

# U-15113

## Electric Utility Interconnection Investigation January 9, 2007 Meeting Summary

1. Commission Staff presented a summary of the case filings and listed the commenter's key issues and recommendations. The presentation is available online: [Presentation](#)
2. The attendance sign-in sheets for the meeting are available online: [Sign-in Sheets](#) Forty three people attended the meeting in person and listed their name on a meeting sign-in sheet and approximately 9 people participated over the phone bringing the total to 52 attendees.
3. Additional key issues were identified for interconnecting generator projects under 30 kW:
  - A. Creating a fast track interconnection process for <10kW systems was discussed at length. Models like the IREC and FERC process could be used as a starting point. The utilities or utility representatives did not comment on this. A goal expressed by many meeting participants was to standardize the interconnection process for all Michigan utilities. Under the current process, the application forms are essentially the same for all the utilities, but many utilities use different metering configurations, and that makes the procedures and installations vary by utility. Therefore, these commenters believe the interconnection standards are not achieving what they were set out to do. Delays are also a concern, in the event that utilities may start to receive larger numbers of interconnection applications. Many in the group agreed that if the application process was simplified/fast tracked and metering requirements were standardized across utilities this would not be an issue.
  - B. Some utility representatives question whether the current interconnection standards rules have been given enough time to work. With only 42 applications to date, and several of those applications reporting no problems with the process, they wonder if it is premature to consider changes to the current rules. At least some of the difficulties that have occurred, according to utility representatives, have been due to issues that are specific to individual applications and could not easily be addressed by any efforts to standardize procedures.

Comments from the public, renewable energy dealers and installers, and the Great Lakes Renewable Energy Association support making changes, and indicate a feeling of urgency in wanting to have certain changes made. Dealers and installers expressed what they characterize as near-universal problems, for which they are seeking changes. The major issues raised in both written and oral comments were:

1. Complicated Application form;
2. Uncertainty about the appropriate point of contact at the utility (Rule 2).
3. Failure of utilities to meet certain timelines (Rule 6 applies to timelines);
4. Overly complicated, non-standardized, and costly metering requirements;

5. Overly complicated net metering billing calculations due to multiple meters;
  6. Many utilities still need to provide a list of pre-certified equipment (Rule 8)
- C. Although several utility representatives commented that the interconnection procedures are still new and wondered if enough time has passed for the procedures to have a chance to work. Many commenters said that the current process was not working and needed to be improved.
- D. UL Certification concerns from the public were addressed. The basic question being raised by dealers and installers is whether UL Certification should be considered sufficient proof of the safety and reliability of equipment. They indicate that certification under UL 1741 is sufficient for utility interconnections in other states, and even all around the world, and propose this certification should be sufficient in Michigan.
- E. Proponents say that inverter-based systems 10kW or smaller introduce very minimal effect on the system. In support of this position, they state that the current net metering program structure in Michigan means customers must size systems not to exceed their annual energy usage. This means on a daily basis net metered generators will not be likely to output more energy than the customer would draw from the utilities at other times, and so therefore they believe it is reasonable to assume the customer's service connections, without modifications, should always be adequate to handle the output of their generator. They propose that customers employing these systems should not be held liable for any engineering studies or system upgrade costs.
- F. Customer's also requested that all costs be transparent so they could analyze these costs into their return on investment for the project. Possibly public education and utility or MPSC website documentation of typical metering costs and samples of net metering bills could resolve this issue.
- G. Meter costs for net metering are a deterrent for some customers. North Carolina does not have metering costs. A customer asked why there is a cost at all if this is net metering? During the discussion there was agreement that two meters are being used because of different rates for incoming (retail rate) and outgoing (generation credit only) electricity. A question raised during the discussion was if the MPSC is going to allow utilities to charge a different rate from what the customer pays then why is a third meter being used, and what is it for? Many of the meeting participants agreed that the third meter is excess cost and not necessary.
- H. Strong opinion among many of the meeting participants supported net metering using only one meter that spun backwards. During the discussion several participants mentioned that more than one meter creates confusion and complex billing issues. Allowing the electro-mechanical meters to spin backwards makes the most sense not only for the public, but less cost for the utility said a number of attendees. Several installers stated that they have witnessed meters spin backward when more power was being produced than being used.

4. Consensus areas for under 30 kW sized generator interconnection projects:
  - A. Staff will recommend that the Commission set up a work group to develop a simplified interconnection procedure for 10 kW and under inverter-based generator projects. Key components of the new interconnection procedure would be the following:
    - One or two page application,
    - UL 1741 certified inverter projects require no utility analysis, testing or additional safety equipment,
    - Use IREC model interconnection procedures or FERC Small Generator Interconnection Procedures as a starting point.
  - B. More education opportunities for the public and utilities.

5. Additional key issues and recommendations were identified for interconnecting generator projects sized 30 kW and larger:

A. Pre-application meetings between developers and utility interconnection staff were recommended. Consensus was reached on this suggestion.

