

# APPLICATION FOR NORRIS PUBLIC POWER DISTRICT APPROVAL TO CONSTRUCT DISTRIBUTED GENERATION (DG) INTERCONNECTION

The Distributed Generation (DG) Owner (herein described as 'Owner') requests Norris PPD approval to construct and operate Distributed Generation (DG) equipment in closed transition (parallel) with the Norris PPD system in accordance with and as defined in the latest version of the Norris PPD Distributed Generation Interconnection Manual.

## DG Facility Owner and/or Operator Information:

DG Facility Owner \_\_\_\_\_  
Norris PPD Service Account Number (if known) \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_ Zip Code \_\_\_\_\_  
Day Phone \_\_\_\_\_ Night Phone \_\_\_\_\_ Fax \_\_\_\_\_  
Email \_\_\_\_\_

DG Facility Operator (if different than above) \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_ Zip Code \_\_\_\_\_  
Day Phone \_\_\_\_\_ Night Phone \_\_\_\_\_ Fax \_\_\_\_\_  
Email \_\_\_\_\_

## Facility Design / Engineering:

Company \_\_\_\_\_  
Representative \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_ Zip Code \_\_\_\_\_  
Phone \_\_\_\_\_ Fax \_\_\_\_\_ Email \_\_\_\_\_

## Facility Electrical Contractor:

Company \_\_\_\_\_  
Representative \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_ Zip Code \_\_\_\_\_  
Phone \_\_\_\_\_ Fax \_\_\_\_\_ Email \_\_\_\_\_

## DG Facility Information:

DG Facility Name \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_ Zip Code \_\_\_\_\_

Service Entrance Voltage/Phase: \_\_\_\_\_

**DG Facility Load Information:**

(The following load information will be used for interconnection design purposes. The information is not intended as a commitment or contract for billing purposes)

Minimum anticipated DG facility load (generation not operating)

kW: \_\_\_\_\_ kVA: \_\_\_\_\_

Maximum anticipated DG facility load (generation not operating)

kW: \_\_\_\_\_ kVA: \_\_\_\_\_

**Distributed Generation / Equipment Information (attach manufacturer's data):**

Description of number and type of generating units: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Generator Manufacturer(s)/ Model(s): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Generator Ratings (indicate per unit/combined)

Peak rated output \_\_\_\_\_ / \_\_\_\_\_ kW \_\_\_\_\_ / \_\_\_\_\_ kVA

Continuous rated output \_\_\_\_\_ / \_\_\_\_\_ kW \_\_\_\_\_ / \_\_\_\_\_ kVA

Power Factor \_\_\_\_\_

Generator unit output voltage \_\_\_\_\_ Phase

**Inverter Data (if applicable):**

Direct Energy Converter/Inverter/Static Power Converter

for synchronous: Grounding Resistor Resistor size or current limit \_\_\_\_\_

Generator subtransient reactance \_\_\_\_\_

for induction: VAR source and location (if req'd) \_\_\_\_\_

**Transformer (if applicable):**

If transformer(s) will exist between the generation and the facility service entrance/interconnection point, describe transformer(s) (voltage, windings (wye-wye, etc.), type, taps, ratings) and attach manufacturer's data \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Classification:**

Owner requests Classification of Interconnection as (check one):

\_\_\_ Class I Type A

\_\_\_ Class I Type B

\_\_\_ Class II

\_\_\_ Class III

**Duration of Parallel Operation:**

Owner requests Duration of Parallel Operation (check one):

Approve as Momentary

Approve as Sustained

**Power Transfer:**

**Does the DG Facility Owner intend the DG facility to export power to the Norris PPD system now, or at any time in the future?**

Owner Requests Description of Power Transfer as (check one and complete kW):

<input type="checkbox"/> Import Only	kW level for parallel operation	= _____ kW
	kW export level	= _____ 0 kW

<input type="checkbox"/> Import/Export	kW level for parallel operation	= _____ kW
	kW export level	= _____ kW

<input type="checkbox"/> Export Only	kW level for parallel operation	= _____ kW
	kW export level	= _____ kW

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Paralleling Equipment:**

Description of number and type of paralleling switchgear or momentary transfer switch(es) (attach manufacturer's data) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Interconnection Disconnect:**

Description of interconnect disconnect(s) and installed location(s) (attach manufacturer's data) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOTE: Norris PPD requires a lockable disconnect which provides a visible means of verifying the switch contacts are in the open position to be located within 10' of the Norris PPD meter on an independent support structure.

