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SMALL GENERATOR FACILITY INTERCONNECTION

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20:10:36:01. Scope and applicability. The rules in this chapter may be cited as the South Dakota Small Generation Interconnection Rules and govern the interconnection of small generator facilities in South Dakota with an electric nameplate capacity of ten megawatts or less to the electric distribution system of a public utility. This chapter is also intended to be used as the basis for the interconnection process and technical framework for facilities greater than ten megawatts that may be subject to the commission's interconnection jurisdiction. This chapter applies to state jurisdictional small generator facilities interconnecting with the electric distribution system.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:02. Definitions. Terms defined in SDCL 49-34B-1 have the same meaning when used in this chapter. In addition, terms used in this chapter mean:

- (1) "Adverse system impact," a negative effect caused by the proposed interconnection that may compromise the safety and reliability of an electric transmission and distribution system;
- (2) "Affected system," an electric transmission and distribution system not owned or operated by the interconnecting public utility, which may experience an adverse system impact from the proposed interconnection;

- (3) "Applicant," a person or entity who has submitted an application to interconnect a small generator facility to a public utility's EDS;
- (4) "Application," a request to interconnect a small generator facility with a public utility's EDS. An application shall follow the standard forms on file with the commission;
- (5) "Area network," a type of electric distribution system served by multiple transformers interconnected in an electrical network circuit in order to provide high reliability of service. This term has the same meaning as the term "secondary grid network" as defined in IEEE 1547, section 4.1.4;
- (6) "Certificate of completion," a certificate signed by the applicant and attesting that the small generator facility is complete, meets the requirements contained in this chapter, and has been inspected, tested, and certified as physically ready for operation. The certificate of completion shall follow the standard form on file with the commission;
- (7) "Commissioning," the process by which a facility is tested to verify if it functions according to design objectives or specifications;
- (8) "Electric nameplate capacity," the net maximum electric output capability measured in watts, kilowatts, or megawatts of a generator facility as designated by the facility's manufacturer;
- (9) "Electrical service agreement," the agreement between a public utility and a customer providing for electricity and ancillary services according to

provisions of a tariff;

- (10) "Electric distribution system (EDS)," the facilities and equipment used to transmit electricity to ultimate usage points;
- (11) "Fault current," electrical current that flows through a circuit and is produced by an electrical fault, such as to ground, double-phase to ground, three-phase to ground, phase-to-phase, and three-phase;
- (12) "FERC," the Federal Energy Regulatory Commission;
- (13) "Field tested equipment," interconnection equipment that is identical to equipment that was approved for another interconnection under a tier 4 study review and has successfully completed a witness test within 36 months from the date of the submission of the current application;
- (14) "Good utility practice," a practice, method, policy, or action engaged in or accepted by a significant portion of the electric industry in a region which a reasonable utility official would expect, in light of the facts reasonably discernable at the time, to accomplish the desired result reliably, safely, and expeditiously;
- (15) "IEEE 1547," standard 1547 published in 2003 by the Institute of Electrical and Electronics Engineers (IEEE) entitled "Standard for Interconnecting Distributed Resources with Electric Power Systems";

- (16) "IEEE 1547.1," standard 1547.1 published in 2005 by the Institute of Electrical and Electronics Engineers (IEEE) entitled "Standard for Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems";
- (17) "Interconnection agreement," an agreement between an applicant or interconnection customer and the interconnecting public utility that governs the connection of the small generator facility to the public utility's EDS and the ongoing operation of the small generator facility after it is connected to the system. An interconnection agreement shall follow the standard form on file with the commission;
- (18) "Interconnection customer," a person or entity with a small generator facility that is interconnected to a public utility in accordance with this chapter;
- (19) "Interconnection equipment," a group of components or an integrated system provided by the interconnection customer to connect a small generator facility to a public utility's EDS, including all interface equipment such as switchgear, protective devices, inverters, or other interface devices. Interconnection equipment may be installed as part of an integrated equipment package that includes a generator or other electric source;
- (20) "Interconnection facilities," the facilities and equipment required by the electric utility to accommodate the interconnection of a small generator

facility to the public utility's EDS and used exclusively to interconnect a specific small generator facility. Interconnection facilities do not include system upgrades that may benefit the public utility, other customers, other interconnection customers, or an owner of an affected system;

- (21) "Interconnection facilities study," a study conducted by a public utility or a third-party consultant retained by the public utility or the applicant that determines the additional interconnection facilities and system upgrades required to interconnect the small generator facility to the public utility's EDS, the cost of the facilities and upgrades, and the time required to complete the interconnection;
- (22) "Interconnection facilities study agreement," a contract between the applicant and the interconnecting public utility that provides a detailed scope and timeline for the interconnection facilities study and a good faith, non-binding estimate of the costs to perform the study. An interconnection facilities study agreement shall follow the standard form on file with the commission;
- (23) "Interconnection feasibility study," a preliminary evaluation of the system impact and cost of interconnecting the small generator facility to the public utility's EDS;
- (24) "Interconnection feasibility study agreement," a contract between the applicant and the interconnecting public utility that provides a scope, timeline, and good faith, non-binding estimate of the costs for the public

utility to conduct an interconnection feasibility study for the applicant. An interconnection feasibility study agreement shall follow the standard form on file with the commission;

- (25) "Interconnection service," service to an electric customer under which an on-site generating facility on a customer's premises is connected to local distribution facilities;
- (26) "Interconnection system impact study," an engineering study performed by the public utility that evaluates the impact of the proposed interconnection on the safety and reliability of the EDS. The study focuses on the adverse system impacts identified in the interconnection feasibility study and other potential impacts, including those identified in the scoping meeting;
- (27) "Interconnection system impact study agreement," a contract between the applicant and the interconnecting public utility that provides a statement of scope, timeline, and a good faith, non-binding estimate of the cost to conduct an interconnection system impact study. An interconnection system impact study agreement shall follow the standard form on file with the commission;
- (28) "Lab tested equipment," interconnection equipment which has been tested by the original equipment manufacturer in accordance IEEE 1547.1 and found to be in compliance with the appropriate codes and standards referenced therein and is labeled and listed by an NRTL. For interconnection equipment to gain status as lab tested equipment, its use

must fall within the use or uses for which the interconnection equipment is labeled and listed by the NRTL, and the generator or other electric source being utilized must be compatible with the interconnection equipment and consistent with the testing and listing specified for the type of interconnection equipment;

- (29) “Line section,” the portion of a public utility’s EDS connected to an interconnection customer and bounded by automatic sectionalizing devices or the end of the distribution line;
- (30) “Minor equipment modification,” a change to the proposed small generator facility, the output capacity of the facility, or the proposed interconnection equipment that:
 - (a) Does not affect the application of the screening criteria in tiers 1, 2, or 3;
 - (b) In the public utility’s reasonable opinion, does not have a material impact on safety or reliability of the public utility’s EDS or an affected system; and
 - (c) Does not include a change in the electric nameplate capacity of an existing small generator facility;
- (31) “Nationally recognized testing laboratory (NRTL),” a qualified private organization that performs independent safety testing and product

certification. Each NRTL shall meet the requirements as set forth by the Occupational Safety and Health Administration for an NRTL program;

