In order to encourage all parties to engage in thoughtful and constructive dialogue during the stakeholder process, it should be made clear that a) stakeholder meetings will be treated like settlement conferences under MRE 408 and no statement or writings of a participant may be used as evidence in current or future legal proceedings; b) DTE Electric by its participation does not waive the right to challenge any provisions or take any positions in this proceeding or in future proceedings regarding these rules. DTE Electric notes this document represents initial thinking on these matters, are not comprehensive, and the Company's positions may evolve as this process continues. The Company reserves its right to modify or expand its positions on this subject matter in the future and/or in response to positions taken by other stakeholders this process.

Section 5. Provisions that Apply to All Interconnection Applications

5.1 <u>Interconnection Agreement</u>

- 5.1.1 The Electric Utility Area EPS Operator shall provide the Interconnection EntityCustomer an executable Interconnection Agreement as described in section 1.1.5 within five (5) Business Days after the completion of all required review or study of the Interconnection Application unless sections 3.2.2.2, 3.4.5.1, 3.4.5.2 or Error! Reference source not found, applies.
- 5.1.2 After receiving an Interconnection Agreement from the Electric UtilityArea EPS Operator, the Interconnection EntityCustomer shall have thirty-ten (1030) Business Days to sign and return the interconnection agreement. If the Interconnection EntityCustomer does not sign the interconnection agreement, request an extension pursuant to these procedures, or ask the Area EPS Operator to file an unexecuted Interconnection Agreement with the Commission within thirty (30) Business Days, the Interconnection Application shall be deemed withdrawn. The Electric UtilityArea EPS Operator shall provide the Interconnection EntityCustomer a fully executed Interconnection Agreement after within five (5) Business Days after receiving a signed interconnection agreement from the Interconnection EntityCustomer. After the Interconnection Agreement is signed by the Parties, the interconnection of the DGER shall proceed under the provisions of the Interconnection Agreement, except to the extent these procedures remain applicable, including, but not limited to, sections 5.5, 5.6, and 5.7. Error! Reference source not found.

5.2 <u>Time Frames and Extensions</u>

- 5.2.1 Response or Action Timeframes: Unless otherwise stated, all time frames are measured into be set out in the Electric Utility's the Business Practices and measured in Business Days. For purposes of measuring these time intervals and consistent with Minn. Stat. §645.15, the time shall be computed so as to exclude the first and include the last day of the prescribed or fixed period or duration of time. Any communication sent or received after 4:30 p.m. (local time in Saint Paul, Minnesota) or on a Saturday, Sunday, or Holiday shall be considered to have been sent on the next Business Day.
- 5.2.2 The Electric UtilityArea EPS Operator shall make Reasonable Efforts to meet all time frames provided in these procedures. If the Electric UtilityArea EPS Operator cannot meet a deadline provided herein, it must notify the Interconnection EntityCustomer in writing within three (3) Business Days after the deadline to explain the reason for the failure to meet the deadline, and provide an estimated time by which it will complete the applicable interconnection procedure in the process.

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5.2.3 For applicable time frames described in these procedures, the Interconnection EntityCustomer may request in writing one extension equivalent to half of the time originally allotted (e.g., ten (10) Business Days for a twenty (20) Business Days original time frame) which the Electric UtilityArea EPS Operator may not unreasonably refuse. No further extensions for the applicable time frame shall be granted absent a Force Majeure Event or other similarly extraordinary circumstances.

5.3 <u>Disputes</u>

- 5.3.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process and associated study and Interconnection Agreements according to the provisions of this article. Settlement shall follow a process provided by the Commission, and Minnesota Administrative Rules 7829.1500-7829.1900. More information on the Commission's Consumer Affairs Office dispute resolution services is available on the Commission's website: https://mn.gov/puc/consumers/help/complaint/
- 5.3.2 Prior to a written Notice of Dispute, the Party shall contact the other Party and raise the issue and the relief sought in an attempt to resolve the issue immediately.
- 5.3.3 In the event of a dispute, the disputing Party shall provide the other Party a written Notice of Dispute containing the relevant known facts pertaining to the dispute, the specific dispute and the relief sought, and express notice by the disputing Party that it is invoking the procedures under this article. The Interconnection Customer may utilize the Commission's Consumer Affairs Office's complaint/inquiry form and Informal Complaint dispute resolution process to assist with the written Notice of Dispute. The notice shall be sent to the non-disputing Party's email address and physical address set forth in the Interconnection Agreement or Interconnection Application, if there is no Interconnection Agreement. If the Interconnection Customer chooses not to utilize the Commission's Consumer Affair Office dispute resolution process, the Interconnection Customer shall provide an informational electronic copy of the Notice of Dispute to the Consumer Affairs Office at the Commission at consumer.puc@state.mn.us.
- 5.3.4 The non-disputing Party shall acknowledge the notice within three (3) Business Days of its receipt and identify a representative with the authority to make decisions for the non-disputing Party with respect to the dispute.
- 5.3.5 The non-disputing Party shall provide the disputing Party with relevant regulatory and/or technical details and analysis regarding the Area EPS Operator interconnection requirements under dispute within ten (10) Business Days of the date of the Notice of Dispute. Within twenty (20) Business Days of the date of the Notice of Dispute, the Parties' authorized representatives will be required to meet and confer to try to resolve the dispute. Parties shall operate in good faith and use best efforts to resolve the dispute.
- 5.3.6 If a resolution is not reached in the thirty (30) Business Days from the date of the notice described in section 5.3.3, the Parties may 1) if mutually agreed, continue negotiations for up to an additional twenty (20) Business Days; or 2) either Party may request the Commission's Consumer Affairs Office provide mediation in an attempt to resolve the dispute within twenty (20) Business Days with the opportunity to extend this timeline upon mutual agreement. Alternatively, both Parties by mutual agreement may request mediation from an outside third-party mediator with costs to be shared equally between the Parties.
- 5.3.7 If the results of the mediation are not accepted by one or more Parties and there is still disagreement, the dispute shall proceed to the Commission's Formal Complaint process as

