

MEMO

TO: Michigan Energy Innovation Business Council

FROM: Laura Chappelle & Tim Lundgren, Varnum LLP

RE: Distributed Generation and Electric Interconnection

DATE: March 5, 2020

I. Executive Summary

At recent Senate Energy and Technology Committee (“Committee”) hearings, questions have arisen regarding whether there is clear state statutory authority requiring electric interconnection (“interconnection”) of residential and commercial solar systems (<100 kW). In part, the Committee received testimony on March 3, 2020, from Peninsula Solar, stating that when the solar Distributed Generation (“DG”) cap¹ was reached in Upper Peninsula Power Company’s (“UPPCO”) service territory, the utility denied all interconnection applications until the cap was increased in a subsequent Michigan Public Service Commission (“MPSC” or the “Commission”) electric rate case settlement (Case No. U-20350).

You have asked whether state law specifically requires an interconnection within the DG statutory requirements or otherwise once the DG cap is met. To answer this question, we conducted a legal review and analysis of current federal and state statutes and regulations. Our analysis found that there are no state statutes in Michigan which specifically require investor-owned utilities to interconnect residential and small commercial solar systems (<100 kW) to the utility grid once the distributed generation cap for that utility is reached. Interconnection of these systems may be required under federal law (i.e., PURPA²), but this has not yet been legally tested in Michigan, as no MPSC complaint case has been brought by a customer denied interconnection (e.g., in UPPCO’s territory after the initial residential solar cap was reached in 2016). Highlights of our findings include the following:

- There has been no comprehensive review by the Legislature of the interconnection statutory requirements, despite interconnection having been addressed in several specific regulatory categories on occasion. It appears this has resulted in a regulatory gap now being potentially faced by customers who wish to interconnect once the utilities have met their net metering/DG caps.
- "Self-service" customers with on-site generators are, by definition, not interconnected with the grid, so their relationship to the utility is different than

¹ MCL 460.1173(3).

² The Public Utility Regulatory Policies Act of 1978, 16 U.S.C. 824a-3; MCL 460.6v (“PURPA”).

that of a net metering/DG customer with an interconnected generator. Under Michigan's law, a customer can always install a solar system for "self-service" if the customer is not grid connected.

- The merchant generation statute guaranteeing interconnection only applies to generators larger than 100 kW in size. Smaller generators would need to access the interconnection standards under another regulatory category (e.g., the DG program).
- Under current MPSC rules, a utility must provide notice to the MPSC and its customers when the cap is reached and that its DG program is closed and that no new applications will be accepted. The language of the rule is mandatory ("the electric provider ... **shall** provide notice..."). A utility may voluntarily obligate itself to do additional interconnections, but customers may not then be able to rely on the protections of the timelines and expense limitations provided by the existing rules.
- Customers can likely obtain and use PURPA QF status with the Federal Energy Regulatory Commission ("FERC") to gain access to the MPSC's interconnection rules, but, to our knowledge, this has not yet been used to provide interconnection access in Michigan for small solar systems. Additionally, this will not ensure that customers are able to be fairly paid for power sent to the grid, in the same way the DG program does.
- While some utilities have apparently given verbal assurances that DG systems will continue to be interconnected once the statutory DG cap is met, such as those provided in recent testimony before the Senate Energy and Technology Committee,³ we have found nothing in state law or Commission orders that would require such interconnections.

II. Introduction

Recent concerns about Consumers Energy Company ("Consumers Energy"), UPPCO, DTE Electric Company ("DTE Electric"), and other electric utilities hitting their statutory caps⁴ for residential and commercial solar in their net metering/DG programs have raised two particular questions: (1) whether customers will be able to continue to install and interconnect their home and small commercial solar systems once the cap is reached, and if so, under what terms, and (2) what rate would be paid for excess power sent to the utility under those circumstances, assuming customers were still allowed to interconnect.

