2025 CONTRACTOR GUIDE

Products | Processes | Procedures





≥ 800-234-1960 ≥ PO Box 216 Colman, SD 57017 www.siouxvalleyenergy.com

OR YOUR SAFET

BEFORE DIGGING 811 is the national call-before-you-dig phone number. Anyone who plans to dig should call 811 or click_https://call811.com before digging to request that the approximate location of buried utilities be marked with paint or flags so that you don't unintentionally dig into an underground utility line. This call needs to be made two to three business days in advance of the planned digging.

PREPARATION IS THE KEY. The best way to prepare to make the 811 call or the request on-line is to review the ticket format as shown to the right. Also, prior to calling, the proposed dig site must be marked with white paint, stakes or flags. This will assist the locators in knowing the area of the work and where to mark the lines. At the close of the call, a ticket number will be provided to you. This number is very important

IN CASE OF EMERGENCY In the event that you smell natural gas while digging, or when entering a building, immediately leave the building. DO NOT turn lights on or off. Call 911 first, then call the utility company or the 811 Center. If you do not have power, see a downed power line, or any other situation that could cause imminent danger, call 911 or the utility company.

7 ESSENTIAL TIPS

Follow these tips to stay safe when working near power lines.



Call 811 a few days before the start of any digging project to prevent damage to underground lines.



Assess the worksite, taking inventory of any potential hazards and making sure to look up and around to determine the location of overhead power lines.



Always contact the local electric co-op before working near overhead power lines.



TREAT POWER LINES AS **FNERGIZED**

Treat all power lines as energized. Work with the local electric co-op to safely operate equipment near power lines.



ESTABLISH SAFE

Before work begins, establish a safe clearance boundary around power lines.



ALWAYS USE A

Always use a spotter when operating heavy equipment whose sole responsibility is keeping a lookout.

Comply with all OSHA requirements and applicable state and federal safety regulations.



Required Ticket Information

Dial 811

https://call811.com

Name of person doing the excavation:

Range ____ Section/Quarter

Township _

LET'S WORK COOPERATIVELY

Sioux Valley Energy's mission is Serving Our Members. Always.

Sioux Valley Energy values the professional relationship we have with you as the contractor. This relationship helps us serve our members. We've developed this guide to help answer frequently asked questions and provide new information about our programs and services.

KEY CONTACTS

All departments can be reached by calling 800-234-1960.

New Residential/Commercial Services:

- Contact Sioux Valley Energy's **Engineering Department**
- **1**-800-234-1960
- Hours: 7:30 a.m. to 4:30 p.m., M-F
- Online forms: https:// www.siouxvalleyenergy.com/ new-construction-or-upgrade-service

Water Heater Sales/Program Rebates:

Contact the Beneficial Electrification Department at 800-234-1960.

Locates:

Dial 8-1-1 two business days before digging Gopher State One Call (MN) http://www.gopherstateonecall.org South Dakota One Call (SD) https://www.sdonecall.com/

Outages and Emergencies:

Call 9-1-1 first with any emergencies Sioux Valley Energy 24-hour Dispatch: 800-234-1960 for outages

Beneficial Electrification:

Nathan Zimmerman, Manager of Beneficial Electrification Reggie Gassman, Beneficial Electrification Specialist Sheila Gross, Energy Services Specialist Sarina Hanson, Beneficial Electrification Coordinator

Mtering and Energy Services:

Jason Langford, Manager of Metering and Energy Services Daren Hoffer, Metering Coordinator Derek Bundesen, Metering Coordinator Michael Uhing, Lead Journey Electrician Derry Van Hofwegen, Lead Journey Electrician Kim C. Hansen, Journey Electrician Nick Smith, Journey Electrician Colton Spader, Apprentice Electrician Josh Kearin, Apprentice Electrician Dana Foster, Customer Electrical Services Technician

Engineering and Operations: Ted Smith, P.E., Vice President of Engineering & Operations Chris Graff, P.E., Director of Operations Chad Williams, Operations Manager Tim Fey, Manager of Contractor Relations Michele Nielson, P.E., Manager of Engineering Andrew Chmela, System Engineer Jim Kuyper, Lead Staking Engineer Jason Sage, Lead Staking Engineer Tim Schoolmeester, Staking Engineer Terry Plecity, Staking Engineer Ryan Gruber, Staking Engineer Trevor Reif, Staking Engineer Kim O'Farrell, Staking Engineer Matt Seivert, Staking Engineer

Sam Berninzoni, Environmental Specialist

Angela Boughton, Lead Dispatcher/Engineering Coordinator

Public Relations:

Jay Buchholz, CKAE, Manager of Public Relations Brandon Lane, Economic Development & Community Relations Executive

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Sioux Valley Energy is a not-for-profit, memberowned electric distribution cooperative, serving more than 29,000 members across seven counties in eastern South Dakota and southwestern Minnesota since 1938. Headquartered in Colman, S.D., and led by General Manager/CEO Tim McCarthy,

Sioux Valley Energy is the largest distribution cooperative in South Dakota.



