



Making the Most of Michigan's Energy Future

Final Status Report

April 24, 2023



MPSC

Michigan Public Service Commission

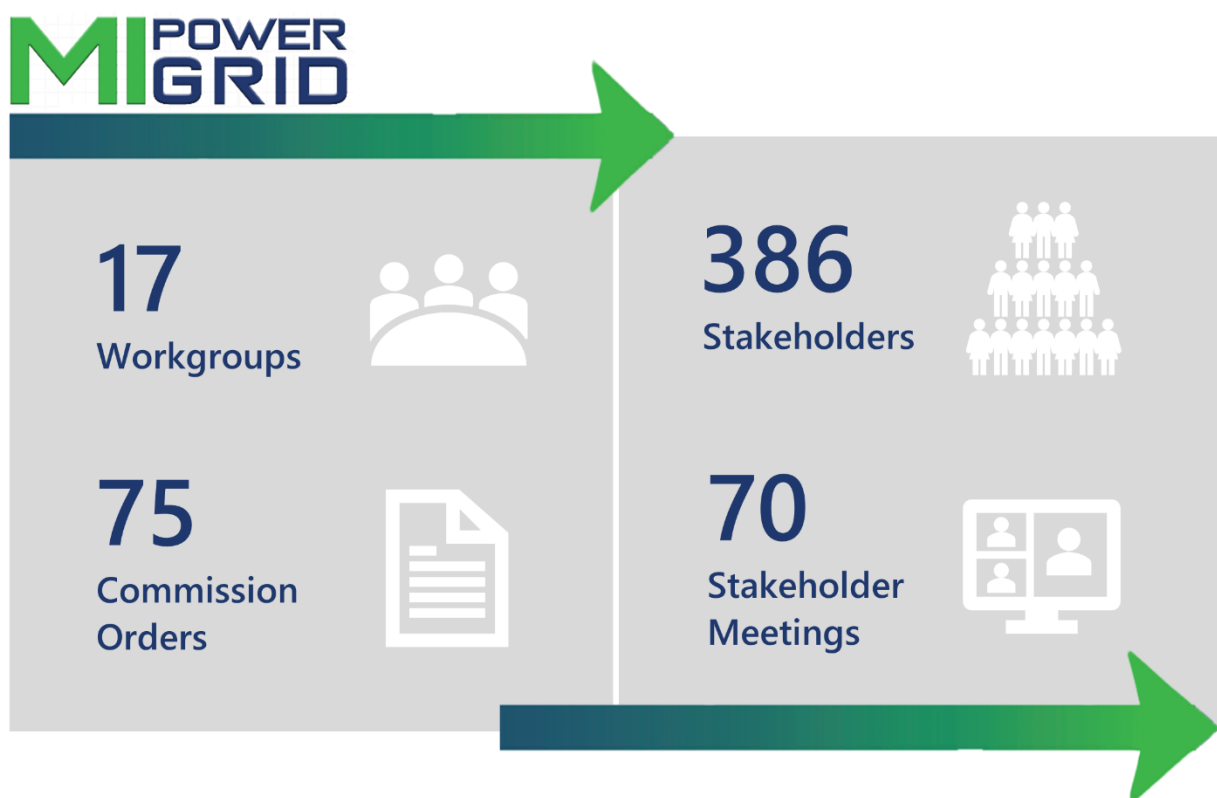
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EXECUTIVE SUMMARY

The MI Power Grid initiative was launched in October of 2019. It was established as a customer-focused, multi-year stakeholder initiative sponsored by Governor Gretchen Whitmer and the Michigan Public Service Commission (MPSC) to maximize the benefits of the transition to clean, distributed energy resources for Michigan residents and businesses. The initiative has focused on the three primary work areas of customer engagement, the integration of emerging technologies, and optimizing grid investments and performance, with each work area being headed by one of the three MPSC Commissioners.

Two status reports have been issued since the start of MI Power Grid. The first [Status Report](#) was issued on October 15, 2020 and detailed the work of the Commission and Staff during the first year of the initiative. The second [Status Report](#) was issued on September 30, 2021, and detailed the work accomplished during the second year of the initiative. This third and final status report provides an overview of the MI Power Grid activities to-date and addresses the work that will come after this report.



INTRODUCTION



MI Power Grid is a focused, multi-year stakeholder initiative supported by Governor Whitmer and the Michigan Public Service Commission (MPSC or Commission) to maximize the benefits of the transition to clean, distributed energy resources for Michigan residents and businesses.

MI Power Grid was [launched](#) in Case No. [U-20645](#) on October 17, 2019, and is organized into three areas of emphasis:

- **Customer Engagement**, led by Commissioner Tremaine Phillips, focuses on providing Michigan residents and businesses with the demand-side technologies, programs, and price signals that will allow customers to be more active and effective participants in the state's transition to increased clean and distributed energy resources.
- **Integrating Emerging Technologies**, led by Commissioner Katherine Peretick (and previously led by former Commissioner Sally Talberg), seeks to ensure timely and fair grid access and appropriate information exchange to support customer-oriented solutions and reliable system operations.
- **Optimizing Grid Investments and Performance**, led by Chair Dan Scripps, is aimed at integrating transmission, distribution, and resource planning to increase transparency and optimize solutions, as well as the enhancement of tools, financial incentives, and regulatory approaches to adapt to technology change and customer preferences.

Since launching MI Power Grid in 2019, the electric sector has continued to change rapidly as older, more centralized power resources are slated to retire, and newer, more distributed resources are expected to take their place. The release of Michigan's [MI Healthy Climate Plan](#), and the enactment of both the Infrastructure Investment and Jobs Act and the Inflation Reduction Act by the federal government, demonstrate that state and federal policy increasingly points towards accelerating the energy transition. Emerging challenges related to the transition include difficulties interconnecting new resources, supply chain issues resulting from the global pandemic and other factors, concerns over resource adequacy, aging grid infrastructure, and an increase in the frequency and intensity of extreme weather due to the impacts of climate change. With an expectation of increased reliance on the grid due to the electrification of transportation, ongoing concerns around affordability and equity, and the need for additional customer participation in energy decisions, it remains imperative that we are well prepared to confront these challenges.

