

Supply, Demand, and Load Control

As the CEO of Todd-Wadena Electric Cooperative, I am pleased to share insights into the complex, yet essential, process of balancing electricity supply and demand—a process that ensures you have reliable power when you flip the switch.

The graphic printed alongside this column provides an overview of how electricity is generated and delivered to homes, schools, and businesses. Electricity is produced at power plants and then transmitted across the grid by a sophisticated network of regional grid operators, including Regional Transmission Organizations (RTOs), Independent System Operators (ISOs), and electric utilities like Todd-Wadena. These entities act as energy traffic managers, coordinating how much electricity is generated and where it is sent to meet real-time demand.

Demand for electricity fluctuates throughout the day, influenced by factors such as weather conditions, time of day, and consumer behavior. Our grid operators, plant operators, and utility teams collaborate to forecast, plan, and secure enough electricity to meet these changing demands. This coordinated effort is critical to maintaining a stable and efficient power supply for our communities.

One of the key strategies we utilize to maintain this balance is load control. Load control programs allow us to temporarily reduce electricity consumption during peak demand periods by remotely

managing specific appliances and systems, such as water heaters and heating and cooling systems, in participating



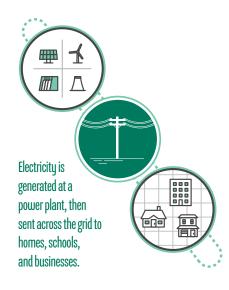
President/CEO & General Counsel

homes and businesses. This not only helps balance the grid, but also reduces the need to build additional, costly generating facilities. By implementing load control, we can efficiently manage existing resources, lower operational costs, and delay or eliminate the necessity for new infrastructure, ultimately saving our members money.

Several factors impact electricity supply and demand, including demand surges, extreme temperatures, infrastructure costs, supply chain challenges, fuel prices, and federal and state regulations. Navigating these challenges requires proactive planning and the adoption of innovative solutions like load control to maintain a resilient and cost-effective energy system.

At Todd-Wadena Electric Cooperative, we are committed to providing safe, reliable, and affordable electricity to our members. Our load control programs are just one example of how we leverage technology and strategic planning to meet this commitment. By working together, we can continue to power our communities efficiently and sustainably for years to come.

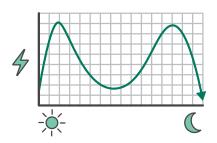
> **Daniel Carlisle** President/CEO & General Counsel



The amount of electricity generated and how much is sent to where it's needed are typically coordinated and monitored by regional grid operators that essentially act as energy traffic managers.

Regional Grid Operators Regional Transmission Independent System Organizations (RTOs) Operators (ISOs)

As electricity demand varies throughout the day, grid operators, power plant operators, and electric utilities work to forecast, plan, and purchase enough electricity for everyone. Load control programs can be used to temporarily reduce electricity consumption during peak demand periods.



Ensuring communities have the exact amount of electricity they need is a challenging task, but behind the scenes, a network of industry experts make it happen every day.

Reminder: Power The Power Cost Adjustment (PCA) charge went into effect with January usage. You will see this line item on your February billing statement. For more information on the PCA, Cost Adjustment please refer to the December 2024 and January 2025 Pine to Prairie newsletters.

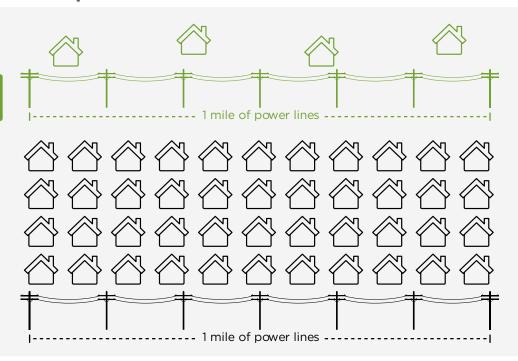
Going the Extra Mile: How Co-ops Differ From Other Utilities

Todd-Wadena Electric Cooperative

Serves 4 consumer-members per mile of line.

Investor-Owned and Municipal Electric Utilities

Serve 44 consumers per mile of line.



