



Making the Most of Michigan's Energy Future

Status Report

September 30, 2021



MPSC

Michigan Public Service Commission

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Executive Summary

Launched in October of 2019, the MI Power Grid initiative is a 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 focuses 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.

An initial Status Report was issued on October 15, 2020, which detailed the work of the Commission and Staff during the first year of the initiative. In the second year of the initiative, the Commission has engaged with more than 240 stakeholder organizations addressing issues related to the better integration of resource, transmission, and distribution planning; drafting new competitive procurement guidelines for regulated utilities; identifying barriers and opportunities for integrating new technologies and business models within the regulatory framework; investigating rate design opportunities for distributed energy resources; and opportunities for better engaging customers in their energy use and with the MPSC. The efforts of MPSC Staff and stakeholders over the last year are reviewed in more detail in this year two Status Report.

The Commission looks forward to addressing several remaining issues related to the energy transition during the final year of the MI Power Grid Initiative. A final report detailing the results and accomplishments of the initiative is expected by October 1, 2022.

MI POWER GRID

10/17/2019 Initiative Begins

10

Workgroups



57

Stakeholder Meetings



05

Reports Issued



> 350

Stakeholders



09/30/2021 Status Report Issued

Introduction

MI Power Grid is a focused, multi-year stakeholder initiative supported by Governor 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. MI Power Grid was launched in Case No. [U-20645](#) on October 17, 2019, and was 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, 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.

The first MI Power Grid [Status Report](#), released October 15, 2020, provided an update on MI Power Grid activities from the kick-off of the initiative through the third quarter of 2020. Since the release of the 2020 status report, several trends have reinforced the timeliness of this effort, including:

- Increased effects of extreme weather due to the impacts of a changing climate, both nationally and in Michigan, where a series of storms in August 2021 left over a million customers in the state without power, many for up to a week;
- Renewed interest in infrastructure hardening and resilience at the state and federal levels;
- Ongoing shifts in usage patterns in response to the COVID-19 pandemic, with many customers spending more time working and learning from home;
- Continuing concerns over the impact of the transition of our systems of energy production and delivery on low-income and marginalized customer groups;
- Continued technological innovation, including high-profile announcements like the backup home energy storage capabilities of the Ford F-150 Lightning; and
- Evolution of market frameworks at the regional level, especially in relation to the aggregation of distributed energy resources, and potential implications resulting from the interaction between state-regulated retail markets and federally-regulated wholesale markets.

The work of MI Power Grid continues to be essential to the Commission's preparedness to meet the challenges of the energy transition. Over the past year, the **Advanced Planning** work area identified opportunities to better integrate resource, transmission, and distribution planning processes, while at the same time considering opportunities to better account for the impacts of a changing climate within these processes. The **Competitive Procurement** workgroup engaged stakeholders in a process to draft guidance for utilities in procuring new resources, with an emphasis on technology neutral and transparent, non-discriminatory access for bidders in order to achieve the best value for ratepayers. The work of the **New Technologies and Business Models** effort sought to identify barriers to and opportunities for emerging technologies and business models within the regulatory framework. As additional distributed energy resources (DER) are added to the system, the **DER Rate Design Study** will provide policymakers and Commission stakeholders with a range of options to consider to ensure the appropriate valuation of the contributions of DER to energy systems while also ensuring equitable cost recovery by utilities. And, at a time when customers are increasingly being relied upon to support the energy transition through demand-side resources like energy waste reduction, demand response, and DER, the work of the **Customer Education and Participation** workgroup will help to identify best practices around customer access to data to inform energy decision-making, while understanding ways that the Commission's processes can be made more accessible and better utilized by the public.

Since the initial status report was released, there have been an additional 30 MI Power Grid stakeholder meetings with participation from some 246 stakeholder organizations, 103 listserv messages informing stakeholders of MI Power Grid activities, and 17 Commission orders in 10 MI Power Grid-related dockets. The Commission's February 4, 2021 [order](#) in Case No. U-20645 provides that "The Commission Staff shall file in this docket a second MI Power Grid status report in the third quarter of 2021." The following report is submitted to fulfill this requirement.

Phase I Activities

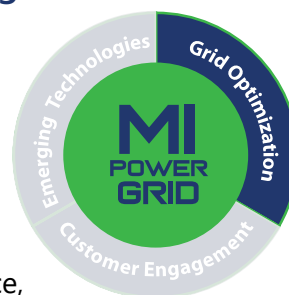
MI Power Grid Phase I activities are those that were in progress or initiated around the time MI Power Grid kicked off in October 2019. Detailed information about activity from MI Power Grid's inception through September of 2020 is available in the initial MI Power Grid [Status Report](#). This section provides an update on activities that have occurred since that time.

Advanced Planning Phase I: Electric Distribution Planning

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

MPSC Case 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 in 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. The docket in Case No. U-20147 houses the first round of distribution plans submitted by DTE Electric Co., Consumers Energy Co., and Indiana Michigan Power Co., as well as prior Commission orders and Staff reports responding to these submissions.



Submission of the Second Round of Electric Distribution Plans from DTE Electric, Consumers Energy, and Indiana Michigan Power

In the Commission's August 20, 2020, [order](#) in Case No. U-20147, DTE Electric, Consumers Energy, and Indiana Michigan Power were directed to file their second round of electric distribution plans. The filing date for draft plans was August 1, 2021, with final plans due September 30, 2021.

In an effort to align its electric distribution plan with the due date for its integrated resource plan (IRP) filing, Consumers Energy filed its draft distribution plan on April 30, 2021, with the [final plan](#) being submitted on June 30, 2021. Indiana Michigan Power filed its [draft plan](#) on July 30, 2021, and [DTE Electric's draft plan](#) was filed on August 2, 2021.

Staff and stakeholders are currently in the process of reviewing the filed distribution plans. Comments on the plans can be filed in the U-20147 docket. Following the DTE Electric and Indiana Michigan Power final distribution plan filings on September 30, 2021, additional stakeholder, Staff, and Commissioner review is expected.

