data upon request of an academic institution, but to provide a measure of standardization and accountability, PSE&G recommended that the proposed rulemaking be amended to require that the Board be copied on such requests. PSE&G further recommended that the rulemaking provide that the EDCs may respond to such requests "within a reasonable timeframe after receipt thereof."

RESPONSE: The Board disagrees with the proposed change in the rulemaking as there is no need for the Board to be copied on such requests and it is unclear how this would address standardization or accountability. If the EDCs have any questions or concerns regarding specific requests, they are free to reach out to Board staff. Additionally, no time frame is specified for the provision of such information.

11. COMMENT: PSE&G recommended that the rulemaking be amended to state that EDCs may recover the prudently incurred incremental costs of complying with all new requirements in the rulemaking. PSE&G stated that the rulemaking does not include any acknowledgement or mechanism effectuating cost recovery. PSE&G further stated that while it is prepared to support and comply with the requirements included in the rulemaking, subject to the modifications/clarifications requested, additional language should be included to address the recovery of prudently incurred costs for implementation of required changes in the rulemaking.

12. COMMENT: RECO recommended that the rulemaking be revised to state that the EDCs are authorized to recover any reasonable, incremental costs of compliance with the rulemaking.

RESPONSE TO COMMENTS 11 AND 12: The rulemaking does not include any guarantees of recovery. As with any costs incurred by the EDCs, recovery of prudently incurred expenses may be sought and considered in a base rate case, so additional language regarding recovery for this specific rulemaking is unnecessary.

N.J.A.C. 14:5-10.2 Definitions

13. COMMENT: Regarding N.J.A.C. 14:5-10.2, PI recommended that the Board clarify that the phrase "AMI data" is a shorthand notation for the phrase "EDC-collected AMI meter data" that excludes any "non-validated AMI data" collected onsite by a customer using an EDC-qualified HAN gateway device.

RESPONSE: The Board disagrees with this interpretation and suggestion. AMI data encompasses all of the data referenced in the rulemaking. The distinction been EDC-controlled, and customer-controlled data is through the definitions of validated data and non-validated data, respectively. Any time the rules intend to specify only EDC-controlled data, the term "validated data" is used.

14. COMMENT: Regarding N.J.A.C. 14:5-10.2, AEU stated that the definition of "AMI data" is too broad. AEU stated that the definition extends ownership to the granular data points that comprise overall usage information used for billing, which could necessitate utilities and service providers to obtain end user customer consent for access to data essential to the operation of smart meter technologies and related applications. Therefore, AEU recommended the following modification to the proposed definition: "'AMI data' means any information collected regarding a customer's electrical usage, energy demand recorded over regular intervals of time, as measured-that is stored or transmitted by an EDC-owned smart meter. For the purposes of this subchapter, AMI data does not refer to any other data collected independent of the customer's usage, unless specifically stated as such."

RESPONSE: The Board intends the definition of AMI data to cover the entirety of usage data measured by the meter. The distinction between validated data and non-validated data identifies the information collected by the EDC for billing purposes from usage data measured directly at the meter by a customer owned device, respectively.

15. COMMENT: Regarding N.J.A.C. 14:5-10.2, PI commented that the definition of "AMI data" should address that the customer is free to use and share the "non-validated AMI data" that is locally collected as the customer wishes, without the privacy and sharing restrictions that apply to EDC-collected AMI data.

RESPONSE: While the rulemaking does not state this explicitly, this commenter summarizes the Board's intent to allowing customer access to non-validated data. The Board does not believe this needs to be further clarified, as the data will be read and used by a customer-owned device.

16. COMMENT: Regarding N.J.A.C. 14:5-10.2, PI recommended that the Board replaces the term "a wireless communications protocol" with "an AMI-compliant EDC-qualified HAN device."

RESPONSE: The Board disagrees with this requested change. The definition is intentionally broadly written to include current technologies and future potential technologies.

17. COMMENT: Regarding N.J.A.C. 14:5-10.2, Mission:data recommended that the Board remove the language "recorded over regular interval of time as measured" from the definition of "AMI data," as it excludes disaggregation insights that may be a part of AMI meters in the future.

RESPONSE: The Board disagrees with this change, as the currently deployed meters record interval data and will do so for the foreseeable future.

18. COMMENT: PSE&G commented that the definition of AMI data includes the phrase "or information measured to calculate such quantities" is vague and suggests removing this phrase from the definition.

RESPONSE: The definition is written in such a way as to account for how the customer's usage information is measured. If usage is measured directly in kilowatts and kilowatt hours, this is the data that would need to be provided to customers. The Board does not think that further clarification in the definition is needed.

19. COMMENT: Regarding N.J.A.C. 14:5-10.2, Mission:data commented that the definition of "Green Button Data Standard" should address both a data format and a communication protocol. Therefore, Mission:data recommended that the Board remove any mention of Green Button *Download My Data* throughout the rules to refine the automated communication.

RESPONSE: The rulemaking defines the Green Button Data Standard in order to make this exact distinction. The standard defines the data format and content while Green Button *Connect My Data* and Green Button *Download My Data* represent the communication protocol. As discussed below with respect to N.J.A.C. 14:5-10.4, the Board has determined that, in light of cost and despite the advantages of Green Button Connect, it is appropriate at this time to allow EDCs to comply by allowing customers to access data using either Green Button Connect or Green Button Download. Accordingly, the Board disagrees with removing the mention of Green Button Download.

20. COMMENT: Regarding N.J.A.C. 14:5-10.2, Mission:data requested clarification to the definition of "non-validated AMI data" to require that customer usage data that is read locally be available in real time.

RESPONSE: Non-validated data will be transmitted directly from the AMI meter and read locally by a customer-owned device. This data will be provided on a near real time basis to allow customers to actively monitor their usage.

21. COMMENT: Regarding N.J.A.C. 14:5-10.2, PI commented that the definition of "non-validated data" should address that the data has not been verified as an accurate accounting of a customer's electricity usage through an EDC's verification process and may not be used for billing purposes.

RESPONSE: The distinction between validated and non-validated data is explained in the definitions and the definition of non-validated data states that non-validated data is not for billing purposes.

22. COMMENT: Regarding N.J.A.C. 14:5-10.2, PI commented that the definition of "non-validated AMI data" should address that EDCs bear

no liability regarding the collection, protection, and use of "non-validated" AMI data, other than being required to remotely configure their AMI meters with the authorized credentials of their customer's unique HAN devices, when formally requested.

RESPONSE: The Board does not believe further clarification is necessary as the rulemaking clearly states that non-validated AMI data is collected by a customer-owned device and would not be in the control of the EDC as a result.

N.J.A.C. 14:5-10.3 AMI Data Collection and Availability

23. COMMENT: Regarding N.J.A.C. 14:5-10.3, PI recommended that the Board adds "non-validated AMI data" to the heading of this section.

RESPONSE: The Board disagrees with the suggested change as this section deals with the handling of validated data collected by the EDC.

24. COMMENT: Regarding N.J.A.C. 14:5-10.3(a), RESA recommended that the Board require the EDCs to make the validated AMI data available "as soon as possible," but no later than 48 hours after the data is captured from the AMI meter. Third party suppliers (TPSs) need the AMI data quickly enough for it to be used effectively for programs that reduce a customer's usage.

25. COMMENT: Regarding N.J.A.C. 14:5-10.3(a), PSE&G commented that, while the requirement to provide validated AMI data within 48 hours can be met in most instances, there may be some delay due to scheduled or unscheduled system maintenance. PSE&G requested an extension of this time frame in case of system maintenance.

26. COMMENT: Regarding N.J.A.C. 14:5-10.3(a), JCP&L recommended that the Board add language to allow flexibility in the event of a systemic issue, maintenance, or outage that may, for a short period, preclude meeting the 48-hour timeframe requirement.

RESPONSE TO COMMENTS 24, 25, AND 26: Through the stakeholder process, Board determined that a shorter data availability period was desirable, but not technically feasible at this time. The mandatory 48-hour period was selected as a compromise and should not be exceeded. However, enforcement of any rule is subject to the consideration of mitigating circumstances in which the utility is incapable of achieving compliance for reasons outside of its control. As such, the Board declines to make the recommended changes.

27. COMMENT: Regarding N.J.A.C. 14:5-10.3(a), Mission:data requested clarification regarding the customers and their authorized agents receiving validated AMI data no later than 48 hours after the meter readings are captured. Mission:data explained that if only customers had access and needed to manually share this data, load flexibility offerings would see minimal uptake and undermine the value of AMI.

RESPONSE: Validated customer usage data is required to be available to be collected from the EDCs within 48 hours of the data being received by the EDC. This accounts for the period of time needed for the EDC to validate the accuracy of the data. The Board generally agrees that the process should be as easy as possible for the customer and that there should be an allowance for direct sharing of AMI data with authorized third parties at the customer's request. This is reflected in the rules, which require the EDC to make the data available to either the customer "or the customer's authorized agent," allowing the customer to choose the method they prefer. The Board believes that the rules will facilitate the data collection needed for sophisticated load flexibility and grid services programs.

28. COMMENT: Regarding N.J.A.C. 14:5-10.3, ACE recommended that the Board establish a working group to evaluate and address HAN device format and connectability, as well as the feasibility and benefit of offering data in less than 15-minute intervals.

RESPONSE: Through the stakeholder process, Board staff has engaged in discussions regarding the benefits of customers receiving near real time, non-validated data. The Board believes this capability, which already exists in the meters deployed by the EDCs, should be enabled at the request of customers who wish to receive it. As such, the Board declines to establish a working group to further explore this issue.

29. COMMENT: Regarding N.J.A.C. 14:5-10.3(a), the NJUA stated that the requirement to provide data at intervals of 15 minutes or less is out of alignment with certain EDCs' AMI plans. NJUA further stated that the proposed rules offer no justification or cost benefit analysis for the expansion of the 15-minute-or-less capability and questions requiring such an upgrade without evidence of customer benefits. According to NJUA, several EDCs currently offer five-minute capability for commercial customers only. The EDCs estimate that the anticipated costs to comply with these changes would be tens of millions of dollars per EDC, plus recurring yearly maintenance and upgrade costs.

RESPONSE: All but one of the EDCs have deployed AMI systems utilizing 15-minute intervals and, as such, this was established as the standard. As discussed further below, the rulemaking has been modified to remove the five-minute requirement, but continues to require the EDCs to be capable of meeting the requirements of PJM's implementation of FERC Order 2222 for customers who need and request it. The Board disagrees that all of the EDCs will have to make substantial investments to comply with this requirement. Only one EDC currently utilizes intervals longer than 15 minutes and switching from their current configuration to 15-minute intervals should not require substantial fortification of the communications networks, which was identified in the stakeholder process as the main limiting factor when using shorter data collection intervals. Additionally, EDCs are only required to provide data at shorter intervals at the customer's request, which will further limit potential impacts to communications networks and the need for additional infrastructure investments. The Board believes that the benefits of customer access to this data outweigh the costs. The ability of customers to see their usage over time and use the resulting data generated through interval data collection is a key feature and benefit of AMI meters and a critical component of the deployment as a whole. Additionally, access to this data in compliance with FERC Order 2222 will be required for customers to participate in distributed energy resources (DER) aggregation. The Board believes that aggregation will be an important component of the energy market in New Jersey, and timely implementation of these requirements will facilitate participation in such programs.

30. COMMENT: PSE&G stated that N.J.A.C. 14:5-10.3(a)1, in which interval data is to be collected in 15-minute intervals, is not feasible as proposed. PSE&G stated that it maintains meters across many rate schedules where such data is not required and, therefore, not configured for 15-minute intervals. In order to meet this requirement, PSE&G stated that it would need to change those meters and make billing system changes. PSE&G further stated that this will involve capital investment that may lead to stranded assets as PSE&G recently installed these AMI meters, because removing them to satisfy the requirement would require removal that is not at the end of their useful life.

RESPONSE: Through the stakeholder process, PSE&G indicated that it intended to measure usage in 15-minute intervals as did two of the other EDCs. It is not clear to the Board which rate schedules or customer classes would not be measured in this way, however, the Board believes the majority of residential and general service customers would have their meters read in 15-minute intervals. In addition, as these changes would require reconfiguring meter settings rather than utilizing different meters, the Board does not understand PSE&G's position regarding stranded assets.

31. COMMENT: Regarding N.J.A.C. 14:5-10.3(a)1, JCP&L commented that the recommended configuration change to a 15-minute interval length for all customers is contrary to JCP&L's Board-approved AMI Plan and will incur costs that are in addition to and beyond the costs identified and recoverable in the company's Board-approved AMI Plan. JCP&L recommended that the Board reconsider this requirement, given the potential significant increase in cost to ratepayers.

RESPONSE: JCP&L is the only EDC that did not elect to use a 15-minute interval length in its AMI Plan. The 15-minute data collection requirement in the rules allows for a consistent interval length for all customers in the State, which the Board anticipates will facilitate customers' use of the data and the development of programs and products that utilize the data. A 15-minute interval is the minimal level of granularity to allow customers to better monitor their energy usage, but should not overly burden the communications networks required to transmit this data. Any prudently incurred costs associated with meeting this requirement may submitted for consideration in JCP&L's next base rate case.

32. COMMENT: Regarding N.J.A.C. 14:5-10.3(a)2, ACE expressed concerns about the requirement to offer five-minute data collection upon

customer request. ACE stated that it would need to assess its meter data management and billing systems to determine the feasibility of providing data in five-minute intervals, as its current infrastructure permits provision of data in 15-minute intervals. However, ACE stated that it does not believe that five-minute intervals for its residential customers would improve the company's use cases. Additionally, ACE stated that moving to five-minute intervals would significantly increase costs.

