Nebraska Energy Quarterly

NEBRASKA
Good Life. Great Resources.
DEPT. OF WATER, ENERGY, AND ENVIRONMENT

September 2025

DWEE awards $15.6 million in Grid Resiliency Program grants

DWEE has announced the award of over $15 million in grants to local communities to support critical infrastructure upgrades... **Continue...**

Nebraska's 18th annual Wind and Solar Conference set for Oct. 21-22

The 18th annual Nebraska Wind and Solar Conference is set to take place on Oct. 21-22, 2025, at the Marriott Cornhusker Hotel in Lincoln... **Continue...**

How to plan for power outages

September is National Preparedness Month, and everyone is encouraged to learn more about how you can prepare for emergency situations... **Continue...**

Energy Statistics

Nebraska by Numbers Irrigation Information

Nebraska's agricultural economy is highly dependent on groundwater to irrigate crops. Here are some quick facts about irrigation in Nebraska and the energy needed to operate irrigation pumps... **Continue...**

Energy Tips

Fall and winter home heating tips

Heating your home uses more energy and costs more money than any other system in your home—typically making up about 29% of your utility bill. No matter what kind of heating system you have in your house, you can save money and increase your comfort by properly maintaining and upgrading your equipment....**Continue...**

DWEE awards $15.6 million in Grid Resiliency Program grants

The Nebraska Department of Water, Energy, and Environment (DWEE) has announced the award of over $15 million in grants to local communities to support critical infrastructure upgrades that will strengthen the reliability and resilience of Nebraska's electric grid.

The grants are awarded through DWEE's Grid Resiliency Grant Program, which received federal funds through the U.S. Department of Energy's (DOE) Preventing Outages and Enhancing the Electric Grid/Hazard Hardening Program. The program is supported by the DOE's Grid Deployment Office as part of a nationwide effort to modernize and secure the country's energy infrastructure.

Photo by the American Public Power Association on Unsplash

DWEE awarded more than $15 million in Grid Resiliency Grants to 15 communities for projects that will help utilities improve the reliability of Nebraska's electrical grid, enhance grid resilience, and improve systems' ability to recover after disruptive events.

DWEE's Grid Resiliency Grant Program is designed to help utilities improve the reliability of Nebraska's electrical grid, enhance the grid's resilience in the face of extreme weather and other hazards, and to improve systems' ability to recover after disruptive events and attacks.

"Nebraskans rely on electricity every day in their homes, on their farms, and to run their businesses," DWEE Director Jesse Bradley said. "That is why DWEE is proud to provide these grants that will help strengthen energy infrastructure so those customers can count on reliable electric service."

Awarded projects include replacing old power poles and transformers, improving substations, installing stronger and more efficient transmission lines, and using new technology to better monitor and manage the flow of electricity. Some projects will also move power lines underground to reduce the risk of outages.

Each community receiving funding is also contributing matching dollars to cover the remaining project costs, showing a strong local commitment to building safer, more resilient energy systems for the future.

Grant recipients and their projects include:

Back to page 1

Grid Resilience Grant award recipients

Recipient	Project Description	Grant Amount
Ansley	Update distribution system from 2.4kV delta to 12.5kV grounded wye. Replace poles, transformers, overhead conductors, and regulators. Add a primary feed from CPPD Substation to provide a dedicated circuit into the community.	$1,097,047
Central City	Replace 34.5kV transmission line with 69kV transmission line. Perform upgrades to two substations, including transformers. New equipment includes 69kV power lines, new poles, new 69kV to 12.5kV transformers.	$1,800,000
Chimney Rock Public Power District	Install new electronic reclosers with control panels, install distribution automation radios with ethernet ports, and add new software and programing for all equipment in existing substations.	$457,353
Cozad	Replacement of power poles and construction of distribution tie lines to add redundancy. The project objective is to harden the system against severe weather incidents that could cause at-risk power poles to fail and customers to lose power.	$838,919
Fairbury	Retire existing 34.5kV line and install 1.5 miles of new, weather-resistant 34.5 kV line. The new line is anticipated to address existing system susceptibilities, improve reliability, guarantee system redundancies, and reduce system losses by increasing the line's thermal and transfer capacity.	$855,049
Falls City	Upgrade existing 5kV infrastructure with a 13.8kV system to ensure the continuity of essential services, such as power supply to critical facilities. The project will install underground cabling, replace the 50-plus-year-old wooden structure with modern, resilient components, and implement of advanced monitoring equipment.	$ 548,524
Fremont	Relocate one of the 69kV transmission circuits, which will include storm mitigation-based design standards using upgraded poles and conductors. The transmission relocate will be a total of three miles. Eliminates a double-circuited power supply.	$1,914,455
The Midwest Electric Cooperative Corporation	Rebuild 14.5 miles of a radial line on the 69kV transmission system connecting the Grant and Venango substations. The rebuild line will have shorter spans and more robust poles to be able to better withstand wind and ice loading and reduce the chance of wind causing lines to slap together.	$1,914,455