Colman Service Center PO Box 216 | 23491 471st St Colman, SD 57017

Brandon Service Center

PO Box 857 | 108 N. Heritage Rd Brandon, SD 57005

Hartford Service Center 1185 Ruud Trail, Suite 4

Hartford, SD 57033 **Pipestone Service Center**

PO Box 336 | 1102 7th St SE Pipestone, MN 56164

RESIDENTIAL ELECTRIC HEAT PROGRAMS



Electric Heating Systems

Today's electric heat pump combines ultra-reliable heating and cooling with unbeatable operating efficiency. In the winter, a heat pump will keep the home warm and comfortable; in hot, muggy summertime weather, the same system will keep homes cool, humidity-free and comfortable.

An air-source heat pump, when properly installed, requires little maintenance and delivers 1.5 to 3.5 times the energy it uses.

A geothermal system can help save the homeowner up to 70% in annual heating and cooling costs.

If you're working with clients to build a new home, or are replacing an existing home's heating/cooling system, contact SVE to learn more about heat pumps.

Heating and cooling use a large chunk of energy dollars. Electric heat is clean, reliable, safe – and it also can be very efficient. It's tough to beat the efficiency of an electric heat pump that not only cools in the summer but also heats in the winter. Heat pumps – geothermal or air-to-air systems including ductless solutions – are designed to be used in any application, whether it's new construction, a renovation project, or replacing existing equipment. Sioux Valley Energy offers rebates and a special electric heat rate to make choosing electric a great value.

RESIDENTIAL REBATES

To receive an incentive, submit a copy of the invoice with verification of heat pump make, model, and efficiency ratings.

- Air-to-air with non-electric backup \$600
- Air-to-air with all-electric backup \$1,200
- Geothermal Rebate \$1,200 Traditional heat pump whole-home systems must be a minimum of 2 ton with backup equipment to qualify.
- Ductless air-source heat pump (2-ton and larger) Rebate of \$300 per structure.

Rebate eligibility is once every 10 years per account.

ELECTRIC HEAT RATE:

Members can receive a reduced electric heat rate which is approximately 40 percent less than the standard rate for their October through April billing cycles. Electric heat rate applies to residential and general service accounts. Rate is applicable for 240-volt heating equipment.

SUB-METER:

In order to receive the reduced electric heat rate, a sub-meter must be installed by a Sioux Valley Energy electrician. The sub-meter will be mounted on the exterior of the structure in proximity to the electrical panel. The installation is free for heat pumps 2 ton and larger or 240-volt electrical resistance heat 8 kW and larger, or a one-time \$300 fee is charged. Fees apply for sub-metering three-phase equipment, when a second sub-meter is required for an existing structure, or when extensive wiring is required. The sub-meter records the usage for the electric heating equipment and subtracts it from the main meter. Electric heat and air conditioning are not controlled.

Loans:

Residential loans are available upon approved credit up to \$15,000, 5% interest with a 7-year term for heat pumps and weatherization projects.

2025 HEAT PUMP COMPARISONS (Effective 1/1/2025)

SVE's 6.85¢ Heat Rate (October-April billing cycles)		96% efficient propane furnace	96% efficient natural gas furnace	90% efficient propane furnace	90% efficient natural gas furnace
Air-Source Heat Pump (Based on rating of 8.8 HSPF/7.5 HSPF2, utilized most in October, November, March, and April.)	.ENT TO:	68¢ per gallon	75¢ per therm	64¢ per gallon	70¢ per therm
Geothermal Heat Pump	EQUIVAL	46¢ per	51¢ per	44¢ per	48¢ per
(Based on COP rating of 3.8)		gallon	therm	gallon	therm
Electric Resistance		\$1.76 per	\$1.93	\$1.65 per	\$1.81 per
(Based on 100% efficient)		gallon	per therm	gallon	therm

Sub-meter Connections for New Construction or Replacement Equipment:

Sub-meters will be mounted on the exterior of the structure in proximity to the electrical panel for a newly constructed home/building that will have a heat pump or other resistance heating. Contact SVE when the equipment is operational. If a water heater was also purchased from the Cooperative, it should be operational as well to connect load management equipment in the convenience of one trip.

Contact SVE to prewire the sub-meter if: the electrical panel is:

- flush-mounted,
- in an interior room,
- when an outside installation is not easily accessible, or
- if the home is slab on grade.

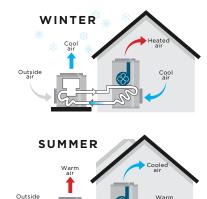
This should be done when the electrical panel is set, but before insulation and drywall are installed. If there are multiple panels in close proximity with electric heat, 12-2 wire can be run between the panels to use one sub-meter.