33. COMMENT: Regarding the requirement at N.J.A.C. 14:5-10.3(a)2 that the EDC provide five-minute data collection if specifically requested by a customer, RECO stated that this would require additional meter upgrade work, technology, and supporting systems, which were not included in the its AMI deployment plan, and which will increase costs to all customers without commensurate benefit. Therefore, RECO stated that it does not support this requirement, particularly given the lack of current demand for such data.

34. COMMENT: Regarding N.J.A.C. 14:5-10.3(a)2, AEU stated that many of the existing EDC AMI deployment plans do not support five-minute interval data sharing, which would result in extensive and costly upgrades. AEU recommended that the Board consider hosting working groups to consider the use cases, costs, and benefits associated with these upgrades.

RESPONSE TO COMMENTS 32, 33, AND 34: The Board is revising this provision upon adoption to state that the interval requirement will be consistent with PJM's implementation of FERC Order 2222. Upon consideration of the comments received and review of ongoing PJM proceedings, the Board has determined that the revised wording better captures the Board's intent, as stated in the notice of proposal, that the rule "require[] the EDCs to meet the requirements of FERC Order 2222 according to the Pennsylvania-New Jersey-Maryland Interconnection's (PJM) planned implementation timeline" and "not exceed the requirements of FERC Order 2222." 57 N.J.R. 1949(a) at 1950. This will be required by PJM once implemented and utilized for DER aggregation. As Order 2222 has yet to be implemented, the Board believes the existing infrastructure should be able to support what may be a limited use case for the foreseeable future and allow for incremental upgrades to organically support these deployments as DER aggregation grows. Additionally, the revised language of this provision provides greater flexibility in how the EDCs meet the Board's requirements, as long as they meet PJM's. While the Board recognizes that it may be necessary for the EDCs to implement shorter intervals for the customers who will be part of the programs that need shorter intervals, the Board believes that costs of compliance will be reduced because the revised language allows maximum flexibility in methods of meeting the requirement and the extent of preparation will be on an as-needed basis as opposed to imposing a new standard across the entire system.

35. COMMENT: Regarding N.J.A.C. 14:5-10.3(a)2, RESA recommended that the Board require the EDCs to collect AMI data in five-minute intervals for all customers, regardless of whether the customer requests it. RESA stated that more granular usage data spurs innovation and customized energy solutions that enable customers to take control over both their energy usage and their energy budgets through products and services designed to help them shift their usage based on their individual needs.

RESPONSE: While the Board recognizes the value of more granular data, the Board must balance this with cost to ratepayers. Through the stakeholder process, the EDCs expressed concerns regarding shorter intervals for data collection due to limitations of the communications networks. Three of the four EDCs expressed the intention to implement 15-minute intervals in the AMI deployments. The Board standardized 15-minute intervals for this reason. Additionally, with respect to the requirement to provide data in five-minute intervals upon request, as stated in the notice of proposal, the Board's intention in this provision was to require the EDCs comply with FERC Order 2222, as implemented by PJM. 57 N.J.R. at 1950. As noted in the Response to Comments 32, 33, and 34, the Board is revising the proposed language at N.J.A.C. 14:5-10.3(a)2 upon adoption to more clearly reflect this intention.

36. COMMENT: Regarding N.J.A.C. 14:5-10.3(a)2, JCP&L requested clarification regarding what is meant by "data collection" in terms of whether five-minute collection of 15-minute interval data is intended or envisioned to create five-minute interval data availability for all customers. If the latter scenario is intended, then JCP&L requested further clarification regarding how quickly the data needs to be available for collection retrieval, to whom it is available, and how it is "published."

RESPONSE: The term was meant to indicate data collection in five-minute intervals, rather than 15-minute intervals. As specified at N.J.A.C. 14:5-10.3(a), this data must be made available within 48 hours after the data is collected by the EDC. As discussed in the Response to Comments 32, 33, and 34, the Board is revising this provision upon adoption to specify an interval as required by PJM's implementation of FERC Order 2222, rather than five minutes.

37. COMMENT: Regarding N.J.A.C. 14:5-10.3(a)2, JCP&L recommended that stakeholder discussions are warranted to determine when it is appropriate and necessary to provide such granular intervals, and workgroups followed by a Board order are encouraged to establish such parameters.

RESPONSE: The Board received significant feedback on this issue through the stakeholder engagement associated with this rulemaking process. After careful consideration of that feedback, the Board has determined, as described in the Response to Comments 32, 33, and 34, to specify that EDCs must provide data upon request in a manner that complies with the requirements of FERC Order 2222, when implemented by PJM. The Board appreciates JCP&L interest in ongoing engagement on this matter.

38. COMMENT: Regarding N.J.A.C. 14:5-10.3(a)2, JCP&L recommended that the Board considers aligning the proposed rule with PJM's tariff with respect to distributed energy resource aggregators to avoid negatively impacting ratepayers to incur costs that are not required by PJM.

RESPONSE: As described in the Response to Comments 32, 33, and 34, and in line with JCP&L's recommendation, the Board is revising N.J.A.C. 14:5-10.3(a)2 upon adoption to clarify the Board's intent to align the shorter data collection interval requirement with FERC Order 2222 as implemented by PJM in support of DER aggregation. As these requirements are limited to those who will require shorter data collection intervals, if required by PJM's implementation of FERC Order 2222, rather than the entire customer base, the Board believes these costs will be minimal when these capabilities need to be implemented.

39. COMMENT: Regarding the reference at N.J.A.C. 14:5-10.3(a)2 to FERC Order 2222 requirements, RECO stated that FERC Order 2222 regulates the market participation of DER aggregation, not retail electric service. Therefore, RECO stated that any effort to link New Jersey's AMI data access capabilities to FERC market rules requires further examination, which would be most effectively accomplished through working groups.

RESPONSE: As described in more detail in the Response to Comments 32, 33, and 34, the rule, as revised upon adoption, only requires the EDCs to offer data in intervals consistent with the requirements of PJM's implementation plans for FERC Order 2222 once fully adopted. The extent of that preparation would be on an as-needed basis as opposed to being fully implemented as a new standard across the entire system. The Board believes support of DER aggregation will be an important component of the energy market in New Jersey, so timely implementation of these requirements will facilitate participation.

40. COMMENT: CPower notes that N.J.A.C. 14:5-10.3(a) and 10.4(d) include ambiguous language in the phrase "customers or their authorized agents," which could allow EDCs to meet requirements by providing data access only to customers, even when authorized agents require that data. This may create unnecessary burdens on customers and bottlenecks for program enrollment and participation. To align with the Board's intent to streamline data access, CPower recommends revising the language to "customers and their authorized agents, if applicable."

RESPONSE: The wording was selected in order to allow customers to access their data from the EDCs, if desired, with the understanding the majority of customers would elect to have their data accessed by a third party instead. As noted above, based on the use of "or" in this phrase, the EDCs are required to make the information to either the customer or the customer's agent as the customer chooses. This approach will allow for more flexibility instead of creating burdens on customers or other bottlenecks inhibiting participation in programs.

41. COMMENT: Regarding N.J.A.C. 14:5-10.4(b), RECO agreed that a customer should be able to share AMI data, but not if providing access to third parties results in cyber security risks. Therefore, RECO recommended modifying the language to state: "Customers may share AMI data with authorized third parties in a manner that does not result in cyber security risks for the EDC or threaten the reliability of the EDC's computing systems."

RESPONSE: The Board agrees with RECO's position in principle, however RECO's proposed language change seemingly puts the responsibility of preventing such cybersecurity risks on the customers as opposed to the EDCs that are housing the information. For this reason, the Board declines to make the requested change.

42. COMMENT: Regarding N.J.A.C. 14:5-10.3(b), ACE opined that the demand for HAN device compatibility is questionable, as ACE has not seen many requests from customers for this technology. ACE further stated that the current meter vendors are phasing out ZigBee support in future generations of AMI meters, which will instead likely have support for WiFi or other HAN protocols. As a result, deploying HAN technologies in ACE's territory would require it to replace the ZigBee-enabled meters that ACE recently installed, which would come with significant cost, and require implementation of new security protocols. Therefore, ACE stated that it is premature to promulgate regulations in such an unpredictable technical landscape, and it would be better to address through the working group.

RESPONSE: Through the stakeholder process, the EDCs made it clear that they would not be capable of providing near real time usage data to customers using the validated data they collect for billing purposes. Each EDC's meters are capable of broadcasting this information locally direct to the customer if enabled through the meter. As these rules were developed post deployment, the Board has considered this issue and has worded the rule to allow for any wireless communication technology to be utilized to provide this data. As the rule can leverage existing deployed technology that has been disabled by the EDCs, the Board sees no reason for a delay in giving customers access to this information upon request.

43. COMMENT: Regarding N.J.A.C. 14:5-10.3(b), AEU stated that this section would benefit from further clarification because no customer-owned energy monitoring device is necessary to access AMI data. For example, the Board may mean that for access to near-real time, streaming, unvalidated AMI data, customers would need a device, such as a smartphone, but that is one specific use case and, therefore, should not be a blanket requirement. AEU further stated that requiring customers to buy a product to access their data would place a cost burden on customers and potentially hinder adoption of energy usage behaviors.

RESPONSE: Through the stakeholder process, the EDCs raised security concerns regarding direct access of the meter's data to the internet. The compromise for this was to make data from the meter available through a purpose-built energy monitoring device that a customer may purchase and use at the customer's discretion. While customers will need to purchase a device to view their near real time usage, these products are available at several different price points based on their functionality so the Board anticipates that they will be accessible to customers. In addition, the 15-minute interval data provided by the EDCs can still be useful to customers in monitoring their energy usage behavior.

44. COMMENT: Regarding N.J.A.C. 14:5-10.3(b), RESA recommended additional language requiring the EDCs to make unvalidated AMI data available to third-party suppliers (TPSs) within 24 hours or less. RESA stated that, when suppliers have near real-time access to AMI data, they can deliver value-added products and services to customers that also benefit the grid and help the State achieve its clean energy goals.

RESPONSE: The Board declines to make the requested change. Rather, the method for near real-time access to non-validated data would be directly from a customer using a monitoring device as explained at N.J.A.C. 14:5-10.3(b).

45. COMMENT: Regarding N.J.A.C. 14:5-10.3(b), JCP&L recommended the Board replaces the term "configure" with "provision" to more accurately reflect the process required and recognition of meter capabilities.

RESPONSE: The Board declines to make this change because the proposed change in language does not appreciably affect the meaning of what is being required in the rule and is not necessary.

46. COMMENT: Regarding N.J.A.C. 14:5-10.3(b), Mission:data recommended that the Board removes "qualified" from the description of an energy monitoring device to prevent unfair barriers to device makers and inhibit customer adoption unnecessarily. Mission:data stated their concern regarding utilities limiting "qualified" devices to those only sold by the utility's unregulated affiliates and stated their support for a requirement that devices comply with open standards. Mission:data commented that California has had a successful "bring your own device" policy for many years without any issues, such as utilities abusing monopoly power.

47. COMMENT: Regarding N.J.A.C. 14:5-10.3(b), JCP&L requested clarification regarding who determines which energy monitoring devices are "qualified." JCP&L recommended that the Board provides the company with explicit authorization to qualify devices to ensure communication compatibility and protect consumer data from unauthorized release, recognizing a manufacturer/vendor can submit a device to the company for qualification testing.

48. COMMENT: Regarding the requirement at N.J.A.C. 14:5-10.3(b) that EDCs must provide access to AMI data at customer request through a "qualified" energy monitoring device, RECO noted that the proposed rule does not define the term "qualified energy monitoring device," and recommended that qualifying such devices is a topic that should be addressed in a working group that can address such current and future technological issues. RECO also stated that monitoring devices that connect to a HAN raise significant cybersecurity concerns.

49. COMMENT: Regarding N.J.A.C. 14:5-10.3(b), NJUA recommended that a definition of the term "qualified energy monitoring device" should be added that includes the specific criteria that would qualify an energy monitoring device for use pursuant to this rulemaking.

RESPONSE TO COMMENTS 46, 47, 48, AND 49: As stated in the notice of proposal, this provision is designed to allow customers to use their own devices to receive near real-time data from their AMI meters. In using the term "qualified," the Board intended to convey that the devices would need to be capable of working with the meters; the Board did not intend to approve or provide a list of qualified devices. To avoid confusion, the Board is removing the term "qualified" from the reference to energy monitoring devices at N.J.A.C. 14:5-10.3(b) upon adoption.

50. COMMENT: PSE&G requested modification of N.J.A.C. 14:5-10.3(b) to address devices that may not be compatible with existing AMI meters. The requested language would state that an EDC is not in violation of the provision if the energy monitoring device is not compatible with the existing meter it would not require the EDC to upgrade or modify existing utility infrastructure where the customer-owned device is incompatible.

RESPONSE: The Board's expectation is that customers will purchase devices compatible with current EDC-owned equipment. It is the Board's understanding that existing AMI meters, while capable of providing non-validated data to customers, have had this function disabled and should be able to enable this functionality. The EDCs are expected to determine what devices are compatible with their equipment and inform customers of such.