Back to page 1

Grid Resilience Grant award recipients (continued)

Recipient	Project Description	Grant Amount
Nebraska City Utilities	Replace switchgears and relays and incorporate substation into existing SCADA. Construction of climate-controlled enclosure for equipment. The objective is to enhance the resilience and reliability to reduce future outage durations.	$1,419,708
Nelson	Inspect, repair, or replace aging utility poles and cutouts in the city's distribution system. Replace cracked and potentially hazardous cutouts to ensure the safety of maintenance workers and the public	$362,994
Northeast Nebraska Public Power District	Replace distribution system infrastructure. The project will manage utility poles, harden power lines, and replace old overhead conductors or underground cables.	$1,914,455
Oxford	Convert the remainder of the system to 12.5kV, replace switchgear breakers, install underground circuits, and construct a 12.5kV distribution line around the community.	$646,190
Red Cloud	New underground and overhead power lines will provide an upgraded circuit to 13.8Y/7.96kV. It will include a combination of conductors, new poles, and underground equipment, providing redundancy.	$626,203
Tecumseh	Add and replace substation equipment, including switchgears and transformers; install new meters; and add building to house equipment for protection from inclement weather.	$851,358
Wymore	Replace and rebuild critical infrastructure replacing and rebuilding aging H structure poles along the feed lines from the substation, upgrading existing transformers and adding additional transformers to meet load requirements.	$381,143
Total		**$15,627,853**

Back to page 1

Photo by American Public Power Association on Unsplash

The 18th annual Wind and Solar Conference will take place Oct. 21-22 at the Marriot Cornhusker Hotel in Lincoln and will provide information about wind and solar development in the state.

Nebraska's 18th annual Wind and Solar Conference set for Oct. 21-22

The 18th annual Nebraska Wind and Solar Conference is set to take place on Oct. 21-22, 2025, at the Marriott Cornhusker Hotel in Lincoln.

Registration closes on Oct. 13, 2025, or until the event is sold out.

The conference presents information about all aspects of wind and solar development. DWEE State Energy Program and Dollar and Energy Saving Loan Program Supervisor Aaron Miller serves on the conference's planning committee.

"Energy and its technologies and policies rapidly change," Miller said. "The conference is a way for stakeholders to learn what's happening right now with wind and solar energy."

This year, the conference draft agenda includes the following presentations and breakout sessions:

- Market Changes and Investor Strategies—Chris Cook, director of operational efficiency, ISI Solar; Carol Waszak, manager of renewable energy resource, Omaha Public Power District; Brian Boerner, senior vice president of development, Sandhills Energy.
- Nebraska Battery Projects—Jon Sunneberg, utility scale alternative energy manager, Nebraska Public Power District; Scott Benson, manager of resource and transmission planning, Lincoln Electric System; TBA, NextEra Energy Resources.
- Green Economic Development—Hunter Traynor, executive vice president of legislation and policy, Nebraska Chamber of Commerce and Industry; Luke Virgil, economic development director, City of Wayne; Dustin Marvel, government and community relations manager, Omaha Public Power District.

