

Policy EO-07

SUBJECT: Distributed Generation

OBJECTIVE: To establish the procedures and qualification criteria for supporting requests from the membership to interconnect distributed generation to the Cooperative distribution system. The outlined procedures shall take into account issues of safety, economics and reliability of the Cooperative's distribution system.

POLICY CONTENT:

Distributed Generation interconnection is available under this policy for all single-phase and three-phase members who wish to install facilities using resources to generate all or part of the electrical requirements of the member, where such facilities are connected in parallel with Northern Plains Electric Cooperative, "Northern Plains", and where such facilities are approved by Northern Plains. Interconnection is subject to all other rules, conditions, practices and policies of the cooperative in addition to those set out in this policy.

I. General Provisions

A. Power Quality

- i. The member-generated electricity must not, in the opinion of the cooperative, adversely affect the cooperative distribution system safety, reliability, line loading or control.
- ii. Where necessary, for reasons of public or employee safety or the potential for a distributed generation facility to cause problems with the service of other members, Northern Plains may require a separate distribution transformer(s) for a member having a facility.
- iii. Where necessary, to avoid the potential for a distributed generation facility to cause problems with the service of other members, Northern Plains may limit the capacity and operating characteristics of single-phase generators in a manner consistent with Northern Plains' limitations for single-phase motors.
- iv. The power output of the member must be maintained such that frequency and voltage are compatible with normal cooperative service, and do not cause that service to fall outside the prescribed limits of standard limitations.
- v. The member's installation must be operated so that variations from acceptable voltage levels and other service impairing disturbances do not result in adverse effects on the service or equipment of other members, and in a manner which does not produce undesirable levels of harmonics in Northern Plains' power supply.

B. Member Responsibilities

- i. The Application for Interconnection of Generation System must be completed to the satisfaction of the cooperative and approved prior to proceeding with installation of the system.
- ii. In the event the Cooperative determines it needs to perform engineering studies in order to complete the review of the Application for Interconnection of Generation System, the Member will be responsible for the cost of the

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studies. Prior to commencing any engineering study, the Cooperative will provide the Member with a cost estimate and description of the study work and will secure the Member's agreement to proceed with the study.

- iii. The cooperative will require the owner of any new distributed generation project to pay for the cost of any necessary electric distribution system upgrades, including metering, that the cooperative determines are appropriate, before any new project is allowed to interconnect with the existing distribution system.
- iv. Distributed Generation commissioning test must be successfully conducted, documented and approved by the cooperative. Cooperative personnel must be present to observe and document this testing.
- v. A Distributed Generation Interconnection Agreement, must be executed between the member and the cooperative.
- vi. The member shall make equipment available and permit entry upon the property by Northern Plains utility personnel at reasonable times for the purpose of testing; isolation and protective equipment; to evaluate the quality of power delivered to Northern Plains' system; and to test to determine whether the local generating system is the source of any electric service or system problems.
- vii. The member is responsible for providing overcurrent protection for the installed equipment.
- viii. The member's installation must comply with all applicable federal, state and local codes.

C. Interconnection

- i. The member's facility must have a system of automatically isolating the generator from Northern Plains' system upon loss of Northern Plains' supply.
- ii. Paralleling equipment must meet the testing standards of UL1741 and IEEE 1547 compliance and undergo commission tests including anti islanding capabilities prior to interconnection approval.
- iii. Northern Plains will require that there be provided between the parallel generator and Northern Plains' system, a lockable load-break disconnect switch. The switch must be labeled and accessible to Northern Plains personnel for the purpose of isolating the parallel generator's equipment from Northern Plains' system when necessary.
- iv. Northern Plains may require that the member discontinue parallel distributed generation operation and isolate the generating installation from Northern Plains' system for any of the following reasons:
 - a. To facilitate maintenance or repair of Northern Plains' facilities.
 - b. During system emergencies.
- v. The Member must provide technical specifications of the interconnection to Northern Plains for approval prior to interconnection of the generating system.

