

**RESOLUTION  
OF THE MANAGEMENT BOARD  
OF THE NAVAJO TRIBAL UTILITY AUTHORITY**

**NTUA-57-22**

**Approving Amendments to the Navajo Tribal Utility Authority's Distributed  
Generation Interconnection Policy**

**WHEREAS:**

1. The Management Board of the Navajo Tribal Utility Authority (NTUA or Authority) is delegated authority and responsibility for the management and operation of NTUA pursuant to 21 N.N.C. § 7(A)(1); and
2. The Management Board is further authorized under 21 N.N.C. § 7(B)(10) to enter into, make, perform, and carry out contracts for any lawful purpose pertaining to its business necessary or incidental to its policies; and
3. NTUA has a Distributed Generation Interconnection Policy governs how customers may and may not interconnect to NTUA's distribution system; and
4. NTUA's Electric and Information Systems Division made updates to the policy which include minor edits, fixing typos, updating contact information to Derrick Terry, Renewable Engineer Specialist, and adding penalties for not following the policy; and
5. NTUA Management deems it in the best interest of NTUA to approve the amended NTUA Distributed Generation Interconnection Policy.

**NOW THEREFORE BE IT RESOLVED THAT:**

1. The Management Board of NTUA now approves the amendments to the NTUA Distributed Generation Interconnection Policy.
2. The Management Board further authorizes the General Manager to implement the policy beginning January 1, 2023, and take such actions consistent herewith.

**CERTIFICATION**

I hereby certify that the preceding resolution was duly considered at a meeting of the Management Board of the Navajo Tribal Utility Authority conducted by conference call at which a quorum was present, and a vote duly approved the same of 6 in favor, 0 opposing, and 0 abstaining this 9th day of December 2022.

  
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Robert L. Silva, Secretary

# NTUA Distributed Generation Interconnection Policy

## GENERAL

It is the intent of the Navajo Tribal Utility Authority (Authority) to allow Customers to install qualifying Distributed Generation systems (DG), provided the Customer's DG facility does not adversely affect the Authority's distribution system, is less than 700 kW in size, and is rated to produce an amount of electricity less than or equal to the amount of electricity the Customer for whom the DG is installed is reasonably expected to consume. The Customer must conduct their own analysis of their system to determine the economic benefit of DG operation.

A DG facility that is not connected to the Authority's system in any way is known as "stand-alone" or "isolated" DG. The Customer may operate a DG facility in stand-alone or isolated fashion if such DG facility does not adversely affect the Authority's electric system. A DG facility connected in any way to the Authority's electric system shall be considered as being operated in "parallel" to the NTUA system. For purposes of this Policy, a DG facility is considered operating in "parallel" anytime it is connected to the Authority's system in any way, even if the Customer does not intend to export power on to the NTUA system. All provisions of this Policy shall apply to parallel operation of DG facilities as so defined.

This Policy is not a complete description or listing of all laws, ordinances, rules and regulations, nor is this Policy intended to be an installation or safety manual. The Customer requesting to interconnect a DG facility to the Authority's system is responsible for and must follow, in addition to all provisions of this Policy, the Authority's *Rules and Regulations* and *Tariffs for Electric Service*, the Authority's *Line Extension Policy*, the *Policies and Procedures* of the Authority's power supplier(s) where applicable, the *Policies and Procedures* of the Authority's transmission service provider(s) where applicable, the current *IEEE 1547 Standard Guide for Distributed Generation Interconnection* (a copy is on file at the Authority for inspection along with information so the Customer may obtain his/her own copy), other applicable IEEE standards, applicable ANSI standards, including ANSI C84.1 Range A, National Fire Protection Association (NFPA) 70, National Electric Code (NEC) 2020 standards, and any other applicable governmental and regulatory laws, rules, ordinances or requirements. All legal, technical, financial, etc. requirements in the following sections of this Policy must be met prior to interconnection of the DG facility to the Authority's system.

A Customer may serve all loads behind the meter at the location serving the DG facility but will not be allowed to serve loads through multiple meters, multiple consuming facilities or multiple Customers with a single DG facility or under a single DG application without prior approval by the Authority.

