



taking  
charge

Northwest Iowa Power Cooperative displayed their Ford Mustang Mach-E at Nishnabotna Valley REC's 2021 annual meeting.

## Cooperative task force studies future impact of electric vehicles

Love them or hate them, electric vehicles are likely here to stay.

While electric and plug-in hybrid electric vehicles currently make up less than one percent of the cars and trucks on Iowa's roads, those numbers are expected to climb dramatically over the coming decade.

Legacy automakers including Ford, General Motors, and Toyota have all announced multibillion dollar investments into developing new electric vehicles (EV) and battery technologies. As costs drop and consumers become increasingly comfortable with EVs, industry analysts expect to see double digit yearly growth, with some predicting electric vehicle sales to possibly double annually.

Currently, the state is adding approximately 4,000 EVs each year. Locally, Nishnabotna Valley Rural Electric Coop-

erative's (NVREC) four largest counties saw an increase of 64 percent in EV registrations from 2020-2021.

While there are still relatively few EVs on NVREC's lines, that's poised to change. Nationally, 50 percent of consumers planning to purchase a vehicle in the next 24 months say they're considering an EV or hybrid vehicle.

Last year's passage of the Inflation Reduction Act is also helping drive demand. The act cemented and expanded the existing \$7,500 tax credit for new electric vehicles, removing the lifetime cap per manufacturer. It also makes used electric vehicles eligible for a \$4,000 tax credit, a move industry watchers say will help boost traditionally low resale values.

### PLANNING FOR GROWTH

To ensure Nishnabotna Valley REC's distribution system is ready to accom-

modate this potential growth, the co-op formed a special employee EV task force last fall.

Charged with performing a detailed analysis on the possible impacts of widespread EV adoption in our area, the panel worked to identify the unique challenges and opportunities the rapid adoption of EVs could pose. The team also evaluated best practices and alternative rate structures at co-ops around the state and country.

Among their key findings were:

- The need to explore new tools and rate structures to help members better understand how their charging habits impact the co-op's bottom line.
- Planning for near term potential load growth to ensure adequate substation and





distribution capacity for both residential and commercial chargers.

• Developing educational outreach programs for members and employees.

“We recognize that electric vehicles have benefits and drawbacks,” said Todd Bruck, NVREC electric serviceman foreman. “Our goal as a co-op is to be a resource for those members who have EV questions.”

“Just like we support an ‘all of the above’ strategy when it comes to electric generation, we also support a variety of fuel sources, whether that’s Iowa grown and produced ethanol, traditional gasoline, or EVs. We’re here to help our members separate fact from fiction and make the best choice for their lifestyle.”

**BUMPS IN THE ROAD**

According to a 2021 Pew Research Center report, consumers most frequently cite price and reliability as their two biggest hurdles preventing them from purchasing an electric vehicle. Locally, members often report the area’s lack of charging infrastructure and vehicle limitations, such as driving range, towing capacity, and cold weather performance, as their biggest concerns. However, as auto manufacturers make advancements in battery technology, vehicle costs are expected to drop while performance improves.

“This is an industry that’s literally changing every day,” said Janell Leinen, NVREC communications specialist. “The technology is constantly changing, and we need to be ready. We know members are curious about electric vehicles and how they’ll impact our cooperative.”

**IMPACT ON THE GRID**

Nationally, the growth in electric vehicles poses a challenge for electric utilities. Traditional baseload generation resources, such as coal, nuclear, and natural gas plants are increasingly being replaced by more renewable resources, such as intermittent solar and wind energy. While these alternative resources may have environmental benefits, they lack the needed around-the-clock reliability members depend on. This can become especially problematic during periods of high demand.

This December, unseasonably cold tem-

peratures coupled with a lack of wind production caused Southwest Power Pool, the regional balancing authority that oversees NVREC’s service area, to issue an energy emergency alert. While blackouts were thankfully averted, the situation highlights the importance of smart energy policies that balance both traditional and renewable energy sources.

Unfortunately, widespread adoption of electric vehicles has the potential to exacerbate the situation.

