In the matter, on the Commission’s own motion, to establish MI Power Grid. Case No. U-20645

At the October 17, 2019 meeting of the Michigan Public Service Commission in Lansing, Michigan.

PRESENT: Hon. Sally A. Talberg, Chairman
Hon. Daniel C. Scripps, Commissioner
Hon. Tremaine L. Phillips, Commissioner

ORDER

The purpose of this order is to provide the impetus, vision, objectives, process, and next steps for the MI Power Grid initiative established today by the Commission in partnership with Governor Gretchen Whitmer.

MI Power Grid is a focused, multi-year stakeholder initiative to maximize the benefits of the transition to clean, distributed energy resources for Michigan residents and businesses. MI Power Grid seeks to engage utility customers and other stakeholders to help integrate new clean energy technologies and optimize grid investments for reliable, affordable electricity service. As discussed in this order, the initiative includes outreach and education as well as changes to utility regulation designed to advance Michigan’s clean energy future.
Impetus Behind MI Power Grid

The electric industry is on the cusp of transformational change. The electricity supplies used to power Michigan homes and businesses are shifting from large, central-station power plants to cleaner and more distributed energy resources such as wind and solar energy. Half of Michigan’s coal-fired electricity generation is being retired over a ten-year period from 2015 to 2025 with additional plant retirements planned thereafter. While nuclear energy remains an important part of Michigan’s diverse energy supply and offers emission-free baseload power, the long-term future of nuclear power is somewhat uncertain given the significant cost of building new plants and Entergy Corp.’s announced 2022 closure of the Palisades Nuclear Power Plant in southwest Michigan. Advanced, small nuclear reactor technology is under development but not yet commercially available.¹

Part of this transition is fueled by the steady and significant decline in the costs of renewable energy such as wind and solar. On a levelized basis, the costs of renewables are lower than conventional electricity supply options such as natural gas.² Nearly all electric utilities serving Michigan have committed to carbon emission reductions and some are pursuing renewable energy beyond state mandates and goals due to economics and sustainability commitments.³ Customers

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While technology advancements present an opportunity to unlock cost savings and other benefits, there are significant challenges to overcome to maximize value for customers and to maintain safe, reliable electric service during this transformation of the industry. Many emerging technologies, such as microgrids and energy storage, face market and regulatory barriers that could hinder the pace and scale of their adoption. And new approaches to utility planning, rate structures, earnings mechanisms, and procurement to adapt to this transition may create inherent
risk and uncertainty for utilities and customers alike, making these issues of central importance to utility regulators.

There are many unanswered questions for policy makers, utilities, regulators, and stakeholders, including:

- How quickly will these energy technology and market changes occur and what do we need to do to prepare?
- Will there be adequate electricity supplies at all hours of the day and across all seasons to maintain reliability as customers expect?
- Will customers reliably participate in new energy programs such as demand response in order to achieve the projected savings?
- Will the adoption of new technologies by some customers be equitable for all customers?
- Are the utility regulatory models for planning, procurement, and cost recovery capable of adapting to this change while allowing for innovations that enhance customer benefits?
- Will the investments being made today serve our needs long-term or is there potential for stranded costs?
- Are there barriers to innovation in existing laws and rules?

Michigan’s 2016 energy laws—enacted into law with broad, bipartisan support—provided a strong foundation for adapting to the changing energy landscape through comprehensive energy policy reform. The Commission has implemented these laws over the past several years and has undertaken other efforts to engage stakeholders on these important topics. These efforts include revising the rules for interconnecting new electric generators to the utility distribution systems, promulgating code of conduct rules for utility-offered “value-added” products and services (e.g., solar financing, energy efficiency-as-a-service), initiating studies of performance-based ratemaking models, conducting long-term electric distribution planning and integrated resource planning, developing a new framework to review demand response investments, developing new rates for customers with on-site distributed generation, and updating the Commission’s
implementation of the federal Public Utility Regulatory Policies Act of 1978 (PURPA). Through various planning and regulatory proceedings, the Commission is also overseeing significant investments—billions of dollars annually—by electric utilities to support the transition to clean energy and to ensure the provision of safe, reliable service.

All of this work is important and provides strong underpinnings for Michigan’s transition to a modern, clean, customer-focused energy system. In particular, ongoing work related to electric distribution planning and updating interconnection rules has resulted in fruitful discussions with an engaged set of stakeholders offering varied perspectives. The Commission is cognizant of and appreciates the time and effort put in by the Commission Staff (Staff), utilities, and local and national stakeholders over the past several years to lay the foundation for the transformation to a clean energy future. At the same time, there is a risk that these distinct workstreams are undertaken in isolation from one another, and a sense that a more holistic view of the goals and objectives of these efforts would be of value. Given the pace of change and the importance of these discussions, there is also interest in providing greater transparency and an opportunity for a broad array of stakeholders to engage in shaping Michigan’s energy future. Thus, while much has been accomplished, Governor Whitmer and the Commission recognize the need to better integrate these discrete efforts and to establish an overarching vision and strategic objectives to guide future discussions. Accordingly, on October 17, 2019, Governor Whitmer announced the establishment of MI Power Grid in collaboration with the Commission.