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described in Minn. Rules 7829.1700-1900 unless mutually agreed to continue with informal dispute resolution.

5.3.8 At any time, either Party may file a complaint before the Commission pursuant to Minn. Stat. §216B.164, if applicable, and Commission rules outlined in Minn. Rules Ch. 7829.

5.4 <u>Interconnection Metering</u>

Any metering requirements necessitated by the use of the Interconnection Site DER shall be installed at the Interconnection EntityCustomer's expense. The Interconnection EntityCustomer is responsible for replacement meter costs not covered in the Interconnection EntityCustomer's general customer charge. The Electric UtilityArea EPS Operator may charge Interconnection Customers an ongoing metering-related charge for an estimate of ongoing metering-related costs specifically demonstrated and approved in the tariff regardless of the choice of meter payment. The Electric UtilityArea EPS Operator shall offer the Interconnection EntityCustomer the following payment options:

- 5.4.1 Pay upfront the cost of metering requirements for the <u>Interconnection SiteDER</u>. Any maintenance or replacement costs may be billed separately to the Interconnection <u>EntityCustomer</u> after these costs are incurred <u>and the Interconnection Entity shall promptly pay such costs within thirty (30) days of invoice.</u>
- 5.4.2 Pay a tariffed monthly charge for the actual, <u>Interconnection SiteDER</u>-related meter and metering-related costs, <u>including maintenance or replacement costs</u>. If no tariffed monthly charge is an exact match, then the closest applicable tariffed monthly charge shall apply; unless metering requirements are so different that individual case basis pricing should apply. <u>The Interconnection Entity shall promptly pay such costs within thirty (30) days of invoice</u>.

5.5 <u>Non-Warranty</u>

The <u>Electric UtilityArea EPS Operator</u> does not give any warranty, expressed or implied, as to the adequacy, safety, or other characteristics of any structures, equipment, wires, appliances or devices owned, operated, installed or maintained by the Interconnection <u>EntityCustomer</u>, including without limitation the <u>Interconnection SiteDER</u> and any structures, equipment, wires, appliances or devices not owned, operated or maintained by the <u>Electric Distribution UtilityArea EPS Operator</u>. <u>The Electric Utility's tariff provisions concerning continuity of service shall apply.</u>

5.6 Design, Procurement, Installation and Construction of Interconnection Facilities and Upgrades

The Interconnection EntityCustomer shall pay for the actual cost of allthe Interconnection Facilities and Distribution Upgrades as described and itemized pursuant to the Interconnection Agreement and its attachments. If Network Upgrades are required, the actual cost of the Network Upgrades, including overheads, shall be borne by the Interconnection EntityCustomer pursuant to the Transmission Provider and associated agreement(s). As indicated in the Interconnection Agreement, the Electric UtilityArea EPS Operator shall provide a good faith cost estimate, including overheads, for the purchase and construction of the Interconnection Facilities, Distribution Upgrades, and Network Upgrades, and provide a detailed itemization of such costs.

5.5.25.6.2 The Interconnection EntityCustomer and the Electric UtilityArea EPS Operator shall agree on milestones for which each Party is responsible and list them in an attachment to the Interconnection Agreement. To the greatest extent possible, the Parties will identify all design, procurement, installation and construction requirements associated with a project, and clear

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associated timelines, at the beginning of the design, procurement, installation and construction phase, or as early within the process as <u>is reasonable under the circumstances</u>.

