



October 7, 2021

Aida Camacho-Welch, Secretary  
New Jersey Board of Public Utilities  
44 South Clinton Avenue, 3rd Floor, Suite 314, CN 350  
Trenton, New Jersey 08625

**RE: Comments of Mission:data Coalition on Docket No. EO20110716 regarding Staff's Straw Proposal on Advanced Metering Infrastructure (AMI) Data Transparency, Privacy and Billing**

To Whom It May Concern:

Mission:data Coalition ("Mission:data") is pleased to provide these comments in response to the Board of Public Utilities ("Board" or "BPU") Notice of Straw Proposal on Advanced Metering Infrastructure ("AMI") Data Transparency, Privacy & Billing (the "Straw Proposal") in the above-referenced docket. Below, Mission:data presents our recommendations for achieving the most value of AMI investments for consumers by incorporating data portability best practices from around the country. In addition, we wish to highlight numerous anti-competitive risks to distributed energy resources ("DERs") that utilities could erect with new AMI technologies. By depriving customers and their authorized third party energy management companies of the best available data collected by advanced meters, utilities could, without careful oversight by the Board, undercut DERs and create a tilted playing field that would harm New Jersey's clean energy goals.

By way of background, Mission:data is a national non-profit coalition of 30 technology companies across North America delivering data-enabled services that focus on providing direct energy and carbon savings to all utility consumers (residential, commercial, industrial and institutional customers). These services range from detailed energy usage analysis and energy feedback technologies to demand response and device control. Our members are the leading innovators in the energy management industry, representing over \$1 billion per year in sales. We have been active in 15 states across the U.S. helping to craft data access policies. For more information, please visit [www.missiondata.io](http://www.missiondata.io).

Mission:data believes all consumers should have convenient access to the best available information about their energy usage and costs, and the ability to share that data with any third party of their choice. Today, some five states (California, Colorado, Illinois, New York and Texas) have required their utilities to provide "energy data portability," meaning the ability for consumers to share their energy information held by electric and gas utilities with non-utility service providers, covering over 36 million electric meters. Some of these third party providers include smartphone apps that help consumers save energy by analyzing their usage patterns with new software tools; some provide heating, ventilating and air conditioning controls that maximize comfort while providing load-shedding capabilities to the grid; and some provide commercial and industrial demand response offerings. Mission:data advocates for technologically consistent, open standards for sharing energy data across jurisdictions.

## Recommendations of Mission:data Coalition

Before responding to the Straw Proposal in detail, we provide the following recommendations in summary form:

1. **The BPU must establish terms and conditions** as between utilities and third party data recipients authorized by customers. The failure of other states to establish fair terms and conditions has led to unnecessary litigation and significant delays in customer benefits. Furthermore, the BPU should prohibit utilities from imposing any additional term or condition upon third parties that is not Board-approved. In Mission:data's experience, many utilities have attempted to unilaterally impose *additional* terms and conditions that go beyond what regulators have approved, creating business uncertainty for third parties and unfairly harming the energy management industry.
2. **Data-sharing processes should be consistent (and non-discriminatory) state-wide.** It is insufficient for the BPU to adopt merely principles concerning data portability. In order to avoid utility-specific idiosyncrasies that hinder the growth of energy management services state-wide, the BPU should mandate greater coordination among the state's utilities in several key areas. For example, the processes by which a customer grants permission to a third party should be detailed and standardized state-wide. Customer experiences – such as how does a customer connect a Home Area Network device to their meter? Load an energy analysis “app” onto their meter? Authorize a third party to access 24 months of billing history? – should be the same for all utilities, and the minimum filing requirements (“MFRs”) should explicitly require coordination and consistency.
3. **The BPU should eliminate utilities' liability for the acts of customer-authorized third parties.** Unless the BPU explicitly waives utility liability for the acts of a customer-authorized third party, utilities will feel compelled to act as “policemen” over the entirety of the energy management industry wherever a company has access to customer data with the customer's permission. This would result in an untenable and unfairly monopolistic outcome in which utilities would squelch innovation and customer choice.
4. **The BPU should mandate timely and non-discriminatory security reviews of meter-based “apps.”** As App Store operators, the utilities will be able to discriminate against third parties by delaying, or refusing to conduct, security reviews of new apps that could benefit consumers. The MFRs should require consistent, non-discriminatory processing of new app submissions within a defined time period, for example six to eight weeks.
5. **For advanced meters with Wifi, the BPU should mandate self-service capabilities for customers to send their meter information to the URL of their choice, along with an automated equivalent.** All customers with Wifi-capable advanced meters should be able to login to their utility's website, connect their meter to their home Wifi router, and specify a URL and time interval for transmitting real-time usage data (for example, AcmeEnergy.com every 10 seconds). Utilities should also leverage OAuth2.0 (this is part of the Green Button standard) to allow a customer-authorized third party to automatically set this URL and frequency with the permission of the customer with a simple, easy-to-use customer experience. These features will ensure that consumers can access new energy management services without needing to purchase another “gateway” device, which has proven to be a barrier to adoption in other states.