Vision and Objectives

As discussed above, MI Power Grid is a focused, multi-year stakeholder initiative supported by Governor Whitmer and the Commission to maximize the benefits of the transition to clean, distributed energy resources for Michigan residents and businesses. MI Power Grid seeks to
engage utility customers and other stakeholders to help integrate new clean energy technologies and optimize grid investments for reliable, affordable electricity service.

With these overarching goals in mind, MI Power Grid is being established to better integrate ongoing and future discussions and decision making in three core areas of emphasis, with the following objectives and work areas:

1. Customer Engagement

Objective: Providing Michigan residents and businesses with the energy 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.

Work areas:

- **Customer education and participation**, including educating customers on new utility and non-utility offerings and involving all customers (residential, commercial, and industrial) in developing programs in order to ensure customers fully benefit from these new offerings.

- **Innovative rate offerings**, including the development, review, and promotion of new pricing models to allow a broader range of options for customers; these offerings can include time-based rates, distributed generation, and voluntary green purchasing programs.

- **Demand response**, including refinement of tariffs and practices to encourage customer participation, ensure performance during energy emergencies or other events, and align with evolving wholesale market opportunities and requirements.

- **Energy programs and technology pilots**, including the creation of a framework for defining pilot objectives, evaluation, and reporting, while incorporating lessons learned and best practices emerging from pilots in Michigan, nationally, or globally. Having a standard process to evaluate pilot projects will help the Commission and stakeholders decide whether expanding these programs is beneficial to customers.
2. Integrating Emerging Technologies

Objective: Ensuring timely and fair grid access and appropriate information exchange to support customer-oriented solutions and reliable system operations.

Work areas:

- **Interconnection standards and worker safety**, including a formal rulemaking process to update interconnection rules to integrate new technologies such as microgrids, energy storage, and solar into the electric distribution grid in a safe, timely manner; align with the new IEEE 1547\(^8\) standard; and define legally enforceable obligations under PURPA.

- **Data access and privacy**, including review and refinement of protocols to ensure information is available to end-use customers and appropriate third parties for use in making energy investment decisions (e.g., solar, energy efficiency) while ensuring that personally identifiable and critical energy infrastructure information is kept secure and private.

- **Competitive procurement**, including identifying best practices to ensure cost-effective development of new energy resources and limit procurement barriers for emerging technologies; this may include potential new guidelines or rules clarifying expectations and processes for competitive bidding.

- **New technologies and business models**, including preparing for the opportunities and challenges associated with the commercialization of new technologies and business models such as electric vehicles, electric storage, and other technologies still under development, both at customer and utility scale.

3. Optimizing Grid Investments and Performance

Objective: Integrating transmission, distribution, and resource planning to increase transparency and optimize solutions; enhancement of tools, financial incentives, and regulatory approaches to adapt to technology change and customer preferences.

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\(^8\) See, Institute of Electrical and Electronics Engineers 1547-2018, Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces. IEEE 1547 addresses some aspects of worker safety, but does not holistically address worker safety under all aspects of interconnection; therefore additional discussions regarding worker safety and implementation of IEEE 1547 to allow for islanding of distributed generation systems are of interest to the Commission.
Work areas:

- **Financial incentives/disincentives** will build on studies and actions addressing performance-based ratemaking and statutorily authorized incentive mechanisms to ensure utility investments are optimized for the benefit of customer service, system reliability, and safety.

- **Grid security and reliability metrics** encompasses the identification and application of metrics to enhance electric distribution system performance, reliability, security, and safety. This could tie into performance-based regulation as well as updates to the Commission’s service quality and technical standards.

- **Advanced planning processes** for electric investments (resources, transmission, and distribution) will be examined to ensure modeling tools, assumptions, and processes are adapting to technology change, and to better integrate discrete planning activities currently being conducted for new resources (e.g., generation, demand-side options), transmission, and distribution, as detailed in the 2019 Statewide Energy Assessment. Work will also be done to quantify the value of resilience, particularly as it relates to distributed energy resources, as well as the value of diversity in the electric resource mix, in order to ensure proper consideration of both when evaluating proposed investments.

Many of these activities are ongoing and have existing formal processes and workgroups, including distribution planning, interconnection standards, and demand response. Other activities may involve focused topical sessions with stakeholders with a more near-term deliverable such as the development of a framework for reviewing and evaluating pilot programs.