51. COMMENT: Regarding N.J.A.C. 14:5-10.3(b), NJUA stated that each EDC has its own list of approved devices that may be used on the EDC's system, which reflects each EDC's particular information technology and communications capabilities. Therefore, NJUA recommended that the EDCs be given explicit authorization to qualify an energy monitoring device on their systems.

RESPONSE: The Board agrees that the EDCs should provide customers with a list of devices that will be compatible with their meters and finds that nothing in the adopted rules would prevent this. However, the Board questions the need for the EDCs to give "explicit" authorization for a device to passively receive usage data from the meter. Accordingly, the Board declines to make the recommended change.

52. COMMENT: Regarding N.J.A.C. 14:5-10.3(b), PI recommended that the Board replaces the term "energy-monitoring device" with "AMI-compliant energy monitoring HAN (Home Area Network) device."

RESPONSE: The Board disagrees with the requested change of language, in that it may unduly limit the types of devices available to customers.

53. COMMENT: Regarding N.J.A.C. 14:5-10.3(b), ACE inquired if the company must manually pair each HAN device following a call from the customer.

RESPONSE: The rule requires the EDCs to enable the meter's communication capabilities at the request of the customer. The nature of how that pairing is achieved will be determined by the meter's capabilities and the process for pairing. If, for example, the meter requires a media access control (MAC) address or other unique device identifier that only the EDC can enable in the meter, it would be the responsibility of that EDC to enable and ensure this is functioning properly for the customer.

54. COMMENT: Regarding N.J.A.C. 14:5-10.3(b), ACE inquired about what protocols will be in place to verify customer identity and prevent unauthorized device pairing with a HAN device.

RESPONSE: The EDCs must verify a customer's identity when receiving requests to activate a device, similar to identification verification practices utilized when making any other requests for service or account changes. Prevention of unauthorized device pairing would depend on the configuration of the AMI meter and the nature of the connection that is established.

55. COMMENT: Regarding N.J.A.C. 14:5-10.3(b), ACE inquired about what happens when a customer moves and takes their HAN device with them.

RESPONSE: As the current communications protocol used by the AMI meters is range limited, once the customer's device is removed from the location it will no longer be capable of reading that meter. Additionally, the EDCs may elect to disable the meter's local output as this is the default configuration utilized by the EDCs.

56. COMMENT: Regarding N.J.A.C. 14:5-10.3(b), ACE inquired about how a HAN device may be unpaired.

RESPONSE: If a customer no longer wishes to receive non-validated data, the EDCs may elect to disable this output.

57. COMMENT: Regarding N.J.A.C. 14:5-10.3(b), ACE inquired if the EDC will be expected to provide technical support for customers using HAN devices. Additionally, ACE contemplated how to distinguish between support to be provided by the EDC versus support to be provided by the device manufacturer. ACE further inquired about how customers receive support if they have questions or technology issues with the HAN devices.

RESPONSE: Each EDC is responsible for enabling this functionality in the meter at the request of the customer and configuring the meter to provide the data to the device of the customer's choosing. Once this functionality is enabled and broadcasting, the proper configuration of the device is the customer's responsibility. The Board does not expect the EDCs to provide technical support for the customer-owned devices, only that the meters are configured correctly to transmit data to the device.

58. COMMENT: Regarding N.J.A.C. 14:5-10.3(b), PI recommended that the Board add a statement regarding how the AMI-compliant HAN devices provide ratepayers with the missing ability to locally and securely monitor their own grid electric demand at low latency and high rate (one measurement every 8 to 15 milliseconds, if needed).

RESPONSE: The Board declines to adopt this suggestion as it does not fit within the purpose of the rulemaking.

59. COMMENT: Regarding N.J.A.C. 14:5-10.3(b), NJUA requested clarification that AMI meters are a pre-requisite for the installation of an energy monitoring device.

RESPONSE: Customers may elect to install energy monitoring devices at their own discretion. While it is possible to monitor real time energy usage through other equipment installations, the availability of this information from an AMI meter is much more likely to be utilized by customers as the access directly from the meter lowers the barriers to entry.

60. COMMENT: Regarding N.J.A.C. 14:5-10.3 and 10.4, Rate Counsel commented that the AMI data access implementation costs associated with establishing and maintaining the portals discussed at N.J.A.C. 14:5-10.3 and 10.4(d) and (e) should be subject to review in a subsequent EDC base rate case.

RESPONSE: The Board agrees with Rate Counsel that costs associated with the implementation of these rules will be subject to review in a subsequent rate case. The rulemaking does not include any guarantees of recovery. As with any costs incurred by the EDCs, recovery of prudently incurred expenses may be sought and considered in a base rate case.

N.J.A.C. 14:5-10.4 Ownership and Management of AMI Data

61. COMMENT: Regarding N.J.A.C. 14:5-10.4, EEA-NJ supported the Board's proposed rules affirming customer ownership of AMI data, ensuring data accuracy, and requiring informed consent for data sharing, recognizing these as key to unlocking AMI benefits.

RESPONSE: The Board thanks EEA-NJ for its comment.

62. COMMENT: Regarding N.J.A.C. 14:5-10.4(a), PI recommended that the Board add a statement regarding how non-validated AMI data is captured using customer-owned HAN devices that belong exclusively to the customer. PI further recommended that the Board add a statement regarding how the customer is free to use and share this data as they deem fit, without the privacy restrictions applied to EDC-collected customer usage data.

RESPONSE: The Board agrees with the statements made in the comment but disagrees with the necessity of providing such a statement in the rule. Customers already have the right to collect and use their own data as they see fit, AMI simply allows customers to do this more easily.

63. COMMENT: Regarding N.J.A.C. 14:5-10.4(a), JCP&L commented that the provision should be further refined to ensure that it does not include voltage, current, or other metrics that are not usage-based, and that it does not give the customer the right to request the EDC delete or otherwise modify data collected by the meter. JCP&L further stated that the provision should clearly state that the EDC is not responsible for validating customer authorizations.

RESPONSE: The data collected from the customer's meter used to measure the customer's usage should be made available to the customer. If voltage, current, or other metrics are measured in order to determine the customer's usage, then these should be provided. However, if usage in kilowatts and kilowatt hours is measured directly, these are the metrics that need to be provided. As the data collected is for billing purposes, the Board agrees that customers do not have the right to have this data modified or deleted, but the Board does not think that this needs to be stated in the rule.

64. COMMENT: Regarding N.J.A.C. 14:5-10.4(a), Mission:data recommended that the Board remove the phrase "whose usage is captured by their AMI meter" as it obscures the definition since each meter records energy usage, often in a home or building in which the individual listed on the utility bill isn't the only consumer of electricity.

RESPONSE: The Board disagrees with this interpretation and the requested change. The customer of record already knows they are responsible for the usage of the entire household, not just the usage of the customer named on the bill. This will also be the case of individually metered multi-unit dwellings or commercial buildings as well.

65. COMMENT: Regarding N.J.A.C. 14:5-10.4(b), Mission:data recommended that the Board add language that includes a process for the utility customer to revoke third-party access to data and allows the third party to revoke their access similar to Missouri's proposed tariff regarding Green Button Connect's termination provisions.

RESPONSE: This provision specifies that "[c]ustomers may revoke access to their AMI data from third parties at any time." Third parties can also be removed at the third party's request to Board staff or by the Board for failure to comply with the requirements of the subchapter.

66. COMMENT: Regarding N.J.A.C. 14:5-10.4(c), RECO stated that only third parties who have established and comply with cyber security standards should have access to AMI data. Therefore, RECO recommended that the language be revised to state as follows: "Each EDC must make a customer's AMI data accessible and sharable to third parties through the Green Button Standard. AMI data will only be accessible and sharable to third parties who establish and comply with adequate cyber security standards, which may be greater than the Green Button cyber security standards."

RESPONSE: The Board declines to make the recommended change, as a requirement for third parties to take appropriate steps to protect customer information in accordance with industry standards for cybersecurity and the protection of such customer information is already included at N.J.A.C. 14:5-10.6(d).

67. COMMENT: Regarding N.J.A.C. 14:5-10.4(c) and (d), ACE supported the use of Green Button Download as a primary format and method for validated dating sharing. However, ACE expressed concerns about adopting Green Button connect based on low customer usage patterns.

68. COMMENT: Regarding N.J.A.C. 14:5-10.4(d), JCP&L commented that the Green Button Connect enhancement may result in significant additional implementation costs neither included nor accounted for in the company's Board-approved AMI Plan.

69. COMMENT: PSE&G commented that the company appreciated that the rules allow for an "and/or" approach regarding the use of Green Button Download and Green Button Connect as PSE&G does not yet support Green Button Connect.

70. COMMENT: Regarding N.J.A.C. 14:5-10.4(d), EEA-NJ supported the Board's adoption of the Green Button standard for third-party data sharing, emphasizing that Green Button *Connect My Data* is the industry standard and critical for broader participation. However, EEA-NJ recommended removing references to Green Button *Download My Data*, as it does not support ongoing data access and falls short of program needs. Additionally, EEA-NJ suggested clarifying that Green Button encompasses both the data format and the method of transmission.

RESPONSE TO COMMENTS 67, 68, 69, AND 70: Through the stakeholder process, Board staff were informed that the EDCs had already implemented Green Button Download. The rule calls for adherence to the Green Button Standard, which encompasses the data formatting and content aspects of AMI data. While the Board believes that Green Button Connect is the superior form of data sharing, the rule allows the EDCs to comply by making data available using either Green Button Download or Green Button Connect because there may be significant investments required in order to implement Green Button Connect for the EDCs that have not done so already. In light of these potential costs, the Board has determined that it is better at this time to allow use of either technology, while the EDCs and the Board further explore the demand for, necessity of, and expense of upgrading to Green Button Connect.

71. COMMENT: Regarding N.J.A.C. 14:5-10.4(c), Mission:data recommended that the Board include that the process for customers to share their data through Green Button Connect has publicly accessible documentation with a step-by-step guide and available utility contacts which should be updated anytime there are changes to the process.

RESPONSE: The Board generally agrees that the interface used by customers should include instruction on the functionality and its use, however, the Board does not see the need to specify this level of detail within the rulemaking or limit the flexibility of the EDCs to design such an interface.

72. COMMENT: Regarding N.J.A.C. 14:5-10.4(d), RECO stated that Green Button Connect and EDI cybersecurity standards are not adequate to protect utility computing systems. Therefore, RECO recommended establishing working groups comprised of the EDCs and industry groups to address cybersecurity standards for third parties.

RESPONSE: While the Board is not opposed to a working group to collaborate in addressing cybersecurity standards, the Board currently has no plans to conduct a working group on this topic. Furthermore, the Board disagrees with proposition that Green Button Connect cybersecurity standards are insufficient to protect utility systems and notes that utilities in other jurisdictions have been able to successfully deploy Green Button Connect. Additionally, EDI is currently used by TPSs, so it is unclear if RECO is claiming current systems are not adequate or if expanding current systems would not be adequate. In either case, appropriate steps need to be taken to protect customer data.

73. COMMENT: Regarding N.J.A.C. 14:5-10.4(d), ACE recommended that a working group be established to discuss the use cases for data sharing and whether traditional electronic data interchange (EDI) transactions would be appropriate. ACE further stated that EDI should be restricted to third-party electricity suppliers registered with the Board.

74. COMMENT: Regarding N.J.A.C. 14:5-10.4(d), JCP&L commented that an EDI framework may be a significant investment for EDCs to implement and include other third parties that are not suppliers. JCP&L recommended that stakeholder discussions and workgroups be subject to determine and centralize which types of entities are authorized to have access to portals and EDI.

75. COMMENT: Regarding N.J.A.C. 14:5-10.4(d), NJUA stated that there does not currently exist a framework for EDI and supplier portals for entities that are not licensed electric or gas suppliers, and upfront costs would be incurred to expand the entities that receive data through these means. NJUA further stated that it is not clear that the use of EDI (or a portal) would be the preferred means of transmitting data to entities that are not TPSs or energy consultants. Therefore, NJUA recommended that the proposed rules clarify that EDI or supplier web portals are included as methods to be mutually agreed upon between the EDCs and authorized third parties, and not a required means of transmitting data to all third-party entities.

RESPONSE TO COMMENTS 73, 74, AND 75: EDI was included in the rule in recognition that this was the method currently used by licensed TPSs. As such, the infrastructure to support its use is already in place and could be readily expanded to be used by authorized third parties. Extending the usage of this existing system to authorized third parties should limit the upfront costs. For this reason, the Board disagrees with ACE that this method of data sharing should be limited to TPSs.

76. COMMENT: Regarding N.J.A.C. 14:5-10.4(d), ACE requested clarification as to what constitutes a "third party" in the proposed rules. ACE stated that third-party electricity suppliers should not be included as they already have a mechanism to request and receive interval data. However, if third-party electricity suppliers are acting in a different capacity, it may be appropriate that they be considered a third party pursuant to the proposed rules.

RESPONSE: The term "third party" refers to any authorized entity designated by the customer to whom they wish to share their AMI data. This would include TPSs both in their capacity as electricity suppliers and in their capacity as third parties offering energy management services. The term is used to broadly cover the known and future possible interested entities.

77. COMMENT: Regarding N.J.A.C. 14:5-10.4(d), JCP&L recommended that the Board break this subsection into two subsections that clearly articulate the difference in data access for licensed TPSs of generation as opposed to other "third parties" for whom the customer unilaterally authorizes release of data.

RESPONSE: The term "third parties" is intended to apply to all entities that would seek access to AMI data, including TPSs. The methods utilized currently by TPSs are referenced as they may be useful in providing data access to other parties as well.