**Interconnection Breaker (if applicable):**

Description of interconnection breaker(s) and installed location(s) (attach manufacturer's data) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Protective Relaying:**

Description of protective relaying (attach manufacturer's data -see 'submittals' below) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Schedule:**

Date scheduled for start of DG installation / construction \_\_\_\_\_

Date scheduled for completion of installation / construction \_\_\_\_\_

**Submittals:**

Submit the following documents with this application:

- A site plan and floor plan of the proposed DG facility and/or installation indicating installed DG equipment locations.
- A one-line diagram of the proposed generator installation on the Owner's electrical system, noting all bus voltages, conductor properties, generating equipment, interconnection point(s), and interconnection disconnecting device(s).
  - Norris PPD may require this document bear the stamp of a Professional Electrical Engineer registered in the state where the project is being constructed.
- A schematic diagram of the proposed protective relay scheme indicating CT and PT monitoring points and protective functions provided (when required): Please contact Norris PPD in advance for assistance in determining Norris PPD's protective relay requirements for specific applications. If available at time of application, provide AC and DC elementary/wiring drawings and relay settings (with calculations and assumptions).
  - Norris PPD may require these documents bear the stamp of a Professional Electrical Engineer registered in the state where the project is being constructed.
- Detail sheets / catalog cuts of information on the generator, interconnection disconnect switch, interconnection breaker, interconnection switchgear, or other related equipment.

Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

By submitting this application, the Owner agrees to the following:

- The Owner has reviewed, is familiar with, and agrees to comply with all requirements of the Norris PPD DG Manual.
- The Owner has reviewed and is familiar with the terms of the 'Utility Service Termination Clause' for failing to meet and maintain requirements for interconnection, as outlined in the DG Manual.
- The Owner has reviewed and is familiar with the 'Interconnection Expenses' section of the Norris PPD DG Manual, and is aware of and agrees to comply with the Owner's financial obligations to Norris PPD, incurred by the addition of this new DG capacity.
- At no time will the new DG equipment be allowed to operate in closed transition with the Norris PPD system until the 'Norris PPD Agreement for Closed Transition Operation of Distributed Generation' is executed between the Owner and Norris PPD. This includes momentary closed transitions between the Owner's generation and the Norris PPD system for testing or calibration purposes. The only exception is if the DG installation is essentially complete, Norris PPD has been notified in advance of the intention to operate in parallel, and an Norris PPD representative is present to witness the closed transition operation. Note such witness tests do not necessarily take the place of the final 'Witness Test' outlined in the 'Norris PPD Agreement for Closed Transition Operation of Distributed Generation'. **Owner shall be liable for any and all damages and expenses incurred by Norris PPD and its customers due to the unauthorized or improper closed transition operation of Owner generation with the Norris PPD system.**
- The operation of this Owner equipment during the test period and subsequent normal operation shall not cause objectionable electrical disturbances external to the DG facility.
- All members of the Owner's construction project team (including contractors, engineers, and suppliers) and all DG facility operating personnel will be made aware of the terms of the Norris PPD DG Manual and this application.

FOR THE CONTRACTOR: \_\_\_\_\_

Name \_\_\_\_\_

Signed this \_\_\_\_ Day of \_\_\_\_\_, \_\_\_\_\_

FOR THE DG FACILITY OWNER: \_\_\_\_\_

Name \_\_\_\_\_

Title \_\_\_\_\_

Signed this \_\_\_\_ Day of \_\_\_\_\_, \_\_\_\_\_

**THIS AREA FOR NORRIS PPD USE ONLY**

The Owner has provided the following required documents for Norris PPD review.

