

**Comments of The Environmental Law & Policy Center,  
The Ecology Center, and Vote Solar  
On the Staff's Second Draft of  
Proposed Revisions to Rules Governing  
Interconnection, Distributed Generation,  
And Legally Enforceable Obligation Standards**

**May 1, 2020**

The Environmental Law & Policy Center, Vote Solar, and the Ecology Center (“ELPC/VS/EC”) offer the following comments in response to the Staff’s request for comments on the second draft of proposed revisions to Michigan’s rules regarding interconnection, distributed generation tariffs, and legally enforceable obligations rules.

ELPC/VS/EC commend the Staff for marshalling this process in such an efficient and thorough manner. The current draft represents a significant overhaul of the state’s interconnection rules and is a necessary update as Michigan enters an energy future that includes an increase in distributed energy resources (“DER”). However, the current draft includes some important changes (notably the introduction of batch processing) that require close consideration before being adopted. The current draft also excludes provisions governing emergent energy technologies such as battery storage and advanced electronics that allow for DER to control (limit or prevent) energy exports.

The rules adopted by the Commission are likely to be in place for many years, and the Commission should strive to adopt rules that will not require amendments in the near future. In addition, given the current COVID-19 pandemic and the associated disruption of work schedules for utilities and stakeholders, we recommend that the Staff seek additional time from the Commission to further several important concepts that have only recently been included in the most recent draft (the batch processing proposal), as well as language that would update Michigan’s interconnection and distributed generation rules in light of anticipated and imminent changes to the distributed energy resources markets.

**I. Interconnection**

The discussions facilitated by Staff over the past several months have clarified the importance of creating rules that will accommodate key technologies that are already predicted to be significant components of distributed energy resources in the coming years. ELPC/VS/EC propose that by incorporating the changes outlined below, and by engaging in additional study and discussion specific to batch processing and storage, Staff can provide for the Commission’s consideration of a rule that appropriately balances multiple interests and creates a sustainable platform for interconnection of distributed energy resources.

***A. The Proposed Revisions to the Interconnection Rules Should Include Storage***

The most significant change in the distributed energy landscape since the last update of the interconnection rules is the evolution of energy storage combined with the use of software controls for DER. While the Commission may feel hesitant to promulgate rules governing a resource that is not yet widely used in Michigan, storage will become widely used during the lifespan of these proposed revisions. Now is the time for the Commission to update interconnection standards to accommodate advances in technology that can improve reliability, provide grid services, and generally make DER more valuable to both customers and the grid.

As pointed out by IREC in the most recent Model Procedures, “energy storage systems are controllable in a way not typically seen with distributed generation. In addition, many energy storage systems can be designed with the capability to limit or prevent export onto the grid.”<sup>1</sup> (Model Procedures at Introduction – Page 4). The ability to control storage has important implications for interconnection rules, and the differences between storage and typical DERs means that interconnection rules cannot be a “one size fits all” covering both DERs and storage. The Commission has the chance now to include important provisions that apply to interconnection of storage and facilitate the safe incorporation of storage technology into Michigan’s grid. Multiple states across the country have begun to address energy storage interconnection, and it is clear that while the process itself does not have to change dramatically, there are important modifications that need to be made to ensure that energy storage systems are evaluated in a manner that (1) does not overestimate the system impacts of storage, and (2) encourages storage systems to be designed in ways that are responsive to and beneficial for the grid.

In its update to the model interconnection procedures last year, IREC incorporated a number of changes that provide a framework for evaluation of non-exporting or export limited systems. This is an important development in interconnection best practices nationwide, and one that should be incorporated in the Commission’s rulemaking. The changes proposed in the attached redlines and described in the narrative below are based on IREC’s model rules and California’s Rule 21, but also reflect further evolution of these policies coming out of discussions in other states such as Nevada, Arizona, Maryland, Massachusetts, and New York.

Key changes to the interconnection rules included in our proposed redlines are intended to create a framework for Electric Distribution Companies to adequately and efficiently review energy storage projects. The primary changes include:

- **Changes to defined terms.** There is currently no meaningful mention of energy storage in the interconnection rules. The definitions should include terms that make it clear that energy storage systems are eligible to apply to interconnect and to also define other new terms that are necessary to guide the review of these systems. Suggested terms are included in the attached redline.
- **Export Limits.** Although many different generator types can be designed to limit export, we can expect export limitations to become more common with energy storage. In anticipation of this growth, the technical requirements for what is necessary to safely and reliably control export should be clearly defined. By defining the requirements for export controls clearly, applicants can design the project adequately from the start, and utilities can receive the assurance they need that the projects will perform as described. The proposed amendments add a new section defining how non-export or limited export projects will be reviewed, recognizing that the impacts of these projects are typically less significant than full export projects. The attached redlines are intended to clearly define how systems that have been appropriately designed to prevent or control export will be evaluated in the screening and study process. As currently proposed, the draft rules have