Several MI Power Grid work areas have made progress since the second status report was released in October 2021, including adoption of recommendations related to customer engagement and data accessibility in the **Customer Education and Participation** workgroup, adoption of an expedited pilot process and further guidance on benefit cost analysis as part of the **New Technologies and Business Models** workgroup, convening stakeholders to better understand the data needs and use cases for bidirectional hosting and loading capacity maps in the **Distribution System Data Access** workgroup, and adoption of updated integrated resource plan parameters and filing requirements as part of the **Advanced Planning** workgroup. In addition, at a time when there is increasing scrutiny on the performance of the electric distribution grid from the standpoint of reliability and resilience, the Commission has indicated its intention to initiate the **Financial Incentives and Disincentives** workgroup to better align utility earnings with performance.

The Commission has also utilized learnings from MI Power Grid to inform a targeted realignment of organizational assignments to be better prepared to address changes in the industry, including:

- The establishment of a new Distribution Planning Section, focused on improving reliability and the planning necessary to accommodate growth in electric vehicles and other distributed energy resources.
- The creation of a new Interconnection and Distributed Energy Resources Section, focused on interconnection rules and procedures and the operations of distributed energy resources, reflecting the growth in rooftop solar, batteries, demand response, and other resources.
- The establishment of a new Resource Adequacy and Forecasting Section, which will continue to focus on capacity demonstrations and demand response planning while also pulling disparate forecasting responsibilities from throughout the Commission into one section.
- The creation of a new Data Access, Privacy, and Information Technology Section, which will lead Commission efforts on customer data accessibility and privacy and will continue to review IT and smart grid spending in rate cases while assisting in review of customer experience spending requests.

Since the launch of the MI Power Grid initiative, there have been 70 Stakeholder meetings with participation from 386 stakeholder organizations, more than 250 listserv messages informing stakeholders of MI Power Grid activities, and 75 Commission orders in 16 MI Power Grid related dockets. While there is more work to be done, this final status report provides an update on the many accomplishments

of MI Power Grid to date and identifies remaining areas of focus for Commission action in the coming months. The February 4, 2021 [order](#) in Case No. U-20645, as modified by an [order](#) issued September 8, 2022, directs Staff to file a final MI Power Grid status report in April 2023. The following report is submitted to fulfill this requirement.

CUSTOMER ENGAGEMENT

Headed by MPSC Commissioner Tremaine Phillips, the customer engagement portion of the MI Power Grid initiative focuses on providing Michigan residents and businesses with the demand-side technologies, programs, and price signals that will allow customers to be more active and effective participants in the transition to cleaner and more distributed energy resources.



Customer Education and Participation

Workgroup Page: [Customer Education and Participation](#)

MPSC Case No. [U-20959](#)

In the energy transition, utility customers will no longer be passive recipients of energy but, rather, will be relied upon to be active, engaged, and dependable participants in their energy use. Appropriate customer access to energy data and customer participation in utility programs including energy waste reduction, demand response, and many others will be critical to the energy transition. Ensuring that this data remains protected will be critically important to facilitating this participation.

On February 18, 2021, the Commission issued an [order](#) in Case No. [U-20959](#) combining the Customer Engagement and Participation and Data Access and Privacy workgroups into one Customer Education and Participation workgroup. Four stakeholder meetings were held, with the first two focusing on customer data access and privacy issues and the last two focusing on customer education and participation.

Data Access and Privacy

The Commission directed that the customer data access and privacy efforts of the workgroup focus on an examination of how third parties propose to utilize energy data and how that information can be accessed by customers and third parties in a way that facilitates the usability of the data; review barriers associated with data access and utilization; explore best practices for facilitating customers' access to, or sharing of, energy data to third parties; discuss how customer privacy and energy

usage information can be protected while providing customers and third parties access to energy data; and to explore the needs of municipalities and academic institutions in accessing energy use data.

More than 60 stakeholders participated in the sessions focused on Data Access and Privacy and heard from experts on issues of data collection, access, barriers, and use cases as well as customer data privacy concerns. A final [report](#) was filed on March 25, 2022, and included several recommendations including that the Commission:

1. Adopt the Fair Information Practice Principles outlined by the Department of Homeland Security.
2. Direct the utilities to file reports outlining the personal data they collect and store, and the primary purposes associated with such data.
3. Adopt a definition of “un-sharable” personal information to ensure that highly sensitive information is available only from the customer at their discretion rather than allowing the utility to make such information available.
4. Adopt data aggregation standards.
5. Order the interoperability of whole building data with the Energy Star Portfolio Manager.
6. Order investor-owned utilities with fully deployed AMI to pilot options for low-income, pre-pay, and senior customers to access customer billing data.

In an [order](#) issued on September 8, 2022, the Commission adopted several of the data access and privacy recommendations including adoption of the Fair Information Practice Principles, adoption of a definition of “un-sharable” personal information, and approval of minimum data aggregation standards.

Consumers Energy and DTE Energy filed petitions for rehearing of the Commission’s order. The petitions of the two utilities were supported by a filing from the Michigan Electric and Gas Association. In an order issued on April 24, 2023, the Commission sought additional input on the concerns raised by Consumers Energy and DTE Energy, as well as additional comments on the Staff’s March 25, 2022 report. The Commission also suspended the initial compliance deadline. Additional action on these petitions is expected by the Commission during summer 2023.

Customer Education and Participation

In the energy transition, the role of customers is, of necessity, moving from one of passive recipients of energy services to active participants in the reliability and resilience of the grid. This active participation should not merely relate to participation in utility programs, however, but should include opportunities to impact and influence program offerings. This requires that customers have an

opportunity to understand and participate in both the development and the review of these programs. This full participation, however, is not without challenges.