³ Video available at: <https://misenate.viebit.com/player.php?hash=AkTDMtmOhY66>

⁴ Section 173(3) of 2016 PA 342 provides, in part, that: "(3) An electric utility or alternative electric supplier is not required to allow for a distributed generation program that is greater than 1% of its average in-state peak load for the preceding 5 calendar years. The electric utility or alternative electric supplier shall notify the commission if its distributed generation program reaches the 1% limit under this subsection. . . ."

This memo provides a high-level review of the current electric interconnection regulations and how those might apply to net metering/DG customers after the cap is met. The memo also examines possible rate impacts for customers interested in the DG program once the solar DG caps are met. The first section below addresses the regulations, in general, applying to interconnection, and the second section addresses what rate might apply for power delivered to the utility once the DG cap has been met.

A. Interconnection

With respect to interconnection, the major concerns customers traditionally face are the willingness of the utility to interconnect, the timeliness of utility responses during the process, and the costs of the interconnection. All of these concerns are addressed by the Commission's current interconnection standards. The development of those standards is discussed briefly below, as is a cursory review of how they apply to customers who have various types of on-site generation – in the context of each regulatory category.

As discussed below, it appears that once the net metering/DG cap is reached, only the federal PURPA law offers a certain path to interconnection rights for small renewable projects. Although the PURPA law applies to all of the states, in 2016, the Michigan Legislature affirmatively adopted the law's protections into state law. *See* MCL 460.6v.

1. Self-Service Power

As a clarifying matter, we should distinguish this category from the start. Utility customers have a right to self-generate that is probably inherent and needs no specific legislative grant, but in any event is reinforced in two places by statute: MCL 460.10a(4) and MCL 460.1185. The latter of these only applies to industrial customers. The former applies to residential and small commercial customers as well, and states in relevant part:

This act does not prohibit or limit the right of a person to obtain self-service power and does not impose a transition, implementation, exit fee, or any other similar charge on self-service power. A person using self-service power is not an electric supplier, electric utility, or a person conducting an electric utility business. As used in this subsection, "self-service power" means any of the following: (a) Electricity generated and consumed at an industrial site or contiguous industrial site or single commercial establishment or single residence without the use of an electric utility's transmission and distribution system. [MCL 460.10a(4)(a)]

Thus, the statute requires that the generator is not interconnected with the grid (it does not rely on utility transmission or distribution lines) and purely serves the load behind the meter ("generated and consumed at ... [a] single commercial establishment or single residence"). Thus, by definition, it cannot be fed back to the grid, nor can it be distributed to another site. This is, therefore, a different kind of installation and relationship with the grid for the homeowner than a DG installation would be and raises different technical and economic challenges and issues. It is not a simple substitute.

The "self-service" provision was passed as part of the Customer Choice and Electricity Reliability Act, PA 141 of 2000, where it was intended to clarify that by allowing customers to shop for their electric power from third-party suppliers (Alternative Electric Suppliers)⁵ the Legislature did not intend to also restrict those customers' ability to supply their own power, if they so choose.

2. Merchant Generation

Another statutory provision added by PA 141 of 2000 in an effort to spur competition in Michigan's electric market was MCL 460.10e, which ensured that merchant plants would be interconnected by the utilities in a timely manner. A "merchant plant" is defined in MCL 460.10g(e) as an in-state, non-utility generator with a capacity of more than 100 kW. While this provision addresses projects too large to apply to the categories of concern here, it is nevertheless of interest because it drove the creation of the MPSC's interconnection rules, as discussed below.

The MPSC's Interconnection and Net Metering Standards ("Interconnection Standards"), R 460.601a – R 460.656, were first promulgated in response to the requirement in MCL 460.10e that reads as follows:

(1) An electric utility shall take all necessary steps to ensure that merchant plants are connected to the transmission and distribution systems within their operational control. If the commission finds, after notice and hearing, that an electric utility has prevented or unduly delayed the ability of the plant to connect to the facilities of the utility, the commission shall order remedies designed to make whole the merchant plant, including, but not limited to, reasonable attorney fees. The commission may also order fines of not more than \$50,000.00 per day that the electric utility is in violation of this subsection.