While many of today’s EVs require a charge rate in the 7-kilowatt (kW) range, some models go much higher, including the Ford Lightning which charges at up to 19.2 kW. By comparison, an electric clothes dryer or a home air conditioner use roughly 2.5 kW, while a residential heat pump or electric water heater may use 5-10 kW. However, unlike heat pumps or water heaters that use electricity periodically throughout the day, often when the electric grid has an abundance of power, electric vehicles are frequently charged at the very time the electric grid is stretched thinnest.

Commuters returning home from work in the evening often plug in their vehicle before heading inside to turn on the lights, turn the thermostat up (or down in the summer), start dinner, or run a load of laundry. All this additional usage contributes to increased wholesale demand charges from NVREC’s power supplier, costs that are ultimately reflected in the co-op’s rates.

**POTENTIAL OPPORTUNITIES**

With the majority of current electric vehicle owners reporting they’re very or

somewhat likely to add a second electric vehicle in the future according to Pew Research, educating members about the best times of day to charge is critical.

On the flip side, electric vehicles also represent a tremendous opportunity for the cooperative. Members are increasingly modifying their charging habits by programming their vehicles or chargers to charge during off peak hours, such as late at night or during the day when solar energy is most abundant. This additional load, when appropriately timed, has the potential to provide a new source of revenue for the co-op, helping to keep rates stable. Members also benefit from the convenience of charging at home while also seeing significant savings on their fuel bills.

“Over the coming months, we’ll be creating additional resources for members interested in electric vehicles,” Bruck said. “Just like we tell members to call us first when considering installing solar or putting in a new HVAC system, we hope members will turn to us when thinking about buying an EV. We’re here to help.”

To encourage members to adopt smart charging habits and help prepare for possible EV specific programs in the future, NVREC offers members a rebate of up to \$750 on a level II residential charger and up to \$1,200 per charger for commercial installations. Members are also asked to notify the co-op when adding an electric vehicle to our lines. This data enables the co-op to better plan future system upgrades, helping ensure reliable service.

***For more information on EVs, charger rebates, or to register your EV, call us at (712) 755-2166.***



***Ford Mustang Mach-E***

# Building momentum for energy-efficient housing

Almost 200 building industry professionals and Iowa electric co-op staff attended the 2023 Momentum is Building conference, held February 16-17 in Altoona, Iowa.

Sponsored by the Iowa Cooperatives for Energy Efficiency, the annual conference promotes residential energy efficiency building concepts and construction best practices. It also provides valuable CEU training for electricians, plumbers, and HVAC professionals. This year, 13 vendors and exhibitors attended the conference to share new trends and products related to residential energy efficiency. The conference also serves to educate the next generation of professionals, as several construction students from Indian Hills Community College attended.

Attendees heard from Tolu Omotoso, director of energy solutions at NRECA, who talked about emerging smart home technologies that improve energy efficiency.

The acclaimed Wartburg College wres-



ting coach Jim Miller closed the conference with an inspiring message about going the extra mile for yourself and your team.

The annual Momentum is Building Conference connects Iowa's construction industry with the local services and resources available from Iowa's electric cooperatives.

Next year's conference is scheduled for February 8-9. The annual conference is managed and organized by Iowa's generation and transmission cooperatives, including Northwest Iowa Power Cooperative (NIPCO), which supplies power to Nishnabotna Valley REC.

## NVREC pays visit to state capitol

*Directors highlight current, future legislative priorities*



Nishnabotna Valley REC directors and staff recently visited the state capitol to meet with legislators. The visit allowed lawmakers to learn about the cooperative's positions on current and potential legislation and how it would impact our member-owners. Clockwise from top left: Rep. Steve Holt, Sen. Jason Schultz, Sen. Tom Shipley, and Rep. Thomas Moore.



# Sustaining a reliable electric system

We've all heard the phrase, "Don't put all your eggs in one basket." This adage is especially appropriate when it comes to the topic of power generation. Nishnabotna Valley REC has long advocated for a commonsense approach to incorporating renewable energy resources into the region's energy generation portfolio.