- (32) "Parallel operation" or "parallel," a small generator facility that is connected electrically to an EDS and the potential exists for electricity to flow from the small generator facility to the EDS or for the small generator facility and the EDS to simultaneously feed the same load;
- (33) "Pending completed application," an application for interconnection of other small generator facilities or FERC wholesale generators that the public utility has deemed completed but has not yet reviewed or approved pursuant to applicable procedures;
- (34) "Point of interconnection," the point where the small generator facility is electrically connected to the public utility's EDS;
- (35) "Primary line," a distribution line with an operating voltage greater than 480 volts;
- (36) "Queue position," the order of a completed application, relative to all other pending completed applications, that is established based upon the date and time of the interconnecting public utility's receipt of the completed application, including application fees;
- (37) "Radial distribution circuit," a circuit configuration in which independent feeders branch out radially from a common source of supply;

- (38) "Scoping meeting," an initial meeting between representatives of the applicant and the interconnecting public utility that is conducted for the purpose of discussing alternative interconnection options, to exchange information, including any EDS data and earlier study evaluations that would be reasonably expected to impact such interconnection options, to analyze the information, or to determine the potentially feasible points of interconnection;
- (39) "Secondary line," a service line subsequent to the public utility's primary line that has an operating voltage of 480 volts or less;
- (40) "Shared secondary line," a service line subsequent to the public utility's primary line that has an operating voltage of 480 volts or less that serves more than one customer;
- (41) "Small generator facility," a facility for the production of electrical energy that has an electric nameplate capacity of ten megawatts or less and can operate in parallel with a public utility's EDS;
- (42) "Spot network," a type of electric EDS that uses two or more inter-tied transformers protected by network protectors to supply an electrical network circuit. A spot network may be used to supply power to a single customer or a small group of customers;
- (43) "System upgrade," an addition or modification to the interconnecting public utility's EDS or to an affected system that is required to accommodate the

proposed interconnection. A system upgrade does not include interconnection facilities;

- (44) "Transmission line," a line owned by the public utility and controlled or operated by either the public utility or a regional transmission organization and defined by using guidelines established by either FERC, the commission, or both, which is not part of the public utility's distribution system or any generation system;
- (45) "Witness test," the on-site visual verification of the interconnection installation and commissioning as required in IEEE 1547, sections 5.3 and 5.4. For interconnection equipment that does not meet the definition of lab tested equipment, the witness test may, at the discretion of the public utility, also include a system design and production evaluation according to IEEE 1547, sections 5.1 and 5.2, as applicable to the specific interconnection system technology employed;
- (46) "Written notice," a required notice sent by the public utility or applicant via electronic mail, if electronic mail addresses are provided. If a party has not provided an electronic mail address, or has requested in writing to be notified by United States mail, or a party elects to provide written notice by United States mail, then written notices from the party shall be sent via first class United States mail. A party will be considered to have fulfilled its duty to respond under these rules on the day it sends the written notice via electronic mail or deposits such notice in first class mail. Each party

will be responsible for informing other parties of any change in its notification address.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

Reference: Standard 1547 for Interconnecting Distributed Resources with Electric Power Systems, 2003 edition; Institute of Electrical and Electronics Engineers. Copies may be obtained from the Institute of Electrical and Electronics Engineers, 445 Hoes Lane, Piscataway, New Jersey, 08854 or at <http://www.ieee.org/portal/site>. Cost: \$89.

Reference: Standard 1547.1 for Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems, 2005 edition; Institute of Electrical and Electronics Engineers. Copies may be obtained from the Institute of Electrical and Electronics Engineers, 445 Hoes Lane, Piscataway, New Jersey, 08854 or at <http://www.ieee.org/portal/site>. Cost: \$72.

20:10:36:03. Rules waiver. The persons subject to the rules in this chapter may mutually agree to waive all rules except 20:10:36:16. If agreement cannot be reached, and for good cause shown, a party may request the commission waive any of the rules in this chapter.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:04. Application for interconnection. A person who wants to interconnect, make a capacity change, or change the status of a proposed or operating facility shall submit an application to the public utility that owns and operates the EDS to which interconnection is sought. Each public utility shall review all interconnection requests submitted to the public utility at its authorized mailing address.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:05. Commissioning or operation notice. The applicant shall provide commissioning notice or notice of intent to begin operations of a small generation facility to the public utility. A tier 1 application shall provide 10 business days notice. A tier 2, tier 3, or tier 4 application shall provide 20 business days notice.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:06. Application fees. A non-refundable application processing fee is required for all applications. The amount of the fee is dependent upon the review tier requested in the application and is intended to cover reasonable costs for processing, minor study, and evaluation of the application. Applications requiring detailed studies and engineering evaluations may incur costs that are not covered by the application fee. Before any costs above the application fee are assessed, the applicant must authorize

the public utility to continue by assuming responsibility for the additional costs, or the application will be considered withdrawn and the original application fee forfeited.

The application fees are as follows:

- (1) Tier 1: \$50;
- (2) Tier 2: \$50 plus \$1 per kilowatt of rated generation output up to a maximum of \$500;
- (3) Tier 3: \$100 plus \$2 per kilowatt of rated generation output up to a maximum of \$1,000;
- (4) Tier 4: \$100 plus \$2 per kilowatt of rated generation output up to a maximum of \$1,000.

If an applicant fails to receive approval at one review tier and makes a subsequent application for the same facility at a different tier within the time frame for preserving the queue position, the original application fee and any other fees paid in conjunction with the original application will be applied to the fees for the updated application. By mutual agreement, the review process can move directly to the next tier without filing a separate formal application.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:07. Term of interconnection. Interconnection of a small generator facility is considered to be in effect for a period of up to 20 years at the applicant's