6. **The BPU should define attributes of Green Button Connect implementation not specified in the standard including performance requirements, response times, data types supported, and an easy-to-use customer experience, including on mobile devices.** The GBC standard is silent on several areas that are essential to customers receiving the full benefits of AMI and modern data portability services. The BPU should expand its focus on “customer data” to include billing line items, account information, meter information, rate information, and any information necessary to determine eligibility in, or participate in, a demand management program of any kind. Similarly, the MFRs should mandate 99.5% uptime of GBC services, public reporting of uptime and performance on a website (updated daily), and 60-second response times to a customer authorization request.
7. **The BPU should consider a centralized repository of customer energy data.** By following in the footsteps of New York and Texas, the BPU should consider the costs and benefits of centralization, which eliminates idiosyncrasies between the utilities’ technologies and processes and reduces costs to third parties.
8. **The BPU should postpone discussions on research or aggregated data until *after* rules are established for third party access to, and analysis of, individual customer data.** In our experience, discussions regarding geographically aggregated data (such as the public release of total usage by zip code) have a tendency to become all-consuming and detract from meaningful, near-term benefits for consumers. The BPU should *first* address how third parties can access an individual customer’s data with consent – and how a third party aggregator (in the context of energy efficiency or FERC Order 2222) can access the performance information of their “portfolio” of customers – prior to addressing local government or research issues.

## **Detailed Comments on the Straw Proposal**

### **Corrections are necessary to the survey of other states’ activities on data portability topics**

Mission:data appreciates the Straw Proposal’s thoughtful overview of many states’ activities on the topic of data portability, privacy and transparency. However, there are a few corrections that are necessary in order for the BPU to have an accurate understanding of the lessons learned from various jurisdictions. Mission:data provides its first-hand experience in the jurisdictions below, highlighting how these lessons inform our recommendations contained herein.

#### **New York**

The Straw Proposal states that New York’s Data Access Framework (“DAF”) “promoted consistency by outlining uniform steps to obtain access to energy-related data.” Consistency may have been the objective – which is laudable – but the current state of data accessibility across New York’s five investor-owned electric utilities is more accurately described as being in a state of disarray. This is due to two key problems in New York. First, the DAF, in its current form, is vaguely worded and its implementation will take at least 17 months to implement, further slowing down market adoption of DERs and creating near-term uncertainty for DERs that wish to operate in New York. Rather than take the route of California – which specified four (4) simple eligibility criteria for data recipients – New York is creating a complex screening process for third parties depending upon their method of access and types of data sought. The maze-like screening process is anything but simple, and thus far, widely varying requirements have been established across the state as each utility interprets the DAF differently, despite the DAF espousing

consistency. For example, dozens of companies attempted to register for National Grid's GBC system only to have those efforts founder when National Grid unilaterally imposed a highly-detailed and complex cybersecurity risk assessment as a condition of receiving access to data for even a single customer. The cybersecurity risk assessment is not required by the New York PSC and was not part of the DAF. Although subsequently retracted by National Grid, the resulting delay of over six (6) months caused many energy management firms to leave New York in order to focus on other market opportunities. Moreover, the utilities in New York have stated that the DAF will take at least 17 months to implement state-wide. When combined with ongoing litigation on various interpretations of the vaguely-worded DAF,<sup>1</sup> the resulting morass of confusing eligibility requirements for third parties is not something that Mission:data would recommend for New Jersey to follow at this time.