(2) A merchant plant may sell its capacity to alternative electric suppliers, electric utilities, municipal electric utilities, retail customers, or other persons. A merchant plant making sales to retail customers is an alternative electric supplier and shall obtain a license under section 10(2).

(3) The commission shall establish standards for the interconnection of merchant plants with the transmission and distribution systems of electric utilities. The standards shall not require an electric utility to interconnect with generating facilities with a capacity of less than 100 kilowatts for parallel operations. The standards shall be consistent with generally accepted industry practices and guidelines and shall be established to ensure the reliability of electric service and the safety of customers, utility

⁵ This pre-dated the imposition of the 10% market cap that was imposed in 2008 on the Electric Choice market.

employees, and the general public. The merchant plant will be responsible for all costs associated with the interconnection unless the commission has otherwise allocated the costs and provided for cost recovery.

(4) this section does not apply to interconnections or transaction that are subject to the jurisdiction of the federal energy regulatory commission.

In 2001, the Commission made the following observations about this Section 10e when it began the process of promulgating new interconnection standards in response to Section 10e(3).

Section 10e was enacted, in part, in response to concern that the interconnection process could be manipulated to impede competitors trying to enter the generation market. The Commission fully endorses the Legislature's policy determination that the interconnection process should not constitute a barrier to market entry.⁶

Later in that same Order, the Commission examined the timelines under which interconnections were being made in the absence of Commission-established standards, and observed:

The Commission finds that the concern expressed by developers regarding the existing procedures has merit. Section 10e(1) of Act 141 empowers the Commission to sanction interconnections that are "unduly delayed." Without more definite standards regarding the time that a utility may take to process an application, project developers will continue to face uncertainties and delays that could frustrate development of a competitive market in this state. Accordingly, the Commission agrees with the Staff that standards should be adopted for the processing of applications that expedite the review process, provide greater certainty to developers, and take into account the varying sizes and complexities of merchant plants.⁷

In a follow-on Order issued on March 26, 2003, the Commission elaborated on its concerns about utility delays and indefinite timelines:

The Commission agrees with the commenting parties that the entire interconnection process, from the filing of the application to the physical interconnection with the utility's system, should be subject to definite time deadlines, with specific periods provided for meeting major milestones. The Commission will not permit utilities to set open-ended timeframes that invite delay. Each utility should be accountable for missed deadlines that are not attributable to the applicant.⁸

⁶ February 5, 2001 Order in Case No. U-12485, p. 6 (emphasis added).

⁷ *Id.*, p. 10 (emphasis added).

⁸ March 26, 2003 Order and Notice of Hearing in Case Nos. U-12485 and 13745, p. 10 (emphasis added).

It is thus plain that the Commission's Interconnection Standards were first established in the early 2000s in response to the statutory directive that merchant plants be interconnected to the utility without undue delay, and that the Commission shared the Legislature's concerns about utility delays and indefinite timelines that developers were then experiencing in the absence of such rules.

3. Net Metering/DG

The initial interconnection rules established in 2003 were revised in 2009 to accommodate the net metering program required under the Clean and Renewable Energy and Waste Reduction Act, PA 295 of 2008, which was itself subsequently amended in 2016, resulting in the current "distributed generation" program. The size of an "eligible electric generator" is limited to 150 kW at a single site.⁹ Many of the key provisions can be found at MCL 460.1173, including requirements for "[s]tatewide uniform interconnection requirements for all eligible electric generators. ... designed to protect electric utility workers and equipment and the general public."¹⁰ The MPSC is in the process of updating its interconnection rules,¹¹ but in the meantime, the current rules remain in effect and controlling.