Back to page 1

- A Rooftop View of Urban Solar—Molly Brown, executive vice president of corporate strategy, GenPro Energy Solutions; TBA.
- Maximizing Positive Rural Engagement and Minimizing Negative Information—Dr. Jonny Rogers, chief executive officer, Persimia and Lockheed Martin Professor in the School of Aerospace Engineering at Georgia Tech; Dr. Christopher Ollson, senior environmental health scientist, Ollson Environmental Health Management; Alan Claus Anderson, Energy Practice Group chair, Polsinelli law Firm.
- The Future of PV Solar Markets in the Heartland (and Beyond)—Aaron Brown, vice president of engineering and development, ISI Solar; Chris Cook director of operational efficiency, ISI Solar; Drake Becksted, vice president of sales and marketing, ISI Solar.
- Policy and Legislative Update: State Senators Panel—Sen. Tom Brandt, District 31; TBA.
- Nebraska Lobbyist Panel—Eric Gerrard, partner, American Communications Group; Ken Schilz, partner, Nebraska Strategies; David Levy, partner, Baird Holm.
- Budget Reconciliation Impacts of Renewable Energy Development—TBA
- SPP Generation Interconnection Queue Process and Current Backlog—Casey Cathey, vice president of engineering and system planning, Southwest Power Pool.
- CHILL and HILGA - SPP's Proposed Reforms to Expedite Serving Large Loads—Casey Cathey, vice president of engineering and system planning, Southwest Power Pool
- Exciting New Renewable Energy Technologies—Dr. Jonny Rogers, chief executive officer, Persimia and Lockheed Martin Profession in the School of Aerospace Engineering at Georgia Tech; Gunnar Malek-Madani, project Scientist, Olsson.
- Utility Perspective Resources Planning—Jason Rosenkrantz, resource planning and risk manager, Nebraska Public Power District; Scott Benson, resource and transmission planning manager, Lincoln Electric System; Shannon Coleman, director of energy portfolio planning, Omaha Public Power District.

In addition, JC Sandberg, chief advocacy officer with the American Clean Power Association, will give the keynote address on Oct. 21, titled "The Sun Still Shines and the Wind Still Blow." The Oct. 22 keynote luncheon includes presentations from the CEOs of three Nebraska public power utilities: Tom Kent, CEO of Nebraska Public Power District; Javier Fernandez, CEO of Omaha Public Power District; and Emeka Anyanwu, CEO of Lincoln Electric System.

Back to page 1

How to plan for power outages

September is National Preparedness Month, and everyone is encouraged to learn more about how you can prepare for emergency situations.

Often, emergencies come with power outages. Here is some information from the Department of Homeland Security's Ready Campaign so you know what to do in case you lose power.

- **Plan ahead—**inventory items that rely on electricity and prepare batteries or alternative power sources, like a power bank. Have flashlights on hand for each person in the household.
- **Know your medical needs—**this is especially true for medications that need to be refrigerated or medical devices that are powered by electricity. Know how long medications can be stored at higher temperatures and speak to a medical provider for guidance on medications and devices that are critical for life.
- **Know food safety tips—**keep your fridge and freezers closed to keep the cool air in, and use a thermometer to monitor temperatures once power returns. Have nonperishable food and water on hand. Once power is restored, throw away items exposed to temps of 40 degrees or higher for two hours or more. Toss food that has an unusual odor, color, or texture.
- **Know your appliances—**Install carbon monoxide detectors with a battery backup to avoid CO poisoning during cold weather power outages. Only use generators, camp stoves, or charcoal grills outside and at least 20 feet away from windows. Never use a gas stove or oven to heat your home. Turn off or disconnect electronics to avoid electricity surges when power returns.

Taking these steps can help mitigate your risk in case of a power outage. For more, visit https://www.ready.gov/power-outages#tips.

Back to page 1

Nebraska by Numbers

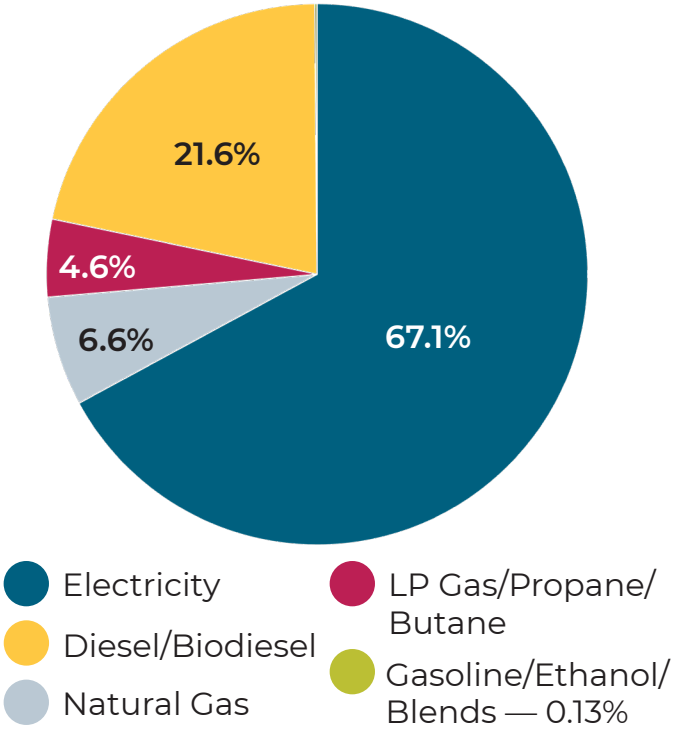
Irrigation Information

Nebraska's agricultural economy is highly dependent on groundwater to irrigate crops. According to records from DWEE and the state's Natural Resources Districts, in 2024, 10.4 million acres within Nebraska were able to be legally irrigated by ground water sources, surface water sources, or a combination of the two — though not all of these acres were irrigated that year.