The Commission recognized these issues in its 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.”¹

The final report included a number of recommendations related to:



1 Customer engagement in the regulatory process

2 Improving customer participation and education regarding their energy use

3 Customer education

4 Outreach and engagement

5 Additional research, meetings, and study

Many of these recommendations were directed to efforts of Commission Staff in these areas.

In its September 8, 2022, order, the Commission adopted many of the recommendations related to customer education, engagement, and participation and directed Commission Staff to pursue these efforts. Since the issuance of the Commission’s order, Staff have implemented two specific recommendations including expanding the Commission’s presence on social media through the launching of a new MPSC [Facebook](https://mi-psc.force.com/sfc/servlet.shepherd/version/download/068t000000KG3nfAAD) page and the development and launch of the

¹ <https://mi-psc.force.com/sfc/servlet.shepherd/version/download/068t000000KG3nfAAD>

Commission's [Utility Program Portal](#), a "one stop shop" for customers interested in available customer programs offered by their utility.

Demand Response

Workgroup Page: [Demand Response](#)

MPSC Docket No. [U-20628](#)

The Demand Response workgroup was launched by the Commission in a September 11, 2019, [order](#) in Case No. [U-20628](#). The Commission tasked the workgroup with four key objectives:

1. Identify options to improve Load Modifying Resources (LMR) participation and performance when calls for demand response are issued.
2. Maximize the value of demand response resources in wholesale markets.
3. Improve communication with LMRs during times when demand response deployment is necessary.
4. Discuss other issues related to demand response as appropriate to achieve the Commission's overarching goals of reliability and resilience.

To achieve these objectives, the workgroup was directed to review demand response tariffs for consistency and clarity regarding LMR deployment, consider how retail demand response offerings can be better aligned with wholesale markets, examine communication procedures during demand response events, and discuss ways to conduct testing of the communication and response system.

More than 30 stakeholders participated in the workgroup with a [final report](#) being filed on July 31, 2020. The report included several recommendations including:

- Ensuring LMR availability is properly accounted for in MISO's Communication System (MCS) tool.
- Ensuring clarity and consistency in communication processes.
- Increasing demand response provider interaction with the customer.
- Exploring the use of enabling technologies where feasible and cost-effective.
- Directing utilities to explore demand response partnerships for real-time metering, customer readiness, and a centralized platform.
- Requiring an annual documented simulation and encourage real power testing where feasible.
- Formalizing and standardizing the notification procedure and penalties in utility tariffs.

- Ensuring that any necessary tariff changes be made in a general rate case or an ex parte case.
- Enabling demand response value stacking: capacity + energy + ancillary services.

In an October 29, 2020 [order](#), the Commission responded to the workgroup's final report and took several steps including:

- Directing Staff to continue involvement at MISO to ensure that load modifying resource availability is accurately captured by MISO for use in real-time operations.
- Requiring DTE Electric and Consumers Energy to provide an update on communication protocols to ensure clarity and consistency in communication between utilities and customers to improve demand response performance during events and to provide updated 45-day reporting template requirements to assist in determinations about whether demand response resources were performing when called.
- Requesting that parties file comments on demand response aggregation in Case No. [U-20348](#).
- Directing utilities to update demand response tariffs, as necessary, to include testing requirements, outlining whether tests will be real power tests or simulations, as well as tariff updates to formalize and standardize notification procedure and penalties associated with failing to deliver load reduction when called upon.

Since the issuance of the October 2020 order, Staff has continued its involvement at MISO around the availability and accreditation of LMRs. Of note, FERC approved MISO's availability and accreditation changes which have gone into effect beginning with the 2022/2023 planning year. Key among the changes is an expanded availability requirement which demands LMRs be available to be called upon with increased frequency and with shorter notification time in order to receive capacity credit.

Work has continued on demand response aggregation matters and, on December 21, 2022, in Case No. [U-21099](#), the Commission issued an [order](#) lifting the ban on participation in the wholesale markets of regional transmission operators by large, bundled retail commercial and industrial customers and aggregators of those customers for demand response resources. Implementation efforts between Staff, utilities, and aggregators are underway.

Distributed Energy Resources Rate Design

Workgroup Page: [Distributed Energy Resources Rate Design](#)

MPSC Docket No. [U-20960](#)

The Commission [launched](#) the Distributed Energy Resources (DER) Rate Design workgroup on February 4, 2021, in Case No. [U-20960](#) directing the workgroup to explore the ways that customer-owned generation and energy storage are changing the way energy customers use the grid, cost allocation and possible customer charges, and to propose rate design options.

The Commission enlisted the Regulatory Assistance Project (RAP) to provide technical assistance regarding the exploration of DER rate designs. Stakeholders were provided an opportunity to provide feedback on RAP's methodology and draft report. This feedback was evaluated and considered in the [final report](#) which was issued on September 22, 2021 and offered three potential pathways for DER rate design.

Energy Programs and Technology Pilots

Workgroup Page: [Energy Programs and Technology Pilots](#)

MPSC Docket No. [U-20645](#)

Utility companies use pilot projects to test new or experimental ideas. This helps utilities, stakeholders, and the MPSC learn what may work on a larger scale, as well as where improvements could be made to make programs more efficient or effective and to improve utilization. The Commission established the Energy Programs and Technology Pilots workgroup in its October 17, 2019 [order](#) in Case No. [U-20645](#). The workgroup was tasked with 1) engaging with electric utilities and other stakeholders to better understand the outcomes and learnings from past and current pilot projects, 2) investigating pilot program best practices and past MPSC actions on pilot programs, 3) proposing objective criteria for the Commission and Staff to use when evaluating proposed pilot projects, and 4) identifying potential areas for additional pilot project proposals.

Several stakeholder meetings were held involving Staff, dozens of stakeholders, and technical experts from the Lawrence Berkely National Laboratory. A [final report](#) outlining workgroup and Staff recommendations was filed on September 30, 2020. Subsequent Commission Orders on [October 29, 2020](#) and [February 4, 2021](#) directed Staff to develop a Michigan Pilots Directory and adopted recommendations from the final report including the adoption of the recommended definition of "pilot program" and objective criteria for pilot program evaluation.