Instead, Mission:data strongly recommends that the BPU follow the model of California, whose eligibility requirements for data recipients are simple, easy to evaluate, and have been stable since 2013 when they were first adopted. In California Public Utilities Commission ("CPUC") Decision D.13-09-025, the CPUC required data recipients to:

1. Provide their contact information to the utility, including their federal tax identifier
2. Demonstrate their ability to interoperate with the Green Button Connect ("GBC") system
3. Acknowledge receipt of the CPUC's privacy rules
4. Not be on the CPUC-maintained list of "banned" entities

These eligibility requirements have worked extremely well in California, where well over 150,000 customers have shared their energy data with energy management and demand response firms.

Finally, the key reason for persistent uncertainty around eligibility requirements in New York is the PSC has not waived the utilities' liability for the acts of a customer-authorized third party. This is the proverbial "elephant in the room" that the New York PSC has yet to address. Whereas California's Decision D.11-07-056 clearly states that a utility is not liable for the misdeeds of a "bad actor" after a customer has granted permission to use his or her data, New York has not made a similar determination. The result is that New York utilities are strongly incented to undermine data portability and impose strict, unnecessary and innovation-destroying cybersecurity requirements due to fear of liability. Mission:data urges the BPU to establish a liability waiver in the context of enforcement processes against "bad actors," and we point to CPUC Decision D.13-09-025 as an excellent example of balancing third party due process rights with consumer protections in this regard.

## **Maryland**

Although the Straw Proposal's description of Maryland's PC44 docket is not inaccurate, it neglects to mention that, after four (4) years of working groups, Maryland has not established any data-sharing process or eligibility criteria for data recipients. At this moment, any activity in Maryland is purely aspirational because the PSC has not voted to enact a single aspect of a data-portability policy. Mission:data notes that Maryland has had advanced meters installed for over a decade. This is a

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<sup>1</sup> For example, there is an ongoing dispute over whether the DAF permits utilities to conduct expensive and time-consuming cybersecurity audits of each third party data recipient. See *Petition for Rehearing of Mission:data Coalition*. Case No 20-M-0082. Filed May 14, 2021, available at <https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={EFE21C6E-F2BF-41FF-8666-9F3AFD859D2E}>.

cautionary tale for New Jersey because it underscores the importance of establishing “rules of the road” *before* AMI deployment is completed. Consumer benefits could be delayed for years if the BPU were to fail to establish clear rules on data portability in a timely manner.

### **Texas**

Several corrections regarding the Texas summary are appropriate. First, Texas is the only state whose legislature clearly established that energy usage data is owned by consumers, not utilities.<sup>2</sup> It is safe to say that none of the progress with regard to data portability or the centralized Smart Meter Texas (“SMT”) system in the Lone Star State would exist but for Texas law regarding usage data ownership. Mission:data strongly supports the BPU adopting a policy that any data about a customer – their billing, usage, or account information – is owned by the customer, as the Straw Proposal recommends.

While Mission:data agrees that SMT has led to significant efficiencies for both retail energy providers and third party energy management firms, we disagree with the claim that SMT followed “industry standards and best practices.” The original design of SMT failed to use standards such as Green Button Connect, experienced poor performance including multiple week-long outages, and featured a confusing, error-prone, 11-step consent process that could not in any sense be considered a “best practice.” The result was that utilization of SMT was very low in the first four (4) years of operations; only after numerous intervenors, including Mission:data, forced the issue at the PUCT was SMT’s adherence to standards and user experience best practices improved in 2020.<sup>3</sup> This experience underscores points #2 and #5 made above, namely that the MFRs should establish detailed and consistent consent processes state-wide, and the BPU should establish performance metrics prior to widespread AMI deployment.