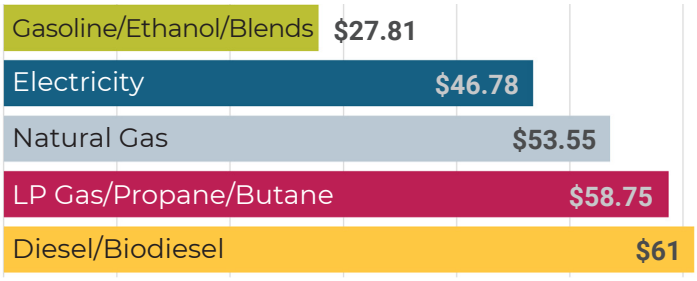
Respondents to the U.S. Department of Agriculture's **2023 Irrigation and Water Management Survey** report that Nebraska irrigates 7.3 million acres. Using information from that survey, here are some quick facts about irrigation in Nebraska and the energy needed to operate irrigation pumps:

Acres farmed and irrigated in Nebraska (2023)

Nebraska's Irrigation Pumps by Fuel (2023)



Energy Expenses for Pumps by Type of Energy Used (2023)



Fast Facts

- **32%** of Nebraska's farmland is irrigated.
- Nebraska ranks **16th** in the percentage of farmland under irrigation. First is Arkansas — 85% of its nearly 5.5 acres of farmland are irrigated.
- Nebraska ranks **2nd** in total number of acres irrigated. California is first with 7.77 million.
- **13,128** farms in Nebraska contain a total of **70,757** irrigation pumps. It costs **$362,879,000** in energy expenses to operate these pumps.

Data from the U.S. Department of Agriculture's 2023 Irrigation and Water Management Survey.

Back to page 1

Fall and winter home heating tips

Information from the U.S. Department of Energy

Heating your home uses more energy and costs more money than any other system in your home—typically making up about 29% of your utility bill.

No matter what kind of heating system you have in your house, you can save money and increase your comfort by properly maintaining and upgrading your equipment. But remember, an energy-efficient furnace alone will not have as great an impact on your energy bills as using the whole-house approach. By combining proper equipment maintenance and upgrades with recommended insulation, air sealing, and thermostat settings, you can save about 30% on your energy bill while reducing environmental emissions.

Photo by Sean D on Unsplash

Maintaining a whole-house approach, as well as taking daily steps to conserve energy can lower your heating bill while helping you stay comfortable through the cold months.

Heating tips

- If you have a conventional heating system, set your programmable thermostat as low as is comfortable in the winter and lower the setpoint when you're sleeping or away from home. For heat pump systems, however, the temperature does not need to be lowered when you are sleeping or away from home. Heat pumps are so efficient the rule for these systems is to "set it and forget it". Just be sure to set the temperature at a reasonable temperature.
- Clean or replace filters on furnaces once a month or as recommended.
- Clean warm-air registers, baseboard heaters, and radiators as needed; make sure they're not blocked by furniture, carpeting, or drapes.
- Eliminate trapped air from hot-water radiators once or twice a season; if unsure about how to perform this task, contact a professional.
- Place heat-resistant radiator reflectors between exterior walls and the radiators.
- Turn off kitchen, bath, and other exhaust fans within 20 minutes after you are done cooking or bathing; when replacing exhaust fans, consider installing high-efficiency, low-noise models.
- During winter, keep the draperies and shades on your south-facing windows open during the day to allow the sunlight to enter your home and closed at night to reduce the chill you may feel from cold windows

Select energy-efficient products when you buy new heating equipment. Your contractor should be able to give you energy fact sheets for different types, models, and designs to help you compare energy usage. See the efficiency standards for information on minimum ratings and look for the ENERGY STAR label when purchasing new products.

The Nebraska Energy Quarterly is funded, in part, by the U.S. Department of Energy through the State Energy Program.

Back to page 1