

Connecting Micro-generation

Alberta's *Micro-generation Regulation* under the *Alberta Electric Utilities Act* came into effect in January 2008, allowing individuals to generate electricity for personal use while providing excess electricity to the grid.

What is micro-generation?

Micro-generation refers to environmentally friendly, small-scale generators that produce less than five megawatts (MW) and are connected to the electric distribution system that delivers power to homes, businesses and farms across the province. Under the *Micro-generation Regulation*, Albertans can produce electricity to meet their own needs and receive a credit on their electricity bill for any excess power they inject to the electricity grid.

Micro-generators use different types of renewable or alternative energy technologies such as solar panels, small-scale hydro, wind, biomass, and geothermal. The *Micro-generation Regulation* classifies generators in two categories based on their capacity:

- Small micro-generators: less than 150 kilowatts (kW)
- Large micro-generators: at least 150 kW, but less than 5 MW

Eligibility under the Micro-generation Regulation

To be eligible under the regulation, at a minimum, applicants must meet the definition of a micro-generation unit:

- Use of renewable or alternative energy technologies
- Electricity produced is primarily for the customer's own use.
- Generating capacity is sized to meet all or a portion of the customer's energy consumption at the customer's site or aggregated sites (also referred to as load)
- Generating unit supplies energy only to a site located on a property that the customer owns or leases.
- Generator capacity is less than 5 MW and is located at the customer's site, or an adjacent site owned or leased by the customer.

The requirements identified in the regulation differ depending on the capacity of the generator. For example, metering requirements and compensation are applied differently for small and large micro-generators. If you are uncertain if your generator can be classified as renewable or alternative energy, contact the Alberta Utilities Commission (AUC) to discuss the operational characteristics.

How do I apply to connect a micro-generator?

The AUC oversees the implementation of the Micro-generation Regulation and has developed support materials to simplify the application process and interconnection agreements between micro-generation owners and owners of electric distribution systems.

Using the micro-generation application information available on the AUC website, micro-generator owners must apply to the wire service provider (WSP) responsible for the area in which the applicant is connecting their micro-generator. Once the application is approved, the WSP is responsible for defining the metering and connection requirements for the owner's microgenerator. If the micro-generator is connecting to lines owned by a Rural Electrification Association (REA), the applicant should also determine whether the REA should be contacted.

Micro-generator owners must contact their electricity retailer to discuss the information required by the retailer for compensation and billing. The AUC is responsible for settling any disputes that may arise between micro-generation owners and WSPs.

How retailers compensate micro-generation owners

Small Micro-generators

Retailers with small micro-generators submit a file each month to the AESO containing the following information:

- Electric energy supplied out of the site during the relevant month.
- Retailer's retail energy rate for the month – This is to be the same price as the electrical energy micro-generators are purchasing from the retailer.
- The credit amount for the month calculated from the values in points 1 and 2.

The AESO then includes the amount provided in point 3 (above) on the retailer's monthly pool statement under the section "Special Transactions and Adjustments".

The [Alberta Utilities Commission Micro-Generator Application Guidelines](#) provides further clarification that small microgenerators will be paid for their exported electrical energy based on the same price of the electrical energy that they are purchasing from their energy retailer.

Large Micro-generators

The AESO provides retailers a credit for the hourly generated amount of energy multiplied by the pool price for the given hour of generation. This amount is summed up under the 'Energy Payments' section of the pool statement. This credit is then passed along from the retailer to the large micro-generator owner as payment for the energy produced.

All credit amounts for micro-generators are recovered through the [ISO Tariff](#).

The AESO does not do the following:

1. **The AESO does not have the authority to approve or deny the energy rate the retailer provides to their small micro-generation customer.**
2. **The AESO does not blend the micro-generation amounts into the power pool price to recover the costs. The credit amounts are recovered through the [ISO tariff](#).**

Should your application for micro-generation not be accepted by the AUC, please review the [Guide for Distribution Connected Generation](#) for alternative options to setting up a distribution-connected generator and selling your excess power back to the grid.

For more information, visit the [Micro-generation section of the AUC's website](#).

For Further Information

For further information, email us at info@aeso.ca.

Helpful Links

- [Understanding the market](#)
- [Joining the energy market](#) as a Pool Participant
- [Settlement and Credit](#)
- Alberta Utilities Commission [Rule 021](#) Settlement System Code
- [Utilities Consumer Advocate](#)