



Making the Most of Michigan's Energy Future

Customer Education and Participation

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MI Power Grid: Customer Education and Participation

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A list of organizations that participated in the stakeholder process or shared their expertise with Michigan Public Service Commission Staff is below. The list may not be comprehensive as not all participants shared their organizations.

Participating Organizations

5 Lakes Energy	Michigan Energy Innovation Business Council (Michigan EIBC)
Accelerate Group	Michigan Environmental Council (MEC)
Advanced Energy Economy (AEE)	Michigan League of Conservation Voters
Alliant Energy	Michigan Municipal Association for Utility Issues (MI-MAUI)
American Electric Power (AEP)	Mission:data
Ann Arbor 2030 District	Michigan Public Service Commission (MPSC)
Michigan Attorney General	Michigan State University (MSU)
Center for Energy and Environment	Natural Resources Defense Council, Inc. (NRDC)
Cherryland Electric Cooperative	North American Energy Standards Board
Citizens Utility Board (CUB)	NRG Curtailment Solutions
City of Ann Arbor	Office of Public Participation, FERC
City of Grand Rapids	Pennsylvania Public Utility Commission
CMS Energy	Plugged In Strategies
Coalition to Keep Michigan Warm	Powerley
Consumers Energy Company	Principia, LLC
CPower	Regulatory Assistance Project (RAP)
Detroit 2030 District	Recurve
DNV -Energy	Rivenoak Law Group
DTE Energy Company	SEMCO Energy, Inc.
Eco Reps	Soulidarity
EcoWorks	Southeast Market
Energy Equity Project	Sunsulf Consulting
Foresight Management	Superior Watershed Partnership
GKN Driveline	The Green Panel
Green Button Alliance	Union of Concerned Scientists
Indiana Michigan Power Company	Uplight
ICF Incorporated, LLC	Upper Peninsula Power Company

Illinois Citizens Utility Board (IL CUB)	Urban Core Collective
Iowa Utilities Board	USAG Detroit Arsenal
Michigan Climate Action Network	Vote Solar
Michigan Electric Co-Op (MECA)	Walker Miller Energy
Midwest Energy Efficiency Alliance (MEEA)	Wayne State University
Michigan Energy Efficiency Contractors Association (MEECA)	WEC Business Services
Michigan Electric & Gas Association (MEGA)	WEC Energy Group

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Executive Summary

On October 17, 2019 the Michigan Public Service Commission (MPSC) launched MI Power Grid in collaboration with Governor Whitmer. MI Power Grid is a customer-focused, multi-year stakeholder initiative intended to ensure safe, reliable, affordable, and accessible energy resources for the state's clean energy future. The initiative is designed to maximize the benefits of the transition to clean, distributed energy resources for Michigan residents and businesses. MI Power Grid encompasses outreach, education, and changes to utility regulation by focusing on three core areas: customer engagement; integrating new technologies; and optimizing grid performance and investments. The MPSC maintains a dedicated website for the initiative at www.michigan.gov/mipowergrid.

MI Power Grid seeks to engage a variety of stakeholders, including utilities, energy technology companies, customers, consumer advocates, state agencies, and others, in discussions about how Michigan should best adapt to the changing energy industry. Stakeholder groups are formed and led by MPSC Staff. This report highlights the efforts of the Customer Education and Participation workgroup, its stakeholder process, and its learnings. It also includes MPSC Staff recommendations.

The Customer Education and Participation workgroup combined two separate but related efforts: "data access and privacy" where stakeholders explored numerous aspects of customer usage and personal data, and "customer education and participation" where utility customer engagement is a crucial component of the ongoing energy transition.

The first half of the workgroup efforts were spent on data accessibility and privacy issues, including the May 25, 2021 "Data Access" stakeholder session, and the June 22, 2021 "Data Privacy, Sharing, and Customer Consent" session. The importance of customer data privacy and accessibility is clearly a cornerstone to empowering customers to become more knowledgeable, connected, and engaged users of a rapidly evolving energy systems.

The motivation to further explore data accessibility and privacy issues has been twofold: 1) the need for the Commission to conduct a current policy examination of data accessibility and privacy matters since establishing utility data privacy tariffs in 2012/13; and 2) the need for additional input from Michigan utilities, consumer advocates, energy service providers, municipalities, academic institutions, national organizations and other interested stakeholders to help shape the discussion and identify solutions that strike the necessary balance between data access and data security and privacy.

The data access and privacy portion of this Staff report documents workgroup subject matter contributions to the topic, additional research, case studies and important historical information addressing the importance of protecting customer data privacy while allowing safe and secure data access to customers' energy usage and personal information. Several Staff recommendations

addressing next steps for protecting utility customer data while providing safe and secure customer access to such data are provided in this report.

The second half of the workgroup efforts were spent on customer education and participation issues, including the August 4 session discussing “Customer Engagement in Commission-related Activities: Opportunities and Barriers,” as well as the August 25 session discussing “Equitable Outreach and Access to Utility Programs and Offerings.” Ensuring that customers have access to the information necessary for them to understand available utility program options, and meaningfully participate with these programs – including in their development and approval – is critical to developing a well informed and engaged customer base.

The customer education and participation portion of this Staff report discusses observations, findings, and key principles derived from the workgroup sessions and additional research. These observations, findings, and key principles underpin a series of recommendations related to customer education, participation, outreach, and engagement.

Ensuring customer access to the energy data, protecting the privacy of their data, and ensuring opportunities for customers to understand and participate in that use is crucial to enabling customers to make the energy use decisions that are in the best interest of them and their families. Staff is pleased to present this report and recommendations to the Commission for its consideration.

1. Introduction

Michigan's energy system is shifting, and all energy customers (residential, commercial, industrial, and institutional) will be integral in supporting the transition to a cleaner and more distributed energy future. It is becoming increasingly important to recognize and address barriers energy customers encounter, particularly those from vulnerable and marginalized communities, as they attempt to participate in Commission related activities. There is a need to better connect energy customers to programs and resources offered by the Commission, utilities, and third parties. As customers become more interested in learning about new opportunities to reduce their electricity consumption and take part in new technologies and programs, it will be essential for them to have more access and control of their energy data.

Ensuring the ability of customers to access their data and to share that data with third parties as necessary, while maintaining the security of the data, is essential as we navigate the coming energy transition.

This transition, however, requires more than just the ability for customers to have access to information regarding their energy usage. The energy transition requires shifting customers from passive end users of energy to active participants in their energy use, and in some instances, energy production and storage, and in the overall energy transition. As this change happens, moving customers along this spectrum from passive user to active user requires ensuring that customers have the knowledge, information, tools, and access to ensure their ability to successfully participate in this transition. This requires that customers have an awareness of utility offerings, the tools available to them to understand utility programs and make decisions in the best interest of them and their families, and access to the programs and decision-making processes that impact the programs available to them.

On February 18, 2021, the Commission approved an [Order](#) in Case No. U-20959 establishing the Customer Education and Participation (CE&P) workgroup and combining the Customer Data Access and Privacy and Customer Education and Participation topics. This combined workgroup is housed under the Customer Engagement pillar of the MI Power Grid (MPG) initiative. The Commission directed Staff to convene customers, utilities, third-party demand-side technology and service providers, community organizations, and other stakeholders to explore CE&P including Data Access and Privacy topics.

1.1 Customer Data Access and Privacy

In the February 18, 2021 [Order](#), the Commission recognized the significant role residential, commercial, industrial, and institutional utility customers will play in the transition to a clean energy future. The Commission acknowledged the importance of access to energy data and information to equip customers to participate in the transition, enabling the availability of demand-side resources. Incorporating data access and privacy topics into the Customer Education and Participation workgroup allows Staff to thoroughly assess and provide recommendations to the Commission on how best to facilitate access to customer data while

maintaining customer privacy so that customers, third parties, and government entities can be active participants in the changing energy environment.

Tasks for the data access and privacy topic include:

- Examine how third parties, (energy service providers beyond entities that investor-owned utilities contract with for customer energy services) are proposing to utilize available energy data and how that information can be accessed by customers and third parties in a way that facilitates the usability of that data.
- Review regulatory, technical, and other barriers associated with data access and utilization.
- Explore best practices for facilitating customers' direct access to, or sharing of, energy data to third parties.
- Discuss how the privacy of customers' personally identifiable and energy usage information can be best protected while still providing customers and third parties access to energy data.
- Explore the needs of municipalities and academic institutions accessing customer energy use data.

Although the topics outlined above were discussed in further detail by the stakeholder workgroup, there are also additional areas of data accessibility and privacy. Those areas include distributed energy resource (DER) access to the distribution grid, renewable energy installations, the Energy Affordability and Accessibility Collaborative (EAAC), the Environmental Justice (EJ) Screening Tool, Code of Conduct, municipal requests for aggregated data, customer and authorized third-party access, energy waste reduction (EWR), demand response (DR), and Zigbee compatible devices. Topics associated with data access are vast, and Staff supports data-driven decision-making to ensure access to utility data takes place in a secure, timely, and consistent manner.

Data access and privacy topics were addressed in the first two stakeholder workgroup sessions and will be covered in the first part of this report.

1.2 Customer Education and Participation

Energy customers are being increasingly called upon to be active and engaged participants in the transition to a clean energy future. CE&P in programs and offerings such as EWR, DR, time of use (TOU) rates, DERs, and other demand-side resources are essential to assuring the transition to a clean energy future and maximizing the benefits to customers while maintaining reliability on the grid. The CE&P topic is focused on prior utility learnings and leveraging new technologies to enhance customer outreach, satisfaction, and empowerment. The workgroup process identified barriers that impact low-income and marginalized customer classes and their ability to participate in utility program offerings.

The tasks associated with the CE&P topic include:

- Engage with utility customers, utilities, and other stakeholders to identify areas of focus for customer outreach and education, including:

- Better integration of multiple rate offerings (DR, time-based pricing, electric vehicles (EVs), EWR, or energy efficiency, etc.)
- Shadow billing
- Low-income assistance
- Identify opportunities for MPSC outreach/education activities.
- Explore targeting customers who could benefit from specific rate offerings.

The topics addressed in stakeholder sessions three and four relating to CE&P will be focused on in the second part of this report.

2. Summary of Stakeholder Process

2.1 Stakeholder Sessions

The CE&P workgroup consisted of four stakeholder sessions: the first two focusing on customer data access and privacy topics, and the remaining two focusing on CE&P topics. The initial stakeholder session was conducted with a teleconference on May 25, 2021, concentrating on data access. This session included presentations addressing the evolution of utility data collection both nationally and in Michigan, demonstrations from DTE Energy Company (DTE) and Consumers Energy on how to access customer energy data, and two panels presenting use cases and addressing the regulatory barriers and enhancements to customer usage data access. The first panel presented academic and community focused perspectives, and the second panel addressed third-party installer and service provider perspectives.

The second stakeholder session, held on June 22, 2021, focused on “Data Privacy, Sharing, and Customer Consent”. This workgroup session featured presentations explaining the current data privacy tariffs and billing rules in Michigan; the lifecycle of data at Consumers Energy and DTE; national lessons learned and best practices for protecting data privacy, sharing customer data, and customer consent for sharing such data; and similarities and differences, as well as regulatory opportunities and barriers of aggregated and anonymized data. This session also featured a panel on “Data Aggregation and Anonymization: Methodologies and Best Practices”.

The third stakeholder session was held on August 4, 2021 and focused on opportunities and barriers of customer engagement in Commission-related activities. MPSC Staff shared the Commission’s engagement process and opportunities for customer education, participation, and outreach, and gave demonstrations of the MPSC’s Customer Shutoff Data Portal. This session highlighted two panels: one on “Barriers to Customer Participation in Commission Related Activities”, and the other on “Successes in Customer Education, Outreach, and Engagement”.

The fourth stakeholder session, held on August 25, 2021, discussed Equitable Outreach and Access to Utility Programs and Offerings. A level-setting discussion focused on the importance of equitable outreach and access to energy programs and technologies, and the impact that inequitable engagement has on customers and communities. This session featured a presentation

from MPSC Staff on the MPSC’s Diversity, Equity, and Inclusion (DEI) Policy and Regulation Subcommittee. This workgroup session also featured two panels: one on Customer Engagement and Access from a utility perspective, and another on Intentional Outreach and Engagement from a community and advocacy organization perspective.

3. Data Access and Privacy Discussion

3.1 Data Access

In the customer energy usage environment, “data access” represents a person’s ability to obtain energy data from a utility database. In the past, energy data has only been provided to customers on an aggregated monthly basis through a utility bill. Advancements in technology such as the deployment of advanced metering infrastructure (AMI) and supervisory control and data acquisition (SCADA) have significantly changed the type and amount of data utility companies’ store. Near real-time availability of data is also a possibility as energy usage is now being collected hourly as opposed to monthly for many Michigan customers. Access to this data has the potential to help a variety of different users better understand usage patterns and make empowered and educated energy decisions. For access to data to be beneficial for consumers, data portability is necessary. Data portability refers to the ability of data to be exchanged and moved among different programs, applications, and cloud services.

3.2 Data Portability

Data portability crosses many different sectors including banking, health records, and energy. Energy customers should have the ability to obtain their usage data and exchange it between energy management providers of their choice. Data advancements and energy services have become competitive, so customers want to use their data information to assist in decision-making (Littell, 2021).

Energy portability benefits utility customers with billing, energy savings, price quotes, and smart home innovations. With access to their energy data, a customer with a high electricity bill can analyze hourly usage and identify high consuming energy appliances in their home to better understand potential energy savings (Murray, 2021). Data driven applications such as software that manages energy costs, demand response software, energy efficiency recommendations based on smart meter data analysis, and commercial and industrial utility cost minimization programs have exhibited a reduction in energy usage by 6%-18%.^{1, 2}

California is leading the way in using energy data portability to craft solutions in the best interest of the consumer (Villarreal, 2021). California has established that consumers have a right to receive

¹ Mission:Data. “Energy Data Portability”. 2019. PDF. Pg 4

² [Energy+Data+Portability.pdf \(squarespace.com\)](#)

data from their meter and share it with third parties of their choice. California requires investor-owned utilities (IOUs) to provide energy data to customers and their chosen third parties using Green Button Connect.³

The Green Button Initiative is an industry-led effort to respond to a White House call-to-action to provide electricity customers with easy access to their energy usage data in a consumer-friendly and computer-friendly format. The Green Button Alliance is a non-profit organization that fosters the development, compliance, and wide-spread adoption of the Green Button standard. Absent state requirements, utility adoption of Green Button occurs on a voluntary basis.

Green Button allows customers to download their electric and natural gas AMI data by utilizing the “Green Button Download My Data” application. Customers can also share electric and natural gas AMI data directly with a third-party by utilizing the “Green Button Connect My Data” application (Graham, 2021).

On September 2, 2021, the Ontario government mandated the implementation of certified Green Button by some of its electric and natural gas utilities. The regulation mandates implementation within 2 years but allows an energy provider to apply for an extension of time to comply by explaining the reasons for the extension. The Board may grant the extension if the basis of the technical or operational reason cannot be addressed at a reasonable cost or because delays in obtaining certification are not caused by the energy provider.⁴ The Ontario Energy Board is currently working with utilities to develop additional guidance and direction beyond what is listed in the regulation for a timely, efficient, and cost-effective implementation.⁵

3.3 Data Portability in Michigan

The largest two of the eight investor-owned utility (IOU) companies in Michigan provide the most significant customer data portability. Michigan has not mandated the usage of the Green Button standard for the State’s IOUs. The adoption of Green Button has proceeded in Michigan on a voluntary basis. Currently, Green Button Download My Data and Green Button Connect My Data are only available to residential customers of Consumers Energy Company. Indiana Michigan Power has implemented Green Button Download My Data. A customer can obtain billing consumption data through their online account. Green Button provides daily or hourly interval data depending on the meter type and will provide up to 36 months of data for download (Graham, 2021). It does not contain premise addresses, so a third-party provider would need to work with the customer in obtaining necessary data. Non-residential customers are scheduled to have access to these platforms soon (McRitchie, 2021).

³ <http://www.missiondata.io/s/Got-Data-value-of-energy-data-access-to-consumers.pdf>

⁴ <https://www.ontario.ca/laws/regulation/r21633>

⁵ <https://www.oeb.ca/industry/policy-initiatives-and-consultations/green-button-implementation>

DTE's proprietary approach has features similar to the Green Button solution; however, it is only compatible for downloading into an energy usage report. The Energy Usage Report allows the ability to download usage data for electric and gas services for up to 12 months. Energy usage reports can be shared with others electronically by providing a link for access and is available for residential, commercial, and industrial customers. Customers can manage access internally and can stop sharing their usage data at any time. If customers do not have online access, they can request energy usage data using a link on the DTE webpage and DTE will download the data and send it to the customer (Ramirez, 2021). DTE also offers the Insight App which is a platform that provides a real-time view into your home energy usage and allows connection of appliances and smart devices within it. It provides historical usage information and considers the temperature and weather outside. The application then alerts users on ways to minimize energy usage in a comfortable way, such as turning on a fan. Although the DTE Insight application does not provide comparison to similar customers in the area, the Home Energy Report does (Nguyen, 2021).

