

# Distributed Energy Resource Interconnection

## Process and Requirements Summary



### Minnesota Customers

6/3/19

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## Overview of the Interconnection Process

The interconnection process is designed to accomplish three goals: safety, economics, and reliability. The first and most important issue is safety—safety for you and your Distributed Energy Resource (DER) project, safety for our other customers, and safety for our employees working on the electrical system. Second is economics. The interconnection design must be affordable while maintaining safety and a reliable electrical system. The final item is reliability. Your project and the electrical system should be reliable.

Interconnecting to the electrical system entails four basic phases:

1. Determine interconnection type and data gathering
2. Submit an application for interconnection
3. Sign agreements
4. Begin construction

It should be noted that for a very basic installation, the time to complete steps 1 through 3 is about 30 days and could take longer for a more complex project.

There are a number of options for interconnecting a generator to the Area Electric Power System (Area EPS), or the local electric utility's distribution system. This packet of information will help inform you of these options and the associated requirements so you can make an informed decision on how to develop your project. The key to the interconnection process is gathering the necessary information, as this will reduce your time to get an interconnection.

This information also can be found on our website at:

<https://www.otpc.com/help-center/how-to-connect-to-our-power-grid/minnesota-interconnection/>

## Phase 1 – Data Gathering

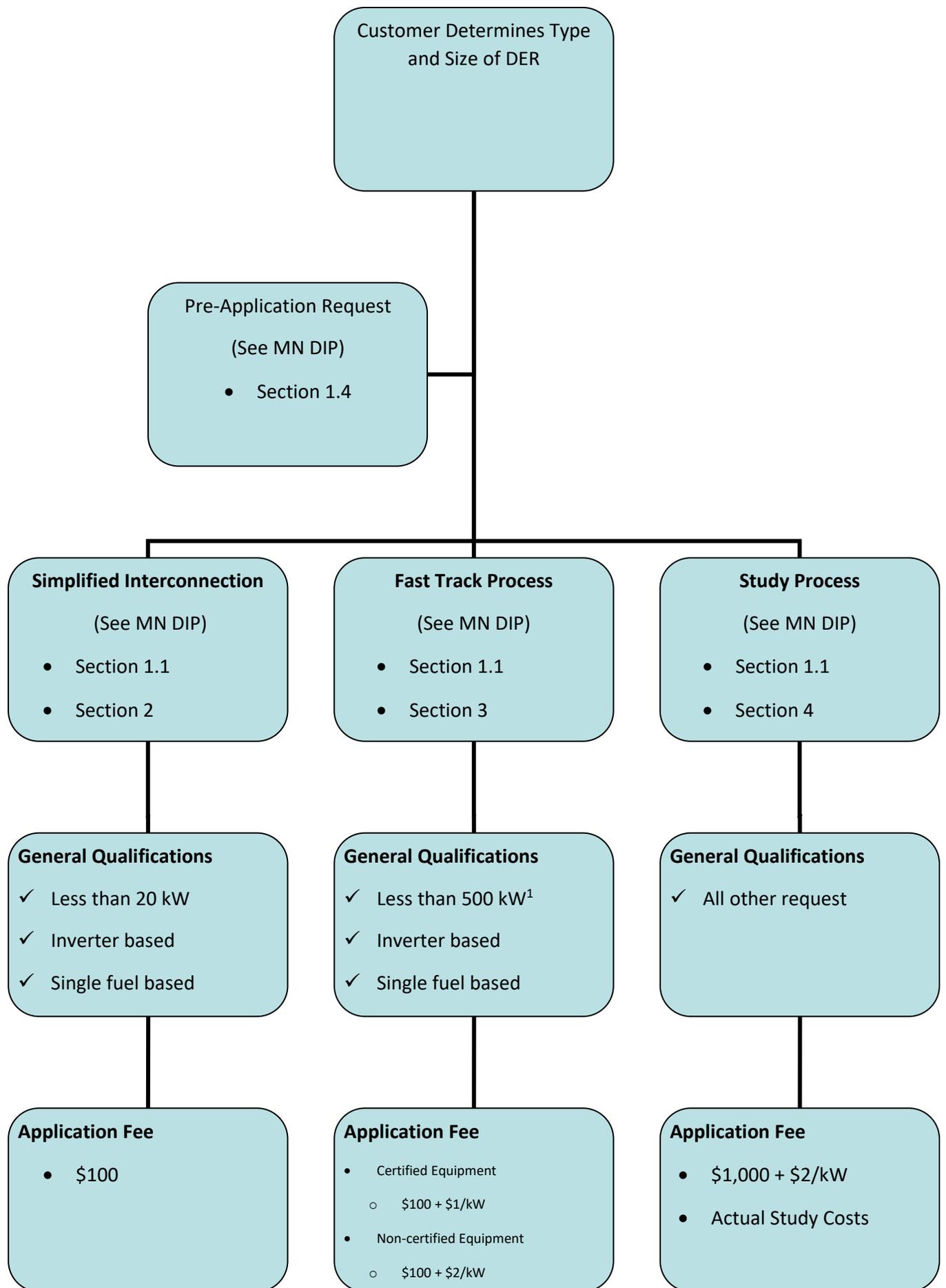
One of the first decisions to make is determining what type of interconnection you want. There are different types of interconnection—from having a generator that is isolated from the Area EPS, a customer disconnects their system from the Area EPS before starting their generator, to one where the generator is operating in parallel with the Area EPS. Generators that are isolated from the Area EPS do not need to submit an interconnection application, but we do appreciate being informed about these installations so we are aware of potential energy sources on our system. If a generator connects to the Area EPS for even 0.1 seconds, it is considered to operate in parallel and you need to submit an interconnection application.

