BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

IN THE MATTER OF *EN BANC*	**:**	
HEARING ON ALTERNATIVE	**:**	**M-2015-2518883**
RATEMAKING	**:**	

COMMENTS OF

ENVIRONMENTAL DEFENSE FUND

The Environmental Defense Fund ("EDF") appreciates the opportunity to comment in this proceeding. EDF is a non-profit organization dedicated to using market-based principles to solve our most challenging environmental problems. EDF has over 16,000 members in Pennsylvania.

This proceeding's purpose is to find an alternative ratemaking method to optimize the customers' incentive to adopt energy efficiency and conservation measures. The Commission's list of discussion topics includes rate mechanisms such as decoupling, straight-fixed-variable rates and performance based rates. The testimony from the *en banc* hearing addressed these topics. EDF encourages the Commission not to limit itself to these traditional ratemaking approaches, but to more broadly consider additional ways to encourage more deployment of energy efficiency and conservation. To this end, EDF recommends that the Commission require utilities to implement pilot programs using another ratemaking model known as transactive energy. EDF also recommends that the Commission increase the use of energy efficiency and conservation by requiring utilities to use clean resources for distribution system planning. Finally, EDF recommends that the Commission require utilities to implement Voltage Optimization, which provides grid-based energy efficiency and conservation.

Performance Based Regulation

Performance Based Regulation ("PBR") is a regulatory approach that is becoming increasingly familiar to many in the United States based on its deployment in the UK as RIIO (Revenue=Innovation +Investment+Outcomes) and in Ontario, Canada as RRFE (Renewed Regulatory Framework for Electricity). In fact, many U.S. states including California and New York have longstanding experience with PBR for particular aspects of utility operations, most commonly customer service and energy efficiency delivery. Utilities that achieve or fail to achieve preset outcome metrics on a particular area earn financial bonuses or penalties.

Under a comprehensive PBR framework, regulators establish a series of metrics based on desired outcomes and establish a broad schedule of financial rewards and penalties associated with those metrics. Utilities are generally given a longer period of time, as much as eight years in the UK, to achieve those metrics. PBR is based on the notion that utilities know best how to achieve outcomes and regulators should clearly articulate metrics and get out of the way.

Under PBR, utility revenue is a function of: (1) a base revenue allowance, which governs the recovery of utility costs, and (2) financial rewards and/or penalties from performance incentives, which reflect the level of service delivery across the dimensions designated by regulators. As such, PBR enables regulators to link utility revenues to the fulfilment of desired outcomes, such as improved system-wide efficiency, enhanced customer engagement, and reduced greenhouse gas emissions.

The most direct means of creating a policy-responsive regime is to specify a broad set of performance incentives that align with current policy priorities. Through the use of financial incentives, PBR encourages utilities to deliver desired performance by offering equal or greater upside potential than under traditional regulation; at the same time, the possibility of diminished returns for inferior performance increases the uncertainty of returns under PBR and shifts risk from customers to utilities.

One challenge for PBR is to make the financial rewards and penalties sufficiently large to be material for a utility's overall balance sheet. In order to be effective, financial rewards and penalties must be material to a utility's financial performance and fitted with a utility's capital structure.

A second complication for PBR is defining appropriate outcomes and metrics. For example, a PBR approach to AMI deployment that simply creates a financial reward for the number of meters deployed runs the risk of placing meters without appropriate utilization or business preparation. A metric that focused on data utilization and allowed utilities to decide whether AMI were the best path to achieve a data-rich system might be preferable.

Transactive Energy

Transactive energy is defined as:

> A system of economic and control mechanisms that allows the dynamic balance of supply and demand across the entire electrical infrastructure using value as a key operational parameter.[1]

The transactive energy model was developed by the GridWise Architectural Council ("Gridwise"). Gridwise was formed by the Department of Energy and includes representatives from electric utilities, regulators and leading technology firms. GridWise's goal is to optimize the grid by making it interoperable and sending the correct price signals to attract a more efficient mix of participants and resources. Traditionally, the utility has operated the grid by centralized control, with one-way power flows from the utility to the customer, and limited ability for customers and third parties to participate.

GridWise espouses a new model where the utility operates the grid as a neutral platform and retains the duty to provide reliable service, but the grid is optimized by allowing customers and third parties to supply power and conserve power through energy efficiency, conservation and other distributed energy resources. A detailed discussion of transactive energy is available at the GridWise Architectural Council's website at: http://www.gridwiseac.org/.