- 5.6.3 A Party's obligations under this provision may be extended by agreement. If a Party anticipates that it will be unable to meet a milestone for any reason other than a Force Majeure Event, it shall immediately notify the other Party of the reason(s) for not meeting the milestone and 1) propose the earliest reasonable alternate date by which it can attain this and future milestones, and 2) request appropriate amendments to the Interconnection Agreement and its attachments. The Party affected by the failure to meet a milestone shall not unreasonably withhold agreement to such an amendment unless 1) it will suffer significant uncompensated economic or operational harm from the delay, 2) attainment of the same milestone has previously been delayed, or 3) it has reason to believe that the delay in meeting the milestone is intentional or unwarranted notwithstanding the circumstances explained by the Party proposing the amendment. If the Party affected by the failure to meet a milestone disputes the proposed extension, the affected Party may pursue dispute resolution pursuant to 5.3.
- 5.5.35.6.4 The Electric Utility shall establish a payment schedule and timeline in the Construction Agreement.
- 5.5.4 At the option of the Area EPS Operator, either the "Traditional Security" or the "Modified Security" method shall be used.
 - 5.5.4.1 Under the Traditional Security method, the Interconnection Customer shall provide reasonable adequate assurances of credit, including a letter of credit or personal guaranty of payment and performance from a creditworthy entity acceptable under the Area EPS Operator credit policy and procedures for the unpaid balance of the estimated amount shown in Interconnection Agreement for the totality of all anticipated work or expense incurred by the Area EPS Operator associated with the Interconnection Application. The payment for these estimated costs shall be as follows:
 - 5.5.4.1.1 1/3 of estimated costs shall be due no later than when the Interconnection Customer signs the Interconnection Agreement.
 - 5.5.4.1.2 An additional 1/3 of estimated costs shall be due prior to initial energization of the Generation System with the Area EPS Operator.
 - 5.5.4.1.3 Remainder of actual costs, incurred by Area EPS Operator, shall be due within 30 days from the date the bill is mailed by the Area EPS Operator after project completion.
 - 5.5.4.2 Under the Modified Security method, at least twenty (20) Business Days prior to the commencement of the design, procurement, installation, or construction of a discrete portion of the Area EPS Operator's Interconnection Facilities and Upgrades, the Interconnection Customer shall provide the Area EPS Operator, at the Interconnection Customer's option, a guarantee, letter of credit or other form of security that is reasonably acceptable to the Area EPS Operator and is consistent with the Minnesota Uniform Commercial Code. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Area EPS Operator's Interconnection Facilities and Upgrades and shall be reduced on a

dollar-for-dollar basis for payments made to the Area EPS Operator under the Interconnection Agreement during its term.

- 5.5.4.3 The guarantee must be made by an entity that meets the creditworthiness requirements of the Area EPS Operator, and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed to maximum amount.
- 5.5.4.4 The letter of credit must be issued by a financial institution or insurer reasonably acceptable to the Area EPS Operator and must specify a reasonable expiration date not sooner than sixty (60) Business Days (three calendar months) after the due date of the final accounting report and bill described in 5.6.6.
- 5.5.5.6.5 The Electric UtilityArea EPS Operator shall bill the Interconnection EntityCustomer for the design, engineering, construction, and procurement costs of Interconnection Facilities and Distribution Upgrades described in the Interconnection Agreement on a monthly basis, or as otherwise agreed by the Parties in the interconnection agreement. The Interconnection EntityCustomer shall pay each bill within twenty-one (21) Business Days of receipt, or as otherwise agreed to by the Parties in the interconnection agreement.
- Within eighty (80) Business Days (approximately four (4) calendar months) of completing 5.5.65.6.6 the construction and installation of the Area EPS Operator's Interconnection Facilities and/or Upgrades described in the interconnection agreement and its attachments, Tthe Area Electric <u>UtilityPS Operator</u> shall provide the Interconnection <u>EntityCustomer</u> with a final accounting report of any difference between 1) the Interconnection EntityCustomer's cost responsibility for the actual cost of such Interconnection Ffacilities or Distribution Upgrades, and 2) the Interconnection EntityCustomer's previous aggregate payments to the Electric UtilityArea EPS Operator for such Interconnection Ffacilities or Upgrades. If the Interconnection EntityCustomer's cost responsibility exceeds its previous aggregate payments, the Electric Utility Area EPS Operator shall invoice the Interconnection EntityCustomer for the amount due and the Interconnection EntityCustomer shall make payment to the Electric Utility Area EPS Operator within twenty (20) Business Days. If the Interconnection EntityCustomer's previous aggregate payments exceed its cost responsibility under the Interconnection Agreement, the Electric Utility Area EPS Operator shall refund to the Interconnection EntityCustomer an amount equal to the difference within twenty (20) Business Days of the final accounting report. Failure of the Interconnection Entity to promptly pay the Interconnection Entity's cost responsibility shall be cause for disconnection of Interconnection

5.65.7 Inspection, Testing, Commissioning and Authorization

- 5.7.1 The Interconnection EntityCustomer shall arrange for the inspection and testing of the Interconnection SiteDER and the Interconnection EntityCustomer's Interconnection Facilities prior to interconnection pursuant to Minnesota Interconnection Technical Requirements. Commissioning tests of the Interconnection EntityCustomer's installed equipment shall be performed pursuant to applicable codes and standards pursuant to Minnesota Technical Requirements.
- 5.6.15.7.2 The Interconnection Entity shall provide copies of all permits, inspections, remedies required, and reinspection reports from agencies or units of government that have jurisdiction on the completion of construction of the Interconnection Site. The Electric Utility shall review the provided documents for completeness. The Interconnection Entity is solely responsible for compliance with all applicable laws and regulations applicable to Interconnection Entity's

equipment and shall indemnify Electric Utility for all of Interconnection Entity's acts and omissionsnd the Electric Utility shall not be held responsible for compliance.