The standardized definition for pilot programs and objective criteria for pilot program review are being utilized by Staff, the utilities, and stakeholders in

reviewing proposed pilot programs. Additionally, utilities are including information regarding the adopted objective criteria in their pilot program proposals as part of their testimony in rate case filings.

The online [Michigan Pilot Directory](#) was launched on October 11, 2021 providing a searchable database of approved utility pilot programs. Pilots may be searched by utility, customer group (residential, industrial, or commercial), pilot status (on-going, closed etc.), or piloted measure (billing, payment, data, IT, etc.). The directory includes an overview of each pilot program including program goals, applicable case number, costs, and other summary information.

The screenshot displays the 'Michigan Pilot Directory - Pilot Summary' page for the 'Prepay' pilot program. The page is divided into two main columns. The left column, titled 'Pilot Information', contains sections for 'Program Goals' (Achieve energy savings), 'Purpose and Need' (PrePay offered customers a convenient billing and payment option that enhanced their insight into energy use by translating usage into dollars. Payments were made prior to use and reloaded as needed. Customers chose a communication channel to receive notifications on the account balance with an estimated number of days associated with the dollars.), and 'Overview'. The right column, titled 'Prepay', contains sections for 'Utility' (Consumers Energy), 'Utility Contact' (Antonette Noakes, Reg Affairs, toni.noakes@cmsenergy.com), 'MPSC Case No.' (U-15645), 'Reporting Required' (Yes), and 'Piloted Measures' (Rates & Tariffs, Other, Billing/Payment). At the bottom of the page, there are two buttons: 'Return to Overview' and 'View Pilot Details'.

Michigan Pilot Directory - Pilot Summary	
Prepay	
Pilot Information	Overview
Program Goals Achieve energy savings	Utility: Consumers Energy
Purpose and Need PrePay offered customers a convenient billing and payment option that enhanced their insight into energy use by translating usage into dollars. Payments were made prior to use and reloaded as needed. Customers chose a communication channel to receive notifications on the account balance with an estimated number of days associated with the dollars.	Utility Contact: Antonette Noakes, Reg Affairs toni.noakes@cmsenergy.com
	MPSC Case No.: U-15645
	Reporting Required: Yes
	Piloted Measures
	Rates & Tariffs
	Other
	Billing/Payment

[Return to Overview](#) [View Pilot Details](#)

Time Based Pricing

Workgroup Page: [Time Based Pricing](#)

MPSC Docket Nos. [U-20134](#) and [U-18255](#)

In 2018, the Commission ordered Consumers Energy ([U-20134](#)) and DTE Electric ([U-18255](#)) to plan for the transition of standard residential service from an increasing block structure (higher charges for use over a certain total kWh per month) to time-of-use (TOU) rates (higher charges for kWh use during on-peak periods). This pricing strategy matches a higher rate to the time periods when energy is more costly to produce (i.e., summer weekday afternoons), and also could lead to potential bill savings if a customer shifts energy use to a lower cost time period. Because these new TOU rates would be the standard service rate, all residential customers would be transitioned to the TOU rate with the option to “opt out” by choosing an alternative rate for which they qualify.

Consumers Energy conducted a pilot of its new TOU rate to roughly 40,000 customers during the summer of 2019, with full implementation planned for January 2020. The COVID-19 pandemic beginning in early spring of 2020 caused significant uncertainty as to the impact of a new standard rate structure on Consumer's roughly 1.6 million customers. In May 2020, the Commission approved a delay in the implementation of the summer on-peak portion of the TOU rate until the summer of 2021, which Consumers successfully completed in June of that year.

In 2019, DTE received approval to administer a TOU pilot consisting of two rate options starting in April 2020 ([U-20602](#)). However, the COVID-19 pandemic interrupted the pilot and implementation of TOU rates and the Commission granted DTE an extension. DTE conducted its TOU rate pilot in 2021 and submitted a plan for full implementation in its 2022 general rate case ([U-20836](#)). The Commission approved DTE's full implementation of the standard residential TOU rate which began in March 2023.

Commission Staff met with both utilities during their TOU rate pilot and implementation phases to monitor customer communication plans and both expected and actual bill impacts resulting from the new rate structure. Several stakeholders were involved with discussions, recommendations, and ultimate approvals to delay the utilities' implementation of TOU rates due to the COVID-19 pandemic. Customer outreach to communicate the transition to TOU rates was and is conducted largely by Consumers and DTE, who have provided customers with letters, bill inserts, and information on their websites. Numerous announcements and explanations of the new rate structure were disseminated through local news outlets. The Commission's Customer Assistance Division fielded customer inquiries about the TOU rates throughout both Consumers' and DTE's transition to these new rates.

Voluntary Green Pricing Tariffs

Workgroup Page: [Voluntary Green Pricing](#)

MPSC Docket No. [U-18349](#)

[Public Act 342 of 2016](#) directed electric providers to offer customers the opportunity to participate in a voluntary green pricing program through which the customer's energy needs would be served through renewable energy resources.

In 2017, the Commission issued an [order](#) in MPSC Case No. [U-18349](#) seeking comments on the implementation of the Voluntary Green Pricing Programs called for in Public Act 342. The Commission's July 2017 [order](#) established filing guidelines and established program requirements which were elaborated on in subsequent orders.

All rate-regulated utilities have implemented voluntary green pricing programs allowing customers to have some or all of their energy generated by renewable energy resources. These program offerings are reviewed by the Commission every two years with the next cycle of program reviews to commence in 2023.

Information regarding current Green Pricing Programs and links to individual utility dockets can be found on the Commission's [Voluntary Green Pricing](#) page.

INTEGRATING EMERGING TECHNOLOGIES

Led by MPSC Commissioner Katherine Peretick, the integrating emerging technologies portion of the MI Power Grid initiative seeks to ensure timely and fair grid access and appropriate information exchange to support customer-oriented solutions and reliable system operations.



