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September 30, 2022

VIA E-FILING & E-MAIL

Carmen D. Diaz, Acting Secretary New Jersey Board of Public Utilities 44 South Clinton Avenue, 9th Floor Post Office Box 350 Trenton, NJ 08625-0350 board.secretary@bpu.nj.gov

Re: Advanced Metering Infrastructure ("AMI") Data Transparency, Privacy &

Billing – Draft Minimum Filing Requirements

BPU Docket No. EO20110716

Dear Acting Secretary Diaz:

On behalf of the Competitive Suppliers, we submit the enclosed comments regarding the Board's Draft Minimum Filing Requirements ("MFRs") on Advanced Metering Infrastructure ("AMI") Data Transparency, Privacy and Billing, filed in response to the BPU's Public Notice issued on July 29, 2022.

Please do not hesitate to contact me if you have any questions.

Very truly yours,

Murray E. Bevan

MJ. Van

Enclosure

cc: NRG - Leah Gibbons, Angela Schorr, and Rob Gibbs

Vistra - Kristina Montgomery

Engie - Jeffrey Levine

Constellation - Florence K. Davis, Alex Charlton and John Kern

Comments of the Competitive Suppliers in the Advanced Metering Infrastructure ("AMI") Data Transparency, Privacy & Billing – Draft Minimum Filing Requirements BPU Docket No. EO20110716

On behalf of the Competitive Suppliers¹, we submit these comments regarding the Board's Draft Minimum Filing Requirements ("MFRs") on Advanced Metering Infrastructure ("AMI") Data Transparency, Privacy and Billing. We applaud the effort that Board Staff put into developing these MFRs. Each of the Competitive Suppliers are committed to delivering innovative products and services that empower New Jersey customers to take control of their energy consumption. However, their ability to do so hinges on timely and efficient access to their customers' near real-time interval usage data ("IU data") which can only be achieved with the adoption of standardized data access requirements. The Competitive Suppliers are also committed to continuing their active participation in this stakeholder process to ensure standardized data exchange and to work quickly toward a resolution of issues with participating stakeholders.

We disagree with PSE&G's comments at the stakeholder meetings concerning the creation of technical working groups, which are unnecessary and will only delay this proceeding. JCP&L, ACE, and RECO have not made similar requests, likely because their affiliate companies have experience with implementing AMI data access in other states largely consistent with Staff's proposed MFRs.

MFR # 1 - Customer Ownership and Sharing of Energy Related Data

The Competitive Suppliers agree with Board Staff's recognition that customers own all data generated by their AMI meters and that the EDCs should be required to adopt a clear statement regarding this in their Data Access Plans. The IU data generated by AMI meters belongs to the customer as the customer uses and pays for the electricity, pays for the AMI meter investment, and the customer's own electricity usage generated their data. Customers alone should control who accesses their usage data. We further support Board Staff's proposal that the customers' AMI data must be provided by the EDCs through Green Button Connect ("GBC"), Electronic Data Interchange ("EDI"), and CSV flat files (batch CSV or tab-delimited files) through supplier portals because there is no single solution that will satisfy the needs of the competitive market. These data sharing mechanisms are discussed in more detail in the section below regarding MFR # 9.

¹ NRG Energy and RESA members Vistra, ENGIE Resources, and Constellation

While GBC may require a specific form of consent, customers served by TPSs should not have to make decisions about how their retail suppliers will access their data. Customers are not going to know the difference or understand the technical aspects of EDI versus the flat files available via the supplier portals. And a TPS may use EDI and the supplier portal for the same customer account but for different reasons. The burden should not be placed on customers to understand or differentiate between these mechanisms. Customers should be allowed to continue authorizing TPS access to their data through provisions in their supply contracts they sign.

MFR #2 - AMI Data Provision Timelines

We understand the need to provide validated AMI data within 48 hours after the meter readings are captured. However, if the utility processes/systems/technology evolve to enable more real-time delivery of this data to a customers' supplier within 24 hours or less, the utilities should be directed to provide it more quickly. The key to offering customers products and services that enable them to change their behavior and shift their energy consumption is communicating information about their consumption to them as quickly as possible, which will enable customers to make a connection between their electricity usage and what they were doing during that time.

TPSs must be able to retrieve customers' near real time IU data as fast as possible each day so that they can quickly load the data into their systems and promptly present it to their customers. Customers simply cannot remember what they did days, weeks or even a single month after the fact. Customers expect instant access to timely information in all aspects of their lives – from the number of steps they take in a day, to movies online, to the products and services that they buy. The older the IU data, the less valuable and useful it is to motivate customers to act.

To that end, we agree with Staff's second recommendation that unvalidated AMI data should be available to home area networks on a sub-fifteen second basis through a customer-owned qualified energy monitoring device that a customer may procure from the competitive market. We propose that such unvalidated AMI data be made available to TPSs within 24 hours or less. This would put TPSs on a more equal footing with how the utilities will use the data themselves. For example, ACE's affiliate in Maryland, Pepco provides customers with a view of their hourly data within 24 hours. Customers can log into their accounts online and see their hourly usage graphed for yesterday. But the utilities are not sharing that data with the customer's retail supplier until tomorrow. That is an unlevel playing field that needs to be corrected.

AMI provides the platform to offer highly granular data on each individual customer's energy usage in order for TPSs and other service providers to build customized load management programs and other innovative services that can empower customers to effectively control their energy usage and costs.² 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. Examples of the type of customer engagement that would be enabled by real-time access to AMI data include alerting customers to high bills or high usage through text messaging and providing weekly email summaries of daily or hourly usage that inform customers about their high usage days and/or times of day.