3.4 Data Portability Lessons Learned

Customer data access needs to be customer friendly, consistent, and usable to unlock the potential of the information (Laruwe, 2021). Although Green Button Download My Data and Green Button Connect are great foundations for data portability, it is necessary to mention barriers experienced by users such as delays in receiving energy data, incorrect data transmitted, unplanned system outages, and lack of consistency in file format between data access platforms.⁶ Best practices can be provided from other states who have embarked on the journey of data portability that Michigan should take into consideration. Michael Murray provided workgroup stakeholders with three examples of lessons learned from other states.

The first lesson is to plan for poor user experience. In California, customers were required to complete a multi-page contract including a wet ink or docu-sign signature to participate with a DR provider. It was not user friendly and not compatible when using a mobile device. A readily accessible format is necessary for customers who want to interact with their data. It is beneficial to have consistent and standardized data formats across regulated utilities (Murray, 2019).

The second lesson is to plan for poor quality such as error messages, website glitches, and downtimes. These can result in data delays, incorrect data transmitted, unplanned outages, or poor performance. If a system needs maintenance, it is important to plan the downtime when it will have the smallest impact and manage it effectively, so users know what is happening. When Texas rolled out their first statewide platform, the system went offline in an emergency unscheduled maintenance for about two weeks. This eroded the confidence of many participants in the market and had a negative effect.

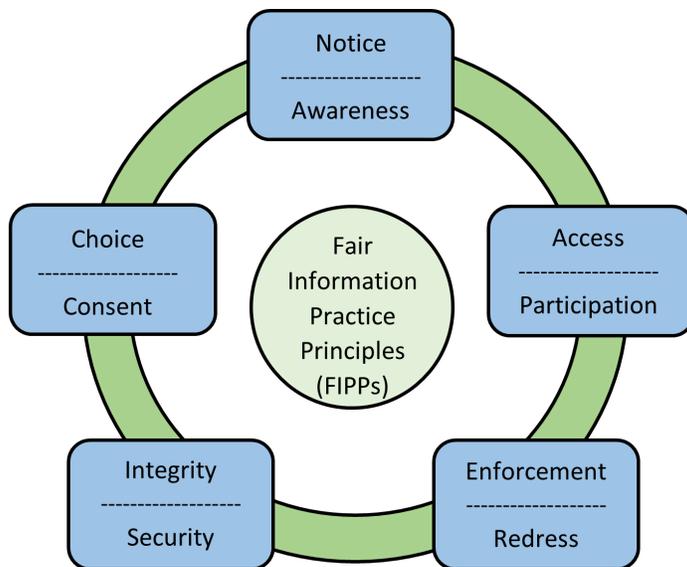
⁶ <http://www.missiondata.io/s/Energy-Data-Portability.pdf>

The third lesson learned is there are benefits to centralizing or creating a single point of entry for DERs or energy management companies to access customer data with customer permission. In Texas, the four largest utilities came together and created one system called Smart Meter Texas. Smart Meter Texas allows both retail providers and energy management companies to go to one place to access energy usage information. This will eliminate idiosyncrasies among different systems. Similar efforts are being made in New Hampshire and New York (Murray, 2021). If it is decided to create a software design, one should understand that the design should be considered when the planning process is underway; but also include flexibility moving through the planning process for enhancement in data sharing and collection tools (Barbeau, 2021).

3.5 Data Privacy and Sharing

Data access and data privacy are like two different sides of a coin. It is essential to prioritize customer privacy when addressing data access methods and solutions. Conversely, it is very hard to talk about data privacy without looking at risk to access.

The Fair Information Practice Principles (FIPPS)⁷, developed by the United States government in 1973, are a result of the U.S. Federal Trade Commission’s inquiry into how entities collect and use personal information and ways to ensure fairness and privacy protection. The FIPPS include notice/awareness, choice/consent, access/participation, integrity/security, and enforcement/redress (Murray, 2021). The FIPPs are a widely recognized privacy framework used in laws in many US states as well as other nations and international organizations.



⁷ https://www.dhs.gov/xlibrary/assets/privacy/privacy_policyguide_2008-01.pdf

In 1980, using the 1973 FIPPs as a core framework, the Organization for Economic Cooperation and Development (OECD) proposed privacy guidelines that included eight principles. These principles are:

- Collection Limitation
- Data Quality
- Purpose Specification
- Use Limitation
- Security Safeguards
- Openness
- Individual Participation, and
- Accountability

These OECD guidelines are the version most cited in subsequent years.⁸

In 2013, the OECD issued “The OECD Privacy Framework”, a document of revised guidelines due to changes in the role of personal data in the economy, society, and our daily lives. The revisions did not amend the eight principles, but new concepts were added, and aspects of the 1980 guidelines were expanded or updated, considering the evolution that took place between 1980 and 2013 in international privacy activities, privacy laws, and privacy policies.⁹

3.6 Data Privacy and Sharing in Michigan

Consumers Energy presented to the workgroup an overview of the information that is stored within their system. To maintain this data, there must be ways to ensure customer privacy. Consumers Energy has a privacy policy¹⁰ and presented their strategy of governance and security. They have a dedicated team to define and enforce policies and standards including business records and retention schedules. Bradley Bammert stated that Consumers Energy only maintains data as long as necessary to provide services and comply with laws and regulations. As for security, Consumers Energy’s data is encrypted, and they are always preparing for a “worst day” scenario. They continuously monitor for anomalous activity and conduct penetration and email phishing testing and education.

⁸ Gellman, Robert. (2021). Fair Information Practices: A Basic History. <https://bobgellman.com/rg-docs/rg-FIPShistory.pdf>. Pg 11-12.

⁹ Gellman, Robert. (2021). Fair Information Practices: A Basic History. <https://bobgellman.com/rg-docs/rg-FIPShistory.pdf>. Pg 13.

¹⁰ <https://www.consumersenergy.com/privacy>

Customer Data



Customer Communications

Name
Service and Billing Address
Phone Number
Email Address



Billing & Payment

Payment Data*
Customer Bills
State ID
Social Security Number



Website Cookies

Website Usage Analysis and
Session Information



Company Programs

Program specific data when
participating (e.g. Active Duty Military Shutoff
Protection)



Energy Consumption Data

Electric Use (e.g. kWh)
Gas Use (e.g. mcf)



Operational Data

Equipment and Location Based ID
Numbers (e.g. Premise ID)
Threat of Violence/Danger Tags
Outage and Meter Events

* Denotes vendor processing

Likewise, DTE maintains data on customers and presented on their 24/7 approach to deliver safe, secure, and reliable energy products and services to their customers. Their cybersecurity team protects critical facilities, digital infrastructure, and sensitive information in a holistic, multi-layered way to minimize the impact of any breach and enable quick recovery if an incident does occur. DTE incorporates reasonable and best practice protections in line with the National Institute of Standards and Technology (NIST) to prevent or minimize the impact of a cyber-attack.

DTE collects customer information based on our business relationships, customer use of utility services, and other products we provide

Contact Information, including your name, address, telephone number and email address.

Billing and Payment Information, including your payment data, credit history, driver's license, state ID number and/or Social Security number.

Electric and Gas Usage Data, gathered by our metering systems measured in ccf, mcf, therms, dth, kW, kWh, voltage, var and/or any other energy measurement.

Other Personal Information, gathered when you choose to participate in utility programs or services, such as bill payment assistance, shutoff protection, renewable energy, demand-side management, load management and/or energy efficiency.



3.7 Data Privacy and Sharing Lessons Learned

The North Carolina (NC) Attorney General's Office and Mission:data worked together to develop a draft rule that balances privacy and enforcement.¹¹ The draft rule is similar to the data privacy tariffs in Michigan that distinguishes between primary and secondary purposes. It requires customer consent for the sharing of standard data. Additionally, the draft rule includes “unshareable data”, which is information a customer should already know and does not need to receive back from their utility such as date of birth, social security number, banking details, and credit card information. Even if a customer requests this data, they will not receive it. The other important part of the NC draft rule is that it includes enforcement against people taking advantage of customers. To be eligible for access to data, third parties must provide their contact information and tax ID to the utility, demonstrate interoperability, acknowledge receipt and review of the rules, adopt and comply with DataGuard (key tenets are the FIPPs discussed in section 3.5), and not be banned by the Public Service Commission (PSC) because of a violation of the rules. The PSC investigates any utility reported suspicion or violation by a third-party (Murray, 2021).

For state regulators, there is a challenge with creating privacy rules for third parties who are not generally regulated by a state commission. In order to fill the gaps between third-party and commission jurisdiction, DataGuard was created.¹² DataGuard is a voluntary code of conduct program facilitated by The US Department of Energy Office of Electricity in 2012.¹³ The goal was to provide a framework for utilities and third parties that encourages innovation while protecting privacy and confidentiality of customer data and providing reliable, affordable energy services. It also aimed to provide customers appropriate access to their own data, and not infringe on or supersede any federal, state or local law, regulation, or governance. This voluntary code of conduct, branded DataGuard, establishes practices for data access, use, and sharing.¹⁴ The key tenets specified in the DataGuard Voluntary Code of Conduct, Notice/Awareness, Choice/Consent, Access/Participation, Integrity/Security, and Enforcement/Redress, are based on the 1973 FIPPs principles.

¹¹ <http://www.missiondata.io/news/2020/2/20/missiondata-collaborates-with-north-carolina-attorney-general-josh-stein-on-state-of-the-art-data-portability-and-privacy-rule>

¹² <http://www.missiondata.io/s/Energy-Data-Portability.pdf>

¹³ US Department of Energy. (n.d.). *DataGuard Energy Data Privacy Program*. SmartGrid.gov. Retrieved from https://smartgrid.gov/data_guard.html. 7 December 2021.

¹⁴ United States Department of Energy (US DOE). DataGuard Energy Data Privacy Program. 8 January 2015. [file:///C:/Users/rogersd8/Downloads/DataGuard VCC Concepts and Principles 2015 01 08 FINAL%20\(3\).pdf](file:///C:/Users/rogersd8/Downloads/DataGuard_VCC_Concepts_and_Principles_2015_01_08_FINAL%20(3).pdf).

3.8 Data Sharing - Without Consent

The authentication and authorization processes are important topics to discuss when referencing user experience for data privacy and sharing. Authentication is used to establish identity and authorization to grant rights. Authentication must happen before authorization. When a customer needs to provide authentication to establish identity, it is best to have multiple ways to perform identification, so it is convenient for the customer. This can occur online and include different options such as account number or, if unknown, determining the account number by phone number, email address, mailing address, or a one-time passcode to a telephone number or email address. Authorization is important for customer protection, so they are aware of the scope of access being granted. When a customer is providing authorization, best practices suggest it is important to have all the information on one screen, limit excessive scrolling, require no zooming, and be mobile friendly. These screens for authorization should be approved by the Commission as an unbiased third-party and will ensure proper balance between privacy and usability (Murray, 2021).

Aggregated and anonymized data are two ways to share data without customer consent, both of which keep customer identification anonymous. City climate commitments, community choice aggregation, and building benchmarking are all drivers for data access. Screens have been developed to ensure a level of privacy. For example, a 15/15 screen means there must be a minimum of 15 customers used and a single customer cannot represent 15% or more of the total energy usage in the data set. If data requests do not pass the screen, customer consent is required. States including Colorado, California, New York, and New Hampshire segmented aggregation screens based on customer class and anonymized and aggregate data use cases (Littell, 2021).

There are three factors that can impact whether aggregation methodology is sufficient. These three factors are the amount of data being sought, time interval of data being sought such as 1-minute, 15-minute, or 1-year, and the geography of the data being sought including city block, zip code, city, or state. It is important to note that the variety of aggregation models are determined by customer class and aggregation screens can be different based on use case. For example, more access could be given to local governments and academic research because they serve the greater good of the public by developing public policies. It should also be emphasized that because of changes in technology, customer requirements, and the ability to make data available, aggregation methodologies are not intended to last forever. What we are doing today is good for today, but it is essential that we evolve over time (Villarreal, 2021).

Differential privacy is another privacy practice that does not require customer consent and is different than aggregation. Differential privacy is a mathematical technique that introduces noise to a data set to enhance application of risk-based assessment and maintain customer confidentiality. This method investigates how we are assessing risk, the tradeoff of usability of data, and the risk of reidentification. Differential privacy keeps options open. States often jump to adopt aggregation thresholds or policies that are instituted in other jurisdictions, but it is necessary to be thoughtful and apply best-in-class security practices. Although aggregation

methods set a threshold, beyond that threshold, protection is lost. Differential privacy provides a scaling approach to protect data. It might be a more appropriate option if there are a large variety of use cases because inserting noise can determine the privacy standard (Best, 2021).

3.9 Dataset Repository

Dataset repositories are helpful to house aggregated energy related data that would be accessible to customers, third-party service providers and installers, academia, and local governments, etc. The data can be used to assist in energy savings, clean energy goals, research, and technological advances. Data would be aggregated based on the proper screen to ensure customer privacy. There is similar aggregated data and information available from other states, which are opportunities for Michigan to investigate.

3.9.1 Dataset Repository Examples

On September 30, 2020, Staff filed its Utility Pilot Best Practices and Future Pilot Areas report in Case Number U-20645. This report highlighted the efforts of the Energy Programs and Technology Pilots workgroup and included a recommendation to create a pilot directory to facilitate information sharing and communication regarding past and ongoing utility pilots. In an order on October 29, 2020, the Commission accepted the recommendation and directed Staff to develop a Michigan Pilot Directory to ensure transparency and increase information sharing regarding results and learnings from approved utility pilots. On October 11, 2021, the MPSC-Michigan Pilot Directory was released.

Energize Connecticut is an initiative of the Energy Fund, the Connecticut Green Bank, the State, and the electric and gas utility companies created to provide resources and information to Connecticut consumers, businesses, and communities relating to saving energy and building a clean energy future. The initiative is funded by a charge on customer energy bills. The Energize Connecticut website features a Statewide Dashboard that highlights performance reports, demand savings, budget and spending, utility sales, annual savings, and many other informative charts. The website also features a Clean Energy Communities Dashboard that presents a profile of each town including energy efficiency participation, total energy used, and achievements. It allows these characteristics to be compared with other towns and provides information on benchmarking, case studies, and education and workforce development programs.

The Big Energy Data Center was launched on the Illinois Citizens Utility Board (IL CUB) website in 2017 and encompasses anonymous energy-usage data in Illinois. The Big Energy Data Center is facilitated through the efforts of the Environmental Defense Fund (EDF), IL CUB, and the Illinois Commerce Commission (ICC). The data available measures electricity usage by time including 30-minutes, daily, and yearly intervals, as well as by local zip code. This anonymized data enables research to help customers with money and energy savings, technology innovations, and achieving clean energy goals.

3.10 Data Access Examples Across the Country

In the past decade, data advancements and competition between energy services and utility services has made it necessary for states to further examine how to make certain types of energy data publicly available. Utilities have vast amounts of data on customers' energy use. Providing access to this data can help customers achieve savings and accomplish energy goals either on their own or with the services of third parties. Third-party energy service providers need customer energy usage information so they can provide services such as DER, EWR, DR, or other demand side programs. Third-party energy service providers are interested in obtaining this data either by utilities sharing with customer permission or customers sharing the data themselves.¹⁵ As a result, many states are developing energy data access initiatives.

3.10.1 Colorado

Colorado utilities can share electric and gas data and have affirmed data access as part of the basic utility service. This is beneficial for utility investments in advanced metering for customers.¹⁶ Community choice aggregation was a driver for data access across jurisdictions. Colorado is using segmented screens including 4/50 for whole building benchmarking and 15/15 for all other aggregations. However, a data request is not necessary for municipalities with more than 50,000 residents and counties with more than 100,000 residents. Community Energy Reports show annual usage by customer rate class, carbon emissions, revenue bill, energy consumption, and number of customers. Currently, Colorado is focused on figuring out how communities can do energy benchmarking and other types of aggregation (Littell, 2021).