78. COMMENT: Regarding N.J.A.C. 14:5-10.4(d), JCP&L requested clarification that nothing in the proposed rule precludes the data access currently afforded licensed TPSs in the State.

RESPONSE: The Board agrees that nothing in the rulemaking precludes data access currently afforded to licensed TPSs.

79. COMMENT: Regarding N.J.A.C. 14:5-10.4(d), ACE recommended that the Board establish minimum requirements that third parties must meet in order to ensure a positive customer experience. This would include certification testing by third parties to ensure that agreed-upon transactions can be processed successfully. ACE further stated that in-house technical and customer service experts should also be available from third parties, similar to electricity suppliers and EDCs.

RESPONSE: As noted in response to comments regarding N.J.A.C. 14:5-10.6(a), the Board will establish a process to vet third parties and create a list of entities that are approved as eligible to be authorized by customers to receive AMI data. The Board is revising N.J.A.C. 14:5-10.6 upon adoption for greater clarity, and intends to set out additional details on this process in a Board Order.

80. COMMENT: Regarding N.J.A.C. 14:5-10.4(d), Mission:data recommended that the Board requires EDCs to provide proof of independent certification of adherence to the latest Green Button Connect standard once per calendar year.

RESPONSE: The rulemaking already requires the EDCs to conform to the standard and further certification would be unnecessary and redundant.

81. COMMENT: Regarding N.J.A.C. 14:5-10.4(d), RESA recommended a change of "or" to an "and" in the following language so as to require EDCs to provide both EDI and flat CSV files to TPSs. Flat

files are more concise and cost effective when dealing with the huge amount of data enabled by AMI meters.

RESPONSE: The Board agrees with this comment and finds that it is consistent with the intent of this provision. The Board is revising the provision upon adoption as recommended by RESA.

82. COMMENT: Regarding N.J.A.C. 14:5-10.4(e), Mission:data commented that the rolling data that is shared should include two years' worth of AMI data which is the minimum needed for energy management and efficiency providers to understand a customer's average usage and get a full picture of seasonal changes.

RESPONSE: The Board disagrees with this recommendation on the basis that it would create excessive data storage requirements and substantial costs in order to achieve.

83. COMMENT: PSE&G sought clarification whether N.J.A.C. 14:5-10.4(e) applies to licensed TPSs or also applies to other suppliers.

RESPONSE: This provision applies to data sharing with all authorized third parties, not just TPSs. The Board understands that the EDCs are already sharing data with TPSs as described in this provision and the Board's intent is to expand this functionality to facilitate greater access.

84. COMMENT: Regarding N.J.A.C. 14:5-10.4(e), RECO stated that Green Button Connect already provides an application programming interface (API), so it is not clear if this proposed language is referring to the Green Button Connect interface or proposing an additional, non-Green Button Connect mode of connection to the EDCs' IT systems for customer AMI data.

RESPONSE: While Green Button Connect provides an API and would satisfy this requirement, the rule as proposed also allows for this functionality outside of Green Button Connect, should the EDC elect to utilize a different method.

85. COMMENT: Regarding N.J.A.C. 14:5-10.4(e) and (f), RESA recommended adding language requiring the EDCs to make the AMI data sets available to TPSs in the supplier portals at a designated time daily, as the same will enable more efficient collection of data.

RESPONSE: The Board disagrees with this recommendation because predetermining a uniform time for the EDCs is impractical and would limit flexibility between the EDCs and TPSs.

86. COMMENT: Regarding N.J.A.C. 14:5-10.4(e), JCP&L recommended that the Board consider the incremental costs to the company for implementing a rolling 14-day period, and the systemic impact on the EDC and potential for delayed access to data for the electric generation supplier from this requirement.

RESPONSE: It is unclear to the Board what the limitation is for the EDC in this scenario or why this would delay access for electric generation suppliers. As with any costs, the EDC may seek recovery of prudently incurred costs in a base rate case.

87. COMMENT: Regarding N.J.A.C. 14:5-10.4(e), JCP&L requested clarification regarding how the company can provide an API, but third parties would need to automate calling the API to retrieve the data, including all necessary testing and adherence to cyber security protocols.

RESPONSE: The Board cannot provide the programming specifics on how to achieve this, only that it is possible to create a secure data portal for which the regular collection of data can be achieved.

88. COMMENT: Regarding N.J.A.C. 14:5-10.4(f)'s requirement that EDCs "ensure AMI data is transmitted to the authorized third parties no later than 60 seconds after customer authorization," ACE inquired about what is required to meet transmission of customer data no later than 60 seconds after customer authorization. ACE stated that performance requirements should only be applied in the context of a specific use case and technical solution. Otherwise, ACE stated that it is premature to discuss any specific number of seconds.

89. COMMENT: Regarding the requirement at N.J.A.C. 14:5-10.4(f) that AMI data be transmitted to authorized third parties no later than 60 seconds after customer authorization, RECO stated that the size of the data request would determine the amount of time required to transmit the data. Given the potential volume, RECO stated that transmitting AMI data can sometimes exceed 60 seconds and may take several hours or even days to complete.

90. COMMENT: Regarding N.J.A.C. 14:5-10.4(f), JCP&L requested clarification regarding the boundaries of the proposed timeline for data transmission following customer authorization, noting there are factors beyond the company's control that may impact the company's ability to meet the suggested turnaround time. JCP&L requested further clarification regarding the "authorization" of the 60-second timeframe in which the EDC processes the request, not when it is submitted.

RESPONSE TO COMMENTS 88, 89, AND 90: The Board believes that establishing a performance threshold is appropriate to ensure the expedient sharing of data at the customer's request. The Board clarifies that it is requiring that the transmission of data begin in 60 seconds, not that the transmission be completed in 60 seconds.

91. COMMENT: PSE&G commented regarding N.J.A.C. 14:5-10.4(f), that in their experience not every third party requires or is capable of handling AMI data in all of the formats proposed within the rules, all within "60 seconds after customer authorization." PSE&G further stated that there should be a differentiation between TPSs and other third parties due to the different data processing requirements of the different entities. In addition, PSE&G noted that TPSs currently utilize an electronic data interchange batch process and that the 60-second requirement rather than the next scheduled batch transfer time following authorization may not provide a clear benefit. PSE&G recommended that the data formats should be tailored to the end user through a collaborative process and the rule should allow for the flexibility this would require.

RESPONSE: The Board believes that establishing a performance threshold is appropriate to ensure the expedient sharing of data at the customer's request. As noted above, the requirement is that the transmission of data should begin in 60 seconds, not that the transmission be completed in 60 seconds. The Board encourages the EDCs to provide tailored data formats as necessary through their interactions with TPSs and other third parties. The Board does not intend for this requirement to supplant or complicate the existing processes that exist for TPSs, but simply to expand existing access to other authorized third parties, rather than creating new and specialized processes. This addresses one of several ways in which AMI data can be shared so there should be sufficient flexibility for third parties to obtain AMI data.

92. COMMENT: Regarding the requirement at N.J.A.C. 14:5-10.4(g) that each EDC share certain AMI data with third parties, RECO stated that this raises cybersecurity concerns because it does not require that the third party establish and comply with adequate cybersecurity standards. RECO also stated that the rulemaking does not define what is meant by "any other data necessary for customers to participate in various demand management programs," so the EDCs cannot respond to this rulemaking unless this particular data is specified with more clarity. RECO stated that expanding the AMI data fields to capture such data may require additional meter upgrade work, technology, and supporting systems, at additional costs to consumers.

RESPONSE: N.J.A.C. 14:5-10.6(d) requires third parties to take appropriate steps to protect customer information in accordance with industry standards for cybersecurity and the protection of such customer information. The rulemaking does not define "any other data" specifically in order to account for potential data the Board might not otherwise be aware or have not been otherwise identified throughout the stakeholder process. This does not imply that the EDCs would be responsible for collecting information that existing AMI meters do not have the capability to collect. The intent of the rule is to fully utilize the capabilities of the installed meters and equipment, but also account for future meters which may have enhanced capabilities. To the extent that additional costs may be incurred, the prudence of those expenditures and how those costs may be conveyed to customers would be considered in a base rate case.

93. COMMENT: Regarding N.J.A.C. 14:5-10.4(g), JCP&L requested clarification regarding what is considered "all customer billing information," as well as the specific data fields of customer billing information to be provided to authorized third parties so the company can confirm it currently has all proposed fields available. JCP&L noted that, even with authorization, it currently does not provide bill amounts or meter reads.

RESPONSE: The rule specifies at N.J.A.C. 14:5-10.4(g)1, 2, and 3, the various types of billing information that needs to be included, as well as "any other data necessary for customers to participate in various demand management programs."

94. COMMENT: Regarding N.J.A.C. 14:5-10.4(g), JCP&L requested clarification regarding what information is intended to be shared as it

relates to the "precise addresses for multi-site customers" data type as the company currently provides the 20-digit EDI customer number and does not release addresses not tied to the customer authorization, which is premise specific.

RESPONSE: The intent of the rule is that the EDCs indicate the usage of the location at which the meter measures the data, and not attribute the usage to a general billing address. The EDCs may use whatever methodology achieves this purpose.

95. COMMENT: Regarding N.J.A.C. 14:5-10.4(g), JCP&L recommended that "customer account number" be deleted and changed to "Electronic Data Interchange Customer number," or that the proposed rules should clearly state that the EDC has the discretion to determine what number is provided.

RESPONSE: The EDCs may use their discretion in providing unique customer account numbers to accurately identify customers. The rule does not specify a required method as each EDC may use a different method of identifying customers.

96. COMMENT: CPower, supported N.J.A.C. 14:5-10.4(g) for recognizing the need to link AMI data with customer and account information to enable enrollment in demand management programs, and for requiring EDCs to share this data with approved third parties. CPower stated that this aligns with its prior recommendations and will help streamline participation in grid services. However, CPower recommended adding a defined timeframe for data delivery, specifically a 48-hour requirement consistent with existing AMI data delivery standards, to ensure timely and effective implementation.

RESPONSE: The Board thanks CPower for its support regarding N.J.A.C. 14:5-10.4(g). The 48-hour time frame noted at N.J.A.C. 14:5-10.3(a) applies to this section as well.

97. COMMENT: Regarding N.J.A.C. 14:5-10.4(g), ACE stated that the types of data to be shared with third parties should be discussed for each use case. ACE further stated that a working group would best address these issues.

RESPONSE: It is unclear what ACE is referring to in this comment. The data collected by the EDC is the customer's usage measured in 15-minute intervals. While there are several use cases for this data, it is unclear how many "types" are being referred to in this comment.

98. COMMENT: Regarding N.J.A.C. 14:5-10.4(g), RESA objected to the inclusion of rate information in the AMI data provided to third parties as it would reveal confidential, proprietary information about TPS pricing. RESA further objected to the sharing of account numbers with third parties.

RESPONSE: The Board disagrees with this comment as the inclusion of this information may directly facilitate ratepayers in finding better deals and to fully analyze the costs associated with their usage.

99. COMMENT: Regarding N.J.A.C. 14:5-10.4(g)1, Mission:data included additional metrics of customer data that is needed to participate in wholesale markets, such as peak load contribution, line losses, and transmission zone.

RESPONSE: The Board disagrees with this comment as it exceeds the scope of customer usage data.

100. COMMENT: Regarding N.J.A.C. 14:5-10.4(g)2, Mission:data commented that all customers should have their precise addresses available, not just multi-site customers.

RESPONSE: The Board agrees with this comment, however the majority of customer addresses will be the location of the customer. The cited rule makes a distinction only for customers with multiple locations as this is a special case.

101. COMMENT: Regarding N.J.A.C. 14:5-10.4(h), which would prohibit EDCs from charging a fee for access to AMI data, ACE contended that EDCs should be able to recover their costs in accordance with traditional ratemaking principles.

RESPONSE: As with any prudently incurred costs, the EDCs may request recovery for said costs in a base rate case. However, this rule restricts the EDCs from imposing fees specifically for access to data.

N.J.A.C. 14:5-10.5 EDC Use of AMI Data

102. COMMENT: Regarding N.J.A.C. 14:5-10.5(a) requiring that "[e]ach EDC must only bill customers who have installed activated AMI meters using the customer's validated AMI data, rather than estimated data," ACE recommended adding the phrase "when available" to reflect that AMI data may not always be available. Additionally, ACE disagreed with the requirement to use "validated" AMI data, as there are circumstances where estimated data may be necessary.

103. COMMENT: Regarding the requirement at N.J.A.C. 14:5-10.5(a) that each EDC must only bill customers who have installed activated AMI meters using the customer's validated AMI data, RECO stated that there are several situations where an interval of the customer's AMI meter shows as an anomaly, that is, the usage differs from historical usage. In that case, RECO will provide the customer with an estimated bill. Therefore, RECO recommended that the language be revised to read as follows: "Each EDC must only bill customers who have installed activated AMI meters using the customer's validated AMI data, rather than estimated data, unless the registered AMI data requires correction."

104. COMMENT: Regarding N.J.A.C. 14:5-10.5(a), PSE&G sought clarification or additional language to allow for estimated bills in the event of non-working AMI meters or other reasons for a lack of data. PSE&G further stated that they interpreted the requirement to determine each customer's peak load contribution as to solely involve the derivation of each customer's capacity obligation.