### **California**

Several clarifications regarding the Straw Proposal’s summary of California’s policies are necessary. First, Decision D.14-05-016, which created a data request process for aggregated data (without consumer permission) and established the Energy Data Access Committee, is largely viewed by users as being of little value. After years of litigation, the resulting energy data request process is cumbersome, and most requests are rejected due to aggressive privacy screens. Furthermore, the Energy Data Access Committee, of which our co-founder and president was a member for several years, has been defunct for at least four years. The committee was disbanded after local government and researchers’ requests for data were continually rejected by utilities, an impasse was reached, and it was no longer fruitful to have informal discussions. Instead of representing a model worthy of copying in New Jersey, the California experience in this regard underscores our recommendation that the BPU should treat research and local government access to aggregated energy-related data as a secondary priority. The MFRs should first establish customer-driven data portability before consideration of geographically aggregated usage data for public release.

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<sup>2</sup> In 2005, the Public Utility Regulatory Act (PURA) §39.107(b) was amended by HB 2129 to specify that “all meter data including all data generated, provided, or otherwise made available by advanced meters and meter information networks shall belong to a customer, including data used to calculate charges for service, historical load data, and any other proprietary customer information.”

<sup>3</sup> See Project No. 47472, Establishing Business Requirements for Smart Meter Texas.

### **Detailed comments on the Straw Proposal**

Below, we provide our recommendations in the order in which the topics were raised in the Straw Proposal.

#### *Whether data access and privacy rules should apply to all public utilities, not just electric distribution companies (EDCs)*

In short, yes, Mission:data strongly believes that all EDCs in New Jersey should follow the same data access and privacy rules. Doing so would ensure state-wide consistency and would simplify the education, marketing and outreach to consumers about how they can take advantage of energy management products, regardless of where they are located throughout the state.

#### *1. Customer ownership and “hassle-free” sharing of energy related data*

Mission:data strongly supports many of the principles discussed in the Straw Proposal in this section. However, the Straw Proposal should require standardized and consistent consent processes, regardless of the customer’s utility. The phrase “to the extent possible” should be stricken from the Straw Proposal, and the BPU should require unqualified consistency. Other states, such as California, have equivocated on consistency requirements, and the result has been both extensive and expensive inconsistencies between the utilities’ Green Button Connect systems that third parties must navigate.

With regard to customer authorization, the BPU should adopt a common user interface for customers to grant a third party access to energy-related data. The example below is a best practice developed in California. In our experience, failure of the BPU to be specific will lead to wildly different user experiences, with dramatically lower utilization rates. For example, one California utility in 2016 required the customer to go through 10-15 different steps prior to granting an authorization. Instead, the form below is designed to be succinct and can be accomplished with a single click.<sup>4</sup>

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<sup>4</sup> Of course, this assumes the customer has first logged in to their utility’s online account.

### Green Button Connect OAuth 2.0 Authorization Form - Wireframe

<p>"Who" (what third party is requesting authorization)</p>	<p><b>Acme Energy Auditors</b> is requesting access to your data:</p>
<p>"What" (scope of what data fields to be shared, how far back (historical), how far forward (ongoing), and for which accounts/services) (pre-fillable by third party, can be modified by customer if third party allows editing)</p>	<p>Your account information, utility bills, and smart meter intervals.</p> <p>For 2 years historical data and ongoing until rescinded.</p> <p>For all your utility services (e.g. meters) connected to your online profile.</p>
<p>"Why" (how the data is authorized to be used after consent is given) (pre-written by third party, customizable per data request)</p>	<p><b>Scope of use:</b></p> <p>We will use your data to perform an energy audit on your facilities and generate a report for you to review. Read more in our <a href="#">terms of service</a>. (written by Acme Energy Auditors)</p>
<p>"Yes/No" (one-click consent/decline)</p>	<p> <input type="button" value="Authorize Acme Energy Auditors"/> <input type="button" value="Decline"/> </p> <p><small>When you authorize, ABC Utility Co. will allow the above party to automatically download the data you authorized. You will get an emailed receipt, and you may revoke your authorization at any time through a link in your emailed receipt or by going to <a href="#">ABCUtilityCo.com/authorizations</a>.</small></p>

