STATE OF MICHIGAN
MICHIGAN PUBLIC SERVICE COMMISSION

Comments of the Joint Clean Energy Organizations on the Draft "Smart Rate Design for Distributed Energy Resources" Report Prepared by the Regulatory Assistance Project (RAP) for the Michigan Public Service Commission

September 22, 2021

Introduction

The Ecology Center, the Environmental Law & Policy Center (ELPC), the Solar Energy Industries Association (SEIA), Vote Solar, and the Union of Concerned Scientists (UCS), collectively the Joint Clean Energy Organizations (JCEOs), appreciate this opportunity to provide comments on the Draft "Smart Rate Design for Distributed Energy Resources" Report (Draft Report) prepared by the Regulatory Assistance Project (RAP) for the Michigan Public Service Commission (the Commission or MPSC).

The Commission's February 4, 2021 Order in Docket No. U-20960 required a draft report "summarizing efforts of the workgroup to date, a thorough exploration of how customer-owned generation and energy storage are changing the way energy customers use the grid, cost allocation, and pros and cons of various rate design options, and may include recommendations for the Commission's consideration."[1]

The JCEOs commend RAP for producing a Draft Report that clearly and fairly lays out a number of important issues. We offer several observations and suggestions for RAP in finalizing the report, especially recommending that some conclusions about certain aspects of rate design for distributed energy resources (DER) would provide the Commission and the Legislature with valuable context as they consider the evolution of DER in Michigan and how the rate design can evolve to accurately and fairly value DER in a manner that benefits all Michiganders. Specifically, we recommend that the Final Report should:

- Supplement the discussion of the criteria for evaluating DER rate design with an additional principle that recognizes the right of customers to manage their energy costs;
- Provide a more thorough treatment of the alleged subsidy of DER owners by non-DER customers;
- Recommend revisiting the current valuation of DER to more accurately reflect the utilities long-run incremental costs including all avoided distribution, transmission, and generation costs;

[1] Order, *In the matter, on the Commission's own motion, to conduct a study on rate designs and options that will account for the changing customer use of the grid due to the adoption of new energy technologies*, Docket No. U-20960, pg. 8.

- Find that the 1% minimum capacity requirement in the statute is unnecessary in the context of an advanced rate design regime that fairly and accurately reflects the cost of service to DG customers; and
- Make specific recommendations about which rate design elements proposed in the report align most closely with the principles that are adopted.

In addition, the JCEOs recommend that the Commission use the report to initiate a proceeding to evolve Michigan's DER compensation in a manner that fairly and accurately values all services that DER can provide to the grid.

Commenters

The Ecology Center is a membership-based, nonprofit environmental organization based in Ann Arbor, Michigan. Founded by community activists after the country's first Earth Day in 1970, the Ecology Center is now a regional leader that works for a safe and healthy environment where people live, work, and play. The Ecology Center works for a just and healthy environment through grassroots organizing, advocacy, and demonstration projects, and has advocated for expanded use of renewable energy since the organization's founding in 1970.

ELPC is a not-for-profit public interest environmental organization that works to achieve cleaner air, advance clean renewable & energy efficiency resources, improve environmental quality, protect clean water, and preserve natural resources in Michigan and the Midwest.

Vote Solar is a non-profit, non-partisan, grassroots organization working to fight climate change and foster economic opportunity by bringing solar energy and other distributed energy resources (DER) into the mainstream.

SEIA is a national trade association building a comprehensive vision to achieve 20% of U.S. electricity generation from solar by 2030 through research, education and advocacy. SEIA works with its 1,000 member companies and other strategic partners to advocate for policies that create jobs in every community and shape fair market rules that promote competition and the growth of reliable, low-cost solar power.

UCS is a national non-profit organization headquartered in Cambridge, Massachusetts, with additional offices in Washington, DC; Oakland, California; and Chicago, Illinois. UCS is a public interest organization with more than 50 years of experience advocating for science-based policies, including responsible energy policy and utility oversight at the state and federal level, and with more than 6 years working in Michigan on these issues.