MFR # 3 - Adoption of Standardized Customer Privacy and Cybersecurity Requirements

We appreciate that Board Staff recognizes that TPSs obtain consent for access to a customer's interval usage data via their electricity supply contracts and that there is no need for suppliers or their prospective customers to go through a second "one click" process – particularly since TPSs are much less likely to utilize GBC and will rely on EDI and the flat CSV files in the supplier portal to access their customers' data.

We agree that there should be a uniform set of data privacy standards across all utilities to allow customers to easily understand what set of data they are giving consent to be released. However, we do not agree with Board Staff's recommendation that the New Jersey Common Release Form ("CRF") disclosures must be included in a suppliers' contract. There are existing TPS contracts in the market today that capture consent from customers for accessing usage data that may not reflect the precise CRF disclosures that are to be developed, but that sufficiently disclose to a customer that their chosen supplier will access and use their data. Whatever process the BPU adopts here, we recommend that the BPU be open to grandfathering existing contract language that meets the spirit of this requirement. Of the enumerated specifications in Staff's recommendation, supplier contracts will not have or be enabled with "one-click" consent/decline options. This is simply not how supplier contracts are structured to meet the BPU's existing regulations governing supplier contracting. Customers should be free to grant access to their data to their chosen TPS in the same way they grant access to their chosen TPS to switch their electricity service and obtain their usage data from the utilities in order to calculate their supply charges. By

² Advanced Energy Economy, Advanced Metering: Connectivity for the Modern Grid (July 19, 2018 (Updated)).

making IU the standard data, customers should be allowed to continue following their familiar enrollment processes without extra steps for the customer to fully utilize their AMI data for their existing or newly chosen supplier.

In addition, multifactor authentication should not be required for EDI or supplier portal access, both of which are currently utilized daily by suppliers and utilities to transact business.

Regarding Staff's proposed mandate to the utilities to create and maintain a "bad actor" list, we oppose placing EDCs in the role of policing supplier use of customer data and controlling supplier access. The EDCs should not be granted the discretion to determine whether a violation exists. In our view that is simply not an appropriate role for the regulated utility to play. Rather, the BPU's Division of Customer Assistance should maintain records of customer complaints filed with the BPU and determine if there is intentional misuse of the data or if an inadvertent error was made. The Board can then follow up with the implicated supplier(s) when concerning trends emerge and remediate the issue as appropriate. It makes more sense for the BPU to monitor supplier use of customer data since the BPU has the authority to impose fines, suspend or revoke licenses, or require some kind of compliance plan if a TPS is found to be in violation of Board regulations.

MFR # 4 - Reporting Metrics

Please clarify whether Board Staff's proposed metrics are only applicable to GBC and not to data provided through EDI and/or the supplier portal.

MFR # 5 - Data Granularity and Appropriate Rollout Schedule

We support Staff's recommendation that EDCs shall collect five-minute meter BQIU data, at watt-level precision, for all customers to align with PJM settlements and the FERC 2222 tariff. We also support that initially 15-minute BQIU data will be provided for residential customers, and 5-minute BQIU data for DER aggregation customers. The availability of 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.

Watt level precision is also critical because residential customers consume energy at a much lower rate than larger C&I customers. A residential customer may use as little as 750 kilowatt hours ("kWh") in a billing period. When you are trying to see and understand how much electricity such a customer uses each hour of that period, there will be many hours that register in watts. It is essential that the BQIU data provided to TPSs is measured at the watt level so that these customers' usage can be properly analyzed, and products can be designed to meet these customers' needs.

We also support Staff's recommendation that AMI data be made available on a rolling basis as AMI meters are installed across the EDC territories and meter certifications are completed, rather than waiting until all, or even most, AMI meters are installed.

TPSs will rely on this data to improve their own load profiling and forecasting, customer segmentation and behavior analysis, thereby promoting a "smart" and efficient grid. For this reason, IU data must become standard usage data available to all TPSs for all their customers at no charge as soon as the AMI meters are installed and data becomes available. Each EDC's Data Access Plan should address when the data will become available through each phase of meter deployment, ensuring that the data is available to the market as soon as the meters are installed and are collecting data. Utilities in other jurisdictions provided such detailed plans that included status updates to the market when data would become available as deployment progressed.³ Making BQIU data available to the market as it becomes available has at least one other benefit. It allows TPSs the ability to monitor data quality and accuracy and provide feedback which could help EDCs to ensure data accuracy as it rolls out its new system.

MFR # 6 - Additional Data Fields

There are some third parties in other jurisdictions advocating for access to customer data that goes well beyond electricity usage. These third parties (who are not regulated by state commissions) in both the District of Columbia and Maryland are advocating for access to all non-PII data collected by the regulated utilities. They have requested customer phone numbers, email addresses, and all billing data, including charges from competitive retail suppliers. This data goes well beyond the bounds of what AMI and smart meters are intended to enable and it raises significant concerns about the sharing of proprietary information and potentially creates an unlevel

³ The First Energy companies in Pennsylvania adopted a methodical roll out schedule that worked well and can serve as an example for the New Jersey utilities. *See* Exhibit A – First Energy PA Smart Meter Data presentation.

playing field. Enabling competitors access to competitive TPS billing details risks exposing details about a suppliers' pricing models which have been accepted by the BPU for licensing purposes as confidential and proprietary information. Third parties are seeking access through GBC. GBC has recently been updated to enable access to billing data and it allows for continuous data access. Third parties would have access to a customers' information until such time the customer actively turns it off. TPSs are concerned that these third parties could data mine supplier price information in perpetuity after a customer clicks a single check box on a web site. We urge the Board to reject the appeals by unlicensed third parties to grant them access to such billing information.

MFR #7 - Ensuring Fair Access and Competition

We have no comments regarding this MFR.