Key areas of guidance outlined in the Commission's August 20, 2020 order include:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Safety and Reliability Provisions | <input checked="" type="checkbox"/> Hosting Capacity analysis |
| <input checked="" type="checkbox"/> Electric Grid Resilience | <input checked="" type="checkbox"/> Non-Wires Alternatives |
| <input checked="" type="checkbox"/> Utility "Vision" with the Filed Plans | <input checked="" type="checkbox"/> The Role of Pilot Programs |
| <input checked="" type="checkbox"/> Alignment of Electric Distribution Plans with Integrated Resource Plans | <input checked="" type="checkbox"/> Continued Discussions Regarding Benefit Cost Analysis |
| <input checked="" type="checkbox"/> Alternative Regulatory Approaches, Including Performance Based Regulation Proposals | <input checked="" type="checkbox"/> The Role of Energy Waste Reduction with Distribution Planning |

Continued Exploration into Benefit Cost Analysis (BCA) for Distribution Investment

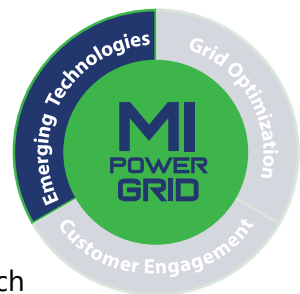
In the Commission's August 20, 2020, order in Case No. U-20147, utilities were also encouraged to continue to explore best BCA practices and include information in their forthcoming 2021 electric distribution plans relevant to the benefits and costs of their distribution investments. MPSC Staff have continued to engage with national subject matter experts on BCA, including the Lawrence Berkeley National Laboratory, the Regulatory Assistance Project, Synapse Energy Economics, Advanced Energy Economy, and E4TheFuture. Staff is currently planning a reconvened stakeholder workshop in the Fall/Winter of 2021 featuring subject matter experts discussing best BCA practices utilized elsewhere in the United States and a recap on the "[National Standards Practice Manual: For Benefit Cost Analysis of Distributed Energy Resources](#)".

Interconnection Standards and Worker Safety

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

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

Electric interconnection standards provide the rules and timelines by which third-party and customer-owned resources are able to interconnect with the electric distribution grid. 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 interconnection.¹ This workgroup began prior to the onset of MI Power Grid. Once MI Power Grid commenced, the existing effort was incorporated into the Interconnection Standards and Worker Safety



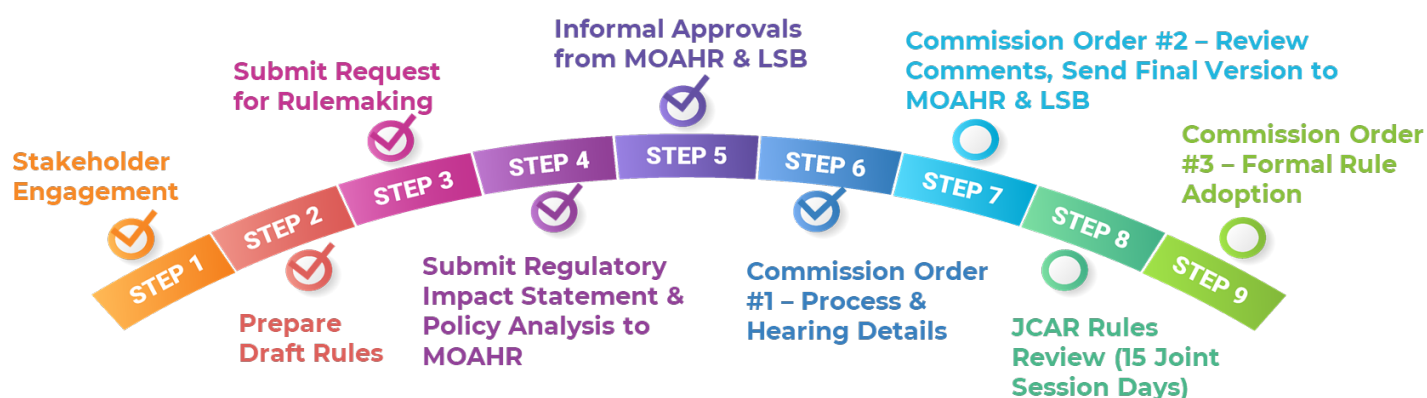
¹ The Commission also directed the stakeholder workgroup to consider promulgating rules for distributed generation and defining a legally enforceable obligation under the Public Utility Regulatory Policies Act of 1978.

stakeholder workgroup as part of the Integrating Emerging Technologies area of emphasis. The workgroup met ten times between December 2018 and March 2020.

The [draft set of interconnection rules](#) developed by the MPSC Staff with stakeholder input include 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 include 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.² A public hearing will be held on October 20, 2021, in person and via video/teleconference, and written comments may be submitted until 5:00 p.m. on November 1, 2021. The Commission will then review comments and issue an order adopting the rules, with appropriate modifications in response to public comment. After review by the Michigan Legislature's Joint Committee on Administrative Rules, final rules will be submitted to the Office of Great Seal and take effect.

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. Stakeholder efforts will commence in the first half of 2022.



² The Commission decided to address legally enforceable obligation matters separately and opened new dockets for that purpose.

Demand Response

Workgroup Page: [Demand Response](#)

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

In response to recommendations included in the Statewide Energy Assessment related to the performance of load modifying resources and demand response during the 2019 Polar Vortex extreme weather event, the Commission issued an [order](#) in Case No. U-20628 on September 11, 2019, that directed MPSC Staff to convene a workgroup of utilities, regional transmission organizations, demand response providers, consumer advocates, and other interested stakeholders to review and discuss potential improvements to utility demand response tariffs, customer communications, and coordination with wholesale markets in order to ensure that anticipated demand response resources will materialize when called upon.



MPSC Staff facilitated a series of workgroup meetings in early 2020 and filed a [Final Report](#) on July 31, 2020 summarizing the workgroup activities and making recommendations for the Commission. Workgroup topic areas included: demand response tariff consistency, deployment, alignment with wholesale markets, event communication, and testing. The MPSC Staff report and other workgroup materials are available on the [workgroup webpage](#).