With recent innovations in renewable energy technologies leading to sharp decreases in costs, electric utilities around the nation have increasingly turned to wind and solar generation. These shifts, driven by both economic and political pressures, have resulted in a generation mix that is increasingly "green."

In fact, over the last few years Northwest Iowa Power Cooperative (NIPCO), Nishnabotna Valley REC's wholesale power provider, has added additional renewable energy into their portfolio. Today, slightly more than 40 percent of their power is generated from renewables, including sizeable allocations of hydroelectric and wind power.

Nationally, utilities are increasing their reliance on more intermittent renewable generation, forgoing traditional baseload generation resources, such as coal and nuclear power plants. Simultaneously,



**Gavins Point Dam**  
Yankton, South Dakota

rising demands for electricity and recent extreme weather events are putting unprecedented stress on the electric grid.

## COMPETING PRESSURES

So how do we reconcile these challenges of grid pressure and a changing fuel mix? While solar and wind energy have environmental benefits, they come with limitations. Because the sun does not always shine and the wind does not always blow, these assets are deemed to have relatively low capacity factors. Capacity is a

measure of how often a plant is running at maximum power. According to a 2021 Department of Energy analysis, solar photovoltaic had just a 24.6 percent capacity factor while wind energy came in at 34.6 percent. By comparison, nuclear generation had a capacity factor of 92.7 percent with natural gas and coal coming in at 54.4 and 49.3 percent respectively.

Since Nishnabotna Valley REC's pri-

**CONTINUED ON PAGE 6**



**Oahe Dam**  
Pierre, South Dakota

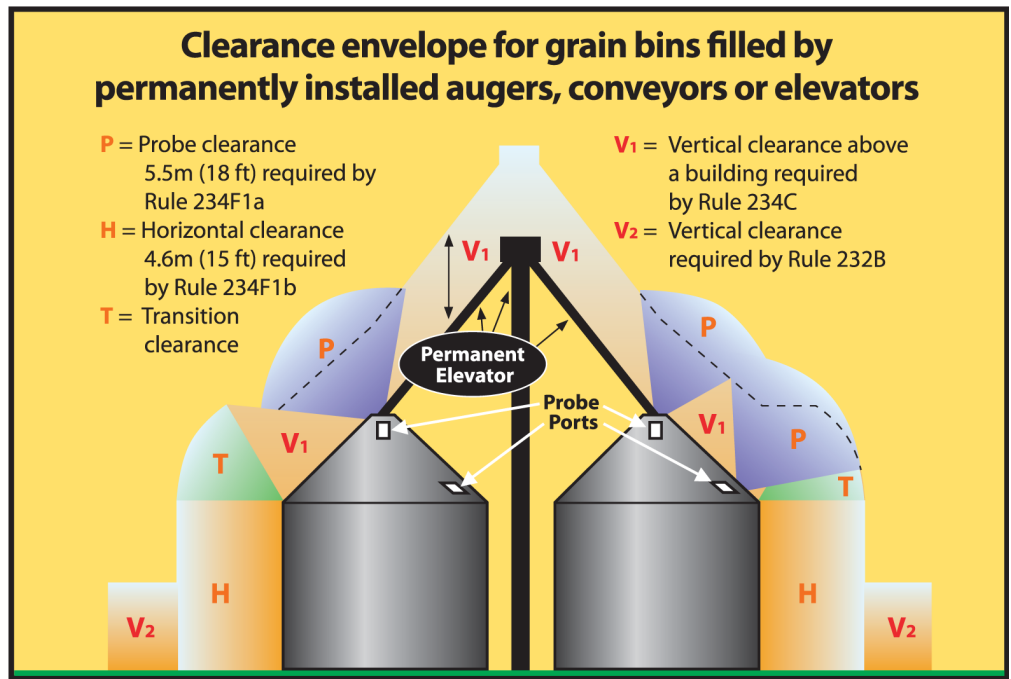
# Planning key when building new grain bin

Each year, NVREC has several requests from members to build services for new grain bin facilities, so we want to remind you of the proper clearance rules concerning electric lines.