MFR #8 - Billing and Settlements

We strongly support Board Staff's proposal to require EDCs to settle customer accounts using customers' actual IU data instead of class load profiles or estimates, and to require the EDCs to establish each customer's Peak Load Contribution ("PLC") and ICAP tags based on the customer's individual hourly peaks rather than determining average "usage profiles" from a group of test customers. The only way to align the economics and enable TPSs to reduce their supply obligation to meet the customer's shift in usage is to ensure that the individual customer load is settled at PJM based on the customer's IU data and that the customer's PLCs are calculated using their IU load data.

Load settlement and individual customer PLC calculation based on IU data are essential to aligning the economic incentives that drive customer behavior. Currently, the utilities prescribe the amount of electricity that a supplier must deliver in each hour of the day for each customer. The utilities determine the amounts by developing an average "usage profile" from a group of "test customers." They also calculate PLCs and capacity tags based on these profiles. TPSs are forced to supply electricity to the average usage profile, not to the actual use of their individual customers. As a result, TPSs' costs are not reduced even when they offer a customer a price incentive to reduce power consumption during certain peak hours of the day and the customer responds to that incentive and reduces usage. This is because the TPS must continue to supply electricity to the average customer profile and still pay the associated energy supply cost and capacity tag during

that period when the customer reduced their usage. TPSs must charge a price sufficient to cover the cost of that supply (including capacity) at the higher priced peak period. Unless and until a TPS can reduce its supply costs to match the customers' reduction in usage during peak hours, customers will not see the benefit of changing their behavior to shift their usage to lower cost periods. AMI meters enable EDCs to settle all customer load (i.e., TPS and BGS customer load) at PJM and calculate individual customer capacity tags based on IU data. A customer needs to be able to see that a change in their behavior results in a lower monthly energy bill and that can only occur if their actual usage is used to determine how much electricity supply is needed for each hour of every day. EDCs must be required to settle all load at PJM and calculate individual customer PLCs based on the IU data collected by its new AMI meters to enable customers to realize the value of their AMI investment.

The electric utilities in Delaware, the District of Columbia, Pennsylvania, Maryland among others, settle all load at PJM (Settlement A and B) based on customers' near real-time BQIU data. The utilities in these jurisdictions also calculate individual customer PLCs based on that data and routinely provide updates to suppliers.

MFR #9 - Format of Data Sharing

We support Board Staff's proposal that the customers' AMI data must be provided by the EDCs through GBC, EDI and CSV flat files ("batch CSV" or tab delimited files) through supplier portals. There is no single solution to satisfy the needs in the market. Each of these data sharing mechanisms can satisfy the needs of some use cases, but not others. GBC enables third parties not certified with the regulated utilities to access individual customer data. However, because GBC is an API solution that is not scalable, it does not satisfy the needs of a retail supplier serving thousands of customers in a utility service territory. EDI and the CSV flat file format are both needed to accommodate the needs of TPSs serving customers in this market.⁴

We are pleased that Board Staff recognizes the limitations of GBC as a method of sharing customers' AMI data with TPSs and other third parties. GBC is best suited to providing individual customers with access to their own IU data. It is not viable for TPSs serving thousands of customers to obtain their customers' BQIU data all at one time, every single day. GBC is a manual process

⁴ Board Staff also mentioned that the data should be accessible through an automated API solution. To be clear, neither EDI nor the CSV files are API solutions. GBC is an API solution. Staff did not have a fourth solution in mind for the EDCs to implement – some other API solution in addition to GBC.

that requires users to request IU data one customer account at a time or in small batches. Moreover, because these data requests go through a third-party vendor, the response speed and processing of that data can be slow and cumbersome. Also, the number of data requests required to meet a TPS's data needs can lead to security concerns over network traffic accessing data. As an example, NRG's affiliate Reliant Energy, operating in Texas offers GBC as a way to supplement the usage graphs that it provides to customers, but Reliant gets its data used for billing and load forecasting directly from the ERCOT smart meter portal in batch CSV files. We have no objection to the EDCs enabling GBC as a means for customers to access their own data as long as EDI and CSV flat files are also required by the Board.

EDI is utilized by EDCs and TPSs today to transact business. EDI is capable of providing customers' historical interval usage ("HIU") data and many other utilities that have deployed smart meters enable access to HIU data via EDI, including utilities in New Jersey where hourly meters have been deployed for larger commercial and industrial customers. While EDI may be appropriate for obtaining primarily large commercial and industrial customers' data, it is quite costly and is not capable of transmitting BQIU usage data for residential customers. An efficient and low cost means of providing BQIU data is via flat files (i.e., "batch CSV" or Tab-delimited files) accessible through a web portal. These files can be created by EDCs for each certified supplier on its system using the supplier's DUNS number to query its system. The creation of these daily files can and should be automated by the EDCs.

TPSs can similarly program their systems to automatically access their customer files each day. By enabling such system-to-system communication, the need for manual intervention is minimized or even eliminated. The data files provided through this system-to-system solution must include all of the 24-hour old (or less) BQIU data for all of the customers being served by the supplier. Each row in the file would be for a specific customer, while each column in the file contains the usage for each hour. The CSV files typically contain a rolling 10 days' worth of 48-hour old (or less) BQIU data. A new file for each supplier would be added to the web portal daily. These data files should be provided to suppliers via the EDC's existing secure supplier web portals. Suppliers would log into the EDC's supplier web portals using the EDC-assigned username and password, download their data file(s), and begin the work necessary to translate that data into useful information for their customers. Only suppliers that are licensed by the Board and certified to do business with the EDCs have access to the supplier portal and a supplier would only be able to access the near real-time BQIU data for its own customers.