Electric cooperatives began when investor-owned utilities (IOUs) didn't see the value in distributing electricity to rural areas and farms, where their return on investment was lower compared to cities. A group of farmers created Todd-Wadena Electric Cooperative to provide their families and neighbors with similar opportunities as those in towns. Electricity greatly improved their lives, and we are proud to continue powering rural Minnesota.

The cooperative business model differs from municipalities and IOUs like Minnesota Power, Xcel Energy, and Ottertail Power. Unlike IOUs and municipal services, which average 44 customers per mile of distribution line, Todd-Wadena Electric Cooperative averages **4.1 members per mile.** This

means IOUs can distribute the cost of electric service among more customers, resulting in a smaller service availability charge (also known as a basic or facility charge).

The service availability charge is each member's share of the cost to distribute electricity (wires, transformers, construction, etc). This is the cost for all the equipment before you even use 1 kWh. Whether you use electricity from Todd-Wadena Electric Cooperative year-round or have a seasonal cabin, this is a monthly charge that all members pay. The cost to provide energy is distributed equally, ensuring that the lights turn on when you flip the switch. Each rate class has its own set service availability charge.

What also sets us apart from IOUs and municipalities is capital credits.

As a member, you earn capital credits each year based on your patronage. If you purchase more electricity in a year, your allocation of capital credits is higher. These allocated funds, or excess margins, are used as operating capital for improvements and maintenance to keep our electrical system in top shape. When financially feasible, TWEC's Board of Directors approves the retirement, or refund, of a portion of member capital credits. In December, we retired a total of \$534,000 in capital credits from 2009 for TWEC, and for the years 1997-2003 from our power supplier, Great River Energy.

Our mission remains the same for both year-round and seasonal members: to provide the best service possible and be your trusted energy partner, delivering safe, reliable, and affordable energy options.

The Benefits and Efficiencies of Installing a Residential Air Source Heat Pump

As homeowners look for energy-efficient, cost-effective, and environmentally friendly ways to heat and cool their homes, air source heat pumps (ASHPs) are becoming a popular choice. These systems offer superior energy efficiency and year-round comfort, with options for both ducted and ductless setups. Recent advancements, including adherence to the new SEER2 and HSPF2 efficiency standards, have made these systems even more attractive.

What is an Air Source Heat Pump? An air source heat pump transfers heat between indoor and outdoor air using a refrigeration cycle. This allows it to provide heating and cooling with far greater efficiency than conventional HVAC systems.

In the winter, they pull heat from the outdoor air to provide **efficient heating**...

and run in reverse in the summer to.... provide **air conditioning**.

Efficiency Benefits of ASHPs

1) Energy Savings:

- ▶ ASHPs can achieve efficiency rates of 200-400%, delivering 2-4 units of heating or cooling for every unit of electricity consumed.
- ▶ New models are designed to work efficiently even in colder climates. One system provides both cooling and heating down to a certain temperature depending on the unit.

2) Lower Operating Costs:

▶ High energy efficiency means lower electricity bills compared to traditional heating or cooling systems, especially those reliant on oil, propane, or resistance heating.

3) Environmental Benefits:

➤ ASHPs produce fewer greenhouse gas emissions, making them an eco-friendly choice.

Understanding SEER2 and HSPF2 Standards

When comparing air source heat pumps, understanding their efficiency ratings is key. SEER2 and HSPF2 are the updated metrics that indicate cooling and heating efficiency, reflecting real-world conditions more accurately than their predecessors.

SEER2

Seasonal Energy Efficiency Ratio 2

- What It Measures: SEER2 represents the cooling efficiency of the heat pump over an average cooling season.
- Why It's Important: The higher the SEER2 rating, the more efficient the unit. This metric considers resistance from ductwork and other realistic factors.
- Standards Update: As of January 2023, SEER2 replaced SEER to provide a more accurate representation of system performance under Department of Energy (DOE)-mandated testing conditions.
- ▼ Typical Ratings: Modern heat pumps have SEER2 ratings ranging from 13.4 to 20+, with higher numbers indicating better efficiency.