[1] The GridWise Architectural Council, *GridWise Transactive Energy Framework Version 1.0* at 11 (January 2015). Available at: http://www.gridwiseac.org/pdfs/te_framework_report_pnnl-22946.pdf

One key benefit of transactive energy is that it can reduce waste and lower costs, while maintaining grid reliability. The electric distribution system is designed to serve peak load, but utilities have limited ability to manage peak loads and no incentive to reduce peak load. To the contrary, utilities are rewarded by selling more energy and serving higher peak loads because this is how they earn revenues and grow profits for their investors.

Typically, a utility's peak load is much higher than its average load, and the utility will reach a peak load for only a few hours every year. Maintaining the equipment to serve this peak load is wasteful because the peak is seldom reached, and the additional equipment is seldom used. Transactive energy mitigates this waste and high costs by incenting customers and third parties to supply power and/or conserve power during peak load periods. This reduces the utility's peak load and makes it less costly for the utility to maintain the grid, while maintaining reliable electric service.

Transactive energy incents customers and third parties to adopt energy efficiency and conservation by providing the right price signals to fully value these resources, and also provides the functionality to allow customers and third parties to deliver these resources to the grid. No jurisdiction has fully adopted this approach, though New York is well on its way to doing so, and other jurisdictions have implemented pilot programs. The New York proceeding is the *Reforming the Energy Vision.*[2] The New York Commission has already issued several orders to implement a transactive energy model.

The American Recovery and Reinvestment Act of 2009 also funded pilot programs to study transactive energy. The largest such project was the Pacific Northwest Smart Grid Demonstration Project, which implemented and operated a successful pilot program over a five-

[2] *See Reforming the Energy Vision,* Case No. 14-M-0101 (N.Y. PSC) (Staff Report and Proposal) (April 14, 2014).

year period. The final report was delivered to the Department of Energy in June, 2015 and is available at: http://www.pnwsmartgrid.org/

Pennsylvania has been a leader in grid modernization. Utilities are implementing smart grid deployment plans. Utilities may also file long-term improvement plans for grid modernization, and may recover these costs through annual rate updates. This is the two-way digital technology needed to implement transactive energy. In addition, Pennsylvania ranks second among other states in carbon dioxide emissions,[3] and the transactive energy model would help reduce these emissions while keeping utility rates lower.

The other alternative ratemaking approaches discussed in this case provide some benefits, but they have some drawbacks too. Straight-fixed-variable rates can reduce the incentive for customers to adopt energy efficiency and conservation by imposing higher fixed monthly costs. Decoupling and performance based rates can involve frequent and contentious rate proceedings that require a great deal of Commission and staff time. On the other hand, transactive energy would not require frequent regulatory intervention because, once established, the system can operate without close regulatory supervision. The goal of regulation is to emulate a competitive market structure and transactive energy does so by allowing customers and third parties to interact with the grid and by sending the correct price signals to govern their transactions.

The transactive energy model is a superior method for encouraging energy efficiency and conservation, as well as other distributed energy resources, because it uses the proper price signals for these resources. The utility's disincentive to integrate these resources is removed because the model also compensates the utility for its services in maintaining a reliable grid and in operating the platform for transactive energy interactions. EDF recommends that the

[3] Energy Information Administration, State Energy Profiles (2013), available at: http://www.eia.gov/electricity/state/pennsylvania/

Commission require each utility to implement a transactive energy pilot program, and that the Commission evaluate the pilot programs when they are completed, to decide whether to fully implement this model. The Commission could then compare: (1) the utilities' scores on reliability indices for the pilot programs vs. other areas served by the utilities; (2) the amount of new energy efficiency and conservation programs implemented in the transactive energy pilots, as compared to the remainder of the utilities' service territories; and (3) the price for electricity in the pilot programs vs. other areas. This would make full use of the modern technologies that utilities are deploying, and give customers the full benefit of these technologies that they are paying for through utility rates. This would also remove existing barriers to clean energy resources, while maintaining grid reliability and lowering utility rates.