Furthermore, the Competitive Suppliers agree with Board Staff that the EDCs should not be permitted to charge a fee to the customer or to the third party with whom the customer wishes to share their AMI data, including TPSs, DER aggregators, and other energy services companies. This is the data of the future and the only way that customers will realize the full benefits of this data is for it to be widely available to the suppliers of the customers' choice. All states that have approved data access have also approved cost recovery through base rates or AMI riders and this is the appropriate solution for New Jersey as well.

We are aware that PSE&G currently provides suppliers with access to the interval usage data available for large commercial and industrial customers who have meters capable of providing hourly usage. However, the form of data access and requirements for access are unworkable in the future where AMI data is the new standard and they are fundamentally different from what the Competitive Suppliers are seeking here. PSE&G's TPS Electric Operating Manual provides that: "A TPS can request interval data by contacting via e-mail TPSupplier@pseg.com. Interval usage requests may be charged \$40 per meter. The TPS must obtain and retain a letter of authorization from the customer for this data." PSE&G TPS User Manual, p. 22, November 2016. TPSs should not be required to pay for a customer's interval usage data that the customer authorizes the TPS to obtain. As noted above, the data does not belong to PSE&G, it belongs to the customer. Moreover, LOA requirements are overly burdensome. Customers should be permitted to authorize a supplier to obtain their IU data as part of the contracting documents executed to enroll for TPS service.

In contrast, JCP&L now makes historical interval usage data for large commercial and industrial customers with hourly meters available through EDI. This functionality was implemented in the last few weeks and is a huge improvement that is greatly appreciated.

We also support Board Staff's proposal that the data provided through CSV flat files available in the supplier web portals should contain a rolling 14 days of interval usage data.⁵ However, as explained in our response to MFR #6 we oppose proposals to share all customer billing information, specifically rate information, with authorized third parties, as this data goes well beyond what is available due to AMI. To the extent a customer is taking supply from a regulated utility whose rates are public information and whose tariffs are publicly available, third parties have the capability of obtaining that information from the publicly filed tariffs the same way that TPSs do. Shopping customers taking service with a TPS are served under prices agreed to between the

⁵ A rolling 10 days is sufficient and what is provided in PA, MD, and DC.

customer and the supplier and those prices are not public.

We further support Board Staff's proposal that AMI data must be transmitted to the authorized third parties no longer than 60 seconds after customer authorization.

MFR # 10 - Emergency Responders Access

We have no comments regarding this MFR.

MFR # 11 - Appropriate Utility Use of AMI Data

We recommend that utility use of the AMI data must be limited to the utilities' core functions and that all other use cases should be conducted solely by the competitive market. The current wording of this MFR could be interpreted as allowing utilities to be engaged in use cases outside of their core functions as long as those use cases are open to competition by authorized third parties. This conflicts with the following statement in Board Staff's AMI Data Straw Proposal: "Staff recommends that the Board enshrine the principle that EDC usage of smart meter data be limited to core functions, including billing, settlements and reliability."

In a restructured retail electricity market like New Jersey, competitive TPSs are the entities best suited to deliver the types of value-added products and services to consumers made possible by AMI meters. TPSs risk their own capital to find solutions of value to consumers — which takes time, research, testing and development. Technology evolves quickly, as do consumer needs and desires. The regulated utility model is just too slow to adapt to the ever-changing consumer needs and technological advances and is simply not designed for innovation. Most importantly, captive ratepayers should not bear the risk of monopoly utility investment in competitive offerings.

Utilities should be required to avoid situations involving use of ratepayer funds or their monopoly position to gain an unfair advantage over other entities offering energy solutions or to expand the utility's marketing of non-utility products (e.g., home security systems and appliance warranties), new energy rate products (e.g., free nights and weekends, targeted time of use rates), as well as energy-related usage items, other than EE program administration. Each EDC's Data Access Plan should require that use cases which are outside of the utility's core function be performed exclusively by third parties.

Some use cases are appropriate, and even essential, for a regulated monopoly utility to engage in as they align with the core function of maintaining a safe and reliable distribution system and result in clear benefits to the operation of that system and the customers connected to it. These include using AMI meters to reduce the number and duration of outages during major outage events, providing more accurate and timely estimates of power restoration to impacted customers, enabling remote disconnect/reconnect, enabling remote move-in/move-out, and calculating distribution loss.

However, use cases that are outside of the utilities' core functions, firmly within the purview of competitive entities, and available in the competitive market, include: enhanced customer engagement and communications; rate analyzer and comparator; usage and bill alerts, saving tips; interactive energy demand and bill management; customer segmentation and behavioral analysis; customer efficiency programs (smart thermostats); and customer DER/PV/EV; customer demand response; customer pre-paid billing options; innovative rate development, customer smart home/appliances/devices; smart city; microgrids; customer gamification and loyalty programs; energy storage; and real-time pricing.

Monopoly utility interference in the competitive market with these types of product offers has the potential to create barriers to competitive services. Monopoly interference in competition is inappropriate and should be rejected. Competitive entities risk their own shareholders' dollars to innovate and develop the products and services attractive to consumers, and consumers freely choose those products and services that meet their needs. New Jersey ratepayers should not be forced to bear the risk of these types of investments.

We appreciate the opportunity to be part of this AMI data stakeholder process and look forward to working closely with Board Staff to further develop minimum filing requirements for EDCs to create AMI Data Access Plans.