DG facilities larger than 700 kW and facilities rated to produce an amount of electricity greater than the amount of electricity the Customer for whom the DG is installed or reasonably expected to consume are not covered by this Policy and will be considered by the Authority on a non-discriminatory case-by-case basis. DG facilities larger than 700 kW must follow the Authority's Interconnection Agreement policies and conduct an interconnection agreement.

## I. DETERMINE THE CATEGORY OF DISTRIBUTED GENERATION FACILITY

- 1) Connection Level Category
  - a. Connected to the Authority's system: The Customer requests and/or the Customer's DG facility requires connection to the Authority's system. All provisions of this Policy cover this category.

- b. Connected to the Authority's Power Supplier's system: The Customer requests and/or the Customer's DG facility requires connection to the Authority's Power Supplier's system. This Policy does NOT cover this category. The Customer should contact the Authority's Power Supplier directly.

2) Contact Person

The Authority's contact person for all matters related to DG interconnection shall be:

Name: Derrick Terry  
Address: P.O. Box 170 Fort Defiance, Arizona 86504  
Phone: (928) 729-4686  
Email: [NTUARenewableDepartment@ntua.com](mailto:NTUARenewableDepartment@ntua.com)

3) Ownership of facilities

The Customer shall either own or be solely responsible for all expense, installation, maintenance and operation of all facilities, including all power generating facilities at and beyond the point of delivery as defined in the Authority's tariffs, or contract with another person to finance, install, or maintain facilities on the Customer's side of the meter, regardless of whether the Customer takes ownership of the installed distributed generation.

4) Power Export Category

- a. Parallel–no power export: The Customer operates a DG facility connected in any way to the Authority system but with no intention to export power.
- b. Parallel–primarily intended to be less than or equal to consumption: The Customer operates a DG facility connected in any way to the Authority's system and rated to produce an amount of electricity less than or equal to the amount of electricity the Customer for whom the DG is installed or reasonably expected to consume with the intention to export excess power.
- c. Parallel – other: The Customer operates a DG facility where either the power generated is intended for export only or where the DG facility is rated to produce an amount of electricity greater than the amount of electricity the Customer for whom the DG is installed or reasonably expected to consume: This Policy does not cover this category. The Authority will consider applications for service under this category on a case-by-case basis.

5) Qualifying or Non-Qualifying Category

- a. Qualifying Facilities (QF) are defined by the Public Utility Regulatory Policies Act of 1978 (PURPA). Refer to CFR Title 26, Volume 4, Sec. 292.204.
- b. The distinction between QF and Non-Qualifying Facilities (NQF) mainly deals with fuel use.
  - i. A QF is defined as electric generation with a capacity of not more than 2 MW provided by renewable energy technology, as defined by PURPA, installed on a retail electric customer's (Customer's) side of the meter. In general, this means

that the DG must have as its primary energy source biomass, waste, renewable resources, geothermal resources or any combination. See PURPA for a full description.

- ii. Solar electric equipment installed on the Customer's side of the meter at a building or other facility owned or operated by an independent school district, irrespective of the level of generation capacity shall be considered as a QF but is not covered by the provisions of the Policy if greater than 700 kW.
  - iii. DG facilities not designated as QF under the provisions of PURPA will be considered NQF by the Authority.
- c. The Authority will provide interconnection for a DG facility to Customers, subject to the provisions of this Policy and all other applicable rules and regulations.

## II. CUSTOMER'S INITIAL REQUIREMENTS

### 1) Notification

- a. The Customer must meet the requirements of all Authority tariffs, conditions of service, Standard Utility Practices and other service rules and regulations in addition to the requirements in the Policy.
- b. The rated capacity of the Customer's DG must not exceed the Authority's service capacity.
- c. Anyone owning or operating a DG facility in parallel with the Authority's system as defined in this Policy must notify the Authority of the existence, location and category of the DG facility, whether the Customer intends to export power to the Authority or not.

### 2) Service Request

- a. To interconnect a DG facility to the Authority system, a Customer must first submit to the Authority the "Authority Application for Interconnection and Parallel Operation of Distributed Generation," using the form included in this Policy.
- b. A separate form must be submitted for each facility.

### 3) Application Fees. The Authority and its Power Supplier(s), if requested by the Authority, may conduct a service study, coordination study and/or utility system impact study prior to interconnection of a DG facility. See the section on Pre- Interconnection Studies that follows.

