

Summary of Kentucky's Guidelines for Interconnection and Net Metering

On January 8, 2009, the Kentucky Public Service Commission issued an order establishing interconnection and net metering guidelines applicable to all jurisdictional electric utilities in the state. These utilities shall file net metering tariffs and application forms to comply with these guidelines by April 8, 2009.

The following summary was prepared by the Kentucky Solar Partnership of Appalachia - Science in the Public Interest. To fully understand all provisions of Kentucky's Guidelines for Interconnection and Net Metering, please read the actual Guidelines, available at www.kysolar.org or www.psc.ky.gov. Contact your electric utility to learn about their specific requirements for net metering and interconnection and to receive a copy of their Application forms.

Eligible electric generating facilities

1. Solar
2. Wind
3. Biomass or biogas
4. Hydro

What other eligibility requirements are there for net metering?

The renewable energy generator must:

- Be located on the customer's premises
- Be owned and operated by the customer
- Connect in parallel with the Utility's electric distribution system
- Have the primary purpose of supplying all or part of the customer's own electricity

requirements.

At its sole discretion, the Utility may provide Net Metering to other customer generators not meeting all the conditions listed above on a case-by-case basis.

Maximum Size of Eligible Generators

Eligible generators shall have a maximum rated capacity of **30 kilowatts**. At its sole discretion, a utility may offer net metering to customers with generators exceeding this capacity.

What is Net Metering?

Net metering is defined in Kentucky statute as: "measuring the difference between the electricity supplied by the electric grid and the electricity generated by an eligible customer generator that is fed back to the electric grid over a billing period." (KRS 278.465(4))

"The amount of electricity billed to the eligible customer-generator using net metering shall be calculated by taking the difference between the electricity supplied by the retail electric supplier to the customer and the electricity generated and fed back by the customer. If time-of-day or time-of-use metering is used, the electricity fed back to the electric grid by the eligible customer-generator shall be net-metered and accounted for at the specific time it is fed back to the electric grid in accordance with the time-of-day or time-of-use billing agreement currently in place." (KRS 278.466(3))

In laymen's terms, if a person has a net metering agreement for a solar electric system on their home, their meter will measure the difference between the energy supplied by the power company and the energy generated by the solar electric system that is fed back to the power grid. During each billing period, the customer is billed only for the net amount of electricity they consume from the grid.

Net metering values the electricity generated by the customer's renewable energy generator the same as grid power, at the specific time when the renewable power is being generated. For example, if the power company charges 6 cents per kWh, then the customer's renewable electricity is credited at 6 cents per kWh. If the utility uses time-of-day pricing, so that rates are higher at certain times, the net metered renewable electricity will be valued at whatever the rate is at the specific time when the power is generated.

Will the Utility pay you if you put excess power on the grid?

No. If you generate more power than you consume during a billing period, you will receive credits on your bill which will carry forward to future billing cycles, for the life of the account. Under net metering, the utility will never write you a check for power you generate onto the grid.

Is a special meter required for net metering?

The Guidelines require the Utility to provide net metering services, without any cost to the Customer for metering equipment, through a standard kilowatt-hour metering system capable of measuring the flow of electricity in two directions. Any additional meter, meters, or distribution upgrades needed to monitor the flow in each direction shall be installed at the Customer's expense.

Is there any limit to the number of customers to whom a utility must provide net metering?

Net metering is available to eligible customer-generators in the Utility's service territory, upon request, and on a first-come, first-served basis up to a cumulative capacity of one percent (1%) of the Utility's single hour peak load in Kentucky during the previous year. If the cumulative generating capacity of net metering systems reaches 1% of a supplier's single hour peak load during the previous year, upon Commission approval, the Utility's obligation to offer net metering to a new customer-generator may be limited.

The current capacity of net metering customers in Kentucky is very small and very far from reaching 1% of any utility's single hour peak load. However, if that limit is ever approached, the utilities will need to request approval from the PSC if they wish to restrict further net metering.

