Cass County Electric Cooperative is a not-for-profit, member-owned electric distribution system in southeastern North Dakota providing high-quality electrical service to more than 5,600 commercial members of all types and sizes.
Contact us

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Cass County Electric Cooperative is locally owned and controlled. We are a community-focused organization working to efficiently deliver affordable, reliable, and safe energy to our consumer-members.

• We belong to the communities we serve, so any excess revenue is given back to the consumer-members.
• We are led by consumers like you who understand and listen to the community.
• We were built by the members and communities we serve.
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About Cass County Electric Co-op

**CORE VALUES**
- Safety
- Integrity
- Innovation
- Accountability
- Community

**MISSION**
To serve our members’ energy needs with affordable & reliable electricity.

**EMPLOYEES**
96

**MILES OF LINE**
- 2,906 Overhead
- 2,779 Underground
- **5,685 Total**

**SERVICE CENTERS**
- Fargo
- Kindred
- Arthur
- Lisbon
- Valley City

**SERVICE COUNTIES**
- Cass • Barnes • Traill
- Richland • Ransom
- Sargent • Dickey • LaMoure
- Steele • Stutsman

**POWER SUPPLY: 55% ND Lignite • 34% ND Wind • 8% ND Hydro • 3% Other**

**2019 KILOWATT HOURS SOLD:**
1,290,084,673 kWh

**2019 REVENUE:**
$140,029,983

**BOARD OF DIRECTORS**
- Marcy Svenningsen, Board Chair
- Jeff Triebold, Vice Chair
- Glenn Mitzel, Secretary
- Sid Berg, Treasurer
- Douglas Anderson
- John Froelich
- Kalvin Hoff
- Wendy Loucks
- Tom Seymour

**MEMBERSHIP TOTALS**
- Residential Rural 5,928
- Residential Urban 22,680
- Commercial 5,602
- Irrigation 207
- Apartment 17,189
- Lighting 480

**52,086 TOTAL SERVICES**

01/17/2020

Capital Credits

Capital credits are the return of your investment in the cooperative. If your business has been served by Cass County Electric, capital credits accrue during the duration of the business. If you are selling or closing a business, capital credits could be retained by the sellers or transferred to the new owners as a future asset in the sale. However, if the company is sold without Cass County Electric’s knowledge, the allocation may not be assigned to the proper owner. As a business owner or executive representative on Cass County Electric’s system, be sure to claim what’s yours. Please keep your contact information up-to-date with us so we can return your stake in the cooperative when the time comes.

WHAT ARE CAPITAL CREDITS?

1. Cass County Electric tracks how much electricity you buy and how much money you pay for it throughout the year.
2. We pay the bills for things like power generation, maintenance, and new construction.
3. Then, at the end of the fiscal year, the board of directors determines if there are excess revenues, called margins.
4. Next, the cooperative allocates those margins to members as capital credits based upon their electric bill.
5. Lastly, your board of directors decides to retire, or pay, the capital credits when our financial condition permits.

HOW DO I RECEIVE MY CAPITAL CREDITS?

CREDIT ON BILL: Members with an active account.

CHEKS ISSUED: Inactive, former members. A minimum $5 capital credit amount must be met.

Search our list of unclaimed capital credits at CassCountyElectric.com/capital-credits to see if anyone you know is owed money from Cass County Electric Cooperative!
Programs and Services

Our goal is to provide reliable electric service and top-level customer service that exceeds your expectations based on your individual business’s needs. As your trusted energy partner, we offer several programs and services to our commercial consumer-members.

*We encourage you to contact us with any questions.*

**Rate Analysis/Forecasting**
We can provide annual or on-demand rate analysis and forecasts for your budgetary needs. We will work with you to determine if your business is on the best rate option for your operation.

**Energy and Lighting Audits**
We can review your business’s energy load profile, advise on energy use and demand levels, and provide a walk-through of the facility to identify areas for energy-saving opportunities.