- a. DG facilities for which no pre-interconnection study fee may be charged. The Authority will not charge a Customer a fee to conduct a pre-interconnection study for pre-certified DG units that export not more than 15% of the total load on a single radial feeder and contribute not more than 25% of the maximum potential short circuit current on a single radial feeder. All other DG facilities may be charged a fee to offset the costs incurred in a pre-interconnection study.
- b. DG facilities for which pre-interconnection study fees may be charged. Prior to the interconnection of a DG facility for which a pre-interconnection study fee may be

charged, the Authority may charge a Customer a fee to offset its costs incurred in a pre-interconnection study.

- i. In the case of DG facilities (1) to be operated in parallel with the Authority's system, (2) with no intention to export power to the Authority and (3) that are of standard design and intended entirely as emergency or back-up power supply for the facility, the Authority may waive the application fee.
- ii. The Customer shall receive an estimate of the study cost before the Authority initiates the study.

### **III. AUTHORITY AND POWER SUPPLIER REVIEW PROCESS**

#### **1) Pre-Interconnection Studies for Interconnection of DG**

- a. **General.** The Authority and/or its Power Supplier(s), if requested by the Authority, may conduct a service study, coordination study and/or utility system impact study prior to interconnection of a DG facility. In instances where the studies are deemed necessary, the scope of such studies shall be based on the characteristics of this particular DG facility to be interconnected and the Authority's system at the specific proposed location. By agreement between the Authority and the Customer, studies related to interconnection of a DG facility on the Customer's premises may be conducted by a qualified third party.
- b. **Time to complete.** The conduct of the pre-interconnection studies may take between six to eight weeks.
- c. **Reporting.** The Authority shall prepare written reports of the study findings and make them available to the Customer.
- d. **Costs and Benefits.** The study shall consider both the costs incurred and the benefits realized as a result of the interconnection of the distributed generation to the Authority's system.
- e. **Network service.** Network service is defined as two or more Authority primary distribution feeder sources electrically tied together on the secondary or low voltage side to form one power source for one or more customers. The service is designed to maintain service to the customers even after the loss of one of these primary distribution feeder sources. If a DG facility requests interconnection to a secondary network system, additional requirements may apply.
- f. **Confidentiality:** The Authority and the Customer agree to treat knowledge gained because of the application and/or interconnection studies about the other party as confidential.
- g. **Liability.** The Customer acknowledges and agrees that any review or acceptance of such plans, specifications and other information by the Authority and/or its Power Supplier shall not impose any liability on the Authority and/or its Power Supplier and does not guarantee the adequacy of the Customer's equipment or DG facility to perform its intended function. The Authority and its Power Supplier disclaim any expertise or special knowledge relating to the design or performance of generating installations and does not warrant the efficiency, cost- effectiveness, safety, durability, or reliability of such DG installations.

- h. Non-discrimination. All applications for interconnection and parallel operation shall be processed by the Authority in a non-discriminatory manner. Applications will be processed in the order that they are received. It is recognized that certain applications may require minor modifications while they are being reviewed by the Authority. Such minor modifications to a pending application shall not require that it be considered incomplete and treated as a new or separate application.

#### **IV. SALES TO AND PURCHASES FROM A DG FACILITY**

For QF less than 700 kW and rated to produce an amount of electricity less than or equal to the amount of electricity the Customer for whom the DG is installed, or is reasonably expected to consume and where the Customer desires to export power:

- a. The Authority shall bill the Customer for the energy supplied by the Authority during each billing period according to the Authority's applicable retail rate schedule.
- b. Energy supplied by the Customer to the Authority's system exceeding on site consumption shall be purchased by the Authority at the Authority's avoided cost of generation. The avoided cost of generation is defined the incremental cost that is not incurred when the additional output is not produced. For example, the term can refer to the cost avoided by an electric utility when another service option exists, e.g., an independent generator.
- c. The Customer shall sign an approved contract for interconnection service with the Authority.
- d. The Authority will apply credits to the Customer account on a semi-annual basis based on the terms of the interconnection agreement. The amount of credit will be based on Authority's avoided cost of purchased power.
- e. In addition to all other charges, the Authority may bill the Customer for any additional facilities charges as determined by the Authority and appended to the Interconnection Agreement.
- f. The Authority may, at its sole discretion, as determined on a case-by-case non-discriminatory basis, purchase power from an NQF.
- g. The type of metering to be used shall provide data so the Authority can determine the energy supplied to the Customer by the Authority in excess of the on-site consumption and the energy supplied to the Authority by the Customer.
- h. The Authority shall not be required to make any purchases that will cause the Authority to no longer be in compliance with any applicable contracts or all power contract requirements with its power supplier(s) unless required by the Federal or Navajo Nation law or regulation.
- i. Any renewable energy credits (RECs) resulting from the operation of the DG are the property of the DG Customer unless sold or otherwise transferred by the Customer.
- j. The Authority will purchase power from a Customer with a DG facility that is a QF, subject to the provisions of this policy and other applicable rules and regulations.

- k. The Authority may choose to provide interconnection and may choose to purchase power from a Customer with a DG facility that is an NQF at the sole discretion of the Authority as determined on a non-discriminatory case-by- case basis.

## **V. CUSTOMER'S RESPONSIBILITY PRIOR TO OPERATION**

- 1) Line Extension and Modifications to Authority Facilities
  - a. If interconnection of a particular DG facility will require substantial capital upgrades to the Authority system, the Authority shall provide the Customer with an estimate of the schedule and Customer's cost for the upgrade. If the Customer desires to proceed with the upgrade, the Customer and the Authority will enter into a contract for the completion of the upgrade.
  - b. If the Authority concludes that an application for interconnection describes facilities that may require additional devices and operating schemes beyond those described in this Policy, the Authority shall make those additional requirements known to the Customer at the time the interconnection studies are completed.
  - c. As a part of the interconnection analysis performed by the Authority, the Customer will be provided with a cost estimate of any line extension or other cost to be incurred in providing electric delivery service to the Customer's DG facility.
  - d. Notwithstanding the Authority's line extension policy, the Customer shall pay the full cost of construction of any transmission, substation, distribution, transformation, metering, protective equipment, or other facilities or equipment which is required to serve the Customer's DG facility.
  - e. In the event it is necessary at the time of initial interconnection or at some future time for the Authority and/or its Power Supplier to modify electric delivery systems because the Customer's DG and/or the quality of power provided by the Customer's DG adversely affects the Authority and/or its Power Supplier's delivery system, the Customer will reimburse the Authority and/or its Power Supplier for all costs of modifications required for the interconnection of the Customer's DG facilities.
- 2) Applicable Regulations. The DG facility shall be installed and operated subject to and in accordance with the terms and conditions set forth in the Authority's rules, regulations, bylaws, rates and tariffs, as amended from time to time, and, if applicable, approved by the Authority's board of directors, which are incorporated herein by reference, and in compliance with all applicable federal, Navajo Nation, state and local laws, regulations, zoning codes, building codes, safety rules, environmental restrictions, ordinances and regulations, including without limitation, the most recent IEEE Standard 1547 Guide for Distributed Generation Interconnection, applicable ANSI standards, including ANSI C84.1 Range A, and in accordance with industry standard prudent engineering practices.
- 3) Liability Insurance. A Customer meeting the standards of this Policy shall not be required to purchase any amount, type or classification of liability insurance the Customer would not have in the absence of the DG. The Authority recommends; however, the Customer obtain liability insurance including contractual liability insurance covering indemnity agreements which insures the Customer against all claims for property damage and for personal injury or death arising out of, resulting from or in any manner connected with the installation, operation and maintenance of the Customer's generating equipment.