EXHIBIT A



PA Smart Meter Data

Met-Ed, Penelec, Penn Power, West Penn Power

Supplier Webinar

Agenda

- FirstEnergy Interval Data Implementation Plan
- PJM Settlements Utilizing Interval Data
- Interval Data Availability
 - Eligible Customer List
 - **◆ EDI**
 - Web Portals
 - **\$SU-MR**
 - ❖ Rolling 10 Day
 - StS Historical Interval Usage
- Questions

<u>Smart Meter Stages | Deployment through Interval</u> <u>Enablement</u>

Progress is performed on a meter reading route by route basis for all routes within a meter reading district, while progressing in parallel across multiple districts in multiple OpCos

1) Deployed

• Engaged in socket on premise

- 2) Communicating
- Meter communication attained over the network

3) Accepted

Route Acceptance following network optimization

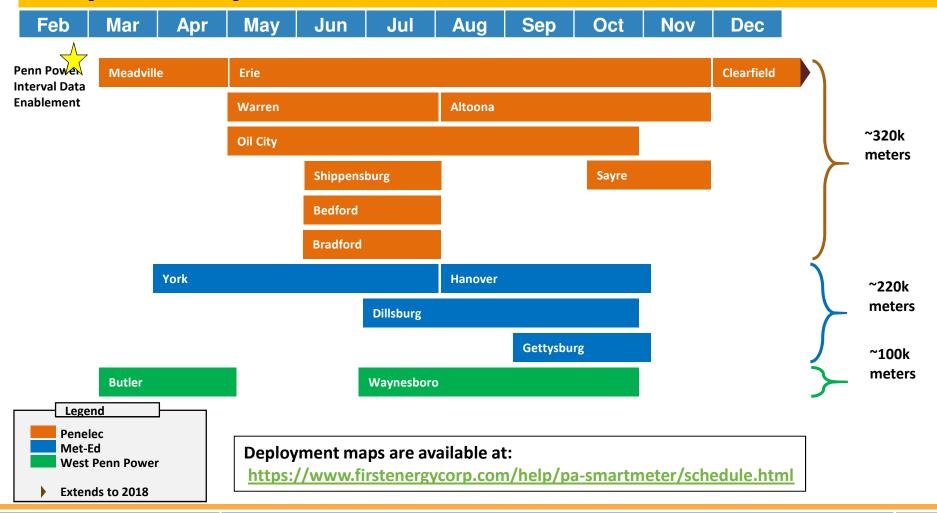
- 4) Register Billing
- Billing Certified Register Values Only

- 5) Interval Enabled
- Billing Certified Interval Data for Settlement, Portals, etc.

Following the February 2017 system enhancement, Stages 4 & 5 are attained simultaneously upon billing certification

Stages 4 & 5 Billing Certification | 2017 PA Schedule for ME, PN, WPP

Bill Certification will begin in Met-Ed, Penelec, and West Penn Power Meter Reading Districts in March 2017 following the Interval Data Enablement release. ~640k meters across 16 districts encompassing all three OpCos are scheduled to be certified in 2017 with the remaining ~1.2M meters throughout 2018-19



AMI Impacts to PJM processes

AMI interval data will be used in the daily Settlement A

- All validated meter data received by 8 am on day of processing will be included in Settlement A
- Any missing meter data will be estimated using the assigned class profile and its respective usage factor. (same estimation routine as used when non-interval meter)
- Missing data will be replaced with actual data for 60-day Settlement B processing.

Penn Power February Settlement B

- All available AMI data will be included for Feb 20 through 28
- AMI data for West Penn, Penelec and Met Ed will be incorporated into the Settlement A and Settlement B processes beginning in March and continuing on a rolling basis throughout the remainder of the smart meter deployment.
- AMI interval data will be used in the 2018 NSPL and PLC calculations

Eligible Customer List

- The Eligible customer list will now include a new field "SM".
 - This field will have a "Y" to denote that interval data is available.
 - This field will have a "N" to denote that the account does not yet have interval data.
 - ❖The ECL is run each month on the 3rd Sunday of the month.
 - We ran this off cycle last Sunday to pull in all eligible Penn Power interval data customers.

```
contract_acct(12)
capacity_pls_future(20)
net_metering_ind(1)
tax_exempt(1)
sm (1)
Smart meter. "Y" indicates that smart meter interval data is available for the customer.
```

https://www.firstenergycorp.com/supplierservices/pa/pp/data.html

EDI Changes

- Suppliers can now begin to request monthly interval usage data utilizing EDI.
 - This can be requested upon a new enrollment or via an 814C requesting monthly interval usage.
 - If the request is accepted, we will begin providing interval usage data via the 867 starting the first month where we have only interval data.
- Planned for May 2017 implementation, Suppliers will be able to request historical interval usage.
 - These request will only be fulfilled under the following scenarios:
 - The customer has at least 12 months of interval data.
 - ❖ We do not have the ability to provide a combination of HU & HIU.
 - The customer has received interval data from the point of their move in.

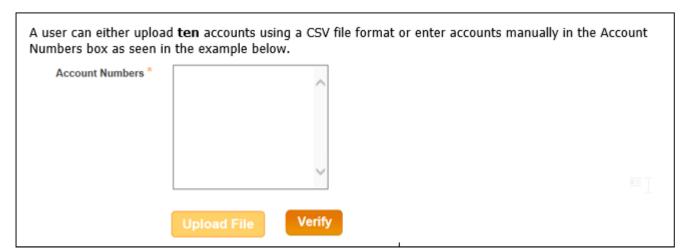
Web Portal - Background

- PA PUC requires utilities with smart meter requirements to have a web portal.
 - ❖ Final Order Sept 3th, 2015 (Regarding SU-MR)
 - Final Order June 30th, 2016 (Regarding StS)
- The web portal will have 3 unique functionalities
 - ❖Single User Multiple Request (SU-MR)
 - System-to-System Rolling 10 Day (StS Rolling 10 Day)
 - System-to-System Historical Interval Usage (StS HIU)
- We are implementing functionality in accordance with the solution framework document.
 - http://www.puc.pa.gov/utility industry/electricity/edewg files for downloading.aspx.