Which electric utilities are subject to Kentucky's Guidelines for Net Metering and Interconnection?

- Louisville Gas & Electric (LG&E)
- Kentucky Utilities Company (KU)
- Duke Energy Kentucky, Inc.
- Kentucky Power Company
- Big Rivers Electric Corporation*
- East Kentucky Power Cooperative**

* The three member cooperatives of Big Rivers are:

- Kenergy Corp.,
- Jackson Purchase Energy Corporation, and
- Meade County Rural Electric Cooperative.

** The 16 member cooperatives of East Kentucky Power are:

- Big Sandy Rural Electric Cooperative Corporation;
- Blue Grass Energy Cooperative Corporation;
- Clark Energy Cooperative, Inc.;
- Cumberland Valley Electric, Inc.;

Farmers Rural Electric Cooperative Corporation;
Fleming-Mason Energy Cooperative;
Grayson Rural Electric Cooperative Corporation;
Inter-County Energy Cooperative Corp.;
Jackson Energy Cooperative Corp.;
Licking Valley Rural Electric Cooperative Corporation;
Nolin Rural Electric Cooperative Corporation;
Owen Electric Cooperative, Inc.;
Salt River Electric Cooperative;
Shelby Energy Cooperative, Inc.;
South Kentucky Rural Electric Cooperative Corporation; and
Taylor County Rural Electric Cooperative Corporation.

APPLICATION AND APPROVAL PROCESS

Customers must submit an Application for Interconnection and Net Metering and receive approval from the Utility prior to connecting their generator to the Utility's system. Applications should be submitted as either a Level 1 or Level 2 application, as described below.

The Utility may reject an Application for violations of any code, standard, or regulation related to reliability or safety; however, the Utility will work with the Customer to resolve those issues to the extent practicable.

Customers may contact the Utility to check on status of an Application or with questions prior to submitting an Application. Utility contact information can be found on the Application form.

Under the Guidelines, each utility will provide their customers with contact information for inquiries regarding the Utility's net metering program and application process. Electronic and phone contact information will be provided on all net metering application forms and on the utility's website or in customer bill inserts if no website is available.

Each Utility with a website will provide net metering application forms and information regarding the program on their website. Utilities will accept applications by mail or in person and have the option to accept applications electronically.

Are there application fees for net metering?

For Level 1 Applications, no application fees or other review, study, or inspection or witness test fees may be charged by the Utility.

For Level 2 Applications, the Utility may require each Customer to submit a non-refundable application, inspection and processing fee of up to \$100. In the event the Utility determines an impact study is necessary with respect to a Level 2 Application, the Customer shall be responsible for any reasonable costs up to \$1,000 for the initial impact study. The Utility shall provide documentation of the actual cost of the impact study. Any other studies requested by the Customer shall be at the Customer's sole expense.

What are Level 1 and Level 2 Applications?

Level 1

Level 1 Applications will be used if the generating facility is *inverter-based* and is certified by a nationally recognized testing laboratory to meet the requirements of Underwriters Laboratories Standard 1741 "Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources" (UL 1741).

Most systems under 30 kW, whether residential or commercial, are likely to meet the Level 1 requirements.

The Guidelines identify a list of other technical requirements which must be met to qualify as a Level 1 application.

If the generating facility does not meet all of these requirements, the utility may either, (1) approve the application under Level 1 anyway if the utility determines that the generator can be safely and reliably connected to the utility's system, or (2) deny the application.

If the application is denied, the utility will supply the customer with reasons for denial. The customer may re-apply under Level 2, if appropriate.

Does the utility have a deadline for reviewing Level 1 applications?

For Level 1 applications, the utility has 20 business days to notify the customer whether the application is approved or denied, or if they require additional information. If the application lacks complete information, the Utility shall notify the Customer that additional information is required, including a list of such additional information. The time between notification and receipt of required additional information will add to the time to process the Application.

Are the utilities required to inspect Level 1 systems before they begin operation?