The Commission issued an [order](#) on October 29, 2020, in Case No. U-20628 adopting several recommendations from the Staff report. The order included direction on Staff collaboration with the Midcontinent Independent System Operator (MISO) on demand response issues; updated communication protocols for demand response events; updated demand response reporting requirements and templates (annual and 45-day reports) for utilities; and tariff revisions on testing, notification, and penalties. Implementation of the directives in this order is ongoing. Consumers Energy Co., DTE Electric Co., Indiana Michigan Power Co., and the Upper Michigan Energy Resources Corporation filed updated tariffs.

Utility	Case Number
Consumers Energy Company	U-21038
DTE Electric Company	U-21042
Indiana Michigan Power Company	U-21036
Upper Michigan Energy Resources Corporation	U-21037

In light of [FERC Order 2222](#), which is intended to open wholesale markets to distributed resources by allowing access to aggregated DERs, including demand response, the Commission's October 29, 2020, order in Case No. U-20628 also reopened Case No. [U-20348](#) for comments on demand

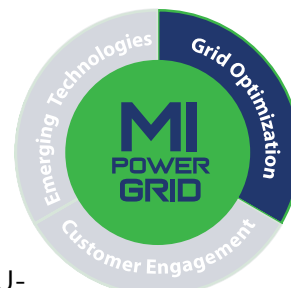
response aggregation. Comments and Reply Comments were received in late 2020 from MPSC Staff, utilities, and other demand response stakeholders.

Grid Security and Reliability Standards

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

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

The Grid Security and Reliability Standards workgroup was formed upon the creation of MI Power Grid, merging nascent efforts launched in response to recommendations in the Statewide Energy Assessment. On September 11, 2019, the Commission opened dockets U-20629 (Service Quality and Reliability Standards for Electric Distribution Systems) and U-20630 (Technical Standards for Electric Service) directing Staff to lead workgroup efforts charged with recommending revisions to each ruleset. A series of in-person and virtual stakeholder 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. Stakeholder meeting dates and details can be found on the [Grid Security and Reliability Standards webpage](#). In conjunction with the stakeholder meetings, subgroup meetings involving subject matter experts and other interested parties were held to address specific issue areas - definitions and reporting standards, wire down relief, metering, Rule 411, and cybersecurity. Multiple stakeholders participated in workgroup and subgroup meetings including utilities, members of the Michigan Legislature, fire departments, non-profits, and technical experts who provided valuable input into Staff's recommendations. A subsequent [order](#) issued April 15, 2020, reset deadlines for Staff's initial reports and final reports to July 31, 2020, and December 15, 2020, respectively. Staff submitted the initial reports³ in their respective dockets as ordered and initiated a comment period to solicit stakeholder feedback on the reports.



After consideration of all stakeholder comments received during the comment period, Staff submitted final reports⁴ in the respective dockets on December 15, 2020. The reports in Case Nos. U-20629 and U-20630 were each supplemented with an Appendix A that identified the specific rule changes recommended by Staff as an outcome of the workgroup process.

³ [Initial Staff Report](#) in U-20629; [Initial Staff Report](#) in U-20630

⁴ Final Staff Report in [U-20629](#); Final Staff Report in [U-20630](#)

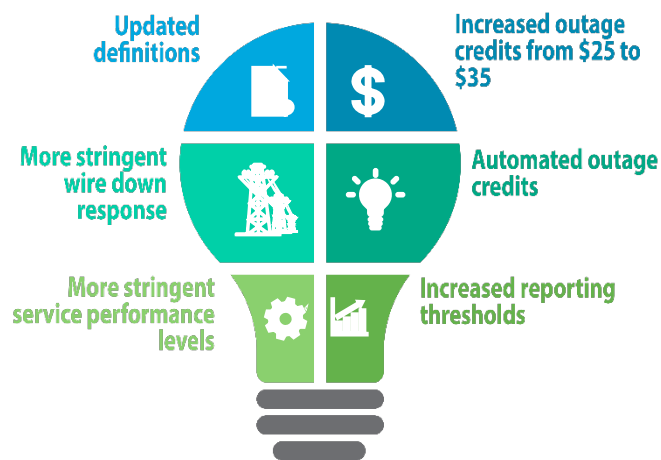
Technical Standards for Electric Service



Staff-led workgroup efforts have been responsive to the Commission's orders to date. Since the completion of the final reports, Staff in the Commission's Energy Operations Division and attorneys in the Regulatory Affairs Division have been working closely to prepare the draft rulesets for the formal rulemaking process, which will ultimately involve three separate rulesets – Service Quality and Reliability Standards for Electric Distribution Systems, Technical Standards for Electric Service, and Consumer Standards and Billing Practices for Electric and Natural Gas Service.⁵

The need for updated Service Quality Rules and Technical Standards has been underscored by the performance of utility distribution systems during the summer 2021 storm season, which has affected customers throughout the state with frequent and often long-duration outages, leading to mounting frustration. On August 20, 2021, Governor Whitmer called on the MPSC to expedite the rulemaking process to update Service Quality Rules and Technical Standards for Electric Service. The MPSC submitted requests for rulemaking to MOAHR on August 25, 2021, and intends to issue orders commencing the formal rulemaking process for each ruleset as soon as practicable upon receiving the necessary approvals to proceed.

Service Quality and Reliability Standards for Electric Distribution Systems



⁵ Customer Standards and Billing Practices for Electric and Natural Gas Service have been included in response to the recommendation to transfer portions of the Service Quality and Reliability Standards for Electric Distribution Systems and Technical Standards for Electric Service to the ruleset as outlined in Staff's Final Reports.

Energy Programs and Technology Pilots

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

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

The Energy Programs and Technology Pilots workgroup, initiated in Case No. U-20645, was directed to (1) engage with utilities and stakeholders to understand existing pilot outcomes and apply lessons learned and identify potential pilot areas, (2) investigate past Commission-approved pilots, and (3) identify pilot program best practices utilized in other states to propose objective criteria for evaluation of proposed utility pilot projects in Michigan. The stakeholder process began on February 27, 2020. A total of seven stakeholder meetings were conducted. On September 30, 2020, MPSC Staff submitted a [report](#) on the workgroup stakeholder process and learnings. Staff also made recommendations regarding pilots that included:



- Establishing and promoting detailed foundational goals underpinning future energy pilots;
- Adopting a definition for “pilot” in Michigan;
- Defining objective criteria for evaluating pilot proposals for funding approval;
- Development of a streamlined pilot review process with cost recovery clarity; and
- Development of an online Michigan pilot directory to facilitate information sharing.

