

# Distributed Generation

## 1. What is “distributed generation”?

Distributed generation refers to electric generation resources located throughout the electric distribution grid that are usually owned by customers, often smaller in scale, and typically powered by renewable energy (such as wind, solar, or biomass). Distributed generation is distinct from centralized, utility-owned generation sources like traditional power plants fueled by coal, natural gas, nuclear power or utility-scale solar or wind farms.

## 2. What is “net metering”?

Public Act 295 of 2008 established a net metering program which allowed Michigan utility customers to use on-site renewable energy generation to meet some or all of their electric needs. Under this program, a net metering customer receives a credit at the full retail rate from the electric provider for any excess electricity delivered to the grid during the billing month. Customers with larger projects qualify for modified net metering and receive a credit equal to a portion of the full retail rate.

## 3. What do the new energy laws require of the Michigan Public Service Commission (MPSC) regarding distributed generation and net metering?

Public Acts 341 and 342 of 2016 require the MPSC to phase out the net metering program and create a new distributed generation program to replace the net metering program. Existing customers under net metering **and** customers who enroll prior to the establishment of new rates for the distributed generation program in a utility rate case can continue under net metering for 10 years after enrollment. For all other customers, the law requires the MPSC to end net metering and apply new rates for the distributed generation program. Specifically:

- Section 173 of Public Act 342 requires the MPSC to replace the net metering program with a new distributed generation program.
- Section 6a (14) of Public Act 341 requires the MPSC to conduct a study on an appropriate tariff reflecting equitable cost of service for customers who participate in the distributed generation program.
- Section 6a (14) also requires electric utilities to include this distributed generation tariff in rate case filings after June 1, 2018.

## 4. How has the MPSC addressed these requirements?

The MPSC conducted research and a stakeholder process to implement the distributed generation provisions of the new energy law. Specifically:

- The MPSC adopted an order in Case No. U-18383 establishing an interim distributed generation program to replace the net metering program.
- The MPSC Staff conducted a study on the equitable cost of service for customers who participate in the distributed generation program and submitted a report to the docket in Case No. U-18383 on February 21, 2018.
- The MPSC issued an order on April 18, 2018 in Case No. U-18383 approving a tariff, based on the Staff's proposed Inflow/Outflow billing mechanism, that each electric utility is required to file in rate cases submitted after June 1, 2018.

## 5. How are existing net metering program customers affected by the new law?

Sec. 183(1) of Public Act 342 allows existing net metering program customers to maintain current program terms and conditions for 10 years from the date of enrollment in the program. The MPSC reaffirmed this principle in its U-18383 Order on July 12, 2017.

Customers who sign up before new rates for the distributed generation program are established by the MPSC in a utility rate case filed after June 1, 2018 will also be able to maintain the terms and conditions under the net metering program for 10 years from the date of enrollment.

A customer is considered “enrolled” in the program if they have submitted a complete application to their utility. A utility has 10 business days from the submission date of the application to inform the customer whether the application is complete or deficient. The customer is given 60 days from the date of notification to rectify a deficient application.

When a final distributed generation tariff is approved for each electric utility in rate cases filed after June 1, 2018, new customers, and any existing customers who have surpassed 10 years on a previous program, will fall under the new distributed generation tariff.

## 6. How did the MPSC determine an “appropriate tariff reflecting equitable cost of service” for distributed generation customers?

Sec. 6a (14) of Public Act 341 requires the MPSC to study “an appropriate tariff reflecting equitable cost of service for utility revenue requirements for customers who participate in a net metering program or distributed generation program” and to approve such a tariff in utility rate cases filed after June 1, 2018.

MPSC Staff analyzed available data on distributed generation customers, researched pricing models around the country, consulted with outside experts, and engaged stakeholders in a study of distributed generation and related cost-of-service issues.

The study showed that billing distributed generation customers according to the kWh delivered during the month equitably recovered the costs these customers imposed on the utility system. The study also found that, for utilities with advanced metering infrastructure, the excess electricity that customers put onto the electric grid can be calculated, and that a credit for this excess electricity can be established to appropriately compensate distributed generation customers for the value of the energy put onto the grid. MPSC Staff recommended using an “Inflow/Outflow billing mechanism” to reflect equitable cost of service.