**Demand Response/Generator Program**
We have a demand response rate for consumer-members looking to save money on energy demand charges. Businesses can receive lower off-peak rates by managing their consumption during peak energy demand periods, by transferring to on-site backup generation, under our Incremental Pricing Plan.
*(See page 7)*

**Online Account Management**
Use our mobile app or website to pay your bill, view energy use, access the outage viewer, and manage other account settings.
*(See page 11)*

**Electric Vehicles**
Cass County Electric has partnered with five local organizations to install electric transportation infrastructure, with three fast chargers planned for installation in 2020. Additionally, we added an all-electric vehicle to our service fleet and helped West Fargo Public Schools obtain the state’s first electric school bus. More than 600 members joined us in September 2019 at the Cass County Electric campus to learn more about electric vehicle technology, and visit with electric vehicle vendors and advocates. We offer programs and incentives for installing an electric vehicle on off-peak.
*(See page 14)*

**Renewable Energy Options**
Using energy wisely is the cooperative difference. We offer solar energy credits or you can purchase green energy credits. We can work with your business to accomplish your renewable energy goals.
*(See pages 16-20)*
Demand Response/Generator Program

At Cass County Electric Cooperative, we are here to work with your business to discuss different rate options and the best fit for your operation. One option, is a demand response rate for businesses looking to save money. Businesses can receive lower rates by managing their consumption during periods of high demand by transferring to on-site backup generation, using our Incremental Pricing Plan. Though savings may vary from business to business, many businesses save upwards of 25 percent using this rate.

With the options listed in the chart below, we are able to help your business save on energy costs. Generators need to meet current EPA Emission requirements to participate in our demand response program.

<table>
<thead>
<tr>
<th>Incremental Pricing Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Green Zone</strong></td>
</tr>
<tr>
<td>During normal times when we are within our capacity; energy purchased at our low off-peak rate.</td>
</tr>
<tr>
<td><strong>Yellow Zone</strong></td>
</tr>
<tr>
<td>When demand exceeds our capacity, but wholesale market prices are reasonable; just pay the additional adder.</td>
</tr>
<tr>
<td><strong>Red Zone</strong></td>
</tr>
<tr>
<td>When energy needs reach a critical or peak emergency situation; charges are passed along directly.</td>
</tr>
</tbody>
</table>
Cass County Electric Cooperative employees, the management team, and the board of directors are committed to sound financial management of the cooperative to provide the best value for our consumer-members’ investment in the cooperative.

**Cost of Operations**

The cost to operate your cooperative has remained stable and consistently outperforms like-sized cooperatives.

<table>
<thead>
<tr>
<th>Cents/kWh</th>
<th>Cass County Electric: 2019: 2.23</th>
<th>Similar size co-ops: 2018: 3.35</th>
</tr>
</thead>
</table>

**Employee Count vs. Member Growth**

Adding new accounts and maintaining employee count by utilizing innovative technology helps us maintain cooperative expenses, saving you money.
Sales in Kilowatt Hours

Electricity Cost Components

Wholesale power is purchased from Minnkota Power Cooperative.
Communication

MOBILE APP
The Cass County Electric mobile app helps you manage your energy consumption. By viewing peaks in use and hours, with weather overlays, you can stay in control of your power.

HIGHLINE NOTES
Our monthly magazine includes feature articles, safety information, technology, energy saving tips, and more! It’s available electronically.

CO-OP CURRENT
Our monthly e-newsletter is full of timely topics to aid with using energy efficiently, as well as subjects that will help to run your operation smoothly. If you are not receiving this today, sign up at energy@kwh.com.

WEBSITE
 Quickly discover information on our program and services, read educational articles, or watch videos on ways to stay safe around electricity. We also feature new electronics and technology, and tips for you to save energy.

LOAD CONTROL NOTIFICATIONS
Available via text and/or email to alert consumer-members when we are in peak conditions for those business members that participate in the Demand Response or Energy Management Program.

OUTAGE NOTIFICATIONS
Real-time outage notifications via text, email, and voice call for multiple contacts. We also post updates for large outages on our Cass County Electric Facebook page.

CONNECT WITH US!
Online Account Management

Your Cass County Electric online account and mobile app allow you to interact with us from the palm of your hand. We want you to have access to important energy use data so that you can manage your company’s electric use more effectively.