## 2. Adoption of standardized customer privacy requirements

Mission: data agrees that customer privacy rules should be standardized; however, rather than have utilities individually file their own privacy rules – which may not be entirely consistent among all utilities – we believe the BPU should go further and adopt a common, statewide rule from which individual utilities are not permitted to deviate.

As for the development of a “New Jersey Common Release Form” (“NJ-CRF”), we want to caution the Board: In too many jurisdictions, regulators approve a *paper form* which becomes difficult or impossible to implement in an online manner, particularly on a mobile device. Modern consumers do not use paper and do not have fax machines, and the Board must design a “digital first” authorization process, not a “paper first” process. California has spent over five years and countless hours in litigation because the CPUC adopted a demand response authorization form (a 5-page piece of paper) that the utilities could not easily reproduce in an online context. We urge the Board to avoid this fate by specifying a web-based authorization form, such as the template above.

## 3. Using AMI to drive efficient New Jersey’s clean energy goals

Mission: data makes two recommendations on this section. First, we strongly agree that customers should have access to their real-time usage data via the Home Area Network (HAN). Most meter manufacturers are moving from Zigbee to IEEE2030.5 over Wifi as the technical standard for exchanging energy usage information. While the process for securely “pairing” a Zigbee device to a meter is well-defined, the same process for IEEE2030.5 device pairing is not; the IEEE2030.5 standard is silent on the question of secure device pairing. Thus, we strongly recommend the Board require as a MFR the utilities to submit plans detailing how customers can connect any Wifi-compatible device to their meter. This



includes voice assistants, smart home hubs, inverters, electric vehicle (“EV”) charging equipment, laptop computers, mobile phones, etc. The MFR should prohibit utilities from discriminating against any particular type of Wifi device by, for example, imposing pre-screening criteria, fees or security assessments. The value to consumers of Wifi-capable meters will only be realized if *any* Wifi device can connect to the meter and the playing field is truly level. Furthermore, the MFR should prohibit utilities from self-preferencing their own smartphone app. Some utilities pursuing Wifi-capable smart meters are permitting their smartphone apps to communicate with meters *while prohibiting any other device from doing the same*. This would amount to a utility *de facto* monopoly over energy management devices inside the home and represent a tragic market failure.

Second, in order for AMI to be put to its greatest and highest use, the MFRs should require utilities to have analytical capabilities for energy efficiency or demand management aggregators to evaluate the energy savings of their products or services in aggregate across a portfolio of homes or buildings. For example, whether for a “pay for performance” energy efficiency program or as an aggregator under FERC Order 2222, a firm that provides smart thermostats, smart electric vehicle charging, HVAC controls or home performance contracting might want to evaluate their overall energy savings achieved on different timescales without having to get the consent of each individual customer. Mission:data notes that recent developments in mathematics and privacy have made it possible to report overall statistics without betraying the identity, energy usage or property characteristics of an individual customer.<sup>5</sup>

#### 4. Maximizing impact of AMI on reliability, planning and reporting metrics

While we agree that utilities should use AMI to improve their reliability planning and reporting, Mission:data believes the MFRs should go further by providing the Board with regularly reported statistics about how customers are using the capabilities that AMI provides and how well the utility is performing in delivering data-sharing capabilities. Mission:data recommends that the MFRs include ongoing web-based reporting to the Board on the following metrics:

1. Number of customers who granted ongoing access to customer data via GBC
2. Number of customers who granted one-time access to customer data via GBC
3. Number and type of errors generated (customer-facing) in a data-sharing authorization
4. Number and type of errors generated (third party-facing) in a data-sharing transaction
5. Data delivery time after an authorization is granted (in seconds with histogram)
6. Web page loading time (in milliseconds with histogram)
7. Time for third parties to complete technical and administrative onboarding with utilities’ GBC systems
8. Number and type of technical issues reported by third parties or customers, including severity, acknowledgment time with histogram, and resolution time with histogram