Data Access

The Commission can give customers the fullest opportunity for energy efficiency savings by giving customers and third parties access to customer energy usage data. The Commission took an important step in this direction by granting third parties access to this data.[4] But the Commission's decision does not go far enough because third parties will receive access to the customer data via electronic data interchange ("EDI"). This format has been in existence for over 30 years and the primary purpose for using it in this context is for the utility to supply billing quality data to electric generation suppliers. But it is not well-suited for transmitting data for energy management purposes. The better format for energy management is XML. This allows files to be opened in spreadsheet programs and is the format approved by NIST and used by the energy management industry. If the Commission were to approve this standard, it would

[4] *Submission of the Electronic Data Exchange Working Group's Web Portal Working Group's Solution Framework for Historical Interval Usage and Billing Quality Interval Use*, M-2009-2092655 (Final Order) (September 3, 2015).

give customers access to a wide variety of energy management products and services that they could directly access from third parties.

EDF encourages the Commission to take another step forward by requiring the utilities to submit business plans and cost estimates for granting customers access to their energy usage interval data in XML format. This could save customers up to 18% on their monthly energy bills, as demonstrated by a recent report from Mission:data.[5] EDF recommends that the Commission adopt the attached Open Data Access Framework. This framework establishes a protocol for how utilities should share energy usage data with customers and third parties. EDF helped develop this protocol for use in Illinois. By adopting this protocol in Pennsylvania, the Commission would establish clear and simple principles for utilities to follow in sharing this data. This would give customers tremendous opportunities to expand their use of energy efficiency by purchasing products and services directly from third parties, independent of utility-sponsored energy efficiency programs.

Energy Efficiency and Conservation in Distribution System Planning

The Commission should also require utilities to use energy efficiency and conservation for distribution system planning. This would require utilities to evaluate whether energy efficiency and conservation, along with other distributed energy resources, would be more economical than expanding the grid's capacity. Several projects have proven that this can maintain grid reliability at a lower cost than traditional planning, and with lower greenhouse gas emissions.

[5] Mission:data, *Got Data? The Value of Energy Data Access to Consumers* (January 2016), available at: http://static1.squarespace.com/static/52d5c817e4b062861277ea97/t/56b2ba9e356fb0b4c8559b7d/1454553838241/Got+Data+-+value+of+energy+data+access+to+consumers.pdf

Central Maine Power ("CMP") implemented this approach a few years ago, with excellent results. CMP was planning to upgrade a transmission line serving the Boothbay peninsula. Instead of increasing the transmission line's capacity, CMP hired GridSolar to evaluate whether alternative resources could be used to reduce the peak load on the transmission line, at a lower cost. GridSolar conducted a bidding process to procure these alternative resources, and CMP was able to defer the construction of transmission upgrades, at a substantial savings for customers. More information is available at: http://www.gridsolar.com/

The New York Public Service Commission approved this approach in a project arising out of a Consolidated Edison ("Con Ed") rate case. Con Ed was facing increased load at a substation in the Brooklyn/Queens neighborhood. Instead of increasing the substation's capacity, Con Ed saved customers money by implementing a demand side management program, using energy efficiency, conservation, renewable resources and storage, to defer the substation construction program.[6] California has also adopted this approach to distribution system planning.[7]

Using clean energy resources for distribution system planning is not an alternative ratemaking method, but it promotes greater use of clean energy resources, while maintaining grid reliability, at a lower cost to customers. The Commission should therefore require utilities to implement the use of clean energy resources for distribution system planning.

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[6] *Petition of Consolidated Edison Company of New York, Inc. for Approval of Brooklyn Queens Demand Side Management Program,* Case No. 14-E-0302 (N.Y. PSC) (Order Establishing Brooklyn Queens Demand Side Management Program) (September 12, 2014), available at: http://www.bing.com/search?q=brooklyn+queens+demand+management+program&qs=AS&pq=brooklyn+queens+demand&sc=1-22&sp=1&cvid=92C8EABFE7D84DA29C4916336D36C523&FORM=QBLH

[7] *Order Instituting Rulemaking Regarding Policies, Procedures and Rules for Development of Distribution Resources Plans Pursuant to Public Utilities Code Section 769,* Rulemaking 14-08-013 (Ca. PUC) (Order) (August 14, 2014), available at: http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M102/K036/102036703.pdf

Voltage Optimization

The Commission opened this investigation to promote customer-side energy efficiency and conservation, but it should also use this opportunity to require utilities to implement grid-side energy efficiency and conservation. The Commission could do so by requiring utilities to file cost-benefit plans for Voltage Optimization, then requiring utilities to implement all cost-effective Voltage Optimization.

