

Section 1. Application

1.1 Applicability

- 1.1.1 The Minnesota Distributed Energy Resources Interconnection Process (MN DIP) applies to any Distributed Energy Resource (DER) no larger than 10 MW interconnecting to, and operating in parallel with, an Area EPS distribution system in Minnesota.¹ See Minnesota Technical Requirements for more detail on what constitutes parallel operation. For the applicable interconnection process for DERs larger than 10 MW interconnected to, and operated in parallel with, an Area EPS distribution system in Minnesota, contact the Area EPS for details on the applicable interconnection process. The exception is Distributed Energy Resource interconnections that are subject to Federal Energy Regulatory Commission (FERC) jurisdiction.²
- 1.1.1.1 An application to interconnect a certified³, inverter-based DER no larger than 20 kilowatts (kW) shall be evaluated under the Section 2 Simplified Process.
- 1.1.1.2 An application to interconnect a DER shall be evaluated under the Section 3 Fast Track Process if the eligibility requirements of Section 3.1. An application to interconnect a DER that does not meet the Simplified Process or Fast Track Process eligibility requirements, or does not pass the review as described in either process, shall be evaluated under the Study Process.
- 1.1.1.3 Attachment 8 contains flow charts that provide an overview of the Simplified Process, the Fast Track Process, and the Study Process.
- 1.1.1.4 Prior to submitting an Interconnection Application, the Interconnection Customer may ask the Area EPS Operator's Interconnection Coordinator whether the proposed interconnection is subject to these procedures. The Area EPS Operator shall respond within fifteen (15) Business Days.
- 1.1.2 Capitalized terms used herein shall have the meanings specified in the Glossary of Terms or the body of these procedures. All references to DER Nameplate Rating or maximum capacity as described in 5.14.3⁴ herein are in alternating current (AC).
- 1.1.3 Neither these procedures nor the requirements included hereunder unless by mutual agreement of the Area EPS Operator and the Interconnection Customer apply to DERs interconnected, approved for interconnection or Interconnection Applications submitted to by the Area EPS Operator prior to June 17, 2019, and later deemed complete (provided these applications are later deemed complete following any applicable revisions no later than 60 days following this date). These procedures and the requirements hereunder shall apply to applications to modify existing DERs if the application to modify is submitted on or after June 17, 2019.
- 1.1.3.1 Nothing in this MN DIP affects an Interconnection Customer's Queue Position assigned before the effective date of this MN DIP. The Parties agree to complete work on any interconnection study agreement executed prior to the effective date of this MN DIP in accordance with the terms and conditions of

¹ [Minnesota Statute §216B.1611](#)

² The Federal Regulation and Development of Power Act ([16 U.S. Code Subchapter II](#)) outlines federal regulation of wholesale sales and transmission in interstate commerce and state regulation of generation, distribution, and retail sales.

³ See Attachment 4 and Attachment 5 for certification criteria.

⁴ See Minnesota Technical Requirements for more detail on when to apply Nameplate Rating or a limited maximum capacity as defined in 5.14.3.

that interconnection study agreement. Any new studies or other additional work will be completed pursuant to this MN DIP.

- 1.1.4 Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. All public utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.
- 1.1.5 References in these procedures to an Interconnection Agreement are to the Uniform Statewide Contract or Minnesota Distributed Energy Resource Interconnection Agreement (MN DIA).
 - 1.1.5.1 The Uniform Statewide Contract ([Minn. R. 7835.9910](#)) replaces the need to use the MN DIA if all of the following conditions are met and the Interconnection Customer does not request the MN DIA.
 - 1.1.5.1.1 Certified equipment
 - 1.1.5.1.2 20 kW_{ac} or less of a qualifying DER Capacity
 - 1.1.5.1.3 No Area EPS system modifications are required to accommodate the DER;
 - 1.1.5.1.4 Signed Uniform Statewide Contract and Attachment 2: Simplified Application.
 - 1.1.5.1.5 The Area EPS Operator may propose in its tariff an increase to the size threshold for the application of the Uniform Statewide Contract as a replacement for the MN DIA in its tariff. There may also be situations where the Interconnection Customer would need to sign both the Uniform Statewide Contract and the MN DIA; such as, where the Nameplate Rating of the system is above the size threshold where the Uniform Statewide Contract replaces the MN DIA but the DER qualifies for net metering ([Minn. Stat. §216B.164](#) and [Minn. R. Ch. 7835](#)) under the Uniform Statewide Contract.
 - 1.1.5.2 The reference to Interconnection Agreement also applies when the Area EPS Operator and Interconnection Customer modify MN DIA with Commission approval.
- 1.1.6 The Area EPS Operator and Interconnection Customer may jointly seek Commission approval of an amendment to the MN DIA for use between them for a specific Interconnection Application in the following ways:
 - 1.1.6.1 File a Petition with the Commission; or
 - 1.1.6.2 File a Notice with the Commission of the proposed amendment. The Notice should include a copy of the amendment showing in redline format how the amendment would alter the MN DIA between the Area EPS Operator and Interconnection Customer for the Interconnection Application at issue. If no objection or notice of intent to object is filed within 30 days, then the proposed amendment would be considered to be approved by the Commission. If there is a timely filed objection of notice of intent to object, then the proposed amendment would not be considered to have been approved by the Commission