option, unless terminated earlier by the default or voluntary termination by the interconnection customer or by action of the commission. Interconnection agreements entered into before the effective date of this rule will remain in effect until the term of the agreement expires.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:08. Renewal of interconnection agreement. The public utility may not unreasonably refuse to grant an expedited review of a request to renew an interconnection agreement. If the conditions on the EDS are essentially the same as when the agreement was originally approved, the public utility may waive all or part of the application fee if fewer expenses are incurred in renewing the application, provided that the facility has not undergone anything other than minor equipment modifications, as determined by the public utility, since the expired agreement was approved.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:09. Aggregating multiple generators. If the interconnection request is for a small generator facility that includes multiple small generator facilities at a site for which the applicant seeks a single point of interconnection, the application shall be evaluated for the purposes of the interconnection on the basis of the aggregate electric nameplate capacity of the multiple small generator facilities.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:10. Point of contact – Information provided. The public utility shall designate a contact person from whom information on the application process and the public utility's EDS may be obtained. Unless providing the materials would violate security requirements, confidentiality obligations, or be contrary to state or federal regulations, the information shall include studies and other materials useful to an understanding of the feasibility of interconnecting a small generator facility at a particular point on the public utility's EDS. Subject to any confidentiality agreements as may be required to protect the confidential or proprietary information interests of the public utility or third parties, the public utility shall comply with reasonable requests for access to or copies of such studies,.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:11. Modifications. Once an application is received by the public utility and a queue position is assigned, for any modification to the application, other than a minor equipment modification, the public utility may require that a new application be submitted and the original queue position be relinquished. If, after an interconnection agreement has been entered, the interconnection customer wants to modify the small generator facility, other than a minor equipment modification, the public utility may require that a new application must be submitted and approved before the proposed modifications can take place.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:12. Site control documentation. Documentation of site control must be available. If the applicant is not currently a customer of the public utility, site control documentation shall be provided with the application. Site control may be demonstrated through ownership of, a leasehold interest in, or an option or other right to develop a site for the purpose of constructing the small generator facility. Site control may be documented by a property tax bill, deed, a lease agreement, or other legally binding contract.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:13. Right of access. The public utility shall have access to the applicant's premises for any reasonable purpose in connection with the interconnection application, interconnection agreement, or if necessary to meet the legal obligation to provide service to the utility's customers. Access must be requested at reasonable hours and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:14. Multiple interconnections. The public utility may propose to interconnect more than one small generator facility at a single point of interconnection in order to minimize costs, and shall not unreasonably refuse a request to do so. However, an applicant or an interconnection customer may elect to pay the entire cost of separate interconnection facilities.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:15. Isolation device. A small generator facility qualifying for interconnection under tier 2, tier 3, or tier 4 interconnection review procedures must be capable of being isolated from the public utility. For a small generator facility qualifying for tier 1 interconnection review procedures, the meter base may serve as the required isolation device, provided it is readily accessible by the public utility.

When isolation is required, a small generation facility shall do so in one of the following ways:

- (1) For a small generator facility interconnecting to a primary line, the isolation shall be by means of a lockable, visible-break isolation device readily accessible by the public utility;
- (2) For a small generator facility interconnecting to a secondary line, the isolation shall be by means of a lockable isolation device whose status is clearly indicated and is readily accessible by the public utility; or

- (3) All other interconnection isolation devices shall be installed, owned, and maintained by the owner of the small generator facility and be capable of interrupting the full load of the small generator facility and shall be located between the small generator facility and the point of interconnection.

Alternatively, the applicant or interconnection customer may elect to provide the public utility access to an isolation device that is contained in a building or area that may be unoccupied and locked or not otherwise readily accessible to the public utility by providing a lockbox capable of accepting a lock provided by the public utility that will provide ready access to the isolation device. The applicant or interconnection customer must affix a placard in a location acceptable to the public utility that provides clear instructions to the utility's operating personnel on how to gain access to the isolation device.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:16. Technical standard. The technical standard to be used in evaluating all applications shall be IEEE 1547. If a public utility wants to use other standards in addition to IEEE 1547, it may do so only after seeking and being granted a waiver from the commission.

The applicant must construct, own, operate, and maintain its small generator facility and associated interconnection facilities in accordance with the provisions of

IEEE 1547, the safety standards required therein, and reasonable safety and reliability standards required by the commission.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

Reference: Standard 1547 for Interconnecting Distributed Resources with Electric Power Systems, 2003 edition; Institute of Electrical and Electronics Engineers. Copies may be obtained from the Institute of Electrical and Electronics Engineers, 445 Hoes Lane, Piscataway, New Jersey, 08854 or at <http://www.ieee.org/portal/site>. Cost: \$89.

20:10:36:17. Cost responsibility - General study costs. Whenever additional studies are required, the applicant shall pay the additional study costs above what is covered by the initial application fee. Study costs shall be based on the scope of work determined and documented in the feasibility, facilities, and system impact study agreements based on the estimated hours needed to complete the evaluation using an engineering cost of \$100 per hour.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:18. Minor EDS modifications – Cost responsibility. Minor modifications to the existing EDS identified by the public utility under a tier 2 or tier 3 review are considered minor EDS modifications. Changing meters, fuses, or relay settings are minor modifications. The public utility shall decide what constitutes other

minor EDS modifications. The applicant is responsible for the costs of making minor EDS modifications as may be necessary to gain approval from the public utility.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:19. Identification of interconnection facilities – Cost responsibility.

The public utility shall identify under the review procedures of a tier 2 review or under a tier 4 facilities study, the interconnection facilities necessary to safely interconnect the small generator facility with the public utility. The public utility shall itemize the interconnection facilities for the applicant, including the cost of the facilities and the time required to build and install those facilities. The interconnection customer is responsible for the cost of the interconnection facilities.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:20. Interconnection equipment cost responsibility. The

interconnection customer is responsible for all expenses, including overheads, associated with owning, operating, maintaining, repairing, and replacing its interconnection equipment.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:21. System upgrades – Cost responsibility. The public utility shall design, procure, construct, install, and own any system upgrades. The actual cost of the system upgrades, including overheads, is directly assigned to the applicant.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:22. Adverse system impacts – Cost responsibility. The public utility is responsible for identifying adverse system impacts on any affected systems and for determining what mitigation activities or upgrades may be required to accommodate a small generator facility. The actual cost of any actions taken to address the adverse system impacts, including overheads, is the responsibility of the applicant. If allowed by the commission, the applicant may be entitled to financial compensation from other public utility customers or other interconnection customers who, in the future, utilize the upgrades paid for by the applicant.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:23. Cost study deposit. The public utility may require a deposit of not more than 50% percent of the cost estimate for all studies. However, the deposit may not exceed \$1,000 for small generator facilities proposing to interconnect two megawatts or less. The deposit shall be paid in advance by the applicant for studies necessary to complete an interconnection to the EDS.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:24. Interconnection facilities deposit. The public utility may require a deposit of no more than 25% of the estimated costs for interconnection facilities necessary to complete an interconnection to the EDS. However, the deposit may not exceed \$10,000 for small generator facilities proposing to interconnect two megawatts or less. The deposit shall be paid in advance by the applicant for facilities necessary to complete an interconnection to the EDS.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:25. Billing and payment. Progress billing, final billing, and payment schedules shall be agreed to by the parties prior to commencing work.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:26. Insurance amounts. At a minimum, in connection with the interconnection customer's performance of its duties and obligations under the interconnection agreement, the interconnection customer shall maintain, during the term of the agreement, general liability insurance at the following levels:

- (1) Tier 1: Proof of adequate homeowners, general liability, or commercial liability insurance sufficient to insure against all reasonably foreseeable direct liabilities given the size of the small generator facility;

- (2) Tier 2: Proof of insurance up to a maximum of \$500,000 per public utility request; or
- (3) Tier 3 and 4: Proof of insurance up to a maximum of \$1,000,000 per public utility request.

