



Generating your own Electricity: Advice for Getting Started

An electric customer can shave the “peak” off the power they would otherwise buy on a hot summer day--or when electricity prices are too high, by using a customer-owned generator. Self generation is also an option for customers who prefer to use renewable energy from the sun, wind or biomass-based fuels.

Large electric customers can generate their own primary supply of power with “back up power” provided by another supplier.

Self generation can be a popular method for maximizing the energy efficiency of an industrial combined heat and power (CHP) installation.

All these options are possible in Ohio under Public Utilities Commission of Ohio (PUCO) Interconnection Rules. A summary of these rules is provided here. A complete copy of the PUCO Interconnection Rules is available in Chapter 4901:1-22 of the Ohio Administrative Code.

Here is how the process works

Interconnecting a customer's generating facilities to local utility distribution wires is accomplished through a customized multi-level approach. This approach matches the size of the customer's generating unit and its intended location on the system with the correct streamlined path for review and approval by the electric distribution utility that owns the local distribution wire.

The level 1 review is for units 10 kW or less on a radial circuit or spot network, a level 1.1 review is for units 10 kW or less on the load side of an area network, while a level 1.2 review cover units 50 kW or less on an area network.

All Level 1 units must be inverter based, meet the IEEE 1547 non-islanding standard, and require no construction on the utility distribution wires system.

The level 2 review is applied to units 2 MW or less in size, that did not qualify for a Level 1 review. Level 2 requires that the unit meets IEEE 1547 and UL 1741 standards and IEEE 1547 non-islanding standard.

The level 3 review applies to any units 20 MW or less in size, including less than 2 MW not certified or non-inverter-based that did not qualify for the level 1 or 2 procedures.

These rules do NOT cover interconnection to a high voltage transmission line.

The Ohio interconnection process also supports net metering units interconnected primarily for the customer's own use.

While the Interconnection rules comply with IEEE 1547 standards for equipment certification and installation, they do not prohibit non-certified equipment from being interconnected if it meets feasibility, system impact, and facilities tests.

Customers who have generators currently interconnected or who are already in the process of completing an interconnection are not required to go through this process again.

The customized multi-level fees

The fee for a level 1 simplified review = actual costs per 1/10/hour, not a flat rate. Level 1 fees may vary for each company and are listed with the company contact information below.

The level 2 application fee for the expedited review = up to \$50 plus \$1 per kW of the equipment nameplate rating, actual costs of impact or facilities studies, and actual costs of minor modification of electric distribution utility's wires system.

The level 3 for the standard review application fee = up to \$100 plus \$2 per kW nameplate rating, actual costs of any feasibility, system impact, or facilities studies, and actual costs of modifying the electric distribution utility's wires system not required but for the interconnection request.

The review process to be followed by the electric distribution utility and the applicant for interconnection can include a scoping meeting and using the checklist to determine if you should request a standard application or a short application form from your electric distribution utility.

You will want to know your project's place in the interconnection queue, milestones for completion of studies or construction required by your project, the matter of insurance, circumstances under which an interruption of your generator can occur, as well as the need, if any, for backup electricity supply. Finally the size, location and certification status of your project can determine whether you will need to sign a simplified interconnection agreement or a standard interconnection agreement.

The Next Step: Contacting your Local Electric Company

Here is the contact information for the investor-owned electric distribution utility in your area:

- AEP Ohio (Columbus Southern Power and Ohio Power)

Travis D. Dent

AER Coordinator

850 Tech Center Drive

Gahanna, OH 43230

phone (614) 883-6775 fax (614) 883-7915

E-mail: dgcoordinator-ohio@aep.com

Columbus Southern Power's hourly rate for Level 1 Interconnection Review is \$55.75 for, meaning 1/10th of an hour is \$5.58. Ohio Power's hourly rate is \$57.17, meaning 1/10th of an hour is \$5.72.

- Dayton Power & Light

Robert Adams

1065 Woodman Drive

Dayton, OH 45432

phone (937) 259-7906 fax (937) 259-7775

E-mail: Robert.Adams@dplinc.com

DP&L's hourly rate for Level 1 Interconnection Review = \$66.25, meaning 1/10th of an hour is \$6.63.

- Duke Energy Ohio
Jim Lemke
Consulting Engineer
1619 Defenbaugh Street
Kokomo, IN 46902
phone (765) 454-6196 fax(765) 454-6581
E-mail: jim.lemke@duke-energy.com
Duke Energy's hourly rate for Level 1 Interconnection Review = \$ -0-, meaning 1/10th of an hour is \$ -0-.
- First Energy (Cleveland Electric & Illuminating, Ohio Edison and Toledo Edison)
Bruce Rimmel
Senior Engineer
2800 Pottsville Pike
PO Box 16001
Reading, PA 19612
phone (610) 921-6839 fax (330) 777-6188
E-mail: bremmel@firstenergycorp.com
FirstEnergy's hourly rate for Level 1 Interconnection Review = \$---.---, meaning 1/10th of an hour is \$-.-. (No data received from FirstEnergy as of Sept. 30, 2008.)

Municipal and Rural Electric Cooperative Customers

To contact your local utility for the process governing interconnection of your project, please call the phone number listed on your most recent electric bill.

If you would like to know more about the PUCO or have utility-related questions or concerns,

contact the PUCO at:

(800) 686-PUCO (7826)

(800) 686-1570 (TDD/TTY)

In Columbus only:

(614) 466-3292

(614) 466-8180 (TDD/TTY)

www.PUCO.ohio.gov