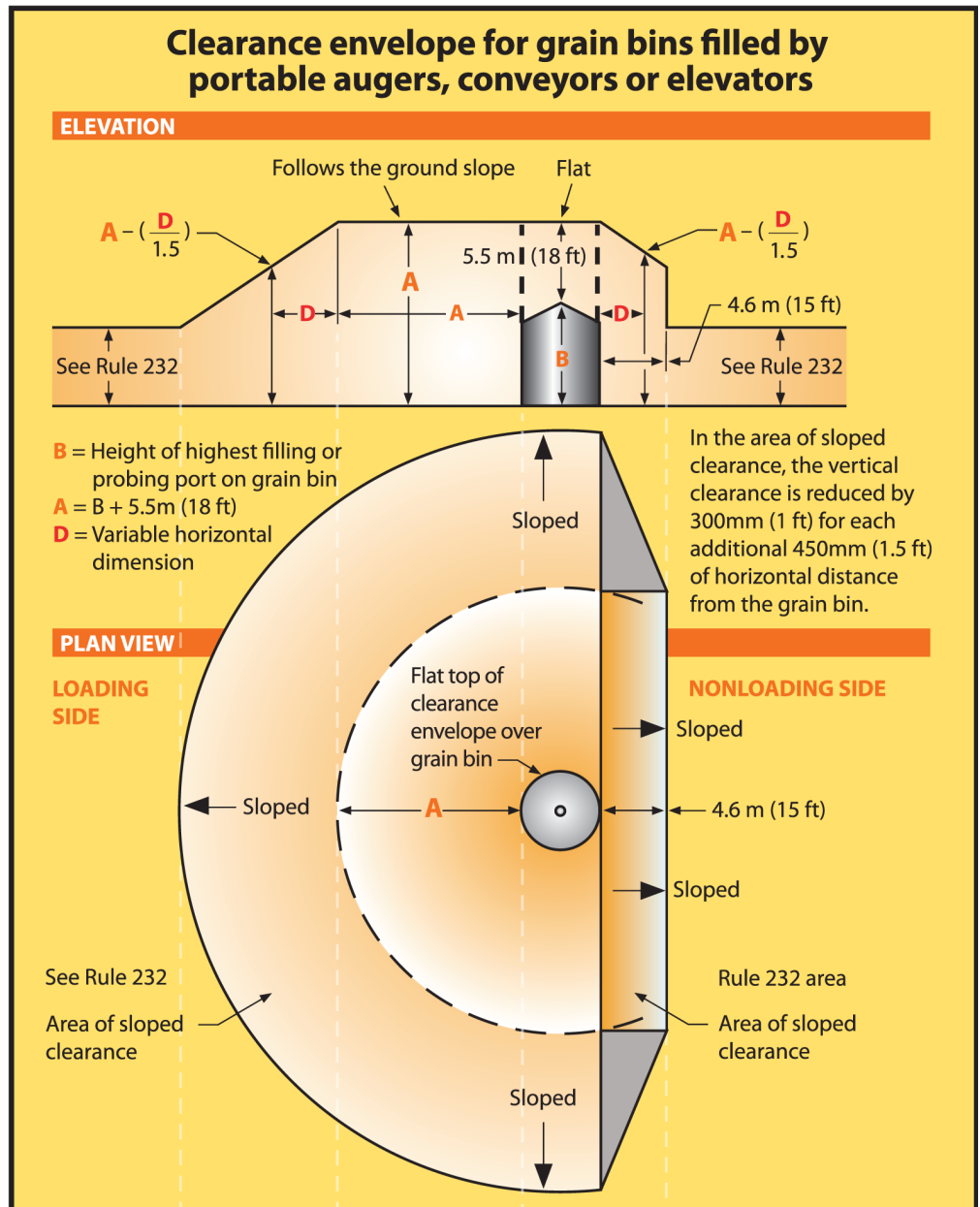
The State of Iowa requires specific clearances for electric lines around grain bins, with different standards for those filled by portable augers, conveyors and elevators, and permanent equipment. In fact, the Iowa Electrical Code Chapter 199 – 25.2(3) b states: an electric utility may refuse to provide electric service to any grain bin built near an existing electric line which does not provide the clearance required by The American National Standards Institute (ANSI) C2-2017 “National Electrical Safety Code,” Rule 234f. This paragraph “b” shall apply only to grain bins loaded by portable augers, conveyors or elevators and built after September 9, 1992, or to grain bins loaded by permanently installed augers, conveyors or elevators built after December 24, 1997. The Iowa Utilities Board has adopted this language.