Voltage Optimization is a proven, cost-effective technology where the utility installs sensors along the grid to monitor voltage, and capacitors to boost voltage, and operates the grid within a lower voltage range. Voltage Optimization provides energy within an acceptable voltage range, but uses lower voltages, less energy and reduces peak demand. This technology has already been deployed by many utilities, including some Pennsylvania utilities, but some utilities do not fully adopt it because it erodes their revenues and profits.

Voltage Optimization was a primary focus of the Massachusetts statewide grid optimization proceeding:

> In addition to opportunities at customers' premises, there are also technology-based demand optimization opportunities on the distribution grid itself. A primary example of this is volt-VAR optimization ("VVO"), which increases grid efficiency and reliability, reduces distribution losses, and reduces the amount of energy demand and consumption by regulating the flow of power in the distribution system. VVO has the potential to provide significant benefits for customers by reducing the need for generation and, therefore, lowering costs and reducing pollution. Therefore, we expect VVO technologies to be a critical part of the distribution companies' plans for grid modernization.[8]

In Pennsylvania, FirstEnergy represented to the Commission that it would do a Voltage Optimization pilot, and if the pilot was successful, FirstEnergy would deploy the technology

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[8] *Investigation by the Department of Public Utilities on its Own Motion into Modernization of the Electric Grid,* (Mass DPU) (Opinion at 18-19) (June 12, 2014)

throughout its service territory. FirstEnergy received taxpayer and customer funding to install the equipment, the pilot was successful, but now FirstEnergy obstinately and perniciously refuses to fully deploy this equipment because it would reduce their energy sales and profits.

FirstEnergy applied to the Department of Energy to fund the pilot program in various service territories, including its Metropolitan Edison service area in Pennsylvania. FirstEnergy provided a copy of this application to Ohio regulators.[9] The application describes in detail FirstEnergy's expectations for this technology, and FirstEnergy committed to deploy the technology throughout its service territory if the pilot would be successful. The application states:

- The purpose of FirstEnergy's Smart Grid Modernization Initiative is to "firmly establish the utility and regulatory business case for integrating cross-cutting smart grid technologies with existing distribution system infrastructure." (Application at 1).

- "Full system life cycle costs and benefit will be analyzed to justify recovery of investments, which is pivotal to ensuring expanded deployment across FirstEnergy and supporting deep-market penetration across the U.S." (Application at 1).

- FirstEnergy stated that Volt/VAR Control would lead to improved system power factor, reduced voltage variation in the distribution feeders and reduced peak loads. (Application at 16).

- FirstEnergy stated that another goal of Volt/VAR Control is to reduce feeder losses. (Application at 17).

- FirstEnergy stated that the Volt/VAR Control system would provide targeted load control capability, permitting Met Ed to reduce load on feeders or transformers. System capability would be leveraged to provide operational and programmatic benefits, such as participation in PJM conservation programs. In addition, having the ability to reduce loads within specific areas would enable utility operators to manage power flow. (Application at 21).

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[9] *In the matter of the application of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company for approval of Ohio Site Deployment of the Smart Grid Modernization Initiative and Timely Recovery of Associated Costs. electronically filed by Ms. Ebony L Miller on behalf of Ohio Edison Company and The Cleveland Electric Illuminating Company and The Toledo Edison Company,* Case No. 09-1820-EL-ATA (Ohio PUC) (Application at Appendix B) (November 18, 2009), available at: http://dis.puc.state.oh.us/TiffToPDf/A1001001A09K18B31543G06404.pdf).

- FirstEnergy stated that it planned to expand installations and operation across FirstEnergy's territories, if the pilot program was successful. (Application at 23).
- FirstEnergy stated that the benefits of Voltage Optimization includes reduced customer demand and energy consumption, reduced line losses, peak load reductions, reduced greenhouse gas emissions and lower operating costs. (Application at 33, 36).