Competitive Procurement

Workgroup Page: [Competitive Procurement](#)

MPSC Docket No. [U-20852](#)

As older electric generation plants retire, new resources will need to be brought online to replace them. Competitively bidding new resources can help to show what options are available, ensure emerging technologies can be considered as part of utility planning and procurement, and result in lower costs for customers. In September 2020, the Commission directed Staff to convene a competitive bidding collaborative to ensure strong, technology-neutral market response and value for ratepayers through transparency, non-discriminatory access, certainty, and fairness in bidding processes for rate-regulated electric utilities. Staff filed a [Competitive Procurement report](#) in MPSC Case No. [U-20852](#) in June 2021 which included draft competitive procurement guidelines. A Commission [order](#) was filed on September 9, 2021, adopting competitive procurement guidelines and directing the Staff to conduct a review of the competitive procurement guidelines on a periodic basis at least every five years.

Distribution System Data Access

Workgroup Page: [Distribution System Data Access](#)

MPSC Docket No. [U-21251](#)

The Distribution System Data Access Workgroup kicked off in July 2022 through an [order](#) in Case No. [U-21251](#) in response to [Michigan Senate Resolution 143](#), which encouraged the MPSC to conduct a statewide grid integration study. The intent behind the grid integration study is “to undertake a study on reliability, interconnection, and related grid integration issues for distributed energy, including the potential growth of distributed energy systems, changes to system design and operations, and system benefits, costs, and other impacts” and to “coordinate with electric utilities and other parties on distribution circuit-level data collection, modeling, and analysis to examine and monitor the capacity for, and constraints to, interconnecting additional distributed energy resources, as well as technology and operation options to mitigate reliability impacts and maximize customer and system benefits.”

The Distribution System Data Access Workgroup has worked closely with a technical assistance team from the National Renewable Energy Laboratory (NREL) to investigate the feasibility of a bi-directional hosting capacity map and explore ways to improve existing capacity maps made publicly available by several electric utilities in Michigan at the request of the Commission. Stakeholder engagement took place in August 2022 with individual follow-up discussions taking place between Staff and representatives of DTE Electric, Consumers Energy, and Indiana Michigan Power Company. Insights from these discussions led to a subsequent November 2022 stakeholder conversation on hosting capacity which allowed for an open dialogue between utility companies, NREL and developers on topics such as:

- The value of hosting capacity maps for ratepayers and developers
- Granularity of data
- Data refresh rates
- Temporal data
- Exportability/usability of data
- The need for integration of hosting capacity and load capacity maps
- Additional data and information needs

The next step for the Distribution System Data Access Workgroup is to develop the grid integration study outlined in Senate Resolution 143 with a target deadline of June 30, 2023. A preliminary report is expected to be filed by May 1, 2023, and the

Commission has provided an opportunity for public and stakeholder feedback on the preliminary report to inform the final study.

Interconnection Standards and Worker Safety

Workgroup Page: [Interconnection Standards and Worker Safety](#)

MPSC Docket Nos. [U-20344](#) and [U-20890](#)

In 2018, the Commission began the process of updating its existing Electric Interconnection and Net Metering Standards by issuing an [order](#) in Case No. [U-20344](#) which established a stakeholder process to explore promulgating new rules for third-party and customer-owned resources' interconnection with the electric distribution grid. This workgroup began prior to the launch of the MI Power Grid initiative. Once MI Power Grid commenced, the existing effort was incorporated into the Interconnection Standards and Worker Safety Workgroup. The Commission also directed the stakeholder workgroup to consider promulgating rules for distributed generation and to define "legally enforceable obligation" under the Public Utility Regulatory Policies Act of 1978.

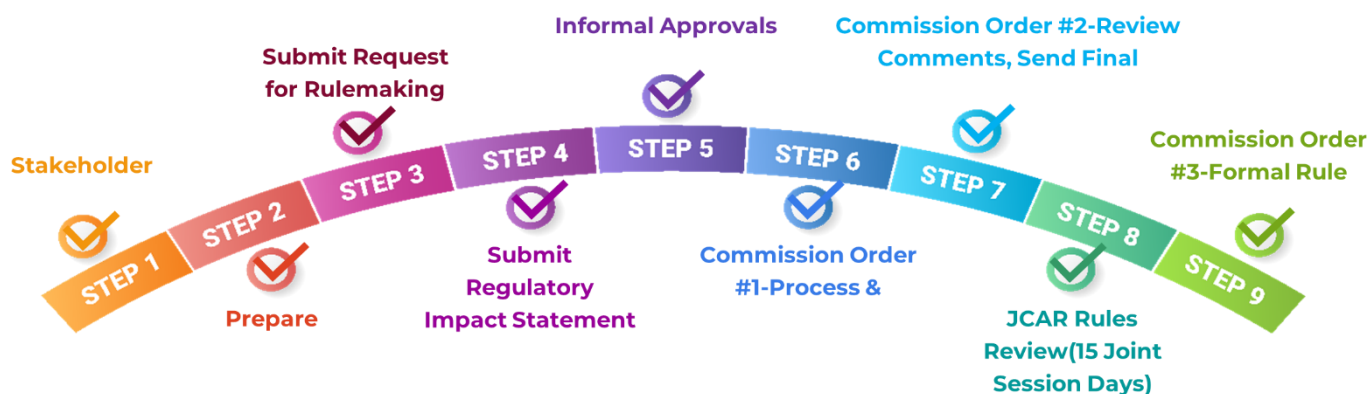
A draft set of interconnection rules was developed by the MPSC Staff with stakeholder input which included a pre-application report, a fast-track screening process to streamline the utility's study process for small- and medium-sized interconnection projects, and informal and formal mediation processes. The draft rules also included a batch study process to allow a utility to study multiple interconnection applications as a group, rather than sequentially, which would allow for more timely processing of applications and opportunities for project developers to potentially share distribution upgrade and interconnection facilities costs.