3.10.2 California

In California, the California Public Utilities Commission has worked on several energy initiatives in anonymized and aggregated data.¹⁷ The goals of the initiatives were to protect customer privacy, enable access of usage data, and share the data with authorized local government entities, researchers, and state and federal agencies to promote future conversations and grid management activities.¹⁸

California realized they needed different privacy screens for different purposes at different levels. For example, some data is aggregated across time, such as monthly data, or aggregated across territory, such as consumption data by city or zip code. Certain high level data aggregation standards will prevent the reidentification of a customer.¹⁹ For monthly summarized customer

¹⁵ <https://database.aceee.org/state/data-access>

¹⁶ <http://www.missiondata.io/s/Energy-Data-Portability.pdf>

¹⁷ [Microsoft Word - 140369.DOC \(ca.gov\)](#)

¹⁸ https://www.pge.com/tariffs/assets/pdf/tariffbook/ELEC_RULES_27.1.pdf

¹⁹ <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M090/K845/90845985.PDF>

usage data, aggregated by zip code, a 100/* screen is used for residential data. For commercial, agricultural, and industrial data, a 15/15 screen is used. A 15/20 screen is used for residential, commercial, and agricultural customers for anonymized monthly data by census block for local, state, or federal government agencies or academic researchers, and a 5/25 screen is used for industrial customers. Zip code level data is posted on utility websites and customers do not have to submit a data request to obtain it; however, standard nondisclosure agreements and consent forms are used for anonymized data requests (Littell, 2021).

Usage-related data can advance policy goals such as enabling the California Energy Commission to promote energy efficiency, DR, and new innovative services. The California Energy Commission is currently working on a statewide whole building benchmarking law to allow for the benchmarking of buildings to investigate efficiency and usage issues for different types of data. This is done by providing aggregated data to government entities, building owners, third parties, and research institutions.²⁰ California also created an “Energy Data Access Advisory Committee” to review and advise utility data access programs, and informally arbitrate any disputes between the utility and a requestor.²¹

3.10.3 Illinois

In 2014, Illinois enacted legislation for the use of AMI meters, which leveraged competitive markets and the use of interval AMI data that is being collected (Littell, 2021). The principles for the Illinois framework²² was for customers to receive usage data as close to real-time as possible and provide the ability to share the data with third parties. Although the Illinois framework is less extensive than California, there is still progress being made (Villarreal, 2019). For anonymized data, Illinois uses a 15/15 screen. Illinois is focused on the zip code level data, which is down to the zip code +4 level for each customer class. This is a different way to aggregate the information. Although length varies by utility and customer class, AMI interval data is also available where AMI is deployed, typically to third-party providers. This development reflects Illinois’ focus on opening up competitive markets, and the TOU rates in the state (Littell, 2021).

3.10.4 New Hampshire

Per a settlement filed in New Hampshire in April 2021, a statewide energy online data platform was created. New Hampshire’s legislators directed the Commission to investigate if it was cost effective to set up an integrated system. The utility companies put a proposal together for a single statewide portal. All utilities will participate and receive third-party access. The portal follows Green Button Connect protocols. Aggregation granularity is provided at the state, town, customer, or rate class level. The low level of granularity is due to New Hampshire having smaller community

²⁰ <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M090/K845/90845985.PDF>

²¹ [Microsoft Word - 140369.DOC \(ca.gov\)](#)

²² [14- -CUB-EDF-Exhibit-1-1-Open-Data-Access-Framework-FINAL.pdf](#)

sizes. The platform will support aggregation at one hundred or more customers or a 4/50 screen (Littell, 2021).

3.10.5 New York

In New York, a few utilities implemented Green Button; however, there were complaints due to very few customers utilizing the process and providing full access to third-party suppliers. In April 2021, the New York Commission announced a government-operated Utility Energy Registry (UER) and utilized integrated the Integrated Energy Data Resource (IEDR). The system is integrated at the government level and is supported by the New York State Energy and Research Administration. The UER is designed to streamline community access to aggregated data, including commercial and industrial data. The IEDR allows for customer and utility data access to be centralized, including hosting capacity maps. New York has adopted the 15/15 aggregation screen for residential customers, and a 4/60 screen for all other customers (Littell, 2021).

3.11 Use Case Scenarios

Use case scenarios are valuable when examining specific data use situations and what processes are preferred. Use cases can also pinpoint what can go wrong. Use cases help explain the complexity of a system and make sure all necessary angles are considered. The May 25 and June 22, 2021 Data Access and Privacy stakeholder sessions featured subject matter experts from Michigan and around the country sharing specific use cases. These subject matter experts came from a variety of organizations, which all use data differently. Below are some of the use cases presented.

3.11.1 Academia

Dr. Soren Anderson from Michigan State University conducts economic research and advises graduate students. He believes data access for researchers who have customers' interests in mind would indirectly benefit utility customers. Dr. Anderson and his students use energy data to measure how much electricity and natural gas people are using, and what drives that consumption. An example is measuring how much electricity EVs use. Researchers need to project how much additional load is needed to serve an increase in EV use. Dr. Anderson and his team worked with an energy company in California to obtain hourly consumption data for thousands of customers. They were able to match consumption data to the California vehicle registration database. Energy consumption was measured before and after a vehicle was registered to a residence and that information was compared with people who don't have EVs, allowing for an estimate of extra load required to charge EVs at home.

3.11.2 Governmental

Rick Bunch, from Michigan Municipal Association for Utility Issues (MI-MAUI), provided his perspective on data access based on his work with local governments and public agencies who are looking to operate more cost effectively, deliver municipal services that are affected by utilities in their operations in the community, and achieve policy goals that depend on utility services. Mr. Bunch stated that first-party data needs include local governments getting used to their own

energy data, power quality and reliability data, plus TOU rates. First-party data is also necessary for local governments to assist in emergency response. This introduces a balance that needs to be investigated between privacy and public safety. Third-party data needs include climate goals for EVs, EV chargers, solar PV, which depend on aggregated data and delivery services to low income and senior households, rental housing, and other planning which depends on granular data.

The 2030 Districts Network was established to lead the effort in helping urban areas achieve the 2030 Challenge for Planning goal of reducing building energy use, water consumption, and transportation emissions by 50%.²³ Connie Lilley from the Detroit 2030 District and Jan Culbertson from the Ann Arbor 2030 District assist building owners and managers in reaching these goals. Their organizations need access to data because they assist building managers by entering their information into an Energy Star portfolio manager. Energy Star includes dashboards to track and improve efficiency of any property and show where buildings are with their 2030 targets.²⁴

3.11.3 Third-Party Installers and Service Providers

Mike Troupos from Foresight Management works with industrial clients managing their energy usage as companies desire to become more sustainable. To Foresight Management, 15 to 30-minute interval data is the most valuable, as it can be used to inform different rates and keep costs as low as possible.

David Gard from the Michigan Energy Efficiency Contractors Association (MEECA) works with energy efficiency contractors as they strive to save energy and money. Mr. Gard stated that in his work, projects are only as good as the analysis behind them. Better data access allows better services and products, which benefits customers. Interval data is important to MEECA as well as circuit level data, which provides the ability to drill down to specifics in a building. Mr. Gard also noted that data loggers can be placed in a home to obtain specific usage information. This would be beneficial to individual customers and utility companies to investigate DR.

Peter Dotson-Westphalen from CPower, a national DR and energy management company, is interested in access to energy data to help facilitate involvement and participation in utility DR programs or wholesale markets. From a DR/DER aggregator perspective and for participation in wholesale energy markets, hourly interval data is standard to submit for settlement with independent system operators (ISOs) and regional transmission organizations (RTOs). Mr. Dotson-Westphalen also uses general customer information to be able to register customers in the programs. In his space, telemetry level data is necessary.

²³ 2030districts.org

²⁴ [Data Aggregation Best Practices and Exemplar Formatted.pdf \(neep.org\)](#)

Mark Cryderman and Erica Larson represent The Green Panel. The Green Panel is a full-service solar supplier. The Green Panel has been doing some work with energy storage, which has become more prevalent in the solar industry. There is an increased correlation with EVs and storage as well. Mark does not find interval data useful at the residential level (Cryderman, 2021).

3.11.4 Subject Matter Experts from Other States

Andrew Barbeau from the Accelerate Group engages with policy and energy topics in Illinois and California. Mr. Barbeau uses data access to follow load curves, look at customer trends, support community efforts on climate, jobs and energy planning, and investigates if people are over or under paying for their energy usage. In Illinois, Mr. Barbeau worked on the Open Data Access Framework examining how customers have access to their data, anonymized data, and are taking advantage of AMI meter data (Barbeau, 2021).

Carmen Best, from Recurve, uses data obtained from utilities and third parties to provide insight to aggregators. She is trying to build a bridge between participant data and non-participant data. Ms. Best speaks of the benefit to building an open-source library for privacy, which is a way to enhance the application for risk-based frameworks. Privacy needs to be considered throughout the discussion of data access (Best, 2021).

Chris Villarreal from Plugged in Strategies previously assisted in the development of data access and privacy for the California Public Utilities Commission when he was a Commission staff member. Mr. Villarreal focuses on making aggregated and anonymized data more available to assist with local government policies. There is a public policy requirement to satisfy the public purpose use cases. Making data more available to the public allows for more use cases; however, it is necessary to identify risks associated with such to make it safe for the customer and limit re-identification (Villarreal, 2021).

Sarah Moskowitz from IL CUB embarked on a statewide AMI upgrade, where data access was a large part of installation. With the upgrade, cost benefits can be reviewed for real time pricing and can compare the results with residential customers on flat rates. Results indicated that customers could save money when enrolled in real time pricing. The upgrade also allowed for load shape review, which assisted in matching data with demographics. For example, the flatter load shapes were associated with low-income areas, whereas the high load shapes were associated with higher income, suburban areas (Moskowitz, 2021).

3.12 Barriers in Data Access and Privacy

The subject matter experts who presented at the May 25 and June 22, 2021, stakeholder sessions addressed how and why they use data. They addressed the barriers they must work around at times and provided insight into improvements that could make their jobs easier. Barriers identified included processes and protocols for obtaining data, standardization, the granularity of data collected, and data security.

3.12.1 Processes and Protocols for Obtaining Data

Many panelists spoke about the time, energy, and resources spent by academia, municipalities, nonprofit organizations, and third-party installers and service providers to obtain data which can often be unsuccessful. Some of the panelists have experienced difficulties in obtaining individual, aggregate, anonymized, and interval data. Individual consumption data is necessary for academic research and could help researchers better understand an individual's electric usage, what it is being used for, and the impacts it could have on the energy system. There is a lack of processes and protocols in obtaining aggregate or anonymized data, which causes barriers to research (Anderson, 2021). Questions arise as to who to contact, what specific data one can get, who can request it and how often, and how it can be used and not used, etc. (Bunch, 2021). Other panelists have had problems obtaining aggregate data for buildings with under six tenants, unless each tenant completes a consent form (Culbertson, 2021).

Local governments are trying to study their own energy data and provide improvements to their system relating to policy goals. However, there is a challenge with operating many meters, and there are barriers with the downloading of data. Local governments have access to and manage confidential data currently. Trust is a factor to consider with municipal residents. A thoughtful process needs to be discussed on what data can be shared, what the aggregations and anonymization standards are, and how the data can be used, etc. (Bunch, 2021).

There are also issues with the data itself when meter reads are estimated. This situation can create challenges when there are sudden spikes or drops in the data depending on estimation. Even with smart meters in place, this can still be an issue (Troupos, 2021).

Additionally, it is important to draw attention to Home Area Network (HAN). HAN is a network inside the home that facilitates monitoring and control over energy usage. It provides utilities, utility customers, and authorized third-party service providers with a platform to establish two-way communications on consumers' premises. HAN functions as a network enabling Smart Meter connectivity with household devices like displays, load control devices, and smart appliances. The software application monitors and controls these networks.²⁵ The HAN option can provide marginalized customers, and low-income and vulnerable communities the ability to obtain data access due to current services falling short. Outreach and services are sometimes lacking for vulnerable and low-income customers. HAN provides the ability to empower customers with energy saving options and closes the gap of problems associated with obtaining data.

²⁵<https://energycentral.com/c/iu/integration-home-area-network-smart-metering-consumer-empowerment>

3.12.2 Granularity of Data Collected

Another issue to consider is the type and granularity of data available. Interval data is important for smart buildings and the net zero goal. To achieve the goal, it is necessary to have precise information. More information obtained at the circuit level plus easier access to data provides more opportunities to save energy and money (Gard, 2021). Consumers Energy and DTE are currently offering 15 or 20-minute interval data; however, the smaller the interval, the more you can use the data to inform different rate options with commercial and industrial customers. More granular data would assist in managing load and demand, which would be useful in the control of appliances and equipment, and their amount of usage. When utility charges increase it would be beneficial to have power factors and other items on a more granular level (Troupos, 2021). More granular data would be advantageous for customers considering participation in programs such as DR, TOU, and EVs. On the commercial side, more granular data assists in predictive modeling and customer trends for efficiency (Barbeau, 2021). Interval data is also needed for ancillary service participation. The actual requirement is to have data feedback in real time, which is not what utility companies usually have available. In order to obtain the data feedback in real time, the aggregators will supply their own meters, which are able to provide the required interval data (Dotson-Westphalen, 2021).

Currently, the data that is provided is not in real-time, and there are barriers with locating where weather emergencies and safety situations are occurring. Granular data relating to reliability information such as System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI) at the feeder or circuit level, and SAIDI/SAIFI by zip code and wire-down response time, is used to measure safe, affordable, reliable, and equitable service (Littell, 2021). Submeters are being installed on machines to obtain this data; however, it is not often the utility company's equipment (Troupos, 2021).

Submetering also allows customers to have access to their data instantly, rather than waiting for a utility company to upload it. Having access to data quicker allows a better response time for future events (Dotson-Westphalen, 2021). When an event is called, utilities can provide customers with data from the prior day if an AMI meter is present at the location. However, in the Midcontinent Independent System Operator (MISO) market, data availability is 45-60 days after an event occurs.

The length of time data is available was also discussed. The data provided is only for the past 12-months (Culbertson, 2021). It would be more beneficial to have data for the length of 24- or 36-months (Gard, 2021). The more data one has, the more savings one can seek out; however, it is a slow-moving process (Culbertson, 2021).

There is also a need for first-party and third-party data access for customers in the community, obtaining aggregate data, and having granular data down to the account level (Bunch, 2021). Individual consumption data is necessary for informing policy makers (Anderson, 2021). Currently, data does not go outside a zip code; however, expanding it would drive economic benefits.

3.12.3 Standardization of Data

Another barrier experienced by those requesting data from utility companies throughout Michigan and the rest of the country is the standard of data offered. Lacking data standards can make data collection unruly. Online tools for assisting in data access are essential to streamline the process. It is necessary to find ways to provide the same data and make it accessible across different platforms (Troupos, 2021). This will lead to better interfacing and customer experience (Bunch, 2021).

Utility companies have different implementations of Green Button Connect, creating a non-standardized situation. A streamlined process with an integrated energy resource portal similar to New York is a potential consideration for Michigan. Direct integration of data into the Energy Star portfolios would be time effective and would benefit the energy future in a plethora of ways (Culbertson, 2021). It is important to enable Energy Star portfolio interoperability with the Green Button standard. Energy Star Portfolio is used by many local governments to track, manage, and report energy usage. At this time the data is inputted manually, which is burdensome for all. Limiting mistakes due to inaccuracies that sometimes occur when manually inputting data should be the goal. Better data access would free up the time that is used for obtaining data, which would then be used for proper reporting. This would allow districts to be more effective in reducing energy usage and better able to respond to benchmarking ordinances (Lilley, 2021).

Subject matter experts in Illinois experienced similar barriers in getting access to data for real time pricing studies. The data associated with the studies was stored within a website, individually by zip code. Every folder needed to be downloaded and then loaded through a python script into a database. Accessing the data took much longer than necessary when it could have been a simple data transfer (Barbeau, 2021). The other obstacle experienced was the cost and labor on the utility side due to the lack of automation. Data access is a tariffed service by the utility. It was expensive because of the need for humans to test how customer privacy was maintained (Moskowitz, 2021).

3.12.4 Data Security

A concern brought up in the academia and community panel discussion during the May 25, 2021 stakeholder session was about the security of data when working with a third-party. The Ann Arbor 2030 District responded that they have access to all their client's information in their Energy Star portfolio manager accounts and have not been concerned about data theft. There is transparency between all parties and there have not been problems with customers providing the data. In fact, customers have wanted the power of data to provide informed decision making on their energy usage and possible savings (Culbertson, 2021).

The Detroit 2030 District has experienced some client concern of theft. Some of the companies Connie Lilley works with have confidentiality agreements that members can sign. Bigger companies are often more open to sharing data. When working with data and benchmarking, the data is always anonymous and aggregated (Lilley, 2021).

