

I want my own solar system!

solar electric

What is solar electricity?

Solar electricity is the process of using sunlight to generate electric current, which can then be used to provide power to a building. The process, although somewhat complicated, is familiar to most of us in the form of solar powered calculators.

Does solar electricity make sense in Minnesota?

Virtually every region in the United States has plenty of solar energy to produce electricity from the sun, and Minnesota is no exception. Currently, there are approximately 500 kW of installed solar electric capacity in Minnesota.

What are the benefits of solar electricity?

Solar electric systems have low maintenance and operating costs and can produce electricity for 30-50 years, well past their payback period. Solar electric is a source of non-polluting power and helps mitigate climate change by reducing fossil fuel consumption. It also helps to diversify the energy supply and increases Minnesota's energy independence. Solar electric is creating local jobs and stimulating the local economy, as well.

What are the challenges of solar electricity?

The single biggest barrier to solar electricity is initial investment. However, the costs of solar electric panels are expected to decline, perhaps by up to 50% by 2010. Siting a solar electric system can be a challenge since any shading from obstructions significantly reduces the system's performance. State law allows local zoning boards to create solar access easements to protect a property owner's solar investment from shading.



An integrated solar PV system installed in the skylights at the Marjorie McNeely Conservatory at Como Park in St. Paul

What does a solar electric system cost?

The cost of a solar electric system varies with the size and type of system and available incentives. A typical 2-3 kW residential system costs approximately \$20,000-30,000 installed, before incentives.

What is the Minnesota Solar Rebate Program?

The Solar Rebate Program was established in July 2002 to provide rebates for up to 500 kW of grid-connected photovoltaic (solar electric) systems in Minnesota. The program offsets the cost of installing new solar electric systems by \$2 per watt, up to 10 kilowatts. This in effect reduces the cost of a system by about 20% for consumers. The availability of funding for the rebates is determined by legislative allocations.

What other incentives exist for solar electricity?

There is a personal federal tax credit of 30% of the cost of a solar electric system (up to \$2,000) for residential systems and a business tax credit of 30% of the cost of a solar electric system for commercial systems installed between January 1, 2006 and December 31, 2008. In addition, the state of Minnesota exempts solar equipment

from sales tax. Many solar electric systems will also qualify for Energy Efficient Mortgages through the FHA. For a current list of government and utility incentives for solar thermal and other renewable energy technologies, visit the Database of State Incentives for Renewable Energy at www.dsireusa.org.

For more information...

To learn more about solar energy options, check out:
National Renewable Energy Laboratory www.nrel.gov
Department of Energy www.eere.doe.gov
Minnesota Department of Commerce
www.commerce.state.mn.us



85 7th Place East, Suite 500, St. Paul, MN 55101-2198
651-296-5175 800-657-3710 www.commerce.state.mn.us