- Account management
- Bill history and payment
- 24/7 energy use graphs
- Service issue reporting

Download the Cass County Electric mobile app to pay your bill, view and compare energy use, and report outages. Just a tap away from controlling your power.
Reliability

Cass County Electric measures reliability by using an average service availability index (ASAI). It is a measurement ratio of the total hours that service was available to the total hours that service was expected. Essentially, it is the percent of time that power was on for all consumer-members during the year. In 2019, our reliability performance was outstanding. We had our **fourth best year on record** by keeping your power on **99.989 percent** of the time. Cass County Electric is in the:

- Top 10 percent of cooperatives in the U.S.
- Number two compared to cooperatives of similar size in reliability.

In the future, outages will occur, and our continued focus is to limit the frequency and duration as much as possible by investing in maintenance and technology.

**Innovative Grid Technology**

We use powerful grid technology to keep outages to a minimum, which allows our linecrew to quickly respond when they do occur. The two main technologies that we deploy are:

- Enhanced electric meters that work with our two-way automated communications systems (TWACS).
- Supervisory control and data acquisition software (SCADA).

Our teams of technicians and engineers can detect changes and oddities on the system. If fluctuation in voltage occurs, these systems will notify our dedicated team of impending trouble and will quickly respond to the situation to prevent or minimize an outage.

**Investing in Prevention**

We take outages seriously and consistently invest in new technology, proactively detecting and preventing future outages. One innovative tool we use is an unmanned aerial vehicle (UAV). The UAV allows our crews to inspect areas of lines that are dangerous or difficult to access and increases our crew’s safety and efficiency. Our crews are proactive by using a thermal camera, scanning for hot spots, and equipment issues before a failure.
Outage Preparedness

Cass County Electric Cooperative prides itself on its service reliability. With an aggressive maintenance program and investments in grid-enhancing technologies, we strive to keep service outages to a minimum. However, no utility can guarantee uninterrupted electrical service or service free of voltage fluctuations.

We understand downtime can adversely effect your business and production. Despite our best efforts, power outages can and will occur. We want your business to be as prepared as possible for outages or other service issues to ensure minimal interruption or impact to your operation.

Backup Generation
- Backup generators can prevent financial hardships caused by power outages.
- On-site emergency diesel generators automatically start and pick up a facility’s electrical load in the event of an outage.
- Cass County Electric’s off-peak generator program can save commercial consumer members up to 25 percent on their electric rate.
- Programs exist to aid with the cost of backup generation.

Uninterruptible Power Supplies (UPS)
- With or without backup generation, a UPS can protect sensitive or critical equipment, such as computer servers, by providing battery backup power for a short period.
- Some UPS systems also provide surge protection.

Phase Loss Protection
- Phase loss protection devices can prevent damage to heavy equipment during the loss of a single-phase on a three-phase line.

- This equipment is relatively inexpensive and straightforward to install.
- Phase or voltage monitors generate audible or visible alarms or completely shut the motor down during loss of phase or phase imbalance.

Surge Protection Devices
- Transient voltage surge suppressors (TVSS) are among the most commonly used and least expensive power protection devices.
- They clamp off excess voltage when it exceeds a certain level (generally 500 volts or less) and directs excess voltage away from the protected equipment.
- Multi-point installation recommended, including a service entrance point, distribution panels, and at the individual circuit for any sensitive equipment.

Outage Notifications
- We provide automatic power outage text and email notifications for multiple contacts.
- Our live outage viewer is available at outage.kwh.com and through the Cass County Electric mobile app.
- Updates for large outages are posted on Cass County Electric’s Facebook page.
- Please call 701-356-4400 or email energy@kwh.com to review the notification settings for your business.

Reporting an Outage
- Cass County Electric’s 24/7 power control center is always ready to respond to power outages.
- We encourage all consumer-members to call our outage line at 701-356-4499 to report a power outage.
- In the event of high call volumes, follow the prompts on our IVR system to report your outage and to hear outage updates.
- Download the Cass County Electric mobile app to report a power outage on either iPhone or Android.
Electric vehicles have something for everyone: exciting technology, impressive driving experiences, and reduced emissions. Cass County Electric is bringing the benefits of electric vehicles to its consumer-members and the Fargo-Moorhead metro area with more convenient charging locations.