In the October 29, 2020, [order](#) in Case No. U-20645, the Commission clarified its goals and vision for future pilot proposals, and requested comments from stakeholders on Staff’s proposed definition of “pilot” and proposed objective criteria for pilot review. Future pilots should strive to help integrate new clean energy technologies and optimize grid investments for reliable, affordable electricity service. In addition, these pilots should help ensure safe, reliable, and accessible energy services at reasonable rates. The Commission did not adopt Staff’s recommendation to develop a streamlined pilot review process, finding that there are already numerous avenues for pilot program proposals and review. However, the Commission indicated openness to future recommendations related to potential new procedures for pilot program proposals and review. Lastly, the Commission adopted Staff’s recommendation to establish an online Michigan Pilot Directory to increase transparency and information sharing.

In the February 4, 2021, [order](#) in Case No. U-20645, the Commission reviewed stakeholder comments on Staff’s proposed pilot definition and objective criteria. The Commission adopted a revised definition of “pilot” and objective criteria for pilot review, detailed in Appendix A of the order.

To develop the online Michigan Pilot Directory, Staff has worked with utilities to collect pilot-specific data for the directory and developed the directory website. Staff expects the first iteration of the site will be available by the end of September 2021. As stakeholders use the online Michigan Pilot Directory, Staff expects opportunities for improvement will be identified and implemented.

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Michigan Pilot Directory

Welcome to the Michigan Pilot Directory! The directory, which was one of many recommendations included in the Staff Report from the MI Power Grid Energy Programs and Technology Pilots workgroup and developed per Commission order, is intended to increase transparency and information sharing regarding the results and learnings from approved utility pilot programs.

Michigan Pilot Directory

Step 1 (optional): Filter Pilot Programs

The controls below allow for refining the pilot list.

Selections across filters (Utility, Customer Groups, Piloted Measures, and Status) will limit the list of returned options.

Selections within a filter will add all matching pilots to the pilot list.

Utility

☐ Alpena Power Company

☐ Consumers Energy

☐ DTE Electric

☐ DTE Electric, DTE Gas

☐ DTE Gas

☐ Indiana Michigan Power

☐ SEMCO Energy Gas Company

☐ SEMCO Energy via Efficiency Uni...

Piloted Measures

☐ Billing/Payment

☐ Customer Service/Education/B...

☐ Data/IT

☐ Rates and Tariffs

☐ Technology

Pilot Customer Groups

☐ Commercial

☐ Industrial

☐ Residential

Pilot Status

☐ Evolved to Permanent Program

☐ Evolved to Separate Program

☐ Exploration Ceased

☐ Ongoing Program

Step 2: Select a Utility Pilot

Select a pilot from the list below. This list may be scrollable if it has not been filtered or a large number of matching pilots are returned from the filter.

After selecting a pilot, use the **View Pilot Summary** and **View Pilot Details** buttons to view additional information. A pilot must be selected to view summary or details.

Use the **Clear All Filters** button to start over.

Pilot Title

☐ Advanced Customer Pricing Pilot (aka Shift and Save)

☐ Advanced Lighting Controls

☐ All Electric New Homes Construction

☐ Alternative High Efficiency Appliance Pilot

☐ Aquantia

☐ Battery Storage

☐ Behavior DR Pilot

☐ Building Performance (ENERGY STAR)

☐ Building Retro-Commissioning

☐ Business energy benchmarking

☐ Business Energy Consultation (BEC)

☐ Business Energy Manager Pilot

☐ CRI Sector Small Business Efficiency Pilot Program

Clear All Filters

View Pilot Summary

View Pilot Details

Microsoft Power BI

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1 of 3

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Phase II Activities

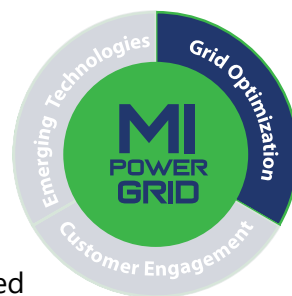
MI Power Grid Phase II activities were initiated beginning in the second half of 2020 and include efforts related to Advanced Planning (Integration of Resource/Distribution/Transmission Planning), Competitive Procurement, New Technologies and Business Models, a DER Rate Design Study, and Customer Education and Participation.

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

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

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

On August 20, 2020, the Commission issued an order in Case No. U-20633 that initiated Phase II of the MI Power Grid Advanced Planning work area, which focused on Integration of Resource/Distribution/Transmission Planning. In that order, the Commission highlighted several recommendations from the Statewide Energy Assessment and provided guidance for Staff to begin outreach by holding a series of stakeholder sessions. As directed by the Commission, these sessions addressed the following areas:



- Potential ways to align distribution plans with IRPs and examination of best practices from other jurisdictions, including:
 - Methodologies to develop distributed energy resource forecasts over a five and ten-year period,
 - Potential sources or methodologies to forecast electric vehicle (EV) penetration over a five and ten-year period,
 - Methodologies or frameworks to forecast the impact of the expected EV penetration on the load forecast over a five and ten-year period, and
 - Methodologies or frameworks to evaluate non-wires alternatives (NWAs) such as targeted energy waste reduction and demand response in distribution plans and integrated resource plans;
- Identify potential revisions to the Commission-approved IRP modeling parameters or the filing requirements to better accommodate transmission alternatives in IRPs in preparation for the next formal review of the Michigan IRP Planning Parameters expected to take place in 2022; and
- Methodologies to quantify and value generation diversity in IRPs.