- 5.7.3 The Interconnection Entity Customer shall notify the Electric UtilityArea EPS Operator of testing and inspection no fewer than five (5) Business Days in advance, or at a timeas may be agreed to by the Parties. Testing and inspection shall occur on a Business Day. For interconnections that do not have distribution upgrades, the Electric Utility may, at its own expense send qualified personnel to the Interconnection Site to inspect the interconnection and witness the testing for Categories 1 and 2. For Category 3 to 5 the Interconnection Entity shall be responsible as negotiated in the construction agreement. The Interconnection Entity shall provide the Electric Utility a written results report prior to the Electric Utility testing and inspection. The Area EPS Operator may, at its own expense if not required in Minnesota Interconnection Technical Requirements, send qualified personnel to the DER site to inspect the interconnection and witness the testing. The Interconnection Customer shall provide the Area EPS Operator a written results report.
- 5.6.25.7.4 The Electric Utility Area EPS Operator shall provide the Interconnection EntityCustomer written acknowledgment that it has received the Interconnection EntityCustomer's written test report. Such written acknowledgment shall not be deemed to be or construed as any representation, assurance, guarantee, or warranty by the Electric UtilityArea EPS Operator of the safety, durability, suitability, or reliability of the Interconnection SiteDER or any associated control, protective, and safety devices owned or controlled by the Interconnection EntityCustomer or the quality of power produced by the Interconnection SiteDER.

5.75.8 Authorization Required Prior to Parallel Operation

- 5.7.15.8.1 Area EPS Operator shall use Reasonable Efforts to list applicable parallel operation requirements by attaching the Minnesota Interconnection Technical Requirements to the Interconnection Agreement.—Electric Utility shall provide a Parallel Operating Agreement with the requirements for operation. The Parallel Operating Agreement will be signed and returned to the Electric Utility. Additionally, the Electric UtilityArea EPS Operator shall promptly notify the Interconnection EntityCustomer of any changes to these requirements as soon as they are known. The Electric UtilityArea EPS Operator shall make Reasonable Efforts to cooperate with the Interconnection EntityCustomer in meeting requirements necessary for the Interconnection EntityCustomer to commence parallel operations by the in-service date.
- 5.8.2 The Interconnection EntityCustomer shall not operate its Interconnection SiteDER in parallel with the Electric UtilityArea EPS Operator's Distribution System without prior written permission to operate authorization from the Electric UtilityArea EPS Operator. For Category 1 and 2, notification and permission requirements shall be established in the Electric Utility's Business Practiceson are contained in the guidelines. For Categories 3 through 5, notification and permission requirements the shall be set forth by the Electric Utility in the Construction Agreement. Days. Subject to reasonable timing and other conditions, pPermission will be granted by the Distribution Utility for reasonable but limited non-revenue testing as requested from the Interconnection Entity. The Area EPS Operator shall provide such authorization within three (3) Business Days from when the Area EPS Operator receives notification that the Interconnection Customer has complied with all applicable parallel operation requirements and all payments for issued bills under the Interconnection Agreement, System Impact Study Agreement, Facilities Study Agreement or Section 5.6.5 above that are past due have been paid in full. Such authorization shall not be unreasonably withheld, conditioned, or delayed.
- 5.8.3 Only after the Interconnection Entity has executed a Parallel Operation Agreement, complied with all applicable parallel operation requirements and commissioning tests in the Construction

Agreement, complied with all relevant, local, state and federal requirements, and the Electric Utility has received full payments for all bills associated with the Interconnection Agreement, Engineering Review Agreement, Distribution Study Agreement, and Construction Agreement, shall Interconnection Entity be entitled to interconnect and operate in parallel with the Electric Utility. Thereafter, such authorization for commercial operation shall not be unreasonably withheld, conditioned, or delayed. Failure of the Interconnection Entity to pay the Interconnection Entity's cost responsibilities when due is sufficient cause for refusal to interconnect Interconnection Entity and Electric Utility shall have no liability for such refusal.

5.9 Post Commissioning Remedy

- 5.9.1 Should the Electric Utility find that the Interconnection Site is operating outside of applicable codes and standards, the Electric Utility shall inform the Interconnection Entity or their Agent and provide such information. The Interconnection Entity is responsible for bringing the Interconnection Site into compliance. The Electric Utility may perform inspection on the site after a remedy is applied.
- 5.9.2 Should the Interconnection site not be brought into compliance, the Electric Utility may apply a remedy and bill the Interconnection Entity or disconnect the site from Electric Utility's distribution system. Interconnection Entity shall promptly pay any such bill and Electric Utility shall have no liability for disconnection.
- 5.9.3 If the non-compliance is a safety issue, the Electric Utility may immediately disconnect the site and inform the Interconnect Entity after disconnection. Electric Utility shall have no liability for such disconnection.

5.85.10Confidentiality

- 5.8.15.10.1 Confidential Information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." For purposes of these procedures, design, operating specifications, and metering data provided by the Interconnection EntityCustomer may be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such. If requested by either Party, the other Party shall provide in writing the basis for asserting that the information warrants confidential treatment. Parties providing a Governmental Authority trade secret, privileged or otherwise not public or nonpublic data under the Minnesota Government Data Practices Act, Minnesota Statutes Chapter 13, shall identify such data consistent with the Commission's September 1, 1999 Revised Procedures for Handling Trade Secret and Privileged Data, available online at: https://mn.gov/pue/pue-documents/#4
- 5.8.25.10.2 Confidential Information does not include information previously in the public domain with proper authorization, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be publicly divulged in an action to enforce these procedures. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written

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authorization from the Party providing that information, except to fulfill obligations under these procedures, or to fulfill legal or regulatory requirements that could not otherwise be fulfilled by not making the information public.