Cass County Electric has been awarded funding through the Volkswagen settlement fund to install three Level-3 DC fast chargers in the Fargo area. The funds will cover a significant portion of the cost to purchase and install the electric vehicle charging stations located at:
- West Acres Mall
- Hornbacher’s Gateway West
- F-M Convention and Visitor’s Bureau

The electric vehicle chargers are 62.5 kW Level-3 DC fast chargers from ChargePoint, Inc. and will be “pay-to-charge” stations. These chargers will provide a fast charging option for electric vehicle interstate travelers.

The goal is to break ground, install, and make the three chargers operational this summer (2020).

We have a total of 33 Level-2 electric vehicle chargers on the system. Twenty-six are residential chargers and seven are commercial chargers.

The Level-3 DC fast chargers will be the first of their kind on our system and some of the first in North Dakota.

_There are many options for electric vehicles, from fleet vehicles to forklifts._ Any questions about electric vehicles or possible funding/grant opportunities? Please call Cass County Electric at 800-248-3292, email us at energy@kwh.com or visit our website at casscountyelectric.com/electric-vehicles.
Charging Information

<table>
<thead>
<tr>
<th>Level</th>
<th>插入方式</th>
<th>充电设施</th>
<th>所在地</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level-1</td>
<td>插入标准插座</td>
<td></td>
<td>常见于公共场所</td>
</tr>
<tr>
<td>Level-2</td>
<td>利用单独充电站</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level-3</td>
<td>利用直流电</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Electric Requirements

<table>
<thead>
<tr>
<th>水平</th>
<th>电压 (V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level-1</td>
<td>120 (AC)</td>
</tr>
<tr>
<td>Level-2</td>
<td>208 或 240 (AC)</td>
</tr>
<tr>
<td>Level-3</td>
<td>208 或 240 (AC)</td>
</tr>
</tbody>
</table>

Charging Speeds

<table>
<thead>
<tr>
<th>水平</th>
<th>范围/小时</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level-1</td>
<td>~5</td>
</tr>
<tr>
<td>Level-2</td>
<td>~25</td>
</tr>
<tr>
<td>Level-3</td>
<td>~100</td>
</tr>
</tbody>
</table>

Approximate Time to Charge (From Empty)

<table>
<thead>
<tr>
<th>水平</th>
<th>时间 (小时/分钟)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level-1</td>
<td>10 - 40</td>
</tr>
<tr>
<td>Level-2</td>
<td>3 - 8</td>
</tr>
<tr>
<td>Level-3</td>
<td>20 - 60</td>
</tr>
</tbody>
</table>

Incentives for EV Chargers Installed on Off-Peak:

- **Option #1**: 免费 Level-2 西门子 EV 充电器
- **Option #2**: $50/kW ($500 MAX PER METER)

In addition to the incentives offered from Cass County Electric, current federal consumer tax credits are available ranging from $2,500 to $7,500 based on the size of the vehicle’s battery. Also, many insurance carriers offer discounted rates. Cass County Electric Cooperative provides the load control device for both options.

Off-Peak Rate Options:

- **$7 Monthly Credit**: 如果安装的充电器是唯一的并且没有其他离峰负荷
- **$0.055 Off-Peak Rate ($5 Meter Charge)**: 如果有其他离峰负荷

EV Requirements to Qualify for Off-peak

- All-electric vehicles and plug-in hybrids qualify
- Level 2-charger, 240V

Charging Periods

- October-May: Noon—5 p.m. and 11 p.m.—7 a.m.
- June-September: Midnight—10 a.m.

Find public charging stations in your area at [CassCountyElectric.com/ev](http://CassCountyElectric.com/ev) or [plugshare.com](http://plugshare.com).

For program questions email energy@kwh.com.
All-of-the-Above Energy Strategy

At Cass County Electric Cooperative, we support an “All-of-the-Above” approach to our generation resources. Renewable resources are an essential piece of our generation mix, (wind energy specifically as 34 percent of our generation capacity comes from ND wind farms). Still, they are only a piece of the puzzle; they do not make up the entire picture. Our baseload ND lignite coal generation remains a vital resource to ensure that we meet our mission “to serve our members’ energy needs with affordable and reliable electricity.” There are many times throughout the year when the wind does not blow, or temperatures become too cold for wind turbines to operate. During these times, is when baseload 24/7 generation resources (like our ND lignite coal) ensures your lights and heat stay on when you need them on.