For replacement heat pumps or resistance equipment, in order to ensure the sub-meter connections and rates are correct, please contact us for a courtesy check. If a new construction home is prewired and a heat pump or electric heat is not installed, a \$300 fee will be assessed.

air-source HEAT PUMP

Energy-efficient, cost-effective, and reliable year-round

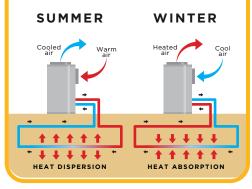
- Pulls heat indoors from the outdoor air in the winter and from indoor air in the summer
- When properly installed, requires little maintenance and delivers 1.5-3.5 times the energy it uses
- Easy to convert from propane or oil system
- More efficient than gas
- Dehumidify better than standard central air conditioners, resulting in less energy usage and more cooling in summer months



ground-source HEAT PUMP

New home construction

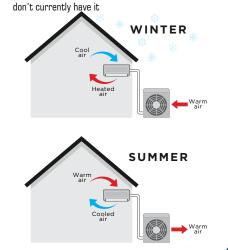
- One system for heating, cooling, and water heating
- Uses the abundant, natural energy the earth stores beneath us
- Highest efficiency, documenting heating efficiencies of up to 500%, meaning homeowners get \$5 of heating for every dollar they spend
- Excess heat energy can be routed to the water heater, saving homeowners up to two-thirds of their water heating costs year-round
- Higher installation costs than standard forced-air furnace and central air conditioner, but shorter payback periods because of increased operating efficiency



mini-split/ductless HEAT <u>PUMP</u>

Ideal for home renovation

- Like an air-source heat pump, but smaller
- Ductless, so works on houses that don't have duct work
- Cost effective and easy to install
- Only runs when and as hard as it needs to, thus is extremely energy efficient
- Scalable so one outdoor compressor can run multiple units inside
- Ideal for those who want air conditioning in homes that don't currently have it



COMMERCIAL PROGRAMS



Want to learn more and receive updates from Sioux Valley Energy?

Our "Inside the Grid" podcast hosted by Jay Buchholz is another resource you may find useful. You can find the podcast on Apple Podcasts and other podcast services. You can also find the podcast at https://www.siouxvalleyenergy.com/inside-grid-podcast

Commercial Electric Heat Rebate

Electric heat rebates are available for agricultural, commercial, and multi-family facilities.

- Rebates:
 - + Heat Pumps \$100/ton up to 150 ton.
 - + Electric resistance heating equipment \$10/kW up to 600 kW. (Minimum of 8kW required.)
- A sub-meter can be installed on electric heat equipment to receive a reduced rate for the billing cycles of October to April. The sub-meter is free for heat pumps 2 ton or larger and electric resistance heat 8 kW and larger, or a \$300 installation fee is charged. The electric heat rate is 40% lower than the standard rate.
- Fees apply for sub-metering three-phase equipment, when a second sub-meter is required for an existing structure, or when extensive wiring is required.
- The electric heat rate is not available for large power accounts. Tenants in all-electric heated apartments can qualify for a reduced rate program in lieu of sub-metering.

Commercial Energy Audit

Sioux Valley Energy will reimburse commercial power members up to \$1,000 for a third-party commercial energy audit. This includes facility inspections, analysis of the efficiency/payback of upgrading equipment technologies, or working with a provider on technical reports required for a grant applications.

Commercial Electric Vehicle (EV) Charger Rebate/Rate Program

Rebate and rate programs are available for EV charging equipment installed for commercial, public, workplace, multi-family, and fleet applications. Enrollment in an EV rate program is a requirement of the rebate. Lifetime member maximum of \$5,000. Contact SVE for more details.

LEVEL 2 CHARGER REBATES: (Minimum of 7.7 kW charging capacity wall-mounted or pedestal chargers, 240 V NEMA 14-50 outlet is not eligible)

- Single Plug EV Charger Rebate \$500 per charger
- Dual Plug EV Charger Rebate \$1,000 per charger

LEVEL 3 CHARGER REBATES: (50 kW or larger required)

• Rebate of \$2,500 per charger

Third-party Irrigation

A rebate of \$750 is available per device for a third-party device (such as AgSense, Fieldwise, etc.) that allows SVE to control usage during peak times. Members participating in the load management program receive a reduced rate per metered kW for the billing cycles of June through October.

ELECTRIC VEHICLE PROGRAMS

If you are in the market for an electric vehicle (EV), Sioux Valley Energy offers an EV rebate and special off-peak charging rate options. With today's technologies, the average all-electric vehicle can go nearly 300 miles on a single charge which covers the daily commute for most drivers, even in rural areas. Plug-in hybrid vehicles have an average range of 20 to 50 miles on the electric battery, along with having a gasoline engine. Enjoy the convenience of charging up at home. To learn more about EVs, visit https://www. siouxvalleyenergy.com



EV Rate Options

- **Time of Use Rate (TOU):** Sioux Valley Energy members can take advantage of off-peak rates for whole home usage, including EV charging.
- **Plug-in Rate:** Sioux Valley Energy members can take advantage of off-peak rates for EV charging. Sub-meter installation required. Must be 240-volt equipment.

New EV Purchase Rebate

- Rebates for the purchase or lease of an electric vehicle in 2025 (requires the selection of an off-peak rate option as outlined above).
 - \$500 for all battery electric vehicles (BEV)
 - \$250 for plug-in hybrid electric vehicles (PHEV)

EV-Ready New Home Construction Rebate

A rebate of \$300 is available for a home that at a minimum has 1-inch conduit installed from the electrical panel to the garage to provide a means for future EV charger installation. If preferred location is known, installation of a 40-amp (minimum) branch circuit and NEMA 14-50 receptacle is also acceptable. A picture verifying conduit or receptical installation is required..

