

Otter Tail Power Company Comments
In the Matter of the Adoption of Rules Regarding PURPA Interconnection –
Proposed Interconnection Forms, Docket No. RM08-002

I. Introduction:

Otter Tail Power Company's (Otter Tail) comments are organized in two sections – General Comments and Form Comments. The General Comments section pertains to comments that apply to the overall process and/or to more than one form. The Form Comments address comments within the forms.

II. General Comments:

In this section, Otter Tail would like to make brief comments on the following items;

- a) Overview statement of the interconnection process,
 - b) Appropriate number of forms/attachments,
 - c) Insurance requirements,
 - d) Prior queued generators, and
 - e) System Impact Study Agreement for Tier 4
- a) Overview statement of the interconnection process. Otter Tail understands the general interconnection steps to include the following; a) an application, b) system impact study, c) facility study, and d) an interconnection agreement. All of these general steps are contained in the forms developed by Staff. However, there are additional attachments that could help to promote transparency, clarity, and understanding for all parties involved. Otter Tail is providing our comments below for the previous reasons.
- b) Appropriate number of forms/attachments. Otter Tail is attempting to balance its comments in this docket between having “too few forms/attachments” versus “too many forms/attachments”. As a point of reference, the following MISO interconnection agreements are provided for comparison. It should be noted these agreements were required with the MISO under their Small Generation Interconnection Procedures (SGIP). These agreements (below) contain Attachments Otter Tail believes should be considered in the proposed interconnection forms, perhaps as options, when needed. Please see our comments on Forms 2, 3 & 6.
- Sample A - MISO Interconnection Agreement
http://www.midwestiso.org/publish/Document/2b6c89_11b4b4f84a9_-7ffa0a48324a/Otter%20Tail%20Power-Turtle%20Mountain%20Community%20College%20IOA%20G481%20SA1568%20ER05-957.pdf?action=download&_property=Attachment
 - Sample B - Interconnection Agreement
http://www.midwestiso.org/publish/Document/45e84c_11cdc615aa1_-79460a48324a/Otter%20Tail%20Power-

[Grant%20County%20Wind%20LLC%20%20SGIA%20G474%20SA1867%20%20ER09-123%20PUBLIC%20VER.pdf?action=download&_property=Attachment](#)

- c) Insurance requirements. Otter Tail's concurs with the Staff's goal of modifying the proposed interconnection forms to match the adopted interconnections rules. With this goal in mind, Otter Tail noticed one pertinent item that should be included in the forms – Insurance (20:10:36:26). Otter Tail believes that these requirements should be transparent to the interconnection customer and other parties. Therefore, we recommend putting these requirements in the agreements as contained in the interconnection rules.
- d) Prior queued generators. One item not addressed in the forms¹ is the concept of “prior queued generators.” Prior queued generators are defined as generators that have interconnection applications already submitted and deemed complete (e.g. Tier 1 per 20:10:36:33) and other appropriate tier sections. Generation customer expectations regarding a queue position is typically “first-in, first-completed.” This can occur, but it should be emphasized the electrical grid is dynamic – changes that occur on the electrical grid, regardless of queue position, can affect another queue position. These changes can affect the interconnection cost responsibilities. Otter Tail illustrates “prior queued generators” and “dynamics of the electrical grid” with an example, as shown below.

One example of how queues can be affected involves three different interconnection requests received for the same general location. The first interconnection request is for 7.5 kW and is able to interconnect without any upgrades. The second interconnection request is for 1.65 MW and required system upgrades. The third interconnection request is for 300 kW and could fit on the system if the 1.65 MW project proceeded, otherwise upgrades would be required. In other words, the third interconnection request is dependent upon the outcome of the second interconnection request project. Because of the development time, the third interconnection request (300 kW project) has a shorter construction schedule than the 1.65 MW project, and it could come on line prior to the 1.65 MW project making its final design to construct. Therefore, the 300 kW project would need to be responsible for additional upgrades if the 1.65 MW project decided not to proceed.

- e) System Impact Study Agreement for Tier 4. Finally, Otter Tail is unclear of the scope relating to the System Impact Study Agreement, which should be added to the Tier 4 only forms. Below is a potential scope outline for a System Impact Study Agreement:
- Short circuit analysis
 - Stability analysis
 - Power flow analysis
 - Protection coordination
 - System operation impacts

¹ It is not clear to Otter Tail if “prior queued generators” should be an item in the forms or an education piece in the interconnection process. Otter Tail welcomes comments from all interested parties regarding this issue.

The point of listing these examples is to disclose to the interconnection customer what could occur in a System Impact Study Agreement. These examples are not listed in the forms and Otter Tail offers them for discussion amongst the Staff, utilities, and/or other parties.

III. Form Comments:

Otter Tail provides the following comments as they relate to each of the proposed forms. Some of our comments seek clarification of the language used in the forms. The remaining comments provide Otter Tail's suggested changes.