The draft rules were submitted to the appropriate state agencies for review and approval to initiate the formal rulemaking process on October 28, 2020. Approvals were granted on July 9, 2021. On September 9, 2021, the Commission issued an [order](#) in Case No. [U-20890](#) opening a new docket to address the rulemaking and commence a formal comment period. A public hearing was held on October 20, 2021, with written comments due on November 1, 2021.

Subsequent to Commission review of the comments, on March 17, 2022, the Commission issued an [order](#) responding to the comments and approving a revised version of the rules for final adoption. On April 14, 2022, Consumers Energy and DTE Electric filed a joint petition for rehearing on the rules and four parties filed answers to the petition. The Commission issued an [order](#) granting rehearing on May 12, 2022, and on May 26, 2022, the Commission [commenced](#) a second formal comment period. A public hearing was held on June 22, 2022, and comments were received by

the due date on June 27, 2022. On October 5, 2022, the Commission issued an [order](#) responding to the second set of comments and formally adopted the revised rules.

The rules were approved by both the Michigan Office of Administrative Hearings and Rules and the Legislative Service Bureau on February 3, 2023. Following the expiration of the requisite number of joint session days for the Michigan Legislature's Joint Committee on Administrative Rules to act on the proposed rules, the Commission issued an order on April 24, 2023, formally adopting the revised rules and directed that they be transmitted to the Secretary of State. The rules become effective upon filing with the Secretary of State.



In addition, in a September 9, 2021 [order](#) issued in Case No. [U-21117](#), the Commission established a stakeholder process to work on draft interconnection procedures that will need to be adopted by each utility once the new interconnection rules take effect. The Interconnection Standards and Worker Safety Workgroup met on April 14, 2022, to provide the electric utilities an opportunity to present the key aspects of the draft interconnection procedures. Due to the Commission providing a second comment period on the rules and the potential for revisions to the rules, further work on the interconnection procedures was suspended. However, pursuant to R 460.920 of the proposed rules, electric utilities will file applications for approval of interconnection procedures and forms within 120 calendar days of the effective date of the rules. During this 120-day time period, after the rules become effective, the workgroup is expected to meet again to allow for discussion and stakeholder input on the interconnection procedures. R 460.920 provides for the Commission to issue an order approving, rejecting, or modifying an electric utility's proposed interconnection procedures and forms within 360 calendar days of the filing.

New Technologies and Business Models

Workgroup Page: [New Technologies and Business Models](#)

MPSC Docket No. [U-20898](#)

In its October 29, 2020, [order](#) in Case No. [U-20898](#), the Commission launched the New Technologies and Business Models Workgroup. The Commission envisioned that the workgroup would create a shared understanding of different distributed energy resource (DER) technologies and their potential applications, and to identify barriers and potential solutions, especially focused on regulatory barriers and solutions, for Commission consideration. The Commission directed Staff to focus on several technologies including microgrids, electric vehicles, energy storage, distributed energy generation (behind-the-meter solar, community solar, and combined heat and power), and space and water heating using heat pumps.

Multiple stakeholder meetings were held in the first half of 2021. Staff synthesized the information and guidance from these workgroup activities to make its recommendations in its [revised final report](#) filed to the docket in U-20898.

In the July 27, 2022, [order](#) in Case No. U-20898, the Commission ordered Consumers Energy Company, DTE Electric Company, Indiana Michigan Power Company, Upper Peninsula Power Company, Alpena Power Company, Northern States Power Company, and Upper Michigan Energy Resources Corporation to file proposed Michigan-specific uniform benefit cost analysis requirements, including a proposed societal cost test, that could be used in multiple types of dockets including pilot proposals, distribution plans, and rate cases, no later than September 1, 2022. The proposed benefit cost analysis was to be informed by the provisions of the National Standard Practice Manual, tailored to Michigan's regulatory structure and requirements. The deadline was later [extended](#) to February 1, 2023. Consumers Energy and DTE Electric Company filed a joint benefit cost analysis proposal, which was largely supported by Indiana Michigan Power Company and the other smaller utilities through the Michigan Electric and Gas Association. In an order issued April 24, 2023, the Commission provided an opportunity for other stakeholders to provide feedback on the proposed benefit cost analysis proposal and to clarify some of the other issues raised by the proposal and comments from Indiana Michigan Power Company and the Michigan Electric and Gas Association.

The Commission had also previously requested comments from any individuals on the following:

- Staff's proposed Expedited Pilot Review for Innovative Pilots.
- Whether third-party community solar fits in the current regulatory framework.

- The legal and regulatory barriers for a third party to sign customers up, charge a per kWh subscription fee, and pay a per kWh subscription credit outside of the utility framework.
- The current legal and regulatory structure for utilities to own solar generation behind the customer's meter.
- Legal prohibitions preventing a utility from owning and rate-basing technologies located behind the customer's meter.
- The risk or liability associated with putting batteries behind the customer meter.
- The potential role for performance-based metrics around the development of alternative business models relating to DERs in terms of interconnection and utilization.
- The pros and cons of both utility and non-utility ownership and development of microgrids connected with alternative business models.
- The potential role for pilots that would be comparable to utility pilots or tariffs but would be offered by a third party.
- Whether utilities should be able to own solar generation and batteries behind the customer's meter.

The Commission, in its January 19, 2023, [order](#) in Case No. [U-20898](#), summarized the comments received in response to the questions on alternative business models. It requested comment on an additional four questions centered on the legal framework for DERs and community solar. In February 2023, comments were received on Staff's proposed Expedited Pilot Review for Innovative Pilots and regarding the questions pertaining to alternative business models raised by the Commission. In addition, two proposals regarding Michigan-specific benefit cost analysis requirements were received from DTE, Consumers Energy, and I&M. In a February 23, 2023, [order](#), the Commission approved an expedited, 90-day process for review of proposed utility pilot programs, outlining eligibility criteria and program cost caps, expectations regarding development of work plans, and expectations around stakeholder engagement, with the intention of reducing implementation delays caused by contention and complexity when pilots are proposed in rate cases.