The general liability insurance shall include coverage against claims for damages resulting from bodily injury, including wrongful death, and property damage arising out of the interconnection customer's ownership or operation, or both, of the small generator facility under the agreement.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:27. Insurance requirements. By endorsement to the policy or policies, the general liability insurance required shall include the following:

- (1) The public utility as an additional insured;
- (2) A severability of interest clause or cross-liability clause;
- (3) A provision that the public utility may not by reason of its inclusion as an additional insured incur liability to the insurance carrier for the payment of premium for the insurance; and
- (4) A 30 calendar days' written notice to the public utility prior to cancellation, termination, alteration, or material change of the insurance.

If the small generator facility is connected to an account receiving residential service from the public utility and the small generator facility's total generating capacity is 10 kilowatts or smaller, then the endorsements required above shall not apply.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:28. Proof of insurance. The interconnection customer shall furnish the required insurance certificates and endorsements to the public utility prior to the initial operation of the small generator facility. Evidence of the insurance shall state that coverage provided is primary and is not excess to or contributing with any insurance or self-insurance maintained by the public utility. Thereafter, the public utility has the right to periodically inspect or obtain a copy of the original policy or policies of insurance.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:29. Self-insurance. If the interconnection customer is self-insured with an established record of self-insurance, the interconnection customer may comply with the self-insurance requirements of this section in lieu of those required by § 20:10:36:26. At least 30 days prior to the date of initial operation, the interconnection customer shall provide to the public utility evidence of an acceptable plan to self-insure to a level of coverage equivalent to that required under § 20:10:36:26.

If an interconnection customer ceases to self-insure to the required level or if the interconnection customer is unable to provide continuing evidence of its ability to self-

insure, the interconnection customer shall immediately obtain the coverage otherwise required by this chapter.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:30. Witness test – Deficiencies in test. The public utility has the option of conducting a witness test at a mutually agreeable time within 10 business days of the scheduled commissioning of the small generator facility. If the public utility does not conduct the witness test within 10 business days of the scheduled commissioning date, or within the time otherwise mutually agreed upon by the parties, or if the public utility notifies the applicant of its intent not to perform the test, the witness test is considered waived.

If the witness test is conducted and is not acceptable to the public utility, the applicant shall be allowed a period of 30 calendar days to resolve any deficiencies. A request for extension may not be unreasonably denied by the public utility. The parties may mutually agree to extend the time period for resolving any deficiencies. If the applicant fails to resolve the deficiencies to the satisfaction of the public utility within the agreed upon time period, the application is considered withdrawn.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:31. Tier 1 interconnection requirements. The public utility shall use the tier 1 review procedures for a small generator facility application that meets the following requirements:

- (1) The proposed facility is inverter-based;
- (2) The proposed facility has an electric nameplate capacity of 10 kilowatts or less;
- (3) The proposed facility will use lab tested equipment only; and
- (4) The proposed point of interconnection is not to a transmission line.

A public utility may not impose additional requirements to a tier 1 interconnection application.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:32. Tier 1 interconnection evaluation and screening criteria. A tier 1 interconnection shall use the following evaluation and screening criteria:

- (1) For interconnection of a proposed small generator facility to a radial distribution circuit, the aggregated generation must not exceed 15 percent of the line section annual peak load as most recently measured at the substation or calculated for the line section. Aggregated generation includes the proposed small generator facility, FERC wholesale generators, and FERC wholesale generators with a higher queue position;

- (2) For interconnection of a proposed small generator facility to the load side of spot network protectors, the proposed small generator facility and the aggregated other generation and applications with a higher queue position must not exceed the lesser of 5 percent of a spot network's maximum load or 50 kilowatts;
- (3) If the proposed small generator facility is to be interconnected on a single-phase shared secondary service line, the aggregated generation capacity on the shared secondary, which includes the proposed small generator facility and applications with a higher queue position, must not exceed 20 kilowatts; and
- (4) If the proposed small generator facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service line, its addition must not create a current imbalance between the two sides of the 240 volt service of more than 20 percent of the nameplate rating of the service transformer.

The proposed interconnection must use existing public utility facilities.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:33. Tier 1 interconnection review procedures. The applicant shall submit its tier 1 application and appropriate fees to the public utility at its designated address. Application forms are on file with the commission.

Within 3 business days of receipt of the application, the public utility shall provide written acknowledgement of receipt and the start date of the review to determine if the application is complete. Within 10 business days of receipt of the application, the public utility shall inform the applicant that the application is either complete or incomplete. If the application is incomplete, the public utility shall indicate the missing information. In the event the applicant does not receive notification, the applicant may contact the public utility to determine the status of the application. If the public utility notified the applicant that the application is incomplete, the applicant shall provide the required information within 20 business days or the application is considered to be withdrawn.

If the public utility does not have a record of receipt of the application, the applicant shall provide the public utility with an additional copy of the application. If the applicant can demonstrate that the original completed application was delivered to the electric utility, the public utility shall determine if the application is complete or incomplete in 5 business days.

Once the public utility finds the application is complete, it shall assign the project a queue position. The queue position of each application is used to determine any potential adverse system impacts of the proposed small generator facility based on the relevant screening criteria. The applicant shall proceed under the time frames of this section. The public utility shall schedule a scoping meeting to notify the applicant about other higher-queued applications including, but not limited to, FERC wholesale generator interconnection applications on the same radial line or spot network to which the applicant is seeking interconnection.

If, in the process of evaluating a completed application, the public utility determines that supplemental or clarifying information is required, the public utility shall request the information from the applicant. The time required for the receipt of the additional information may extend the time necessary to complete the evaluation, but only to the extent of the time required for the receipt of the additional information. The public utility may not alter the applicant's queue position.

The public utility's review of the application shall be completed within 15 business days from the date the application is determined complete. The public utility shall notify the applicant whether the small generator facility meets the screening criteria.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:34. Tier 1 application completion. The tier 1 interconnection process is complete when:

- (1) The application has passed the tier 1 screening criteria;
- (2) The small generator facility installation is approved by an electric code inspector with jurisdiction over the interconnection;
- (3) The witness test, if conducted by the public utility, is successful;
- (4) The parties execute a certificate of completion; and
- (5) An interconnection agreement has been executed.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:35. Tier 1 application denial – New application. If the small generator facility is not approved under a tier 1 review, the applicant may submit a new application, including the difference in the application fee or deposit, for consideration under tier 2, tier 3, or tier 4 procedures without losing its original queue position if the new application is submitted within 15 business days of notice that the original application was not approved. If requested, the public utility shall provide a written explanation of why the application was not approved.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:36. Tier 2 interconnection requirements. The public utility shall use the tier 2 review procedures for an application of a small generator facility that meets the following requirements:

- (1) The proposed facility does not qualify for tier 1 review and has an electric nameplate capacity of two megawatts or less;
- (2) The proposed facility will interconnect to either a radial distribution circuit or a spot network distribution circuit limited to serving one premise; and
- (3) The proposed facility will use interconnection equipment that is either lab tested equipment or field tested equipment.