105. COMMENT: Regarding N.J.A.C. 14:5-10.5(a), NJUA stated that the EDCs support using a customer's actual available AMI data for billing purposes, but the proposed rules go too far in requiring that an EDC must only bill customers using validated AMI data, rather than estimated data. NJUA stated that it is not feasible to completely prohibit the use of estimated data for billing purposes because scenarios may occur in which actual AMI data is not available or usable (for example, equipment outages, damaged or stolen meters, network outages). Therefore, NJUA recommended that the Board revise the proposed rules to specify that the EDCs may use estimated data, as necessary, when actual AMI data is not available.

106. COMMENT: Regarding N.J.A.C. 14:5-10.5(a), JCP&L requested clarification regarding whether the subsection is intended as an absolute prohibition from using a customer's estimated data for billing purposes despite scenarios in which actual AMI data is not available or usable. JCP&L recommended that the requirement account for and allow for the use of estimated data as necessary in circumstances where actual AMI data is not available.

RESPONSE TO COMMENTS 102 THROUGH 106: The AMI proceedings that approved the EDC's plans for their AMI deployments included the elimination of estimated meter reading as one of the benefits of AMI. This rule codifies that requirement. Enforcement of any rule is subject to the consideration of mitigating circumstances in which the utility is incapable of achieving compliance for reasons outside of its control. The customer's capacity obligation can be used as their peak load contribution, if equivalent to their peak load contribution.

107. COMMENT: Regarding N.J.A.C. 14:5-10.5(a), requiring that each EDC "must establish the customer's peak load contribution using each customer's load data," ACE recommended adding the phrase "when available" to reflect that load data may not always be available.

108. COMMENT: Regarding the requirement at N.J.A.C. 14:5-10.5(a) that each EDC must establish the customer's peak load contribution using each customer's load data, RECO recommended that the language be revised to read as follows: "each EDC must establish the customer's peak load contribution using each customer's load data when available."

RESPONSE TO COMMENTS 107 AND 108: The Board does not believe it is necessary to include this caveat because the Board is not aware of any normal conditions in which load information would not be available. If the companies are asserting that the data may, for reasons outside of their control, be unavailable at times, enforcement of any rule is subject to the consideration of mitigating circumstances in which the utility is incapable of achieving compliance for reasons outside of their control.

109. COMMENT: Regarding N.J.A.C. 14:5-10.5(a), RESA commented that the EDCs should be required to use AMI data to calculate capacity tags. RESA stated that while the current rulemaking must use a customer's AMI data to calculate their peak load contribution, the EDCs should also be required to use actual AMI data to establish their installed capacity tags. RESA further argued that this information will allow a customer to see how changes in behavior can result in lower monthly

energy usage and is necessary for TPSs to reduce supply costs to match the customer's reduction in usage during peak hours.

RESPONSE: The Board declines to make the recommended change as determining a customer's peak load contribution should be sufficient to achieve the same purpose of identifying peak usage in periods of high demand.

110. COMMENT: Regarding N.J.A.C. 14:5-10.5(b), RESA commented that the use of AMI data by the EDCs should be limited to their core functions and Board-mandated programs. RESA argued that the EDCs should not be permitted to use AMI data to offer any other product or service in the competitive market as they would be using their monopoly status to an unfair advantage.

111. COMMENT: RECO commented that the requirement at N.J.A.C. 14:5-10.5(b) that any current and future use cases outside of the EDC's core functions or Board-mandated programs must be open to competition by authorized third parties should be deleted. Specifically, RECO asserted that the language is extremely vague and likely will result in litigation about whether particular EDC "functions" are authorized by legislation, Board Orders, Board regulations, and/or Board-mandated programs. RECO also stated that the language is unnecessary, as any particular initiatives undertaken by the EDCs are to be determined by the Board and/or the Legislature when any such initiative is developed.

RESPONSE TO COMMENTS 110 AND 111: The Board disagrees with both RESA's and RECO's suggestions. The Board recognizes that the EDCs' monopolistic control over AMI data could provide an advantage in their ability to offer products and services if they were allowed to restrict access to such data. In order to create a level playing field for all parties and allow the greatest possible participation in the market, the Board has chosen to address this concern by promoting nondiscriminatory access to AMI data and encouraging competition, rather than outright restricting the EDCs' ability to also create products or services for customers.

112. COMMENT: Regarding the requirement at N.J.A.C. 14:5-10.5(d) that each EDC provide access to AMI data to academic institutions, RECO stated that this language does not adequately protect customer data and should be deleted. RECO also stated that releases of customer data for academic research purposes should require customer consent. Although the language states that the data will be anonymized, RECO stated that there are no restrictions or limitations on the size of the customer group, which could result in customer data for one or a limited number of customers being released. RECO also stated that any incremental costs associated with such research should be assumed by the requesting party and not by the EDCs' customers.

RESPONSE: The Board declines to delete this requirement. Aggregated and anonymized data can be used by academic institutions to assist the Board in exploring options to achieve the State's energy goals and better understand energy use. Specificity in such request that would no longer be anonymous, would not be expected to be fulfilled, negating the need for consent. The Board questions the necessity of assigning costs of data requests to researchers because it is unclear that the EDCs would incur meaningful incremental costs to fulfill the requests. The necessity of such charges can be proposed in the company's tariff and reviewed as a part of a base rate case.

113. COMMENT: Regarding N.J.A.C. 14:5-10.5(d), NJUA recommended that the Board establish a process for determining which academic research is considered legitimate and non-commercial for the purpose of receiving anonymized AMI data. NJUA further stated that the Board should establish and publicize on its website a list of vetted academic institutions and individuals that are authorized to request and receive customer data pursuant to this section.

RESPONSE: The Board believes the EDCs are capable of recognizing whether the stated purpose of a data request or the entity making the request would meet the requirements of the rulemaking. Academic research in support of broad State policy goals and better understanding of energy use are some of the purposes envisioned in this rulemaking. This information will be necessary in assisting the State in understanding the best ways to achieve State energy policy goals. While the use of aggregated, anonymized data does not present the same security concerns as individual customer data, the intention is only to allow sharing with academic institutions conducting research affecting New Jersey energy policy. If an EDC is unsure, an inquiry can be made to Board staff.

114. COMMENT: Regarding N.J.A.C. 14:5-10.5(d), NJUA stated that the proposed rules should clarify the specifics of AMI data sharing with academic institutions, particularly as it relates to volume of data, timeframe of data, and the anonymization of data. NJUA further stated that the Board should establish a working group so the EDCs can work with Board staff and other interested stakeholders to determine the most efficient manner for EDCs to respond to data release requests while protecting customer data and the research for which that data may be used.

RESPONSE: The data that can be shared must be anonymized and aggregated in such a way as to ensure individual customer usage is not shared. It is unclear as to the extent of what such a request may take and will likely vary greatly based on the type of research being conducted.

115. COMMENT: Regarding N.J.A.C. 14:5-10.5(d), PI recommended that the Board replace the term "academic research into energy usage and clean energy adoption" with "energy usage research that encourages innovative new clean energy product development and adoption (both on-grid and off-grid) in New Jersey to the benefit of all."

RESPONSE: The Board declines to make the recommended change as it does not appreciably change the meaning or intention of the original term.

116. COMMENT: Regarding N.J.A.C. 14:5-10.5(d), PI recommended that the Board remove the term "to faculty, graduate students, or post-doctoral fellows associated with academic institutions strictly for non-commercial academic research into customer usage and system reliability."

RESPONSE: The Board declines to make the recommended change as the phrase accurately depicts the individuals likely to make the referenced requests.

117. COMMENT: Regarding N.J.A.C. 14:5-10.5(d), JCP&L recommended that data sharing from faculty, graduate students, or post-doctoral fellows associated with academic institutions be provided and managed through the Board, not the EDCs, to determine which academic research is "legitimate" and "non-commercial."

RESPONSE: The Board believes that the EDCs are capable of recognizing whether the stated purpose of a data request or the entity making the request would meet the requirements of the rule. If an EDC is unsure, an inquiry can be made to Board staff.

118. COMMENT: Regarding N.J.A.C. 14:5-10.5(d), JCP&L commented that AMI data access to academic institutions through a designated academic portal, if provided, will incur additional costs that are incremental to the company's Board-approved AMI Plan. Therefore, JCP&L requested clarification regarding the specifics of AMI data sharing with academic institutions as it relates to volume of data, timeframe of data, etc. JCP&L requested further clarification regarding what is meant and intended by the term "anonymized."

RESPONSE: The data that can be shared must be anonymized and aggregated in such a way as to ensure individual customer usage is not shared. It is unclear as to the extent of what such a request may take and will likely vary greatly based on the type of research being conducted.

119. COMMENT: Regarding N.J.A.C. 14:5-10.5(d), JCP&L requested modification of the section to require the Board to maintain a list of institutions, otherwise, the subsection should be removed. JCP&L recommended that workgroups be subject to determine the best way to meet the request and protect customer data.

RESPONSE: The Board declines to make the recommended changes to the rule as no purpose is served by the Board creating a list of academic institutions.

120. COMMENT: Regarding the requirement at N.J.A.C. 14:5-10.5(e) that each EDC must explore additional use cases for the types of data that can be collected from AMI meters, RECO stated that this language should be deleted because it is too open-ended and will result in unnecessary costs to ratepayers. Additionally, RECO recommended establishing a working group that can discuss the potential for AMI meters and future data fields.

RESPONSE: The Board declines to make the recommended changes as all of the potential use cases for AMI data have not necessarily all been identified. Each EDC should maintain awareness of new opportunities in order to leverage the capabilities of their existing equipment as this area develops over time. The Board generally agrees that a working group would be useful in support of this development.

121. COMMENT: Regarding N.J.A.C. 14:5-10.5(e), JCP&L expressed concerns that the requirement is overly vague and should provide guidance regarding what "additional data fields" the Board is considering. JCP&L recommended that the Board consider the cost associated with the collection of the additional data fields.

RESPONSE: It is currently unknown what, if any, "additional data fields" would be useful to consider. However, the intent of the rule is to account for the possibility that it may be necessary in the future to collect additional data or extend the capabilities of AMI meters. As with any costs, the EDCs may request recovery for prudently incurred costs.

122. COMMENT: Referring to N.J.A.C. 14:5-10.5(e), PSE&G stated that, while they are prepared to explore additional types of data that can be collected, there must be a process for the Board to review and approve the additional data fields. PSE&G further stated that the EDCs should recover any costs associated with these use cases.

RESPONSE: The Board generally agrees that a process for Board staff to review and approve additional data fields should be considered. As with any costs, the EDCs may request recovery for prudently incurred costs.

N.J.A.C. 14:5-10.6 Third-Party Authorization and Data Security

123. COMMENT: Regarding N.J.A.C. 14:5-10.6(a), JCP&L requested clarification regarding how "all EDCs shall coordinate with each other" to create and maintain required form, including by when this work must be completed. JCP&L recommended that workgroups be subject to discuss and in the furtherance of creating the common release form.

RESPONSE: The EDCs may form a workgroup among their peers in order to achieve this. The intention of this rule is to ensure a consistent form for all of the EDCs. It should be implemented as quickly as possible following the publication of the notice of adoption.

124. COMMENT: Referring to N.J.A.C. 14:5-10.6, PSE&G recommended the removal of the term "one-click" from the proposed rule as it is not defined and that single click authorization may create technical feasibility challenges. PSE&G commented that while they agreed that the process should be simple and smooth, there should not be a regulatory limit on the number of clicks to achieve authorization.

RESPONSE: While the Board generally agrees with the idea that the number of clicks should not be a regulatory limit, the terminology is understood to identify an efficient and an easy to use and understand process and the Board believes that further clarification is not required.

125. COMMENT: Regarding N.J.A.C. 14:5-10.6(a), JCP&L commented that the establishment of the common release form will incur incremental costs. JCP&L recommended that the form be applicable to DER aggregators and energy service providers.

RESPONSE: The Board strongly encourages the EDCs to avoid the need for duplicative effort and costs by creating forms and systems that can serve multiple current and anticipated needs, wherever possible. As with any costs, the EDC may seek recovery of prudently incurred costs in a base rate case.

126. COMMENT: Regarding N.J.A.C. 14:5-10.6(a), RECO stated that the language should be revised to require that third parties establish and comply with certain cybersecurity standards, which should be included in the common release form.

RESPONSE: The Board declines to revise this provision as N.J.A.C. 14:5-10.6(d) already requires third parties to take appropriate steps to protect customer information in accordance with industry standards for cybersecurity and the protection of such customer information.

127. COMMENT: Regarding N.J.A.C. 14:5-10.6, ACE recommended that the Board establish a working group to evaluate the cybersecurity standards needed for the technology proposed by the proposed rules. ACE further stated that the regulations must ensure confidential customer data is shared safely with intended parties only and otherwise is securely retained by EDCs in accordance with the law. Additionally, strong consumer protections are needed to ensure data-sharing platforms do not expose customers to fraud, aggressive marketing, or unsuitable products.

RESPONSE: The Board generally agrees with the sentiments expressed by ACE in its comment. As such, the stated goals largely exist in other forms or are currently used by the EDCs in support of their operations with TPSs. As such, the Board does not believe any changes to the proposed rules are needed to accomplish these goals.

128. COMMENT: Regarding N.J.A.C. 14:5-10.6, ACE stated that each EDC should set the cybersecurity standards for third parties seeking access to its customers' data. Additionally, each EDC should have the ability to conduct security assessments of third parties seeking AMI data, according to the EDC's own security standards and risk appetite. If a third-party's cybersecurity efforts do not meet an EDC's standards, the EDC should be permitted to unilaterally revoke the third party's access to their customers' data. Further, if the Board revokes a third party's ability to access customer data, the Board should notify the EDCs of this revocation.