The next step is to determine the type and size of generator to install. This will help guide you in what process to submit a request in Step 2. If you would like preliminary information about the Area EPS's system to help determine the size, location, or the potential capacity of the facilities you would like to interconnect to, you can submit a Pre-application request along with \$300 to get a Pre-application report. See Section 1.4.2 of the Minnesota Distributed Energy Resource Interconnection Process (MN DIP) for the information that this report provides.

Once the type and size of generator to be installed is determined you can start gathering the necessary information for the interconnection application and agreements. Your equipment supplier or Professional Engineer should be able to provide you with the necessary documentation.

## Phase 2 – Application & Studies

The chart below is a summary of the Interconnection Process for Distributed Generation Systems (see the MN DIP for a complete step-by-step description). This phase is set up so you can make an informed decision on your project before starting the next step. For example, the first step, after having your application deemed complete, is for the Area EPS to perform a preliminary screening study to determine if there are any issues identified with interconnecting your project to the Area EPS. By understanding if there are any potential issues, you can make an informed decision whether you would like to continue on to the next step or not. If you do decide to continue on, your project may have additional studies conducted depending on the results of the preliminary study. If additional study work is required, you again will have the opportunity to make an informed decision on your project before signing any interconnection agreements.



1. The MN DIP has a matrix of what may be eligible to proceed under the Fast Track Process (see section 3.1). Because of Otter Tail Power Company's distribution system design, there are minimal locations where a generator larger than 500 kW would not require upgrades. In the event upgrades are identified, the project typically would proceed through the Study Process. For this reason, you should consider applying through the Study Process in order to reduce potential delays in processing your application.

Following the receipt of an application, we will review it to determine if it can be deemed complete.

Once it is deemed complete, we will proceed with performing the necessary studies per the MN DIP to ensure the generator can be installed in a safe and reliable manner.

## Phase 3 – Agreements

During this step, the necessary agreements will be developed using the information gathered from the application and necessary studies. The agreements include:

- Uniform Statewide Contract
- Minnesota DER Interconnection Agreement (MN DIA)
  - Description of DER
  - One-line diagram of DER
  - Milestones
  - Operating and Maintenance Requirement

## Phase 4 - Construction

Area EPS will start to construct necessary facilities required by the DER project per the MN DIA entered into.