HSPF2

Heating Seasonal Performance Factor 2

- What It Measures: HSPF2 measures the heating efficiency of the heat pump over an average heating season.
- Why It's Important: Like SEER2, a higher HSPF2 means greater efficiency, which translates to lower operating costs during the heating season and heating to lower temperatures.
- Standards Update: HSPF2 replaces HSPF to reflect updated DOE testing procedures that better simulate real-world performance.
- ▼ Typical Ratings: New systems typically have HSPF2 ratings of 7.5 to 10+, with higher ratings preferred for colder climates.

Features and Benefits of *Ducted* and *Ductless* Air Source Heat Pumps

Ducted Air Source Heat Pumps

FEATURES

Integrates with existing ductwork or a new central air system.

Offers even temperature distribution throughout the home.

Supports zoning for better control.

BENEFITS

Ideal for whole-home heating and cooling.

Aesthetic integration with no visible indoor units.

Enhanced airflow efficiency for large spaces.



Ductless Air Source Heat Pumps

FEATURES

Compact indoor units mounted on walls, ceilings, or floors. No ductwork required, making installation less invasive. Can serve single rooms or multiple zones.

BENEFITS

Perfect for homes without ducts or for room-specific solutions. Individual zone control reduces energy waste in unused areas. Eliminates energy losses associated with duct systems.

Key Benefits of Air Source Heat Pumps

1) Versatility:

Ducted systems are perfect for large, centrally heated homes, while ductless systems offer flexibility for retrofits and specific zones.

2) Energy Cost Savings:

The high efficiency of ASHPs, combined with their adherence to SEER2 and HSPF2 standards, ensures reduced energy consumption.

3) Improved Indoor Air Quality:

Many heat pumps come equipped with advanced filtration to reduce allergens and pollutants.

4) Government Incentives:

Federal and state programs offer rebates and tax credits for high-efficiency heat pumps, making them even more affordable.

Conclusion

By investing in a modern air source heat pump with high SEER2 and HSPF2 ratings, homeowners can enjoy lower energy bills, reduced environmental impact, and year-round comfort. Whether you opt for a ducted or ductless system, an ASHP is a future-proof HVAC solution that enhances efficiency, comfort, and sustainability.

Air Source Heat Pump Rebates

Ductless* ASHP	≤1-ton, ≥14.3 SEER2 & ≥7.5 HSPF2 ≤1-ton, ≥16.0 SEER2 & ≥8.0 HSPF2 >1-ton, ≥14.3 SEER2 & ≥7.5 HSPF2 >1-ton, ≥16.0 SEER2 & ≥8.0 HSPF2	\$150 \$250 \$500 \$700
Ducted** ASHP	≤5-ton, ≥14.3 SEER2 & ≥7.5 HSPF2 ≤5-ton, ≥ 16.0 SEER2 & ≥8.0 HSPF2	\$500 \$700
* Durables of ACUDe result has Fragger Characterists		

Ductless ASHPs must be Energy Star rated.

^{**} Ducted ASHPs must be installed by a "Quality Installer" for rebate. Visit our website for details.



Be Vigilant! Scammers Are Out There

We recently had a member inform us about a phone scam that happened to them. The scammers told the member they were from "Sebeka Electric Company" (red flag #1) and they were going to shut off their electricity for non-payment on their credit card. The scammer told the member that they needed to renew their credit card number over the phone with them (red flag #2). We will *NEVER* call you and demand immediate payment over the phone or by credit card, gift card, money order, or any other method.

For security reasons, we do not take credit card numbers over the phone. If you are enrolled in AutoPay with a credit card, you can update or change your card number in your SmartHub account. Remember to stay vigilant—scammers want to create a sense of urgency so they get you to react. This

scammer called from a private number, but scammers can also spoof phone numbers to make it look like the call is coming from someone you know. The best thing you can do if this happens to you is to hang up and call us directly—do not call them back using the number they gave you, or the number in your *recent calls*.



Meals 4 Members

We are continuing to collect food items for our *Meals 4 Members* program which serves TWEC members in need. Your food donations are gathered and then distributed directly to members who can use assistance. Please donate *unexpired goods/non-perishable* food items now through April in our lobby. Monetary donations are also welcome.