For academic research, California has very strict guidelines on how data can be stored. This usually translates to limited access data within a locked room. There are also strict requirements for sharing data such as utilizing representatives who check sites and verify that requirements and standards are being adhered to. This level of security might not be necessary for the consumption data being discussed, but data theft should be taken seriously to minimize risk (Anderson, 2021).

In line with data security, an obstacle discussed by third-party service providers was the commonality of third parties acting on behalf of the customer for online logins. Currently customers are providing third-party service providers with their usernames and passwords to log into their accounts and access their data (Troupos, 2021). While some third-party service providers do not feel this is a significant issue, they prefer not to use this method for accessing customer data as it also provides access to customer billing, etc. (Dotson-Westphalen, 2021). One way to address this is establishing an online platform where a customer can give only certain permissions to third parties of their choice.

4. Data Access and Privacy Recommendations

4.1 Customer Data Privacy Framework

On June 28, 2013, in Case No. U-17102, the Commission adopted a foundational framework for data access and privacy.²⁶ Coinciding with the recent deployment of AMI in Michigan, this framework was intended to “balance(s) the interests of the company in providing reliable utility services with the interests of customers in assuring that their information is collected, used, and disclosed appropriately.” In recognizing this need, the Commission also acknowledged that data protection standards, practices, and procedures are constantly evolving and are being updated at the national and state level.²⁷

“An acceptable data privacy policy should limit collection, use, or disclosure of any customer information to accomplishing primary utility purposes only. Primary utility purposes should encompass not only traditional utility service but should also include all other regulated programs including energy efficiency, demand management, renewable energy, and low-income programs. Should a utility wish to collect, use, or disclose customer information for a secondary (i.e., non-utility) purpose, the utility must obtain informed consent from the customer in advance.”²⁸

Throughout this current MPG CE&P workgroup process addressing data access and privacy, Staff researched national recommendations, rules from other states, and utility best practices. This investigation revealed that Michigan’s current policies should be updated to meet the needs of

²⁶ <https://mi-psc.force.com/s/filing/a00t0000005pQrBAAU/u171020014>

²⁷ <https://mi-psc.force.com/s/filing/a00t0000005pQrNAAU/u171020026>

²⁸ <https://mi-psc.force.com/s/filing/a00t0000005pQrNAAU/u171020026>

the evolving consumer and energy landscape. Since the issuance of the October 17, 2013 [Order](#) in Case Number U-17102 there has been significant learnings across the industry and improved research and guidance from the federal government on how to properly design and implement effective data access and privacy policies. While the existing policy of limiting data access to primary purposes and regulated programs has led to a significant expansion in utility program offerings, the limited accessibility of this data to non-utility service providers has hindered the development and effectiveness of third-party energy services in Michigan. Subject matter experts acknowledged this during the stakeholder sessions and recognized that customers have voluntarily compromised their privacy and security through the sharing of personal logins to obtain energy services in Michigan. Although this is the customer's choice to do so, utility customers should not be in a situation that compromises their own privacy and security to facilitate their access to the third-party energy services. Aside from providing streamlined access to customer usage and billing data by authorized third parties, Staff proposes the following updates to the Commission guidance on data access and privacy for investor-owned utilities:

1. Adoption of the foundation principles outlined in the Fair Information Practice Principles (FIPPs) from the Department of Homeland Security.
 - a. Transparency
 - b. Individual Participation
 - c. Purpose Specification
 - d. Data Minimization
 - e. Use Limitation
 - f. Data Quality and Integrity
 - g. Security
 - h. Accountability and Auditing
2. Require greater transparency of the personal information the utility collects, maintains, purchases, and shares with its contractors and agents and its associated primary purpose through annual disclosure to customers and regulators.
3. Evaluate the existing definition of "primary purpose" to assess if there is proper protection of customer personal information and assess if there is an equal playing field in the competitive energy services market.
4. Adopt a definition of un-shareable personal information, to ensure that highly sensitive information is available only from the customer at their discretion rather than available from the utility.
5. Adopt data aggregation standards that serve the purposes of market research, local government benchmarking, building benchmarking, academic research, and regulatory policy analysis and development.
6. Adopt a definition and standard for sharing of anonymized customer data for academic research purposes.
7. Explore a data sharing dispute resolution process that will mitigate the need for complaint cases before the Commission.

8. Approve deferred accounting treatment for utilities to better understand the costs associated with the proposed expansion of data sharing and the impact on utility operations.
9. Recommend nationally recognized standards and protocols that provide customers and their chosen third parties with easy, secure, and portable access to energy usage information to further empower them in monitoring and managing their energy usage.
10. Consider enabling home area network technology for low-income and vulnerable populations, improving the ease of access to AMI meter and billing information and the subsequent benefits without the need for at home internet connectivity.

Staff believes this updated guidance will align the practices of Michigan IOUs with national best practices and help foster and accelerate Michigan’s clean energy transition, including the achievement of State carbon reduction goals.

Recommendation: Staff recommends that the Commission issue updated guidance as outlined in points 1-10 listed above (referenced as “framework” throughout the Staff report) regarding customer privacy and data access, referencing the “Customer Data Privacy (Exhibit A)” used in U-17102 as a template for this framework.

4.1.1 Fair Information Practice Principles (FIPPS)

In 1974, as part of the Privacy Act, the federal government developed FIPPs to serve as the foundation of privacy law in the United States. Aimed at ensuring fairness, privacy, and security in a technology-based society, these principles could be widely adopted in data-based organizations to instill trust with consumers wishing to participate in the digital economy. Since their inception, FIPPs have evolved over time to meet the needs of the developing economy. In 2013, The Organization for Economic Cooperation and Development (OECD)²⁹ set out to update privacy guidelines:

“Over the last three decades, personal data have come to play an increasingly important role in our economies, societies, and everyday lives. Innovations, particularly in information and communication technologies, have impacted business operation, government administration, and the personal activities of individuals. New technologies and responsible data uses are yielding great societal and economic

²⁹ The OECD is a unique forum where governments work together to address the economic, social, and environmental challenges of globalization. The OECD is also at the forefront of efforts to understand and to help governments respond to new developments and concerns, such as corporate governance, the information economy, and the challenges of an ageing population. The Organization provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies. The OECD member countries are Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. The European Union takes part in the work of the OECD. [Microsoft Word - Modernising_priv_framework.docx \(oecd.org\)](#)

benefits. The volume of personal data being collected, used, and stored is vast and continues to grow. Modern communications networks support global accessibility and continuous, multipoint data flows. The potential uses of personal data have increased tremendously as a result of the wide range of analytics that can provide comprehensive insights into individuals' movements, interests, and activities. At the same time, the abundance and persistence of personal data have elevated the risks to individuals' privacy. Personal data is increasingly used in ways not anticipated at the time of collection. Almost every human activity leaves behind some form of digital data trail, rendering it increasingly easy to monitor individuals' behavior. Personal data security breaches are common. These increased risks signal the need for more effective safeguards in order to protect privacy."

As follow up to these observations, the OECD provided revised FIPPs guidance for consideration by both public and private sector entities with the responsibility of collecting and maintaining private citizen data. Based upon a common interest in promoting and protecting the fundamental values of privacy, individual liberties, and the global free flow of information, these guidelines³⁰ provide a common foundational understanding of fair, reasonable, and prudent treatment of personal data.

- **Collection Limitation Principle**
 - There should be limits to the collection of personal data and any such data should be obtained by lawful and fair means and, where appropriate, with the knowledge or consent of the data subject.
- **Data Quality Principle**
 - Personal data should be relevant to the purposes for which they are to be used, and, to the extent necessary for those purposes, should be accurate, complete, and kept up to date.
- **Purpose Specification Principle**
 - The purposes for which personal data are collected should be specified not later than at the time of data collection and the subsequent use limited to the fulfilment of those purposes or such others as are not incompatible with those purposes and as are specified on each occasion of change of purpose.
- **Use Limitation Principle**
 - Personal data should not be disclosed, made available or otherwise used for purposes other than those specified in accordance except:
 - with the consent of the data subject

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<https://www.oecd.org/sti/ieconomy/oecdguidelinesontheprivacyandtransborderflowsofpersonaldata.htm#part2>

- by the authority of law
- **Security Safeguards Principle**
 - o Personal data should be protected by reasonable security safeguards against such risks as loss or unauthorized access, destruction, use, modification, or disclosure of data.
- **Openness Principle**
 - o There should be a general policy of openness about developments, practices, and policies with respect to personal data. Means should be readily available of establishing the existence and nature of personal data, and the main purposes of their use, as well as the identity and usual residence of the data controller.
- **Individual Participation Principle**
 - o Individuals should have the right:
 - to obtain from a data controller, or otherwise, confirmation of whether the data controller has data relating to them;
 - to have communicated to them, data relating to them;
 - within a reasonable time
 - at a charge, if any, that is not excessive
 - in a reasonable manner
 - in a form that is readily intelligible to them
 - to be given reasons if a request made under the above points are denied, and to be able to challenge such denial;
 - to challenge data relating to them and, if the challenge is successful to have the data erased, rectified, completed or amended.
- **Accountability Principle**
 - o A data controller should be accountable for complying with measures which give effect to the principles stated above.

While this guidance is not directed at utilities or any specific industry, it is intended to set minimum standards and values which can be built upon by any entity to meet individual needs or policy. In the years since the Commission's last guidance on data privacy policy, the integration of FIPPs into utility privacy policies has become common practice across both private and public sectors. As recognized in the stakeholder presentations and comments, FIPP principles are foundational to the utility data privacy and sharing policies in place in California, Arkansas, and North Carolina. While many of these core privacy principles are mentioned in the existing guidance and current Michigan utility data privacy tariffs, the Michigan guidance and corresponding tariff language generally falls short of honoring all the core concepts outlined by the FIPPs. The following section outlines suggested updates to the Commission guidance regarding the collection, use, disclosure, and protection of personally identifying information of the utility's customers. These recommendations seek to better align existing guidance with the FIPPs principles while empowering customers and third parties to participate in Michigan's clean energy transition.

Recommendation: Staff recommends the adoption of the FIPPs foundation principles outlined by the Department of Homeland Security including transparency, individual participation, purpose specification, data minimization, use limitation, data quality and integrity, security, and accountability and auditing.

4.1.2 Increased Transparency and Regulatory Oversight Recommendations

Under the current guidance issued in Case No. U-17102, utilities are limited to collecting Customer Account Information, Customer Usage Data, and Personal Data as necessary to accomplish Primary Purposes. Primary purposes are defined as:

“Primary Purpose” means the collection, use, or disclosure of information collected by the company or supplied by the customer in order to: (1) provide, bill, or collect for, regulated electric or natural gas service; (2) provide for system, grid, or operational needs; (3) provide services as required by state or federal law or as specifically authorized by an order of the Commission, or; (4) plan, implement, or evaluate, energy assistance, demand response, energy management, energy efficiency, or renewable energy programs by the Company or under contract with the Company, under contract with the Commission, or as part of a Commission-authorized program conducted by an entity under the supervision of the Commission, or pursuant to state or federal statutes governing energy assistance. [The definition of “primary purpose” is intentionally broad to cover all regulated utility activities including programs under 2008 PA 295 and energy assistance programs.]

The intentionally broad characterization of primary purposes in the Commission’s original guidance, along with a lack of consistent reporting, has created a situation where both regulators and customers are not fully aware of the personal data a regulated utility maintains or what programs, offerings, or studies are considered primary purposes based on each IOU’s interpretation of the previous guidance. Since 2013, the number of voluntary offerings, services and programs from Michigan’s IOUs have grown significantly. From mobile apps to smart thermostats, new offerings present utilities with access to a whole new pool of personally identifiable data that was not prominent when the Commission issued its previous guidance. In recognition that this abundant data trend is likely to continue as the energy service market evolves to meet the needs of the clean energy economy, Staff recommends instituting annual reporting by IOUs on personal data collection necessary to support primary purposes. These annual filings would also benefit from the inclusion of the internal policies and procedures of the IOU regarding data privacy and security as well as a disclosure of contractors and agents receiving personal data, the personal data being shared, and safeguards in place to protect its release by these entities (non-disclosure agreements, confidentiality agreement, use limitation, etc.). This type of filing appears to have been envisioned by the Commission in their 2013 Order:

[T]he Commission recognizes that utility customers are generally unaware of, or do not have access to, internal utility policies and practices, thus, transparency about what a provider’s privacy policy actually entails is an

essential part of the process of implementing a reasonable and enforceable privacy framework.³¹

An example of where this has already taken place is with the California Consumer Privacy Act (CCPA) passed in 2018. The CCPA requires utilities to notify customers of the breadth of personal information they collect. An example of applied CCPA is Pacific Gas & Electric's notice on their website.³² Pacific Gas & Electric's website shows examples of the types of personal information collected, but it is not an exhaustive list. However, under the CCPA law, customers can request electronic copies of each, and every piece of personal data held by California corporations. Such information is only provided to a valid request, such as when the requester's identity has been verified.

Europe features the General Data Protection Regulation (GDPR). The GDPR makes it increasingly common for corporations of all types to provide such detailed information to consumers.³³

The MPSC has yet to establish a formal requirement for public reporting of this information. However, Staff believes it is of interest to establish guidelines on the implementation process.

Recommendation: The Commission should direct utilities to file a disclosure with the Commission outlining the personal data collected and stored by the IOUs and the primary purpose associated with the data field (i.e., account set-up, payment, etc.). This disclosure should also outline personal information shared with contractors, agents, and unregulated affiliates (without customer consent) in order to perform primary purposes on behalf of the utility and any customer safeguards (non-disclosure agreement, confidentiality agreements, etc.) associated with this sharing. Transparency regarding the amount of personal information collected, who it has been shared with, and the terms and conditions of that sharing is necessary in assessing the reasonableness of a utility's internal data sharing policies and the existent safeguards in place to protect this information. Based on the quality and content of these disclosures, the Commission can determine the need to pursue formal information gathering regarding personal information collection and sharing in the form of a show cause Order.

³¹ <https://mi-psc.force.com/s/filing/a00t0000005pQrBAAU/u171020014>

³² https://www.pge.com/en_US/about-pge/company-information/privacy-policy/energy-usage-information/energy-usage-information.page

³³ <https://gdpr.eu/tag/gdpr/>

4.2 Primary Purpose Definition and Energy Services

Under existing privacy guidance, primary purpose is previously stated in section 4.1.2 of this report.

Part (4) of the definition allows an IOU or its contractors and agents use of personal customer data collected by the Company to perform market research for IOU supported energy services such as DR, load management, and energy efficiency. While this personal information often has a genuine purpose for collection (account set-up, billing, etc.), there are concerns with the dissemination of customer data to utility contractors and agents. This arrangement can possibly promote risks to a customer's private data for the development of voluntary programs and services that *may* be available to the customer in the future.

Current MPSC Case No. U-21116³⁴ is a separate but related example of how the release of customer data without consent can be problematic. On September 9, 2021, the Commission opened a Commission's own motion case directing Consumers Energy Company to show cause why it should not be found in violation of MCL 460.10ee(2), Commission orders, and Mich Admin Code, R 460.10105. The Commission Order states:

On May 1, 2019, Consumers filed its 2018 Code of Conduct Annual Report (2018 report) in Case No. U-18326. Attachment 5 to the 2018 Report appeared to show that Consumers had provided customer specific consumption or billing data to affiliates, other entities within the corporate structure, or unregulated VAPS without the written approval or informed consent of the affected customers. The Commission Staff (Staff) thereafter commenced an investigation into the apparent violations, meeting with Consumers on several occasions in 2019-2020 regarding the potential data sharing violations and a corrective action program.

Staff recommends that there be more discussion about the importance of personal customer data protection including the minimum types of personal customer data necessary for utility contractors and agents to provide energy services, how the data is supplied to these contractors and agents and its protection after receipt, and consideration into customer consent prior to contractors and agents being afforded access to personal customer data. Staff raises this last point based on the premise of monopoly service from the IOUs. If the customer is not pleased with the current data sharing arrangement, they are not able to seek out another utility service provider. Removing the ability of the IOU and its contractors and agents to perform market research using personal data as a term of service to accepting monopoly services is worth further consideration.

³⁴ <https://mi-psc.force.com/s/case/500t000000ot3brAAA/in-the-matter-on-the-commissions-own-motion-directing-consumers-energy-company-to-show-cause-why-it-should-not-be-found-to-be-in-violation-of-commission-orders-and-mich-admin-code-r-46010105>

Recommendation: Staff recommends the Commission further explore the implications of provision (4) in the current primary purpose definition stated above, with A) an emphasis on the importance of the protection of customer personal information, B) consideration of the boundaries applicable to utility contractors and agents regarding how customer data is protected after they receive it from utilities, and C) the recognition of the enhanced role of market competition with customer energy services beyond utility offered programs. All three of these issues warrant further exploration and discussion regarding the “catch-all” nature of provision (4) in the current primary purpose definition.