The public utility may not impose additional requirements not specifically authorized.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:37. Tier 2 interconnection evaluation and screening criteria. A tier 2 interconnection shall use the following evaluation and screening criteria:

- (1) For interconnection to a radial distribution circuit, aggregated generation on the circuit may not exceed 15 percent of the line section annual peak load as most recently measured at the substation or calculated for the line section. Aggregated generation includes the proposed small generator facility, FERC wholesale generators, and FERC wholesale generators with a higher queue position;
- (2) For interconnection to the load side of spot network protectors, the aggregated other generation may not exceed the lesser of five percent of a spot network's maximum load or 50 kilowatts. Aggregated other generation includes the proposed small generator facility, FERC wholesale generators, and FERC wholesale generators with a higher queue position;
- (3) General aggregate generation considerations are:
 - (a) In aggregate with other generation on the distribution circuit, the small generator facility may not contribute more than ten percent to

the distribution circuit's maximum fault current at the point on the primary voltage distribution line nearest the point of interconnection;

- (b) In aggregate with other generation, existing FERC wholesale generators, and FERC wholesale generators with a higher queue position on the distribution circuit, the small generator facility may not cause any distribution protective devices and equipment to be exposed to fault currents exceeding 90 percent of the short circuit interrupting capability. Distribution protective devices and equipment include, but are not limited to, substation breakers, fuse cutouts, and line reclosers, or other public utility equipment on the EDS. The small generator facility's point of interconnection may not be located on a circuit that already exceeds 90 percent of the short circuit interrupting capability;
- (c) In aggregate with other generation, existing FERC wholesale generators, and FERC wholesale generators with a higher queue position interconnected to the distribution side of a substation transformer feeding the circuit where the small generator facility proposes to interconnect, the small generator facility may not exceed 10 megawatts in an area where there are known, or posted, transient stability limitations to generating units located in the general electrical vicinity;

- (d) In aggregate with existing FERC wholesale generators, FERC wholesale generators with a higher queue position, and existing transmission loads, the small generator facility, may not cause a transmission system circuit to exceed its design capacity on the transmission system circuit directly connected to the distribution circuit where the interconnection is proposed; and
 - (e) If the small generator facility is to be interconnected on single-phase shared service line on the EDS, the aggregate generation capacity on the shared secondary line, including the proposed small generator facility, may not exceed 20 kilowatts;
- (4) If the proposed small generator facility interconnection is to a primary line on the distribution system, the interconnection shall be done according to the following screening criteria, depending on the type of electrical service provided by the public utility:
- (a) If the small generator facility is 3-phase or single-phase and is to be connected to a 3-phase 3-wire primary line, it must be connected phase-to-phase; and
 - (b) If the small generator facility is 3-phase or single-phase and is to be connected to a 3-phase 4-wire primary line, it must be connected line to neutral and effectively grounded.

- (5) If the proposed small generator facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service line, its addition may not create a current imbalance between the two sides of the 240 volt service of more than 20 percent of the nameplate rating of the service transformer;
- (6) The proposed small generator facility's point of interconnection may not be on a transmission line; and
- (7) If the public utility's distribution circuit utilizes high speed reclosing with less than 2 seconds of interruption, the proposed generator may not be a synchronous machine.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:38. Tier 2 interconnection review procedures. The applicant shall submit its tier 2 application and appropriate fees to the public utility at its designated address. Application forms are on file with the commission. If available and not confidentially filed, the applicant may request the public utility provide it with previously approved interconnection applications to facilitate obtaining field tested status. The public utility may charge a nominal processing fee but may not unreasonably refuse to provide such information if requested.

Within 3 business days of receipt of the application, the public utility shall provide written acknowledgement of receipt and the start date of the review to determine if the

application is complete. Within 10 business days of receipt of the application, the public utility shall inform the applicant the application is either complete or incomplete. If the application is incomplete, the public utility shall indicate missing information. In the event the applicant does not receive notification, the applicant may contact the public utility to determine the status of the application.

If the public utility does not have a record of receipt of the application, the applicant shall provide the public utility with an additional copy of the application. If the applicant can demonstrate that the original completed application was delivered to the public utility, the public utility shall determine if the application is complete or incomplete within 5 business days.

Once the public utility finds the application is complete, it shall assign the project a queue position. The queue position of each application is used to determine any potential adverse system impacts of the proposed small generator facility based on the relevant screening criteria. The parties shall proceed under the timeframes of this section to maintain queue position. The public utility shall schedule a scoping meeting to notify the applicant about other higher-queued applications including, but not limited to, FERC interconnection applications on the same radial line or spot network to which the applicant is seeking to interconnect.

Within 20 business days after the public utility notifies the applicant that it has received a completed interconnection request, or within a time period mutually agreed to by parties, the public utility shall:

- (1) Evaluate the application using the tier 2 evaluation and screening criteria;

- (2) Review any independent analysis that may be provided by the applicant using the same criteria, and;
- (3) Provide the applicant the results of its review, including a comparison of the results and the independent analysis provided by the applicant if applicable.

The public utility shall request supplemental or clarifying information if necessary in the process of evaluating the completed application. The time required for the receipt of the additional information may extend the time necessary to complete the review, but only to the extent of the time required for the receipt of the additional information. The public utility may not alter the applicant's queue position.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:39. Failure to meet criteria – Minor modifications. If the small generator facility fails to meet one or more of the tier 2 screening criteria, but the public utility determines that the small generator facility could be interconnected safely if minor modifications to the EDS were made, the public utility shall offer the applicant a non-binding, good faith estimate of the costs of the proposed minor modifications and proceed with the minor modifications if authorized by the applicant.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:40. Tier 2 application completion. The interconnection process is complete when:

- (1) All tier 2 screening criteria are satisfied and any minor EDS modifications are implemented;
- (2) The small generator facility installation is approved by an electric code inspector with jurisdiction over the interconnection;
- (3) The witness test, if conducted by the public utility, is successful;
- (4) The parties execute a certificate of completion; and
- (5) An interconnection agreement has been executed.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:41. Tier 2 application denial. If the small generator facility is not approved, the applicant may submit a new application, including the difference in the application fee or deposit, for consideration under tier 3 or tier 4 procedures without losing its original queue position. The new application must be submitted within 15 business days of notice that the application was not approved. If requested, the public utility shall provide a written explanation of why the application was not approved.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:42. Tier 3 interconnection. The public utility shall use the tier 3 interconnection review procedures for an application that does not qualify for tier 1 or tier 2 review and meets the following requirements:

- (1) The small generator facility has an electric nameplate capacity rating of 10 megawatts or less;
- (2) The proposed point of interconnection is not to a transmission line; and
- (3) The small generator facility does not export power beyond the point of interconnection and utilizes low forward power relays or other protection functions that prevent power flow onto the EDS.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:43. Tier 3 interconnection screening criteria. A tier 3 small generator facility meeting all tier 3 evaluation and screening criteria shall be further evaluated using tier 2 evaluation and screening criteria, except that the 15 percent tier 2 screen does not apply to tier 3 small generator facilities.