KWH RATE COMPARISONS

AT A GLANCE (RATES EFFECTIVE 1/1/25)

PROGRAM	7 a.m. to 10 a.m.	10 a.m. to 4 p.m.	4 p.m. to 9 p.m.	9 p.m. to 7 a.m.
Time of Use Rate	17.01 ¢	6.62¢	17.01 ¢	6.62¢
EV Plug-In Rate	58.4¢	6.62¢	58.4¢	6.62¢
Regular	11.25¢	11.25¢	11.25¢	11.25¢
Electric Heat Sub-meter	6.85¢	6.85¢	6.85¢	6.85¢



SVE offers a three-month risk free trial to help members get used to scheduling tasks and conserving energy.



RENEWABLE ENERGY

Thinking Solar?

If considering solar power generation for a home or business, here are a few things to keep in mind before making the purchase:

- 1. Make the existing home/business more energy efficient before buying a solar system. Adding insulation and sealing air leaks can cut energy costs immediately and may help to reduce the size of the solar system required. SVE offers an energy audit program.
- 2. Research before investing in a solar system. The payback period for solar can range from fewer than 10 years to more than 20 years, depending on the system cost, amount of electricity produced at the peak times the homeowner or business utilize it, energy cost, and available incentives. SmartHub is our free account management tool to view usage and compare how it may line up with typical solar production.
- 3. Understand how a solar system meshes with the Cooperative's system. Most solar systems are designed to provide a portion of the electricity needed, but it won't provide 100% of a home or business' needs, meaning it will still need to be connected to SVE's grid. Contact SVE regarding the interconnection policy, essential safety precautions, and rate structure for purchasing excess energy from the planned system.
- 4. Choose a reputable contractor/installer. As with any major improvement project, purchasing solar panels from the right installer/contractor at a fair price is as important as the product being purchased.

For more information on connecting solar to the SVE system, visit our website at https://www.siouxvalleyenergy.com/solar-energy-center. Or contact Sioux Valley Energy at 800-234-1960.
You may also visit pvwatts.nrel.gov



If a member is considering private generation for a home or business, Sioux Valley Energy offers resources such as SmartHub, our on-line account management tool, to learn more about their energy consumption. An interconnection agreement is required for distributed energy resource projects such as renewable energy, battery storage, or EV charging capable of providing power to a home. We offer an optional Time of Use Rate program that can be utilized with co-generation and battery storage for residential and general service account classifications. Contact SVE for more information at 800-234-1960.

Renewable Energy Credits

SVE's offers a Renewable Energy Credit (REC) program that allows a member to off-set their energy use up to 100% with renewable energy. RECs are available for allocation.

Solar & Battery Demonstration Projects

Sioux Valley Energy is your source for energy and information for members seeking to know more about beneficial electrification programs and incentives and distributed energy resources (DERs).

BRANDON SOLAR DEMONSTRATION: SVE constructed a 24.8 kW solar project at its Brandon, South Dakota, facility (enough to power two average-sized homes without electric heat) in May of 2015. The 80 panels are on low profile racking and are faced south, southwest and west to learn which direction has the most impact on usage and demand shifting in our region and weather conditions. An inverter monitoring system allows us to track each panel. We installed the array for around \$3 per watt with the assistance of a REAP grant. The projected return on investment is 16 to 20 years. As of January 1, 2025, the array has produced 313,894 kWhs since it's commissioning with a lifetime capacity factor of 15.85%. The average annual production would propel the co-op's Ford Lighting truck 70,000 miles per year.

COMMUNITY SERVICE PROJECT AT COLMAN: The Community Solar Project was commissioned at the Colman headquarters in June of 2023. It has 140 panels rated at 450 watts each with a total DC capacity of 63 kW and a maximum AC output of 50 kW. This project was fully funded by participating members through a 20-year subscription and a federal direct pay incentive of 30% through the Inflation Reduction Act. The array is expected to produce 87,000 kWhs annually, which equates to an annual reduction of approximately \$9,000 towards the investors' electric bill. A 115 kW battery storage project was installed in the Fall of 2023. This battery storage unit is a pilot program to help SVE understand better the possible future role in batteries as a means to assist in peak usage events. It also injects power to the grid during peak usage events delivering 30 kW for a period of up to three hours.

BATTERY STORAGE PILOT PROJECTS: Two 14.4 kW pilot home battery storage projects were completed in January of 2024. These systems will help SVE learn more about the effectiveness of battery systems when paired with SVE rates such as the TOU rate to help to lower a member's electric bill.

For more infomation on renewable energy or our interconnection agreement, visit www.siouxvalleyenergy.com/solar-energy-center

AVAILABLE SERVICES



24-Hour Dispatch Center

Sioux Valley Energy's in-house dispatching service runs 24 hours, seven days a week, 365 days a year. That means when you call in to report an electrical outage, you'll have the satisfaction of speaking to a friendly, courteous "real person." Occasionally, when a wide-spread storm disrupts service to hundreds or thousands of members at the same time, your call may be answered by a computerized system.