4.2.1 Personal Data Sharing with Contractors, Agents, Third Parties

The current definition of personal data or personally identifiable information (PII) is specific pieces of information collected or known by the Company that merit special protection including the standard types of positive identification information used to establish an account. PII held by utilities varies significantly from a social security number to energy usage data, all of which fall under this classification. While the classification itself is accurate, the existing policy of allowing a utility to share all personal data with unregulated contractors and agents without consent warrants further consideration. While personal data such as energy consumption and customer lists may be necessary in the implementation and evaluation of legitimate third-party operated utility offerings, other highly sensitive PII required for customer account setup and service procurement should not be shared by the utility under any circumstances. The Commission recognized the incremental need to protect some data in its initial guidance in subsection (f); “[Note that this provision does not include the release of Personal Data or Personally Identifiable Information; as the Michigan Energy Providers point out, in the case of disclosure to a third-party, the customer should always be the source of this information.]”³⁵

The current guidance continues to allow the Company to provide personal data and personally identifiable data to their contractors and agents without customer knowledge or consent. This process is in direct conflict with the Commission’s previous conclusion that customers should “always” be the source of this information. To address this concern, Staff recommends developing a specific category of personal data that would be un-shareable once legitimately obtained by the Company for a reasonable primary purpose. Un-shareable personal information would include birth date, social security number, biometrics, bank and credit card account numbers, driver’s license number, credit reporting information, bankruptcy or probate information, health information, security questions, ground position satellite (GPS) location, electronic device identifier, or network or internet protocol address. Explicitly safeguarding this information from sharing with all agents, contractors, or third parties outside its original purpose for collecting is warranted given the high individual impact of a breach of these data fields.

³⁵ <https://mi-psc.force.com/s/filing/a00t0000005pQrBAAU/u171020014>

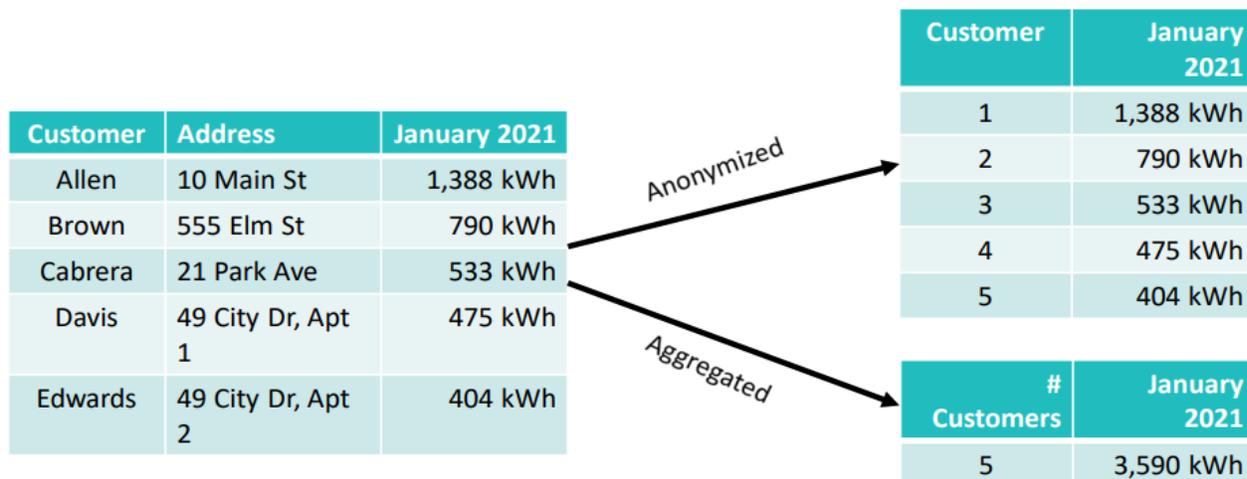
Recommendation: Staff recommends adopting a definition of un-shareable personal information, to ensure that highly sensitive information is available only from the customer at their discretion rather than available from the utility.

4.3 Data Sharing for Secondary Purposes

Staff recommends adopting more prescriptive statewide data aggregation standards and lifting the existing ban on data sharing for purposes other than primary purposes. With proper standards governing aggregated data sets, potential customer insights can be derived and utilized in business/product development without the need to jeopardize individual privacy. While the previous Commission guidance defined the concept of aggregated data, an enforceable standard or discussion of pathways to obtain aggregated data for non-utility energy stakeholders was not included. As outlined in the stakeholder process by several subject matter experts, promotion and accessibility to aggregated datasets are key components to fostering the growing clean energy economy in Michigan, while obtaining greater private contributions to Michigan's decarbonization goals. To facilitate this change, Staff proposes updating the definition of secondary purposes to explicitly identify public interest use cases where a utility shall provide aggregated data to a requestor, contractor, or agent. Use cases are further discussed in the following sections.

In the current guidance, the Commission recognizes the 15/15 standard for aggregation but does not explicitly adopt it as an aggregation standard. Staff proposes to formally adopt the 15/15 aggregation standard as a minimum standard for aggregated datasets for residential and commercial customers. Under this standard, there must be at least fifteen customers to generate the aggregated data report; and within any customer class, no single customer's data or premise associated with a single customer's data may comprise 15 percent or more of the total data aggregated per customer class. For industrial customers, given the significantly fewer number of customers that make up this class, Staff proposes a minimum standard of 4/50. The 4/50 standard would ensure that aggregation of this customer class contained a minimum of four accounts in which no individual account makes up more than 50% of the overall dataset.

Utilities have the ability to share data on aggregate load and aggregate usage due to circuit data not being considered confidential. However, there is a level where data is subject to privacy. This is when anonymization of datasets is beneficial. Anonymized data can be shared without customer consent because the customer's identity remains anonymous. This makes it difficult to re-identify a customer in the dataset (Littell, 2021). The picture below shows the difference between aggregated and anonymized data.



(Littell, 2021)

Recommendation: Staff recommends the formal adoption of the 15/15 aggregation standard as a minimum standard for aggregated datasets for residential and commercial customers. Staff recommends the formal adoption of the 4/50 aggregation standard as a minimum standard for aggregated datasets for industrial customers.

Recommendation: Staff recommends that the Commission adopt the following definition of anonymous data:

Anonymous data - A data set containing individual sets of information where all identifiable characteristics and information, such as, but not limited to, name, address, account number, or social security number, are removed (or scrubbed) so that one cannot reasonably re-identify an individual customer based on, for example, usage, rate class, or location.

4.3.1 Aggregated Data Availability – Local Government Benchmarking

With a growing number of local governments considering adoption of their own internal goals and mandates around environmental justice and clean energy, it is important to recognize the power of data in the benchmarking process, and verification and accountability of these processes. Empowering these stakeholders with the necessary data to make cost effective decisions and measure and verify internal goals with aggregate data that protects customer privacy should be considered at this time by the Commission. Providing explicit regulatory pathways to obtaining this information in a clear, concise, and timely process is key to supporting these stakeholders on their individual energy journeys. Effective public policy in this area should seek to promote greater collaboration between these non-customer groups and their IOUs to meet and exceed the EWR and renewable energy goals of the utilities beyond what is currently mandated by statute and funded through customer rates. Staff believes that these data access policy reforms are needed to increase energy efficiency deployment within the State while better targeting building shell improvements as recommended in the Michigan Council on Climate Solutions: Building and

Housing Workgroup Recommendations.³⁶ The 15/15 aggregation standard would be applied to residential and commercial customers and 4/50 aggregation standard for industrial customers.

Recommendation: Staff recommends the adoption of aggregation standards 15/15 for residential and commercial customers, and 4/50 data aggregation standards for industrial customers, for local government benchmarking.

4.3.2 Aggregated Data Availability- Building Owners and Multi Unit Dwellings

Over the last decade, an increasing number of building owners have taken an interest in benchmarking and improving their building energy usage and reducing their carbon footprint. Based on information provided in the stakeholder sessions, this process has been challenging for buildings in which tenants have their own individual meters from which they are billed. Current guidance provides pathways for building owners to obtain this information by having each individual account owner in the building provide formal consent for the utility provider to share the information with the building owner, or to obtain their own information and share it with the building owner. This process has proven unduly burdensome in practice, and unnecessary given the utility's ability to aggregate the data in a manner that provides sufficient privacy protection for tenants.

Providing these stakeholders with energy usage data in aggregate form can increase the ease of assessing investments in improving the building envelopes of Michigan's currently available residential housing stock and multi-unit commercial buildings. As outlined in the Michigan Council on Climate Solutions: Building and Housing Workgroup Recommendations, multi-family buildings and low-income housing are the most difficult structures for integration of energy waste reduction. Simplified access to data can better inform the value proposition and benefits of EWR investments by these stakeholders and will likely improve the ease of integration. The availability of this data to building owners may also provide access to new resources for financing. There is a large untapped potential for EWR within multi-tenant buildings that could significantly contribute to achieving the State's long term decarbonization goals. Investments by this demographic could provide much needed relief from unnecessary costs associated with energy waste, which is currently borne by the tenants who often lack incentive or ability to partake in energy waste reduction measures. Without access to accurate building energy consumption data, landlords and therefore prospective tenants, have little information about the energy burden they inherit with the signing of a rental agreement. As the MPSC looks for pathways to reducing the number of households in Michigan with unsustainable energy burdens as stated in the February 18, 2021

³⁶https://www.michigan.gov/documents/egle/Workgroup-Recommendations-Buildings-Housing_739165_7.pdf

[Order](#) in Case No. U-20757, building owner data access should be considered a critical component of a cost-effective solution to this problem.

In order to derive the greatest value from the availability of building level data, it seems valuable to align data access policies with existing national standards and program offerings. Throughout the stakeholder process, the Energy Star Portfolio Manager³⁷ was referenced as the current best practice for building energy tracking and assessment which ensures whole building information is provided with data portability and interoperability with Energy Star Portfolio Manager. Building owners whose tenants do not meet the aggregation thresholds should also have the ability to request information from their utility in this Energy Star Portfolio compatible format after obtaining consent from all tenants.

Recommendation: Staff recommends whole building data is interoperable with Energy Star Portfolio Manager as it is the current national standard for building level energy tracking and assessment. Building owners whose tenants do not meet the aggregation thresholds should also be able to request information in the Energy Star Portfolio Manager compatible format after obtaining consent from all tenants.

4.3.3 Aggregated Data Availability for Regulatory Policy Considerations

As recognized in the Commission's COVID-19 and Storm Response dockets, Case No. U-20757, and most recently in the Energy Affordability and Accessibility Collaborative, there needs to be an emphasis on the importance of data collection, transparency, and analysis to inform future regulated program design and policy changes. To ensure a transparent, inclusive, and data driven regulatory process, the Commission should consider making pertinent aggregated datasets available publicly on its website. These datasets should be aggregated to protect individual customer privacy while still informing policy makers to ensure all IOU customers have non-discriminatory access to safe, affordable, reliable, and equitable energy service. For nearly two decades the Commission has used a similar practice regarding system reliability (SAIFI, SAIDI, Customer Average Interruption Duration Index (CAIDI)) whereas the aggregation size was the entire customer population. Staff and intervenors' analysis of these reliability datapoints have helped guide Commission policies around tree trimming and storm response and has been invaluable in the regulatory process. Staff, therefore, recommends the Commission consider expanding these publicly available aggregated data sets to facilitate improved regulatory analysis and subsequent policy. Given the ever-evolving energy policy landscape and customer needs, Staff also recommends these datasets be developed with input from interested stakeholders and revisited regularly to ensure they are meeting the public need.

³⁷ [Portfolio Manager | ENERGY STAR](#)

Potential data sets would be aggregated to zip code with a 15/15 minimum aggregation standard when utilizing residential and commercial customer data and 4/50 minimum aggregation standard for industrial customer data.

<u>Interest Areas</u>	<u>Use Cases</u> <i>(Aggregated to Zip Code)</i>
System Performance	Reliability (SAIFI, SAIDI, CAIDI), Equipment Failures, Wire Downs, Shut-offs, Restoration Costs
Investment Equity	Average Age of Infrastructure, Capital Investment, Energy Efficiency Rebates, DR Participants, Customers on EV Rates
Affordability	Arrearages, Late Fees, Customers on Payment Plans

Recommendation: Staff recommends the adoption of aggregation standards 15/15 for residential and commercial customers, and 4/50 data aggregation standards for industrial customers, for regulatory policy analysis and development.

4.3.4 Data Access for Research Institutions (Academia)

Within the State of Michigan there are multiple research universities that are actively working on expanding the existing body of knowledge in the numerous energy public policy fields including vehicle electrification, rate design, and energy efficiency. However, currently the relevancy of this research has been hindered by the lack of Michigan specific datasets available for analysis and evaluation. In recognition of the currently untapped potential to leverage academia in the Michigan energy policy discussion, Staff recommends that future data access tariffs allow for sharing of aggregated data sets with academic institutions to facilitate research intended to inform and support the development of energy policies in Michigan. In instances where levels of personal information are reasonably required to perform the intended research, IOUs should be authorized to share this personal data as anonymized data.

Recommendation: For consistency purposes, the aggregation standard used for academia use cases would be 15/15 for residential and commercial, and 4/50 for industrial customers. Staff recommends that the Commission continue to explore additional data standards for residential, commercial, and industrial uses for academic purposes as explored in the May 25, 2021 stakeholder session and referenced with California’s handling of academic use cases.³⁸

³⁸ <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M090/K845/90845985.PDF>

4.4 Data Access Cost Recovery Regulatory Treatment

Staff recognizes that the expansion of the availability of aggregated energy usage data will come at a cost that will likely be front-loaded. As outlined throughout the recommendations section of this report, Staff believes that the potential benefits for ratepayers (especially vulnerable populations) that can be obtained through this expansion will likely exceed these costs. Therefore, Staff proposes that initially the costs associated with providing this data be booked by the Company and recovered in base rates rather than from the requestor. However, tracking the costs of compliance with the data privacy tariffs will be key to examining this policy moving forward. Staff recommends the IOUs separately track the cost of compliance and supporting documentation for review as part of future general rate cases. Based on this review, the Commission can make informed determinations if recovery through general rates is appropriate for third-party data access.

Recommendation: Staff recommends the approval of deferred accounting treatment to better understand the costs associated with the proposed expansion of data sharing and the impact on utility operations. Staff acknowledges the need for consideration of user fees for aggregated data and recommends that this option should be further explored when data is available to provide a better understanding of the costs associated with the proposed expansion of data sharing.

4.5 Customer Access and Sharing of Customer Energy Usage Data

While the existing guidance provides customers a path to obtaining and sharing their own customer energy usage data, the format and process remain highly unstandardized nearly a decade later. This is despite the existence of the nationally recognized and government supported energy usage data format and process, Green Button, including Green Button Connect. The Green Button standard is based on the Energy Services Provider Interface (ESPI) data standard released by the North American Energy Standards Board (NAESB) and currently represents the industry standard for the sharing of energy usage between customers and third parties. As described above, absent state mandates or preferences, each utility makes the decision on whether to adopt into Green Button on a voluntary basis. Utilities can then become Green Button certified by passing a test for standards compliance through the Green Button Alliance. Staff recommends Green Button Connect as an appropriate foundation for easy and secure access to customers' energy usage information in a consumer-friendly and computer-friendly format.

Green Button Connect can provide third-party data access, which is important to achieving clean energy goals, enabling new technologies, and building the grid of the future. Third parties can reach more customers and in different ways than traditional utility programs. Green Button Connect can also lower end-use customer costs by utilizing existing utility infrastructure rather than building redundant third-party metering capabilities to meet customer needs. For example, with substantial AMI investment throughout the state, customers would benefit from a robust

utility data sharing system to meet the needs of various applications such as solar and battery installations and reducing barriers for DR and DER aggregation.³⁹

Ensuring customer privacy is paramount when discussing data access. Customer privacy can be achieved through Green Button Connect. Staff is aware of instances where the absence of robust data sharing has resulted in inaccurate or old data, which is currently causing problems with third-party DR aggregation and will only worsen as DR and DER aggregation expands.⁴⁰ Green Button Connect is a tool that can help prepare for the grid of the future, where there will be increases in DER penetration, resulting in a potential for additional market products or other services provided by third parties.⁴¹ Staff recommends that Green Button Connect be the preferred solution as it would provide secure, continuous data access with shortened data intervals, which will be key to the success or failure of FERC Order 2222, as well as resolve current issues with data access.