“Our nation is striving toward a cleaner electric grid, but that doesn’t mean we have to shut down all fossil fuel generators and depend solely on wind and solar facilities. In our region, that simply won’t work. The stakes are too high. When it’s 30 below zero, we need electricity so reliable that we don’t have to think twice about it.” - Mac McLennan, President, and CEO of Minnkota Power Cooperative

Capacity vs. Energy

55%  
ND Lignite
Our plants are equipped with emission control technologies that meet or exceed all current state and federal air quality standards.

34%  
ND Wind
Three wind farms and two independent turbines with a nameplate capacity of 457 megawatts are under contract with NextEra Energy.

8%  
ND Hydro
Power from Garrison Dam in western North Dakota comes from Western Area Power Administration.
Infinity Renewable Energy Program

Your energy. Your way.

Environmental Stewardship
We have a program to work with your company's renewable energy goals. Through the Infinity Renewable Energy program, you can decide how much of the electricity you purchase is generated by renewable resources. By enrolling in this program, you can designate the percentage of the electric use your business would like to be derived from renewable energy. Cass County Electric will allocate the appropriate amount of renewable energy through the program and indicate your purchases on your monthly bill. The record of your purchase and proof it was reserved for your company is done through a renewable energy credit (REC).

Renewable Energy Credit Measurement
An REC verifies that electricity was generated from an eligible renewable energy resource and was integrated into the electric grid. All wind RECs purchased through the Infinity program are certified by the Midwest Renewable Energy Tracking System. This certification ensures that the RECs are only used once. When you determine the amount of renewable energy your business would like to purchase, an equivalent number of RECs will be retired on your behalf.

Additional costs are incurred to purchase renewable energy and specifically to designate how this energy is credited and used. Contact Cass County Electric’s energy management team for current pricing options. Please email us at energy@kwh.com to find out more!

No contracts are required. The only stipulation is your company is a consumer-member of Cass County Electric Cooperative. The Infinity Renewable Energy Program has a designated energy rate that will be included on your monthly bill.

In North Dakota and Minnesota, we can't slow down when it's 30 below. Our electricity can't, either. That's why we're all in on all-of-the-above energy.
Prairie Sun Community Solar

Cass County Electric Cooperative’s Prairie Sun Community Solar is the first community solar garden in North Dakota. Prairie Sun Community Solar array is located near 63rd Street South, off of 52nd Avenue South in Fargo, and has been sending electrons back on the grid since 2017.

Solar energy is clean and a renewable source of energy. Additionally, monthly credits will be calculated based on the current electric rate. This means if rates go up, the credit you receive from your panels’ production will too.

Any Cass County Electric Cooperative consumer-member may purchase the output of an amount that equals no more than 75 percent of their lowest monthly energy use. Participation may be subject to a review of current account standing.

Historical Monthly Energy Credit

Below is a representation of the monthly credits applied since the project’s inception.

One full panel ($700) is projected to provide a credit of 10-45kWh per month, meaning your credit will likely vary from month to month because of weather and time of year. Based on current electric rate, the average solar credit from one panel could average $35 per year. Credits will be calculated based on the current rate, so if rates increase, your solar credit will too.

A kilowatt-hour is how we measure energy consumption.

This is enough to sustain the power in 15-20 homes.

324 Solar panels
Each panel is 77 × 39.05 × 1.57 inches, contains 72 cells, and weighs 60.8 pounds.

22% Of the panels are still available as of March 10, 2020.
Any Cass County Electric consumer-member can participate in the program.
Emissions Reduction

Cass County Electric Cooperative supports an All-of-the-Above energy policy to provide affordable, reliable, and safe energy to our consumer-members. In 2011, Minnkota Power Cooperative (MPC) completed $425 million in emission control projects to meet or exceed EPA emissions guidelines at the Milton R. Young Station. That investment addresses sulfur dioxide (SO2), nitrogen oxides (NOx), and mercury (Hg) emissions. Project Tundra, a proposed carbon capture venture, is in the advanced engineering and design phase. If constructed, it would remove 95 percent of CO2 emissions from Milton R. Young Unit 2, addressing the remaining emissions issues. For more information on Project Tundra, visit projecttundrand.com.