## 7. What is the Inflow/Outflow billing mechanism?

“Inflow” means the electricity a customer uses from the utility distribution system. “Outflow” means the electricity generated by the customer’s distributed generation project that is not used on-site and is instead sent to the electric grid. The Inflow/Outflow billing mechanism measures and prices the incoming and outgoing electricity flows separately on an instantaneous basis. This mechanism establishes a basis for consistent and appropriate cost-of-service billing.

In its April 18, 2018 Order in Case No. U-18383, the MPSC adopted a tariff based upon the Inflow/Outflow billing mechanism that regulated electric utilities are expected to submit in any rate case filed after June 1, 2018.

## 8. What is the difference between the Inflow/Outflow and net metering billing mechanisms?

Inflow/Outflow separates power inflows from power outflows, relying on two distinct and independent sets of meter data to establish consistent and appropriate cost-of-service allocators and billing determinants. Net metering captures a customer’s net energy usage. The Inflow/Outflow billing mechanism creates a more complete picture of a customer’s energy usage and excess generation and is better equipped to reflect distributed generation customers’ cost of service.

## **9. How will the actual Inflow charge and the Outflow credit for each utility be determined?**

The MPSC will determine the Inflow/Outflow charge and credit in all regulated electric utility rate cases filed after June 1, 2018.

## **10. When will the new distributed generation program take effect?**

Electric utility rate cases filed after June 1, 2018 are required to include distributed generation program tariffs. The new distributed generation program provisions do not take effect until a final order is approved by the MPSC in a rate case filed after June 1, 2018.

## **11. What are regulated electric utilities required to do after June 1, 2018?**

As provided for by the MPSC's April 18, 2018 Order, electric utilities regulated by the MPSC must file a proposed tariff that has the Inflow/Outflow tariff as its basis. The utilities may also file their own proposals as well. The MPSC will review and approve a final tariff as part of its final determination in each rate case.

## **12. What if the utility does not file a rate case soon after June 1, 2018? Will net metering continue to be available as is until the new tariffs are approved in a rate case?**

Utilities are not required to file rate cases at specific times. Some utilities file rate cases fairly frequently while others may wait several years between cases. Depending on the utility, it could be some time before the new distributed generation tariff changes are in effect. These changes must be approved in a rate case based on the law. In the meantime, net metering will be available.

## **13. Is there a cap on how many customers can participate in a utility's distributed generation program?**

Sec. 173 of PA 342 limits the participation in the distributed generation program to 1% of an electric utility's average in-state peak load for the preceding five years. The 1% limit is made up of the following components:

- Up to 0.5% for customers with a distributed generation project of 20 kilowatts or less
- Up to 0.25% for customers with a distributed generation project of between 20 kilowatts and 150 kilowatts
- Up to 0.25% for customers with a methane digester of 150 kilowatts or more

## **14. Did MPSC Staff solicit stakeholder input in the process of producing the study? Will the MPSC allow for stakeholder input in the process of determining a final tariff in each rate case filed after June 1, 2018?**

Yes. MPSC Staff held seven stakeholder meetings in 2017 to receive feedback on Staff's study of the appropriate distributed generation tariff reflecting equitable cost of service. The MPSC anticipates broad stakeholder participation from intervenors and public commenters in each rate case that will determine the final tariff. Visit the MPSC's [website](#) for information on how to comment or participate in a utility rate case. An MPSC [issue brief](#) also discusses the rate case process in more detail.

## **15. What impact will these changes have on customers interested in solar at their home or business or other types of distributed generation?**

For current net metering customers, as well as customers who sign up for the distributed generation program before new rates are set in a rate case filed after June 1, 2018, the terms and conditions of the existing program will be available for ten years from the date of enrollment. New distributed generation tariffs will be adopted in electric utility rate cases filed after June 1, 2018, and final decisions are yet to be determined, so the impact remains to be seen. However, the federal investment tax credit continues to be available to offset costs associated with installing solar projects, and costs of distributed generation projects continue to fall, increasing their economic viability.

**16. If I am working with a contractor to potentially install solar panels at my home or business, what should I do to find out more about the rates and how the program works?**

Talk to your contractor and utility to make sure you have up-to-date information. For more information, visit the MPSC's [webpage](#) on customer generation, including rules for interconnecting customer generation with utility systems.

**For more information, visit:**

[www.michigan.gov/mpsc](http://www.michigan.gov/mpsc)

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