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<sup>1</sup> Interstate Renewable Energy Council, Inc., *Model Interconnection Procedures (2019)*, available at <https://irecusa.org/publications/irec-model-interconnection-procedures-2019>, page 4.

a default assumption that projects should be screened on the basis of nameplate capacity alone, or that solar and storage at a co-located facility will both export simultaneously. As suggested in the attached redline, this default assumption should be altered to reflect that many energy storage systems can safely limit or prevent export below their full nameplate capacity. As further example, the attached redline suggests changes to R 460.940 and R 460.944 that allow fair treatment of applications for projects that use storage along with a protective device to limit export.

- **Acknowledging Engineering Controls and Operating Practices.** The interconnection process should evaluate projects according to their operating profile and characteristics rather than assuming unrealistic scenarios. The screening and study processes should take into account the manner in which projects can be controlled to mitigate impacts that may occur only during certain hours of the day (i.e., when peak or minimum loads exist) or during different months of the year. For example, the addition in R 460.932 regarding the inclusion of load curve data for relevant line sections and the addition in R 460.946(6) adding consideration of protective devices and non-exporting systems to fast track screening.
- **Modifications to Applications During Screening and Review.** The procedures should allow projects to mitigate identified system impacts during the interconnection process. Because energy storage, along with power control systems and smart inverter capabilities, enables project developers to relatively easily mitigate system issues that might be identified, applicants should be able to adopt mitigations to resolve system issues during the screening and study process rather than having to start the process again. The addition of language in R 460.950 regarding fast track supplemental review provides applicants with an opportunity to revise screen failures on a short timeline that will not impede utility review.
- **Material Modifications to Existing Interconnected Systems.** Adding energy storage to an existing system should not necessarily trigger the need to restudy the project and negotiate a new interconnection agreement. In fact, in many cases adding energy storage systems to existing interconnected equipment could enhance the safety, reliability, and value to the grid of a given DER. The rules should provide criteria to determine whether or not a restudy is needed to ensure system safety and reliability. Redlines to R 460.984 require a utility to determine that a material modification requires a study to ensure system safety and reliability before requiring a new application.

Because storage is an issue that the MPSC has not previously addressed, ELPC/VS/EC suggest that Staff schedule a virtual workshop where IREC can present on its experience and recommended rule changes regarding the evolving best practices on grid integration of non-export and limited-export resources.

### ***B. The Commission Should Incorporate Process and Screening Improvements***

In addition to revisions and updates intended to facilitate energy storage and advanced DERs discussed above, ELPC/VS/EC propose a number of changes to the review process and screens.

- **Language Updates.** Several of the attached redline changes are simply intended to update the language to comport with industry best practice and terminology in accordance with IREC’s 2019 Model Procedures.
- **Addressing Screen Failure.** One key aspect of the attached redline are changes to the section that sets forth the process that occurs when a project fails screens. Technology has evolved substantially since these rules were written and now applicants have multiple ways to modify their project to address screen failure. It is more efficient to allow applicants the opportunity to make minor system modifications during the review process rather than requiring them to resubmit a new application. The types of changes may include reducing the export capacity, adding energy storage, changing the operating profile, utilizing advanced inverter functions, or other modifications to mitigate screen impacts. The addition of language in R 460.950 regarding fast track supplemental review provides applicants with an opportunity to revise screen failures on a short timeline that will not impede utility review.

In addition to the changes to the evaluation of limited- and non-exporting DER that would apply to the Study process, ELPC/VS/EC also propose redlines that would provide customers with more meaningful information during the study process, especially in reporting results of final interconnection system impact studies.

### ***C. Improving Reporting Requirements***

ELPC/VS/EC propose that the Commission adopt current best practices in requiring utilities to provide a public interconnection queue list. To date, this issue has been dealt with mainly in individual PURPA, waiver, and rate case dockets. The public interconnection queue list was added to IRECs 2019 Model Procedures to ensure key data is publicly available, so all stakeholders have fair access to information about how the interconnection process is proceeding to inform decision-making.

In addition, we continue to believe that the Commission should require the Company’s to provide hosting capacity maps. We are encouraged that some utilities appear to be considering methods by which they can provide some form of hosting capacity map, but believe this process would be more meaningful if utilities were provided with a specific requirement by the Commission.

### ***D. Batch Processing***

Batch processing has been adopted in a number of other states, but in each of those states the process has experienced a variety of challenges and deficiencies. As Michigan considers implementing this new process for interconnection of larger projects, the Commission must be thoughtful about how best to design a batch system that neither stymies project development because of long lag times in interconnection approval, nor requires utilities to move so quickly that they cannot identify the impact of projects on their systems. At the same time, the Commission should take steps to minimize the impact of unintended opportunities for applicants to “game” the batch process to their competitive advantage at the expense of a fair and equitable process.

