



## Application for Interconnecting a Distributed Energy Resource (DER) with the OG&E Distribution System

### Instructions

An Interconnection Customer who desires to connect an UL certified Inverter Based System of 10kW or less should apply using the OG&E form: Application for Interconnecting a UL-1741 Certified Inverter-Based Distributed Energy Resource (DER) No Larger than 10kW.

For interconnecting all other Distributed Energy Resources (Generators, Inverters, Turbines, PV, Fuel Cells, etc.) the Customer shall submit this completed application to [renewableenergy@oge.com](mailto:renewableenergy@oge.com) or via mail to:

Oklahoma Gas and Electric Company  
Attn: Customer Program Support  
P.O. Box 321 M/C 205  
Oklahoma City, OK 73101

### Interconnection Customer Information

Please provide as much information as possible. If the information is not applicable or unknown, use "N/A" to so indicate.

Name of the Interconnection Customer (or, if an individual, individual's name)

Name: \_\_\_\_\_

Customer Account Number: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Alternative Contact Information (if different from the Customer – otherwise leave blank)

Contact Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

**Preliminary Information**

Application is for:  New Distributed Energy Resource (DER) Facility  
 Capacity addition to Existing Generating Facility

If capacity addition to existing facility, please describe:

Check size of DER facility being applied for:  up to 300kW  
 301kW –to - 1000kW  
 greater than 1000kW

Check the intended use of the facility:

Sell gross production to OG&E  
 Sell net production of energy in excess of customer’s own load

**DER Facility General Information**

Energy Source:  Solar  Wind  Hydro  Diesel  Natural Gas  
 Fuel Oil  Battery  Other (describe)\_\_\_\_\_

Prime Mover:  Fuel Cell  Engine  Gas Turbine  Steam Turbine  Micro Turbine  
 Hydro Turbine  Wind Turbine  Other (describe)\_\_\_\_\_

Type of Generator:  Synchronous  Induction  Inverter Based

Total Nameplate Rating: \_\_\_\_\_kW (Typical) Total Nameplate kVAR: \_\_\_\_\_  
*(Note: If more than one generator, inverter, etc is to be installed list the sum of all nameplate ratings here, then list individual device ratings on Page 3.)*

Interconnection Customer or Customer-Site Load: \_\_\_\_\_kW (if none, so state)

Typical Reactive Load (if known): \_\_\_\_\_

Maximum Export Capability Requested: \_\_\_\_\_ kW

**Equipment Manufacturer, Model Name, Number, Version, etc.:**

\_\_\_\_\_  
\_\_\_\_\_

Individual Nameplate Output Power Rating in kW: (Summer) \_\_\_\_\_ (Winter) \_\_\_\_\_

Individual Nameplate Output Power Rating in kVA: (Summer) \_\_\_\_\_ (Winter) \_\_\_\_\_

Individual Generator Rated Power Factor: Leading: \_\_\_\_\_ Lagging: \_\_\_\_\_

**DER Facility Characteristic Data for Inverter Based Machines**

Equipment Location (if different from above): \_\_\_\_\_

Inverter Manufacturer: \_\_\_\_\_ Model: \_\_\_\_\_

Inverter Rating: \_\_\_\_\_ (kW) \_\_\_\_\_ (kVA) \_\_\_\_\_ (AC Volts)     Single Phase     3 phase

Estimated Installation Date: \_\_\_\_\_ Estimated In-Service Date: \_\_\_\_\_

List components of the facility equipment package that are UL-1741 or IEEE 1547 pre-certified:

Equipment Type	Certifying Entity (UL, CSA, etc.)
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

Max design fault contribution current (if known): \_\_\_\_\_

Harmonics Characteristics: \_\_\_\_\_

Start-up requirements (if applicable): \_\_\_\_\_

**Additional information for wind generators**

Total Number of Generators in wind farm to be interconnected: \_\_\_\_\_ Elevation: \_\_\_\_\_

List of adjustable set points for the protective equipment or software: \_\_\_\_\_

\_\_\_\_\_

**DER Facility Characteristic Data for Rotating Machines**

RPM Frequency: \_\_\_\_\_

Neutral Grounding Resistor (If Applicable): \_\_\_\_\_

**Complete this part for Synchronous and Induction Generators:**

Direct Axis Transient Reactance,  $X'_d$  in % or P.U. \_\_\_\_\_

Direct Axis Subtransient Reactance,  $X''_d$  in % or P.U. \_\_\_\_\_

Negative Sequence Reactance,  $X_2$  in % or P.U. \_\_\_\_\_

Zero Sequence Reactance,  $X_0$  in % or P.U. \_\_\_\_\_

KVA Base \_\_\_\_\_

**Provide this additional information Induction Generators only:**

Reactive Power Required In Vars (No Load): \_\_\_\_\_

Reactive Power Required In Vars (Full Load): \_\_\_\_\_

Check if either apply:

Power Capacitors will be installed for Power Factor Correction. Total capacitor kVAR: \_\_\_\_\_

Power Capacitors will be installed for "Stand Alone" capability. Total capacitor kVAR: \_\_\_\_\_

*Important: The ability of an induction generator to "Stand Alone" or operate independently when isolated from the OG&E system will dictate the amount of protective equipment required by OG&E. This application cannot be processed without this information.*

**Excitation and Governor System Data for Synchronous Generators Only**

This information may be requested by OG&E for very large installations. If requested, provide appropriate IEEE model block diagram of excitation system, governor system and power system stabilizer (PSS) in accordance with the regional reliability council criteria. A PSS may be determined to be required by applicable studies. A copy of the manufacturer's block diagram may not be substituted.