- 4) Warranty. The Customer must provide credible tangible proof that the DG to be interconnected has or had an original manufacturer's warranty against breakdown or undue degradation for at least five years.
- 5) Contracts. The Customer will sign and deliver an Agreement for Interconnection to the Authority substantially in the form as shown in the AUTHORITY AGREEMENT FOR INTERCONNECTION AND PARALLEL OPERATION OF DISTRIBUTED GENERATION included in this Policy.
- 6) Initial Interconnection. The Customer shall provide the Authority with a completed application for interconnection and parallel operation with the Authority's system using the form contained in the Policy. The interconnection of the DG to the Authority's system shall take place on the following schedule:
  - a. Interconnection shall take place within six weeks of the Authority's receipt of a completed application, except as described in this Policy.
  - b. If interconnection of a particular DG facility requires substantial capital upgrades to the Authority system, the Authority shall provide the Customer with an estimate of the schedule and Customer's cost for the upgrade. If the Customer desires to proceed with the upgrade, the Customer and the Authority will enter into a contract for the completion of the upgrade. The interconnection shall take place no later than two weeks following the completion of such upgrades. The Authority shall employ reasonable efforts to complete such system upgrades in the shortest time reasonably practical.
  - c. The Authority shall use reasonable efforts to interconnect facilities within the time frames described in this Policy. If in a particular instance the Authority determines that it cannot interconnect a DG facility within the time frames stated in this Policy, it will notify the DG Customer in writing of that fact. The notification will identify the reason or reasons interconnection could not be performed in accordance with the schedule and provide an estimated date for interconnection.
  - d. The Authority's review process and any inspections are intended to safeguard the Authority's facilities and personnel. The Customer acknowledges and agrees that any review or acceptance of such plans, specifications, and other information by the Authority and/or its Power Supplier shall not impose any liability on the Authority and/or its Power Supplier and does not guarantee the adequacy of the Customer's equipment or DG facility to perform its intended function. The Authority and its Power Supplier disclaims any expertise or special knowledge relating to the design or performance of generating installations and does not warrant the efficiency, cost-effectiveness, safety, durability, or reliability of such DG installations.
- 7) Inspection and start-up. The Customer shall provide the Authority with notice at least two weeks before the initial energizing and start-up testing of the Customer's DG equipment and the Authority may witness the testing of any equipment and protective systems associated with the interconnection. The Customer shall revise and re-submit the application with information reflecting any proposed modification that may affect the safe and reliable operation of the Authority system.
- 8) The Authority has the right to not connect any Customer's DG equipment to the distribution system if the Customer failed to follow the procedures outlined in this Policy. The Authority



may assess a fine to a customer if a Customer does not follow the procedures in the Policy and requests an interconnection of a DG facility.

## **VI. OPERATION OF PARALLEL FACILITY**

- 1) The purpose of this section is to describe the requirements and procedures for safe and effective connection and operation of DG.
  - a. The Customer may operate a 60 Hertz (Hz) three-phase or single-phase DG facility, in parallel with the Authority system pursuant to an interconnection agreement, provided that the equipment meets or exceeds the requirements of this Policy.
  - b. This Policy describes typical interconnection requirements. Certain specific interconnection locations and conditions may require the installation and use of more sophisticated protective devices and operating schemes, especially when the facility is exporting power to the Authority system.
- 2) General interconnection and protection requirements
  - a. The DG shall be equipped with protective hardware and software designed to prevent the DG from being connected to a de-energized circuit owned by the Authority.
  - b. The DG shall be equipped with the necessary protective hardware and software designed to prevent connection or parallel operation of the DG with the Authority system unless the Authority system voltage and frequency are of normal magnitude.
  - c. The Customer will be responsible for protecting his or her DG in such a manner that Authority system outages, short circuits, or other disturbances including zero sequence currents and Ferro resonant over-voltages do not damage the Customer's DG. The Customer's protective equipment shall also prevent unnecessary tripping of the Authority system breakers that would affect the Authority system's capability of providing reliable service to other Customers.
  - d. Circuit breakers or other interrupting devices at the point of common coupling must be capable of interrupting maximum available fault current.
- 3) Manual disconnect. The Customer will furnish and install a manual disconnect device that has a visual break that is appropriate to the voltage level (a disconnect switch, a draw-out breaker, or fuse block), and is accessible to the Authority personnel, and capable of being locked in the open position. The Customer shall follow the Authority's switching, clearance, tagging, and locking procedures, which the Authority shall provide for the Customer.
- 4) Prevention of interference
  - a. Voltage. The Customer will operate its DG in such a manner that the voltage levels on the Authority system are in the same range as if the DG were not connected to the Authority system. The Customer shall provide an automatic method of disconnecting the DG from the Authority system if a sustained voltage deviation in excess of +5% or -10% from normal voltage persists for more than 30 seconds, or a deviation in excess of +10% or -30% from normal voltage persists for more than 10 cycles. The Customer may reconnect when the Authority system voltage and frequency return to normal range and the system is stabilized.