We remain concerned that certain aspects of the batching proposal expose opportunities for applicants to exercise various options (i.e. to remain in a batch or not at various milestones in the process) that could affect the final interconnection costs of their competitors in the same batch, whether or not their projects are electrically related and irrespective of who was in the queue first. We recognize that the Staff has proposed certain mechanisms for utilities to exercise discretion when an applicant is causing unnecessary delay, but we believe that all aspects of the batch process must be more fully vetted for such unintended consequences.

The proposed changes in the attached redline, as described below, begin to strike this balance.

- **Number of Batches.** While we appreciate the fact that certain aspects of the batch study process cannot overlap with either prior or subsequent batches, we urge the Commission to consider requiring more than one batch per year. As progress on one batch precedes, it is likely that the subsequent batches could begin preliminary steps to be ready to move to engineering studies as distribution facilities upgrades from prior batches are known and committed to. This may be less than a year and the process should be moving forward for subsequent batches as prior batches are finalized. In the attached redlines we have proposed that the R 460.956 include two batches per year.
- **Transition Batch.** Having reviewed the most recent interconnection data from the Consumers Energy interconnection queue, we are skeptical that there is a need for a transition batch. We do agree that before the first batch is processed, the applications in the existing queue must be addressed. However, utilities have demonstrated that they are capable of clearing their queues under the existing process if there is sufficient motivation to do so. Applicants currently in the queue have sufficient time before these rules will take effect to advance these projects to the stage at which they would qualify for the Advanced Legacy Application status. We suggest that the Commission require utilities to clear their queues under existing processes before conducting the first batch process.
- **Electrically Related Projects:** Not all projects that submit applications for a batch will be electrically related. Some projects in a batch may not be related to other projects at all. Where that is the case, there is no benefit from putting all of the projects in a single group study. Likewise, there would be no benefit from holding an unrelated project back pending completion of a group study for projects in the batch that are electrically related and would benefit from group study. Staff and stakeholders need more time to discuss and evaluate ways in which projects that are not suitable for group study can be evaluated outside of the overall batch.
- **Batch Efficiency and Equity:** One lesson learned from batch processing in other states is that without proper procedures, it can provide opportunities for one applicant to create complications and costs for the rest of the batch by missing deadlines, stacking queues, etc. It is important that Staff and stakeholders engage in careful consideration of how utilities can keep batches moving and prevent applicants from engaging in activities that intentionally or inadvertently create problems with the batch process.

- **Batch Opt-out.** Can a developer opt-out of being in a batch? Does not appear so from R 460.918 which says “(5) Eligible applicants with interconnection applications accepted before the effective date of these rules and do not join the transition batch shall have their applications terminated by the electric utility.” We recommend that stakeholders discuss whether there should be an option for applicants to opt-out of the batch processing in general, not just for the transition batch.
- **Study Costs:** In the proposed rules, studies for feeders and substations with multiple projects are far more complex than studies for isolated projects. The rules should clarify whether cost sharing for isolated projects will be localized or spread across the entire system.

### *E. Procedures*

Overall, the proposed rule changes do a good job of balancing the need for flexibility with the importance of including important items, such as screens, in the rules. However, Utilities should not be permitted to include additional supplemental review screens distinct from those in the proposed rule. The supplemental review screens reflect the current best practices as reflected in IRECs 2019 Model Procedures and have been fully vetted as being protective of safety and reliability. The attached redline strikes the language in R 460.950 that would allow utilities to do this.

### *F. Cost Allocation procedures*

R 460.970 is a new section that could have competitive implications in a batch process. If a later applicant could take actions that impose costs on an earlier applicant, it could lead to gaming. We recommend that the Rules should include provisions to guide how utilities will conduct the allocation of costs within study batch groups, including how they will deal with applicants withdrawing from batches based on allocated costs. While we do not have a proposal on this topic at this time, we suggest the Staff convene workshops to work through the process of allocation of costs within study batches.

## **II. Net Metering/Distributed Generation**

Existing Net Metering customers are grandfathered in to the existing program, assuming there are no material modifications to their system size. The proposed rule includes the addition of battery storage as a material modification, treating the additional storage as a one-for-one increase in nameplate capacity of the system. The attached redline includes language clarifying that the addition of battery storage is only a material modification if the energy storage equipment does not include limited export controls. The addition of storage with export limiting controls to ensure that there is no increase in the original system’s export capacity, should not be considered major modifications.