If you are in need of a one-time food delivery basket, please scan the QR code or contact Kallie at (218) 632-3216



TWEC Board Minutes

Highlights from the December 20th, 2024, regular board meeting:

- Board Member Mike Thorson gave the Great River Energy (GRE) report.
 Sales continue to be down for 2024.
 GRE will be using the \$14.1 million in deferred revenue to meet year-end revenue requirements.
- The board approved two motions to vote in favor of GRE's amended Appendix B of the Power Purchase Contract and in favor of the Nextera Energy Resources — Red Butte Wind Energy Purchase Resolution.
- Lisa Graba-Meech, CFO, presented the November financials to the board. Monthly kWh sales were 9 percent under budget. Energy revenue was 7 percent under budget. November's purchased power expense was 4 percent under budget. Tier is 2.13 and Equity is 40.71.
- The 2025 Membership and Dues list was approved as presented.
- The board approved the 2025 Budget and 10-Year Forecast.
- Member & Energy Services Manager Allison Frederickson presented on load management and how load shedding carries so much weight within the MISO footprint.
- Operations Manager Tyler Fisher gave the November report on new construction and outages.
- Graba-Meech shared a breakdown of 2024 capital credit payments by amount and quantity — comparing active to inactive members.
- Board Member Dale Adams gave the STAR Energy report. He shared that everything is going very well at STAR, and they will be ending the year financially strong.
- Board Chair Miles Kuschel provided a legislative update. He shared how the Minnesota Public Utilities Commission approved the CO2 pipeline that will run from Fergus Falls to Wahpeton and then connect with North Dakota's Nordstream main line.

Congratulations!

-Years of Service Awards-



Lisa Graba-Meech



Jon Grenier
Crew Chief



Mary Williams *Energy Services Specialist*

\$0.00



Heidi SmithBilling & Software
Specialist

Report Outages Through SmartHub!

The SmartHub app goes beyond simple online payments. It also allows you to monitor your energy usage, update your contact details, and quickly report power outages.

SmartHub's outage reporting is directly connected to our 24/7 outage management system, ensuring reports are received and processed promptly. We advise against using social media or email for outage reporting, as those channels may not be monitored in real time. SmartHub receives and organizes outages almost immediately and helps us get linemen headed in the right direction to get your power restored.

To report an outage through your SmartHub mobile app, follow these simple steps (which assume you've already installed the app and are logged in):

- 1) Open the app. On the main dashboard, click Report an Issue/Inquiry.
 Then select Report Power Outage.
- **2)** Select which account is experiencing an outage (*if you have multiple*). Review the terms and conditions and click *Accept* if all are true.
- **3)** Toggle on **Send My Current Location** (note: you may be asked to turn on location services via your settings).
- **4)** Add any relevant information in comments and, when ready, click **Send** in the top right corner.

Note: You must be a registered user of SmartHub in order to use it to report an outage via the mobile app.

^{*}You can also submit outages via the SmartHub web application.

Pine to Prairie News

A monthly publication for members & friends of



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Monday - Friday

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If your electric power goes out:

First, make sure the problem is not on your side. (Members may be billed for service calls if the problem is caused by their own equipment.) Check fuses and circuit breakers in your home and by the meter pole. (Call us for help, if necessary.)

Second, check with your neighbors to see if they have power. Then call Todd-Wadena to report the problem. Give your name and account number. Then report any tree branches, twisted wires, broken poles, and whether or not your neighbors are also out of power.

Before digging call:

Gopher State One-Call 811 or (800) 252-1166







www.facebook.com/toddwadenaelectriccooperative www.instagram.com/twec.coop

Todd-Wadena Electric Cooperative

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February Reader's Contest

For your chance to be entered in a drawing to win a \$10 credit on your bill, correctly answer the questions and include with your TWEC bill. Mail to TWEC, P.O. Box 431, Wadena, MN 56482. Or email the answers to mbrservices@toddwadena.coop with the subject line "Reader's Contest". Be sure to include your name and TWEC service address. Entries must be received by March 15th.

1. The 2025 Annual Meeting will take place on Tuesday, Ap	ril
at the Maslowski Wellness & Research Center.	

- 2. Todd-Wadena Electric Cooperative averages _____ members per mile of line compared to IOUs/Municipalities that serve 44 consumers per mile of line.
- **3.** For security reasons, members must update their card number in their _____Hub account.

Name:	Your TWEC Account Number:

James Neuman of Wadena was the winner of our December Reader's Contest.