Tier 3 interconnections do not require an interconnection feasibility study. However, the public utility may choose to conduct such a study at its own expense, and it must complete the interconnection feasibility study within 25 calendar days.

For a small generator facility to interconnect to the load side of an area network distribution circuit, the following criteria must be met:

- (1) The electric nameplate capacity of the small generator facility is 50 kilowatts or less;
- (2) The proposed small generator facility utilizes a lab tested, inverter-based equipment package for interconnection;
- (3) The small generator facility utilizes low forward power relays or other protection functions that prevent power flow onto the area network;
- (4) The aggregated other generation on the area network, including FERC wholesale generators and FERC wholesale generators with a higher queue position, does not exceed the lesser of 5 percent of an area network's maximum load or 50 kilowatts; and
- (5) The interconnection uses only existing public utility facilities and the applicant's proposed facilities.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:44. Tier 3 interconnection alternate evaluation and screening

criteria. For a small generator facility to interconnect to a distribution circuit that is not networked, the following criteria shall be met:

- (1) The small generator facility has an electric nameplate capacity of 10 megawatts or less;

- (2) The aggregated total of the electric nameplate capacity of all of the generators on the circuit, including existing FERC wholesale generators, FERC wholesale generators with a higher queue position, and the proposed small generator facility, is 10 megawatts or less;
- (3) The small generator facility does not export power beyond the point of interconnection and employs reverse power relays or other protection functions that prevent power flow onto the EDS;
- (4) The small generator facility's proposed interconnection is to a radial distribution circuit;
- (5) The small generator facility is not served by a shared transformer;
- (6) The interconnection will use only existing public utility facilities and the applicant's proposed facilities; and
- (7) If the public utility's distribution circuit utilizes high speed reclosing with less than 2 seconds of interruption, the proposed generator may not be a synchronous machine.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:45. Tier 3 interconnection review process. The applicant shall submit the appropriate application and appropriate fees to the public utility at its designated address. Application forms are on file with the commission.

Within 3 business days of receipt of the application, the public utility shall provide written acknowledgement of receipt and the start date of the review to determine if the application is complete. Within 10 business days of receipt of the application, the public utility shall inform the applicant that the application is either complete or incomplete. If the application is incomplete, the public utility shall indicate the missing information. In the event the applicant does not receive notification within 10 business days, the applicant may contact the public utility to determine the status of the application.

If the public utility does not have a record of receipt of the application, the applicant shall provide the public utility with an additional copy of the application. If the applicant can demonstrate that the original completed application was delivered to the public utility, the public utility shall determine if the application is complete or incomplete within 5 business days.

Once the public utility finds the application is complete, it shall assign the project a queue position. The queue position of each application is used to determine any potential adverse system impacts of the proposed small generator facility based on the relevant screening criteria. The applicant must proceed under the timeframes of this section. The public utility shall schedule a scoping meeting to notify the applicant about other higher-queued applications including, but not limited to, FERC interconnection applications on the same radial line or area network to which the applicant is seeking to interconnect.

Within 20 business days after the public utility notifies the applicant that it has received a completed interconnection request or within a time period mutually agreed to by parties, the public utility shall:

- (1) Evaluate the application using the tier 3 screening criteria;
- (2) Review any independent analysis that may be provided by the applicant using the same criteria; and
- (3) Provide the applicant the results of its review, including a comparison of the results and the independent analysis provided by the applicant, if applicable.

If in the process of evaluating the interconnection request, the public utility determines that supplemental or clarifying information is required, the public utility shall request the information from the applicant. The time required for the receipt of the additional information may extend the time necessary to complete the review, but only to the extent of the time required for the receipt of the additional information. The public utility may not alter the applicant's queue position.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:46. Failure to meet criteria – Minor modifications. If the small generator facility fails to meet one or more of the tier 3 screening criteria, but the public utility determines that the small generator facility could likely be interconnected safely if minor modifications to the EDS were made, the utility shall offer the applicant a non-

binding, good faith estimate of the costs of such proposed minor modifications and proceed with the minor modifications if authorized by the applicant.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:47. Tier 3 interconnection approval. The public utility shall approve the application if the public utility determines that the application:

- (1) Passes the tier 3 screening criteria; or
- (2) Fails one or more of the tier 3 screening criteria, or does not meet every approval requirement, but the public utility determines that the small generator facility can be interconnected safely and reliably after making modifications and the public utility has received authorization from the applicant to implement the minor modifications.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:48. Tier 3 interconnection denial. If the small generator facility fails to pass the screening criteria or is not approved under a tier 3 review, the public utility shall provide, at the request of the applicant, a written justification for denying the application.

If the small generator facility is not approved under a tier 3 review, the applicant may submit a new application, including the difference in the application fee or deposit,

for consideration under tier 4 review procedures without losing its original queue position. The new application must be submitted within 15 business days of notice that the application was not approved. Any previous application fee or deposit shall be applied toward the tier 4 application fee.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:49. Tier 3 interconnection completion. The application process is complete when:

- (1) All tier 3 screening criteria are satisfied and any minor modifications to the EDS that may have been identified are implemented;
- (2) The small generator facility installation is approved by an electric code inspector with jurisdiction over the interconnection;
- (3) There is a successful completion of the witness test, if required;
- (4) The parties execute a certificate of completion; and
- (5) An interconnection agreement has been executed.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:50. Tier 4 interconnection. The public utility shall use the tier 4 interconnection review procedures for an application that does not qualify for tier 1, tier

2, or tier 3 review and for which the small generator facility has an electric nameplate capacity that is ten megawatts or less. The public utility shall approve interconnection under the tier 4 interconnection review procedures. The public utility may not impose additional requirements.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:51. Tier 4 interconnection review procedures. The applicant shall submit the appropriate application and the application fees to the public utility at its designated address. Application forms are on file with the commission

Within 3 business days of receipt of the application, the public utility shall provide written acknowledgement of receipt and the start date of the review to determine if the application is complete. Within 10 business days of receipt of the application, the public utility shall inform the applicant that the application is either complete or incomplete. If the application is incomplete, the public utility shall indicate the missing information.

If the public utility does not have a record of receipt of the application, the applicant shall provide the public utility with an additional copy of the application. If the applicant can demonstrate that the original completed application was delivered to the public utility, the public utility shall determine if the application is complete or incomplete within 5 business days.

Once the public utility finds the application is complete, it shall assign the project a queue position unless a queue position was already assigned under a previous lower-tier application that was not approved. The queue position of each application is used to determine any potential adverse system impacts of the proposed small generator facility based on the relevant data contained in the application, the outcomes of the various studies, and the applicant's desired interconnection location.