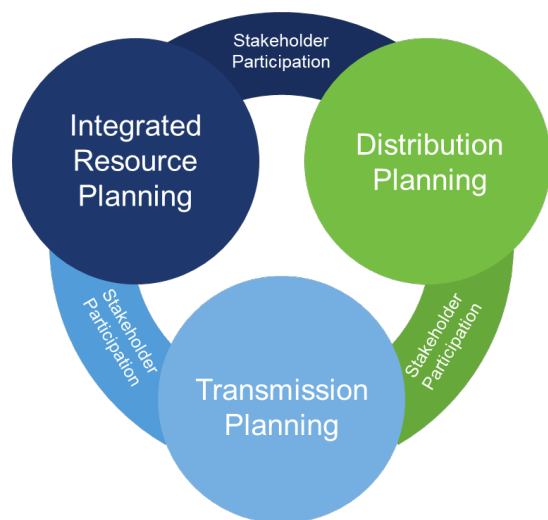
On September 23, 2020, Governor Whitmer announced the MI Healthy Climate Plan with the issuance of [Executive Order 2020-182](#) and [Executive Directive 2020-10](#). The first meeting of the Advanced Planning Phase II workgroup was held on September 24, 2020, and featured presentations from Michigan's largest utilities regarding current planning practices. MPSC Chair

Dan Scripps directed Staff to work with stakeholders to develop a proposal to ensure the climate goals announced by Governor Whitmer are considered in future IRP filings, including those IRPs to be filed in 2021 before the Commission updates the IRP filing requirements and planning parameters.

Eight stakeholder meetings were held between September 2020 and March 2021, featuring thirty subject matter experts, and engaging approximately eighty organizations. Experts and workgroup members discussed several topics, including proposals to ensure utilities submit data showing progress toward meeting the Governor's climate goals; alignment of planning efforts across distribution, resource and transmission planning processes; planning for distributed generation and non-wires alternatives; lessons learned through utility experience when planning across multiple aspects of the grid, energy markets and transmission planning in Michigan's divested transmission construct; forecasting across all planning efforts including the effects of electrification; measuring and valuing generation diversity; assessing risk in integrated resource planning; and resilience in distribution and resource planning.

Staff issued an interim [report](#) on December 15, 2020, which addressed Staff's proposal to ensure the climate goals set forth in Executive Directive 2020-10 are achieved. The Commission's February 18, 2021, [order](#) adopted Staff's recommendations and directed utilities filing IRPs prior to the next update of the Michigan Integrated Resource Planning Parameters to conduct two additional modeling runs to further assess emissions impacts of the proposed course of action in those IRPs.

The Ultimate Plan Alignment



Staff issued its final Integration of Resource, Distribution, and Transmission Planning [report](#) on May 27, 2021, after receiving and reviewing extensive stakeholder feedback. In its report, Staff made several recommendations to help shape future planning efforts, focused on:

- Resilience,
- Forecasting,
- Transmission Planning,
- Value of Generation Diversity,
- Emissions Recommendations and Environmental Justice Considerations, and
- Alignment of Distribution/Resource/Transmission Planning

On September 24, 2021, the Commission adopted an [order](#) in Case No. U-20633 which directs the Staff to create a redline version updating the Michigan Integrated Resource Planning Parameters (MIRPP) that reflects the recommendations proposed by the Staff in the May 27 report, feedback from stakeholders of the Integration of Resource/Distribution/Transmission Planning workgroup, and the directives for building a carbon-neutral Michigan pursuant to Executive Directive 2020-10, by December 22, 2021, and to engage stakeholders in Phase III of Advanced Planning activities, geared towards finalizing updates to the MIRPP and IRP filing requirements in 2022.

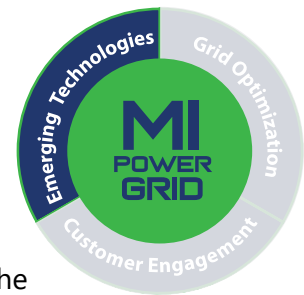
In addition, Staff [has worked with](#) Guidehouse over the past year to develop the recently released [Energy Waste Reduction](#) and [Demand Response](#) potential studies, consistent with requirements in state law related to IRP planning parameters. Stakeholders were involved during the establishment of the scope and assumptions used in the studies and were able to review and provide comments on draft versions. The potential studies identify technical, economic, and achievable levels of energy waste reduction and demand response that can be undertaken by MPSC-regulated utilities and will be used to inform revisions to the MIRPP during Phase III.

Competitive Procurement

Workgroup Page: [Competitive Procurement](#)

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

On August 20, 2021, the Commission opened the docket in Case No. U-20852 and directed Staff to convene a competitive bidding collaborative. Rate-regulated utilities and other stakeholders participated in the Competitive Procurement Workgroup to develop recommended competitive bidding rules or guidance that also align with the comprehensive planning processes being developed through the Advanced Planning Phase II: Integration of Resource/Distribution/Transmission Planning Workgroup. The Commission's objective for the Competitive Procurement Workgroup is to ensure strong, technology-neutral market response and value for ratepayers through transparency, non-discriminatory access, certainty, and fairness in bidding processes.



The Competitive Procurement Workgroup held its first stakeholder meeting on September 14, 2020 and held four additional stakeholder meetings throughout 2020 and the first quarter of 2021. On October 1, 2020, the Staff issued a [straw proposal](#) (October 1 straw proposal) which requested stakeholder input on draft guidelines for competitive bidding, topics and resources to be included in the workgroup, procedures to ensure a streamlined procurement process, and implementation of integrated resource planning requirements found in [MCL 460.6t\(6\)](#) within the bidding process. On October 30, 2020, comments on the October 1 straw proposal were received from the Association of Businesses Advocating Tariff Equity (ABATE); Consumers Energy Company (Consumers); DTE Electric Company (DTE Electric); the Ecology Center, Environmental Law and

Policy Center, Solar Energy Industries Association, and Vote Solar (Environmental Coalition); Hemlock Semiconductor Operations LLC (Hemlock); Indiana Michigan Power Company (I&M); Michigan Biomass; Michigan Electric and Gas Association (MEGA); Michigan Energy Innovation Business Council and Advanced Energy Economy (MEIBC/AEE); and Pine Gate Renewables, LLC (Pine Gate). On April 1, 2021, the Staff issued a [second straw proposal](#) (April 1 straw proposal) that incorporated suggestions from the October 30, 2020, comments and provided: (1) draft competitive procurement guidelines for rate-regulated electric utilities and (2) draft competitive procurement guidelines for rate-regulated electric utilities for PURPA avoided cost and capacity determinations. On April 30, 2021, comments on the April 1 straw proposal were received from ABATE, Consumers, DTE Electric, the Environmental Coalition, I&M, MEGA, MEIBC/AEE, and Pine Gate.