SU-MR

- The SU-MR method requires a web-based platform allowing for an authorized user to manually log into a secure portal, request, and receive smart meter interval usage for one or more account numbers as part of a single request. The results are rendered within the web portal interface itself or exported to the user in a predefined file format.
 - Supplier must enter the 20 digit customer number.
 - Unmetered and a non smart interval meter (MV90) accounts not eligible.
- We will allow up to 10 accounts to be loaded at one time.
 - These can be viewed via the web.
 - They can also be downloaded to a CSV file.
 - You can download each account separately or together in one file.

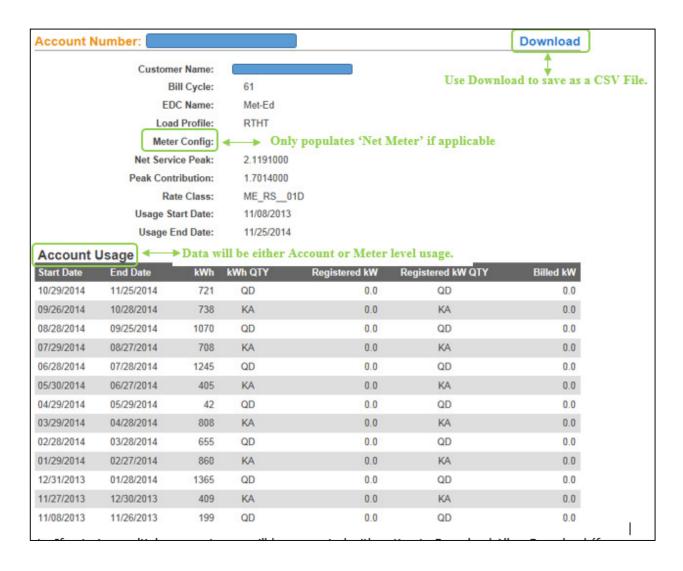
SU-MR



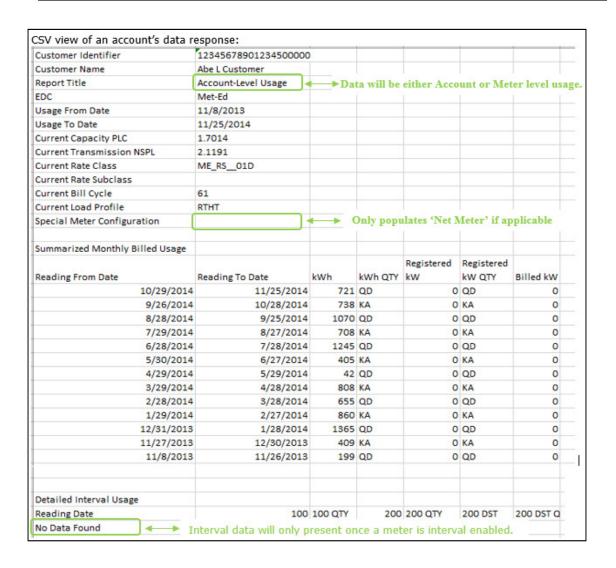


Rejection Reason	Summary of Rejection
Missing Account Number	Input is missing 20-digits
Invalid Account	Input has 20-digits but are invalid, input is for a non-PA EDC and or input is for an interval meter that is not a smart meter (MV90)
Account Exists but is not Active	Account number exists but a move out date is pending
Unmetered Account	Unmetered Account
Account Pending Active	Account number exists but request is made before the customer's move-in date
Historical Usage Unavailable	No historical usage data is available

SU-MR (Web View)



SU-MR (File View) - No Interval Data



SU-MR (File View) – Interval Data

15 MPI

Detailed Interval Usage												
Reading Date	15	0015 QTY	30	0030 QTY	45	0045 QTY	100	0100 QTY	115	0115 QTY	130	0130 QTY
2/7/2017	0.845	QD	0.935	QD	1.008	QD	0.894	QD	0.997	QD	0.88	QD
2/6/2017	0.717	QD	0.98	QD	0.798	QD	0.983	QD	0.868	QD	0.872	QD
2/5/2017	1.245	QD	1.064	QD	1.277	QD	1.025	QD	1.101	QD	1.184	QD
2/4/2017	1.186	QD	1.064	QD	1.064	QD	1.118	QD	1.008	QD	1.16	QD
2/3/2017	0.868	QD	1.208	QD	0.957	QD	1.096	QD	1.065	QD	0.875	QD
2/2/2017	1.089	QD	1.072	QD	1.173	QD	1.051	QD	1.133	QD	1.177	QD
2/1/2017	1.034	QD	1.111	QD	1	QD	0.937	QD	0.988	QD	1.11	QD
1/31/2017	0.949	QD	1.065	QD	1.119	QD	1.015	QD	1.079	QD	1.061	QD
1/30/2017	0.999	QD	0.944	QD	1.06	QD	1.07	QD	0.948	QD	1.041	QD
1/29/2017	1.023	QD	1.2	QD	0.938	QD	1.178	QD	0.928	QD	1.115	QD
1/28/2017	1.079	QD	1.146	QD	1.031	QD	1.187	QD	1.065	QD	0.994	QD
1/27/2017	1.061	QD	0.91	QD	0.903	QD	1.005	QD	1.112	QD	1.019	QD
1/26/2017	0.813	QD	0.879	QD	0.815	QD	0.827	QD	0.84	QD	0.798	QD
1/25/2017	1.048	QD	1.022	QD	0.901	QD	1.055	QD	1	QD	0.821	QD
1/24/2017	0.877	QD	0.983	QD	0.929	QD	0.853	QD	1.083	QD	0.81	QD

