Annual Distributed Energy Resource Reporting

What is a Distributed Energy Resource (DER)?
“Distributed Energy Resources” (DER) is emerging terminology used to capture both traditional “distributed generation” and storage technologies as defined by IEEE 1547 and the statewide Minnesota DER Interconnection Process.\(^1\) Outside the interconnection process, the Commission uses DER to define a broader category that includes demand-side management (controlling load like air conditioners or water heaters) and, in some cases, even energy efficiency and electric vehicles.\(^2\) However, for the purposes of this annual reporting: DER are distributed generation and storage technologies that interconnect and operate in parallel with the utility’s distribution grid.

Where, when, and how do I submit this report?
The DER Annual Report is filed annually on March 1 to the Public Utilities Commission and Department of Commerce through the online eDockets filings system. The report should include all interconnected DER facilities and applications through the end of the preceding calendar year. For example, a report submitted on March 1, 2022 would include all facilities interconnected before December 31, 2021 (including those interconnected before 2021) and any applications received through December 31, 2021.

Reports should be submitted in Excel Spreadsheet format (.xsls) using the template found on the Department of Commerce’s Annual Reporting Webpage. Utilities should check the website to see if there have been any template updates (Commission staff will also issue a notice if the template changes).

Utilities that do not have any Distributed Energy Resources interconnected may file the Alternative Form for utilities with no DER. Utilities do NOT need to file in Docket 22-09 unless they are regulated by the PUC.

Once filled out, utilities should submit the form to the annual reporting docket via eDockets. The docket number changes each year, but maintains the same suffix of -10. For example, reports for the year 2020 would be filed in Docket No. 21-10. Reports for 2021 would be filed in Docket No. 22-10.

In order to submit documents to eDockets you must be a registered user. Check with your utility if you are unsure whether an account already exists. eFiling help can be found at the following link: http://www.commerce.state.mn.us/eDocFile/eFilingHelp.html. At the top of the page are links to a step by step guide that includes screenshots.

Questions or clarifications? Contact PUC or Department of Commerce Staff:
Hanna Terwilliger
Rates Analyst and DER Reporting, Minnesota Public Utilities Commission
hanna.terwilliger@state.mn.us
651-201-2243

Lise Trudeau
Emerging Technology Planning Director, MN Department of Commerce, State Energy Office
lise.trudeau@state.mn.us
651-539-1861

---

\(^1\) MN DIP (August 13, 2018 Order), Att. 1, p. 1: “Distributed Energy Resource (DER) – A source of electric power that is not directly connected to a bulk power system. DER includes both generators and energy storage technologies capable of exporting active power to an EPS. An interconnection system or a supplemental DER device that is necessary for compliance with this standard is part of a DER. For the purpose of the MN DIP and MN DIA, the DER includes the Customer’s Interconnection Facilities but shall not include the Area EPS Operator’s Interconnection Facilities.”

\(^2\) MN DIP (August 13, 2018 Order), p. 2, fn. 1
What Distributed Energy Resources (DER) should I report?

Utilities should report any facility, under 10MW, that is connected to the distribution system and operates in parallel with the utility. This includes generation such as a utility solar array or community solar garden. Utilities should report all systems interconnected with their distribution system or with a pending application, not just systems interconnected in the prior year.

**Utility Info**

Fill out with applicable information. Use the ‘Utility ID list’ for ‘utility ID number.’ This information allows other columns on the spreadsheet to automatically fill in. If the reporting template has not changed (check eDockets or Annual Reporting Website for update), you may provide an updated version of the previous year’s spreadsheet by changing “Report Year” and changing any system information on the DER tab as necessary.

**Utility, MN Utility ID, EIA ID, and Utility Type**

These categories autofill once a facility is entered in subsequent tabs. This allows Commerce and PUC staff to easily and quickly compile reports. Utilities do not need to fill out these categories.

**DER Identifier**

This should be a unique identifier for each DER facility that cannot result in the identification of an individual facility owner. **Customer names or addresses should not be used.** The identifier should also be attached to the DER facility and not to a customer account. That way, if additional DERs are added to an account or if a DER facility changes ownership (for example, a homeowner moves) the facility identifier will remain constant. **One way to do this is to assign each DER application a unique number that can be used for tracking purposes when it applies for interconnection.**
Some customers may have multiple DER facilities at a single service location. Below are examples and how to report them. As a general rule of thumb, each interconnection application that is generated should result in an individual entry on the reporting spreadsheet. Contact PUC/Commerce staff if further clarification is needed.

<table>
<thead>
<tr>
<th>DER facility example</th>
<th>How to report</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Customer has a 20 kW wind turbine interconnected in 2008. In 2017, they interconnect a 5 kW solar array.</td>
<td>Each DER should have its own entry and unique identifier on the reporting spreadsheet.</td>
</tr>
<tr>
<td>2 A customer interconnects a 10 kW solar array in 2016 on the roof of their house. In 2017 they add a second 5 kW on their garage.</td>
<td>Each DER should have its own entry and unique identifier on the reporting spreadsheet.</td>
</tr>
<tr>
<td>3 A customer interconnects a 3 kW solar array in 2014 on the roof of their house. In 2018 they interconnect an additional 2 kW to the array, using the same inverter.</td>
<td>Each DER should have its own entry and unique identifier on the reporting spreadsheet.</td>
</tr>
<tr>
<td>4 A customer applies for the interconnection of a 7 kW solar array. During the application process, they decided to increase the size of their array by 1 kW.</td>
<td>The DER should remain one single line on the reporting spreadsheet. The capacity should be updated in the subsequent report to reflect the final interconnected capacity.</td>
</tr>
<tr>
<td>5 A customer has solar with a battery that can only be charged by the rooftop solar and cannot export or import energy from the grid.</td>
<td>This facility would be entered as a single facility. DER type would be “solar” and an “X” should be marked in the storage column</td>
</tr>
<tr>
<td>6 A customer has an independent grid interactive battery and no other DER at their premise</td>
<td>DER type would be “storage” and an “X” should be marked in the storage column</td>
</tr>
<tr>
<td>7 A customer has a grid interactive battery and a 10 kW solar array at their premise.</td>
<td>Each DER should have its own entry and unique identifier on the reporting spreadsheet. The solar would be reported like an individual solar facility, and the battery would be reported like Example 6.</td>
</tr>
</tbody>
</table>