On June 22, 2021, the Staff filed a [Competitive Procurement Report](#) in the U-20852 docket which was informed by the August 20 order, the collaborative stakeholder process, the October 1 and April 1 straw proposals, and the October 30, 2020 and April 30, 2021 comments. In the report, the Staff provided draft competitive procurement guidelines for rate-regulated electric utilities (not for PURPA compliance) and draft competitive procurement guidelines for rate-regulated electric utilities for PURPA avoided cost and capacity determinations.

The Commission issued an [order](#) in Case No. U-20852 on July 2, 2021, soliciting comments on the June 22, 2021, Competitive Procurement report requesting feedback on whether the Commission should: (1) adopt the draft competitive procurement guidelines for rate-regulated electric utilities (not for PURPA compliance) and the draft competitive procurement guidelines for rate-regulated electric utilities for PURPA avoided cost and capacity determinations, as set forth in the Competitive Procurement report; (2) initiate a rulemaking proceeding for competitive procurement; (3) adopt the draft competitive procurement guidelines in the Competitive Procurement report (both for PURPA compliance and not for PURPA compliance) and initiate a rulemaking proceeding for competitive procurement; or (4) allow the utilities to adopt the competitive procurement guidelines in their tariffs. In addition, the order stated that stakeholders should provide comments about how the guidelines and/or rules should be applied and whether there should be considerations for small and multi-state utilities.

On September 9, 2021, the Commission issued an [order](#) in Case No. U-20852 which reviewed stakeholder comments filed by ABATE, Consumers, DTE Electric, Environmental Coalition, Hemlock, MEGA, MEIBC/AEE, and Pine Gate; made minor revisions to Staff's proposed guidance; and adopted the guidance documents as amended. Further, the Commission directed Staff to survey utilities, developers, and stakeholders within five years (or sooner if needed) in order to assess how the guidance is working and whether updates may be necessary.

New Technologies and Business Models

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

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

In its October 29, 2020 [order](#) in Case No. U-20898, the Commission launched the New Technologies and Business Models workgroup as part of Phase II of MI Power Grid. The Commission identified the below problem statement for the workgroup to address:



There are regulatory and business model barriers to the deployment and full utilization of clean, distributed energy resources in Michigan. Stated differently, there is the need to adapt the regulatory framework to allow for different applications of DER and to define the appropriate roles of utilities and other entities in supporting a more decentralized energy system that is clean, affordable, reliable, and accessible.

The Commission envisioned that the workgroup would create a shared understanding of different 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. It ordered Staff to file a status report summarizing workgroup efforts, providing recommendations for Commission consideration, and identifying any potential next steps by September 1, 2021. On July 27, 2021, the Commission [order](#) in Case No. U-20898 extended the deadline for the Staff report to December 1, 2021.

The stakeholder series for the New Technologies and Business Models workgroup began on January 27, 2021. A total of ten stakeholder meetings were held. In addition to the kickoff and closing discussion meeting, a meeting was held for each of the following: electric vehicles, heat pumps for space and water heating, behind the meter and community solar, storage, combined heat and power, microgrids, and alternative business and ownership models. During these meetings, the opportunities, forecasts, barriers, and potential solutions were discussed for each topic area.

Staff's [draft report](#) summarizing the workgroup activities and learnings was distributed on September 15, 2021, to stakeholders for comment. Staff recommendations included that the Commission:

- Provide guidance on what “just” rates entail when evaluating new technologies and alternative business and ownership models;
- Provide guidance on how utilities and Staff should consider non-energy benefits and costs;

- Support data-driven decision making;
- Approve an expedited pilot review process intended to support the rapid transformation of the energy system needed to meet overarching state goals;
- Support the development of alternative business and ownership models through utility pilots and comparable, parallel third-party pilots or tariffs;
- Develop technology and fuel agnostic incentives;
- On-bill tariff pilots and exploration of financial incentives that support beneficial uptake of DERs;
- Recognize the importance of education in the uptake of new technologies and business/ownership models; and
- Chart a clear path supporting rapid new technology and business/ownership models in Michigan.

Stakeholder comments on the Staff report will be accepted through October 4, 2021. The final staff report will be submitted by December 1, 2021.

Innovative Rate Offerings: Distributed Energy Resources Rate Design

Workgroup Page: [DER Rate Design](#)