and could only be used if the Commission subsequently issues a written order authorizing its use.

- 1.1.7 Commission approval of an amendment to the Interconnection Agreement is not needed where such an amendment only addresses updating or correcting: 1) information specified in the Interconnection Application; 2) exhibits or attachments to the Interconnection Agreement as long as they are not additional agreements or requirements not covered in the MN DIP on MN Technical Requirements; or 3) information provided in the blank lines to the MN DIA or Uniform Statewide Contract forms.

1.2 Online Applications and Electronic Submission

- 1.2.1 Each Area EPS Operator shall allow Pre-Application Report requests and Interconnection Applications to be submitted electronically; such as, through the Area EPS Operator's website or via email. The Area EPS Operator may allow the Interconnection Agreement to be submitted electronically.

1.2.1.1 The Area EPS Operator may allow for electronic signatures to be used for the Pre-Application Report request, Interconnection Application and related agreements, including the Interconnection Agreement, and forms.

- 1.2.2 Each Area EPS Operator shall dedicate a page on their website or direct customers to a website with generic information on the MN DIP that the Area EPS Operator finds comports with its process. The relevant information that shall be available to the Interconnection Customer via a website includes:

1.2.2.1 The MN DIP and attachments in an electronically searchable format;

1.2.2.2 The Area EPS Operator's Interconnection Application and all associated forms in a format that allows for electronic entry of data;

1.2.2.3 The Uniform Statewide Contract and the Area EPS Operator's tariff version of the MN DIA;

1.2.2.4 Example documents; including, at a minimum, an example one-line diagram with required labels; and

1.2.2.5 Contact information for the Area EPS Operator's DER interconnection coordinator(s) and submission of Interconnection Applications, including email and phone number.

1.3 Communications

- 1.3.1 The Area EPS Operator shall designate a DER interconnection coordinator(s) and this person or persons shall serve as a single point of contact from which general information on the application process and on Affected System(s) can be obtained through informal request from the Interconnection Customer presenting a proposed project for a specific site. The name, telephone number, and e-mail address of such contact employee or office shall be made available on the Area EPS Operator's Internet website in accordance with section 1.2.2.5. Some Area EPS Operators may have several DER Interconnection Coordinators assigned. The DER Interconnection Coordinator shall be available to provide coordinator assistance with the Interconnection Customer, but is not responsible to directly answer or resolve all of the issues involved in review and implementation of the interconnection process and standards. Upon request, electric system information provided to the Interconnection Customer should include

relevant system study results, interconnection studies, and other materials useful to an understanding of an interconnection at a particular point on the Area EPS Operator's System, to the extent such provision does not violate the privacy policies of the Commission, confidentiality provisions of prior agreements or critical infrastructure requirements. This listing does not include a Pre-Application Report under Section 1.4. The Area EPS Operator shall comply with reasonable requests for such information.

- 1.3.2 The Interconnection Customer may designate, on the Interconnection Application or in writing after the Application has been submitted, an Application Agent to serve as the single point of contact to coordinate with the DER Interconnection Coordinator on their behalf. Designation of an Application Agent does not absolve the Interconnection Customer from signing interconnection documents and the responsibilities outlined in the MN DIP and Interconnection Agreement.
- 1.3.3 Engineering Communication: Upon request of either party or the Commission, for the purpose of exchanging information regarding an active Interconnection Application, the Area EPS Operator and the Interconnection Customer shall each identify one point of contact with technical expertise for their organizations.