Cable Locating

Call before you dig. Sioux Valley Energy contracts with Summit Utility Services to provide our members, contractors and other utilities with professional underground cable locating services. Call 811 to request an underground locate. Sioux Valley Energy receives



Know what's **below. Call** before you dig.

the locate request via a web-based software program that allows our dispatchers to screen the tickets and send our locators to those requests where our facilities would be affected. This process assures members that when our cable is in the area, it will be located accurately and within 48 hours.

Energy Audits

SVE offers a third-party residential energy audit for existing homes for a \$100 fee. This includes a walk through weatherization inspection of insulation, doors and windows along with infrared imaging and blower door testing. An energy audit is a great tool to help members determine the location of energy leaks to prioritize efficiency upgrades and improve comfort.

Generators

An interlock kit with generator inlet box can be installed by SVE electricians. This is the most practical way to ready a home for the connection of a portable generator. SVE no longer sells stand-by generators, but we are available to help you determine the capacity of the equipment you may need during an outage. Contact us for a list of local contractors that currently install stand-by generators for your home or business.



House, Building, or Equipment Move

Sioux Valley Energy assists with safely moving houses through its service territory by making special arrangements for electrical services that may be in the way of the large structure. As per state law, SVE requires a 48-hour notice prior to each house move along with a deposit that can be made at one of our service centers or can be given to a line worker on site. Deposit amounts are based on the number of miles the house will be traveling and the loaded height of the house. Any additional costs will be billed following the move and any excess funds from the deposit will be refunded in the form of a check.

Power Quality/ Voltage Concerns

Power quality concerns remains a high priority for us. We receive requests from commercial and homeowner accounts when they have equipment problems that may be power related. We will continue to assist members by setting power quality recorders to determine if SVE has a power issue or determine if there is an issue on the member's side that we can reveal and/or address. The cell-based recorders that we have purchased over the past couple of years have greatly enhanced our ability to find issues and improved our efficiency with investigations.

Wiring

Sioux Valley Energy offers unique wiring services such as fault locating and repair, pole setting and replacement, overhead wiring installations or upgrades, and assisting with power quality or stray voltage concerns. For more information, contact our Metering and Energy Services Department at 800-234-1960.

Yard Lights

Nothing is more comforting when coming home on a dark night than a yard light to shine the way. Members have the option of a 70 watt or 150 watt LED light that can be mounted anywhere on the property where power is installed. Rental options and price levels vary. For more information or to get a rental light installation scheduled, contact our dispatch center at 800-234-1960.

RESIDENTIAL WATER HEATER PROGRAM



apply.

Hot water for life!
Purchase water heaters
from Sioux Valley Energy
and give your customers
efficient, lifetime tank
warrantied water heaters
for as long as they own their
home. Six-year warranty
on parts. Some restrictions

DYK?

Water heating accounts for about 12% of a home's energy use.

COST:

\$600 plus applicable tax for any size water heater with participation in the SVE load management program. Special up-front pricing is in lieu of a load management credit.

Sioux Valley Energy no longer sells the HTP water heater brand, We continue to provide warranty and repair services for units that we sold.

SALES

Lifetime tank warrantied water heaters are available for residential applications. (*Some restrictions apply for limited warranty.*) Sioux Valley Energy offers Marathon® water heaters in 85- and 100-gallon models. A 30-amp circuit is required and they are rated for both 240- and 208-volt installations.

The Marathon® water heaters are sold for \$600 plus applicable tax for any size. (Homes/accounts requiring more than one water heater may purchase the first unit for \$600 and additional units for \$1,200.) Water heaters are in stock at the service centers in Colman, Brandon, Hartford, and Pipestone. Water heaters are required to be paid for at the time of purchase or prior to pick up with on-line payment options available. With approved credit, water heaters can be billed on the regular electric bill. Contact SVE at 800-234-1960 to order a water heater.

As part of Sioux Valley Energy's Marathon residential water heater program participation in the Cooperative's load management program is required for the lifetime of the unit. Load management shifts demand during peak usage on the system. Due to the larger capacity and efficiency of these water heaters, members rarely experience inconvenience by participating in the load management program. The Department of Energy regulates the grid-enabled large capacity water heater standards. Only utility providers that offer a load management program can sell large capacity water heaters, which is why units above 50-gallon are not readily available in the retail box stores. All large capacity water heaters are received at SVE with only one element enabled for use. The unit will operate at a reduced capacity (approximately 50 gallons) until SVE personnel enable the second heating element after installing or maintaining load management equipment at the home. Contact SVE at 1-800-234-1960 to schedule an appointment when the water heater is installed and fully operational. For builders working with new construction homes, it is your responsibility to schedule an appointment prior to the account transitioning into a new homeowner name.