RESPONSE: While AMI data is much more detailed and granular than monthly usage data, the EDCs already have been sharing monthly usage data with TPSs for customers who have elected to use them. While expanding access to other third parties will require review, the Board believes that the EDCs already have in place the structure to handle this. The Board will establish a process by which the EDCs can provide input on the approval of third parties seeking access to data and will necessitate the notification to the EDCs should access be revoked.

129. COMMENT: Regarding N.J.A.C. 14:5-10.6, ACE recommended that third-party access to EDC-collected customer data should be explicitly authorized by the customer upon initial contact between the customer and the third party and on an ongoing basis, in compliance with the EDC's privacy standards and existing privacy laws and regulations. If the EDC is required to transfer customer data to the customer and not directly to the third party, that data must be accompanied by a notice stating the data belongs to the customer and it is the customer's responsibility to handle the data in a secure manner.

RESPONSE: While the customer should have the ability to see their own data, the Board does not envision that the customer will elect to be the intermediary between the EDC and third party but will assume responsibility for protecting their data should they elect to do so. The EDCs are only expected to be responsible for securely transmitting data to the customer or authorized third party.

130. COMMENT: Regarding N.J.A.C. 14:5-10.6, ACE inquired about the nature of customer consent to the EDC for the sharing of data, and customer consent to third parties for use of data for the third party's stated purpose.

RESPONSE: N.J.A.C. 14:5-10.4(b) specifies that customers may elect to share their AMI data with third parties using a common release form. As such, the EDCs will need to provide data to authorized third parties at the request of the customer. The Board envisions that the customer, after being properly identified by the EDC, should be able to select from a preauthorized list of third parties with whom to share data.

131. COMMENT: Regarding N.J.A.C. 14:5-10.6, ACE inquired about who is liable in the event of data exposure by either the EDC or third party.

RESPONSE: While the comment is unclear as to what "liable" means, generally speaking, the party responsible for the data exposure would be responsible for reporting and making customer notifications for the breach. That responsibility would depend on how the data was released.

132. COMMENT: Regarding N.J.A.C. 14:5-10.6, ACE stated that third parties should be vetted by the Board to determine legitimacy, thereby reducing the risk of fraudulent activity. ACE further stated that EDCs should have access to the list of vetted third parties prior to EDCs' review of the third party's security and privacy capabilities. ACE further stated that prior approval of the third party should be vetted and approved by the EDCs.

RESPONSE: All third parties seeking access to validated data collected by the EDCs will apply for approval to be eligible to be authorized by customers to receive data. The application for approval and authorization by customers will be through the common release form process. The Board's intention was that Board staff would vet the applications and create a list of approved third parties that will then be eligible to be selected by customers to receive access to data. The Board intends to set out the approval, listing, revocation, and appeal process in greater detail in a Board Order, which may be modified from time to time as the technologies and market evolve. The Board anticipates including an opportunity for the EDCs to provide feedback to Board staff on the third party applicants prior to Board staff's approval. The Board recognizes that the use of passive language in the proposed provision resulted in a lack of clarity, and is adding new subsection (b) upon adoption to explicitly state that Board staff will be approving the third parties. As noted below, the Board is making similar revisions at proposed subsection (f) (recodified upon adoption as subsection (g)) to the provision addressing revocation.

133. COMMENT: Regarding N.J.A.C. 14:5-10.6, ACE stated that digital interaction with the EDCs' systems should be vetted and approved by the EDCs.

RESPONSE: The rule does not explicitly prescribe how all these interactions can occur and leaves some methodology at the discretion of the EDCs.

134. COMMENT: Regarding N.J.A.C. 14:5-10.6, ACE stated that the Board should confirm that third parties use the data as was intended and should establish guardrails to ensure the same. ACE further stated that data retention requirements must be clearly defined and enforced.

RESPONSE: As noted in the Response to Comment 132, Board staff will develop a list of approved third parties for AMI data access. As stated at adopted N.J.A.C. 14:5-10.6(g) (proposed as N.J.A.C. 14:5-10.6(f)), Board staff has authority to revoke a third party's authorization to access customer data if the third party fails to comply with the requirements of Subchapter 10. If an EDC has concerns with a third party's actions or performance, it may contact Board staff or file a complaint with the Board.

135. COMMENT: Regarding N.J.A.C. 14:5-10.6(b), Mission:data commented that the common release form for all EDCs shall validate customer identity in a manner equal to, and no more onerous than, the EDC's existing methods for validating identity on EDC's website to discourage blocking customers from accessing their data by incorporating confusing, time-consuming, and oppressively burdensome processes.

RESPONSE: The rule intends for this process to be as simple and streamlined as possible so as not to deter customers from sharing their data if that is their desire. While the Board understands and generally agrees with the sentiment of this comment, its is unclear how such a comparison could be made.

136. COMMENT: Regarding N.J.A.C. 14:5-10.6(b), Mission:data stated that it doesn't oppose two factor authentication in principle but recommended that the Board apply two factor authentication consistently to all online functions, not selectively to data sharing, lest it become discriminatory.

RESPONSE: Extending the use of two factor authentication to all online functions at the Board is outside the scope of the proposed rule but may be considered in future rulemakings.

137. COMMENT: Regarding N.J.A.C. 14:5-10.6(b)(3), Mission:data recommended that the Board include a simple outline of how the data is authorized by the customer to be used by the third party. Additionally, Mission:data recommended that the Board further include information on where the third party has a more detailed explanation of how the data that is being used.

RESPONSE: The Board will consider creating a web page further detailing the process to customer and third parties for the sharing of AMI data.

138. COMMENT: Regarding N.J.A.C. 14:5-10.6, RESA commented that the common release form was unnecessary and duplicative for TPS customers. RESA specifically objected to the requirement at N.J.A.C. 14:5-10.6(b)4, "one-click consent/decline" and N.J.A.C. 14:5-10.6(b)5, "confirmation required through multi-factor authentication." RESA commented that these steps are duplicative and unnecessary when TPS customers already provide consent to switch their supply service through verified enrollment methods required by the Board's Energy Anti-Slamming Regulations, N.J.A.C. 14:4-2.3 and 2.4. RESA further commented that other states have not chosen to burden customers in this way, stating that repeating the enrollment process or contacting customers to obtain consent in a common release format is impractical and unnecessarily delays TPSs' roll out of products that utilize AMI data.

RESPONSE: The Board disagrees with this assertion. While customers already share information for billing purposes, the Board believes that the granularity of AMI data should require customers to reaffirm their consent.

139. COMMENT: Regarding N.J.A.C. 14:5-10.6(b)5, EEA-NJ raised concern that requiring the common release form to be exclusively web-based with multi-factor authentication may limit participation for rural, low-income, and older populations with limited technological access. To promote inclusivity, EEA-NJ recommended providing an alternative paper-based option.

RESPONSE: The Board believes that access to the common release form exclusively by way of web-based multi-factor authentication is the most efficient and secure process to authorize the release of customer information.

140. COMMENT: Regarding N.J.A.C. 14:5-10.6(c), Mission:data recommended including a new step for utilities to send authorization confirmation to the customer to help customers know that the process has been completed successfully and provide an additional security measure to alert customers about new authorizations.

RESPONSE: The Board thanks Mission:data for its comment. While this is a step that could be considered in the development of the data sharing process, the Board does not believe that inclusion in the rule is necessary.

141. COMMENT: Regarding N.J.A.C. 14:5-10.6(c), JCP&L recommended that the rule provide that the Board may dictate cybersecurity standards in which third parties seeking access to data of a customer of the EDC are held. Additionally, JCP&L recommended that each EDC should have the ability to determine how data is shared from a technical perspective so that the security and integrity of data is maintained.

RESPONSE: While the rule does not cite specific cybersecurity standards, the expectation is that all entities would comply with general industry standards regarding the protection of customer information and cybersecurity standards when dealing with digital data.

142. COMMENT: Regarding N.J.A.C. 14:5-10.6(e), JCP&L thanked the Board for clarifying that responsibility for notification of unauthorized data releases is placed on the appropriate party, rather than solely on the EDC.

RESPONSE: The Board thanks JCP&L for its comment.

143. COMMENT: Regarding N.J.A.C. 14:5-10.6(e), Mission:data recommended that notice by third parties should only be required in the event of the unauthorized release of the information of more than 1,000 customers. Additionally, Mission:data recommended that the Board specify the State Police division that it intends third parties to notify.

RESPONSE: The Board disagrees with setting a customer threshold for the reporting of unauthorized releases of information as this is contrary to the goal of protecting consumer information. The New Jersey State Police Cyber Crimes Unit would be the appropriate group to contact in the event of a release of information.

144. COMMENT: Regarding N.J.A.C. 14:5-10.6(e), ACE recommended revising the requirement to allow notification of unauthorized release of customer information within 48 hours of discovery, consistent with the prior draft rules. ACE stated that a four-hour window is impractical for properly assessing such incidents and does not align with comparable State and Federal standards.

145. COMMENT: Regarding the requirement at N.J.A.C. 14:5-10.6(e) to provide notification of an unauthorized release of customer information within four hours of discovery, RECO stated that this is overly restrictive and misaligned with prevailing State and Federal standards. RECO further stated that a four-hour time period does not allow sufficient time to confirm the facts, assess the scope, and coordinate accurate communications with multiple entities. Therefore, RECO recommended revising this to a 48-hour notification window.

146. COMMENT: Regarding N.J.A.C. 14:5-10.6(e), NJUA stated that the proposed four-hour reporting timeframe for the unauthorized release of customer information is arbitrary and inconsistent with comparable State and Federal notification requirements. NJUA argued that four hours is not a practical or reasonable period in which to verify, assess, and communicate the nature and scope of a data event to multiple entities. Accordingly, NJUA recommended that the Board revise this requirement to a 48-hour notification window, which would allow sufficient time for an accurate and coordinated response while still providing timely notification and protection of customer interests. NJUA also stated that it should not be mandated that customers be notified directly within this 48-hour window, as such processes and programs require alignment of internal and external legal and business resources from multiple

companies. As stated by NJUA, a more reasonable timeline for direct reporting to customers would be within 14 days of the discovery.

RESPONSE TO COMMENTS 144, 145, AND 146: Based on a review of the comments received and other comparable standards, the Board has determined that requiring notification within four hours would be unnecessarily burdensome and that notification within 48 hours will provide adequate notice to affected customers as was intended through the rulemaking. Accordingly, the Board is revising N.J.A.C. 14:5-10.6(e) upon adoption to require notification within 48 hours.

147. COMMENT: Regarding N.J.A.C. 14:5-10.6(e), NJUA recommended that the rules allow EDCs the authority to establish and enforce its own cybersecurity standards for the technical aspects of exchanges of data to any third party seeking access to customer data. Each EDC must also be empowered to enforce data security and liability through contracts with any consumer of AMI data in accordance with its established protocols and risk management framework. Such contracts should be explicitly permitted to include, but not limited to, terms needed to enforce reasonable levels of financial liability in the event of breach to address customer losses and risks (for example, notification to customers and credit monitoring when appropriate, etc.), limitations on re-sharing, reasonable limitations on certain types of processing, and enforcement of technical aspects of data exchanges.

RESPONSE: It is unclear to the Board how cybersecurity standards established and enforced by the EDCs would differ from generally accepted industry standards already established for these purposes. The rules are primarily concerned with the protection of customers and their data. The Board believes that rule is not overly prescriptive in how this is to be achieved and does not believe that the requirements of the rule will limit the EDC's ability to enforce data security and liability.

148. COMMENT: Regarding N.J.A.C. 14:5-10.6(e), NJUA recommended that the proposed rules include explicit requirements governing data retention, permissible post-processing uses, and regulatory liability in the event of an unauthorized release of customer data. According to NJUA, establishing these guardrails will help maintain customer trust, enhance transparency, and align all data-access activities with privacy and cybersecurity best practices.

RESPONSE: The Board disagrees with the recommended changes to the rule. The inclusion of explicit requirements would not replace or overrule existing requirements regarding the protection of customer data or cybersecurity requirements that the EDCs are already required to comply with at the State and Federal level.

149. COMMENT: Referring to N.J.A.C. 14:5-10.6(e), PSE&G requested the inclusion of a requirement for third parties to report unauthorized releases of data to the impacted EDC when the notices are sent to affected customers. PSE&G further explained that customers are likely to contact their EDC first when they receive such a notification and it would be helpful for the EDC to be aware of the notification.

RESPONSE: The Board agrees with this comment, however the cited rule already includes the requirement of any third party, whether a TPS or other entity, to notify the EDC that provided the customer information.

150. COMMENT: Regarding N.J.A.C. 14:5-10.6(e), Mission:data recommended that the Board follow the DataGuard language published on the Mission:data web page to provide a more standardized approach than undefined "industry standards" that could refer to critical infrastructure cybersecurity standards, which are inappropriate for energy usage and billing data.

RESPONSE: The Board declines to make the requested change as many standards for the protection of customer data already exist and specifying compliance with a particular standard may not adequately address rapidly changing concerns regarding data protection.

151. COMMENT: Regarding N.J.A.C. 14:5-10.6(f), NJUA stated that it supports the rules providing that a third party's authorization to access customer information may be revoked for failure to comply with any of the Board's requirements. However, NJUA further recommended that the provision be revised to explicitly permit each EDC to unilaterally revoke such access should a third party fail to comply with any requirement of the New Jersey Administrative Code, individual EDC's cybersecurity or privacy standards, or other applicable obligations.

