

Thinking about installing solar?

There are a few things to consider when installing solar at your home or farm site. One consideration is expense. Although solar installation costs have gone down, it can still be expensive. In 2021, solar installations in Minnesota averaged about \$3.43 per watt. A small 5kW (5,000 watts) solar array could have a price tag of about \$17,000. A solar array that size could produce an estimated 7,500kWh's a year. The value of that electricity would be \$825 at \$.11/kWh. Tax credits are available and individuals will have to verify with their tax consultant on the benefits they could expect to receive.

Does a roof top or ground mount solar array work best for you? For members with limited space a roof top system may be the only option. An important thing to consider with a roof top solar array is future roof replacement. Solar arrays can last over 20 years, your roofing may not. You could have added expense to remove and reinstall the solar array if you need to replace your roofing. A ground mount solar array offers the ease of maintenance and avoids roofing issues. Whether it's a roof or ground mount system the panels should be facing south to optimize energy production.

Under Minnesota net metering rules members that install a renewable energy system with a capacity of less than 40kW (40,000 watts) qualify to be reimbursed at the average retail rate for their rate class for excess energy sent to the utility. The rates are calculated each year and posted on our website. Members decide if they wish to be compensated with a bill credit or check each month. South Central Electric measures the back and forth of electricity with a bi-directional meter that constantly measures the movement of electricity in two directions. South Central Electric has a grid access charge. This is a monthly charge based on the capacity of the renewable energy system. Read more about the grid access charge on page four.

What is South Central Electric's roll? South Central Electric is concerned with the interconnection of any energy production system. Members would have to complete an application and contract. These are all done online through the NOVA Power Portal. The link is on our website under Energy Center and Renewable Energy. When South Central Electric receives an application, it is reviewed. Once the application is approved construction can begin. The co-op will perform islanding testing when the project is completed and passed state electrical inspection. After the system passes the cooperatives islanding testing it is permitted to operate.

We've only highlighted a few things for members to consider if they are thinking of installing a solar array. A solar contractor can answer many questions about installation and cost when providing a quote. South Central Electric does not offer incentives for solar. The cooperative's position on member owned renewable energy systems is neutral. The decision to install a renewable energy project is up to the member. South Central Electric works with our members to help make sure the project is completed with protections to all members. South Central Electric has posted documents concerning the technical requirements of a distributed energy resource on our website. Members can contact South Central Electric if they have questions.

ELECTRIC MOTOR

REQUIREMENTS

South Central Electric has requirements in place for electric motors connected to our system. These requirements are in place to eliminate flicker and voltage sag problems caused by member's equipment on our lines. Members need to take these requirements into account when purchasing new motors, grain drying systems or upsizing motors. The requirements are not restricted to new motors. There may be issues with currently



installed equipment that exceed these limits.

MOTOR STARTING CURRENT LIMITS

- 1. The Cooperatives' limits allow single-phase motors up to 10HP and three-phase motors up to 30HP to be started without reducing the starting current (soft start), provided the motor design is NEMA "G" or better. Assuming NEMA Code "G" of 5.29 amps/HP and a power factor of 90% or greater.
- 2. Maximum Starting Current Limits Single-phase 240 volt: 260 amps Three-phase 208 volt: 520 amps Three-phase 480 volt: 225 amps

The starting current limitations are applied to the sum of motor starting currents if multiple motors are started simultaneously.

It is the member's responsibility to know whether a "soft start" motor may be required. Motor installations outside the parameters which cause unacceptable voltage flicker or sag problems must be remedied at the expense of the member.

Harmonic Distortion from Variable Frequency Drives (VFD's)

Variable frequency drives (VFD) may cause harmonic distortion. It is the responsibility of the member to correct harmonic distortion created by on site equipment. Harmonic distortion may also occur with member owned renewable energy systems.

These requirements are in place to assure reliable and safe delivery of electricity to all our members. If you have questions please contact our office.

SCEA WATER HEATER PROGRAM

SCEA's peak shave water heater program provides members with a Marathon water heater at a discounted price for participating in the load management program.

The cost for water heaters is ***750**. This is a great value for members. SCEA pays the cost of the electrician to wire the water heater and radio control. The member would pay any costs incurred by a plumber.



ALWAYS CALL BEFORE YOU DIG



Contact SCE about service upgrades, additions or rebuilds

Are you looking at changes to your electrical service this summer? The electric utility industry is not immune to the supply chain issues. If you need to upgrade or change your electrical service with South Central Electric contact us now. This will help us plan to have the materials and equipment we need to complete your project.

ELECTRICITY: The value of comfort

Oftentimes the word "value" is related to "cost." For example, as the local electric cooperative, we remind our members regularly that electricity remains one of the best values you get for your dollar.

But there is more to the word value than an assigned price, and the value of electricity extends beyond its cost.

Electricity provides certain creature comforts — things that simply make life more pleasant — we come to depend upon. For some, this means being able to count on an electric kettle to quickly heat up water for a morning cup of tea. For others, it could be time spent with their children playing video games, baking a batch of cookies, or stringing up twinkle lights on the porch to make it feel cozier.

