

ESTABLISHMENT OF MICROGRIDS

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House Bill 4477 as introduced
Sponsor: Rep. Steven Johnson
Committee: Energy
Complete to 6-18-19

Analysis available at
<http://www.legislature.mi.gov>

SUMMARY:

House Bill 4477 would amend 1939 PA 3, the Michigan Public Service Commission (PSC) enabling act, to allow certain entities to establish *microgrids* in an effort to support *critical facilities*.

Microgrid would be defined by the bill to mean a group of interconnected loads and distributed energy resources with clearly defined electrical boundaries that acts as a single controllable entity with respect to the macrogrid and that connects and disconnects from the macrogrid to enable it to operate in grid-connected or *island mode*.

Critical facilities would be defined as including: hospitals or medical facilities that provide life support; police stations; fire stations; water or sewage treatment plants; public shelters; correctional facilities; emergency coordination centers; military sites; residential facilities for the elderly; or any other facility identified by the PSC as critical.

Island mode would be defined as an instance in which a microgrid is in a status where loads and energy resources within the microgrid are able to operate but power is not exchanged with the utility-owned transmission or distribution network.

Put more simply, a microgrid is a local energy grid. A microgrid operates while connected to a traditional grid that provides electricity over a larger region but, since it can operate autonomously, it can back up the grid in an emergency such as a major power outage or storm. Microgrids can be powered by any combination of distributed generators, batteries, or renewable resources such as solar panels. A microgrid can power a single facility or a larger area.¹

¹ Information derived from "How Microgrids Work," Office of Electricity, U.S. Department of Energy. See <https://www.energy.gov/oe/activities/technology-development/grid-modernization-and-smart-grid/role-microgrids-helping>

House Bill 4477 would require the PSC, within 270 days after the date the bill takes effect, to issue orders allowing electric utilities, municipally owned electric utilities, and private entities to establish microgrids within this state. The order would have to do all of the following:

- Allow the establishment of microgrids to support one or more critical facilities.
- Ensure that interconnections are uniform across all electric utilities and that those interconnections follow the standards promulgated by the PSC, which must allow for microgrid operations consistent with the act.
- Allow for the operation of microgrids during an emergency.
- Allow microgrids to serve one or more facilities that are not critical facilities if those facilities are electrically contiguous to the critical facilities when the microgrid is in island mode.
- Prohibit electric utilities from charging standby rates to microgrids owned by a person other than that electric utility.
- Establish a process allowing an electric utility customer to request that a facility be designated a critical facility if the PSC determines that supplying electricity to that facility during an emergency is necessary for the public health, safety, and welfare.
- Require electric utilities to establish a microgrid for any facilities designated as critical unless a person other than that electric utility will establish the microgrid.
- Establish rates for microgrids established by electric utilities and private entities that reflect an equitable cost of service for utility revenue requirement and do not include standby charges. All costs and expenses related to an electric utility's establishment, maintenance, and operation of a microgrid would have to be borne by the customers receiving service from that microgrid or the electric utility that establishes, maintains, or operates that microgrid.
- Adopt standards for microgrids established by electric utilities, municipally owned electric utilities, and private entities
- Require electric utilities and municipally owned electric utilities to allow any electric utility customer to use a microgrid that meets the adopted standards.

Required reports

By December 31, 2019, the PSC would be required to issue a report to the governor and legislature that analyzes the reliability of the electric distribution systems in Michigan. The report would have to include all of the following:

- The best technical, economic, and regulatory approach to ensure reliable electric service during and after natural disasters and other threats.
- The structural, regulatory, legal, or other barriers in Michigan preventing those best practices.
- The benefits and costs of those best practices.
- The opportunities and barriers to implementing innovative multitechnology approaches, as well as performance standards that could be adopted, to improve the resilience, efficiency, functionality, and performance of the electric distribution systems in Michigan.

A report evaluating the costs and benefits of using microgrids to provide electric service to critical facilities would have to be issued by the PSC to the legislature no later than July 1, 2020.

Advisory panel

Under the bill, the PSC would have to convene a ten-member advisory panel to assist in preparing the 2019 report analyzing the reliability of the state’s electric distribution systems. Appointees would consist of one individual representing each of the listed constituencies, with electric utilities and electric customers having three members each:

- Local units of government.
- Statewide environmental organization.
- The energy industry.
- A statewide labor organization.
- Electric customers—residential, commercial, and industrial customers.
- Electric utilities—investor-owned, municipally owned, and cooperative utilities.

MCL 460.10a

BACKGROUND INFORMATION:

House Bill 4477 is nearly identical to House Bill 5865 of the 2017-18 legislative session, which was part of a larger bill package referred to as the “Energy Freedom” legislation.

FISCAL IMPACT:

House Bill 4477 would likely increase costs for the Michigan Public Service Commission (PSC), housed within the Department of Licensing and Regulatory Affairs (LARA), for various functions under the bill. It is not altogether clear whether the costs would be sufficiently covered by existing appropriations; any additional costs would likely be funded by additional public utility assessments.

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■ This analysis was prepared by nonpartisan House Fiscal Agency staff for use by House members in their deliberations, and does not constitute an official statement of legislative intent.