Green Button Connect should be supplying data that includes account number, whether the account includes multiple properties or sites, billing line items, and rate structure. This information is necessary for new services from the private sector, which include demand response software, efficiency recommendations, smart meter data analysis, and cost minimization services.

While utility proprietary solutions can be functional, such solutions can significantly limit customer access to increased offerings of third-party energy services and education that have been built or are being developed from the Green Button Standard. Adoption of a consensus industry standard serves the public interest and Michigan's goal of becoming carbon neutral by 2050 as it enables and incentivizes software developers and other entrepreneurs, not just utilities and their contractors, to build innovative applications, products and energy services. Interoperability enables market development and fosters competition within Michigan to return the best products for Michigan rate payers.

The Commission should recognize Green Button Connect as the preferred approach to customer data access, and place increased scrutiny on future investments that utilize proprietary approaches in lieu of these industry standards. Staff believes the Commission's support of a standardized approach, which supports interoperability, are crucial to the development and availability of a robust energy services marketplace for Michigan's rate payers.

Regarding the timeframes and intervals of the Green Button Connect datasets, Staff recommends increasing the historical data available to customers and third parties from the current 13-month availability to 24-months. As customers attempt to make educated and informed decisions

³⁹ https://www.michigan.gov/mpsc/-/media/Project/Websites/mpsc/workgroups/dr/MI_Power_Grid_Demand_Reponse_Final_Report.pdf?rev=f286764754c14ee1b8ec92d607467b00&hash=C33A3DE957373CAE8C4F1E154590081D

⁴⁰ [068t000000GcuS9AAJ \(force.com\)](https://www.force.com/068t000000GcuS9AAJ)

⁴¹ [20220113 DERTF Item 04 Compliance Framework - Iteration 7617870.pdf \(misoenergy.org\)](https://www.misoenergy.org/20220113_DERTF_Item_04_Compliance_Framework_-_Iteration_7617870.pdf)

regarding their energy production and consumption, the ability to view year over year comparisons serves as a useful tool not currently afforded to customers. Staff recommends this information be available at the smallest interval available to the utility providing service, ideally 15-minute intervals provided by most AMI systems. Longer usage history and shorter interval data are likely to be needed to enable future applications such as DER aggregation under FERC Order 2222. The shorter interval time allows more products to be provided and allows resources to value stack more easily, which make resources more valuable to the utility, aggregator, and customer.⁴² In a wholesale market context, interval data requirements increase with the complexity of the market product.

It is important to emphasize that Green Button Connect is based on customer consent. Customers who chose to utilize this option with third-party service providers are essentially opting into the open data standard. Green Button Connect enables utility customers to authorize third-party solutions to quickly and securely obtain interval meter data and enables an accurate and detailed level of analysis to inform energy and water management decision-making while ensuring customer data are protected and their privacy is maintained.⁴³

Recommendation: Staff recommends the Commission recognize Green Button Connect as the appropriate foundation for easy and secure access to energy usage information in a consumer-friendly and computer-friendly format.

4.6 Data Access and Equity Concerns – Use of Home Area Network (HAN)

In the decade since the deployment of the first AMI meters in Michigan, the Commission has reviewed and approved numerous pilot programs that have shown that access to timely customer energy usage and billing information leads to energy waste reduction. Current utility offerings require a customer to have access to the internet, cellular service, and a certain level of computer literacy to achieve these outcomes. While these commodities are commonplace in many households, they are often luxuries for Michigan’s most vulnerable populations with the highest energy burdens. To further empower this segment of the population to understand and control their energy burden, consideration should be given to enabling HAN technology, improving the ease of access to AMI meter and billing information and the subsequent benefits, without the need for home internet connectivity.

Recommendation: Staff recommends investor-owned utilities who have fully deployed AMI should pilot HAN and in-home display options for low-income, pre-pay, and senior customers to access customer billing data.

⁴² [20220113 DERTF Item 04 Compliance Framework - Iteration 7617870.pdf \(misoenergy.org\)](#)

⁴³ <https://www.greenbuttondata.org/cmd.html>

Customer Education and Participation Discussion

As the energy transition continues to advance, the role of customers will, of necessity, move from one of passive recipients of energy services to active participants in their energy use., and in some cases, energy production and storage. This active participation should not merely relate to participation in utility programs but should include opportunities to impact program offerings. This requires that customers have an opportunity to understand and participate in both the development and review of these programs. This full participation, however, is not without challenges.

The Commission recognized these issues in its February 18, 2021 [Order](#) launching the Customer Education and Participation workgroup. In addition to exploring best practices for effective outreach, the workgroup was directed to identify opportunities for improving customer knowledge and understanding of, as well as participation in, Commission proceedings. The Commission also emphasized the importance of efforts to lessen or otherwise avoid perpetuating “the systemic inequalities faced by some customers when interacting with the energy system.”⁴⁴

5.1 Customer Education and Participation Challenges

Several unique challenges complicate the issues of customer education and participation, and these challenges must be considered when identifying opportunities for improving customer education and participation efforts.

Foundationally, the regulatory space is not immediately or obviously conducive to customer participation. The Commission is created by statute and its decision-making processes and authority are governed by statute. Decisions made through a contested case process (for instance, requests for utility rate increases or approvals of utility integrated resource plans) must be based on the law governing, and the record of evidence in, the specific case. Evidence may only be placed on the record by parties to the case and those parties must meet the stringent requirements of legal standing to participate. The parties must also follow strict process and evidentiary standards and are subject to cross examination. In addition to being process driven, contested cases also typically deal with several to hundreds of issues of a deeply technical nature. From a practical standpoint, many individual customers are unlikely to meet the standing requirements for intervention and, even if they did, would find themselves quickly overwhelmed unless they had access to both legal counsel and technical expertise.

Additionally, the Commission, while bound to make its decisions on the basis of the case record, is also subject to *ex parte* communications prohibitions on pending contested cases. Therefore,

⁴⁴ February 18, 2021 Order in U-20959, Pg. 7.

outside of a noticed public hearing, the Commission cannot discuss issues of concern in these cases except with a select number of advisory MPSC Staff.

Additional challenges, but also some opportunities, are posed by the nature of the Public Service Commission itself. The Commission and Commission Staff are distinct but are also intricately connected. The Commission, made up of three Commissioners appointed by the Governor, makes and enforces decisions through orders which, in contested matters, must be based on the case record. The Commission Staff are technical experts who advise the Commissioners on non-contested matters and operate independently of the Commissioners in contested matters where they are a distinct party to the case offering their own expert testimony. At the same time, Commission Staff can be directed by the Commission to take specific actions or reviews.

Finally, the MPSC (consisting of both the Commission and Commission Staff) faces resource challenges related to customer education and participation. Budgetary constraints may limit the types and amount of education and participation opportunities the MPSC may be able to offer while other constraints, including staffing and scheduling, may also impact these efforts.

The Commission has recognized the many barriers to customer and non-expert participation in its decision-making and has taken steps where possible to minimize these barriers. For example, the Commission's MI Power Grid initiative and other workgroup processes handled outside of the contested case process allow opportunities for collaborative consensus building and for those without access to legal counsel or technical experts to participate and share opinions, experiences, and insights on many complex issues. The [Commission's Energy Accessibility and Affordability Collaborative](#) is also actively seeking participation from non-energy industry experts as it seeks to develop recommendations for Commission consideration on the issues of energy accessibility and affordability.

While opportunities, methods, and tools for customer education and participation are no doubt virtually endless, strategies employed by the MPSC must account for the unique challenges inherent to its structure and mandate. While there are no "quantitative, empirically robust assessments of the effectiveness of customer engagement as a regulatory tool,"⁴⁵ customer engagement through education and participation opportunities provides numerous benefits including learning opportunities for both the regulator and the public; improved perceptions of fairness, informed deliberations, and accountability; and giving voice to marginalized or excluded interests.⁴⁶

While there are a number of important, albeit intangible, benefits to customer engagement in the regulatory space, inherent challenges also exist. For instance, many customers look at their utility

⁴⁵ Hahn, Metcalfe, & Rundhammer, 2017, p. Executive Summary.

⁴⁶ Nash & Walters, 2015.

bills only to confirm the charges. Engagement in regulatory debates and understanding utility filings or other submissions to regulators may be difficult for customers who do not have the time or knowledge of regulatory issues or regulatory language that would enable them to participate in the process more easily.⁴⁷

Additionally, those who participate in the process are “not usually representative of the general population” and the research suggests that they “tend to be older, whiter, more affluent, more educated, and more likely to be male than the citizens within their community.” They also “tend to be curious, fearful, and available”, are “more likely to be angry, and tend to be more risk adverse.”⁴⁸ While stakeholder organizations may be able to provide a customer perspective, they may represent only a small number of affected customers. If the stakeholder organization is particularly vocal, they may have disproportionate influence compared to the customers they truly represent.⁴⁹ It is critical to remember that customer interest representatives are not the same as a representative customer.⁵⁰

Finally, “consultation fatigue” is real and should be avoided.⁵¹ This means that regulators need to be careful not to repeatedly request input or assistance from the same groups of customers or stakeholders on the same issues.⁵²

5.2 Customer Engagement Insights

In addition to the insights provided by stakeholders during the Customer Education and Participation workgroup meetings, Staff reviewed several papers by researchers and regulatory agency-focused organizations that discuss the benefits of customer engagement and offer guidance for formulating effective engagement strategies.

Among these insights is the importance of relationship building. During the August 4, 2021 workgroup panel “Barriers to Customer Participation in Commission-Related Activities,” panelists Monica Martinez, Conan Smith, and Briana DuBose emphasized the need to build more genuine and consistent relationships with communities and community-based organizations. These relationships can lead to better information sharing, provide an avenue for tapping into the expertise of others, and ensure that communities have a voice. Additionally, it was suggested that, through focusing on this type of relationship building, the MPSC could “educate the educators,” thereby expanding avenues for educating customers.

⁴⁷ Lodge, 2016.

⁴⁸ Nash & Walters, 2015, pp. 21-22.

⁴⁹ Organisation for Economic Co-operation and Development, 2016/2017, p. 6.

⁵⁰ Lodge, 2016, p. 13.

⁵¹ Lodge, 2016; Organisation for Economic Co-operation and Development, 2016/2017.

⁵² Organisation for Economic Co-operation and Development, 2016/2017.

To build relationships, it is important to develop and maintain trust with these organizations and communities, which is built through high quality engagement.⁵³ Engagement requires an opportunity to influence decision making. Some research even suggests that regulatory commissions not engage with customers if they “cannot guarantee that the contribution of customers or their representative will make a difference.”⁵⁴ In this context, it is imperative that expectations be managed and that regulators be clear about what is meant by “engagement” and that all involved understand “the difference between informing, consulting, involving, collaborating, and empowering.”⁵⁵

Effective engagement with customers in the regulatory process requires that engagement happen early-on. It is also imperative that customers, not just stakeholders, be present and able to participate, and that regulators intentionally “engage with those least likely to participate . . . usually the most vulnerable who could benefit the most” to address self-selection bias.⁵⁶

Accessibility and visibility are also critical components of any effective engagement plan. While this can certainly include being physically present in a community, the expansion of digital communications platforms, tools and opportunities, as well as the rapid expansion in the use of video conferencing and meeting participation applications by members of the public as a result of the COVID-19 pandemic, have impacted both opportunities as well as expectations for engagement. Those interested in engagement expect “more timely engagement and more varied, open and ongoing relationships between customers, regulators and providers.”⁵⁷

Finally, it should be noted that customer and stakeholder engagement is not and should not be viewed as an alternative to formal institutions or processes but compliments them.⁵⁸ This key principle must be understood by those involved in any customer engagement so that expectations regarding the effect and impact of the engagement are clearly understood.

5.3 Utility Regulator Customer Engagement

Effective engagement requires that customers have access to the information necessary to allow them to provide informed input. In its 2021 report to Congress on the establishment of the Office of Public Participation, the Federal Energy Regulatory Commission (FERC) discussed several recommendations from customers regarding suggested customer education including open houses, workshops, webinars, educational videos with accompanying curricula, blogs, newsletters, and how-to guides. Commenters also recommended identifying proceedings where public input

⁵³ Lodge, 2016.

⁵⁴ Lodge, 2016, p. 12.

⁵⁵ Lodge, 2016, p. 12.

⁵⁶ Lodge, 2016, p. 14.

⁵⁷ Lodge, 2016, p. 19.

⁵⁸ Organisation for Economic Co-operation and Development, 2016/2017.

would be of the most help and providing briefing materials related to proposed projects.⁵⁹ While the structure of the FERC differs in significant ways from that of the MPSC and the Commission, several of these recommended tools for customer education may be useful in the MPSC's efforts.

The work of other utility Commissions can also be instructive.

During the third Customer Education and Participation workgroup meeting, representatives from the FERC, the Iowa Public Utilities Commission, and the Pennsylvania Public Utilities Commission shared information about their outreach work during the panel on Successes in Customer Education, Outreach, and Engagement. At the FERC, the Office of Public Participation was in the process of being established. Stacey Steep, (Interim Transition Lead, Office of Public Participation, the FERC), shared how the office was being designed and its planned activities. The FERC was intentional about engaging stakeholder organizations and members of the public regarding their preferences for the office's key functions, essentially taking the approach of asking what the public and stakeholders need from the office that would be most beneficial to those it will serve.

Don Tomey, representing the Iowa Utilities Board (IUB), shared that the IUB has worked to make its website a source of easily accessible information as well as a hub for customer participation. For instance, the IUB provides rate case information on its webpage, including FAQs and forms to file comments or objections. Information regarding infrastructure projects is also shared. The Board holds customer comment hearings for rate cases and hosts community outreach and virtual events, partnering with outside organizations to reach targeted audiences.

Shari Williams and Christina Chase-Pettis of the Pennsylvania Public Utility Commission (PUC) shared details about the PA PUC's Be Utility-Wise Conferences, a series of eight events held throughout the state with participation from forty vendors and more than 1,100 people in attendance. The conferences are "educate the educator" focused training events for community service organizations to ensure they have the most up to date information and tools to serve their customers. The conferences are designed to be informative yet engaging for participants and include games like "energy family feud" and door prizes. They also provide booklets with comprehensive information on programs and resources. Additionally, upon request, the PA PUC's outreach team will also create new educational programs designed to meet the needs and goals of local communities.

The report, "Promoting Transparency and Public Participation in Energy Regulation," prepared for USAID by NARUC, profiled the customer engagement strategies of the public utility commissions of Florida, Iowa, Maryland, Nevada, and Ohio. A summary of these engagement strategies follows.

The Florida Public Service Commission (FPSC) holds two types of hearings on utility rate cases. The first is a technical hearing with sworn testimony from expert witnesses. The second is a service

⁵⁹ The Federal Energy Regulatory Commission, 2021.

hearing where customers participate and provide comments. Importantly, comments from the service hearing become part of the record considered by the FPSC prior to making a decision on the application. The utilities must provide notice of the proposed rate increase via bill insert and provide a justification for the increase along with a bill impact by customer class. During the service hearing, FPSC communications staff are available to provide guidance and advice to customers on how to offer comments, protocols to follow, and the amount of time they have to address the presiding commissioner. Staff are also available to answer questions.⁶⁰

The Iowa Utilities Board was also profiled. Customers receive notice of the utility's intent to file a rate case via mailed notices. The notices, which are approved by the Board, include information on the current customer charge, proposed increase, proposed new monthly charge, and percentage increase. The notice also includes information on how customers may engage with the Board. Once the case is filed, the Board will issue a press release summarizing the utility's request and an order establishing public hearings. At the hearings, a utility representative provides a summary of the request and answers customer questions. Board staff and staff from the Office of the Consumer Advocate are present to answer questions as well. Written and verbal comments become part of the case record.⁶¹

In Maryland, proceedings before the Maryland Commission allow community input in the form of written or verbal comment.⁶² Public comment hearings are held on all rate increase applications and are typically conducted in the utility's service territory.⁶³ A press release is issued announcing the hearings and providing a summary of the proposal. An online portal is also available for members of the public to utilize. At the hearing, the presiding officer will provide a summary of the application.⁶⁴

Statute requires the Public Utilities Commission of Nevada (PUCN) to hold consumer sessions for each general rate case where customers have an opportunity to provide opinions to Commissioners and regulatory staff. Communications staff are present to assist customers regarding the process and to answer questions. The PUCN is also required to hold two "general consumer sessions" each year in the state's two most populated counties. These sessions allow members of the public to provide comments and input on any service matter under the purview of the PUCN.⁶⁵

⁶⁰ Choueiki, 2019.