Under the current MPSC rules, if a utility reaches the program cap, it must provide notice to the MPSC and its customers that its program is closed and that no new applications will be accepted. See Rule 44 (R 460.644). The language used there is mandatory ("the electric provider ... **shall** provide notice..."). Presumably, a utility can voluntarily obligate itself to do additional interconnections, but, as noted above, under such circumstances, customers may not be able to rely on the protections of the timelines and expense limitations provided by the existing rules.

As discussed further below, in its rate case filed on February 27, 2020 (U-20697), Consumers Energy has suggested that customers could be interconnected as PURPA QFs.

4. PURPA Qualifying Facilities

PURPA grants certain rights to certain renewable and highly efficient facilities that are able to meet certain criteria – these are known as "Qualifying Facilities" or "QFs." Among the rights granted under the FERC's rules are a right to interconnect with the local utility: "any electric utility shall make such interconnection with any qualifying facility as may be necessary to accomplish purchases or sales under this subpart. The obligation to pay for any interconnection costs shall be determined in accordance with § 292.306." 18 CFR 292.303(c). FERC's rules explicitly assign to the State the task of determining how the obligations to pay interconnection costs are to be assigned. See 18 CFR 292.306. What PURPA does not do is to mandate the setting of specific timelines by the State, which is left to the State to implement. Michigan has handled PURPA QF interconnection through the same interconnection standards that it handles merchant plants and distributed generation. Being certified as a QF (which is

⁹ See MCL 460.1005(b).

¹⁰ MCL 460.1173(6)(a)

¹¹ See https://www.michigan.gov/mpsc/0,9535,7-395-93307_93312_93320_94834-482690--,00.html

relatively simple¹²) can thus provide another means to require the utility to interconnect a project under existing rules.

5. Terms of Interconnection

Before moving on to discuss rates, we should note that net metering/DG customers have some benefits – as required by the Legislature -- in their terms of interconnection that other customers do not have. Thus, once the program cap is met, those rules that apply only to net metering/DG customers will not apply to other similar customers of the same size who are outside of the cap. We have not done an exhaustive review of the various rules to determine all the differences between the sets of rules that might apply, but there appear to be some shortened timelines under the net metering rules of which customers would lose the benefit. If a customer is able to interconnect as a PURPA QF after the cap is reached, costs and fees would appear to remain approximately the same for Category 1 projects (those of 20 kW or less), while Categories 2 and 3 projects (*i.e.*, those between 20 kW and 150 kW, and methane digesters greater than 150 kW but not more than 550 kW, respectively) would face potential cost increases for interconnection due to an increase in the application fee costs, and an increased obligation to pay for utility testing and inspection.¹³ So, even if such customers were able to effectively gain access to the interconnection rules via PURPA, in doing so they lose some of the benefits the Legislature granted to net metering /DG customers.

B. Rates for Purchases

Once interconnected, the customer must consider the rate that the utility will pay for energy provided to the utility through the interconnection. Once the cap is exceeded, the utility no longer is obligated to pay under the net metering or DG tariff, as the case may be. As Mike Byrne, COO of the Commission, testified on March 3, 2020, the Commission determined a cost-of-service based outflow credit rate for DG customers in the DTE rate case last year.¹⁴ In their February 25, 2020 testimony before the Senate Energy and Technology Committee, both Brandon Hofmeister, Senior VP of Governmental, Regulatory and Public Affairs for CMS Energy Corporation and Consumers Energy Company, and Renze Hoeksema, VP of Corporate and Governmental Affairs for DTE Energy, stated that their companies would continue to purchase power from customers who wanted to install solar projects and interconnect them after the caps had been exceeded for their respective companies. Mr. Hofmeister stated that Consumers proposed to do so at the customer's choice of either the latest competitive bid price for solar, or the MISO wholesale energy market price.¹⁵ Mr. Hoeksema simply stated that a rate would have to be set that would reflect the proper costs and benefits, and noted that DTE believes that the current inflow/outflow model is inequitable because, in his opinion, it both underpays the utility for the customer's use of the grid, and overpays the customer for the energy provided. On further questioning, Mr. Hoeksema also admitted that before any rate could be put

¹² See: <https://www.ferc.gov/industries/electric/gen-info/qual-fac/what-is.asp>

¹³ See the fee chart in MPSC's interconnection rules, at R 460.618, Rule 18.

