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Public Sector Consultants Policy Review

Policies to Overcome Barriers for Renewable Energy Distributed Generation: A Case Study of Utility Structure and Regulatory Regimes in Michigan

A recent study from Michigan Technological University (MTU) examines how existing policies and regulatory structures create barriers for the proliferation of distributed energy generation in Michigan. The study—titled Policies to Overcome Barriers for Renewable Energy Distributed Generation: A Case Study of Utility Structure and Regulatory Regimes in Michigan—reports on Michigan's energy policy and its impact on the state's market for distributed generation (Prehoda 2019). The points presented in the study examine the role and intent of Michigan policymakers and regulators with regard to how utilities operate their businesses.

At the request of MI Energy Promise, Public Sector Consultants (PSC) reviewed the study and addressed its key points in the following analysis. Over the past 2o years, PSC has examined Michigan's energy policies as they have evolved and most recently authored a report detailing policy considerations related to renewable energy in the context of the state's latest energy policy (Public Sector Consultants 2018). This report provides analysis of many of the same themes addressed in the MTU study and offers important context. A summary of PSC's analysis of key claims from the study follows.

Finding One: Utilities Have Limited Distributed Generation through their Misinterpretation of Policies

The study states that distributed generation "[totals] 10 percent of Michigan's total energy use" (Prehoda 2019). However, other research shows that distributed generation only represents 0.1 percent of the state's installed capacity. PSC found that, to date, the 3,277 customers statewide that have participated in distributed generation programs represent only 0.032 percent of total retail sales, or a total installed capacity of approximately 30 megawatts (MWs). Michigan has a total installed electric generating capacity of approximately 30,000 MWs (U.S. EIA January 2019).

The study also states that distributed generation in Michigan has been limited by programmatic caps. However, Michigan's distributed generation programs have existed for over a decade and in that time, overall participation has been low, and through 2017, only one utility—Upper Peninsula Power Company (UPPCO)—has reached their distributed generation cap. This is due, in part, to the fact that UPPCO's residential rates are approximately 30 percent higher than the statewide average and the company has a relatively small customer base (MPSC April 2019). Exhibit 1 shows the space remaining in distributed generation programs for rate-regulated utilities in Michigan. As shown, only UPPCO has reached the cap—UMERC is the only other utility that has exceeded even 50 percent of its cap (MPSC October 2018).

EXHIBIT 1. Remaining Distributed Generation Participation for Rate-regulated Electric Providers, Category One: 20 Kilowatts and Under

Company	Percentage Remaining
Alpena Power Company	76%
Consumers Energy	84%
DTE Electric	78%
Indiana Michigan Power Company	89%
Upper Michigan Energy Resources (UMERC)	49%
Upper Peninsula Power Company (UPPCO)	0%
Xcel Energy	86%

Source: MPSC October 2018

With the processes and regulation required for participation in Michigan distributed generation programs, the finding that utilities alone have the ability to undermine participation through administrative caps is inaccurate. Participation has not been suppressed for the vast majority of customers in Michigan except for in jurisdictions with high prices (and favorable economies).

Finding Two: Distributed Generation Customers are Being Overcharged and Undervalued

Another of the study's findings offers that distributed generation customers are not fairly compensated for their contributions to the electric grid, noting a recent report from the Michigan Public Service Commission (MPSC) that presents the cost-of-service analysis for distributed generation customers in Michigan. Citing this report, the MTU study states, "[distributed generation] customers were overcharged roughly $106/year" (Prehoda 2019). Upon further examination, however, PSC's research presents alternative findings.

First, MPSC's study presents a hypothetical scenario that proposes treating distributed generation customers as an independent subgroup for the purpose of ratemaking.[1] Additionally, under this hypothetical scenario, MPSC's final estimates actually show that the net amount distributed customers are overcharged is only $38. Staff cautions that this hypothetical scenario, though

[1] Michigan has no precedent for separating residential customers into subgroups based on individual customer characteristics, such as distributed generation. All residential customers are treated the same and separating out a subgroup based on one characteristic would strongly impact the calculation of pricing, rates, etc.

analytically valid, raises "significant regulatory-policy inconsistenc[ies]" and creates "a slippery slope that should be carefully considered so as not to harm the greater public interest" (MPSC February 2018). Because this scenario is hypothetical, it is not a definitive conclusion that distributed customers are overcharged; however, it does raise some of the complex considerations that must be taken into account in designing rates.

MPSC staff highlighted in their report that it is "a critical deficiency of [net metering] that distribution system infrastructure and maintenance costs are inappropriately shifted to non-[distributed generation] customers" (MPSC February 2018). This deficiency of the existing net metering structure is the basis for MPSC's recommended new inflow/outflow tariff design for distributed generation. While utilities still have the option to file their own distributed generation tariff in response to the requirements of PA 342, their proposed tariffs are subject to MPSC review and will be scrutinized in the context of the new inflow/outflow tariff model.

Finding Three: The Public Utility Regulatory Policies Act Is Still Necessary to Diversify Electricity Supply

The MTU study also found that the Public Utility Regulatory Policies Act (PURPA) "remain[s] critically important in diversifying electrical generation" (Prehoda 2019). However, while PURPA does support the development of nonutility generation, including renewable energy resources, further research shows that it has not been a major source of renewable energy in Michigan for the past ten years. Since 2008, Michigan has added more than 3,500 MWs of new renewable energy capacity, but only 13 percent of this has come from PURPA projects. In addition, despite PURPA supplying 7.7 percent of Michigan's overall generating capacity, less than half of the PURPA projects in Michigan are from renewable energy sources and over half of the state's PURPA capacity comes from one natural gas cogeneration facility providing electricity and steam heat (PSC 2018).