Form 1: Application for Small Generator Facility Interconnection Tier 2, Tier 3 or Tier 4 Interconnection

- Page 2, Requested Procedure Under Which to Evaluate Interconnection Request, Tier 3: Does the form imply the Small Generator Facility output is connected to the EDS only to obtain Standby Services? The form implies the generator output is only used on-site; therefore the generator output will not be exported.
- Page 4, Other Facility Information: Otter Tail requests to add the following "**bolded**" item (or other acceptable language) to the form to verify Applicants completed FERC's "Notice of Self Certification"

If yes, has Applicant completed FERC's "Notice of Self Certification"? Yes No

Verification Number Received from FERC: _____

Form 2: Interconnection Facilities Study Agreement

- Page 1: Should reference the attached Exhibits which define the specifics of the agreement.
- Page 3 & 4 Section 2 to the Interconnection Facilities Study Agreement: Otter Tail
 - a. Otter Tail requests the addition of the following "**bolded**" item (or other acceptable language) to the form.
Number of generators: _____
Number of generation connections: _____
 - b. Bus length(**s**) from generation to interconnection station:

 - c. Otter Tail seeks clarification on the word "Tower" (see last item on page 3). Is this a generation tower or something different?
 - d. Otter Tail seeks clarification on the word "distribution lines" (see first item on

page 4). Otter Tail suggests the words “interconnection facilities” instead of “distribution lines.

- The study agreement should have Attachment(s) that lay out the scope of work for the study, timeline to get study completed, costs to accomplish the study, billing mechanism for costs & deposit, one-line of the proposed facilities, other engineering data required, etc.

Form 3: Interconnection Feasibility Study Form Agreement

- Page 6, Operations and Maintenance Schedule: From Otter Tail’s experience, the O&M Schedule may be applicable in the Interconnection Agreement (“IA”, or Form 2) versus this feasibility agreement. It is not clear to Otter Tail why the O&M Schedule would be included here as this schedule is typically utilized when the project is proven feasible.

Form 4: Small Generator Facility Interconnection Certificate of Completion Form

- No comments from Otter Tail are offered at this time.

Form 5: Small Generator Facility Tier 1 Interconnection Request Application Form

- Page 1, Small Generator Facility Information: Otter Tail requests to add the following “bolded” item (or other acceptable language) to the form

If a Qualified Facility, has Applicant completed FERC’s “Notice of Self Certification”?
Yes No

Verification Number Received from FERC: _____
(Note – this is a similar addition to Form 1)

Prime Mover Type: _____

Number of generators: _____
(Note – this is a similar addition to Form 2)

Form 6: Interconnection Agreement for Small Generator Facility Tier 1, Tier 2, Tier 3, or Tier 4 Interconnection (Small Generator Facilities with Electric Nameplate Capacities of 10 MW or smaller)

- Otter Tail believes the following Attachments should be included in this form, as determined by the EDS, and developed in conjunction with the EDS (Public Utility), Generator (Applicant), and Affected System (Collectively “Parties”):
 - a. Contingent Facilities - This is a description of the assumptions used in the analysis, specifically prior queued generation

- b. Description of the Project – This is to describe the project to make sure all entities understand what the project is. This should also contain a one-line diagram representing the project, generation engineering data, written description of generation project, list of and description of Area Network upgrades.
 - c. Billing Schedule – This is a simple table showing what the facilities need to be upgraded and a cost for each along with a total project cost in which the customer is responsible for.
 - d. Milestones – This is a simple list with dates to indicate that parties can use to make sure both sides are working toward the commercial date agreed upon. There should be a milestone table for each party.
 - e. Scope of work – This describes the scope of work in which the parties agree to. It will address the Interconnection Facilities, Spot Network upgrades, distribution upgrade, and possible Transmission Owner Transmission upgrades necessary.
 - f. Operational guidelines – This would reference the Transmission Owner’s standard interconnection guidelines in which they hold all generators to and also discuss any special operation issues with the particular interconnection to maintain a reliable system.
 - g. Permits – This is a list of major permits that the distribution owner will need to get and which the schedule is based on getting in a timely manner.
- Page 4, Section 4.5 Adverse System Impact: Otter Tail requests to delete the following “bolded” item (or other acceptable language) from the form

“The Public Utility is responsible for identifying Adverse System Impacts ~~on any Affected Systems and~~ for determining what mitigation activities or upgrades may be required to accommodate a Small Generator Facility.”

Otter Tail requests to delete the above wording because we may not have the necessary engineering data on the affected system. Also, Otter Tail believes this would be a good place to get the affected system owner involved in the process as Otter Tail believes an agreement to upgrade an affected system should be between the interconnection customer and the affected system owner. Otter Tail is not opposed to facilitating any agreement between the interconnection customer and the affected party(ies), but does not believe it is in its customer’s best interest to be a signatory to these agreements and expose its customers to undue risk.

- Page 7, Article 6, Insurance: Otter Tail recommends inserting the insurance requirements from the Commission rules into this article. Otter Tail believes the insurance requirements should be shown in the form to avoid any confusion regarding the amount of insurance requirements for different generators. This extra step will make it easier for all parties to know these amounts rather than looking up the insurance requirements in the rules. Granted, this approach will require a review of the interconnection forms whenever there are changes in the interconnection rules.