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

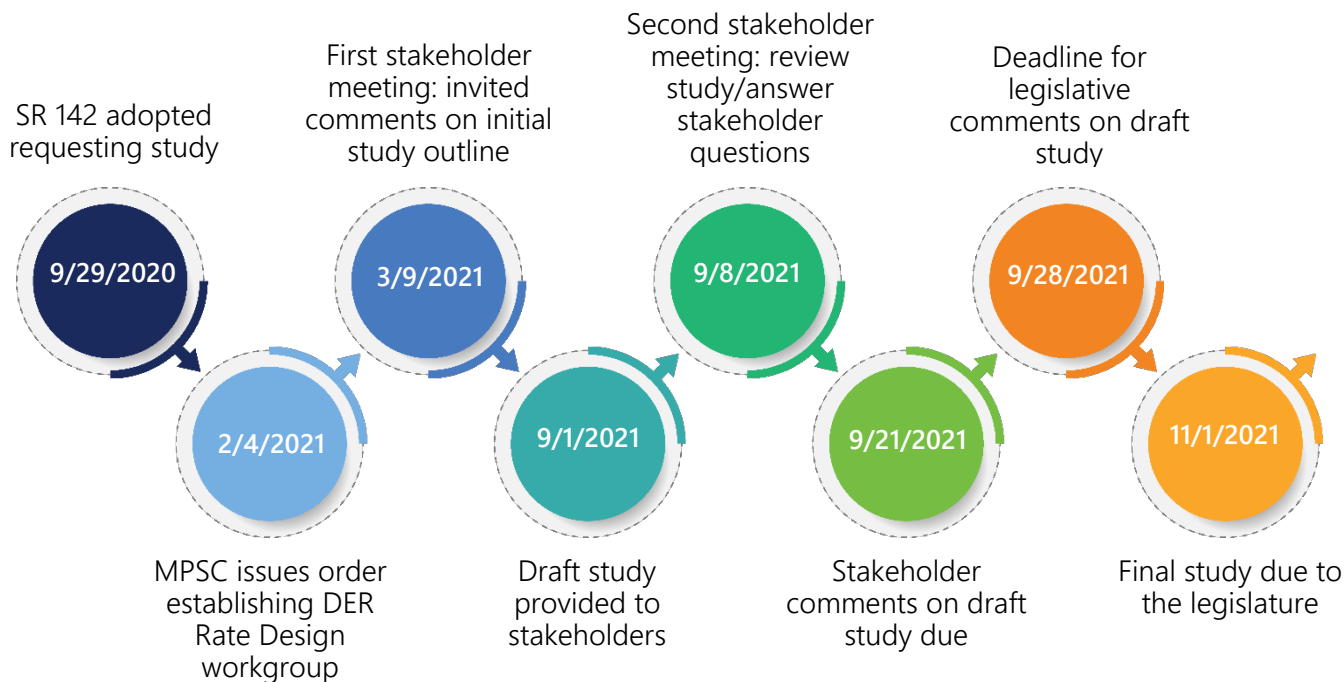
The Distributed Energy Resources Rate Design workgroup was officially launched by the Commission's February 4, 2021 [order](#) in Case No. U-20960. The order describes the focus of the DER Rate Design workgroup as determining how customer-owned generation and energy storage are changing the way energy customers use the grid, exploring cost allocation and possible customer charges, and proposing rate design options. This work area was aided by guidance from the Michigan Senate in the form of [Senate Resolution 142 of 2020](#), which called on the Commission to "undertake a study on rate designs and options, including fixed system access and demand charges and rate design options that will account for the changing customer use of the grid due to the adoption of new energy technologies."



The Commission enlisted the assistance of the Regulatory Assistance Project (RAP) to facilitate the exploration of rate design options for evolving energy technologies, with opportunities for feedback from stakeholders, and to support delivery of this study.

RAP, with the help of Staff, developed a [draft outline](#) for the study that was presented to stakeholders on March 9, 2021. Stakeholder comments on the proposed outline were due to Staff by March 23, 2021, and the comments were incorporated into the outline resulting in a final document. The [final outline](#) was posted on April 6, 2021, and was sent to stakeholders soon after.

The [draft study](#) was released to stakeholders on September 1, 2021. The study provides an overview of traditional ratemaking processes and principles, options to consider relative to cost allocation (embedded vs. marginal cost of service studies) and rate design (volumetric rates, fixed charges, demand charges), as well as credit design options for customer outflow onto utility systems. Finally, it offers three “potential pathways” for new rate designs for DERs, combining elements from options previously discussed in the study in order to illustrate the trade-offs inherent in any ratemaking activity.



A stakeholder meeting was held September 8, 2021, at which RAP provided an overview of the study and led a discussion to gather initial feedback. After the comments are submitted, RAP will be considering the feedback and finalize the study, which will be delivered to the legislature on November 1, 2021.

Customer Education and Participation

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

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

On February 18, 2021, the Commission approved an [order](#) in Case No. U-20959 establishing the Customer Education and Participation workgroup.

Michigan’s energy system is changing, and all energy customers (residential, commercial, and industrial) will be vital in supporting the transition to a cleaner and more distributed energy future. The Commission recognized that

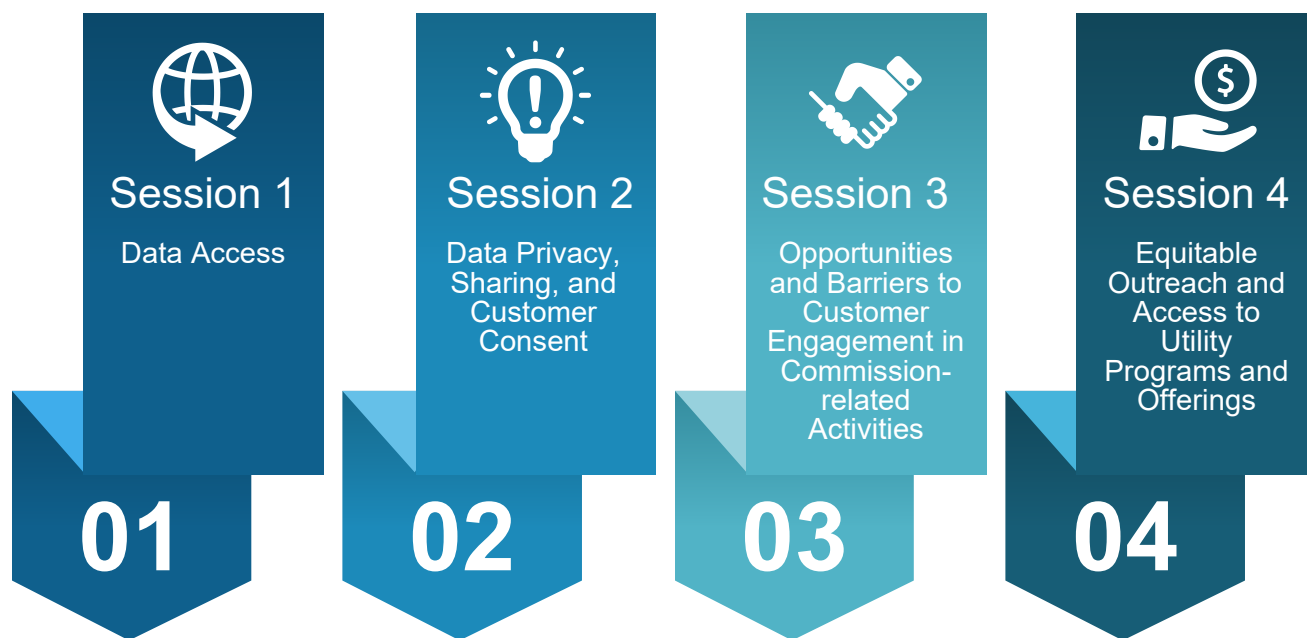


energy customers will be relied upon to be active, engaged, and dependable participants in supporting this transition. Customer engagement and participation in energy waste reduction and demand response programs, time of use rates, distributed energy resources, and other demand side resources are critical to making sure the transition is beneficial to ratepayers while ensuring the reliability of the energy system. It is also becoming increasingly important to recognize and address the barriers energy customers, particularly those from vulnerable and marginalized communities, encounter when attempting to participate in Commission related activities.