While the majority of today's proposed new PURPA projects are for renewable energy, there is an ongoing national conversation about the right role for PURPA given the evolution of energy policies since the law was originally enacted over 40 years ago. Independent power producers now have access to wholesale markets for energy and capacity and the nation's electric supply is much more diverse. Thus, it is not certain what is left to accomplish of PURPA's original intent or whether the policy remains necessary in the modern electric power system.

Finding Four: Utilities Cap the Number of Customers that Can Participate in Retail Choice Opportunities

Introduced in Michigan in 2000, retail choice policy allowed customers to choose an alternative energy supplier from which to purchase their electricity. Due to the nature of the electric grid, this choice applied only to the generation supply portion of electricity and transmission while distribution remained fully regulated. In 2008, policymakers moved to roll back retail choice but stopped short of completely reversing the policy, instead capping retail choice participation at 10 percent of a utility's load. At the time, participation was so low that this cap allowed for more customers to sign up. This cap is articulated in statute, which states, "no more than 10 percent of

an electric utility's average weather-adjusted retail sales for the preceding calendar year may take service from an alternative electric supplier at any time," meaning its enforcement is not a result of misinterpretation by utilities (PA 286 2008).

The MTU study expressed that this policy "excludes residential and commercial consumers from participating, as the larger industrial consumers demand more power that is more favorable to the utility" (Prehoda 2019). The 10 percent cap, however, does not distinguish between residential, commercial, or industrial customers. It instead establishes a first-come, first-served system that places customers in a queue in case additional retail choice cap space becomes available. While the policy was never meant to discriminate against a certain customer class, industrial customers (who were more price sophisticated and price sensitive when it comes to their energy use) capitalized on the policy while cap space remained.

As a possible solution to the seeming discrimination, the MTU study proposes raising the retail choice cap steadily by first exempting specific industries, such as schools, to leave space for other customers within the cap range; however, it is unclear how increasing retail choice would benefit consumers or how it would drive more customers to pursue distributed generation. Other long-term research shows that, despite there being some benefits, there is little evidence that the policy reduces rates or yields greater investment in renewable energy resources.

Finding Five: Utilities Manipulate Policymakers and Regulatory Agencies

The final key finding of this study states that "utilities manipulate regulatory regimes via policy misinterpretation to deter or hinder the proliferation of [distributed generation] in favor of maintaining the existing interests in centralized, fossil-fuel-based electrical energy production" (Prehoda 2019).

The study further suggests that utilities have the ability to delay, obstruct, or manipulate the regulatory process in order to achieve desired outcomes. This viewpoint, however, reflects less on the role of utilities in the regulatory process and more on the adversarial nature of utility regulation in Michigan and across the country. Investor-owned utilities accept an obligation to serve all customers in their service territory in exchange for fair compensation of the costs incurred to provide service. State regulators' role is to ensure utility investments are reasonable and prudent and are in the public interest (Lazar 2016). In addition, stakeholders representing a variety of interests—including residential customers, industrial customers, and environmental organizations—have the opportunity to intervene in the process and present alternative viewpoints. Michigan statute even requires utilities to solicit feedback directly from the general public through open hearings (PA 341 of 2016). This process, while imperfect, is the essential best practice exercised in states throughout the nation to provide oversight on the operation of essential utility services.

In addition, components of Michigan's 2016 energy policy were designed to promote greater stakeholder engagement and establish structures that would allow interested parties to work collaboratively on energy policy decisions. Key areas where the 2016 energy law promoted collaboration were on developing inputs and filing requirements for utilities' integrated resource

planning and studying how performance-based regulation could impact utility operations and the attainment of public policy goals.

Regulation is intrinsic to utility behavior and, as such, policymakers and regulators must update the rules that govern these industries when they want to achieve different outcomes. Utility performance is strongly affected by these embedded policies, which have been crafted, implemented, and reinforced over decades of successive legislative change.

Conclusion

Long-term research exhibits that Michigan's recent energy policy provides a framework for the state to further goals of diversifying the state's energy resources while providing for a more reliable and affordable electric system. In addition, these policies have created more opportunities for stakeholders to play a role in the decision-making process, expanded the role for utility regulators, and provided customers with more opportunities to participate in distributed generation programs either at their homes or through community solar programs.

It is not enough to examine singular policy goals for Michigan's energy system, which is why, for several years leading up to the 2016 energy law, the state emphasized the importance of an energy policy that provided for affordability, reliability, and environmental protection. Michigan's adoption of the integrated resource plan as part of PA 341 provides an opportunity to finally put all of these goals into perspective and define a comprehensive approach to achieve them. The integrated resource planning process will help inform decision makers of the implications of their choices and better prepare them to make judgments in a dramatically changing environment.

About PSC

Public Sector Consultants (PSC) prides itself on providing objective, nonpartisan research to advance innovative, actionable public policies for Michigan. The firm has served hundreds of local, state, and federal government agencies, nonprofit organizations, and private-sector businesses since our founding in 1979.

PSC has been involved in the evolution of Michigan's energy policies and electric market structure over the past decade, including researching and evaluating the impact of policies for renewable energy, electric restructuring, and energy assistance programs. Our most recent research effort examines how various renewable energy policies impact Michigan and provides considerations for policymakers in light of Michigan's 2016 energy legislation. PSC's previous work on energy policy and electric market structures is available at www.publicsectorconsultants.com/energy.

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