**Process and Next Steps**

Given the broad range of interconnected activities included in MI Power Grid, the Commission expects to focus on and prioritize the following work areas over the next year:

- Interconnection standards and worker safety (Case No. U-20344)

- Distribution planning and related enhancements, including system data access (Case Nos. U-20147 and U-18361)

- Demand response (Case No. U-20628)

- Grid security and reliability metrics (Case Nos. U-20629 and U-20630)
• Energy programs and technology pilots

With respect to energy programs and technology pilots (which do not have an associated docket), the Commission directs the Staff to: (1) engage with utilities and stakeholders on existing pilot projects to understand outcomes and apply lessons learned; (2) investigate past Commission-approved pilots and identify best practices in other states, in order to propose objective criteria for the Commission to utilize when evaluating proposed utility pilot projects; and (3) work with utilities and stakeholders to identify potential areas for additional pilot proposals, including distributed generation, storage, microgrids, third-party-owned community solar power, on-bill financing, and electric vehicle infrastructure. The Commission directs the Staff to submit a report in this docket no later than June 30, 2020, summarizing efforts to date, providing recommendations for objective criteria to apply when evaluating proposed utility pilot projects, and identifying potential areas for additional pilot proposals.

Discussions and activity will occur in other work areas as well (such as innovative rate offerings), but the activities listed above will be prioritized to help manage the workload for the Staff and stakeholders. These initial areas of focus are also expected to serve as a foundation for the other work streams envisioned as part of the MI Power Grid initiative. Given that this is a multi-year initiative, the Commission also welcomes feedback on prioritization of activities going forward to ensure the initiative is productive and outcome-oriented. In addition, the Commission has also created a number of mechanisms to better facilitate the collection of input from stakeholders and the public. A website, www.michigan.gov/MIPowerGrid, has been established to serve as a one-stop location to obtain information about ongoing activities, including workgroups connected to specific work areas. Electronic listservs are also available for stakeholders and the public to receive MI Power Grid updates (general and for each core area of emphasis).
Specific actions will occur under various timeframes as part of separate dockets, rulemakings, and collaborative workgroups over the next several years and work will be ongoing thereafter. Because of the importance of integrating these activities and evaluating progress of the overall initiative and individual components relative to the goals and objectives laid out in this order, the Commission will catalog activities at certain points in the process. Therefore, the Commission directs the Staff to file a MI Power Grid status report on or before September 30, 2020, in this docket. The report shall detail actions taken to date, the status of the work areas, and any recommendations for Commission consideration. In addition, the Commission expects publication of an overview of actions taken as part of a final report issued in the third quarter of 2021.

THEREFORE, IT IS ORDERED that:

A. MI Power Grid is established as described in this order.

B. No later than June 30, 2020, the Commission Staff shall file in this docket a status report on utility pilot projects, summarizing efforts to date, providing recommendations for objective criteria to apply when evaluating proposed utility pilot projects, and identifying potential areas for additional pilot proposals.

C. No later than September 30, 2020, the Commission Staff shall file in this docket a status report on MI Power Grid, detailing actions taken to date, the status of the work areas associated with MI Power Grid, and recommendations for Commission consideration.
The Commission reserves jurisdiction and may issue further orders as necessary.

MICHIGAN PUBLIC SERVICE COMMISSION

Sally A. Talberg, Chairman

Daniel C. Scripps, Commissioner

Tremaine L. Phillips, Commissioner

By its action of October 17, 2019.

Lisa Felice, Executive Secretary
Brianna Brown being duly sworn, deposes and says that on October 17, 2019 A.D. she electronically notified the attached list of this Commission Order via e-mail transmission, to the persons as shown on the attached service list (Listserv Distribution List).

Subscribed and sworn to before me this 17th day of October 2019.

Angela P. Sanderson
Notary Public, Shiawassee County, Michigan
As acting in Eaton County
My Commission Expires: May 21, 2024
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Doug Motley
Marc Pauley
City of Portland
Alpena Power
Liberty Power
Wabash Valley Power
Wolverine Power
Lowell S.
Reaig Energy Services
Volunteer Energy Services
Hillsdale Board of Public Utilities
Michigan Gas Utilities/Upper Penn Power/Wisconsin
Direct Energy
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Direct Energy
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Reaig Corp.
Katie Abraham, MMEA
Indiana Michigan Power Company
Santana Energy
MEGA
MEGA
ITC Holdings
Dickinson Wright
Xcel Energy
Matthew Peck
Consumers Energy
MidAmerican Energy Services, LLC
MidAmerican Energy Services, LLC
MidAmerican Energy Services, LLC
Northern States Power
Midwest Energy Coop
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Consumers Energy
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