- b. Flicker. The Customer's equipment shall not cause excessive voltage flicker on the Authority's system. This flicker shall not exceed 3% voltage dip, in accordance with the IEEE Standard 519 as measured at the point of common coupling.
- c. Frequency The operating frequency of the Customer's DG shall not deviate more than +0.5 Hz or -0.7 Hz from a 60 Hz base. The Customer shall automatically disconnect the DG from the Authority system within 15 cycles if this frequency tolerance cannot be maintained. The Customer may reconnect when the Authority system voltage and frequency return to normal range and the system is stabilized.
- d. Harmonics. In accordance with IEEE Standard 519 the total harmonic distortion (THD) voltage shall not exceed 5% of the fundamental 60 Hz frequency nor 3% of the fundamental frequency for any individual harmonic when measuring at the point of common coupling with the utility system.
- e. Fault and line clearing. The Customer shall automatically disconnect from the Authority system within 10 cycles if the voltage on one or more phases falls below -30% of nominal voltage on the Authority system serving the Customer premises. This disconnect timing also ensures that the DG is disconnected from the Authority system prior to automatic re-close of breakers. The Customer may reconnect when the Authority system voltage and frequency return to normal range and the system is stabilized. To enhance reliability and safety and with the Authority's approval, the Customer may employ a modified relay scheme with delayed tripping or blocking using communications equipment between the Customer and the Authority.
- f. Control, protection and safety protection requirements specific to single phase generators of 50 kW or less connected to the Authority's system. Exporting to the Authority's system may require additional operational or protection devices and will require coordination of operations with the Authority. The necessary control, protection and safety equipment specific to single-phase DG of 50 kW or less connected to secondary or primary systems include an interconnect disconnect device, a generator disconnect device, an over-voltage trip, and under-voltage trip, an over/under frequency trip, and a synchronization check for synchronous and other types of DG with stand-alone capability.
- g. Control, protection and safety equipment requirements specific to three-phase synchronous generators, induction generators, and inverter systems:
  - i. Three-phase synchronous generators. The Customer's DG circuit breakers shall be three-phase devices with electronic or electromechanical control. The Customer is solely responsible for properly synchronizing its generator with the Authority. The excitation system response ratio shall not be less than 0.5. The generator's excitation system(s) shall conform, as near as reasonably achievable, to the field voltage versus time criteria specified in the ANSI Standard C50.13-1989 to permit adequate field forcing during transient conditions.
  - ii. Three-phase induction generators and inverter systems induction generation may be connected and brought up to synchronous speed (as an induction motor) if it can be demonstrated that the initial voltage drop measured on the utility system at the point of common coupling is within the visible flicker stated in this Policy. Otherwise, the Customer may be required to install hardware or employ other techniques to bring voltage fluctuations to acceptable levels. Line-commutated inverters do not require synchronizing equipment. Self-commutated inverters

whether of the utility- interactive type or stand-alone type shall be used in parallel with the utility system only with synchronizing equipment. Direct-current generation shall not operate in parallel with the utility system.