- 5.8.2.15.10.2.1 Each Party shall hold in confidence and shall not disclose Confidential Information, to any person (except employees, officers, representatives and agents, who agree to be bound by this section). Confidential Information shall be clearly marked as such on each page or otherwise affirmatively identified. If a court, government agency or entity with the right, power, and authority to do so, requests or requires either Party, by subpoena, oral disposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request(s) or requirements(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of this Agreement. In the absence of a protective order or waiver the Party shall disclose such confidential information which, in the opinion of its counsel, the party is legally compelled to disclose. Each Party will use reasonable efforts to obtain reliable assurance that confidential treatment will be accorded any confidential information so furnished.
- 5.8.2.25.10.2.2 Critical infrastructure information or information that is deemed or otherwise designated by a Party as Critical Energy/Electric Infrastructure Information (CEII) pursuant to FERC regulation, 18 C.F.R. §388.1133, as may be amended from time to time, may be subject to further protections for disclosure as required by FERC or FERC regulations or orders and the disclosing Party's CEII policies.
- 5.8.2.35.10.2.3 Each Party shall employ at least the same standard of care to protect

 Confidential Information obtained from the other Party as it employs to protect its own Confidential Information.
- 5.8.2.45.10.2.4Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

5.95.11 Insurance

5.9.15.11.1 At a minimum, the Interconnection EntityCustomer shall maintain, during the term of the Interconnection Agreement, general liability insurance, from a qualified insurance agency with a B+ or better rating by "Best" and with a combined single limit of not less than the limits described in the chart below.

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Interconnection Site Distributed Energy Resource System Size	Liability Insurance Requirement
≤ 40 kWaeCategory 1	\$300,000
> 40 kWae and ≤ 250 kWaeCategory 2	\$1,000,000
> 250 kWae and ≤ 5 MWaeCategory 3 and 4	\$2,000,000
> 5 MWae and ≤ 10 MWaeCategory 5	\$ <u>5</u> 3,000,000

Such general liability insurance shall include coverage against claims for damages resulting from (i) bodily injury, including wrongful death; and (ii) property damage arising out of the Interconnection EntityCustomer's ownership and/or operation of the Interconnection SiteDER under this agreement

- 5.9.25.11.2 The general liability insurance required shall, by endorsement to the policy or policies, (a) include the Electric Utility Area EPS Operator as an additional insured; (b) contain a severability of interest clause or cross-liability clause; (c) provide that the Electric Utility Area EPS Operator shall not by reason of its inclusion as an additional insured incur liability to the insurance carrier for the payment of premium for such insurance; and (d) provide for twenty (20) business days' written notice to the Electric Utility Area EPS Operator prior to cancellation, termination, alteration or material change of such insurance.
- 5.9.35.11.3 If the Interconnection SiteDER is connected to an account receiving residential service from the Electric UtilityArea EPS Operator and is Category 1 its system size is less than 40kW, then the endorsements required in Section 5.11.2 shall not apply.
- 5.9.45.11.4 The Interconnection Entity-Customer shall furnish the required insurance certificates and endorsements to the Electric Utility-Area EPS Operator prior to the initial operation of the Interconnection SiteDER. Thereafter, the Electric Utility-Area EPS Operator shall have the right to periodically inspect or obtain a copy of the original policy or policies of insurance.
- 5.9.55.11.5 Evidence of the insurance required in Section 5.11.1 shall state that coverage provided is primary and is not excess to or contributing with any insurance or self-insurance maintained by the <u>Electric Utility-Area EPS Operator</u>.
- 5.9.6 If the Interconnection Customer is self insured with an established record of self insurance, the Interconnection Customer may comply with the following in lieu of Sections 5.10.1 5.10.5.
 - 5.9.6.1 Interconnection Customer shall provide the Area EPS Operator, at least twenty (20) days prior to the date of initial operation, evidence of an acceptable plan to self insure to a level of coverage equivalent to that required under Section 5.10.1.
 - 5.9.6.2 If the Interconnection Customer ceases to self-insure to the level required hereunder, or if the Interconnection Customer is unable to provide continuing evidence of the ability to self-insure, the Interconnection Customer agrees to immediately obtain the coverage required under Section 5.10.1.

5.9.6.3 Failure of the Interconnection Customer or the Area EPS Operator to enforce the minimum levels of insurance does not relieve the Interconnection Customer from maintaining such levels of insurance or relieve the Interconnection Customer of any liability.

5.10.7 An Interconnection Customer's insurance requirements shall be limited to no more than an aggregate cap of \$35 million if the Interconnection Customer has multiple DER systems in the Area EPS Operator's service territory.

5.105.12 Comparability

The <u>Electric UtilityArea EPS Operator</u> shall, <u>subject to waivers and other reasonable exceptions</u>, receive, process and analyze all Interconnection Applications in a timely manner as set forth in this document. The <u>Electric UtilityArea EPS Operator</u> shall use the same Reasonable Efforts in processing and analyzing Interconnection Applications from all Interconnection <u>Entities Customers</u>, whether the <u>Interconnection SiteDER</u> is owned or operated by the <u>Electric UtilityArea EPS Operator</u>, its subsidiaries or affiliates, or others.