If in the process of evaluating the completed application, the public utility determines supplemental or clarifying information is required, the public utility shall request the information. The time required for the receipt of the additional information may extend the time before the scoping meeting can be convened but only to the extent of the time required for the receipt of the additional information. The public utility may not alter the applicant's queue position. Supplemental or clarifying information can be provided in the scoping meeting.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:52. Tier 4 interconnection scoping meeting. The public utility shall schedule a scoping meeting to notify the applicant about other higher-queued applications including, but not limited to, FERC interconnection applications on the same radial line or area network to which the applicant is seeking to interconnect.

The meeting shall be held within 10 business days after the public utility has notified the applicant that the application is considered complete. The purpose of the

meeting is to review the application, including any existing studies relevant to the application, such as the results from the tier 1, tier 2, or tier 3 screening criteria and studies or, if available, the applicant's analysis of the proposed interconnection using the same criteria as the public utility applies to the application. Parties are expected to bring to the scoping meeting such personnel, including system engineers and other resources, as may be reasonably required to accomplish the purpose of the meeting. The applicant shall maintain the assigned queue position regardless of the outcome of the scoping meeting if the additions or changes to the application can be rectified within 10 business days, or a period mutually agreed upon by the parties, from the date of notification. This meeting or any relevant time frames may be waived upon mutual agreement.

The scoping meeting should demonstrate or identify:

- (1) The need for further studies and a mutually agreeable study timeline based on the public utility's resources and workload;
- (2) Possible changes or modifications to the application to facilitate the interconnection or reduce costs; or
- (3) No changes are necessary and the public utility may proceed with the application without further studies.

If the parties agree at the scoping meeting that a study must be performed, the public utility shall provide the appropriate study agreement to the applicant. The agreement shall specify the study scope, a good faith, non-binding estimate of the cost

to perform the study, and any study deposit. The applicant shall return an executed copy of the study agreement along with the required study deposit within 60 calendar days of receipt of the agreement, or as mutually agreed by the parties. Failure to return a signed contract shall be considered withdrawal of the application.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:53. Tier 4 interconnection feasibility study. Upon receipt of the appropriately executed agreement and deposit, the public utility shall commence the interconnection feasibility study. The study shall be completed within the timeline agreed to between the parties at the scoping meeting. The study shall evaluate the effects of the proposed small generator facility on the existing public utility and look for possible adverse system impacts. Feasibility study results may include:

- (1) Initial identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
- (2) Initial identification of any thermal overload or voltage limit violations resulting from the interconnection;
- (3) Initial review of grounding requirements and system protection; and
- (4) Description and estimated cost of interconnection facilities and system upgrades required to interconnect the small generator facility to the public utility in a safe and reliable manner.

If the applicant asks that the interconnection feasibility study evaluate multiple potential points of interconnection, the public utility shall perform the additional evaluations at the applicant's expense.

At a minimum, the interconnection feasibility study report shall:

- (1) State the underlying assumptions of the study;
- (2) Show the results of the analyses; and
- (3) Identify any possible adverse system impacts or other potential impacts;

If the interconnection feasibility study identifies possible adverse system impacts caused by the small generator facility, an interconnection system impact study is required.

The public utility shall contact the applicant to schedule an optional interconnection feasibility study results meeting to review the feasibility study report and discuss the identified possible adverse system impacts along with any other potential impacts. The parties may also mutually agree to adjust the study timeline determined at the scoping meeting based upon the interconnection feasibility study results.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:54. Tier 4 interconnection system impact study agreement. Within 15 business days of the applicant's receipt of the feasibility study results, the public

utility shall, if necessary, provide the applicant with an interconnection system impact study agreement. The agreement shall specify an outline of the study scope, a good faith, non-binding estimate of the cost to perform the study, and any required study deposit. The applicant shall return an executed copy of the interconnection system impact study agreement along with the required study deposit within 60 calendar days of receipt of the agreement, or as mutually agreed to by the parties, or the application shall be considered withdrawn. An interconnection system impact study agreement is on file with the commission.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:55. Tier 4 interconnection system impact study. The public utility shall commence the interconnection system impact study upon receipt of an executed interconnection system impact study agreement and study deposit. The study shall be completed within the timeline agreed to between the parties at the scoping meeting or interconnection feasibility study results meeting. The study must evaluate the adverse system impacts identified in the interconnection feasibility study, and study other potential impacts including, but not limited to, those identified in the feasibility study results meeting or scoping meeting.

The study shall consider all generating facilities that, on the date the interconnection system impact study is commenced, are directly interconnected with the

public utility's system, have a pending higher queue position to interconnect to the system, or have a signed interconnection agreement.

At a minimum, the study shall include a short circuit analysis, a stability analysis, a power flow analysis, voltage drop and flicker studies, protection and set point coordination studies, and grounding reviews.

The interconnection system impact study report shall:

- (1) State the underlying assumptions of the study;
- (2) Show the results of the analyses;
- (3) Identify any interconnection facilities and system upgrades required to allow the proposed interconnection to occur; and
- (4) Include a good faith, non-binding estimate of the identified interconnection facilities and system upgrades and an estimated delivery schedule.

If the applicant sponsored a separate independent system impact study, the public utility must also evaluate and address any alternative findings from that study at the applicant's expense.

If interconnection facilities or system upgrades are found to be necessary in the interconnection system impact study, an interconnection facilities study is required.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:56. Optional interconnection system impact study results meeting.

The public utility shall contact the applicant to schedule an optional interconnection system impact study results meeting to review the interconnection system impact study report and discuss the identified interconnection facilities and system upgrades. The parties may also mutually agree to adjust the study timeline determined at the scoping meeting based upon the interconnection system impact study results.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:57. Tier 4 interconnection facilities study agreement. Within 15 business days from the applicant's receipt of the interconnection systems impact study results, the public utility shall provide the applicant with an interconnection facilities study agreement, if applicable. The facilities study agreement shall specify the study scope, a good faith, non-binding estimate of the cost to perform the study, and any required study deposit. The applicant shall return an executed copy of the interconnection facilities study agreement along with the required study deposit within 60 calendar days of receipt of the agreement or as mutually agreed to by the parties, or the application shall be considered withdrawn. An interconnection facilities study agreement is on file with the commission.

The public utility shall commence the interconnection facilities study upon receipt of an executed interconnection facilities study agreement and study deposit. The study shall be completed within the timeline agreed to between the parties at the scoping meeting or interconnection system impact study results meeting.

The interconnection facilities study shall evaluate the cost of equipment, engineering, procurement, and construction work, including overheads, needed to implement the interconnection of the proposed small generator facility as identified in the scoping meeting and any completed studies.