- h. Protective function requirements:
  - i. Facilities rated ten(10) kW or less must have an interconnect disconnect device, a generator disconnect device, an over-voltage trip, an under-voltage trip, an over/under frequency trip, and a manual or automatic synchronizing check (for facilities with standalone capability).
  - ii. Facilities rated in excess of ten(10) kW but not more than 700 kW must have an interconnect disconnect device, a generator disconnect device, an over-voltage trip, and under-voltage trip, and over/under frequency trip, a manual or automatic synchronizing check (for facilities with standalone capability), either a ground over-voltage trip or a ground over-current trip depending on the ground system if required by the Authority, an reverse power sensing if the facility is not exporting (unless the generator is less than the minimum load of the Customer).
  - iii. Facilities rated more than 700kW must have an interconnect disconnect device, a generator disconnect device, an over-voltage trip, and under-voltage trip, and over/under frequency trip, either a ground over-voltage trip or a ground over-current trip depending on the ground system if required by the Authority, an automatic synchronizing check (for facilities with standalone capability) and reverse power sensing if the facility is not exporting (unless the facility is less than the minimum load of the customer). If the facility is exporting power, the power direction protective function may be used to block or delay the under-frequency trip with the agreement of the Authority.
- i. Facilities not identified. In the event the standards for a specific unit or facility are not set out in this Policy, the Authority and the Customer may interconnect a facility using mutually agreed upon technical standards.
- j. Requirements specific to a facility paralleling for 60 cycles or less (closed transition switching). The protective devices required for facilities 10 MW or less which parallel with the Authority system for 60 cycles or less are an interconnect disconnect device, a generator disconnect device, an automatic synchronizing check for generators with standalone capability, an over-voltage trip, an under-voltage trip, an over/under frequency trip, and either a ground over-voltage trip or a ground over-current trip depending on the grounding system, if required by the Authority.
- k. Inspection and start-up. The Customer shall provide the Authority with notice at least two weeks before the initial energizing and start-up testing of the Customer's DG equipment and the Authority may witness the testing of any equipment and protective systems associated with the interconnection. The Customer shall revise and re-submit the application with information reflecting any proposed modification that may affect the safe and reliable operation of the Authority system.
- l. Site testing and commissioning Testing of protection systems shall include procedures to functionally test the protective elements of the system up to and including tripping of the generator and interconnection point. Testing will verify all protective set points and relay/breaker trip timing. The Authority may witness the testing of installed switchgear, protection, and generator. The Customer is responsible for routine maintenance of the

generator, control and protective equipment. The Customer will maintain records of such maintenance activities, which the Authority may review at reasonable times. For DG systems greater than 700 kW, a log of generator operations shall be kept. At a minimum, the log shall include the date, generator time on, generator time off, and megawatt (MW) and megavar (MVAR) output. The Authority may review such logs at reasonable times.

5) Access

- a. Persons authorized by the Authority will have the right to enter the Customer's property for purposes of testing, operating the disconnect switch, reading or testing the metering equipment, maintaining right-of-way or other DG facility equipment and/or Authority service requirement. Such entry onto the Customer's property may be without notice.
- b. If the Customer erects or maintains locked gates or other barriers, the Customer will furnish the Authority with convenient means to circumvent the barrier for full access for the above-mentioned reasons.

6) Liability for Injury and Damages

- a. The Customer assumes full responsibility for electric energy furnished at and past the point of delivery and shall indemnify the Authority and/or its Power Supplier against and hold the Authority and/or its Power Supplier harmless from all claims for both injuries to persons, including death resulting therefrom, and damages to property occurring upon the premises owned or operated by Customer arising from electric power and energy delivered by the Authority or in any way arising directly or indirectly from the Customer's DG facility.
- b. The Authority and/or its Power Supplier shall not be liable for either direct or consequential damages resulting from failures, interruptions, or voltage and waveform fluctuations occasioned by causes reasonably beyond the control of the Authority and/or its Power Supplier including, but not limited to, acts of God or public enemy, sabotage and/or vandalism, accidents, fire, explosion, labor troubles, strikes, order of any court or judge granted in any bona fide adverse legal proceeding or action, or any order of any commission, tribunal or governmental authority having jurisdiction. ALL PROVISIONS NOTWITHSTANDING, IN NO EVENT SHALL THE AUTHORITY BE LIABLE TO THE CUSTOMER FOR ANY INTEREST, LOSS OF ANTICIPATED REVENUE, EARNINGS, PROFITS, OR INCREASED EXPENSE OF OPERATIONS, LOSS BY REASON OF SHUTDOWN OR NON-OPERATION OF CUSTOMER'S PREMISES OR FACILITIES FOR ANY INDIRECT, INCIDENTAL, OR CONSEQUENTIAL, PUNITIVE OR EXEMPLARY DAMAGES ARISING OUT OF OR RELATED, IN WHOLE OR PART, TO THIS AGREEMENT. The Authority shall not be liable in any event for consequential damages.
- c. The Customer is solely responsible for insuring his/her facility complies with all applicable regulations including, but not limited to, laws, regulations, ordinances, Authority and Authority's Power Supplier tariffs, policies, and directives.