5.11 Record Retention

The Area EPS Operator shall maintain for three years records, subject to audit, of all Interconnection Applications received under these procedures, the times required to complete Interconnection Application approvals and disapprovals, and justification for the actions taken on the Interconnection Applications.

5.125.13 Coordination with Affected Systems

The Electric Utility shall notify any Affected System owners/operators. The Area EPS Operator shall coordinate the conduct of any studies required to determine the impact of the Interconnection Application on Affected Systems with Affected System operators and, if possible, include those results (if available) in its applicable interconnection study within the time frame specified in these procedures. The Area EPS Operator will make Reasonable Effort to include the Affected System operator(s) in all relevant meetings held with the Interconnection Customer as required by these procedures. The Interconnection Customer will cooperate with the Area EPS Operator and the Affected System operator(s) in all matters related to the conduct of studies and the determination of modifications to Affected Systems. Affected System operators shall cooperate with the Area EPS Operator and Interconnection Customer(s) with whom interconnection has been requested in all matters related to the conduct of studies and the determination of modifications to Affected Systems.

5.13 Capacity of the Interconnection Site Distributed Energy Resource

- 5.13.1 If the Interconnection Application is for an increase in capacity for an existing Interconnection

 SiteDER, the Interconnection Application shall be evaluated on the basis of the new total alternating current ("AC") capacity of the Interconnection SiteDistributed Energy Resource. Subject to other law, regulation or order of an agency or court with jurisdiction, the maximum capacity of an Interconnection SiteDistributed Energy Resource shall be the Aggregate Nameplate Rating or may be limited as described in 5.1.1.
- 5.13.2 An Interconnection Application for an Interconnection Site DER that includes a single or multiple energy production devices at a site for which the Interconnection EntityCustomer seeks a single Point of Common Coupling shall be evaluated on the basis of the Aggregate Nameplate Rating of the total Interconnection Sitemultiple DERs unless 5.1.1 applies.

5.13.3 If the maximum capacity of the Interconnection SiteDER(s) is limited (e.g., through use of a control system, power relay(s), or other similar device settings or adjustments), then the Interconnection EntityCustomer must obtain the Electric Utility'sArea EPS Operator's agreement that the manner in which the Interconnection EntityCustomer proposes to implement such a limit will effectively limit active power output so as to not adversely affect the safety and reliability of the Electric UtilityArea EPS Operator's system. Such agreement shall not to be unreasonably withheld. If the Area EPS Operator Electric Utility does not so agree, then the Interconnection Application must be withdrawn or revised. Nothing in this section shall prevent an Area EPS Operator from considering an output higher than the limited output (e.g. Aggregate Nameplate Rating), if the limitations do not provide adequate assurance, when evaluating system impacts. See Minnesota Technical Requirements for more detail.

Glossary of Terms

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Affected System – Another Area EPS Operator's Distribution System, Transmission Owner's Transmission System, or Transmission System connected generation which may be affected by the proposed interconnection.

Applicant Agent – A person designated in writing by the Interconnection <u>EntityCustomer</u> to represent or provide information to the <u>Electric Utility Area EPS</u> on the Interconnection <u>EntityCustomer</u>'s behalf throughout the interconnection process.

Area EPS - The electric power distribution system connected at the Point of Common Coupling

<u>Electric Utility</u> <u>Area EPS Operator</u> – An entity that owns, controls, or operates the electric power distribution systems that are used for the provision of electric service <u>in Minnesota.</u>

Business Day – Monday through Friday, excluding Holidays as defined by Rule and excluding Minn. Stat. §645.44, Subd. 5. See MN DIP Section 5.2.1 for more on computation of time.

Business days shall not include any day that the Electric Utility experienced a catastrophichad a storm, any day during which the Electric Utility is restoring catastrophic storm damage, and any Electric Utility holiday not otherwise covered by Rule-day resulting from catastrophic conditions.

Certified Equipment - Inverters and other interconnection devices that are listed as having passed the current version of UL1741 or similar nationally recognized testing standard. A complete list of acceptable testing standards shallean be listed in the Electric Utility's found in Business Practices X.X.XX. UL 1741 listing is a common form of DER inverter certification. See Attachment 4: Certification Codes and Standards and Attachment 5: Certification of Distributed Energy Resource Equipment

Confidential Information – See MN DIP 5.10

Distributed Energy Resource (DER) — Electricity-producing resources or controllable loads that are directly connected to a local distribution grid or connected to a host facility within the distribution grid. 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.

Distribution System – <u>An electric power distribution system owned and operated by an</u> Eelectric Untility. The distribution system typically is fed by a higher voltage transmission

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system. The Area EPS facilities which are not part of the Local EPS, Transmission System or any generation system.

Distribution Upgrades – The additions, modifications, and upgrades to the Distribution System at or beyond the Point of Common Coupling to facilitate interconnection of the DER and render the distribution service necessary to effect the Interconnection EntityCustomer's connection to the Distribution System. Distribution Upgrades do not include Interconnection Facilities.

Electric Power System (EPS) – The facilities that deliver electric power to a load.

Fast Track Process The procedure as described in Section 3 for evaluating an Interconnection Application for a DER that meets the eligibility requirements of section 3.1.

Force Majeure Event – An act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, an order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or another cause beyond a Party's control. A Force Majeure Event does not include an act of negligence or intentional wrongdoing.