FirstEnergy completed the Voltage Optimization pilot program in the Metropolitan Edison service territory. The project was very successful, and FirstEnergy issued a final report to the Department of Energy detailing these successful results. FirstEnergy also recently filed a long-term infrastructure improvement plan with the Commission, and one would expect Voltage Optimization to be a key component. To the contrary, the plan calls for extensive grid modernization improvements, but does not include any Voltage Optimization.[10]

This is a textbook example of FirstEnergy acting contrary to its customers' best interests. FirstEnergy would best serve its customers by fully installing Voltage Optimization equipment. The company refuses to do so, however, presumably because it would lower FirstEnergy's revenues and profits. The Commission should address this situation by requiring all utilities to file cost-benefit plans for full Voltage Optimization deployment, and then require the utilities to deploy all cost-effective Voltage Optimization equipment.

Conclusion

EDF respectfully recommends that the Commission require the utilities to: (1) implement transactive energy pilot programs; (2) use "clean resource" distribution system planning; and (3) implement all cost-effective Voltage Optimization technology.

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[10] *Petition of Metropolitan Edison Company for Approval of its Long-Term Infrastructure Improvement Plan,* Docket No. P-2015-2508942 (Petition) (October 19, 2015).

Respectfully submitted,

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Open Data Access Framework

Ownership	**Customer is principal owner of retail electric consumption data. The customer has the ability to authorize third parties to access individual customer data, and the customer can revoke that access at the customer's discretion.** **The utility serves as the guardian of retail electric consumption data, and must allow access to third parties where the customer has authorized it.**
Type of Data	**Interval.** Customers should have access to their retail electric consumption data in as short intervals as possible, with 15-minute intervals recommended, but never in intervals greater than 1-hour. This includes power (kW) and energy (kWh) at the designated intervals. **Consumption**. Customers should have access to the monthly aggregate retail electric consumption data used for billing purposes. **Power data**. Any data relating to demand, power quality, availability, voltage, frequency, current, power factor, or other information generated by a meter should be made available to both the customer and the utility. **Pricing.** Customers should have access to any and all price and rate data at the time for which they are being charged that rate. For price and rate data that is known in advance (day-ahead, TOU), price and rate data should be available to a customer for the duration of the price and rate data availability preceding the effective time.
Third Party Access	Third parties are defined as any entity not including the customer or utility that is seeking access to retail electric consumption data. **Customer Authorization.** Customers wishing to provide access to their customer-specific retail electricity consumption data to any third party must affirmatively authorize the third party to gain access. • There should be no distinction drawn between the type of usage data given to third parties with customer authorization now and what usage data will be available following deployment of AMI. Currently authorized third parties should receive interval usage data as it becomes available to customers who have already authorized the same third party access to their usage data. • The authorization process must be simple, practical, and rapid for the customer. • Authorization should be available to customers through the same method as the provision of data where practical (e.g., directly from the meter, through the internet, through mobile devices) using the most convenient method for the customer. Although a customer's non-electronic signature should not be not required to indicate authorization, such a signature is acceptable if the customer and third party determine it is more convenient/appropriate than alternative verbal or electronic methods. A non-electronic signature may be preferred in the case of parties who must attest to the utility having obtained customer authorization on behalf of large groups of

customers.

- For Retail Electric Suppliers (RES), the authorization should last until the customer leaves the service of that RES, unless a customer affirmatively de-authorizes access to data. No distinction should be drawn between those customers who change supply service via municipal aggregation and those who switch due to their individual preference ("organic" customers). Data should be maintained for the entire history of an account.
- For all other third parties, the authorization should last for a term of 24 months, unless a customer affirmatively de-authorizes access to data. Data should be maintained for the entire period of authorization.
- The de-authorization process must similarly be simple, practical, and rapid for the customer.
- Once customer authorization has been given to a third party, the same standards that apply to the access of third parties that have obtained customer authorization should also apply to RES access to such data.
- There is no distinction between data that is used for billing purposes with data that is used for non-billing purposes. The *purpose* of the data (billing vs. non-billing purposes) should be distinct from the *quality* of the data (preliminary vs. bill-quality data). Once a third party obtains a customer's authorization to access that customer's interval data, that third party effectively stands in the shoes of the customer and as such, no additional authorization is needed.
    - For customers who have not yet authorized a third party access to their usage data, authorization must be given that explicitly references "interval usage data" and makes the customer aware that data will be used by the third party to deliver the services being provided but also to develop new services which could be offered to the customer.
    - For customers participating in a municipal aggregation, Retail Electric Suppliers must disclose that access to interval usage data may be used to develop new services beyond what are offered in the aggregation. Authorization for these purposes shall be separately given, as per the Final Order in ICC Docket No. 13-0506, and must be separate from authorization to participate in the aggregation and/or select a new supply service.