Nishnabotna Valley REC is required by the Iowa Utilities Board to provide this annual notice to farms, farm lenders, grain bin merchants, and city and county zoning officials. The drawings on this page show the specific clearances regulations – or what needs to be done before you begin placing a new grain bin or moving an existing one. If you have questions concerning clearance regulations, please call NVREC at 712-755-2166 or Northwest Iowa Power Cooperative at 712-546-4141.

**Disclaimer:** These drawings are provided as part of Iowa electric cooperatives’ annual public information campaign and are based on the 2017 Edition of the National Electrical Safety Code. To view the actual drawings, refer to that publication. Every care has been taken for the correctness of the contents for these drawings. However, the Iowa Association of Electric Cooperatives and its member cooperatives accept no liability whatsoever for omissions or errors, technical inaccuracies, typographical mistakes or damages of any kind arising from the use of the contents of these drawings, whether textual or graphical.



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primary responsibility is to provide electricity 24/7 to our member-owners, we need reliable sources of power. And that's where our familiar adage comes into play.

By working to smartly incorporate renewable generation alongside traditional forms of energy, we can ensure the reliable service our members depend on. That's why our wholesale power providers are wisely spreading their eggs into multiple baskets.

Basin Electric Power Cooperative, a wholesale power provider to NIPCO, has also been working to diversify their energy portfolio while maintaining reliability. Over the past two decades, Basin Electric added significant wind and natural gas resources, while also investing in making their existing coal generation assets cleaner and more efficient. They're also looking to the future.

The North Dakota based utility and its



**Wilton Wind Energy Center**  
Wilton, North Dakota

subsidiaries have invested \$170 million on carbon capture equipment and research and development.

**THE BOTTOM LINE**

As our nation increasingly looks to electrify new sectors of our economy, Nishnabotna Valley REC, along with our power providers NIPCO and Basin Elec-

tric, will continue to advocate for smart energy policies that balance the need for sustainable and reliable power. By working together, we can continue to deliver the safe, reliable, affordable, and sustainable electricity that powers your home, farm, or business, as well as our local economy.

# Operation Round Up

*Round Up Your Bill to Help Others*

**What is Operation Round-Up®?**

Operation Round-Up® is a program that allows Nishnabotna Valley REC consumer-owners to make a difference in their own communities. Operation Round-Up® allows you to "round-up" your monthly electric bills and donate the difference to a charitable fund to be used in Nishnabotna Valley REC's service territory. The minimum amount you contribute each month is \$0.01, and the maximum is \$0.99.

**How does Operation Round-Up® work?**

If you choose to participate, your electric bill will be rounded-up to the next highest dollar each month. For example, if your electric bill is \$52.71, an additional balance of 29 cents will be added, making your bill an even \$53.00.

**How will the funds be used?**

Donations are made from the fund to non-profit organizations and individuals in need and also for family emergency disasters. The program has been successfully implemented in more than 200 electric co-ops across the nation. The program is administered by Nishnabotna Valley REC's board of directors.

Application forms are available at the REC office. Applications should be received no later than the 15th of the month and are reviewed regularly. Contributions to the fund are not tax deductible.

By joining with other Nishnabotna Valley REC members, your small monthly donation can make a bigger impact. It's what a cooperative is all about. If you would like to sign up for this worthwhile program and help make a difference, please fill out this form and return it to our office: NVREC, P. O. Box 714, Harlan, IA 51537



**Nishnabotna Valley REC**  
**Authorization for Operation Round-Up®**

Yes, I would like to participate in the community service program Operation Round-Up®. I understand that my electric bill will be rounded up to the next highest dollar. Those funds will be used for non-profit community activities and programs.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_ Zip Code \_\_\_\_\_

Account Number(s): \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

# How territory laws benefit rural Iowans



**Ethan Hohenadel**  
 Director of Regulatory Affairs  
 for the Iowa Association  
 of Electric Cooperatives

During the 2023 Iowa Legislative Session, proposals have been introduced with the intent to deregulate electric service territories in Iowa. Iowa’s electric cooperatives are concerned about the negative economic impacts of deregulation for rural Iowans because we know firsthand how exclusive service territories provide stability. Exclusive service territories also provide consistency and reliability through a utility’s obligation to serve its assigned service territory. I’d like to provide some background on how rural Iowans benefit from these regulations.