WARRANTY/REPAIR SERVICES

SVE takes care of registering water heaters for warranty. For new construction, the first homeowner gets the lifetime tank warranty. For the member's convenience, a blue sticker with contact information will be added to the unit when load management is installed. If an issue or question on the unit should arise, contact SVE's Metering and Energy Services Department at 1-800-234-1960 for warranty or repair services.

MARATHON® ELECTRIC WATER HEATERS

MARATHON® FEATURES:

Lifetime Tank Warranty

- The last water heater homeowners will buy for their home
- Limited lifetime warranty registration completed by Sioux Valley Energy
- Unmatched strength, toughness and durability

Easy Installation and Service

- Lightweight design for one-person, low-cost installation
- Easy maintenance with bowl-shaped bottom that drains completely and no anode rod to replace

Non-Metallic Tank:

- Seamless, blow-molded polybutene inner tank will not rust or corrode
- Outer tank resists dents, scratches and salt air
- Offers the best durability, withstands the harshest environments and eliminates smelly water due to chemical reactions with sulfates

High Efficiency

- Two-and-a-half inches of polyurethane foam insulation minimizes stand-by heat loss, allowing only 5 degree F loss in 24 hours
- Saves money on the homeowner's energy bill

Brass union connections provide easy installation or re-installation

> Polyurethane insulation helps reduce energy consumption

Rugged polyethylene jacket resists shipping damage and won't rust

Oversize element covers for easy sediment removal

> Recessed brass drain valve



Factory installed T&P relief valve and vacuum relief valve

Water tight outer jacket delivers dependable service even in challenging environments.

Thermally fused upper element provides protection against dry-firing

Titanium lower element for superior resistance to lime buildup

Bowl-shaped bottom for easier, more complete draining.



	MARATHON® GRID ENABLED MODEL SPECIFICATIONS												
DESCRIPTION		FF ATTIRES			HING IN DIMENSIONS IOWN IN INCHES)		ENERGY INFORMATION						
	TYPE	NOMINAL GALLON CAPACITY	RATED GALLON CAPACITY	MODEL NUMBER	UEF FIRST HOUR RATING G.P.H.	EF FIRST HOUR RATING G.P.H.	RECOVERY IN G.P.H. 90° F RISE ¹	TANK HEIGHT	HEIGHT TO WATER CONN.	DIAMETER	APPROX. SHIP WEIGHT (LBS.)	ENERGY FACTOR	UNIFORM ENERGY FACTOR (UEF)
	TALL	85	84	MRG85245	77	91	21	66-1/4	70-1/4	28-1/4	134		0.92
	тліі	100	101	MDC10E24E	00	OF	21	66 2/1	70.2/4	20 1/4	150		0.00

Uniform Energy Factor, Energy Factor and rated gallon capacity based on Department of Energy (DOE) requirements.

- This water heater is intended only for use as part of an electric thermal storage or demand response program. This water heater will not provide adequate hot water unless enrolled in such a program and is activated by your utility company or another program operator. Please confirm the availability of such a program in your local area before purchasing or installing this product.
- Water heaters furnished with standard 240 volt AC, single-phase non-simultaneous wiring. If heating elements of different wattages than those shown are demanded, they must be specifically requested. For height to top of T&P and heat traps add 3-1/2 inches to the height to water connection.

 Maximum test pressure: 300 PSA. Maximum working pressure: 150 PSI.

* Warranty is provided to original customer in a residential application after online product registration is complete. Registration must be completed within 90 days of installation. See Warranty Certificate for complete information. † Recovery calculations are based on 4500-watt elements used in non-simultaneous operation.

† Recovery=wattage/2.42x temp. rise °F.

4500W Example: $\frac{4300 \text{ VV}}{2.42 \times 90^{\circ}} = 21 \text{ GPH}$

OAD MANAGEMENT

What you need to know...

Load management refers to controlling various customer electric loads during times of peak usage on the electric system. During peak electric usage times, load management helps shift the load peak to when customers do not use as much electricity by controlling equipment such as water heaters and irrigation. By managing these loads, the Cooperative can reduce the potential costs of wholesale power purchases, which saves money and resources. Load management saves member-owners over \$1.5 million in power supply costs each year by shifting electrical loads to off-peak periods. Members can save through program incentives by having equipment connected to the load management program.

When is Load Control Initiated?

Load control is initiated whenever it is deemed necessary by our power suppliers – East River Electric Power Cooperative in South Dakota and L&O Power Cooperative in Minnesota. Most load control is initiated during temperature extremes, mainly in the afternoons and evenings during summer month high temperatures and mornings and evenings during winter month low temperatures. However, load control is used every month of the year to some degree to help keep energy costs as low as possible.

How do I know if system is being controlled?

South Dakota members can log on to http://lmreports.eastriver.coop/loadgraphandcontroldatagen.htm. Click on the load management tab and click on current status to see what loads are being controlled. If your client would like to know which group they are in, please contact Sioux Valley Energy's Metering and Energy Services Department at 800-234-1960. Minnesota members may contact the dispatch center at 800-234-1960 to check on their control status.

Load Control Receivers Used by Sioux Valley **Energy**

Sioux Valley Energy must be contacted if there is a need to bypass a load control device for any reason.