60 MPI

Detailed Interval Usage														
Reading Date	100	100 QTY	200	200 QTY	200 DST	200 DST QTY	300	300 QTY	400	400 QTY	500	500 QTY	600	600 QTY
2/7/2017	0.145	QD	0.078	QD			0.135	QD	0.07	QD	0.126	QD	0.093	QD
2/6/2017	0.044	QD	0.116	QD			0.156	QD	0.075	QD	0.151	QD	0.136	QD
2/5/2017	0.143	QD	0.093	QD			0.085	QD	0.14	QD	0.154	QD	0.154	QD
2/4/2017	0.13	QD	0.137	QD			0.132	QD	0.133	QD	0.147	QD	0.145	QD
2/3/2017	0.101	QD	0.151	QD			0.159	QD	0.142	QD	0.141	QD	0.16	QD
2/2/2017	0.143	QD	0.141	QD			0.094	QD	0.092	QD	0.135	QD	0.137	QD
2/1/2017	0.15	QD	0.148	QD			0.064	QD	0.134	QD	0.152	QD	0.072	QD
1/31/2017	0.104	QD	0.099	QD			0.155	QD	0.148	QD	0.114	QD	0.118	QD
1/30/2017	0.113	QD	0.141	QD			0.157	QD	0.042	QD	0.133	QD	0.168	QD
1/29/2017	0.066	QD	0.136	QD			0.15	QD	0.096	QD	0.069	QD	0.148	QD
1/28/2017	0.127	QD	0.11	QD			0.137	QD	0.151	QD	0.097	QD	0.089	QD
1/27/2017	0.134	QD	0.092	QD			0.095	QD	0.134	QD	0.114	QD	0.15	QD
1/26/2017	0.08	QD	0.083	QD			0.129	QD	0.08	QD	0.137	QD	0.067	QD
1/25/2017	0.13	QD	0.105	QD			0.104	QD	0.105	QD	0.06	QD	0.158	QD
1/24/2017	0.051	QD	0.097	QD			0.1	QD	0.146	QD	0.026	QD	0.141	QD
1/23/2017	0.039	QD	0.09	QD			0.142	QD	0.077	QD	0.026	QD	0.065	QD
1/22/2017	0.077	QD	0.16	QD			0.073	QD	0.089	QD	0.139	QD	0.072	QD
1/21/2017	0.141	QD	0.085	QD			0.121	QD	0.087	QD	0.11	QD	0.228	QD
1/20/2017	0.148	QD	0.138	QD			0.069	QD	0.147	QD	0.145	QD	0.071	QD

StS Rolling 10 Day

- * According to the Web Portal Working Group Technical Implementation Standards System-to-System (StS) Rolling 10-day is a "provide-and-park" approach for sharing smart meter data. The EDC publishes a file that includes all available detailed bill-quality meter-level interval usage in hour ending format for the set of accounts served by a particular EGS DUNS(+4) number on a specific usage delivery date.
- Smart Meter interval enablement was available as of 2/23/17.
- We will provide a daily list that includes:
 - Customer Number, Meter Number, Meter Multiplier
 - The file will also include kWh data for each interval for that particular day.

StS Rolling 10 Day

Supplier Customer File Download

Download Customer File -P20170227_IU20170224_60_1.zip 007912736 007912736 P20170227 IU20170224 15 1.zip P20170227_IU20170223_60_1.zip 007912736 007912736 P20170227_IU20170223_15_1.zip 007912736 P20170227 IU20170222 60 1.zip 007912736 P20170227_IU20170222_15_1.zip P20170227_IU20170221_60_1.zip 007912736 007912736 P20170227_IU20170221_15_1.zip 007912736 P20170227 IU20170220 60 1.zip 007912736 P20170227 IU20170220 15 1.zip

15 MPI

#EDI_ACCT_NO	METER_NUMBER	METER_MULTIPLIER	USAGE_DATE	E_015	E_030	E_045	E_100	E_115
xxxxxxxxxxxxxxxx	xxxxxxxxx	1	2/20/2017	0.01	0.01	0.01	0.01	0.01
xxxxxxxxxxxxxxxx	xxxxxxxxx	1	2/20/2017	0.013	0.013	0.06	0.059	0.013
xxxxxxxxxxxxxxxx	xxxxxxxxx	40	2/20/2017	4.186	4.4	4.226	4.346	4.32
xxxxxxxxxxxxxxxx	XXXXXXXXX	1	2/20/2017	0.523	0.277	0.329	0.343	0.27
xxxxxxxxxxxxxxxx	XXXXXXXXX	80	2/20/2017	4.96	4.88	4.88	4.96	4.88
xxxxxxxxxxxxxxxx	xxxxxxxxx	1	2/20/2017	0.19	0.186	0.185	0.185	0.186
xxxxxxxxxxxxxxxx	xxxxxxxxx	80	2/20/2017	3.28	3.28	3.44	3.36	3.36

60 MPI

#EDI_ACCT_NO	METER_NUMBER	METER_MULTIPLIER	USAGE_DATE	E_100	E_200	E_300	E_400	E_500	E_600	E_700	E_800	E_900
XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXX	1	2/24/2017	0.487	0.474	0.485	0.822	0.478	2.851	2.791	0.639	0.66
XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXX	1	2/24/2017	0.663	0.665	0.664	0.663	0.663	0.65	0.632	0.621	0.619
XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXX	1	2/24/2017	0.005	0.005	0.005	0.005	0.004	0.005	0.005	0.005	0.005
XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXX	1	2/24/2017	0.028	0.027	0.028	0.027	0.027	0.027	0.027	0.026	0.027
XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXX	1	2/24/2017	0.562	0.566	0.57	0.557	0.571	0.565	0.568	0.384	0.4
XXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXX	1	2/24/2017	0.115	0.114	0.115	0.115	0.114	0.113	0.112	0.113	0.113

StS Historical Interval Usage

- According to the Web Portal Working Group Technical Implementation Standards the StS Historical Interval Usage (HIU) is a method that utilizes a platform which allows an authorized user's IT systems to communicate directly with the web portal system of the EDC without requiring a user to manually log into the web portal itself and leverage the user interface. The requestor connects to the EDC's system exchanging data via XML transactions.
- Smart Meter interval enablement was available as of 2/23/17.
- We will provide the follow upon request:
 - Customer attribute information as well as interval data
 - A valid reject reason
- NOTE: We will provide up to 12 months of data. If less than 12 months, we will return what interval data is available.

