What size should you make your community solar garden?

You should make your community solar garden the size that will allow it to meet your community's electricity needs. To determine how much electricity your community needs, it is important to understand how electricity is measured and how Nova Scotia Power charges customers for electricity.

How is electricity measured?

Electricity is measured in units called **watts (W),** which can be converted into units called **kilowatts (kW)** or **megawatts (MW)** with a simple calculation.

Did you know?

1 watt (W) = 0.001 kilowatts (kW)

1 megawatt (MW) = 1000 kilowatts (kW)

Watts measure small amounts of electricity - like the amount of electricity a single lightbulb uses. Alternatively, kilowatts (kW) or megawatts (MW) measure large-scale solar electricity generation like how much electricity a community solar garden produces.

How does Nova Scotia Power charge customers for their electricity use?

Energy companies, like Nova Scotia Power, use an energy unit called a **kilowatt hour (kWh)** to track the amount of electricity used by their customers over time.

Therefore, before you build a community solar garden, you must understand your community's electricity needs in kilowatt hours (kWh) (the unit for measuring electricity use) and convert that value into kilowatts (kW) or megawatts (MW) (the units for measuring large-scale electricity generation). Your project engineer will help you with this conversion.

Did you know?

There are size limits to Nova Scotia's proposed community solar garden program. To comply with proposed policy, your community solar garden must have a nameplate capacity between 0.5-10 megawatts (MW) of alternating current (AC) electricity. Your community solar garden will only be approved by Nova Scotia's Community Solar Program if it complies with size regulations.

How much electricity does your community need?

Below is an overview of how to determine the amount of electricity your intended subscriber community needs. For a more in-depth understanding, discuss this with your project engineer.

1. Identify the potential subscribers you plan to provide electricity to.

2. Approximate the number of kilowatt hours (kWh) your intended subscribers will use every year. Consider the type of space they need electricity for. For example, is it a residential home? Is it a business or community building? To get an idea of this, you can see your own kilowatt hour (kWh) usage at the bottom of your electricity bill, and, where appropriate, work with your community to summarize the total number of kilowatt hours needed.

3. Your project engineer will use this information to translate your subscriber community's electricity needs (in kilowatt hours) to an appropriate community solar garden size (in kilowatts or megawatts).

What else impacts the size of your community solar garden?

Many factors will impact the size of your community solar garden. These include, but are not limited to:

- **The local hosting capacity** of the grid at your proposed project site.
- **The amount of solar electricity your solar panels can generate.**
- **Your proposed project site** including the amount of space you have and if it is suitable for large-scale solar electricity generation.
  For example, a:
    - 1 megawatt community solar garden requires approximately 4-6 acres of land.
    - 10 megawatt community solar garden requires approximately 45-50 acres of land.
- **Amount of funding and financial resources available.**
- **Environmental and permitting requirements.**

Learn more about how to own and operate a community solar garden in the Program Guide