

Schedule 4

LEVELS 2 AND 3 INTERCONNECTION REQUEST FORM SMALL GENERATING FACILITY LESS THAN 20 MW

Section 1. Interconnection Customer Information

Name: _____

Contact person: _____

Mailing address: _____

City, State, Zip: _____

Utility and account number: _____

Energy Service Provider and account number: _____

Facility address: _____

Telephone (Day): _____ (Evening): _____

Fax: _____ E-Mail: _____

Alternative contact information

Contact Name: _____

Title: _____

Mailing Address: _____

City, State, Zip: _____

Telephone (Day): _____ (Evening): _____

Fax: _____ E-Mail: _____

Application is for: New Small Generating Facility _____ Capacity addition _____

If capacity addition to existing facility, please describe:

The Small Generating Facility will supply: Interconnection Customer ___ others ___

Point of Interconnection: _____

Interconnection Customer's requested in-service date: _____

Section 2. Processing Fee or Deposit

If the Interconnection Request is submitted as Level 2, the nonrefundable processing fee payable to the utility is \$500.

If the Interconnection Request is submitted as Level 3, the Interconnection Customer shall submit to the Utility the deposit is \$1,000, or 50% of the estimated cost of the Feasibility Study, whichever is less.

Section 3. Small Generating Facility Information

Data apply only to the small generating facility, not the interconnection facilities.

Energy Source: ___ Solar ___ Wind ___ Hydro ___ Hydro Type: _____

Diesel ___ Natural Gas ___ Fuel Oil ___ Other (describe) _____

Prime Mover: Fuel Cell ___ Recip Engine ___ Gas Turb ___ Steam Turb ___

Microturbine ___ PV ___ Other (describe) _____

Type of Generator: Synchronous ___ Induction ___ Inverter ___

Generator Nameplate Rating: _____ kW ___ Generator Nameplate kVAR: _____

Interconnection customer or customer-site load: _____ kW

Typical reactive load: _____

Maximum physical export capability requested: _____ kW

List components of the small generating facility equipment package that are currently certified:

Equipment	Certifying Entity
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____
5. _____	5. _____

Is the prime mover compatible with the certified protective relay package?

Yes ___ No ___

Generator (or solar collector)

Manufacturer, model name & number: _____

Version Number: _____

Nameplate Output Power Rating in kW: (Summer) _____ (Winter) _____

Nameplate Output Power Rating in kVA: (Summer) _____ (Winter) _____

Individual Generator Power Factor

Rated Power Factor: Leading: _____ Lagging: _____

Total number of generators in wind farm to be interconnected pursuant to this Interconnection Request: Elevation: _____ Single phase ___ Three phase ___

Inverter manufacturer, model name & number: _____

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

Note: A completed power systems load flow data sheet must be supplied with the Interconnection Request.

Small Generating Facility Characteristic Data (for inverter-based machines)

Max design fault contribution current: _____ Instantaneous ___ or RMS _____

Harmonics characteristics: _____

Start-up requirements: _____

Small Generating Facility Characteristic Data (for rotating machines)

RPM Frequency: _____

Neutral Grounding Resistor (If Applicable): _____

Synchronous Generators:

Direct Axis Synchronous Reactance, X_d : _____ P.U.

Direct Axis Transient Reactance, X'_d : _____ P.U.

Direct Axis Subtransient Reactance, X''_d : _____ P.U.

Negative Sequence Reactance, X_2 : _____ P.U.

Zero Sequence Reactance, X_0 : _____ P.U.

KVA Base: _____

Field Volts: _____

Field Amperes: _____

Induction Generators:

Motoring Power (kW): _____

I^2t or K (Heating Time Constant): _____

Rotor Resistance, R_r : _____

Stator Resistance, R_s : _____

Stator Reactance, X_s : _____

Rotor Reactance, X_r : _____

Magnetizing Reactance, X_m : _____

Short Circuit Reactance, X_d''' : _____

Exciting Current: _____

Temperature Rise: _____

Frame Size: _____

Design Letter: _____

Reactive Power Required In Vars (No Load): _____

Reactive Power Required In Vars (Full Load): _____

Total Rotating Inertia, H: _____ Per Unit on kVA base

Excitation and Governor System Data for Synchronous Generators Only:

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.

Section 4. Customer's Interconnection Facilities Information

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

Will the transformer be provided by the interconnection customer? Yes ____ No ____

Transformer Data (If applicable, for interconnection customer-owned transformer):

Is the transformer: single phase ____ three phase ____ Size: kVA ____

Transformer Impedance: ____ % on ____ kVA base

If Three Phase:

Transformer Primary: ____ Volts ____ Delta ____ Wye ____ Wye Grounded

Transformer Secondary: ____ Volts ____ Delta ____ Wye ____ Wye Grounded

Transformer Tertiary: ____ Volts ____ Delta ____ Wye ____ Wye Grounded

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):

If microprocessor-controlled:

Manufacturer: ____ Type: ____

Model No. ____ Firmware ID: ____ Instruction Book No. ____

List of functions and adjustable setpoints for the protective equipment or software:

Setpoint Function	Minimum	Maximum
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____

If Discrete Components:

(Enclose copy of any proposed time-overcurrent coordination curves)

Manufacturer:_____ Type:_____ Style/Catalog No.:_____ Proposed Setting:_____

Manufacturer:_____ Type:_____ Style/Catalog No.:_____ Proposed Setting:_____

Manufacturer:_____ Type:_____ Style/Catalog No.:_____ Proposed Setting:_____

Manufacturer:_____ Type:_____ Style/Catalog No.:_____ Proposed Setting:_____

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:_____

Section 5. General Information

Enclose a copy of the site electrical one-line diagram showing the configuration of the small generating facility equipment, current and potential circuits, and protection and control schemes.

Enclose a copy of any site documentation that indicates the precise physical location of the proposed SGF (e.g., United States Geological Survey () topographic map or other diagram or documentation).

Describe the proposed location of the protective interface equipment on the property:_____

Enclose a copy of any site documentation that describes and details the operation of the protection and control schemes. Is available documentation enclosed? Yes____ No____

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

Are schematic drawings enclosed? Yes____ No____

Section 6. Interconnection Customer Signature

I hereby certify that, to the best of my knowledge, all the information provided in this Interconnection Request is true and correct.

Signature: _____ Date: _____

Section 7. Utility Acknowledgement of Receipt

Signed: _____

Title: _____

Utility: _____

Date: _____

Utility signature signifies only receipt of this form, in compliance with 20VAC5-314-50 of the State Corporation Commission's Regulations Governing Interconnection of Small Electrical Generators.