The Commission also recognized that 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 necessary for them to have more access to, and control of, their energy data. In the February 18 order, the Commission acknowledged the importance of access to energy data and information to enable customers to fully participate in the transition to clean energy, enabling the utilization of demand-side resources. The order integrated the Customer Data Access and Privacy section of the Data Access and Privacy workgroup into the Customer Education and Participation workgroup. Incorporating Customer Data Access and Privacy topics allows Staff to thoroughly assess and provide recommendations to the Commission on how to provide access to customer data while maintaining customer privacy so that customers can actively play a role in supporting the changing energy environment.

Finally, the Commission directed Staff to consider how other MPSC work, including the response to the COVID-19 pandemic; the Commission's 2021-2025 Strategic Plan; the Commission's Diversity, Equity, and Inclusion (DEI) efforts; and the Commission's Outreach to Michigan's Tribal Communities might inform the workgroup's recommendations to the Commission. Staff was directed to review the recommendations in the Case No. [U-20757](#) Collaboration and Communication Process [Report](#) filed on December 15, 2020, and the Commission's [2021-2025 Strategic Plan](#). As such, the Commission directed Staff to convene customers, utilities, third party demand-side technology and service providers, community organizations, and other stakeholders to explore these important topics.

Stakeholder sessions of the Customer Education and Participation Workgroup were held in the spring and summer of 2021, the first two focusing on Customer Data Access and Privacy topics and the remaining sessions focusing on Customer Education and Participation, with a broad array of stakeholder participation, including utilities, consumer advocates, municipalities, academia, and community representatives, among others.



Following the conclusion of the stakeholder sessions, MPSC Staff will file a report in the docket for Case No. U-20959 summarizing the efforts of the workgroup, providing recommendations for the Commission's consideration, and identifying possible next steps. A draft version of the report will be made available for stakeholder comment and the final report will be filed by February 25, 2022.

Conclusion

When the MI Power Grid activities currently underway have been completed, Michigan will be better prepared to navigate the energy transition through the Commission's efforts to:

- Adopt updated rules and utility-specific procedures to allow for the timely study and interconnection of third-party and customer-owned distributed resources to the electric distribution grid;
- Increase critical performance standards for the electric distribution grid through updated Service Quality Rules and Technical Standards for Electric Service;
- Revise integrated resource planning parameters and filing requirements with an eye toward improved resilience, updated forecasting methodologies, valuation of generation diversity, tracking of progress toward climate goals, and better alignment with distribution and transmission planning processes;
- Gain increased visibility into the state of utility electric distribution systems and needed investments to achieve adequate reliability and unlock the grid of the future;
- Identify opportunities and barriers for emerging technologies and business models to be considered within the existing regulatory framework;

- Update utility demand response tariffs and communication protocols to improve confidence that demand response resources will be available when called upon;
- Establish objective criteria for review of proposed utility pilots, and make accessible to the public a database of prior utility pilots through the online Michigan Pilot Directory;
- Identify advanced rate design options to accommodate additional DER adoption;
- Refresh competitive procurement guidance to promote fair, transparent, and non-discriminatory resource procurement processes to maximize customer value; and
- Revitalize the Commission's outreach efforts and data access policies to maximize the ability of customers to participate in and benefit from the ongoing energy transition.

All of this will serve to facilitate the integration of additional distributed and clean energy resources into Michigan's energy system and help to bolster the reliability and resilience of our electric grid.

Yet more remains to be done – of the 15 work areas identified when MI Power Grid was launched in 2019, five areas of focus remain. Below is a list of remaining focus areas, with potential next steps identified for each:

- Financial Incentives/Disincentives – The Commission studied utility incentives/disincentives as part of its 2018 performance-based ratemaking (PBR) [report](#) and has adopted a variety of specific incentive mechanisms consistent with statutory authorization. Both Consumers Energy and DTE Electric included proposed PBR metrics and incentive structures in distribution plans submitted in 2021 at the request of the Commission, all of which could be reviewed to ensure utility spending is optimized for the benefit of customer service, system reliability, and safety.
- Distribution System Data Access – The Commission ordered DTE Electric and Consumers Energy to submit "go/no-go" maps as a first step toward hosting capacity studies in their 2021 distribution plans. In addition, Michigan [Senate Resolution 143 of 2020](#) encourages the Commission "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."
- Advanced Planning Phase III (IRP) – Phase III activities will focus on updating the Michigan Integrated Resource Planning Parameters and IRP filing requirements during 2022 as outlined in the Commission's September 24, 2021, [order](#) in Case No. U-20633.
- Innovative Rate Offerings: Time-Based Pricing – Consumers Energy implemented Summer Peak Time-of-Use Rates for all customers in June 2021. Understanding learnings

from Consumers Energy's experience can assist the Commission and stakeholders as additional utilities work towards establishing similar programs.

- Innovative Rate Offerings: Voluntary Green Pricing – All rate-regulated utilities have implemented programs which allow customers to choose to have some or all of their energy generated from renewable energy resources. The Commission and Staff should continue to monitor these program offerings.

Going forward, evaluating how these workstreams complement one another, as well as the foundational MI Power Grid work that is already underway, and how best to prioritize these efforts relative to other important work at the Commission, should be a goal over the next year.

Staff reiterates its gratitude to the hundreds of stakeholders who have engaged in MI Power Grid activities, whether it be by presenting to workgroups, providing technical assistance, or participating in stakeholder sessions. Much of the value of MI Power Grid comes from the opportunities afforded through interaction between various participants in the energy ecosystem, and the outcomes of these efforts are better served by a broad array of contributors representing a diversity of perspectives and interests.

Staff also again thanks the Commission for its leadership and vision in taking on these essential issues. Michigan's residents and businesses will benefit from a cleaner, more reliable and resilient energy system as a result.