¹⁴ DTE Electric Company, Case No. U-20162, dated May 2, 2019.

¹⁵ As discussed below, Consumers' filed tariff does not provide such a choice, but only the market rate.

into place to pay such customers, it would have to be reviewed and approved by the Commission.

In its rate case filed on February 27, 2020 (U-20697), Consumers Energy has suggested that customers could be interconnected as PURPA QFs, and is proposing tariff modifications to enable the utility to pay such customers the real-time market (LMP) MISO energy price for the power delivered. This is a rate well below that offered to current net metering/DG customers. It is also a controversial rate that has been criticized by intervening parties in MPSC PURPA cases, and is also criticized as part of FERC Commissioner Richard Glick's dissent in the current FERC PURPA NOPR.¹⁶ If the Commission approves these tariff changes, then it is also worth noting that Consumers has proposed in its tariff that the utility "has the right to refuse to contract for the purchase of energy," and so can refuse to contract with any customer. Such a proposal is not consistent with Consumers' current obligations under the settlement agreement in U-20165, where it must give a contract to all QFs at or below 150 kW.

III. Summary and Conclusion

Up until 2000, customers seeking to interconnect with the utility had no statutory or regulatory right to do so under Michigan law that we are aware of. They had to negotiate such interconnections with the utilities, leading to complaints over uncertain timelines and delays. In 2003, under the authority of MCL 460.10e, the MPSC promulgated interconnection rules for merchant plants that were later expanded to include rules for net metering/DG customers. These rules have also been applied to PURPA QF projects seeking interconnection. The interconnection rules are currently under review at the MPSC and will undergo a new rulemaking process in order to be updated following the 2016 Acts 341 and 342.

Meanwhile, there has not been a comprehensive review by the Legislature of the interconnection statutory requirements, despite interconnection having been addressed in several specific regulatory categories on occasion. It appears this has resulted in a regulatory gap now being potentially faced by customers who wish to interconnect once the utilities have met their net metering/DG caps.

Once the net metering/DG cap is exceeded and customers are no longer eligible to access the interconnection rules under those provisions, the only other category which might apply to projects of that size is a PURPA QF. While being a PURPA QF may allow access to the benefits of the interconnection rules, customers would lose the timeline and price requirements of the net metering/DG program, and would be subject to a new pricing mechanism, which would need to be approved by the Commission.

¹⁶ Dissent in Part of Commissioner Richard Glick Regarding FERC's Notice of Proposed Rulemaking to Update PURPA Regulations, Docket Nos. RM19-15-000, AD16-16-000, dated September 19, 2019. <https://www.ferc.gov/media/statements-speeches/glick/2019/09-19-19-glick-E-1.asp#.XmEqtiFKi71>

There is at present no clear tariff rate structure that would apply to DG/net metering customers seeking to interconnect after the cap is exceeded. Consumers Energy has now proposed a new tariff based on moving these customers to PURPA and a MISO market energy rate. DTE would have to seek a similar new rate structure which will have to be approved first through a 10-month MPSC proceeding. This means that the time and expense of an administrative rate case before the MPSC pursuant to the Michigan Administrative Procedures Act will likely be required before such customers will be able to be paid by the utility. Given this past history, and this apparent regulatory gap, it is not unreasonable, therefore, for customers to have concerns that mere general verbal assurances from utility executives that DG systems will continue to be interconnected, such as those provided in recent testimony before the Senate Energy and Technology Committee,¹⁷ may not be sufficient to ensure timely interconnection under reasonable terms once the cap has been exceeded, and payment of a reasonable rate for power delivered to the utility.

¹⁷ Video available at: <https://misenate.viebit.com/player.php?hash=AkTDMtmQhY66>