



# Using Alternative Energy at Home in Pennsylvania

The Pennsylvania Public Utility Commission (PUC) actively has been implementing the Alternative Energy Portfolio Standards Act (AEPS), which was designed to foster economic development, encourage reliance on more diverse and environmentally friendly sources of energy and provide options for consumers by allowing them to take control of their energy requirements using alternative energy sources.

A major component of AEPS includes directions for how small customer-generators who use technologies such as solar panels, fuel cells or biodigesters can connect to the electric distribution system. The PUC has established rules for those connections and how the customer-generators will be compensated by electric distribution companies (EDCs) and electric generation suppliers (EGSs) for providing surplus energy to the electric grid.

Generally, AEPS required that a certain percentage of all electric energy sold to retail customers be derived from alternative energy sources such as solar, wind, hydropower, geothermal, biomass, and demand side management resources. The law applies to both EDCs and EGSs who must demonstrate their compliance on an annual basis.

## Defining Customer-Generator

A customer-generator is defined as a small, nonutility producer of electricity that is net metered and connected to the distribution system. Customer-generators have a capacity of less than 50 kilowatts for a residential service or less than 3 megawatts (MW) at other customer-service locations. Examples would be a homeowner putting solar panels on their property or a farmer using biodigesters. The capacity limit on non-residential projects is between 3 and 5 MW for those projects that run parallel with the grid during grid emergencies.

Customer-generators must apply to the EDC in order to be connected to the utility's system. The PUC has developed "interconnection standards" that work in conjunction with "net-metering standards" to simplify and regulate the manner in which customer-generators work with utilities.

## Connecting to the Electric Grid

The PUC adopted interconnection standards, which are the technical standards governing the physical connection of a customer-generator with an EDC's distribution infrastructure. The regulations promote onsite generation by customer-generators using alternative resources and eliminate barriers that may have previously existed regarding interconnection.

The interconnection regulations govern the process by which a customer-generator integrates their facility with the electric distribution system. The regulations set forth specific levels of review and review criteria depending on the rated generation capacity of the generation equipment. The regulations also provide for a dispute resolution process to manage disputes which may arise during the interconnection process.



The application forms and associated application fees are available on the Commission's Web site – [www.puc.state.pa.us](http://www.puc.state.pa.us). Customers may also check with their EDC for information on forms and fees. Each EDC has a technical person available to assist you with issues that may arise. The technical contacts may be found at: [http://www.puc.state.pa.us/electric/pdf/AEPS/EDC\\_Interc\\_Tech\\_Contacts.pdf](http://www.puc.state.pa.us/electric/pdf/AEPS/EDC_Interc_Tech_Contacts.pdf)

## Compensation

The PUC also adopted net-metering standards, which establish the criteria for how customer-generators are metered and compensated by EDCs and EGSs for the excess electricity generated by the customer-generator. In order to be eligible for net metering on a virtual meter aggregation basis, properties owned or leased and operated by a customer-generator must be within two miles of the boundaries of the customer-generator's property, and within a single EDC's service territory.

EDCs must credit customer-generators the full retail rate for each kilowatt-hour produced up to the amount of electricity used by the customer-generator during a billing period. Customer-generators may carry forward generation in excess of usage on a month-to-month basis, and receive full retail rate compensation for their generation. If excess generation remains at the end of the year, the customer-generators are to be reimbursed at the "Price to Compare" rate, which includes the full, unbundled retail generation and transmission rates, for customer's generation in excess of usage.

The standards also provide opportunities for small businesses such as commonly owned and operated farming operations.

If you are a customer-generator who has signed up for net metering with your utility, and you choose to shop for an alternate electric generation supplier (EGS), you will no longer receive credits from the utility after switching to an EGS. The utility will provide you with a final credit for any energy you produced prior to the switch. Prior to enrollment with an EGS, net metering/renewable service customers should contact prospective EGSs to find out if these EGSs offer any credits for energy produced.

## Alternative Energy Credits (AECs)

AEPS requires that retail energy suppliers utilize AECs for demonstrating compliance with the standard. An AEC is created each time a qualified alternative energy facility produces 1,000 kWh of electricity. The AEC is then sold or traded separately from the power. This makes it easier for individuals and businesses to finance and invest in alternative energy.

Customer-generators must submit an application to be qualified as an alternative energy facility under this program. Once the application is approved, customer-generators can generate AECs.

Clean Power Markets Inc. has been designated as the administrator of this program. More information is available on the PUC website – click on Electricity then AEPS. The website includes information such as:

- The application and registration of alternative energy facilities that qualify for the AEPS program;
- Assistance in the management of AECs produced by small customer-owned generators and energy efficiency measures; and
- Facilitation of trade of AECs for customer-owned generators and energy-efficiency measures.

### For further information, contact the Public Utility Commission:

#### Write

PA Public Utility  
Commission Bureau  
of Consumer Services  
P.O. Box 3265  
Harrisburg, PA 17105-3265

#### Call

1-800-692-7380  
For people with speech or hearing  
loss, dial 7-1-1 (Telecommunications  
Relay Service)

#### Visit our website

[www.puc.state.pa.us](http://www.puc.state.pa.us)