A major lesson learned from jurisdictions such as California is that without clear reporting metrics utilities can and will take shortcuts that hinder customer adoption of new energy management tools. For example, one California utility offered a supposedly automated GBC system, but upon inspection, many

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<sup>5</sup> For example, “differential privacy” is used by the U.S. Census Bureau and Apple and Google’s Covid-19 trackers to show overall trends while preserving individual privacy in a mathematically provable manner.



customer authorization requests executed via the utility's website would take days, weeks or even months to be fulfilled.<sup>6</sup>

#### 5. Data granularity and appropriate rollout schedule

Mission:data agrees that 5-minute intervals should be the baseline for all consumers in New Jersey. This aligns with PJM, and synchronizing with wholesale markets has been a key lesson learned from other jurisdictions. In Texas, for example, all meters record at 15-minute intervals, in line with ERCOT; however, in California, advanced meters were originally programmed for 60-minute intervals, and one utility proposed a fee of \$42 per meter to reprogram the meter for 15-minute intervals to align with CAISO. Needless to say, this fee is a major (and arbitrary) hindrance to demand response adoption.

Regarding the ANSI C12.10 standards, Mission:data takes no position because C12.10 addresses primarily the physical aspects of the meters. However, with regard to the data and/or insights collected by the meters – whether “raw” kWh, kVar or power factor data, or analyzed data such as disaggregation – all of this information should be “portable,” i.e. available to customers and/or their authorized third parties. If utilities are permitted to have exclusive access to certain segments of raw or analyzed meter data, then market failures and anti-competitive behaviors are likely to result. The MFRs should clearly specify that any data collected by, or insights generated by, the meters should be owned by customers and that customers have the right to direct the utility to share that information with any customer-authorized third party.

Regarding real-time usage data via the HAN, Mission:data recommends that MFRs should require that self-service capability (i.e., the ability for customers to connect their own device via the utility's website) be available from “day one” of meter installation. Similarly, automated capability in which customer-authorized third parties can set the URL on the customer's behalf should be enabled from day one. This ensures that customers can begin receiving benefits of advanced meters immediately.

#### 6. Ensuring fair access and competition for all meter capabilities

Mission:data strongly agrees that open access should be a guiding principle for advanced meters with generalized computing capabilities (also referred to as “distributed intelligence”). However, we believe more specifics about this topic should be required in the MFRs, including the following:

1. App Store policies must be fair, reasonable and non-discriminatory. App Stores policies should be consistent state-wide, approved by the Board, and applicable to all utilities with distributed intelligence capabilities.
2. Utilities must not diminish or “cripple” any App Store or distributed intelligence functionality for any particular third party app developer.
3. No self-preferencing: Utilities shall not be permitted to pre-install their own apps on meters unless the app is solely a utility-facing function, such as detecting a broken neutral line.
4. Utilities must report regularly to the Board on costs and revenues earned from App Stores.
5. Meter manufacturers shall be prohibited from earning any fee or commission on a third party software app that the customer wants to be loaded onto his or her meter. If there is such a fee

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<sup>6</sup> For more information on technical shortfalls that can be remedied by careful monitoring of performance metrics, see <http://www.missiondata.io/s/Energy-Data-Portability.pdf>

or commission, that fee or commission must be paid by utility shareholders, not ratepayers or third parties.

