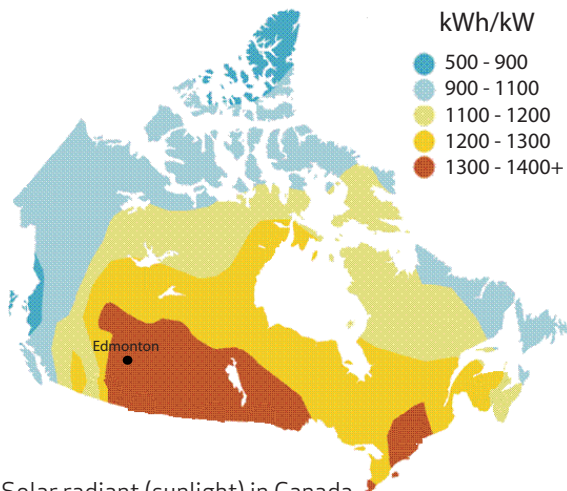
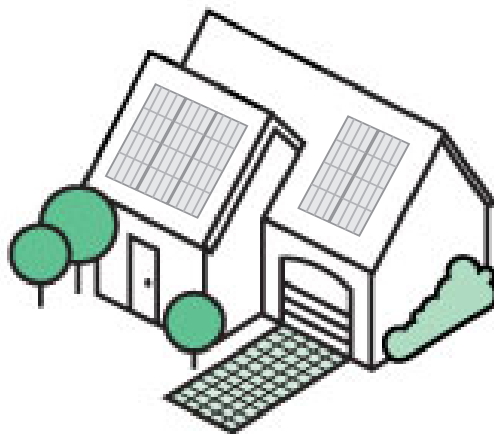


Why Is Solar PV Installation Important In Edmonton?

Solar energy may be one of the best alternative sources of energy in the Edmonton area. Edmonton's solar potential exceeds most Canadian cities and many areas of the world. A high solar energy potential combined with decreasing costs of solar PV systems (module, hardware and installation costs) make this renewable energy attractive. By displacing fossil fuel consumption, solar systems can help Edmontonians and the City of Edmonton reduce our carbon footprint while building a market for solar power.

Solar PV Systems



Solar radiant (sunlight) in Canada
Source: Natural Resources Canada

City Environmental Strategies

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www.edmonton.ca/TheWayWeGreen

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THE CITY OF
Edmonton

What is renewable energy?

Renewable energy is derived from natural sources like the sun, wind, ocean tides and heat from the earth. These energy sources are continually and naturally replenished.

Renewable energy sources produce far less greenhouse gas emissions compared to burning fossil fuels (coal, oil, natural gas). For this reason, renewables are being considered as alternatives to or used in conjunction with energy derived from fossil fuels.

DID YOU KNOW?

Unlike southern Alberta, Edmonton and the areas surrounding the city do not have ideal conditions for generating wind energy. For that reason, the Edmonton region does not generate much renewable energy by wind. Solar PV is the preferred form of alternative energy generation within Edmonton and the number of solar installations continues to increase each year.

A 1 kW solar system will generate 1,245 kWh per year in Edmonton.

What Is Solar PV?

A solar photovoltaic (PV) system converts the sun's light energy into mechanical energy. A solar module is made up of smaller solar cells that contain a photovoltaic material. When sunlight hits the module, the material is charged and creates electrons within the system. These electrons flow in one direction, creating direct current (DC) electricity. This DC energy can be used immediately, converted into alternating current (AC), or stored in a battery for later use.

Solar PV modules usually last for a minimum of 20 years depending on the range of temperatures within which it operates. Solar PV systems can be used on their own to create electricity for use in a building or in conjunction with the grid, a generator, or another alternative energy source. Most homeowners in Edmonton connect their solar PV system to the existing electricity grid.