152. COMMENT: Referring to N.J.A.C. 14:5-10.6(f), PSE&G requested clarification regarding who would revoke access for failure to comply with the requirements of the subchapter. PSE&G sought clarification that the Board would notify the EDCs that access was revoked.

153. COMMENT: Regarding N.J.A.C. 14:5-10.6(f), Mission:data recommended that the Board add language to allow a customer and the Board to revoke authorization of a third party for not following the requirements of the subchapter.

RESPONSE TO COMMENTS 151, 152, AND 153: The Board's intention was that the authority to revoke rest with the Board and Board staff. Upon adoption, the Board is revising this provision for greater clarity. The Board disagrees with NJUA's recommendation that the EDCs be given authority to revoke a third party's authorization for failure to comply with Board rules. Rather, an EDC that has concerns about a third party's actions or believes that a third party's authorization should be revoked may contact the Board. The Board intends the list of approved third parties to be publicly available, and Board staff will notify the EDCs if authorization is revoked. The Board notes that N.J.A.C. 14:5-10.6(c) allows customers to revoke their authorization of access to their data at any time; accordingly, the Board does not believe that any addition to the rules is needed.

154. COMMENT: Regarding N.J.A.C. 14:5-10.6, Rate Counsel commented that the AMI data access implementation costs associated with creating the common release form discussed at N.J.A.C. 14:5-10.6 should only be recovered in a subsequent EDC base rate case.

RESPONSE: The rule does not include any guarantees of recovery. As with any costs incurred by the EDCs, recovery of prudently incurred expenses may be sought and considered in a base rate case.

N.J.A.C. 14:5-10.7 Ensuring Fair Access and Competition

155. COMMENT: Regarding N.J.A.C. 14:5-10.7, AEU stated that the concept of nondiscriminatory access to AMI data could restrict EDCs from developing new applications and services. AEU further stated that restrictions on EDC access to AMI data may impair the ability to determine customer peak load contributions and optimize grid operations. Additionally, AEU stated that utilities must retain access to operational data to ensure system reliability and efficiency.

RESPONSE: The Board disagrees with the premise stated in this comment. The rule directs nondiscriminatory access to information that only the EDCs currently have access to in order to facilitate competition and greater access to services for customers. It does not restrict the EDCs' access to data or ability to develop new applications or services.

156. COMMENT: Regarding N.J.A.C. 14:5-10.7(a), AEU stated that the proposed requirement to share non-validated data warrants a dedicated stakeholder working session to explore realistic capabilities, costs, and regional coordination, particularly with PJM's Order 2222, working groups, to avoid a fragmented state-by-state approach.

RESPONSE: The Board agrees that a working group exploring uses of non-validated data may be useful. The current rule does not preclude the creation of such a group.

157. COMMENT: Regarding N.J.A.C. 14:5-10.7(a), PI recommended that the Board removes the phrase "and non-validated."

RESPONSE: The Board disagrees with the recommended change to the rule. While non-validated data is largely in the control of the customer, including this data type prevents the EDCs from restricting its use.

158. COMMENT: Regarding N.J.A.C. 14:5-10.7(a), Mission:data recommended that the Board change "for" to "as between."

RESPONSE: The Board rejects the recommended change because it changes the meaning of the provision in a way that was not intended.

159. COMMENT: Regarding N.J.A.C. 14:5-10.7, EEA-NJ supported the Board's rule promoting fair access and competition for authorized third parties but recommended adding a requirement for EDCs to notify application developers within a defined timeframe of any changes to AMI data, formatting, or frequency due to cybersecurity or system issues, to prevent disruptions to application functionality.

RESPONSE: N.J.A.C. 14:5-10.7(b) requires EDCs to notify application developers 90 days prior to making changes for this reason. The Board believes this requirement adequately addresses the issue.

160. COMMENT: Regarding N.J.A.C. 14:5-10.7(b), PI recommended that the Board add a statement regarding how each EDC is restricted from making AMI meter firmware changes that diminish the communication

performance of the AMI-compliant local wireless connection between customer HAN gateway device and nearby AMI meter, unless necessary to address an immediate cybersecurity concern or system vulnerability.

RESPONSE: The Board disagrees with the recommended change. The EDCs do not manufacture or design firmware for their AMI meters and should not be restricted from making firmware updates that may be required by the manufacturer to ensure the proper operation of the meter.

161. COMMENT: Referring to N.J.A.C. 14:5-10.7(b), PSE&G stated the rule is unclear as to who "application developers" refers to and by what means notifications must be made. PSE&G recommended that the rule be revised to refer to "authorized third parties" as these will be identified through the common release form.

RESPONSE: The Board declines to make the requested change as it would unnecessarily limit the scope of notification. The rule refers to "application developers" as entities that may develop software to use or analyze data. If the EDC makes changes to the data formats that could impact the functionality of that software, those changes need to be communicated so that the software can be addressed as quickly as possible. While authorized third parties would be the primary recipients, the Board cannot rule out the possibility of other parties that could be affected. With the understanding that the EDCs will not know or be able to notify all possible software developers by direct contact, the Board would consider postings on a website regarding changes to data formats to be consistent with this rule.

162. COMMENT: Regarding N.J.A.C. 14:5-10.7(b), Mission:data recommended that the Board change "application developers" to "Green Button Connect data recipients" to include all entities that these changes may impact.

RESPONSE: The Board rejects the recommended change as it changes the meaning of the rule in a way that was not intended.

163. COMMENT: Regarding N.J.A.C. 14:5-10.7(c), Mission:data recommended that the Board remove the language that suggests utilities can claim vulnerability issues to reverse engineer software and engage in efforts to gain competitive advantage.

RESPONSE: The Board rejects the recommended change as it may interfere with the EDCs' ability to address investigate and/or resolve vulnerability issues.

164. COMMENT: Regarding N.J.A.C. 14:5-10.7(d), Mission:data commented that the tracking system for software bugs should be publicly accessible but also provide a method for third parties to share sensitive issues that cannot be posted publicly.

RESPONSE: The Board questions the benefit of making this information public and rejects the proposed change.

165. COMMENT: Regarding N.J.A.C. 14:5-10.7(d), JCP&L requested clarification regarding what is meant by "application developers." JCP&L requested further clarification regarding what is meant by "bugs" and "technical requests," as these terms are not defined in the proposed rules.

166. COMMENT: Regarding N.J.A.C. 14:5-10.7(d), RECO stated that it is unclear what "technical requests and bugs" addresses. Additionally, RECO stated that not every such situation needs to be recorded, nor would such reporting reveal actionable information. RECO further stated that additional tracking requirements would require the development of additional software and perhaps hardware, so this should be reviewed to determine whether the cost outweighs the benefits.

RESPONSE TO COMMENTS 165 AND 166: "Application developers" will be the third parties creating software to utilize the AMI data and develop products for customers. "Bugs" refers to errors either in the data or process which prevents the transfer of data or corrupts the data. "Technical requests" refers to requests from third parties regarding "bugs" or other issues preventing the transfer of AMI data. The purpose of the referenced portion of the rule is to ensure that all potential users of the data have effective access to usable data and to ensure that the EDCs do not unknowingly make changes to data formats or configurations that negatively affect software applications used to process or analyze usage data. The EDCs, therefore, need a process by which users of the data can contact the EDC if data is configured incorrectly or unusable, which this provision provides. The Board further believes that tracking such information is necessary to ensure that these systems are operating effectively and that the EDCs are responsive to such issues should they occur.

167. COMMENT: Referring to N.J.A.C. 14:5-10.7(d), PSE&G stated that it is prepared to build a "web-based issue tracking system," but there will be a required capital investment to build such a system. PSE&G recommended that the EDCs should have sufficient time to implement the requirement so that the EDCs can work with interested parties to align the categories of "technical issues" that should be tracked and determine the costs and benefits of such a system.

RESPONSE: The Board understands that it will take time to implement some of the systems required by the rule and additional work with interested parties will need to occur to ensure a successful implementation. The EDCs will be allowed to have sufficient time to implement the requirements of the rule and develop a system in a cost-effective manner. Additionally, as with any costs, the EDC may seek recovery of prudently incurred costs in a base rate case.

N.J.A.C. 14:5-10.8 Reporting Metrics

168. COMMENT: Regarding the requirement at N.J.A.C. 14:5-10.8 that each EDC provide certain reporting metrics, RECO stated that this would require the reporting of a significant amount of information without regard to the cost to the EDCs or whether the EDC is even in possession of this information. RECO further stated that the additional hardware, software, and personnel needed to gather this level of information would result in additional costs. Therefore, RECO recommended that a working group be established to review the requirements of this rule and prepare a cost benefit analysis.

169. COMMENT: Regarding N.J.A.C. 14:5-10.8, PSE&G expressed concerns the reporting requirements are vague and burdensome and may not further the goal of tracking AMI data access implementation and customer uptake.

RESPONSE TO COMMENTS 168 AND 169: The Board disagrees that the requirements are vague and notes that where specific questions were posed, the Board has addressed them through this rulemaking. One of the major benefits of the AMI deployment is the ability to collect detailed information regarding customer usage that had not been available prior to the deployment of smart meters. Each EDC provided multiple use cases in its AMI filing prior to the Board approval of its AMI deployment program. Some of the reporting requirements provide system information generated by the meters while the other reporting requirements measure customer engagement with AMI data access programs. The Board continues to believe that it is important for the Board to track the utilization of AMI data, participation in sharing that data, and changes in the desire to share data, and believes that the usefulness of the data that will be reported outweighs the administrative burden of reporting it. As with any new reporting requirement, the Board understands that there will be additional work required to meet these requirements and prudent expenditures associated with this work would be considered in a base rate case.

170. COMMENT: Regarding N.J.A.C. 14:5-10.8, ACE did not believe that sharing these performance-related metrics externally would benefit the general public. Further, ACE stated that adding this additional responsibility requires ensuring the data is appropriate for public viewing, which requires additional efforts and cost.

RESPONSE: The reporting metrics are valuable to the Board because they provide insight into energy consumption data, customers' use of AMI data, and the EDCs' implementation of AMI data access sharing.

171. COMMENT: Regarding N.J.A.C. 14:5-10.8, AEU recommended that the reporting metrics be expanded, such that EDCs also report on not just the numbers and percentages of customers identified to receive messages regarding their energy savings, but whether action was taken by those customers and what the result was. For example, if customers were identified to receive a message, AEU recommended that the EDCs report on any action taken related to that message and what was the result of that action.

RESPONSE: The Board declines to make the recommended change because it would require significant additional collection of data outside of the direct control of the EDCs that is not practical for them to collect.

172. COMMENT: Regarding N.J.A.C. 14:5-10.8(a), JCP&L recommended that the Board consider requiring the utilities to track the remaining metrics and report them to the Board on an as-needed basis,

instead of quarterly, to reduce the administrative burden to the EDCs and Board staff.

173. COMMENT: PSE&G questioned the necessity of quarterly reporting instead of semi-annual reporting as required by the Board's approval of PSE&G's AMI program in 2021.

RESPONSE TO COMMENTS 172 AND 173: The Board has reviewed its need for this information against the administrative burden of providing it and has determined that semi-annual reporting will be sufficient. The Board is revising N.J.A.C. 14:5-10.8(a) upon adoption accordingly.

174. COMMENT: Regarding N.J.A.C. 14:5-10.8(a), PI recommended that the Board add a metric regarding the number of residential customers who formally requested to have their EDC AMI meter remotely provisioned to enable authorized local wireless communication between customer-owned HAN devices and nearby AMI meter.

RESPONSE: The Board does not see an immediate need for this data. The Board, therefore, declines to make this change but will consider this addition in future stakeholder proceedings related to AMI data collection, if it deems the information necessary or beneficial.

175. COMMENT: Regarding N.J.A.C. 14:5-10.8(a), Mission:data commented that the reporting metrics should be made public, so third parties can confirm that this data is accurate or resembles their experience.

RESPONSE: Reports provided by the EDCs can be requested from the Board through an Open Public Records Act request. The Board may seek third-party input in a future stakeholder process in order to gauge experience with the EDCs' implementation of these rules, if deemed necessary.

176. COMMENT: Regarding the requirements at N.J.A.C. 14:5-10.8(a)1 and 2 that each EDC report hourly data by service class, RECO stated that it does not currently track this information by service class.

RESPONSE: The cited reporting requirements are the type of high-level statistics the Board expects the EDCs to be capable of producing following the deployment of AMI. RECO does not refute that the information is collected or capable of being tracked, it is simply not tracked by service class currently. As with any new reporting requirement, the Board understands that there will be additional work required to meet these requirements and prudent expenditures associated with this work would be considered in a base rate case.

177. COMMENT: Regarding N.J.A.C. 14:5-10.8(a)1, PSE&G requested modification of the requirement that EDCs report the hourly demand curve for each of the previous five years, as PSE&G does not have data going back that far due to completing AMI deployment in 2024. PSE&G recommended that the metric be modified to account for available data.

RESPONSE: The Board understands that the implementation of the proposed rule will be limited to the years for which the data has been collected and that the EDCs will not be able to provide data prior to AMI deployment. However, after five years of data have been collected, this will be the requirement.

178. COMMENT: Regarding N.J.A.C. 14:5-10.8(a)2, PSE&G requested clarification regarding the requirement to include "the percentage of customers whose demand exceeded tariff level (for example, incurred demand charges)." PSE&G stated that it was unclear what the language requested and recommended removal or a better explanation.