OPTIMIZING GRID INVESTMENT AND PERFORMANCE

Guided by Chair Dan Scripps, the optimizing grid investments and performance portion of the MI Power Grid initiative is aimed at integrating transmission, distribution, and resource planning to increase transparency and optimize solutions, as well as the enhancement of tools, financial incentives, and regulatory approaches to adapt to technology change and customer preferences.



Grid Security and Reliability Standards

Workgroup Page: [Grid Security and Reliability Standards](#)

MPSC Docket Nos. [U-20629](#) and [U-20630](#)

The MPSC and the public expect utility companies to meet certain levels of performance related to service quality, reliability, worker safety, and physical and cyber security. MPSC rules outline these requirements, and it is necessary to review and update the rules to ensure utilities are held to appropriate standards. The Grid Security and Reliability Standards Workgroup was tasked with that undertaking and kicked off in late 2019. A series of inclusive stakeholder meetings, as well as subgroup meetings, were held from December 2019 to March 2020 to identify and discuss issues concerning the existing [Service Quality and Reliability Standards for Electric Distribution Systems](#) and [Technical Standards for Electric Service](#) rulesets and craft proposed revisions. Staff filed its initial report on July 31, 2020, and a subsequent final report was filed on December 15, 2020.

The two rulesets were updated concurrently, and the Commission issued several orders as part of the rulemaking process. The first Commission orders formally initiating the rulemaking process and scheduling public hearings were issued on November 4, 2021. The second set of orders, issued on March 17, 2022, summarized the public comments received and sent the rule sets to the Michigan Office of Administrative Hearings and Rules (MOAHR), the Legislative Service Bureau (LSB), and the legislature's Joint Committee on Administrative Rules (JCAR). The Service Quality and Technical Standards rulesets completed the JCAR review process in March of 2023 and were formally adopted by the Commission at its [March 24, 2023](#) Commission meeting.

Among other significant changes, the updated rulesets

- increase penalties for failure to restore service to customers within established timeframes following an outage;

- decrease the timeframe within which utilities must relieve first responders guarding downed wires;
- adjust required reporting relating to frequent, sustained outages;
- increase the percentage of customer meters that must have an actual read during the billing period; and
- establish new annual reporting metrics related to reliability.

The changes in penalties for outages were significant and are summarized in the table below.

Outage Credits				
Duration of Outage				
Condition Type	Old Rules		Revised Rules	
	Customer Outage Length	Credit Amount	Customer Outage Length	Credit Amount
Normal	16 hrs	\$25	16 hrs	\$35, plus \$35 for each additional day AUTOMATIC
Gray Sky			48 hrs	
Catastrophic	120 hrs	\$25	96 hrs	

Outage Credits for Repetitive Interruptions				
	Current Rules		Revised Rules	
All Areas	8+ interruptions in 12 months	\$25	6+ interruptions in 12 months	\$35 AUTOMATIC

Advanced Planning Phase I: Electric Distribution Planning

Workgroup page: [Advanced Planning Phase I](#)

MPSC Docket No. [U-20147](#)

Electric distribution system investment plans are submitted by utility companies to assist the Commission, MPSC Staff, and stakeholders in better understanding the utility's distribution system spending plans over a longer-term horizon than the one-year outlook afforded by utility rate cases. This is especially important at a time when the reliability, resilience, and safety of the electric grid is under increasing strain due to aging infrastructure, more frequent and intense extreme weather, and the

potential for increased reliance on the grid with the electrification of transportation, heating, and other applications on the horizon.

Building on the first round of distribution plans filed in 2018, and responding to the second round of plans filed in 2021, the Commission issued guidance in a September 8, 2022 order in Case No. [U-20147](#) related to its expectations for the next round of electric distribution plans, including requirements related to tracking and measuring utility reliability performance on a more granular basis, proposals for strategic pilots related to moving overhead lines underground, better integration of utility data overlaid with the MiEJscreen environmental justice screening tool, and expectations around utilization of mapping to better convey reliability data, hosting capacity, and loading on utility distribution grids. The Commission also noted its interest in better proposals related to performance-based ratemaking, including the use of financial incentives and disincentives.

DTE Electric, Consumers Energy, and Indiana Michigan Power are expected to file updated distribution system plans in September 2023, and several additional utilities (Northern States Power, Alpena, and UPPCO) have agreed to develop and file distribution plans as part of recently approved rate case settlements.

Advanced Planning Phase II: Integration of Resource/Distribution/Transmission Planning

Workgroup Page: [Advanced Planning Phase II](#)

MPSC Docket No. [U-20633](#)

Utility companies and stakeholders engage in separate processes to determine what upgrades to make to the electric resource mix, transmission system, and distribution system. Decisions made in each of these processes impact customer costs. Better integrating these processes, with the goal of evaluating alternatives that provide the best value, will result in a more efficient system and lower costs for customers. The Advanced Planning workgroups aim to assist in doing just that.

The work of the MI Power Grid Advanced Planning Phase II: Integration of Resource/Distribution/Transmission Planning Workgroup launched in 2020 in Case No. [U-20633](#). The August 20, 2020, [order](#) directed Commission Staff to work with interested stakeholders and utilities to discuss ways to align integrated resource planning (IRP) and distribution planning, coordinate with the Department of Environment, Great Lakes, and Energy (EGLE) on the inclusion of public health and environmental justice considerations in future IRP cases, and file a report of findings and recommendations to the docket. Then, in an October 29, 2020, [order](#) in response to Governor Whitmer's [Executive Directive 2020-10](#) and [Executive Order 2020-182](#), the Commission directed Staff to work with the stakeholder group to determine

how to update IRP planning parameters and filing requirements to take into account the goals set by Michigan's utilities and how these goals align with the greenhouse gas emissions targets set by Governor Whitmer, and to file a subsequent report with Staff recommendations. Over the next six months, Staff with the assistance of stakeholders, developed the [Integration of Resource, Distribution, and Transmission Planning Report](#).