7) Metering/Monitoring

- a. The Authority may supply, own, and maintain all necessary meters and associated equipment at the expense of the customer to record energy purchases by the Customer and energy exports to the Authority's system.

- b. The Customer shall supply at no cost to the Authority a suitable location on his or her premises for the installation of the Authority's meters and other equipment.
  - c. The facility will be metered by one of the following methods, at the discretion of the Authority. The two metered values shall be separately accounted for by the Authority.
    - i. Installing a single meter with two registers capable of measuring in-flow and out flow at the point of common coupling, or
    - ii. Installing separate meters, that measure the in-flow and the out-flow at the point of common coupling.
  - d. The meter shall be read at a time or times of month determined by the Authority for acquiring metering data.
  - e. The Authority may, at its sole discretion, require the Customer to pay the Authority any significant differential cost of the metering and monitoring equipment and installation expense beyond that that a standard Customer in the same rate class would require.
  - f. Meter testing shall follow the Authority's standard policy on metering testing and accuracy.
  - g. At its sole discretion, the Authority may meter the facility at primary or secondary level.
- 8) Notice of Change in Installation
- a. The Customer will notify the Authority in writing thirty (30) days in advance prior to making any change affecting the characteristics, performance, or protection of the DG facility.
  - b. If any modification undertaken by the Customer will create or has created conditions which may be unsafe or adversely affect the Authority system, the Customer shall immediately correct such conditions or be subject to immediate disconnection from the Authority system.
- 9) Testing and Record Keeping
- a. The Authority shall maintain records concerning applications received for interconnection and parallel operation of DG facilities. Such records will include the date each application is received, documents generated in the course of processing each application, correspondence regarding each application, and the final disposition of each application.
  - b. The Customer will test all aspects of the protection systems up to and including tripping of the generator and interconnection point at start-up and thereafter as required. Testing will verify all protective set points and relay/breaker trip timing and shall include procedures to functionally test all protective elements of the system. The Authority may witness the testing.
  - c. The Customer will maintain records of all maintenance activities, which the Authority may review at reasonable times.
- 10) Disconnection and Reconnection of Service

- a. The Authority may disconnect a DG facility under the following conditions:
  - i. Expiration or termination of the interconnection agreement. Upon expiration or termination of the interconnection agreement with a Customer, in accordance with the terms of the agreement, the Authority may disconnect the DG facilities.
  - ii. Non-compliance with technical requirements. The Authority may disconnect a DG facility if the facility is not in compliance with the technical requirements specified in this Policy. Within two (2) business days from the time the Customer notifies the Authority that the DG facility has been restored to compliance with the technical requirements of this Policy, the Authority shall verify such compliance. Upon such verification, the Customer in coordination with the Authority may reconnect the DG facility.
  - iii. System emergency. The Authority may temporarily disconnect a customer and/or a DG facility without prior written notice in cases where continued interconnection will endanger persons or property. During the forced outage of the Authority system, the Authority shall have the right to temporarily disconnect a Customer and/or a DG facility to make immediate repairs to the Authority's system. When possible, the Authority shall provide the Customer with reasonable notice and reconnect the Customer as quickly as reasonably practical.
  - iv. Routine maintenance, repairs, and modifications. The Authority may disconnect a customer and/or a DG facility with seven (7) business days prior written notice of service interruption for routine maintenance, repairs and Authority's system modifications. The Authority shall reconnect the Customer as quickly as reasonably possible following such service interruption.
  - v. Lack of approved application and interconnection agreement. The Authority may refuse to connect or may disconnect a DG facility if the application has not been received and approved. The Authority may assess a fine if a DG is found to be interconnected to the Authority's system without an approved application and interconnection agreement.

#### 11) Compliance with Laws, Rules, and Tariffs

The DG installation owned and installed by the Customer shall be installed and operated subject to and in accordance with the terms and conditions set forth in the Authority's rules, regulations, bylaws, rates and tariffs, as amended from time to time, and, if applicable, approved by the Authority's Management Board, which are incorporated herein by reference, and in compliance with all applicable federal, Navajo Nation, state and local laws, regulations, zoning codes, building codes, safety rules, environmental restrictions, ordinances and regulations, and in accordance with industry standard prudent engineering practices.