1.4 Pre-Application Report

- 1.4.1 In addition to the information described in section 1.3.1, which may be provided in response to an informal request, an Interconnection Customer may submit a formal written request form along with a non-refundable fee of up to \$300 for a Pre-Application Report on a proposed project at a specific site. The Area EPS Operator shall provide the data described in section 1.4.2 to the Interconnection Customer within fifteen (15) Business Days of receipt of the completed request form and payment of the up to \$300 fee. The Pre-Application Report produced by the Area EPS Operator is non-binding, does not confer any rights, and the Interconnection Customer must still successfully apply to interconnect to the Area EPS Operator's system. The written Pre-Application Report request form shall include the information in sections 1.4.1.1 through 1.4.1.8 below to clearly and sufficiently identify the location of the proposed Point of Common Coupling.
 - 1.4.1.1 Project contact information, including name, address, phone number, and email address.
 - 1.4.1.2 Project location (street address with nearby cross streets and town). Interconnection Customer may choose to also provide an aerial map or GPS coordinates for increased accuracy.
 - 1.4.1.3 Meter number, pole number, or other equivalent information identifying proposed Point of Common Coupling, if available.
 - 1.4.1.4 DER type(s) (e.g., solar, wind, combined heat and power, storage, solar + storage, etc.).
 - 1.4.1.5 Nameplate Rating (alternating current kW).
 - 1.4.1.6 Single or three phase DER configuration.
 - 1.4.1.7 Stand-alone generator (no onsite load, not including station service – Yes or No?).
 - 1.4.1.8 Is new service requested? Yes or No? If there is existing service, include the customer account number, site minimum and maximum current or proposed

electric loads in kW (if available) and specify how the load is expected to change.

- 1.4.2 Using the information provided in the Pre-Application Report request form in section 1.4.1, the Area EPS Operator will identify the substation/area bus, bank or circuit likely to serve the proposed Point of Common Coupling. This selection by the Area EPS Operator does not necessarily indicate, after application of the screens and/or study, that this would be the circuit the project ultimately connects to. The Interconnection Customer must request additional Pre-Application Reports if information about multiple Points of Common Coupling is requested. Subject to 1.4.3, the Pre-Application Report will include the following information:
- 1.4.2.1 Total capacity (in megawatts (MW)) of substation/area bus, bank or circuit based on normal or operating ratings likely to serve the proposed Point of Common Coupling.
 - 1.4.2.2 Existing aggregate generation capacity (in MW) interconnected to a substation/area bus, bank or circuit (i.e., amount of generation online) likely to serve the proposed Point of Common Coupling.
 - 1.4.2.3 Aggregate queued generation capacity (in MW) for a substation/area bus, bank or circuit (i.e., amount of generation in the queue) likely to serve the proposed Point of Common Coupling.
 - 1.4.2.4 Available capacity (in MW) of substation/area bus or bank and circuit likely to serve the proposed Point of Common Coupling (i.e., total capacity less the sum of existing aggregate generation capacity and aggregate queued generation capacity).
 - 1.4.2.5 Substation nominal distribution voltage and/or transmission nominal voltage if applicable.
 - 1.4.2.6 Nominal distribution circuit voltage at the proposed Point of Common Coupling.
 - 1.4.2.7 Approximate circuit distance between the proposed Point of Common Coupling and the substation.
 - 1.4.2.8 Relevant line section(s) actual or estimated peak load and minimum load data, including daytime minimum load as described in section 3.4.4.1 below and absolute minimum load, when available.
 - 1.4.2.9 Whether the Point of Common Coupling is located behind a line voltage regulator.
 - 1.4.2.10 Number and rating of protective devices and number and type (standard, bi-directional) of voltage regulating devices between the proposed Point of Common Coupling and the substation/area. Identify whether the substation has a load tap changer.
 - 1.4.2.11 Number of phases available on the Area EPS medium voltage system at the proposed Point of Common Coupling. If a single phase, distance from the three-phase circuit.