In an [order](#) issued on September 24, 2021, the Commission recognized the work done by the workgroup in the key areas of resilience, forecasting, transmission planning, generation diversity, and alignment of distribution, transmission, and resource planning. The order recognized that the MI Healthy Climate Plan became a topic for the workgroup's consideration with the Governor's Executive Directive 2020-10 and Executive Order 2020-182. The Commission's order adopted the recommendations of the workgroup and directed Staff to create a redline version of the Michigan Integrated Resource Planning Parameters for review by stakeholders in the MI Power Grid Advanced Planning Phase III process.

Advanced Planning Phase III: Integrated Resource Plan (MIRPP, Filing Requirements, Demand Response Study, Energy Waste Reduction Study)

Workgroup Page: [Advanced Planning Phase III](#)

MPSC Docket Nos. [U-18461](#) and [U-21219](#)

MI Power Grid Advanced Planning Phase III built upon the discussions and work of the Advanced Planning Phase II workgroup to develop an updated draft Michigan Integrated Resource Planning Parameters (MIRPP) document for regulated utilities filing IRPs, and Integrated Resource Plan Filing Requirements pursuant to [MCL 460.6t](#). Staff developed a preliminary draft that was reflective of the work of Advanced Planning Phase II. The drafts were provided to stakeholders for review and feedback throughout the Phase III process.

The Phase III process consisted of five stakeholder meetings focused on the modeling parameters and IRP filing requirements. Staff solicited feedback as part of each meeting which was then considered for inclusion in the final draft MIRPP. In addition, and in response to Governor Whitmer's Executive Directive 2020-10, Staff partnered with EGLE for two additional meetings focused on environmental considerations in IRPs and environmental justice topics. These two meetings expanded upon environmental considerations that EGLE and Staff developed with utilities filing IRPs in 2021 and 2022 to provide for modeling and metrics to assess environmental justice impacts of IRPs on historically underserved communities.

As a result of the Stakeholder meetings, Staff filed updated draft Michigan Integrated Resource Planning Parameters in Case No. [U-21219](#) and updated draft Integrated Resource Plan Filing Requirements in Case No. [U-18461](#). The Commission issued an order on July 7, 2022, in both cases inviting interested parties to attend public hearings and file comments related to their opinions and concerns on the matter.

Following the opportunity for public comment, the Commission [approved](#) the final Michigan Integrated Resource Planning Parameters in Case No. U-21219 and the [updated Integrated Resource Plan Filing Requirements](#) in Case No. U-18461 on October 27, 2022. The approved MIRPP and Filing Requirements are in effect for all utilities filing an IRP after November 21, 2022.

Financial Incentives/Disincentives

Workgroup Page: [Financial Incentives/Disincentives](#)

MPSC Docket No. [U-21400](#)

Utility companies profit by earning a return on investments in new infrastructure, like power plants, poles, and wires. Pursuing alternatives to utility-owned infrastructure, such as power purchase agreements, reducing customer energy use through efficiency measures, or shifting energy use to times when electricity costs less to produce, may result in cost savings. Financial incentives provide an ability for utilities and customers to share in these savings. Alternatively, financial disincentives create a mechanism through which failure to achieve specific performance metrics can be penalized.

The MPSC has approved targeted financial incentives for the use of power purchase agreements in integrated resource plan and voluntary green pricing case and for achieving energy waste reduction and demand response targets. The Commission has also indicated an openness to adoption of an investment recovery mechanism related to electric distribution system capital investments in future electric rate cases.

On April 24, 2023, the Commission issued an [order](#) initiating a financial incentives and disincentives workgroup, with an initial focus on improving the reliability and resilience of the electric distribution grid. The Financial Incentives/Disincentives workgroup is expected to explore these issues in greater detail with an emphasis on exploring past performance of these incentives and disincentives and potential future applications. As part of the April 24 order initiating this workgroup, Commission Staff was directed to file a report outlining the workgroup's activities no later than December 31, 2023.

CONCLUSION

After kicking off the initiative over three years ago, MI Power Grid continues to deliver on its goal to maximize the benefits of the transition to clean, distributed energy resources for Michigan residents and businesses. The Commission has implemented new rules on performance and quality of service of the electric distribution grid, as well as a more streamlined process to interconnect distributed energy resources like solar and storage. MPSC distribution grid and resource planning processes have been updated with a focus on how to better integrate storage, demand response, and other distributed resources, while updates to standards around competitive procurement of resources are intended to provide a level playing field for cleaner resources and third-party developers. Also, expanded customer options, including time-of-day rates in both Consumers Energy and DTE Electric service territories, expanded access to green pricing programs, and improved customer access to energy usage data have been enabled.

There is still more to do. The Commission expects to take efforts to initiate more focused action around performance-based ratemaking through the Financial Incentives and Disincentives workgroup. Identification of data needs related to hosting capacity maps will occur through the grid integration study to be completed as part of the Distribution System Data Access workgroup. Further effort to define Michigan-specific Benefit-Cost Analysis tests to better evaluate grid investments will continue work that has begun in both the Distribution Planning and New Technologies and Business Models workgroups.

While the formal MI Power Grid initiative may be coming to a close, the methods that have been utilized have sharpened the Commission's approach to its work and will continue to be relied upon in years to come. Identifying specific topic areas for exploration, working with stakeholders to understand options to address these areas, and presenting recommendations or proposed solutions to complex problems for Commission action is a model that has worked well and has allowed for significant progress in preparing for the challenges of a changing energy landscape. The Commission Staff appreciates the leadership of the Commission and Governor Whitmer in initiating MI Power Grid, commends the efforts of stakeholders and Staff in lending their time and expertise to the various areas of focus within MI Power Grid, and looks forward to ongoing collaboration as we continue to address the challenges and opportunities of the energy transition.

2019 – 2023

Rulemakings, workgroups, collaboration on areas of focus.