In 1976, the Iowa Legislature passed Senate File 1258 which created assigned electric service territories. The legislation’s goal was “to encourage the development of coordinated statewide electric service at retail, to eliminate or avoid unnecessary duplication of electric utility facilities, and to promote economical, efficient, and adequate electric service to the public.”

Let’s break this down. First, the Iowa Legislature desired a coordinated statewide retail electric service system ready to

serve Iowans. This was accomplished with SF 1258 by ensuring that every square foot of Iowa had an electric utility obligated to provide electric service upon request. This means electricity is available to every Iowan no matter where they chose to live, work, vacation, or adventure.

Second, the Iowa Legislature wanted to eliminate or avoid unnecessary duplication of electric utility facilities. SF 1258 achieved this by assigning a single electric utility to serve within the assigned service territory. This means that only one set of substations, power lines, and transformers are installed to serve every home and business in a service territory. Imagine the cluttered landscape of several sets of equipment in your community if multiple utilities provided electric service.

Finally, the Iowa Legislature set out to promote economical, efficient, and adequate electric service to the public. SF 1258 promoted economic electric service by reducing potential expenses related to duplication of electric facilities. Additionally, the legislation promoted efficiency by reducing the electric facilities installed and by establishing service territories based upon existing facilities already installed.

Although the Iowa Legislature didn’t set

out to increase reliability by creating assigned service territories, SF 1258 accomplished that as well.

According to a 2021 utility report published by the highly respected law firm Wilkinson Barker Knauer, LLP, “Deregulation may make power cheaper for some major electricity buyers like Big Tech, but it increases costs for the average consumer, all while sacrificing reliability.

In fact, nine out of ten states in the continental United States with the highest utility costs have fully restructured markets with retail choice.

Deregulation proponents also claim that the approach is clean and green. In reality, these restructured models offer little incentive for the kind of large-scale investment in clean energy technology that we’ll need to meet the demands of a changing climate.”

Additionally, a recent investigation on electric deregulation by The New York Times concluded that on average, residents living in a deregulated market pay \$40 more per month for electricity.

For over 45 years, Iowa’s assigned service territory laws have reinforced reliable and affordable electric utility service. Efforts to weaken or eliminate these laws will only harm rural Iowans.



## SIGN UP TODAY!

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Download the app by scanning the code or by going to [www.smarthubapp.com](http://www.smarthubapp.com)



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Website: [NVREC.com](http://NVREC.com) • Follow us on Facebook!

Outages after hours, holidays, weekends: (800) 234-5122

*Nishnabotna Valley Rural Electric Cooperative is an equal opportunity provider, employer, and lender.*

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 Director ..... Donna Olson  
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A Touchstone Energy® Cooperative 

*Nishnabotna Valley REC will provide safe and reliable electric service to its members in a valuable, sustainable, and environmentally responsible manner.*

## Winter Heating Moratorium Ends April 1, 2023

Iowa's winter home heating moratorium protects customers certified for the Low Income Home Energy Assistance Program (LIHEAP), from electric or natural gas service disconnection from November 1 through April 1.

Beginning April 1, 2023, energy assistance customers could be subject to service disconnection for unpaid bills, with proper notice. To avoid service disconnection, contact NVREC at 712-755-2166 if you have unpaid electrical bills.



**Page 1**

*NVREC is planning ahead for electric vehicles.*



**Page 3**

*NVREC directors pay a visit to the capitol.*



## LINEWORKER APPRECIATION DAY

*Celebrating lineworkers of the past, present, and future!*

**APRIL 18<sup>TH</sup>**