- A utility representative mentioned that it would be helpful to have this meeting early in the process – possibly before the developer had purchased generation equipment.
- The 2-hour consultation provided for in the interconnection procedures comes after the application is complete and is too late in the process to be helpful.
- The idea of a pre-project collaborative makes sense. The process will go a lot better if the parties have a discussion about reasonable alternatives.
- A recommendation was made to ask utilities to work with developers before an application is filed to identify locations on the utilities distribution system that could benefit from distributed generation or locations where interconnection may be more economic.
- Having the utilities get involved in site selection would be doing the developer's work.
- Information is needed from utilities to know where the best locations for a generator project might be. A developer reported working on a project with Great Lakes where the utility provided information about their system and the developer was able to make appropriate equipment selections to make the interconnection more affordable. The current process does not explicitly include this pre-application activity, however.
- A utility representative said utilities have the ability to look at a circuit and identify how many effected components are upstream. However, if the developer wants to identify what protective equipment will be required for their interconenction, etc., then that's the purpose of the system engineering study, and there is no shortcut for the time (and fee) required to complete such a study.
- Before an application is filed, utilities may not be willing or able to provide assistance to developers with site selection and other guidance about interconnection, because there are time pressures on what the utility company can do. This step is not provided for in the current interconnection process.
- A recommendation was made for utilities to do a map of the state to indicate where distributed generators could provide helpful support to the utility grid. This information could be used to facilitate microgrids too.
- Amend the interconnection process to allow for a consultation meeting prior to filing the minutia (such as generator address) asked for in the application.
- Coops may not have the staff resources to help with site selection.

B. What are fair costs for interconnection?

- Fair market costs determined by bids from contractors.
- How much utility overhead should be allowed (engineering, administration, oversight, etc...) – maybe direct costs plus 10%. Should the Commission determine appropriate overheads for interconnection costs in a rate case?
- Should the Commission establish a fair \$/kW ceiling cost for interconnections?

C. ATC would like the opportunity to be notified about distribution system interconnection requests 2 MW and larger. Is an effort needed to determine how this will be coordinated?

D. A collaborative/task force is needed to investigate timelines. It was generally agreed on by the group that the current timelines are not workable. Consensus was reached on this issue.

- Reliable timelines are important to developers.
- Unforeseen delays can cost developers a lot of money – especially for developments that rely on bio-processes for making their fuel.
- This change would require a rulemaking procedure.

E. A recommendation was made to have the utilities appoint a project manager to handle all of the interdepartmental coordination of interconnection activities within the utility. This is especially important for larger interconnections. This project manager may be able to find ways to have multiple areas within the utility working on the interconnection activities at the same time to streamline and speed up the process. The project manager would be able to improve communication between the developer and utility on the status of the application. The project manager is not necessarily the same as the single point of contact required by the Interconnection Standards. The single point of contact will get the interconnection started, but the project manager will be responsible for moving the application through the utility processes and communicating regularly with the developer.

F. Outsourcing utility interconnection activities.

- Utilities should develop a list of certified companies that developers can work with and are pre-approved by the utilities. A discussion of how these companies would get licensed brought out suggestions like state licensing. One commenter said that no other states do this. Great Lakes Renewable Energy Association has a training program for certifying installers.
- This will help developers access fair market value data for interconnection-related labor and materials.

G. Utilities keeping interconnection equipment in stock

- Utilities indicate ratepayers would have to bear the costs associated with keeping an inventory of equipment on-hand, until it is needed by an interconnection project.
- H. Informal MPSC Staff review process is already in place. Without having to file a formal complaint, people can ask staff to help with interconnection issues. No further action is needed on this issue.
- I. There was a recommendation that the MPSC work with MEDC to achieve faster progress with bringing renewable resources online.
- J. Utilities requested a simpler waiver process that would not require a Commission Order to be issued. If both the developer and the utility agree on the waiver then there were not objections to eliminating the requirement for a Commission Order.
- K. There was agreement that more education and outreach would be beneficial. A comment was made to stress that both utilities and the public need to learn more about interconnection.
6. Areas of potential consensus for generator interconnection projects 30 kW and larger:
- A. Pre-application meetings with utility where utility will name the project point of contact for the developer.
  - B. MPSC Staff will be available to help with issues that arise during the interconnection process.
  - C. MPSC Staff will look into informal interconnection standards waiver consent process.
  - D. More education and outreach for both utility and public.
  - E. Establish a collaborative to look at interconnection timelines.
7. The utilities were asked to respond in writing to several questions during the meeting. Those questions are listed on the MPSC website at [Questions for Utilities](#).
8. Staff will provide a list of consensus areas within 5 days. A 5 day comment period will be provided. This information will be provided to everyone with email contact information available on sign up sheets and those who email [baldwinj2@michigan.gov](mailto:baldwinj2@michigan.gov) to be on the distribution list.