Scope of Access. Third parties should be provided access to any and all data (see "Type of Data" and "Forms") when affirmatively authorized by a customer. Where a third party seeks access to customer usage data without customer authorization, the scope of access can be no more limited than allowed by the 15/15 Rule as adopted by the Commission in ICC Docket No. 13-0506. In summary, the 15/15 Rule permits utilities to provide to third parties 12 months of anonymized customer usage data of at least 15 customers within a customer class organized by groups of customers within the same ZIP+4 such that no one customer's usage data comprises more than 15% of the customer group.

Conditions on Access. The utility may institute a process for approval of third parties who wish to obtain access to customer-specific data if such requirements are related to data security, and the ability to receive the transmission of data in an efficient manner.

Format	**Machine-readable.** Customers or affirmatively-authorized third parties should be provided access to their raw retail electricity consumption data in an industry-standard or web-standard machine-readable format (e.g. XML). **Summary.** In order to provide education to customers about consumption behavior and enable opportunities for behavior change, customers should be able to access their retail electricity consumption data in a summary format that is intended to influence specific or general customer behavior (e.g. display of consumption during peak-time events). **Monthly Billing.** Customers should be able to see all the components of their retail electricity consumption data used for billing on their monthly billing statement. This includes consumption aggregated by rate type for customers on dynamic or time-of-use rate plans.
Methods of Delivery	**Directly from the meter.** Usage data should be provided directly from a meter. Any and all data that is generated and transmitted by the meter should be in machine-readable formats. **Directly through the internet.** Usage data should be provided directly through the internet from the utility in machine-readable formats. **Through a Web Portal.** Billing and usage data should be provided in downloadable, comprehensive, and summary forms through web portals operated by utilities or other third-party systems which meet utility security requirements, including utility vendors. **Through mobile applications.** Billing and usage data should be provided. Customers should be able to access timely downloadable, comprehensive, and summary data through mobile applications operated by utilities or other third party systems which meet utility security requirements, including utility vendors. **Bulk Transfers.** For the purposes of efficiency, the utility may maintain a separate process for providing bulk or aggregate customer-specific retail electric consumption data to third parties.
Timeliness	Once recorded, data should be delivered to the customer in a timely fashion as described below. **Real-time.** The utility and third parties shall deliver consumption data to customers in real-time to the extent practical. **1 Hour through Internet/Alternate Communications Network.** To the extent practical, customers and affirmatively-approved third parties should have access to their retail electric consumption data within one hour from the conclusion of an interval period, when accessed directly from the internet or alternate communications network in a machine readable format. **1 Minute directly from the meter.** To the extent practical, customers or affirmatively-approved third parties should have access to their retail electric consumption data within 1 minute when accessed directly from the meter.
Billing-quality Data	Where there is a need for utility meter data management systems and billing

	systems to verify usage data for the purposes of customer billing, such processes should not limit customer access to data available from a meter as soon as it is available. Customers and affirmatively-approved third parties should be able to gain timely access to both preliminary data and billing-quality data. **Preliminary Data.** Data from the meter that has not yet gone through billing system processes for quality assurance. This data may be labeled as "preliminary data." This data must replaced or separately distinguished from billing-quality data once billing-quality data is available. **Billing-quality data.** Data that is sufficient for billing purposes.
Data Security	**Industry-standard protocols.** Data transmission to customers or third parties must be done using industry-standard secure communications and encryption protocols for wireless or network communications (e.g. HTTPS). **Data storage.** Customer-specific data stored by the utility or third parties should secured against unauthorized access using industry-standard cyber security protections. The same data security protections and restrictions on personally identifiable information that apply to the utility shall apply to any third party approved to receive customer-specific data.
Following National Standards	For the **format** and **methods** of provisioning customers with their retail electric consumption data from utility systems, the utility shall follow standards and protocols developed through national, multistakeholder processes. However, a utility shall not be constrained by being the first utility to implement standards developed through such processes.
Customer Charges	Customers and affirmatively-authorized third parties should incur no additional charge for the provision of their retail electric consumption data in a timely, accessible manner to themselves or their third party designee in the manners described herein.