⁶¹ Choueiki, 2019.

⁶² <https://www.psc.state.md.us/make-a-public-comment/>.

⁶³ Hearings were held virtually during the COVID-19 pandemic.

⁶⁴ Choueiki, 2019.

⁶⁵ Choueiki, 2019

The Public Utilities Commission of Ohio is required by statute to hold at least one public hearing for each rate case. The hearing is presided over by one Commissioner and one attorney examiner. Members of the public have an opportunity to express their opinions on the case. A hearing must be held in each county that has a population of more than 100,000 people within the utility service territory.⁶⁶

Customer Education and Participation Recommendations

In January 2021, the National Association of Regulated Utility Commissioners (NARUC) released a report titled “Public Utility Commission Stakeholder Engagement: A Decision-Making Framework.” A key finding of the report is that the success of stakeholder and customer engagement is “reliant on a design that is tailored to the unique ambitions and considerations” of the regulatory body.⁶⁷ There is no “one-size-fits all” approach and understanding the purposes and uses of engagement within the context of the unique position of each state Public Utilities Commission is critical.⁶⁸ With this in mind, the following recommendations are made in light of the observations discussed above and the unique processes and engagement challenges inherent in the work of the Commission and the MPSC.

Several key observations from the workgroup sessions and literature have informed the recommendations that follow including:

- Customers who lack awareness regarding the reason for a proposed or approved rate increase, who do not understand the process, or who are unable to participate are more likely to be unhappy with the regulatory decision.⁶⁹
- Customer engagement should have a genuine and visible impact on policy and should not simply be an “add-on.” This applies to engagement with both the regulator and the regulated utilities. Engagement must occur early enough in the process that it can impact the direction and decision of the policy or proposal.
- Honesty regarding the actual involvement of customers and their opportunity to make an impact on decisions is vital for building and preserving trust.
- Customers are more likely to trust an organization with which they are familiar.
- Consumers, not just stakeholders or customer representatives, need to be involved in the engagement.
- Consultation fatigue is real and must be avoided, in part by ensuring that consultation is valuable to those participating.
- Accessibility and visibility are essential to ensuring credibility.

⁶⁶ Choueiki, 2019.

⁶⁷ McAdams, 2021, p. 16.

⁶⁸ McAdams, 2021.

⁶⁹ Choueiki, 2019, p. 7.

- Customer engagement needs to be embedded in the cultures of the MPSC and the utilities to bring about long-term, customer-centric change.
- The rise of digital communications fuels expectations for more timely engagement and more varied, open, and ongoing relationships between customers, regulators, and providers.

Additionally, three primary principles underpin the recommendations provided below:

1. Building and maintaining trust with communities, stakeholders, and customers.
2. Ensuring transparency.
3. Increasing Commission and MPSC visibility and accessibility.

6.1 Customer Engagement in the Regulatory Process

Engaging customers in the regulatory process requires providing an opportunity for customers to have an impact on regulatory decisions. As discussed above, engagement without an opportunity to influence the outcome is likely to diminish trust and result in customers viewing engagement as simply “a box to check” rather than an honest desire to hear from customers and engage with them.

However, the unique decision-making process at the Commission, along with the highly technical nature of much of the Commission’s work, does not lend itself to easy opportunities for customers to participate. Additionally, unlike some other utility commissions, the Commission does not currently have a statutory means of incorporating customer feedback into its decision-making process in the context of a contested case, and these are the issues on which many customers would like their voices heard and considered.

In addition to requiring an opportunity to impact decisions, customer engagement in the regulatory process also requires that customers have access to easily understandable information regarding the issues on which the Commission desires their engagement.

Importantly, the opportunity to impact regulatory decisions does not have to wait until a decision is before the Commission. Rather, engagement with customers by the utilities during the development of their applications also provides space for customers to impact the eventual program offerings accessible to them.

Recommendation: The Staff recommends that the Commission develop processes for improved customer engagement in the regulatory space and develop engagement opportunities that allow customers to have a voice in the decision-making process, with particular attention given to communities that have been historically underrepresented in Commission proceedings.

Recommendation: The Staff recommends that the Commission explore opportunities to encourage the utilities to engage with customers on issues including their long-term investment plans, rate case requests, and pilot programs through customer surveys, public meetings, and other available means.

Recommendation: To assist the public’s understanding of utility proposals and applications, as well as their potential customer impacts, and to aid individuals interested in providing public comment, Staff recommends that the Commission develop case-specific webpages containing easy to understand summaries of the proposals and issues in utility cases of interest. These webpages could also provide an easily accessible link for customers wishing to submit public comment to support ease of access and participation.

6.2 Improving Customer Participation and Education Regarding their Energy Use and Program Options

To take advantage of available utility programs, and to provide informed input regarding available programs, customers need easily accessible information on utility-offered programs and how to sign up or gain access to them. The information can be shared in many ways and through avenues used by either the MPSC or a customer’s utility company. Each utility has different programs and unique customer mixes that influence decisions related to communication styles and methods. However, there is much that can be learned from the experiences of the utilities and the MPSC, and these efforts can be refined and improved by understanding the respective communications methods used and their success in effectively reaching customers.

For instance, at the start of the COVID-19 pandemic, the MPSC held regular meetings with the utilities to discuss customer outreach and education efforts related to utility payment assistance. Where appropriate, the utilities, the MPSC, and community and state assistance agencies reinforced similar messaging to help guide eligible customers in need to where assistance was available. The MPSC could build on this experience to identify other areas of potential coordination and help improve the customer awareness of utility program options.

Recommendation: Staff recommends that the Commission develop and publicize a utility program portal available through the MPSC website that provides easy access to information regarding available utility programs and offerings.

Recommendation: Staff recommends that the Commission’s communication and outreach staff hold annual convenings of utility outreach and communication staff to examine and review utility customer outreach and education efforts, identify respective barriers to program adoption, and discuss lessons learned and opportunities for improvement and coordination.

6.3 Customer Education

Energy issues are technical in nature and are often very complex. Additionally, Commission processes are complicated and governed by both statutes and rules. However, the impacts of energy policy decisions and the outcomes of Commission processes have significant impacts on customers. Ensuring opportunities for customers to understand these issues and processes is important to ensuring transparency and building trust.

Furthermore, in the coming energy transition, customers will need to better understand utility program offerings and options for controlling their energy use to make the best decisions possible for themselves and their families. The Commission has an opportunity to share information designed to reach customers where they are in a way that is neutral, balanced, and empowers customers to make better informed decisions.

Recommendation: Staff recommends that the Commission develop an overarching, customer facing education program designed to help customers understand the regulatory process, the role and function of the Commission, and the energy issues that impact them. This program should utilize a multi-resources approach and incorporate digital, print, and multi-media options.

Recommendation: Staff recommends that the Commission develop an education program designed to educate customer advocates, community organizations, and stakeholders on issues of interest to their constituencies, and should develop materials that these organizations can utilize in their outreach and education efforts.

Recommendation: Staff recommends that the Commission develop materials to assist customers in understanding the public comment process and how to make comments in Commission cases. Materials should also be developed to help customers understand cases of significant interest and provide the information necessary to aid in the development of their comment filings to case dockets.

6.4 Outreach and Engagement

To build trust and improve visibility and accessibility, the Commission or its representatives must meet customers where they are. While it's important to make materials and participation opportunities available, being present within communities, with organizations, and with customers demonstrates a true effort to engage in ways that are more convenient. In this sense, the Commission needs to go where the people are. While this likely will not eliminate self-selection bias of those who participate with the Commission, going to where customers are may increase the number and diversity of those who choose to participate thereby helping to address the concerns detailed earlier in this report.

Recommendation: Staff recommends that the Commission build capacity to allow for expanded customer outreach, education, and engagement. Assuming sufficient appropriations and budget approvals, this could take the form of a dedicated Community Outreach and Engagement team. The Commission should undertake intentional expanded engagement with historically marginalized communities on issues impacting them including issues of energy accessibility and affordability, energy waste reduction, and utility program offerings and access.

Recommendation: Staff recommends that the Commission expand its social media presence and explore opportunities for expanded digital engagement to engage with customers more effectively.

Recommendation: Staff recommends that the Commission build intentional and consistent relationships with local stakeholders and seek opportunities to partner with them on education and outreach efforts.

6.5 Additional Research, Meetings, and Study

Issues of customer engagement, both education and participation, are vast and in some instances, rapidly evolving. Not all issues of interest could be explored through this workgroup. Therefore, additional research, meetings, or study may be advisable to ensure that the Commission keeps apprised of issues of greatest importance to customers and opportunities for continuous improvement in customer engagement efforts.

Additionally, the Commission's communications, outreach, and engagement efforts are continuously evolving. Opportunities to ensure that these efforts are most effective at reaching impacted utility customers should be evaluated and developed.

Recommendation: Staff recommends that the Commission develop and issue a survey to community organizations and customer advocates seeking further input regarding community education and engagement activities.

Recommendation: Staff recommends that the Commission identify opportunities to engage the public through public outreach events, townhalls, or other means to better understand the education and participatory needs and interests of utility customers.

Recommendation: Staff recommends that the Commission initiate discussions with the Utility Consumer Participation Board to examine opportunities for expanding awareness of intervenor funding opportunities.

Conclusion

As the energy industry transitions to one requiring more active and reliable participation by customers, it is critical that issues related to ensuring customer data access and privacy and customer education and participation are comprehensively considered and addressed.

The Staff appreciates the opportunity to investigate these issues and present their findings and recommendations to the Commission and looks forward to implementing the recommendations with the Commission as directed.

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Appendix A: Stakeholder Session Summaries & Agendas

A.1: Data Access Session

May 25, 2021 ([Recording](#) | [Presentation](#))

The kickoff session commenced with opening statements from Commissioner Tremaine Phillips and Kayla Gibbs from Staff, which entailed an overview of MPG and the workgroup objectives. Michael Murray from Mission:data provided the evolution of utility data collection from a national perspective. Ryan Laruwe from Staff gave comments on grid modernization in Michigan and its development. A demonstration of customer usage data was provided by Christina Gipson and Jennifer Graham from CE, and Alicia Ramirez and Thac Nguyen from DTE. Two panels discussed uses cases and regulatory barriers and enhancements. The panels were divided between perspectives. The initial panel was composed of academia and community perspectives, whereas the second panel focused on third-party installers and service providers.

Agenda Items		
1:00pm 5 min	Welcome & Opening Statements	Commissioner Tremaine Phillips
1:05pm 5 min	MI Power Grid and Workgroup Introduction	Kayla Gibbs, MPSC Staff
1:10pm 15 min	Evolution of Utility Data Collection and Where we are Nationally	Michael Murray, Mission:data
1:25pm 10 min	<u>Status of Grid Modernization in Michigan:</u> How Grid Modernization is Improving Access to Energy Data and the Collection of Energy Data	Ryan Laruwe, MPSC Staff
1:35pm 25 min	<u>State of Customer Usage Data Access in Michigan</u> Consumers Energy & DTE Energy Data Access Demos	Christina Gipson and Jennifer Graham, Consumers Energy Alicia Ramirez and Thac Nguyen, DTE Energy
2:00pm 5 min	Break	
2:05pm 40 min	<u>Panel:</u> <u>Use Cases and Regulatory Barriers & Enhancements to Customer Usage Data Access</u> Academia and Community Perspective	Moderator: Kendal Kuneman, Detroit 2030 District Soren Anderson, MSU Rick Bunch, MI-MAUI Connie Lilley, Detroit 2030 District Jan Culbertson, Ann Arbor 2030 District
2:45pm 40 min	<u>Panel:</u> <u>Use Cases and Regulatory Barriers & Enhancements to Customer Usage Data Access</u> Third-Party Installer and Service Provider Perspective	Moderator: Danny Waggoner, AEE Mike Troupos, Foresight Management Mark Cryderman and Erica Larsen, The Green Panel David Gard, MEECA Peter Dotson-Westphalen, CPower
3:25pm 5 min	Closing Statements	Danielle Rogers, MPSC Staff
3:30pm	Adjourn	

A.2: Data Privacy, Sharing, and Customer Consent

June 22, 2021 ([Recording](#) | [Presentation](#))

The session began with customer permissions-based data, followed by permissionless data, which was divided at the break. Patrick Hudson from Staff gave a presentation on the data privacy tariffs and billing rules from Michigan that are applicable to the topic of data privacy, sharing, and customer consent. Bradley Bammert from CE and Jason Pittman from DTE gave presentations on their life cycle of data and how it is used within their system. Michael Murray from Mission:data provided best practices and lessons learned from a national perspective. David Littell from RAP provided a better understanding of aggregation and anonymized data and their similarities and differences, which include regulatory opportunities and barriers. The panel that followed the presentation focused on “Data Aggregation and Anonymization Methodologies and Best Practices.”

Agenda Items		
1:00 5 min	Welcome/ Housekeeping	Kayla Gibbs, MPSC Staff
1:05 10 min	Michigan Data Privacy Tariffs and Billing Rules	Patrick Hudson, MPSC Staff
1:15 30 min	Life Cycle of Data	Bradley Bammert, Consumers Energy Jason Pittman, DTE Energy
1:45 35 min	Data Privacy, Sharing, and Customer Consent: Lessons Learned and Best Practices	Michael Murray, Mission:data
2:20 5 min	Break	
2:25 15 min	Aggregated and Anonymized Data: Similarities & Difference and Regulatory Opportunities & Barriers	David Littell, RAP
2:40 45 min	Panel: Data Aggregation and Anonymization Methodologies and Best Practices	Moderator: David Littell, RAP Andrew Barbeau, Accelerate Group Carmen Best, Recurve Sarah Moskowitz, IL CUB Chris Villarreal, Plugged In Strategies
3:25 5 min	Closing Statements	Danielle Rogers, MPSC Staff
3:30	Adjourn	

A.3: Customer Education and Participation Opportunities and Barriers

August 5, 2021 ([Recording](#) | [Presentation](#))

The stakeholder session initially provided an overview of MPSC processes and opportunities for customer education, participation, and outreach presented by MPSC Staff Reka Holley. This established a foundation for the session discussion. Jake Thelen from MPSC Staff gave a demonstration on the MPSC’s customer shutoff data portal that is located on the MPSC website. Monica Martinez from Coalition to Keep Michigan Warm, Conan Smith from MI Environmental Council, and Briana Dubose from EcoWorks participated in a panel regarding barriers in customer participation in Commission-related activities. The panel discussion was moderated by Keith Cooley from Principia, LLC. Following the barriers panel, the session discussed successes in customer education, outreach, and engagement. Stacey Steep from the Office of Public Participation at FERC, Christina Chase-Pettis and Shari Williams from the Pennsylvania Public Utility Commission, and Don Tormey from the Iowa Utilities Board participated in the discussion.

Agenda Items		
1:00 PM	Welcome & Opening Statements	Commissioner Tremaine Phillips & Kayla Gibbs, MPSC Staff
1:05 PM	MPSC: Processes and Opportunities for Customer Education, Participation, and Outreach	Reka Holley, MPSC Staff
1:55 PM	The MPSC’s Customer Shutoff Data Portal	Jake Thelen, MPSC Staff
2:05 PM	Barriers to Customer Participation in Commission-related Activities	Moderator: Keith Cooley Principia, LLC Monica Martinez Coalition to Keep Michigan Warm Conan Smith MI Environmental Council Briana DuBose EcoWorks
2:55 PM	Break	
3:00 PM	Successes in Customer Education, Outreach and Engagement.	Stacey Steep Office of Public Participation, FERC Christina Chase-Pettis Pennsylvania Public Utility Commission Shari Williams Pennsylvania Public Utility Commission Don Tormey Iowa Utilities Board
3:55 PM	Closing Statements	Danielle Rogers, MPSC Staff
4:00 PM	Adjourn	

A.4: Equitable Outreach and Access to Utility Programs and Offerings

August 25, 2021 ([Recording](#)| [Presentation](#))

To begin Session 4, the focus was energy equity and measuring equity in the energy transition. This presentation was provided by Justin Schott from Energy Equity Project. Sarah Mullkoff from MPSC Staff gave an overview of MPSC’s DEI Policy and the regulations subcommittee. A panel was conducted to discuss customer engagement and access from the utility perspective. Consumers Energy, DTE, Indiana Michigan Power Company (I&M), and Cherryland Electric Cooperative (Co-Op) were present in the discussion. A community and advocacy organization panel discussed intentional outreach and engagement. The City of Ann Arbor, Ecoworks, Superior Watershed Partnership, and Urban Core Collective provided insight.

