How much electricity will a community solar garden generate in Nova Scotia?

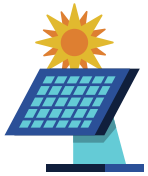
As an owner of a community solar garden, it is important to understand how much electricity your solar panels can generate.

Every solar panel has a **nameplate capacity**. This is a number directly labelled on the solar panel by the solar panel manufacturer and is represented in direct current (DC). Inverters have a nameplate capacity represented in alternating current (AC). This is the amount of electricity the solar garden could generate if it received full sunlight, 24 hours a day, 365 days a year.

The actual amount of electricity a solar panel can be expected to generate is influenced by a **capacity factor.** Capacity factor is the percentage difference between the actual amount of electricity a solar panel generates (in one year) and it's nameplate capacity.

The capacity factor of a solar panel can be affected by the:

- **Amount and intensity of sunlight the solar panel receives.** Solar panels do not capture the sun's energy every hour of the day, 365 days a year. This is impossible, given that the sun does not shine every day and sets at night.



- **Weather and geographic location of the solar panel.** For example, Nova Scotia often has cloudy and rainy weather, during which less energy is generated by solar panels than on sunny days.

- **Efficiency and tilt of the solar panels.** Having the ideal tilt angle for solar panels can significantly improve energy production by allowing panels to receive more direct sun exposure.

The average capacity factor for solar production in Nova Scotia is 18%. This means that in one year, a solar garden in Nova Scotia can typically produce 18% of the nameplate capacity (AC).

Learn more about how different geographic locations influence solar electricity generation with solar energy maps of Canada and Nova Scotia.