Enermet

Green switch closest to blinking light is for the water heater. Up = power ison (light blinks every 7 seconds) Down = load controlled (Typically light will blink about every second)

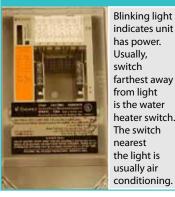




Up = power ison (load not controlled) **Down** = power off, load is controlled

Red switch: A position (Up)=Power off, Controlled; B position (Down)= Power on, Not Controlled

Zellweger





Who Installs the Equipment?

Qualified Sioux Valley Energy electricians install load control receiver equipment and associated wiring.

What Will it Cost Me?

There is no charge to install or remove load management equipment for a member's home or business.

What if I Decide I No Longer Want My Equipment Controlled?

To continue to receive incentive program benefits, members must keep their equipment on the load management program. Load control equipment for air conditioning and irrigation systems can be removed anytime at the request of a member. Load control equipment connected to water heaters as part of the incentive program must adhere to the agreement terms listed on the application form.

Water Heater Load Management

Load management equipment will be installed or tested, if existing, by SVE personnel when the water heater is installed and fully operational. Contractors/members agree to allow load management to be installed in order to receive the special pricing and for the water heater to operate at full capacity. For new construction, it's more convenient for us and the new homeowner if the builder notifies us to schedule this installation prior to the closing of the home.

South Dakota:

Water heaters may be controlled up to four consecutive hours. If load control is still needed after a four-hour period, the water heaters will be cycled ON for one hour and OFF for two hours.

Minnesota:

water heaters are controlled 50 minutes of every hour during a control event.

No controlling is done after 11 p.m. so tanks should be full of hot water each morning.

Recovery Rate:

Water heater recovery rate is approximately 22 to 26 gallons of hot water per hour depending on the season.

Air Conditioning Control Program Discontinued:

Work continues to remove controls from air conditioners for existing members. Members who could be remotely disconnected were removed from the program in 2024. All others will require a site visit to remove controls. This will be done as time allows or any time a site visit is required for load management or sub-metering work such as when a new or replacement heating and cooling system is installed. Any sub-metered water heater will also be switched to a \$6 monthly credit.

Irrigation Load Management

Irrigation systems are turned off during control periods. They will remain off with no cycling until the peak usage period has passed. Irrigation systems are the last to be controlled and the first to be restored during a control period. Control notifications via phone, text or e-mail are available to any member. Members participating in the load management program receive a reduced rate per metered kW for the billing cycles of June through October. SVE can install traditional load management devices or a third-party remote managed irrigation system can be used. A rebate of \$750 is available per device for a third-party device (such as AgSense, Fieldwise, etc.) that allows SVE to control during peak times. (*Former Alliant Energy customers are not eligible.)

DYK?

Sioux Valley Energy has had a load management program for more than 40 years and was among the first co-op utilities in the nation to have one.

Sioux Valley Energy members are part of a larger program through our power supplier. Collectively, more than 80,800 electric loads in homes, farms and businesses of member consumers throughout eastern South Dakota and western Minnesota currently participate in the program. These loads include electric water heaters, irrigation systems and other big energy users.

NEW CONSTRUCTION SERVICE REQUEST **CHECKLIST**

1. Contact the Sioux Valley Energy Engineering Department at 1-800-234-1960 during business hours (Monday-Friday from 7:30 a.m. to 4:30 p.m.). Online forms available at https://www.siouxvalleyenergy.com/new-construction-or-upgrade-service

2. Fill out and submit application for service. The following information will be needed on the application:

=				
		Phone:		
	City:	State:	ZIP:	
	City:	State:	ZIP:	
Township:	Range:	Section:	Quarter:	
jes and looking to begin?	☐ Planning stages and looking for an estimate		Ready to Begin	
	Electrician Phone Number:			
		Builder Phone Number:		
	☐ Commercial	☐ City	□ Rural	
☐ Single-phase	☐ Three-phase (If 3-phase, indicate voltage)	ohase (If 3-phase, indicate voltage) 🔲 208 voltage 🔲 48		
	□ 200 amp	☐ 400 amp		
d for construction?		☐ Yes	□ No	
ed.				
		n Nov. 1 and May 1, depending	g on the depth of frost encountered.	
u and hack up course)	☐ Electric Resistance	☐ Air-Source Heat Pump	Geothermal Heat Pump Tons	
y and back-up source)	☐ Ductless Heat Pump	☐ Natural Gas	Propane	
	☐ Home is wired to be EV ready		□ Solar	
	Business wanting Level 2 or larger EV charging	infrastructure	□ Wind	
e information on the following	□ Biogas	☐ Battery Storage		
	Generator (SVE offers the installation of interlo			
	es and looking to begin? Single-phase d for construction? ed. ter payment has been received. Fro	City: Township: Range: Planning stages and looking for an estimate Commercial Three-phase (If 3-phase, indicate voltage) 200 amp d for construction? d. ter payment has been received. Frost charges apply for underground installation between the line extension charges for new service or upgraded service. y and back-up source) Electric Resistance Ductless Heat Pump Home is wired to be EV ready Business wanting Level 2 or larger EV charging Biogas	City: State: City: State: Township: Range: Section: es and looking to begin? Planning stages and looking for an estimate Electrician Phone Number: Builder Phone Number: Builder Phone Number: City City Single-phase Three-phase (If 3-phase, indicate voltage) 208 voltage 200 amp 400 amp d for construction? Yes d. Ster payment has been received. Frost charges apply for underground installation between Nov. 1 and May 1, depending the line extension charges for new service or upgraded service. Yey and back-up source) Builder Phone Number: 208 voltage 400 amp 400 amp Air-Source Heat Pump Ductless Heat Pump Natural Gas Home is wired to be EV ready Business wanting Level 2 or larger EV charging infrastructure	