Agenda Items		
1:00pm	Welcome & Opening Statements	Kayla Gibbs, MPSC Staff
1:05pm	The Energy Equity Project: Creating a framework for measuring equity in the energy transition	Justin Schott Energy Equity Project
1:45pm	The MPSC’s DEI Policy and Regulation Subcommittee	Sarah Mullkoff, MPSC Staff
2:00pm	Customer engagement and access – a utility perspective	Lauren Youngdahl Snyder Consumers Energy Michael Rivet DTE Nick Elkins I&M Rachel Johnson Cherryland Electric Co-Op
2:55pm	Break	
3:00pm	Intentional Outreach and Engagement – a community and advocacy organization perspective	Moderated by Commissioner Tremaine Phillips, MPSC Zach Waas Smith City of Ann Arbor Gibran Washington Ecoworks Kasey McNeally Superior Watershed Partnership Sergio Cira-Reyes Urban Core Collective
3:55 PM	Closing Statements and Next Steps	Danielle Rogers, MPSC Staff
4:00 PM	Adjourn	

Appendix B: Stakeholder Comments on Draft Recommendations

B.1 Stakeholder Comments Regarding Data Access and Privacy Recommendation

- B.1.1: [Advanced Energy Economy \(AEE\)-Michigan Energy Innovation Business Council \(Michigan EIBC\)- Advanced Energy Management Alliance \(AEMA\)](#)
- B.1.2: [Ceres](#)
- B.1.3: [Consumers Energy Company](#)
- B.1.4: [Citizens Utility Board \(CUB\)](#)
- B.1.5: [DTE Energy Company](#)
- B.1.6: [Martin Kushler](#)
- B.1.7: [Midwest Energy Efficiency Alliance \(MEEA\)](#)
- B.1.8: [Michigan Electric and Gas Association \(MEGA\)](#)
- B.1.9: [Michigan Municipal Association for Utility Issues \(MI MAUI\)-The City of Ann Arbor- 2030 Districts of Grand Rapids, Detroit, and Ann Arbor](#)
- B.1.10: [Natural Resources Defense Council \(NRDC\)](#)

B.2 Stakeholder Comments Regarding Customer Education and Participation Recommendations

- B.2.1: [Consumers Energy Company](#)
- B.2.2: [DTE Energy Company](#)
- B.2.3: [Michigan Electric and Gas Association \(MEGA\)](#)
- B.2.4: [Michigan Energy Innovation Business Council \(Michigan EIBC\), Advanced Energy Economy \(AEE\), and Advanced Energy Management Alliance \(AEMA\)](#)
- B.2.5: [Dr. Pablo Gomez](#)

Appendix C: Acronym List

AMI	Advanced Metering Infrastructure
CAIDI	Customer Average Interruption Duration Index
CE&P	Customer Education and Participation
C&I	Commercial and Industrial
Co-op	Cooperative
DEI	Diversity, Equity, and Inclusion
DER	Distributed Energy Resource
DR	Demand Response
DTE	DTE Energy
EAAC	Energy Affordability and Accessibility Collaborative
EDF	Environmental Defense Fund
EJ	Environmental Justice
ESPI	Energy Service Provider Interface
EV	Electric Vehicle
EWR	Energy Waste Reduction
FIPPS	Fair Information Practice Principles
GPS	Ground Position Satellite
HAN	Home Area Network
IEDR	Integrated Energy Data Resource
ICC	Illinois Commerce Commission
IL CUB	Illinois Citizens Utility Board
I&M	Indiana Michigan Power Company
IOU	Investor-Owned Utility
ISO	Independent System Operator
MEECA	Michigan Energy Efficiency Contractors Association
MIMAUI	Michigan Municipal Association for Utility Issues
MISO	Midcontinent Independent System Operator
MPG	MI Power Grid
MPSC	Michigan Public Service Commission
NAESB	North American Energy Standards Board
NC	North Carolina
NIST	National Institute of Standards and Technology
OECD	Organization for Economic Cooperation and Development
PII	Personally Identifiable Information
PSC	Public Service Commission
RTO	Regional Transmission Organization
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
SCADA	Supervisory Control and Data Acquisition
TOU	Time of Use
UER	Utility Energy Registry

Appendix D: U-17102 “Customer Data Privacy (Exhibit A)”

CUSTOMER DATA PRIVACY

DEFINITIONS

- A. **“Aggregated Data”** represents a process where raw data is gathered and expressed in a summary form for statistical analysis. Raw data can be aggregated over a given time-period to provide statistics such as average, minimum, maximum, and sum. As applied to energy consumption data or customer account information, all identifying information is removed so that the individual data or information of a customer or account cannot be associated with that customer or account.
- B. **“Aggregated Data Screens”** represent a methodology of data aggregation that ensures a level of privacy for the original individuals or accounts of which the data originated. For energy usage, a 15/15 screen means a minimum of 15 customers used, and a single customer cannot represent 15% or more of the total energy usage in the data set. A 4/50 screen ensures that aggregation contained a minimum of four accounts in which no individual account makes up more than 50% of the overall dataset.
- C. **“Anonymous Data”** refers to a data set containing individual sets of information where identifiable characteristics and information, such as, but not limited to, name, address, account number, or social security number, are removed (or scrubbed) so that one cannot reasonably re-identify an individual customer based on, for example, usage, rate class or location.
- D. **“Commission”** means the Michigan Public Service Commission.
- E. **“Contractor”** or **“Agent”** means an entity or person performing a function or service under contract with or on behalf of the Company, including customer service, demand response, energy efficiency programs, payment assistance, payroll services, bill collection, or other functions related to providing electric and natural gas service.
- F. **“Customer”** means a purchaser of electricity or natural gas that is supplied or distributed by a utility for residential or nonresidential purposes.
- G. **“Customer Account Information”** means individually identifiable information including customer address, contact information, payment history, account number, and amount billed. Customer Account Information also includes information received by the Company from the customer for purposes of participating in regulated utility programs, including bill payment assistance, shutoff protection, renewable energy, demand-side management, load management, or energy efficiency.
- H. **“Customer Usage Data”** [or **“Consumption Data”**] means customer specific gas and electric usage data, including but not limited to ccf, Mcf, therms, dth, kW, kWh, voltage, var, or power factor, and other information that is collected from the electric or gas meter by the Company and stored in its systems. *[These are suggested definitions for the different types of customer information the utility might have for*

some or all customers (e.g., customer usage data, customer account information, and personal data). Providers should adjust these definitions to correspond with their own data organization methods and terminology.]

- I. “Informed Customer Consent” means, in the case where consent is required: (1) the customer is provided with a clear statement of the data or information to be collected and allowable uses of that data or information by the party seeking consent; (2) the frequency of data or information release and the duration of time for which the consent is valid; and (3) process by which the customer may revoke consent. In no case shall silence by the customer ever be construed to mean express or implied consent to a request by the Company, its agents, or contractors. Customer consent may be documented in writing, electronically, or through recording of an oral communication.
- J. “Personal Data” [or “Personally Identifiable Information”] means specific pieces of information collected or known by the Company that merit special protection including the standard types of positive identification information used to establish an account. Personal Data [Personally Identifiable Information] includes, but is not limited to, name and address in conjunction with birth date, telephone number, electronic mail address, Social Security Number, financial account numbers, driver’s license number, credit reporting information, bankruptcy or probate information, health information, network, or Internet protocol address.
- K. “Personal Data – Un-shareable” means personal information collected or known by the Company that cannot be shared with utility contractors, agents or third parties. Such information includes birth date, social security number, biometrics, bank and credit card account numbers, driver's license number, credit reporting information, bankruptcy or probate information, health information, security questions, ground position satellite (GPS) location, electronic device identifier, or network or internet protocol address.**
- L. “Primary Purpose” means the collection, use, or disclosure of information collected by the company or supplied by the customer in order to: (1) provide, bill, or collect for, regulated electric or natural gas service; (2) provide for system, grid, or operational needs; (3) provide services as required by state or federal law or as specifically authorized by an order of the Commission, or; (4) plan, implement, or evaluate, energy assistance, demand response, energy management, or energy efficiency programs by the Company or under contract with the Company, under contract with the Commission, or as part of a Commission-authorized program conducted by an entity under the supervision of the Commission, or pursuant to state or federal statutes governing energy assistance.
- M. “Secondary Purpose” means any purpose that is not a Primary Purpose. **Secondary purpose includes public interest use cases where a utility shall provide aggregated data to a requestor, contractor, or agent.**

- N. “Standard Usage Information” means the usage data that is made generally available by the electric or gas utility to all similarly situated customers on a regular basis, delivered by the electric or gas utility in a standard format.
- O. “Third-party” means a person or entity that has no contractual relationship with the Company to perform services or act on behalf of the Company.
- P. **“Use Cases” refer to specific situations in which aggregated data could potentially be used. Use Cases applicable to secondary purposes include but are not limited to local government benchmarking, building owners and multi-unit dwellings, regulatory policy considerations, and research institutions (academia).**

COLLECTION AND USE OF DATA AND INFORMATION

- A. The Company collects Customer Account Information, Customer Usage Data, and Personal Data as necessary to accomplish Primary Purposes only.
- B. The Company may collect and use Customer Account Information, Customer Usage Data, and Personal Data for Primary Purposes without customer consent.
- C. Customer informed consent is necessary before collection or use of Customer Account Information, Customer Usage Data, or Personal Data for a Secondary Purpose.
- D. The Company will not sell Customer Account Information, Customer Usage Data, or Personal Data, except in connection with sales of certain aged receivables to collection firms for purposes of removing this liability from its accounts.
- E. **The Company adopts the Department of Homeland Security’s Fair Information Practice Principles (FIPPS), as revised by the Organization for Economic Cooperation and Development (OECD) to set the standards and values of customer data privacy. Such principles address, transparency, individual participation, purpose specification, data minimization, use limitation, data quality and integrity, security, and accountability and auditing. [Note: These principles are described in MPSC Staff report, section 4.11.]**

DISCLOSURE WITHOUT CUSTOMER CONSENT

- A. The Company will disclose Customer Account Information, Customer Usage Data, or Personal Data when required by law or Commission rules. This includes law enforcement requests supported by warrants or court orders specifically naming the customers whose information is sought, and judicially enforceable subpoenas. The provision of such information will be reasonably limited to the amount authorized by law or reasonably necessary to fulfill a request compelled by law.

- B. Informed Customer Informed Consent is not required for the disclosure of customer name and address to a provider of appliance repair services in compliance with MCL 460.10a(9)(a), or to otherwise comply with the Code of Conduct.
- C. The Company may disclose Customer Account Information, Customer Usage Data, or Personal Data in the context of a business transition such as an asset sale or merger to the extent permitted by law.

DISCLOSURE TO AGENTS AND CONTRACTORS

- A. The Company only shares information in the smallest increment necessary for the Agent or Contractor to provide service to the Company. In some cases, the Company will only provide aggregated data to a Contractor or Agent.
- B. The Company will not share information categorized as “Un-shareable” with Agents or Contractors as defined in the Definitions section, K. (Personal Data – Un-Shareable) of this document.**
- C. Contracts between the Company and its Agents or Contractors specify that all Agents and Contractors are held to the same confidentiality and privacy standards as the Company, its employees, and its operations. These contracts also prohibit Agents or Contractors from using any information supplied by the Company for secondary purposes.
- D. The Company requires its Agents and Contractors to implement and maintain reasonable data security procedures and practices appropriate to the private nature of the information received. These data security procedures and practices shall be designed to protect the Customer Account Information, Customer Usage Data, and Personal Data from unauthorized access, destruction, use, modification, or disclosure. The data security procedures and practices adopted by the Contractor or Agent shall meet or exceed the data privacy and security policies and procedures used by the Company to protect Customer Account Information, Customer Usage Data, and Personal Data.
- E. The Company requires Agents and Contractors to return or destroy any Customer Account Information, Customer Usage Data, or Personal Data that is no longer necessary for the purpose for which it was transferred.
- F. The Company maintains records of the disclosure of customer data to Agents and Contractors in accordance with Company record retention policies and Commission rules. These records include all contracts with the Agent or Contractor and all executed non-disclosure agreements.
- G. A Customer may request that his or her Customer Account Information or Customer Usage Information be released to a third-party of the Customer’s choice. Once the Company verifies the Customer’s request, the Company is not responsible for loss, theft, alteration, or misuse of the data by third parties

or customers after the information has been transferred to the customer or the Customer's designated third party.

DISCLOSURE FILING WITH THE COMMISSION

- A. The Company will file a disclosure with the Commission outlining the personal data collected and stored by the Company, and the primary purpose associated with the data field (i.e., account set-up, payment, etc.).**
- B. This disclosure should also outline personal information shared with contractors, agents and unregulated affiliates (without customer consent) in order to perform primary purposes on behalf of the utility and any customer safeguards (non-disclosure agreement, confidentiality agreements, etc.) associated with this sharing. Transparency regarding the amount of personal information collected, who it has been shared with, and the terms and conditions of that sharing is necessary in assessing the reasonableness of a utility's internal data sharing policies and the existent safeguards in place to protect this information.**

CUSTOMER ACCESS TO DATA *[Note: this section will likely vary for each utility depending on the status of utilizing the Green Button standard. Consider this section an example providing Customer Access to Data information.]*

- A. Michigan Administrative Code, R 460.153 (Rule 53) of the Commission's Consumer Standards and Billing Practices for Electric and Natural Gas Service provides for Customer access to consumption data and confidentiality for that data. The Customer has a right to know what Customer Account Information, Consumption Data, or Personal Data the Company maintains about the Customer. The Customer can access their Customer Account Information, Consumption Data, or Personal Data by either contacting the utility by telephone, or by creating an online profile on the homepage of the Company's website.**

If the Customer chooses to use the Company's website to obtain their Customer Account Information, Consumption Data, or Personal Data, then the Customer is required to go to the homepage of the Company's website and create an online profile that will register the address in the Company's system to the Customer. Once the online profile is created, the Customer can select their address to download their data or view it in a tabular .CSV format.

If the Customer chooses to contact the utility by telephone, the Company will verify the Customer and provide them with their Customer Account Information, Consumption Data, or Personal Data either by phone, electronically in a .CSV format, or in a tabular hardcopy format. The Customer can sign, scan, and email the hardcopy form to the Company; the Company will contact residential customers to validate their information.

The Company shall not provide information to a Customer that the Company considers proprietary or used for internal Company business. The Company will make a reasonable effort to respond to requests for this information within 10 business days of being contacted by the Customer.

B. Customers have the right to share their own Customer Account Information, Consumption Data, or Personal Data with third parties of their choice to obtain services or products provided by those third parties. The Customer must provide the Company with signed Written Consent via a Standard Company form that authorizes a third-party access to their Customer Account Information, Consumption Data, or Personal Data. This form can be provided to the customer upon request by telephone or downloaded from the Company's website. Once Informed Customer Consent has been received and validated, the Company shall release the requested customer data to the specific third-party within 10 business days. The Company is not responsible for unauthorized disclosure or use of this information by a third-party.

C. Customers have the opportunity to request corrections or amendments to Customer Account Information or Personal Data that the Company collects, stores, uses or distributes. Requests of this nature shall be made in writing.

D. Fulfilling certain requests for data in accordance with the provisions of this tariff is consistent with the provision of normal utility service to our Customers. When the data requested is Standard Usage Information, the request will be fulfilled without charge.

AGGREGATED DATA

- A. Aggregated data will be available to share for secondary purposes as defined in the Definitions section of this document, A (Aggregated Data), B (Aggregated Data Screens), M (Secondary Purpose) and P (Use Cases).**
- B. The Company will utilize the 15/15 aggregation standard as a minimum standard for aggregated datasets for residential and commercial customers.**
- C. The Company will utilize the 4/50 aggregation standard as a minimum standard for aggregated datasets for industrial customers.**

CUSTOMER NOTICE OF PRIVACY POLICIES

- A. New customers receive a copy of the privacy policy upon the initiation of utility service from the Company. Existing customers receive a copy of the policy once per year by whatever method is used to transmit the bill and whenever the privacy policy is amended.**

- B. Notice of the Company's privacy policies will be made available and is prominently posted on the Company's website. The notice includes a customer service phone number and Internet address where customers can direct additional questions or obtain additional information regarding how to obtain customer data, the disclosure of customer data or aggregated data, or the Company's privacy policies and procedures with respect to customer data or aggregated data.

LIMITATION OF LIABILITY

The Company and each of its directors, officers, affiliates, and employees that disclose Customer Information, Customer Usage Data, Personal Data or Aggregated Data to customers, Agents, or Contractors, as provided in this tariff, shall not be liable or responsible for any claims for loss or damages resulting from such disclosure.