**Interconnection Facilities Information**

For large facilities that will connect directly to OG&E's primary distribution system (12,470Volt, 24,900Volt or 34,500Volt feeder lines), a customer-owned power transformer and customer-owned protective equipment (fuses and/or protective relays) are typically provided. Provide all information that is applicable. This information will not normally be required for customer's applying to connect to OG&E secondary service conductors (120/240 Volt, 120/208 Volt, etc.).

Will a transformer be used between the generator and the point of interconnection?  Yes  No

Transformer Data (If Yes, for Interconnection Customer-Owned Transformer):

Is the transformer:  Single Phase  3 phase Size: \_\_\_\_\_ kVA  
Transformer Impedance: \_\_\_\_\_ % on \_\_\_\_\_ kVA Base

If Three Phase, provide nameplate voltage: \_\_\_\_\_ Volts  
Transformer Primary: \_\_\_\_\_ Volts  
Transformer Secondary: \_\_\_\_\_ Volts

Check Connection Type:  
 Delta  Wye  Grounded Wye  
 Delta  Wye  Grounded Wye

Transformer Fuse Data (If Applicable, for Interconnection Customer-Owned Fuse):

(Attach copy of fuse manufacturer's Minimum Melt and Total Clearing Time-Current Curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Size: \_\_\_\_\_ Speed: \_\_\_\_\_

Interconnecting Circuit Breaker (if applicable):

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_  
Load Rating (Amps): \_\_\_\_\_ Interrupting Rating (Amps): \_\_\_\_\_ Trip Speed (Cycles): \_\_\_\_\_

Interconnection Protective Relays (If Applicable):

List of Functions and Adjustable Set points for the protective equipment or software:

Set point Function (overcurrent, underfrequency etc.)	Minimum	Maximum
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____

If Protective System is made up of Discrete Components:

(Enclose Copy of any Proposed Time-Overcurrent Coordination Curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_  
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Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_

Current Transformer Data (If Applicable):

(Enclose Copy of Manufacturer's Excitation and Ratio Correction Curves)

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_

Potential Transformer Data (If Applicable):

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_

**General Information**

The following general information should be provided with all applications (if available) and will be required for planned facilities with above 300kW total nameplate rating. Facilities of this size are normally designed by professional engineers who can provide the required documentation. This information will allow OG&E technical engineers evaluate your application and will speed up the approval process.

Enclose copy of any available site electrical one-line diagram showing the configuration of all Generating Facility equipment, current and potential circuits, and protection and control schemes.

Enclose copy of any site documentation that indicates the precise physical location of the proposed Generating Facility (*e.g., USGS topographic map or other diagram or documentation*).

Proposed location of protective interface equipment on property (include address if different from the Interconnection Customer's address): \_\_\_\_\_

Enclose copy of any site documentation that describes and details the operation of the protection and control schemes.

Enclose copies of schematic drawings for all protection and control circuits, relay current circuits, relay potential circuits, and alarm/monitoring circuits (if applicable).

**Acknowledgment of Compliance with Applicable State Rulemaking**

Oklahoma Corporation Commission Standard Terms of Purchases from Purchasers of 300 kW or Less Section 165:40-5-1 or Arkansas Net Metering Rules per the Arkansas Renewable Energy Development Act (Arkansas Code Annotated 23-18-603)

Please initial each of the following three requirements. By initialing each requirement you deem each statement as true. Failure to initial all three requirements grants OG&E the right to refuse interconnection.

- \_\_\_ All apparatus and electrical wiring connected or to be connected to the distribution system point of delivery is at my expense, and is installed and maintained in accordance with the requirements of the 2014 or later National Electric Code to the extent consistent with law, including state and federal regulations, and with all requirements prescribed by governmental authority having jurisdiction thereof. In the event of a conflict between the National Electric Code and an applicable municipal code, I understand that the latter shall govern.
  
- \_\_\_ The power inverter based apparatus utilized in the system to be connected to the distribution system point of delivery is UL 1741 listed or certified, or is certified by a nationally recognized testing laboratory as being compliant with Underwriters Laboratory (UL) 1741, 2<sup>nd</sup> Revision or later standards before the system will be connected to the distribution system point of delivery.
  
- \_\_\_ All relevant apparatus utilized in the system to be connected to the distribution system point of delivery is certified by a nationally recognized testing laboratory as compliant with the Institute of Electrical and Electronics Engineers (IEEE) 1547 or later Standard for Interconnecting Distributed Energy Resources with Electric Power Systems.

**Applicant Signature**

I hereby certify that, to the best of my knowledge, the information provided in this Application is true and that the proposed equipment meets the requirements of the OG&E Distributed Energy Resources Interconnection Standards.

I understand that this is an application and no work shall be performed until approval has been obtained from OG&E. After an application has been approved, any changes in project scope including but not limited to equipment type, size or rating will require that an updated application be resubmitted for approval.

I understand that a certificate of completion will be required prior to energization that is signed by the producer and a local municipal code inspector. If self-installed or no local government party has jurisdiction, the facility shall be inspected by a licensed electrician or licensed professional engineer.

Interconnection Customer: (Print) \_\_\_\_\_

Interconnection Customer: (Signature) \_\_\_\_\_ Date: \_\_\_\_\_