Principles

In framing our discussion of the report, the JCEOs would like to first address the important criteria for evaluating DER rate design set forth In Section 6(a) of the Draft Report. The Draft Report proposes four primary criteria for evaluating DER rate design:

- Fair cost allocation;

- Efficient customer price signals to use, generate, and store energy;
- Customer understanding and acceptance; and
- Administrative feasibility.[2]

The JCEOs suggest that the following four principles encompass the Draft Report's criteria, but also suggest alternative principles that should be considered: (1) customers have a right to manage their own energy use and therefore their energy costs; (2) DG customers must be good "grid citizens;" (3) DG customers should be fairly compensated for the benefits they provide to the grid; and (4) a DG tariff should be technologically feasible and customer-friendly.

These principles are not significantly different from those proposed by RAP, with the exception of recognizing the right for customer self-generation. Like the Draft Report's proposed criteria, the JCEOs principles of fair cost allocation and efficient customer price signals support compensating customers for the full value of all energy and capacity that they generate, including all services and avoided costs that DER can provide to the grid.

Fair and accurate price signals also reflect that connection to the modern grid is valuable for all customers, including DG customers. This will likely increase in importance as our economy continues a trend toward electrification. Key to customer understanding and acceptance, as well as fair cost allocation, is that DG customers benefit from being connected to the grid and, as such, should pay their "fair share" for the benefit they receive. And customers must be able to understand and estimate the impact of their investments, and the billing methodology of the DER tariffs should ensure predictability and transparency.

The JCEOs would highlight the importance of the first principle for customers' right to manage their own energy use. While it may seem axiomatic, it is often lost in the discussion of what options customers have to take control of their own energy expenditures. It is important to remember that distributed generation customers are not the beneficiaries of a subsidy by utilities and non-participating customers. Rather, those customers have simply made the choice to reduce their energy use and the associated costs. Understood from this perspective, it is unfair to characterize a customer's investment in their own energy management technology as receiving a subsidy.

Discussion of Cost Shift/Subsidy

The Draft Report correctly lays out the dimensions of the cost-shift debate but does not lead to a clear conclusion. In fact, while the report acknowledges that the inflow/outflow mechanism adopted by the Commission in 2018 removes most "reasonable arguments about significant cost-shifting"[3] it does not discuss that "cost shift" can be addressed not only through bill calculation methodology, but also through other means such as ensuring that rate design accurately reflects all short-, medium-, and long-term marginal costs, as well as ensuring recovery of utility past/embedded costs.

[2] Draft Report, pg. 51.
[3] Draft Report, pg. 4.

At the outset, it is important to address the proposition that DG customers are beneficiaries of some sort of subsidy by the utility and non-participating customers. In the current Michigan ratemaking practice, utility revenue requirements are set largely based on historic (or embedded) costs. In this frame, customers who significantly reduce their energy use by installing DER are somehow not paying their "fair share."

The JCEO suggest that a customer taking measures to reduce their energy use is not receiving a subsidy. DG customers have made an investment in their own property designed to reduce their energy use. Their energy consumption may be reduced after the installation of DG, but most will continue to be net importers of power over the course of a conventional billing period—usually one month. And, in the long run, most of those customers continue to have usage profiles that look very much like other types of customers in the residential class.
In Consumers Energy's 2019 rate case, the JCEO provided testimony that compared DG customers to a randomly selected sample of non-DG residential customers. That analysis showed that DG customers' usage profiles fall well within the range of variability within the residential rate class.[4]

It is also important to understand the important opportunity for DER expansion in reducing total system costs. Recent studies are bringing to light the value that distributed energy resources can bring to the grid. The recent study by Vibrant Clean Energy (VCE) for the Local Solar for All Coalition found that deploying significant amounts of DER is the most cost-effective way for the United States to transition to a clean energy system while saving customers hundreds of millions of dollars.[5] Now, thanks to the work of VCE, we also know that leveraging distributed energy resources can reduce overall system costs and thus costs to customers.

