



FAST SOLAR ELECTRIC FACTS

- In 1997, 3,380 kW of solar electric systems were generating power in Canada. This grew to 25,775 kW by 2007, with an average annual growth of 26% since 2003.
- Installations were 5,190 kW in 2007, roughly \$50 million in business. Installation rates have grown by 36% per year since 2002.
- Solar panel prices have fallen an average of 10% per year since 2000.
- 40% of Canada's residential power consumption (115 TWh) could be supplied by roof-mounted residential solar power systems. There is enough roof space for 52 GW of PV panels today.
- The average Canadian home uses just over 10,000 kWh of electricity per year. A 9kW solar system would supply 100% of the electrical needs of a typical home on an annual basis.
- Solar panels today produce between 100-170 watts per square metre. There are a variety of technologies out there, but silicon solar cells predominate.
- To produce 1kW of solar energy in full sun, or 1,100 kWh per year, a solar array would be between 6 m² and 9 m², depending on the technology used. The 9 kW array described above would be between 54 m² and 81 m².
- If an area equivalent to the size of the city of Victoria was covered with solar panels, it would generate enough energy to supply the entire province's electrical needs of 60 TWh.
- Germany installed 1135 MW of photovoltaics in 2007 – sufficient generating capacity to provide 10% of Canada's incremental electrical resource in 2009, or more than 1 TWh of electricity.
- 10% of Canada's new electricity needs in 2009 could be met with solar systems installed on 5% of available commercial or 2% available residential roof spaces.
- Grid parity pricing for solar power is expected by mid-next decade in most of the United States, and the end of the decade in Canada. Support programs may shorten this by helping market development and promoting investment.
- Photovoltaic systems last for 25 years or more.

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