- 1.4.2.12 Limiting conductor ratings from the proposed Point of Common Coupling to the distribution substation.
 - 1.4.2.13 Whether the Point of Common Coupling is located on a spot network, grid network, or radial supply.
 - 1.4.2.14 Based on the proposed Point of Common Coupling, existing or known constraints such as, but not limited to, electrical dependencies at that location, short circuit interrupting capacity issues, power quality or stability issues on the circuit, capacity constraints, or secondary networks.
- 1.4.3 The Pre-Application Report need only include existing data. A request for a Pre-Application Report does not obligate the Area EPS Operator to conduct a study or other analysis of the proposed DER in the event that data is not readily available. If the Area EPS Operator cannot complete all or some of a Pre-Application Report due to lack of available data, the Area EPS Operator shall provide the Interconnection Customer with a Pre-Application Report that includes the data that is available. The confidentiality provisions found in 5.9 apply to Pre-Application Reports.
- 1.4.4 The provision of information on “available capacity” pursuant to section 1.4.2.4 does not imply that an interconnection up to this level may be completed without impacts since there are many variables studied as part of the interconnection review process. The distribution system is dynamic and subject to change, and data provided in the Pre-Application Report may become outdated at the time of the submission of the complete Interconnection Application. Notwithstanding any of the provisions of this section, the Area EPS Operator shall, in good faith, include data in the Pre-Application Report that represents the best available information at the time of reporting.

1.5 Interconnection Application

- 1.5.1 The Interconnection Customer shall submit an Interconnection Application to the Area EPS Operator, together with the processing fee or deposit specified in the Interconnection Application. Additional fees or deposits for the interconnection process shall not be required, except as otherwise specified in these procedures. Application form templates are available in Attachment 2 Simplified Application Form and Attachment 3 Interconnection Application Form. The Area EPS Operator’s tariff shall include specific fees for Simplified Process, Fast Track Process, and Study Process consistent with:
- 1.5.1.1 The processing fee for the Simplified Process Application shall be up to \$100.
 - 1.5.1.2 For certified, Fast Track Process eligible applications, the processing fee shall be up to \$100 + \$1/kW. For non-certified Fast Track Process eligible applications, the processing fee shall be up to \$100 + \$2/kW.
 - 1.5.1.3 For an Interconnection Application that is not eligible or does not apply for Simplified Process or Fast Track Process, the processing fee shall be a down payment not to exceed \$1,000 plus \$2.00 per kW toward the deposit required for the study(s) under Section 4 Study Process.
 - 1.5.1.4 Interconnection Applications shall contain a single line diagram and site diagram. A signature from a professional engineer licensed in Minnesota shall be required when: 1) Certified equipment is greater than 250 kW; or 2) non-certified equipment is greater than 50 kW.

1.5.2 The Interconnection Application shall be date- and time-stamped upon initial and, if necessary, resubmission receipt. Unless Section 2 Simplified Process applies, the Interconnection Customer shall be notified of receipt by the Area EPS Operator within three (3) Business Days of receiving the Interconnection Application. The Area EPS Operator shall notify the Interconnection Customer within ten (10) Business Days of the receipt of the Interconnection Application as to whether the Interconnection Application is complete or incomplete. If the Interconnection Application is incomplete, the Area EPS Operator shall provide along with the notice that the Interconnection Application is incomplete, a written list detailing all information that must be provided to complete the Interconnection Application. The Interconnection Customer will have ten (10) Business Days after receipt of the notice to submit all of the listed information. If the Interconnection Customer does not provide the listed information within the deadline the Interconnection Application will be deemed withdrawn. An Interconnection Application will be deemed complete upon submission of documents adhering to Minnesota Technical Requirements and containing the listed information to the Area EPS Operator. The Area EPS Operator will have five (5) Business Days to review the additional material and notify the Interconnection Customer if the Interconnection Application is deemed complete. The date-and time- stamp of receipt of a complete Interconnection Application shall be accepted as the qualifying date for the purposes of establishing queue position as described in section 1.8.

1.6 Modification of the Interconnection Application or a DER Interconnection

1.6.1 At any time after an Interconnection Application is deemed complete, including after the receipt of Fast Track, supplemental review, system impact study, and/or facilities study results, the Interconnection Customer, the Area EPS Operator, or the Affected System owner may identify modifications to the planned Interconnection that may improve the costs and benefits (including reliability) of the Interconnection, and/or the ability of the Area EPS Operator to accommodate the Interconnection. The Interconnection Customer shall submit to the Area EPS Operator, in writing, all proposed modifications to any information provided in the Interconnection Application. Neither the Area EPS Operator nor the Affected System operator may unilaterally modify the Interconnection Application.

1.6.2 Within ten (10) Business Days of receipt of a proposed modification, the Area EPS Operator shall evaluate whether a proposed modification to either an Interconnection Application or an existing DER Interconnection constitutes a Material Modification. If applicable, the Area EPS Operator shall make Reasonable Effort to consult with the Affected System owner. The definition in Glossary of Terms includes examples of what does and does not constitute a Material Modification.