Valuation

Appropriate valuation is the key. The Draft Report discusses valuation in the section on designing credits but fails to fully grapple with how a particular valuation methodology's strengths and weaknesses translate to just and reasonable rate design. To provide a fair compensation for all of the benefits that DER provides to the grid, the outflow credit must send an economically accurate price signal about the utilities' true short-, medium-, and long-run marginal costs. In order to understand why the current outflow credit does not provide an accurate price signal, it is helpful to expand upon the understanding of valuation across three different approaches to valuation.

Traditional utility ratemaking is cost-based. Specifically, it is embedded cost-based, which means that the "revenue requirement" for the utility consists of a portion of its capital costs plus any variable expenses. This is a backward-looking perspective that seeks to ensure that the

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[4] Direct Testimony of Claudine Custodio, *In the matter of the application of Consumers Energy Company for authority to increase its rates for the generation and distribution of electricity and for other relief*, Docket No. U-20697, June 24, 2020.
[5] Vibrant Clean Energy, *Why Local Solar for All Costs Less*, December 1, 2020. https://www.vibrantcleanenergy.com/wp-content/uploads/2020/12/WhyDERs_ES_Final.pdf

regulator makes good on the promise that the utility can recover prudently incurred costs in future rates.

Value-based compensation would seek to discern what the economic value to all of society of the customers' full energy and capacity value is to the utility currently and going forward. Societally oriented value-based compensation is preferable because it provides the most economically accurate price signal for electricity consumption and will incentivize the economically optimal outcome. However, because there are no markets for the utility to purchase DER services from its customers, valuing DER services necessarily involves trying to discern the marginal value of an incremental kilowatt of installed capacity in the short, medium, and long-run costs of the utility. This requires extensive data on the utility planning and investment plans that are generally not available in states that rely on embedded cost ratemaking for vertically integrated utilities, such as Michigan.

Finally, market-based compensation depends on price signals from markets to price various elements of the value stack. Market-based compensation can provide accurate price signals, but only if the markets themselves are robust, comprehensive, and transparent. MISO does not have markets for all services that DERs can provide, and those markets that do exist are not sufficiently robust to provide accurate avoided cost price signals. For example, the MISO Planning Resource Auction is an annual auction used by utilities to sell excess capacity or meet short-term capacity needs. However, most vertically integrated utilities in MISO meet the overwhelming majority of their resource adequacy needs through self-supply of owned assets. As such, the MISO capacity market is a residual auction and does not reflect the actual value of capacity to the utilities. Likewise, but less acutely, the MISO energy auctions that set LMP are distorted by utility must-run commitments of uneconomic units that have been well-documented.

Eliminate the 1% Minimum Capacity Requirement

The current Michigan statute sets a 1% minimum DG capacity requirement, which means that each utility is required to offer DG capacity equal to 1% of its peak load. This requirement was instituted when the state adopted net metering and must be viewed in that context. In the current regime of an advanced rate design that fairly and accurately reflects the cost of service to DG customers, there is no need to adopt limits on distributed generation penetration for rate design purposes. While there may be technical limits on DER penetrations at very high levels—such as has been witnessed in Hawaii or parts of California—Michigan utilities are nowhere near the levels of penetration that would be expected to bring operational challenges. Simply put, the justification based on rate design is unnecessary when rate design accurately reflects the principles discussed above, including all customers paying their "fair share." We recommend that the Final Report should acknowledge this and incorporate it into its recommendations.

Pathways

After laying out a "wide range of options for overall program structure" in Sections 4 and 5, the Draft Report provides three illustrative potential pathways to combining the rate design elements to achieve specific policy goals. The pathways are described in the report as:

- Gradual Evolution - modest improvements to the efficiency of pricing for new DG customers and overall rate design, along with associated cost allocation improvements, with a minimal need for new customer education efforts, process reforms, or administrative burdens.
- Advanced residential rate design for DER - an aggressive effort to enlist a large segment of residential customers to optimize their usage, storage, and generation patterns to lower overall system costs while ensuring fair cost recovery with new rate structures. May require significant new analysis and process reforms, as well as customer education and assistance with energy management.
- Customer choice and stability - a simple and understandable set of options to customers that are fair to non-participating ratepayers, with stable payment schemes that may lower barriers for both customers and DER companies. Requires significant administrative efforts to determine and update value-based credits and set grid access charge.[6]