Recognizing utility concerns about the generation of energy in excess of original export capacity, ELPC/VS/EC would not be opposed to language allowing utilities to monitor grandfathered systems through AMI meters to ensure that energy in excess of original export capacity is not sent back to the grid. As a practical matter, it is unlikely that grandfathered net metering customers would seek to export any energy to the grid. Under the approved Distributed Generation programs in the DTE and I&M rate cases, the value of outflow energy sent to the grid

is lower than the value of offsetting inflow. Nor would Net Metering customers be able to “roll over” credits into future years, because the rule as proposed already specifically prohibits a grandfathered Net Metering customer from operating storage equipment in a manner that exceeds 100% of electricity consumption for the previous 12 months.

### **III. Legally Enforceable Obligation (“LEO”)**

The purpose of a LEO is to provide a qualifying facility and contracting utility reasonable certainty as to when its avoided cost rate is set. Due to delays (both natural and caused by the contracting utility), the development process of a facility can span many months or even years. During that time, avoided cost rates may change and disputes can arise as to what avoided cost rate is applicable for a qualifying facility. Thus, such disputes can be avoided or minimized with clear requirements for when a qualifying facility has obtained a LEO.

On the whole, Staff’s draft regulation (Section 460.1052) provides clear guidance on what requirements must be met before a LEO occurs in the development cycle. The development cycle starts with project inception in the mind of a developer and ends with electrons on the grid. Staff’s draft regulation, in an effort to set the LEO at a time between those two points, does so at the time both the qualifying facility and contracting utility execute a construction agreement. There are two issues with setting the legally enforceable obligation at the time of construction agreement execution.

First, requiring an executed construction agreement – a type of interconnection agreement – as a condition precedent to LEO formation conflicts with the Federal Energy Regulation Commission’s (“FERC”) interpretation of PURPA and its regulations. In particular, FERC found that:

[A] requirement for a facilities study or an interconnection agreement, given that the utility can delay the facilities study or delay tendering an executable interconnection agreement, as a predicate for a legally enforceable obligation is inconsistent with PURPA and the Commission's regulations under PURPA.

*FLS Energy, Inc., et al.*, 157 FERC 61211, at ¶ 20 (Dec. 15, 2016).<sup>2</sup> Staff’s draft regulation’s requirement of an executed construction agreement directly conflicts with FERC’s decision in *FLS Energy*. Staff’s draft regulation also requires a qualifying facility to remit its payment for a facility study and tender a signed facility study agreement, but that requirement does not conflict with FERC’s decision in *FLS Energy*; *FLS Energy* forbids requiring a completed facility study as a condition precedent of a LEO, which Staff’s regulation does not do.

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<sup>2</sup> FERC continued:

We find that, just as requiring a QF to have a utility-executed contract, such as a PPA, in order to have a legally enforceable obligation is inconsistent with PURPA and our regulations, requiring a QF to tender an executed interconnection agreement is equally inconsistent with PURPA and our regulations. Such a requirement allows the utility to control whether and when a legally enforceable obligation exists — e.g., by delaying the facilities study or by delaying the tendering by the utility to the QF of an executable interconnection agreement.

*FLS Energy, Inc., et al.*, 157 FERC 61211, at ¶ 23 (Dec. 15, 2016).

Second, requiring an executed construction agreement can create different LEO standards by discriminating against qualifying facilities that do or do not need construction agreements and such discrimination conflicts with PURPA's implementing regulations. 18 C.F.R. § 292.304(a)(1)(ii) ("Rates for purchases shall... [n]ot discriminate against qualifying cogeneration and small power production facilities."). Discrimination occurs when qualifying facilities that do not need construction agreements obtain a LEO earlier in the development cycle than qualifying facilities that do require construction agreements. In addition, because there is already a regulation that requires a qualifying facility to pay reasonable interconnection costs assessed by the Commission, 18 C.F.R. § 292.306(a), putting the construction agreement up as a barrier to LEO formation is redundant and discriminatory. Removing the executed construction agreement requirement from the LEO regulation will avoid unlawful discrimination (both actual and potential).

For the reasons stated above, we recommend that Staff remove subsection (f) from its draft LEO regulation (draft Section 460.1052(f)). The point in the development cycle where a LEO should occur is at the point when a qualifying facility remits its facility study payment and tenders a signed facility study agreement.

#### **IV. Conclusion**

ELPC/VS/EC appreciate the opportunity to comment on issues that we propose to address in the next draft of the proposed rules. We look forward to working with the Commission, Staff, utilities, and other parties to improve the interconnection rules in Michigan.

As previously discussed, given the significant changes that have recently been proposed by the Staff to the rules, the fact that DER technology continues to advance, and the current economic disruption caused by COVID-19, we recommend that the Staff seek additional time from the Commission to further develop several important concepts that have been included in the drafting process in the most recent draft (the batch processing proposal and storage) as well as language that would update Michigan's interconnection and distributed generation rules in light of anticipated and imminent changes to the distributed energy resources markets.