Statement of Non-Discrimination

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at

(800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found on-line at http://www.ascr.usda.gov/complaint_filing_cust.html, and at any USDA office, or write a letter addressed to USDA and provide in the letter all of the information requested in the form.

To request a copy of the complaint form, call 866-632-9992. Submit your completed complaint form or letter to USDA by:

United States Department of Agriculture Mail:

Office of the Assistant Secretary for Civil Rights,

1400 Independence Avenue, S.W. Washington, D.C. 20250-9410

Fax: (202) 690-7442

or Email: program.intake@usda.gov

SERVICE UPGRADE RELOCATION REQUEST CHECKLIST



1. Contact the Sioux Valley Energy Engineering Department during business hours (Monday-Friday from 7:30 a.m. to 4:30 p.m.). $An online form is available \ at: https://www.siouxvalleyenergy.com/my-account/forms/service-upgrade-or-relocation-request-form$ **2. Fill out and submit application for service.** The following information will be needed on the application:

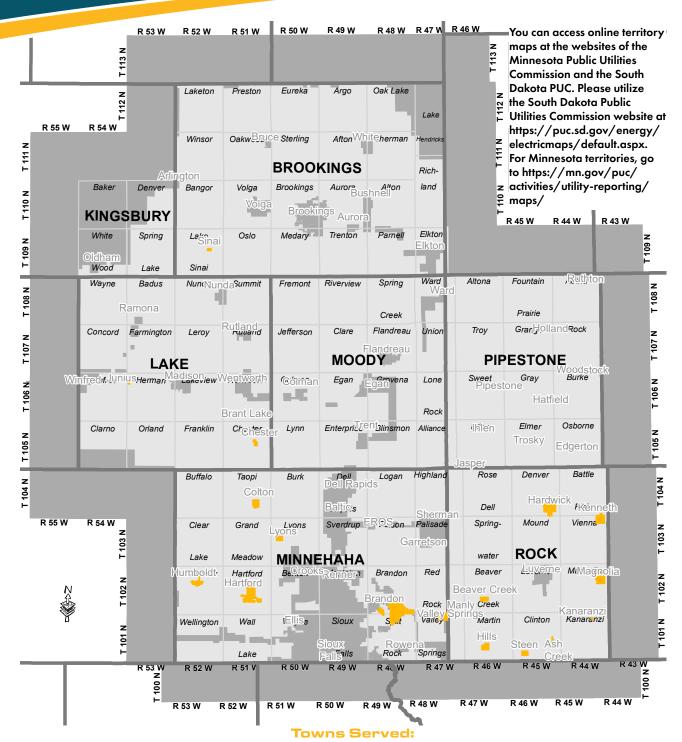
Name/Organization:			
Email:	Phone:		
Member Name:	Account Number:		
Service/Location Address:	Meter Number:		
Are you just in the planning stages and looking for an estimate or are you ready to begin?	l looking for an estimate Ready to Beg		
Electrician Name:	Electrician Phone Number:		
Builder Name:	Builder Phone Number:		
What is the work you want done/scope of project?			
Reason for rebuild or relocation?			
If load is being added, what type of load and how much? (Please include estimate of electric heat kW, motor load HP, etc.)			
Are you planning to add motors, fans, VFD equipment, etc.? If so, please explain. <i>You must contact the SVE Engineering Department at 800-234-1960 before work begins</i> to verify if transformer size/phase are adequate to meet your needs.			
Date the electric service is needed.			
Construction will be scheduled after payment has been recei	ved. Frost charges apply for	underground installation be	etween Nov. 1 and May 1,

depending on the depth of frost encountered. These charges are in addition to the line extension charges for new service or upgraded service.

When calling in (800-234-1960) for a service upgrade or relocation request, it's helpful to know the information at left.



SERVICE AREA



South Dakota: Brandon, Chester, Colton, Hartford, Humboldt, Junius, Lyons, Sinai, Valley Springs, and portions of Sioux Falls & Crooks Minnesota: Ash Creek, Beaver Creek, Hardwick, Hills, Kanaranzi, Kenneth, Magnolia, & Steen

SVE Served Towns	County Boundary
SVE Territory	Townships
	Non-SVE Territory

The information displayed on this map represents current data from a working file which is updated continuously. Information is believed reliable, but its accuracy cannot be guaranteed.

Date: 2/5/2025