- completed 'Application for Approval to Construct' form      rec'd \_\_\_\_\_
- one-line diagram      rec'd \_\_\_\_\_
- a schematic diagram of the relay scheme (when required)      rec'd \_\_\_\_\_
- data sheets for generator and other equipment      rec'd \_\_\_\_\_
- other \_\_\_\_\_      rec'd \_\_\_\_\_

Classification of Interconnection (check one):

- \_\_\_ Class I Type A      Induction generators or line commutated power converters with rated capacity 50 kW or below
- \_\_\_ Class I Type B      Induction generators or line commutated power converters with rated capacity above 50 kW
- \_\_\_ Class II      Generation equipment interconnected at or below 15 kV with a rated capacity below 5 MW
- \_\_\_ Class III      Generation equipment interconnected in excess of 15 kV or with a rated capacity in excess of 5 MW
- \_\_\_ N/A (open transition)      DG Manual requirements do not apply for open transition
- \_\_\_ N/A (rejected)      Network service or other

Duration of Parallel Operation (check one):

- \_\_\_ Approved as Momentary      (Interconnection disconnect required, interconnection breaker not required, minimal protective relaying required)
- \_\_\_ Approved as Sustained      (Interconnection disconnect required, interconnection breaker may be required, protective relaying may be required)

Description of Power Transfer (check one):

- \_\_\_ Import Only      kW level for parallel operation      = \_\_\_\_\_ kW  
    kW export level      = \_\_\_\_\_ 0 kW
- \_\_\_ Import/Export      kW level for parallel operation      = \_\_\_\_\_ kW  
    kW export level      = \_\_\_\_\_ kW
- \_\_\_ Export Only      kW level for parallel operation      = \_\_\_\_\_ kW  
    kW export level      = \_\_\_\_\_ kW

Interconnection Description/Voltage, Transmission/Distribution, ATO, Transformer: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Norris PPD Internal Department Comments:

Additional Norris PPD studies required?

Description of required studies: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Modification to the Norris PPD system required?

Description of required modifications: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Does Norris PPD require reimbursement for Interconnection Expenses?

Description of required reimbursement items, with costs: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Monthly Minimum Charge: \$1.40 per kVA = \$1.40 x \_\_\_\_\_ kVA = \$ \_\_\_\_\_

Norris PPD minimum charges are currently calculated at \$1.40 per kVA of required transformer capacity and subject to change by action of the Norris PPD Board of Directors. When appropriate, a contracted minimum may apply.

Telemetry required?

Description of telemetry required: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Documentation indicating completed inspection by the Nebraska State Electrical Division is required prior to scheduling final Norris PPD Witness Test. rec'd \_\_\_\_\_

Additional information submitted by Owner upon Norris PPD request?

Description of additional information submitted: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Owner Agreement to Norris PPD Stipulations:**

By January 31 of each year, the DG Facility Owner must submit to Norris PPD a meter reading indicating the total amount of energy produced by the DG facility during the previous calendar year.

Norris PPD requires the following studies/modifications/reimbursements:

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The Owner agrees to modify the facility design and to reimburse Norris PPD as requested for studies and Norris PPD system modifications described above:

FOR THE DG FACILITY OWNER: \_\_\_\_\_  
 Name \_\_\_\_\_  
 Title \_\_\_\_\_  
 Signed this \_\_\_\_\_ Day of \_\_\_\_\_, \_\_\_\_\_

Norris PPD hereby grants permission to the above named Owner to proceed with the DG interconnection installation as specified above. Any unapproved changes to the interconnection shall void this agreement. This agreement is nontransferable. This approval is only for the construction of the interconnection and does not convey Norris PPD approval of the operation, functionality of the design, nor Norris PPD permission to operate the DG unit(s) in parallel with Norris PPD.

FOR NORRIS PPD:

Reviewed by the following Norris PPD departments:

- Communications
- Customer Sales and Service
- Distribution Engineering or  Transmission Engineering
- Metering
- Planning
- Substation / System Protection
- T & D Dispatching

\_\_\_\_\_ Engineer II  
 Signed this \_\_\_\_\_ Day of \_\_\_\_\_, \_\_\_\_\_