D. Insurance

- i. The member shall be required, prior to interconnection of the distributed generation system, to provide documentation of general liability insurance by

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- a qualified insurance company and shall maintain coverage for the duration of the interconnection agreement.
- ii. The member shall maintain general liability insurance equal to or greater than:
 - a. Three Hundred Thousand (\$300,000) for each occurrence if the Gross Nameplate Rating of the generation system is less than 50KW.
 - b. One million dollars (\$1,000,000) for each occurrence if the Gross Nameplate Rating of the generation system is from 50KW up to 149KW.
 - iii. Evidence of the insurance shall state that coverage provided is primary and is not in excess to or contributing with any insurance or self-insurance maintained by Northern Plains.
 - iv. 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 Member's ownership and/or operation of the distributed generation installation.
 - v. The general liability insurance required shall, by endorsement to the policy or policies:
 - a. Include Northern Plains as an additional insured
 - b. Contain a severability of interest clause or cross-liability clause
 - c. Provide that Northern Plains 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
 - d. Provide for thirty (30) calendar days' written notice to Northern Plains prior to cancellation, termination, alteration, or material change of such insurance.
 - vi. If the generation system is connected to an account receiving residential service from Northern Plains and its total generating capacity is smaller than 50KW, then the endorsements required in Section D.v shall not apply.
 - vii. Northern Plains shall have the right to periodically inspect or obtain a copy of the original policy or policies of insurance.
 - viii. The Member shall hold the Cooperative harmless for any liability to itself or third parties arising out of the operation of the generation system.

E. Non-Qualifying Interconnected Load

- i. The operation of Member distributed generation will preclude the incorporation of sub-metered discount rates at the Member's account unless the Member installs, at their expense, wiring which enables the proper operation and metering of sub-metered installations.

F. Rates

- i. Northern Plains will compensate the Member for distributed generation output to the electric distribution system and properly metered in accordance with the Renewable Energy rate schedule.
- ii. Rate schedules are subject to periodic review and adjustments by the Cooperative Board of Directors.

II. Qualifying Distributed Generation Systems

A. Calculation of Generation System Capacity

- i. The energy production capacity of the generation system will be deemed to be the manufacturer's Gross Nameplate Rating.
- ii. In the event that the generation system's output exceeds the Gross Nameplate Rating, the system and interconnection shall then be governed by the appropriate size generation rules.
- iii. Any distributed generation system owned by the same individual, organization, corporation or affiliates will be considered one member and the generation capacity will be aggregated.

B. Generation System Criteria

- i. Generation system Gross Nameplate Rating is less than 150KW
- ii. Generation system with Gross Nameplate Rating equal to or greater than 150KW will require terms and conditions set by Central Power Electric Cooperative.
- iii. Qualifying technologies are defined by North Dakota Century Code 49-02-25.
- iv. System must be planned for interconnection with the Northern Plains distribution system
- v. Not intended for wholesale generation transactions with third parties;
- vi. Shall not contribute such so that the total aggregated distributed generation on the circuit exceeds 15 percent of the circuit's annual peak load as measured at the substation;
- vii. Shall not contribute such so that the total aggregated distributed generation on the circuit exceeds more than 10 percent of the distribution circuit's maximum fault current at the point on the primary nearest the proposed interconnection point;
- viii. Shall not contribute such so that the total aggregated distribution generation on the circuit causes any Northern Plains' distribution system protective devices and equipment on the system to exceed 87.5 percent of the short circuit interrupting capability.

III. Grandfathered Provisions

Those members that installed distributed generation systems prior to March 23rd, 2020 shall be grandfathered into the Renewable Energy Purchase Rate. The grandfathered provisions are in effect until March 23rd, 2030, or until the existing account is transferred to a different member or until the current Gross Nameplate Rating on the member's site is increased, whichever occurs first.

RESPONSIBILITY: Management

APPROVED: June 27, 2011

REVIEWED: December 28, 2016

REVIEWED: July 23, 2018

AMENDED: March 23, 2020