



Using Alternative Energy at Home in Pennsylvania

Alternative Energy Portfolio Standards Act

Generally, the Alternative Energy Portfolio Standards (AEPS) Act requires that a certain percentage of all electric energy sold to retail customers be derived from alternative energy sources such as solar, wind, hydropower, biomass, biologically derived methane gas, and demand-side management resources. The Pennsylvania Public Utility Commission (PUC) continues to implement the AEPS Act, which was designed to foster economic development and encourage reliance on more diverse and environmentally friendly sources of energy. The law applies to both electric distribution companies (EDCs) and electric generation suppliers (EGSs) who must demonstrate their compliance on an annual basis.

The AEPS Act also provides opportunity for consumers to take control of their energy requirements using alternative energy sources. A major component of the AEPS Act includes directions for how small customer-generators who wish to install technologies such as solar panels, wind turbines or anaerobic digesters can connect those systems to the electric distribution system. The PUC has established rules for the interconnection of those systems and how the customer-generators will be compensated by EDCs and EGSs for providing energy to the electric grid.

Defining Customer-Generator

A customer-generator is defined as “a retail electric customer that is a nonutility owner or operator of a net metered distributed generation system with a nameplate capacity of not greater than 50 kilowatts if installed at a residential service or not larger than 3,000 kilowatts at other customer service locations, except for customers whose systems are above 3 megawatts and up to 5 megawatts who make their systems available to operate in parallel with the electric utility during grid emergencies as defined by the regional transmission organization or where a microgrid is in place for the primary or secondary purpose of maintaining critical infrastructure, such as homeland security assignments, emergency services facilities, hospitals, traffic signals, wastewater treatment plants or telecommunications facilities, provided that technical rules for operating generators interconnected with facilities of an EDC, electric cooperative or municipal electric system have been promulgated by the institute of electrical and electronic engineers and the Commission.”

Connecting to the Electric Grid

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

To apply for interconnection, customer-generators should visit the website of their EDC for application instructions, interconnection forms, and application fees. Electric utility interconnection information may be found at [Electric Utility Interconnection Technical Contacts](#). Additional information on interconnection standards can be found on the PUC website at www.puc.pa.gov by clicking on Electricity, then Renewable Energy, and then [Alternative Energy](#).

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. All service locations to be aggregated must be accounts held by the same entity (same name on all accounts/bills).

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 on the customer-generator's bill for May, the excess generation is to be reimbursed at the "Price to Compare" rate, which includes the full, unbundled retail generation and transmission rates, for a customer's generation in excess of usage.

If you are a customer-generator who has signed up for net metering with your EDC, and you choose to shop for electricity from an EGS, you will no longer receive credit for excess generation from the EDC after switching to an EGS. The utility will provide you with a final credit for any energy you produced prior to the switch. Furthermore, it is imperative to understand that EGSs are not required to provide net metering. Therefore, 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. Additional information on net metering standards can be found on the PUC website at www.puc.pa.gov by clicking on Electricity, then Renewable Energy, and then [Alternative Energy](#).

Alternative Energy Credits (AECs)

The AEPS Act requires that retail energy suppliers utilize AECs for demonstrating compliance with the standard. An AEC is created for each 1,000 kWh of electricity from a qualified alternative energy source. 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. Owners of qualified alternative energy resources must submit an application to the PUC's alternative energy credit administrator to be qualified as an alternative energy facility under this program. More information is available on the PUC website at www.puc.pa.gov by clicking on Electricity, then Renewable Energy, then Alternative Energy, and then [AEPS Website](#). The website includes information such as:

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

In addition to registering with the PUC's alternative energy credit administrator, all AEPS-qualified facilities also have to register with the PJM | EIS Generation Attribute Tracking System (GATS), which is a credit issuance and tracking system for alternative energy credits. Once the application is approved and the system is registered in GATS, owners of alternative energy systems will begin to earn AECs.

If a customer-generator or other AEPS-qualified facility owner is represented by an aggregator, the aggregator, upon permission of the owner, may opt to fulfill all of the steps above. After an account has been created on the GATS website, an online bulletin board is available to advertise AECs that have been issued. All credit transactions will be tracked through the PJM-GATS website, which will help facilitate the sale, transfer, and retirement of AECs to the EDCs and EGSs who are required to purchase AECs for compliance with the AEPS program. More information on PJM-GATS is available at www.pjm-eis.com.



The Pennsylvania Public Utility Commission

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