In addition, the Draft Report suggest two options that customers could choose from within the Customer Choice and Stability pathway:

- Choice A - Buy-all/Credit-all
  - Credit at a "value-based" flat rate set for 20-years
- Choice B - Monthly netting with credit set at flat rate set for 20-years
  - Grid access charges for public benefits and Dx costs.[7]

The JCEOs observe that while the three pathways represent three potential approaches, they are neither mutually exclusive nor collectively exhaustive. Each pathway includes various elements of rate design and cost allocation combined into discrete options designed to achieve certain policy goals. However, the JCEO believes that an important step is missing here: a recommendation on which policy objectives the Commission should consider. The Order initiating the proceeding specifically allows for the Draft Report to provide recommendations for the Commission's consideration.

Moreover, we believe that the Final Report should recommend a single approach that aligns most closely with the criteria for evaluating DER rate design as supplemented by the customer's right to manage their own energy costs. Given that evaluation criteria, the JCEOs recommend that the report recommend an incremental approach that changes the billing period to a monthly billing period and initiates a new proceeding to determine a cost-based outflow credit rate that addresses all elements of the value of DER.

Conclusion and Recommendation

Although we have offered some suggestions and clarifications for the report, our main recommendation is for the Commission to adopt the report and initiate a new proceeding to

[6] Draft Report, pg. 58
[7] Draft Report, pg. 63

evolve the DG program in a direction consistent with expanding distributed generation through the adoption of fair and accurate DG valuation and rate design.

Specifically, we suggest that Final Report should:

- Supplement the discussion of the criteria for evaluating DER rate design with an additional principle that recognizes the right of customers to manage their energy costs;
- Provide a more thorough treatment of the alleged subsidy of DER owners by program non-participants;
- Recommend revisiting the current valuation of DER to more accurately reflect the utilities long-run incremental costs including all avoided distribution, transmission, and generation costs;
- Find that the 1% minimum capacity requirement in the statute is unnecessary in the context of an advanced rate design regime that fairly and accurately reflects the cost of service to DG customers; and
- Make specific recommendations about which rate design elements proposed in the report align most closely with the principles that are adopted.

Appendix: Other Notes and Suggestions

- While JCEOs agree that the two goals of reliability and least-cost planning identified by RAP at page 20 of the report are important, the Commission should also recognize the increasing importance of policy goals, such as those related to reductions in greenhouse gas emissions or incorporating equity considerations into energy planning.

- In Section 4(b), JCEOs propose that the discussion at page 35 of the report regarding DG information sharing and control issues should not be brushed aside. The report correctly notes that there is value to information sharing, but seems to defer to the complexities that are involved in striking the right balance between control requirements. The Commission should not shy away from these complexities and must squarely address the question of information sharing.

- JCEOs encourage the Commission to seek clarity in the discussion of the System Access Charge at page 40 of the report. A System Access Charge is typically proposed to collect distribution costs not collected because of self-consumption, but the report references the New York PSC non-bypassable surcharge for collecting revenue for EE/low income that is collected in volumetric riders. Most System Access Charges are not for public benefit programs, and the Commission should be mindful of the purported purpose of these charges when considering them. JCEOs do have some concerns about the bidirectional "distribution flow" charge discussed on page 44 of the report. This would be applied to both imports and exports, but it is vague as to what costs would be collected by this charge. The report states that the bidirectional charge should only apply to "costs that are unambiguously relied upon by DER customers when exporting, as well as non-bypassable charges. JCEOs are concerned about the likelihood that parties will be able to agree on unambiguous charges, and a System Access Charge may be a more attainable method.

- Customer understandability discussed beginning at page 53 of the report, should also include customers' ability to understand how rate design options will impact economic decision to install DG, not just how the rates work in isolation.