How to Receive Rolling 10 Day & HIU

- Suppliers will need to contact us if they would like to utilize either the Rolling 10 Day files or the StS HIU
 - Rolling 10 Day files will be received once a supplier sets up the DUNS+4 for each entity they would like to receive files for.
 - ❖ The admin must submit a request to the Supplier Services mailbox to initiate the request. The request must include each DUNs+4 that we should provide daily files for.
 - StS HIU will require a form to be filled out and coordination between the supplier and FE IT dept. This will be included in User Guide.
 - Send the completed form to the Supplier Services mailbox to begin the process.
- User Guide version 2 including updates related to interval billing will be posted to our portal on February 28th.
 - The user guide will include instructions on accessing Rolling 10 Day and StS HIU.

Administration

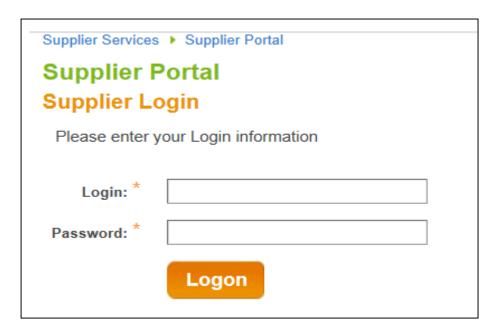
- In order to utilize any of the three functionalities outlined, each supplier must have an administrator.
 - If a supplier already has an administrator, they will be able to view SU-MR but must contact Supplier Services for Rolling 10 Day and HIU.

Administrative Functions:

- Ability to create, edit and remove users.
- Must attest that all users for their organization have proper access.
- Ability to deactivate user sessions when a user locks themselves out.
- Will be able to view an activity log of users and export the information to Excel.

Access

https://www.firstenergycorp.com/supplierservices/supplier portal.html



Quarterly Review Process

- Each administrator is required to validate the accuracy of the users of the portal.
 - We will prompt the admin upon initial login, to attest to the accuracy of the users of the tool.
 - The administrator must sign off that the list of users is complete and accurate on a quarterly basis.
 - Administrators can attest as frequently as they would like, however we will prompt them at login as they get close to the 3 month limit.
 - If the administrator does not attest for a period of 3 months, we will lock the admin and all users of the tool.
 - The administrator must reach out to supplier support to unlock the portal.

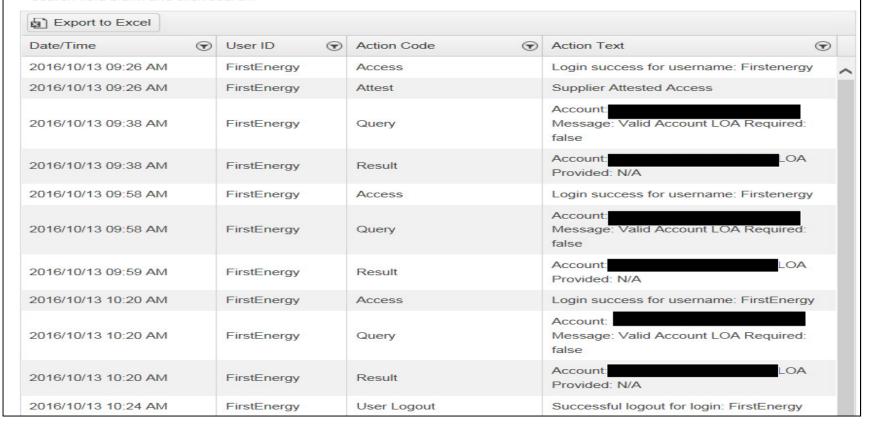
Attest Last Attest Time: 10/19/2016 □ I attest that all users for FirstEnergy - PA have the proper access *

Audit Log

Activity Log

Back to Admin | Logout

Search for user by login or name then filter by clicking on the icons on each column. To retrieve a list of all users leave the search field blank and click search.



Questions

Q1: Will monthly usage change to interval data?

A1: No, we will continue to send MU data until we receive a request for IU.

Q2: Is the change to IU requested through ref line 17?

A2: Yes

Q3: How can I tell if a customer is interval enabled?

A3: You will see that on the ECL file under SM indicator, through, SU-MR, Rolling 10 Day, or HIU.

Q4: How do we know if a customer is 15 minute or 60 minute.

A4: We will pass back data at the interval the customer is metered. Also, it will match our utility rate schedules. Therefore, as a rule of thumb, all residential and GS-Small will be 60 min interval with the remaining rate classes 15 min.

Q5: Does the 814C have any special characters to denote receiving meter level vs. account level.

A5: We will only pass back account level data in PA.

Q6: Will the various REF lines which indicate the Meter Type in an enrollment response reflect MON or Minutes Per Interval (015 or 060).

A6: We will provide back "MON".

Q7: Will we receive the presentation?

A7: We will send out after our Thursday March 2nd webinar.