1.6.2.1 If the proposed modification is determined to be a Material Modification, then the Area EPS Operator shall notify the Interconnection Customer in writing that the Customer may: 1) withdraw the proposed modification; or 2) proceed with a new Interconnection Application for such modification. The Interconnection Customer shall provide its determination in writing to the Area EPS Operator within ten (10) Business Days after being provided the Material Modification determination results. If the Interconnection Customer does not provide its determination, the Customer's Application shall be deemed withdrawn.

1.6.2.2 If the proposed modification is determined not to be a Material Modification, then the Area EPS Operator shall notify the Interconnection Customer in writing that the modification has been accepted and that the Interconnection Customer shall retain its eligibility for interconnection, including its place in the interconnection queue.

- 1.6.3 Any dispute as to the Area EPS Operator's determination that a modification constitutes a Material Modification shall proceed in accordance with the dispute resolution provisions in section 5.3 of these procedures.
- 1.6.4 Any modification to machine data, equipment configuration or to the interconnection site of the DER not agreed to in writing by the Area EPS Operator and the Interconnection Customer may be deemed a withdrawal of the Interconnection Application and may require submission of a new Interconnection Application, unless proper notification of each Party by the other as described in sections 1.6.1 and 1.6.2.

1.7 Site Control

Documentation of site control must be submitted with the Interconnection Application. Site control may be demonstrated through providing documentation showing any of the following:

- 1.7.1 Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the DER;
- 1.7.2 An option to purchase or acquire a leasehold site for such purpose; or
- 1.7.3 An exclusivity or other business relationship between the Interconnection Customer and the entity having the right to sell, lease, or grant the Interconnection Customer the right to possess or occupy a site for such purpose; or
- 1.7.4 For DERs utilizing the Section 2 Simplified Process, proof of site control may be demonstrated by the site owner's signature on the Interconnection Application.

1.8 Queue Position

- 1.8.1 Queue Position is assigned by the Area EPS based on when the Interconnection Application is deemed complete as described in section 1.5.2. The Queue Position of each Interconnection Application will be used to determine the cost responsibility for the Upgrades necessary to accommodate the interconnection. The Queue Position also establishes conditional interconnection capacity for an Interconnection Customer, contingent upon all requirements of the MN DIP and MN Technical Requirements being met.
- 1.8.2 Subject to the provisions in sections 1.5, 1.6, and 1.7, the DER shall retain the Queue Position assigned to their Interconnection Application throughout the review process for the purpose of determining cost responsibility and conditional interconnection capacity, including when moving through the processes covered by Section 2 Simplified Process and Section 3 Fast Track Process. Failure by the Interconnection Customer to meet the time frames outlined in these procedures or request a timeline extension shall result in a withdrawal of the Interconnection Application. The Area EPS shall notify the Interconnection Customer of the missed time frame with an opportunity to request a timeline extension as defined in section 5.2.3 before the Interconnection Application is deemed withdrawn.
- 1.8.3 The Area EPS Operator shall maintain a single, administrative queue and may manage the queue by geographical region (i.e. feeder, substation, etc.) This administrative queue shall be used to address Interconnection Customer inquiries about the queue process. If the Area EPS Operator and the Interconnection Customer(s) agree, Interconnection Applications may be studied in clusters for the purpose of the system impact study; otherwise, they will be studied serially.
- 1.8.4 Each Area EPS Operator that has received at least forty (40) complete Interconnection Applications, including Simplified Process Applications, in a year shall maintain a public

interconnection queue, available in a sortable spreadsheet format on its website, which it shall update on at least a monthly basis unless no changes to the spreadsheet have occurred in that month. The date of the most recent update shall be clearly indicated.

1.8.4.1 At a minimum, the following shall be included in the public interconnection queue:

1.8.4.1.1 Application or Queue Number

1.8.4.1.2 Date Application Deemed Complete

1.8.4.1.3 Interconnection Process Track (Simplified, Fast Track, or Study Process)

1.8.4.1.4 Proposed DER Capacity (Nameplate Rating unless limited as defined in 5.14.3)

1.8.4.1.5 DER type (technology)

1.8.4.1.6 Proposed DER Location by geographic region (i.e. by feeder or line section)

1.8.4.1.7 Status of the Application's progress through the process (e.g. Initial Review, Supplemental Review, Facilities Study, Construction, Inspection, etc.)