

# Solar Power Generation in Canada



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[CER - Provincial and Territorial Energy Profiles - Canada](#)

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### Canada and solar power

Most of the solar power generating potential in Canada is located in the south in Alberta, Saskatchewan, and Ontario. Canada has an overall maximum capacity factor of 6%, compared to 15% in the US.



[Photovoltaic potential and solar resource maps of Canada](#)

This web mapping application gives estimates of photovoltaic potential (in kWh/kWp) and of the mean daily global insolation (in MJ/m<sup>2</sup> and in kWh/m<sup>2</sup>) for any location in Canada on a 60 arc seconds ~2 km grid.

[Solar Energy in Canada: PV Potential Rankings \(Updated 2026\)](#)

Find out where your province and city are ranked in terms of solar energy potential. With charts and maps you will easily be able to make comparisons across Canada.



### [Solar Power Plants in Canada \(Map\)](#)

Data and information about Solar power plants and their location plotted on an interactive map of Canada.



### [12 Solar Energy Statistics in Canada \(2026 Update\)](#)

There are 48K solar energy installations in Canada. Saskatchewan and Alberta have the highest solar PV generation potential (6.5-7.15 kW.h/m<sup>2</sup>). Ontario makes up for 98% of Canada's solar power ...



### [Solar Power in Canada: 12 Facts](#)

Did you know that Canada is home to 196 major solar power projects and over 43,000 solar photovoltaic installations on commercial, residential and industrial buildings in the country? Learn more ...



## Solar power in Canada

Recent research has shown that installing solar panels on just 1% of Canada's agricultural land could generate between a quarter and over a third of the country's total electricity needs.



### [Canada: Solar electricity generation](#)

Canada: Solar electricity generation, billion kilowatthours: The latest value from 2023 is 8.31 billion kilowatthours, an increase from 5.95 billion kilowatthours in 2022. In comparison, the world average is 8.63 ...

## By the Numbers

Canada's total wind, solar and storage installed capacity grew 46% in the past 5 years (2019-2024), including nearly 5 GW of new wind, 2 GW of new utility-scale solar, 600 MW of new on-site solar, and 200 MW of new ...



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Generation from wind farms and solar photovoltaic panels grew from 1.5% of total electricity generation in 2010 to 7% in 2021. In 2021, Canada's wind power capacity was roughly 13.9 gigawatts (GW).

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