Good Utility Practice – Any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and act which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Governmental Authority – Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection EntityCustomer, Electric Utilitythe Area EPS Operator, or any Affiliate thereof. The Minnesota Public Utilities Commission is the authority governing interconnection requirements unless otherwise provided for in the Minnesota Technical Requirements.

Interconnection Agreement – The terms and conditions between the <u>Electric Utility Area EPS</u>

Operator and Interconnection <u>EntityCustomer</u> (Parties). <u>See MN DIP Section 1.1.5 for when the Uniform Statewide Contract or MN DIA applies.</u>

Interconnection Application – The Interconnection EntityCustomer's request to interconnect a new or modified <u>facility</u>, as described in MN DIP Section 1.6, DER. See Attachment 2: Simplified Application Form and Attachment 3 Interconnection Application Form.

Interconnection Entity Customer – The person or entity, including the Electric Utility Area EPS Operator, whom will be the owner of the DER that proposes to interconnect a DER(s) with the Electric Utility Area EPS Operator's Distribution System. The Interconnection Entity Customer is responsible for ensuring the DER(s) is designed, operated and maintained in compliance with all local, state, and federal law, the Michigan rules, standards, and good utility practice Minnesota Technical Requirements.

Interconnection Facilities – The Electric UtilityArea EPS Operator's Interconnection Facilities and the Interconnection EntityCustomer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the DER and the Point of Common Coupling, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the DER to the Electric Utility's DistributionArea EPS Operator's System. Some examples of Customer Interconnection Facilities include: supplemental DER devices, inverters, and associated wiring and cables up to the Point of DER Connection. Some examples of Electric UtilityArea EPS Operator Interconnection Facilities include sole use facilities; such as, line extensions, controls, relays, switches, breakers, transformers and shall not include Distribution Upgrades or Network Upgrades.

Material Modification — A modification to machine data, equipment configuration or to the interconnection site of the DER at any time after receiving notification by the <u>Electric</u> <u>UtilityArea EPS Operator</u> of a complete Interconnection Application that has a material impact on the cost, timing, or design of any Interconnection Facilities or Upgrades, or a material impact on the cost, timing or design of any <u>other</u> Interconnection Application <u>with a later Queue</u> <u>Position</u> or the safety or reliability of the <u>Distribution SystemArea EPS</u>.

MN DIA - The Minnesota Distributed Energy Resource Interconnection Agreement. See MN DIP Section 1, 1.5 for when the Uniform Statewide Contract or MN DIA applies.

MN DIP The Minnesota Distributed Energy Resource Interconnection Process. Statewide interconnection standards in this document.

Commented [A11]: In foot note 1 changes to ownership will cause the interconnection to be put on hold until the new owner resigns all necessary agreements and provides necessary insurance or other requirements

Changes to capabilities that will potentially require reevaluation would include cyber security or functionality changes due to firmware or other software capabilities, harmonics or fault current response

DC/AC ratio changes may affect the qualification for certain rates or programs

¹ A Material Modification shall include, but may not be limited to, a modification from the approved Interconnection Application that: (1) changes the physical location of the point of common coupling; such that it is likely to have an impact on technical review; (2) increases the nameplate rating or output characteristics of the Distributed Energy Resource; (3) changes or replaces generating equipment, such as generator(s), inverter(s), transformers, relaying, controls, etc., and substitutes equipment that is not like-kind substitution in certification, size, ratings, impedances, efficiencies or capabilities of the equipment; (4) changes transformer connection(s) or grounding; and/or (5) changes to a certified inverter with different specifications or different inverter control settings or configuration. A Material Modification shall not include a modification from the approved Interconnection Application that: (1) changes the ownership of a Distributed Energy Resource; (2) changes the address of the Distributed Energy Resource, so long as the physical point of common coupling remains the same; (3) changes or replaces generating equipment such as generator(s), inverter(s), solar panel(s), transformers, relaying, controls, etc. and substitutes equipment that is a like-kind substitution in certification, size, ratings, impedances, efficiencies or capabilities of the equipment; and/or (4) increases the DC/AC ratio but does not increase the maximum AC output capability of the Distributed Energy Resource in a way that is likely to have an impact on technical review.

MN Technical Requirements — The term including all of the DER technical interconnection requirement documents for the state of Minnesota; including: 1) Attachment 2 Distributed Generation Interconnection Requirements established in the Commission's September 28, 2004 Order in E-999/CI-01-1023) until superseded and upon Commission approval of updated Minnesota DER Technical Interconnection and Interoperability Requirements in E-999/CI-16-521 (anticipated in late 2019.)

Nameplate Rating - nominal voltage (V), current (A), maximum active power (kWac), apparent power (kVA), and reactive power (kvar) at which a DER is capable of sustained operation. For a Local EPS with multiple DER units, the aggregate nameplate rating is equal to the sum of all DERs nameplate rating in the Local EPS, not including aggregate capacity limiting mechanisms such as coincidence factors, plant controller limits, etc. that may be applicable for specific cases (Aggregate Nameplate Rating). The nameplate ratings referenced in the MN DIP are alternating current nameplate DER ratings. See Section 5.14 on Capacity of the Distributed Energy Resource and Minnesota Technical Requirements.