**DER Capacity and AC/DC**

The capacity of the DER facility in kW. Please report in kW AC (alternating current). If it is a legacy system that applied using DC, please convert the capacity to AC. DER Capacity reported should be based on what was approved for the interconnection application which may be a limited maximum capacity or aggregate nameplate rating.

**DER Type**

The technology type of the DER. Most commonly a wind or solar facility, but can also include many other technologies. Some examples include:

- Battery storage
- Hydroelectricity
- Cogeneration
- Fuel cell technology
- Hybrid DER types (e.g. solar + storage)

Uncertain about whether a certain technology type should be reported? Contact PUC/Commerce staff for assistance.

**CHP**

This columns is used to indicate when a DER type includes Combined Heat and Power (CHP). CHP is not a fuel type independently, for example, a CHP plant may be powered by natural gas.
Storage
This box is used to indicate when any type of DER facility has storage, such as examples 5, 6, and 7 in the “DER Examples” Chart. In some instances, a DER may have a solar array and a battery, but the battery is unable to export to the grid, and therefore not reported independently. In that case, the “Storage” box should be marked with an “X” to indicate storage is present.

DER Status

<table>
<thead>
<tr>
<th>Active Application</th>
<th>Any application submitted to the utility that is moving through the interconnection process.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interconnected</td>
<td>The facility has completed the interconnection process and received utility permission to operate.</td>
</tr>
<tr>
<td>Withdrawn</td>
<td>An application that started the interconnection process, but withdrew or stopped the interconnection process for any reason prior to receiving utility permission to operate. This can also include an application that is removed from the queue due to failure to meet an interconnection timeline.</td>
</tr>
<tr>
<td>Decommissioned</td>
<td>A facility that is removed after achieving interconnection. For example, a solar facility that is removed after 5 years of operation.</td>
</tr>
</tbody>
</table>

City, Zip Code, Substation, and Feeder
This should be at the point of common coupling for the DER to the utility grid.

Customer Type
These categories align with the Energy Information Agency (EIA) reporting categories. Utilities should classify customer type similar to how they classify customers for EIA Form 861 to the best of their ability. Because this can vary from utility to utility, please use your utility’s own internal classifications. Please use the “Community Solar Garden (CSG)” categories to indicate either a utility run or 3rd party program. If a utility or its generation and transmission provider owns the distributed generation, please use “utility.” This category is to help PUC/Commerce staff with information requests from regional organizations to avoid asking Minnesota utilities for additional information.

Incentive Program
This column is primarily for rate-regulated utilities that also submit annual reporting on their incentive programs. In an effort to eliminate duplicative reporting for Commission-regulated utilities, this column allows utilities to combine some reporting requirements. Utilities that do not operate an incentive program or that do not require Commission approval of any such program may enter “n/a” in this column, or enter the information at their discretion.

Total Installed Cost without Incentives
This should be provided with a submitted application by the customer, and should indicate the total amount the customer is paying to the installer before any incentives or tax credits. For example, a rooftop solar customer may be quoted $15,000 for the entirety of their solar installation and pay the entire amount to the installer. This is the amount that should be indicated on an application even if the customer receives an incentive from their utility or takes a tax credit. Any additional interconnection costs billed to the customer should not be included in this column. There is now a space for this information on the standardized application forms. If the installer does not provide this information, enter n/a.

Year Application Submitted
Enter the year in which the DER facility submitted an application for interconnection. This should include any applications, complete or incomplete, or that were later withdrawn for any reason. A pre-application report request is not an interconnection application. The status of the application should be entered in the “DER Status” column.
**Year Interconnected**
Enter the year in which the DER received utility permission to operate. If a DER application was withdrawn, mark “n/a” and make sure that “DER Status” is set to “withdrawn.” If the DER is still in the application process, enter “n/a”

**Year decommissioned (if applicable)**
If a facility has been decommissioned (removed) after achieving interconnection, enter the year in which decommissioning occurred. Otherwise, enter “n/a”

**Summary Statistics**
This is an auto-filling tab that summarizes the contents of the “DER Facilities” tab. Utilities do not need to fill out any information. It can be used as a check to ensure that the reporting matches internal tracking methods.

If you have any questions, please reach out to Commission Staff or Department Staff:

Hanna Terwilliger  
Rates Analyst and DER Reporting, Minnesota Public Utilities Commission  
[Email](hanna.terwilliger@state.mn.us)  
651-201-2243

Lise Trudeau  
Emerging Technology Planning Director, MN Department of Commerce, State Energy Office  
[Email](lise.trudeau@state.mn.us)  
651-539-1861