With a charged cellphone, we can easily connect and catch up with friends through a video call. We can store leftovers from a family get-together in our refrigerator to enjoy another day or pull out a meal from the deep freezer to thaw for dinner.

Warmth during Minnesota winters can be priceless. Many households depend on the comfort of home heating provided by an air-source heat pump (ASHP) to make it through the state's extended cold snaps. This appliance also works double-duty to provide efficient cooling during summers just by efficiently transferring heat outside.

A hot shower as part of a typical morning routine, too, is a comfort valued by most. Houses outfitted with electric thermal storage (ETS) water heaters receive clean, safe, hot water on demand. ETS water heaters draw electricity during times of low demand when it's less expensive. South Central Electric's water heater program offers members great value and helps keep electric costs down.



Beyond providing comfort to you and your family, these appliances are extremely efficient and take advantage of electricity's main value: lower costs.

South Central Electric is committed to providing its members with all the comforts electricity offers in a safe, reliable, and affordable manner.

Protect your home and family with a Briggs & Stratton home standby generator



You can be confident that South Central Electric works hard every day to keep your lights on. For those times when mother nature strikes, we still have you covered with our generator program. You can purchase a whole home Briggs & Stratton Power Protect generator from South Central Electric. If you lose power, the generator automatically takes over. When power is restored, it automatically shuts down. Power when you need it without the hassles of portable or PTO generators.

Estimated Cost of \$8,000 to \$11,500 includes the following:

- Briggs & Stratton[®] Power Protect DX with industry leading 10-year warranty.
- Minnesota winter ready with battery warmer, oil heater & battery charger.
- Automatic transfer switch.
- Electrician installation.

Generators run on LP or Natural Gas. Estimate does not include costs of gas installation from your gas provider.

Call our office to learn more at (507) 375-3164

Grid Access Charge

South Central Electric has a grid access charge on renewable energy projects based on the project capacity and the member's rate class. The grid access charge is an additional monthly charge on the member's bill. The cooperative has this charge to help recover the costs of maintaining our distribution system. When members install a solar array or other generation system they are still connected and use the assets of South Central Electric's grid. By self-generating electricity they use the grid but no longer pay all the associated costs of maintaining it. The purpose of the grid access charge is not to be against renewable energy. The cooperative is neutral when it comes to member-owned generation. The purpose of the grid access charge is to recover some of the lost revenue needed to maintain the distribution grid so those costs are not passed on to other members. The grid access charge is calculated using a formula approved by the Minnesota Public Utility Commission. It is calculated based on a cost-of-service study and rates could change. Grid access charge rates are posted on our NOVA Power Portal through our website.



Recipient must be a South Central Electric member. Any checks or credits will be made in the name or account of the member. The program will end when funds are exhausted; additional rebates may be added at a later date. The completed applications will be processed on a first come first served basis as they are received in our office. Rebate applications can be requested by calling the St. James office or available on line at www. southcentralelectric.com.

APPLIANCE REBATES:

Please see rebate applications for details.

Dehumidifier	.\$20
Air Source Heat Pumps	.\$350
Ductless Heat Pump	.\$350
Ground Source Heat Pump	.\$350/1
Air Conditioner Tune Up	.\$30

LED Yard Light.....\$25/ea. limit 3

COMMERCIAL AND INDUSTRIAL REBATES:

Rebates are available on a custom basis. Rebates will be based on kW reduction on retrofit projects. To be eligible for a rebate the project must have a minimum savings of 1kW. We do not have rebate programs for new construction. Call SCEA for information on these rebates.



Official monthly newsletter

South Central Electric

71176 Tiell Dr., PO Box 150 St. James, MN 56081-0150 (507) 375-3164 Outages: (888) 805-7232

E-mail address: sce@southcentralelectric.com

Web: www.southcentralelectric.com

Office hours: 7 a.m. to 3:30 p.m. Ron Horman, General Manager

Board of Directors

President, Ron Jorgenson Vice President, Michael Miest Secretary, Brad Asendorf Treasurer, Matt Peters Brent Imker, Director Mark Sandberg, Director Bill Kunz, Director

The Board meets the fourth Tuesday of the month at South Central Electric's building at 71176 Tiell Dr., St. James, MN.

Please see our website for a summary of the board meetings.

This institution is an equal opportunity provider and employer.

If you wish to file a Civil Rights program complaint of discrimination, complete the USDA Program Discrimination Complaint Form, found online at http://www.ascr.usda.gov/complaint_filing_cust.html, or at any USDA office, or call (866) 632-9992 to request the form. You may also write a letter containing all of the information requested in the form. Send your completed complaint form or letter to us by mail at U.S. Department of Agriculture, Director, Office of Adjudication, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, by fax (202) 690-7442 or email at program.intake@ usda.gov.



4 Connections



Must be an Energy Star® appliance to qualify.

Credit applied to the energy bill HSPF rating over 9.5 \$600 HSPF rating over 9.5 \$600