Generator Supplement
Wisconsin Standard Distributed Generation Application Form

APPLICANT NAME

LAST NAME _____ FIRST NAME _____ MIDDLE NAME _____

1. ENGINE / GENERATOR INFORMATION

ENGINE / GENERATOR MANUFACTURER _____

MODEL NUMBER _____ NUMBER OF UNITS INSTALLED _____

Generation Type: ☐ Synchronous OR ☐ Induction OR ☐ Other (provide attachments to describe)

☐ Single Phase OR ☐ Three-phase

If three-phase, specify configuration ☐ 3 wire delta ☐ 3 wire wye ☐ 4 wire wye

Interface Information: Generator Synchronizer

MANUFACTURER _____ SWITCH RATING _____ **kVA**

MODEL NO _____ ☐ Automatic Synchronizer ☐ Manual Synchronizer

Fuel Source: ☐ Diesel ☐ Petroleum ☐ Natural gas ☐ Biogas ☐ Other (specify) _____

Generator Maximum Ratings

_____ **kW** _____ **kVA** _____ **Volts** _____ **Amps** _____ **Hertz** _____ **Power Factor %**

Power Factor Adjustment Range _____ **min** _____ **max**

Neutral Grounding System Used ☐ Ungrounded ☐ Solidly Grounded ☐ Grounding Impedance _____ **Z**

For synchronous generators (kVA base)

Synchronous resistance _____ **(X_d %)**

Transient resistance _____ **($X_{d'}$ %)**

Sub-transient resistance _____ **($X_{d''}$ %)**

Zero sequence resistance _____ **(X_o %)**

Negative sequence resistance _____ **(X_1 %)**

For induction generators (kVA base)

Locked rotor current _____ **Amps**

Stator leakage resistance _____ **(R_s %)**

Rotor resistance _____ **(R_r %)**

Rotor leakage resistance _____ **(R_l %)**

For induction machines, what is the inrush (startup) current _____ **Amps**

If the generator is > 1MW (category 4) provide the following:

M1	_____ **(momentum constant)**	Stator Reactance	_____ **(X_s %)**
M2	_____ **(momentum constant)**	Rotor Reactance	_____ **(X_r %)**
Field Voltage	_____ **Volts**	Magnetizing Reactance	_____ **(X_m %)**
Field Current	_____ **Amps**	Short Circuit Reactance	_____ **(X_d %)**

If the system includes more than one type of engine/generator, include additional copies of this page as needed.

2. SYSTEM TOTALS

System Total Operating Ratings:

_____ **kW** _____ **kVA** _____ **Volts** _____ **Amps** _____ **Hertz** _____ **Power Factor %**

Total inrush (startup) current _____ **Amps**

3. INTERCONNECTION DISCONNECT SWITCH SHORT CIRCUIT CURRENT SPECIFICATIONS

3a) Total short circuit current contribution of the generating system (at point of interconnection)

_____ **Amps (single phase)** _____ **Amps (three-phase symmetrical)** _____ **Amps (asymmetrical)**

3b) Load break capability rating of disconnection device (Must be greater than or equal to #3a above)

_____ **Amps (single phase)** _____ **Amps (three-phase symmetrical)** _____ **Amps (asymmetrical)**

4. WILL APPLICANT INSTALL A DEDICATED TRANSFORMER?

☐ **Yes** ☐ **No** If yes, specify winding configuration: _____ **[HV winding]** _____ **[LV winding]**

If yes, provide the following and attach manufacturer specification data sheets

kVA rating _____ **kVA** Primary Volts _____ **V** Secondary Volts _____ **V** Impedance _____ **%**

If three-phase, specify connection configuration: ☐ 3 wire delta ☐ 2 wire wye ☐ 4 wire grounded wye

5. PROTECTIVE EQUIPMENT (THIS MAY BE DETERMINED BY THE ELECTRIC SERVICE PROVIDER). IF EQUIPMENT IS KNOWN, ATTACH MANUFACTURER SPECIFICATION DATA SHEETS.

6. WILL AN ENERGY STORAGE SYSTEM BE INSTALLED? (IF SO, FILL OUT ENERGY STORAGE SUPPLEMENT AND ATTACH SPECIFICATION SHEETS)

☐ Yes ☐ No ☐ If Yes, is specification sheet attached?

7. ANY ADDITIONAL COMMENTS?