RESPONSE: The cited terms refer to the number of customers who have either exceeded tariff specified limits of demand and will have a demand charge assessed or have exceeded their prior year's demand and will see an increased demand charge.

179. COMMENT: Regarding N.J.A.C. 14:5-10.8(a)3 and 4, PSE&G requested clarity regarding the reporting of the number of customers that grant "ongoing access to their AMI data," those who grant "one-time access to their AMI data," and the number of customers who withdrew "ongoing access." PSE&G stated that it was not clear how to distinguish between the "ongoing" and "one-time" categories. PSE&G requested clarification as to what types of access fall into which categories. PSE&G further suggested that ongoing access not be granted be for an unlimited timeframe, but should require customer reauthorization on some reasonable cadence, such as annually.

RESPONSE: The term "ongoing access" refers to a customer providing continuous access to their data, such as for a TPS, where the data will be collected on a continuous basis. The term "one-time" would refer to a request from a customer for a single use to a third party, possibly for a usage analysis.

180. COMMENT: Regarding the requirement at N.J.A.C. 14:5-10.8(a)3 that each EDC report the number of customers who granted ongoing access to their AMI Data through Green Button Connect and/or Green Button Download, RECO stated that this incorrectly requires the reporting of Green Button Download customer access, wherein the customer downloads their own data, so RECO would not have data on the number of times customers provide this data to third parties.

RESPONSE: Logging of account accesses is a standard cybersecurity practice that all of the EDCs should be practicing, which would provide the necessary information.

181. COMMENT: Regarding the requirement at N.J.A.C. 14:5-10.8(a)6 that each EDC report the time it takes for third parties to complete technical and administrative onboarding with EDCs' Green Button Connect systems, RECO stated that this would depend on the particular expertise of the third party, and is data that the third party would not necessarily share with RECO. Therefore, RECO stated that such a metric would not provide useful information about third party's experience using Green Button Connect.

RESPONSE: The intention of this reporting requirement is to assess the time it takes to onboard third parties with the EDCs' Green Button Connect systems. The reporting requirement does not presuppose an outcome or a determination of what constitutes a good or poor timeframe, simply to inform the Board and staff of the length of time it takes for this process. By collecting and comparing this data with the experiences of third parties and the other EDCs, the Board could make such determinations in the future and pursue ways to improve its processes.

182. COMMENT: Regarding N.J.A.C. 14:5-10.8(a)6, Mission:data recommended that the Board include an additional reporting request that specifies how long each anonymized third party takes to register, if this was done in one session, and if the third party needed to communicate with a utility contact for assistance.

RESPONSE: The Board declines to make the recommended change as it is unclear what the benefit of collecting this information would be.

183. COMMENT: Regarding the requirements at N.J.A.C. 14:5-10.8(a)7 and 9 that each EDC report on the total number and percentage of customers with AMI meters who logged into the data portal, RECO stated that customers can log into the data portal multiple times, and have no obligation to report when they log into the data portal.

RESPONSE: The rule does not assume that the customers will be tracking their logins to the data portal, but that the EDCs will be tracking when a customer logs into its owned and/or operated systems. Logging of account accesses is a standard cybersecurity practice that all of the EDCs should be practicing which would provide the necessary information. N.J.A.C. 14:5-10.8(a)7 is intended to measure the total number and percentage of customers who have logged into the portal at least once. N.J.A.C. 14:5-10.8(a)9 is intended to measure the number of times customers are logging into their accounts.

184. COMMENT: Regarding N.J.A.C. 14:5-10.8(b), Mission:data recommended that the Board include a deadline of six months after the adoption of the proposed rules for the utilities to comply and implement them.

RESPONSE: The Board does not believe the proposed deadline is necessary and will monitor compliance with the rule upon adoption.

185. COMMENT: Regarding N.J.A.C. 14:5-10.8(b), Mission:data recommended that the Board encourage utility accountability by incorporating enforcement mechanisms, such as financial penalties for non-compliance.

RESPONSE: The standard enforcement mechanisms for compliance with rules will extend to this rule and does not require a stand-alone set of penalties for non-compliance.

Federal Standards Statement

Executive Order No. 27 (1994) and N.J.S.A. 52:14B-1 et seq., require State agencies that adopt, readopt, or amend State rules that exceed any Federal standards or requirements to include in the rulemaking document a Federal standards analysis. While the rule references Order 2222 of the Federal Energy Regulatory Commission (FERC) and requires the EDCs to meet the requirements of FERC Order 2222 according to the PJM Interconnection, LLC's (PJM) planned implementation timeline, the rulemaking does not exceed the requirements of FERC Order 2222. FERC Order 2222 requires AMI data of sufficient read intervals in order for individual generators to participate in Distributed Energy Resource aggregations. The rulemaking requires the EDCs to be prepared to meet this requirement pursuant to PJM's implementation schedule. Furthermore, EDCs need only implement shorter read intervals for customers making this request and as required by PJM's implementation plan.

Full text of the adopted new rules follows (additions to the proposal indicates in boldface with asterisks ***thus***; deletions from the proposal indicated in brackets with asterisks *[thus]*):

SUBCHAPTER 10. ADVANCED METERING INFRASTRUCTURE (AMI) DATA ACCESS STANDARDS

14:5-10.1 Purpose and scope

This subchapter sets forth requirements that electric distribution companies must follow in managing data created through the use of advanced metering infrastructure meters.

14:5-10.2 Definitions

The following words and terms, as used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise.

"AMI data" means any information collected regarding a customer's electrical usage, energy demand, or information measured to calculate such quantities—recorded over regular intervals of time, as measured—that is stored or transmitted by an EDC-owned smart meter. For the purposes of this subchapter, AMI data does not refer to any other data collected independent of the customer's usage, unless specifically stated as such.

"Green Button Data Standard" means data formatted according to the Energy Services Provider Interface data standard for use through Green Button *Connect My Data*® (Green Button Connect) or Green Button *Download My Data*® (Green Button Download).

"Non-validated AMI data" means customer usage data read locally, directly from the meter, using a wireless communications protocol. Such data has not been verified as an accurate accounting of a customer's electricity usage through an EDC's verification process and may not be used for billing purposes.

"Validated AMI data" means AMI data collected by an EDC that has been confirmed as accurate through an EDC verification process.

14:5-10.3 AMI data collection and availability

(a) EDCs must make validated AMI data accessible to customers or their authorized agents no later than 48 hours after the meter readings are captured.

1. Each EDC must collect interval usage AMI data, at watt-level precision, for all customers in intervals of no greater than 15 minutes.

2. Each EDC must be capable of *[offering five-minute]* ***interval*** data collection ***for billing purposes, consistent with PJM's implementation of Order 2222 of the Federal Energy Regulatory Commission***, if specifically requested by a customer, by no later than PJM's planned implementation date *[for]* ***of*** Order 2222 *[of the Federal Energy Regulatory Commission]*.

(b) Upon customer request, EDCs must provide access to non-validated AMI data through a customer-owned, *[qualified]* energy-monitoring device that a customer may procure from the competitive market. The EDC is not in violation of this subsection if the EDC is unable to provide access because of the distance of a customer's device from the meter or location in a multi-unit dwelling. The EDCs must configure the customer's AMI meter to allow the monitoring device to receive the customer's AMI data to as close to a real-time basis as allowable by the meter.

14:5-10.4 Ownership and sharing of AMI data

(a) AMI data measured, stored, or transmitted by an AMI meter belongs to the customer whose usage is captured by their AMI meter.

(b) Customers may share their AMI data with authorized third parties through the Common Release Form at N.J.A.C. 14:5-10.6. Customers may revoke access to their AMI data from third parties at any time.

(c) Each EDC must make a customer's AMI data accessible and sharable using the Green Button Data Standard.

(d) Each EDC must enable Green Button Connect and/or Green Button Download as a means for customers or their authorized agents to access AMI data. The EDCs must also enable authorized third parties to access their customers' interval usage data through an electronic data interchange*[,]* ***and*** through the EDCs' supplier web portals through flat files (that is, "batch CSV" or "tab-delimited files") or other method mutually agreed upon between the EDCs and authorized third parties.

(e) AMI data sets must include a rolling 14 days' worth of AMI data delivered through supplier portals daily and accessible through an automated Application Programming Interface solution.

(f) EDCs must ensure AMI data is transmitted to the authorized third parties no later than 60 seconds after customer authorization.

(g) Each EDC must make the following data types available to be shared with authorized third parties, in addition to AMI data:

1. All customer billing information, including, but not limited to, account information, meter information, rate information, and any other data necessary for customers to participate in various demand management programs;

2. Precise addresses for multi-site customers; and

3. Customer account number(s).

(h) Each EDC must not charge a fee for access to AMI data to the customer or to any third party with whom the customer wishes to share their AMI data, including authorized third-party suppliers, distributed energy resource aggregators, and other energy services companies.

14:5-10.5 EDC use of AMI data

(a) Each EDC must only bill customers who have installed activated AMI meters using the customer's validated AMI data, rather than estimated data. In addition, each EDC must establish the customer's peak load contribution using each customer's load data.

(b) Any current and future use cases that are outside of the EDC's core functions (such as billing, settlements, and reliability) or are outside of requirements established in Board-mandated programs (such as Energy Efficiency) must be open to competition by authorized third parties.

(c) EDCs are not permitted to sell any customer AMI data.

(d) In order to support academic research into energy usage and clean energy adoption, each EDC must provide access to AMI data on an anonymized usage basis, at the zip code or sub-zip code level, to faculty, graduate students, or post-doctoral fellows associated with academic institutions strictly for non-commercial academic research into customer usage and system reliability.

(e) Each EDC must explore additional use cases for the types of data that can be collected from AMI meters, including the activation of additional data fields.

14:5-10.6 Third-party authorization and data security

(a) All EDCs must coordinate with each other to create and maintain a common "one-click" web-based release form, known as the New Jersey Common Release Form, for the purpose of authorizing access to customer data. A third-party supplier enrollment that includes the New Jersey Common Release Form disclosure information included at *[(b)]* ***(c)*** below is acceptable.

(b) The Board will establish, by Order, a process for Board staff to approve third parties as eligible to be authorized by customers to access AMI data and maintain a list of such approved third parties.

[(b)] ***(c)*** The common release form must be web-based, solely accessible by using multi-factor authentication, and include the following information:

1. Name of the third party requesting authorization;

2. Scope of data fields to be shared, how many periods back (historical), how many periods forward (ongoing), and for which accounts/services;

3. How the data is authorized to be used after customer consent is given;

4. One-click consent/decline; and

5. Confirmation required through multi-factor authentication.

[(c)] ***(d)*** Customers may revoke any third party's permission to access or use their AMI data, without penalty, at any time.

[(d)] ***(e)*** Third parties must take the appropriate steps to protect the customer information described at N.J.A.C. 14:5-10.4(g) in accordance with industry standards for cybersecurity and the protection of such customer information.

[(e)] ***(f)*** In the event of an unauthorized release of customer information by an EDC, a third party, or any entity to which the third party transfers customer information, that party must notify its customers, the EDC that provided said customer information, the New Jersey State Police, and the Board's Division of Reliability and Security of the release, within *[four]* ***48*** hours of the discovery.

[(f)] ***(g)*** *[A]* ***Board staff may revoke a*** third party's ***status as an approved third party and*** authorization to access customer information *[may be revoked]* for failure to comply with any of the requirements of this subchapter.

14:5-10.7 Ensuring fair access and competition

(a) Each EDC must ensure nondiscriminatory access to validated and non-validated AMI data for any authorized third parties and unregulated EDC affiliates.

(b) Each EDC must notify application developers 90 days prior to making changes to AMI data formatting, frequency, or other technical changes that may adversely affect application functionality, unless the change is necessary to address an immediate cybersecurity concern or system vulnerability.

(c) EDCs are prohibited from surveilling or reverse engineering third-party software applications, or engaging in any effort to gain competitive advantage or insight into a third party's business or product offering, unless the third-party software application includes code or vulnerability issues that could impact the integrity of the AMI data.

(d) Each EDC must provide a web-based issue tracking system for authorized third-party software application developers to log technical requests and bugs.

*[14:4]****14:5***-10.8 Reporting metrics

(a) Each EDC must report the following metrics to the Board and the Board's Division of Clean Energy on a *[quarterly]* ***semiannual*** basis:

1. Total usage in kilowatt-hours and number of EDC customers during the reporting period, broken down by month and customer tariff class. Each EDC must also provide the same data for each of the previous five years, broken down by month and applicable customer tariff class;

2. The hourly demand curve in kilowatt-hours for each customer tariff class (minimum hourly interval), and during the same quarter for each of the previous five years, broken down by month and including the percentage of customers whose demand exceeded tariff level (for example, incurred demand charges);

3. Number of customers who granted ongoing access to their AMI data through Green Button Connect and/or Green Button Download;

4. Number of customers who granted one-time access to their AMI data through Green Button Connect and/or Green Button Download;

5. Number of customers who withdrew ongoing access permission;

6. The time it takes for third parties to complete technical and administrative onboarding with EDCs' Green Button Connect systems;

7. Total number and percentage of customers with AMI meters who logged into the data portal;

8. Total number and percentage of customers identified to receive messages regarding their energy savings tools, personalized usage, or savings tips; and

9. Mean and median number of instances that each customer logged into the data portal during the reporting period.