6. Third party app developers may bring any dispute with a utility to the Board.
7. Utilities will maximize reverse compatibility on the App Store so that third parties have at least twelve (12) months to adapt their app to new technical requirements prior to removal.
8. Utilities will provide third party app developers with all technical documentation and shall be prohibited from withholding or blocking access to technical information necessary for developing, deploying or troubleshooting meter-based apps.
9. Utilities will provide customer-authorized third parties with an automated application programming interface (“API”) to determine if a given customer is eligible for the installation of a given app onto a meter. For example, a certain customer may be temporarily ineligible due to a meter malfunction or other issue.
10. Utilities will provide a web-based issue tracking system for third party app developers to log technical requests and bugs. Board and Staff shall be granted access to the web-based issue tracker.
11. Utilities shall be prohibited from surveiling or reverse engineering third party apps, or engaging in any effort to gain competitive insight or advantage into a third party’s business or product offering.
12. Utilities shall offer a service level agreement (SLA) describing the App Store’s uptime and availability and responsiveness to bugs and technical issues.
13. In order to establish a level playing field, utilities shall be prohibited from exploiting, enabling, or activating any App Store capability for any customer until *after* the Board has adopted final rules governing the App Store policies.

#### 7. Billing and settlement practices

Mission: data strongly agrees with Staff that MFRs should include the requirement that utilities settle at PJM with actual AMI usage data, not estimates.

#### 8. Format of data sharing and cost implications

Mission: data has several remarks here. First, as mentioned in point #6 at the beginning of these comments, it is not sufficient for the Board to merely require Green Button Connect; the Board must also specify (i) what data types are included, (ii) how quickly data are transmitted after an authorization (ideally no longer than 60 seconds), and (iii) the user experience of granting an authorization, such as described above. For example, when Illinois required utilities to offer GBC, the Illinois policy only described usage data (kWh), and the system quickly became a waste of time and money because energy management firms need billing information, premise addresses for multi-site customers, account numbers, and other information on bills in order to offer their services. The resulting utilization of Illinois’s utilities’ GBC systems is very low. Thus, while we strongly agree that GBC should be mandated in MFRs (along with independent testing and certification by the Green Button Alliance), we urge the Board to include data types in the MFRs. To assist with this effort, Attachment A contains a detailed list of data types developed in a comprehensive settlement agreement in New Hampshire.

Second, regarding CSV and electronic data interchange (“EDI”), we note that CSV formats are ill-suited for modern, machine-to-machine communication. EDI was designed before the dawn of the internet

and, while we support its ongoing use for retail suppliers, EDI should not be considered as a substitute for GBC. This is primarily because EDI lacks the ability to link data-sharing with permission of customers, a technical functionality known as OAuth2.0 that is incorporated into the GBC standard.

Third, as for the distribution of costs, Mission:data strongly believes that data-sharing infrastructure is an integral component of AMI and, as such, its costs should be borne by ratepayers. A GBC platform, for example, is tightly connected to the utilities' existing web portals. Customers or their agents do not pay a fee to access the utility's website, because the public is served by minimizing barriers to electronic communication. Similarly, the costs of data-sharing infrastructure such as GBC should be socialized so that customers are encouraged to access new energy management services.

Fourth, the Straw Proposal incorrectly conflates the utilization of the utility's Field Area Network (FAN) – often a mesh network involving radio frequency communication – with GBC. These are wholly separate technologies and there is no synergy between them. If a utility's AMI deployment results in a FAN that can be utilized by municipal street lights or a water utility, then joint operation of the FAN should be pursued. However, GBC is separate altogether from the FAN. GBC involves the customer granting permission for a third party to access his or her usage or billing data *after* such information has been transmitted by the meter to the utility's back-office systems. Mission:data recommends that utilities be required to pursue FAN-sharing agreements with other entities where feasible, but the MFRs should not conflate the FAN with GBC.

Finally, we strongly encourage New Jersey to actively consider requiring a hosted, centralized repository of energy data as a way to streamline the interactions with customer-authorized third parties. Texas was the first state to provide a single web portal for retailers and third parties to access customer information called Smart Meter Texas ("SMT"). The objective was to provide a central clearinghouse of advanced metering data across the state's four large distribution utilities, making it much easier for third parties to get the information they need. Similar efforts in other states such as New Hampshire and New York are beginning to take root as well. We strongly support a requirement in the MFRs for the utilities to conduct a coordinated cost-benefit analysis regarding a centralized repository.

Thank you for the opportunity to provide comments.

Sincerely,

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