The utilities have the option of requiring an inspection and witness test of the system before it begins operation. If an inspection is required it will be indicated on the net metering application. In this case, the system may not be operated until the inspection is successfully completed, unless the utility expressly permits the customer to perform operational testing (which is not to exceed two hours).

Level 2

A Level 2 application is required if any of the following apply:

- 1) The generating facility is not inverter based;
- 2) The generating facility uses equipment that is not certified by a nationally recognized testing laboratory to meet the requirements of UL 1741; or
- 3) The generating facility does not meet one or more of the additional conditions under Level 1.

The utilities may charge a non-refundable application fee for Level 2 projects, up to \$100. If the utility concludes that an impact study is required, the customer will be responsible for any reasonable costs for the study, up to \$1,000.

The Utility will approve the Level 2 Application if the generating facility meets the Utility's technical interconnection requirements, which are based on IEEE 1547. The Utility shall make its technical interconnection requirements available online and upon request.

The Utility will process the Level 2 Application within 30 business days of receipt of a complete application. Within that time the utility will inform the customer whether the application has been approved, denied, if more information is required, or if the project would require construction or other changes to the utility's distribution system. If any such changes are required, their cost would be the responsibility of the customer. The utility will offer to meet with the customer to discuss cost estimates and a construction timeframe. If the customer agrees to pay these costs and proceed, the utility will provide the customer with an Interconnection Agreement to sign within a reasonable timeframe.

If the application is denied, the utility will provide the customer with reasons for denial. The customer may resubmit the application with changes.

The Interconnection Agreement for a Level 2 system will contain all the terms and conditions for interconnection consistent with those specified in the utility's tariff, inspection and witness test requirements, description of and cost of construction or other changes to the Utility's distribution system required to accommodate the generating facility, and detailed documentation of the generating facilities which may include single line diagrams, relay settings, and a description of operation.

The Customer may not operate the generating facility until an Interconnection Agreement is signed by the Customer and Utility and all necessary conditions stipulated in the agreement are met.

OTHER TERMS AND CONDITIONS FOR INTERCONNECTION

External Disconnect Switches

The Utility may require the Customer to install an External Disconnect Switch (EDS) on the Customer's side of the point of common coupling (the point where the customer's renewable energy generator connects to the utility grid). The EDS shall be capable of fully disconnecting the Customer's energy generating equipment from the Utility's electric service under the full rated conditions of the Customer's generating facility. The EDS shall be located adjacent to the Utility's meters or the location of the EDS shall be noted by placing a sticker on the meter, and shall be of the visible break type in a metal enclosure which can be secured by a padlock. If the EDS is not located directly adjacent to the meter, the Customer shall be responsible for ensuring that the location of the EDS is properly and legibly identified for so long as the generating facility is operational. The disconnect switch shall be accessible to Utility personnel at all times. The Utility may waive the requirement for an EDS for a generating facility at its sole discretion, and on a case-by-case basis, upon review of the generating facility operating parameters and if permitted under the Utility's safety and operating protocols.

Any utility requiring the use of an EDS shall establish a training protocol for line workers on the location and use of the EDS, and shall require that the EDS be used when appropriate, and that the switch be turned back on once the disconnection is no longer necessary.

Liability Insurance

The Customer shall maintain general liability insurance coverage (through a standard homeowner's, commercial, or other policy) for both Level 1 and Level 2 generating facilities. The Utility may ask the Customer to provide proof of such insurance at the time the application is made for net metering.

Transferring Ownership of a Net Metered Generation Facility

A Customer's generating facility is transferable to other persons or service locations only after notification to the Utility has been made and verification that the installation is in compliance with this tariff.

Renewable Energy Credits

The Customer shall retain any and all Renewable Energy Credits (RECs) that may be generated by their generating facility.

FOR ADDITIONAL INFORMATION

To read the full text with all the terms and conditions of Kentucky's Interconnection and Net Metering Guidelines, visit www.kysolar.org or www.psc.ky.gov.