The interconnection facilities study shall specify:

- (1) The electrical switching configuration of the equipment, including, without limitation, transformer, switchgear, meters, and other station equipment;
- (2) The nature and estimated cost of the public utility's interconnection facilities;
- (3) The nature and estimated cost of system upgrades; and
- (4) A detailed estimate of the time required to procure materials and equipment and complete the construction and installation of the facilities.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:58. Independent design and cost estimate. The parties may agree to permit the applicant to separately arrange for a third party to design and estimate the construction costs for the required interconnection facilities. In such a case, the public utility shall review the design and cost estimates of the facilities under the provisions of the interconnection facilities study agreement. If the parties agree to separately arrange for design and construction estimates and comply with any security and confidentiality

requirements, the public utility shall make all relevant information and required specifications available to the applicant at no cost in order to permit the applicant to obtain an independent design and cost estimate for the facilities to be built in accordance with such specifications.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:59. Tier 4 interconnection approval. Upon completion of the interconnection facilities study and execution of an agreement between the parties detailing progress billing, final billing, payment schedules, and deposit, the public utility shall approve the application.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:60. Tier 4 interconnection denial. If the application is denied, the public utility shall provide a written explanation explaining why the application was denied.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:61. Tier 4 interconnection completion. The interconnection is considered complete when:

- (1) All interconnection facilities and system upgrades are completed and operational;
- (2) The small generator facility installation is inspected and approved by the electric code inspector with jurisdiction over the interconnection;
- (3) There is a successful completion of the witness test, if conducted by a public utility;
- (4) The parties execute a certificate of completion; and
- (5) The parties execute an interconnection agreement.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:62. Jurisdictional small generator facilities rated over ten

megawatts. Jurisdictional small generator facilities rated over ten megawatts shall start with the tier 4 process and modify it as needed by mutual agreement. In addition, the over ten megawatts technical requirements shall start with the technical standards and modify the standards as needed by mutual agreement.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:63. Recordkeeping requirements. The public utility shall keep records relating to all applications and small generator facilities for a period of three years. The public utility shall provide the records for commission inspection upon request.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:64. Metering. The interconnection customer is responsible for the cost of the purchase, installation, operation, maintenance, testing, repair, and replacement of any special metering and data acquisition equipment considered necessary by the terms of the power purchase agreement. However, tier 1 customers may use existing metering equipment unless the public utility elects to install metering equipment at its expense. The public utility shall install, maintain, and operate the metering equipment. Parties shall be granted unrestricted access to the equipment as may be necessary for the purposes of conducting routine business.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:65. Monitoring. Except as otherwise provided in this section, small generator facilities approved and interconnected to the public utility under a tier 1, tier 2, or tier 3 interconnection application, and under a tier 4 interconnection application up to an electric nameplate capacity rating of three megawatts, are not required to provide for remote monitoring of the electric output by the public utility. Tier 4 interconnection applications with electric nameplate capacities greater than three megawatts or tier 3

interconnection applications where the aggregated generation on the circuit, including the applicant's small generator facility, would exceed 50 percent of the line section annual peak load may be required to provide remote monitoring at the public utility's discretion. For small generator facilities required to provide remote monitoring, the data acquisition and transmission to a point where it can be used by the public utility's control system operations must meet the public utility's performance based standards. Any data acquisition and telemetry equipment required by this section shall be installed, operated, and maintained at the interconnection customer's expense.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:66. Temporary disconnection due to emergency conditions. The public utility or interconnection customer may temporarily disconnect the small generator facility from the utility's EDS at any time and for as long as reasonably necessary in the event of an emergency. If an emergency condition occurs, the public utility or the interconnection customer may immediately suspend interconnection service and temporarily disconnect the small generator facility. The public utility shall notify the interconnection customer as soon as possible when it becomes aware of an emergency condition that may reasonably be expected to affect the small generator facility operation. The interconnection customer shall notify the public utility promptly when it becomes aware of an emergency condition that may reasonably be expected to affect the public utility's EDS. To the extent information is known, the notification shall describe the emergency condition, the extent of the damage or deficiency, the expected

effect on the operation of both parties' facilities and operations, its anticipated duration, and the necessary corrective action.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:67. Temporary disconnection due to routine maintenance. The public utility or interconnection customer may temporarily disconnect the small generator facility from the utility's EDS at any time and for as long as reasonably necessary in the event of an interruption caused by routine maintenance or construction and repair. The public utility or interconnection customer shall make reasonable efforts to provide at least five business days notice prior to interruption caused by routine maintenance or construction and repair to the small generator facility or public utility's EDS and shall use reasonable efforts to coordinate such interruption. If less than five days notice is given, the public utility or interconnection customer shall explain in its notice the reason for the shortened notice period.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:68. Temporary disconnection due to a forced outage of the EDS.

The public utility may temporarily disconnect the small generator facility from the utility's EDS at any time and for as long as reasonably necessary in the event of an interruption caused by a forced outage. The public utility shall use reasonable efforts to provide the interconnection customer with prior notice of forced outages to effect immediate repairs

to the EDS. If prior notice is not given, the public utility shall, upon request, provide the interconnection customer written documentation after the fact explaining the circumstances of the disconnection.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:69. Temporary disconnection due to adverse operating conditions. The public utility may temporarily disconnect the small generator facility from its EDS at any time and for as long as reasonably necessary in the event of an interruption caused by adverse operating conditions.

If the public utility determines that operation of the small generator facility will likely cause disruption or deterioration of service to other customers served from the same electric system, or if operating the small generator facility could cause damage to the public utility's EDS, the public utility may disconnect the small generator facility under the procedures of this section.

The public utility shall provide the interconnection customer any supporting documentation used to reach the decision to disconnect upon request.

The interconnection customer shall remedy the adverse operating effect as soon as possible. The public utility may withhold interconnection services until the adverse effects are eliminated.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:70. Temporary disconnection due to unauthorized equipment modifications. If the interconnection customer makes any change other than minor equipment modifications without prior written authorization of the public utility, the public utility has the right to temporarily disconnect the small generator facility from the utility's EDS at any time and for as long as reasonably necessary.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:71. Termination. The interconnection customer may terminate the interconnection at any time by giving the public utility 20 business days' written notice.

Upon termination of the interconnection, any small generator facility interconnection equipment must be disconnected from the public utility's EDS at the interconnection customer's expense. The termination of the interconnection does not relieve either party of its liabilities and obligations owed or continuing at the time of the termination.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:72. Default. Failure of a party to meet the obligations of this chapter or the interconnection agreement may constitute default. Upon a default, the non-defaulting party shall give written notice of the default to the defaulting party. The defaulting party has 60 calendar days from receipt of the default notice to cure such

default. If a default is not capable of being cured within 60 calendar days, the non-defaulting party has the right to terminate the interconnection agreement by written notice.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.

20:10:36:73. Dispute resolution. Before filing a complaint with the commission, the public utility, applicant, or interconnection customer shall first provide the other party and commission staff with a written notice of dispute. The notice of dispute may describe in detail the nature of the dispute and a proposed resolution. If requested, commission staff may assist the parties in informal resolution. In the event the parties are unable to resolve the dispute within 30 calendar days or other period as the parties may agree upon by mutual agreement, the complaining party may formally file a complaint with the commission according to § 20:10:01:08.01.

Source:

General Authority: SDCL 49-34A-93.

Law Implemented: SDCL 49-34A-93.