Network Upgrades – Additions, modifications, and upgrades to the Transmission System required at or beyond the point at which the DER interconnects with the <u>Electric EntityArea EPS Operator</u>'s System to accommodate the interconnection with the DER to the <u>Electric EntityArea EPS Operator</u>'s System. Network Upgrades do not include Distribution Upgrades.

Notice of Dispute — The disputing Party shall provide the other Party this written notice containing the relevant known facts pertaining to the dispute, the specific dispute and the relief sought, and express notice by the disputing Party that it is invoking the procedures under MN DIP 5.3.

Operating Requirements – Any operating and technical requirements that may be applicable. due to the Transmission Provider's technical requirements or Minnesota Technical Requirements, including those set forth in the MN DIA.

Party or Parties – The <u>Electric Utility</u> Area <u>EPS Operator</u> and the Interconnection <u>Entity</u> Customer.

Point of Common Coupling (PCC)— The point where the Interconnection Facilities connect with the <u>Electric UtilityArea EPS Operator</u>'s Distribution System. See figure 1. Equivalent, in most cases, to "service point" as specified by the <u>Electric UtilityArea EPS Operator</u> and described in the National Electrical Code and the National Electrical Safety Code.

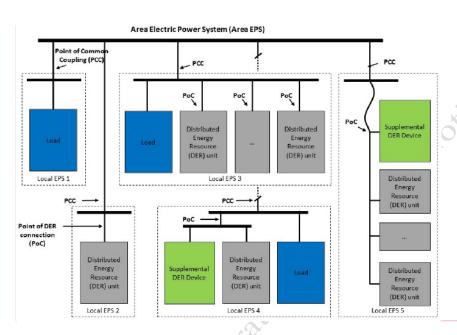


Figure 1: Point of Common Coupling and Point of DER Connection

(Source: IEEE 1547)

Point of DER Connection (PoC) – When identified as the Reference Point of Applicability, the point where an individual DER is electrically connected in a Local EPS and meets the requirements of this standard exclusive of any load present in the respective part of the Local EPS (e.g. terminals of the inverter when no supplemental DER device is required.) For DER unit(s) that are not self-sufficient to meet the requirements without (a) supplemental DER device(s), the Point of DER Connection is the point where the requirements of this standard are met by DER in conjunction with (a) supplemental DER device(s) exclusive of any load present in the respective part of the Local EPS.

Queue Position – The order of a valid Interconnection Application, relative to all other pending valid Interconnection Applications, that is established based upon the date- and time- of receipt of the complete Interconnection Application as described in sections Error! Reference source not found. and Error! Reference source not found.

Reasonable Efforts – With respect to an action required to be attempted or taken by a Party under these procedures, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

Commented [A12]: Diagram includes definitions not present here, this also is not showing where metering, isolation and protection will need to be placed.

Commented [A13]: Definition is potentially insufficient in cases of multiple generation types, certified + uncertified mixed generation and AC connected storage

Reference Point of Applicability – The location, either the Point of Common Coupling or the Point of DER Connection, where the interconnection and interoperability performance requirements specified in IEEE 1547-2018 apply. With mutual agreement, the Electric UtilityArea EPS Operator and Interconnection EntityCustomer may determine a point between the Point of Common Coupling and Point of DER Connection. Interconnection and Interoperability Requirements for more information.

Simplified Process – The procedure for evaluating an Interconnection Application for a certified inverter-based DER no larger than 20 kW that uses the screens described in section Error!

Reference source not found. The Simplified Process includes simplified procedures. Error!

Reference source not found. includes a brief set of terms and conditions, and the option for Interconnection Agreement described in Error! Reference source not found. See Error!

Reference source not found. Error! Reference source not found.

Study Process The procedure for evaluating an Interconnection Application that includes the Section 4 scoping meeting, system impact study, and facilities study.

Tariff – The Electric Utility Area EPS Operator's Tariffs. filed in compliance with the Minnesota Distributed Energy Resource Interconnection Procedures (MN DIP) and approved by the Minnesota Public Utilities Commission (MPUC or Commission).

Transmission Owner – The entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System relevant to the Interconnection.

Transmission Provider – The entity (or its designated agent) that owns, leases, controls, or operates transmission facilities used for the transmission of electricity. The term Transmission Provider includes the Transmission Owner when the Transmission Owner is separate from the Transmission Provider. The Transmission Provider may include the Independent System Operator or Regional Transmission Operator.

Transmission System – The facilities owned, leased, controlled or operated by the Transmission Provider or the Transmission Owner that are used to provide transmission service. See the Commission's July 26, 2000 Order Adopting Boundary Guidelines for Distinguishing Transmission from Generation and Distribution Assets in Docket No. E 999/CI 99 1261.

Uniform Statewide Contract — State of Minnesota's standard, uniform contract that must be applied to all qualifying new and existing interconnections between a utility and DER having capacity less than 40 kilowatts if interconnecting with a cooperative or municipal utility, and 1,000 kilowatts if interconnecting with a public utility. (Minn. Rules 7835.9910)

Upgrades – The required additions and modifications to the Area EPS Operator's Transmission or Distribution System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

Commented [A14]: Much better defined in the new standard, propose dropping this definition, also complexities in industrial sites with integrated generation or sites with mixed Distribution and Transmission assets