



March 2023

NDEE holds public hearing for Electric Grid Resilience Grant Program

The State of Nebraska is expected to receive an allocation of approximately \$5.4 million each year for five years under the Infrastructure Investment and Jobs Act... [Continue...](#)

NDEE to provide rebates for replacing diesel irrigation engines

Nebraska Department of Environment and Energy (NDEE) Director Jim Macy announced on February 3, 2023 that the 2022 Nebraska Clean Diesel Program is awarding approximately \$325,000 in rebates to seventeen farmers across the state to aid in the replacement of diesel irrigation engines with electric motors... [Continue...](#)

NDEE releases 2022 Annual Energy Report

The Nebraska Department of Environment and Energy has released its 2022 Annual Energy Report to the legislature... [Continue...](#)

Energy Statistics

Nebraska by Numbers

This edition of Nebraska by Numbers focuses on total energy consumption in Nebraska by sector in 2020 and takes a closer look at the fuel types consumed by the industrial sector in 2020... [Continue...](#)

Energy Tips

DIY: Install exterior storm windows with low-E coating

Storm window installation is one of the most cost-effective solutions for upgrading existing energy inefficient windows... [Continue...](#)

NDEE holds public hearing for Electric Grid Resilience Grant Program

The State of Nebraska is expected to receive an allocation of approximately \$5.4 million each year for five years under the Infrastructure Investment and Jobs Act (IIJA) to enhance the resilience and reliability of the electric grid.

The Nebraska Department of Environment and Energy (NDEE) will administer these funds, which come from the U.S. Department of Energy (DOE) Grid Deployment Office. NDEE will provide these funds to eligible entities, including small utilities.

On March 7, NDEE held a public hearing regarding the Nebraska Electric Grid Resilience Grant Program. NDEE accepted public comments for 10 days following the hearing.

Section 40101 of the IIJA lists eligible projects as activities, technologies, equipment, and hardening measures to reduce the likelihood and consequences of disruptive events. Construction of new electric generating facilities and transmission lines with new routes are excluded. Cybersecurity projects are similarly excluded.

Program purpose

This new program administered by NDEE will be distributed through a competitive award process. Eligible subgrantees include electric grid operators, electricity storage operators, electricity generators, transmission owners or operators, distribution providers, and fuel suppliers. Recipients are expected to complete the project within five years.

Subgrantees will be required to provide a cost match. The cost match required by the subgrantee is at least 115% of the grant amount for a utility that sells more than 4 million MWh a year, and at least 48.33% of the grant amount for a utility that sells 4 million MWh or less a year. A maximum award limit will be established to ensure that multiple projects can be funded each year.

Objectives for year 1 and year 2

Objectives for the first and second year of the grant program include:



Photo by Owen Lasswell, NDEE

Aaron Miller, the Nebraska Department of Environment and Energy's State Energy Program and Dollar and Energy Saving Loans Section supervisor, gives a presentation on Nebraska's Grid Resiliency Grant Program. The hearing was held March 7 to receive comments on the grant program. Nebraska is expected to receive approximately \$5.4 million each year for five years through the U.S. Department of Energy to fund this program.

Rebuild and Restore

- Upgrading existing power poles by restoring, strengthening, or replacing current power poles.
- Rebuilding aged transmission and distribution lines and undergrounding of electrical equipment and power lines.
- Upgrading substations with new equipment that may reduce the risk of electrical outages while meeting the current and future needs of changing communities.

Protect from Weather-Related Events

- Weatherizing electric generation equipment and utilization of freeze protection methods and technologies.
- Hardening of electric system components to help withstand extreme heat, cold, and severe storms.
- Managing vegetation to protect power lines.

Adaptive Protection Technology

- Acquiring Adaptive Protection Technology-Smart Grid. Real-time monitoring of electrical parameters and condition of critical components enables the system to adjust to an optimal state. This could be critical to respond to rapidly changing system conditions due to generation and transmission outages and weather changes.

Recruitment and Retention of Workforce

- Creating apprenticeships and jobs.
- Offering continued training to acquire and maintain qualified electric energy technology workers.

Economic and Environmental Benefit to Disadvantaged Communities

- Completing grid improvement projects that reduce the number and duration of power outages in communities with lower median income, aged and disabled populations.

Additional requirements

Subgrantees will be required to supply quantitative metrics they will use to track the proposed project after completion. Metric examples include number of substations hardened; miles of power lines reconducted; average restoration time following outages; SAIDI, SAIFI and other reliability indices; and number of energy sector jobs created. Subgrantees must also comply with federal requirements including Buy America for construction materials and Davis-Bacon Act. Projects will also have to pass a National Environmental Policy Act (NEPA) environmental review.

Criteria

Priority will be given to projects that demonstrate the greatest community benefit. Other criteria include reasonableness of budget, project schedule, and demonstrative need for financial assistance. Special consideration may be given to projects in disadvantaged communities and to projects that add energy technology jobs and training. NDEE is committed to funding projects that benefit both rural and urban communities.

Grant and application timeline

NDEE will submit the state application to the DOE by March 31, 2023. Following approval of the state application, NDEE will finalize program requirements and establish a timeline for accepting, reviewing, and awarding subgrantee applications.

Contact information

The Grid Resiliency Grant Program information will be updated on NDEE's website: dee.ne.gov. Correspondence can be sent to Nebraska Department of Environment and Energy, PO Box 98922, Lincoln, Nebraska 68509-8922, or email: NDEE.gridresiliency@nebraska.gov.

NDEE to provide rebates for replacing diesel irrigation engines

Nebraska Department of Environment and Energy (NDEE) Director Jim Macy announced on February 3, 2023 that the 2022 Nebraska Clean Diesel Program is awarding approximately \$325,000 in rebates to seventeen farmers across the state to aid in the replacement of diesel irrigation engines with electric motors.

The diesel engines being replaced must be scrapped in order to eliminate their harmful pollutant emissions. Nitrogen oxides emitted by diesel engines can have direct adverse effects on respiratory health; they can also contribute to the formation of harmful ground-level ozone. The projects in this year's program are expected to reduce nitrogen oxide emissions by over eight tons annually.

"The Clean Diesel Program funds allow the department to provide financial assistance to reduce harmful diesel emissions across the state," Macy said. "We received many more eligible applications than we had available funds, so this year we used a lottery to select the award recipients."

Nebraska's Clean Diesel Program is funded by an annual grant from the U.S. Environmental Protection Agency. Applications for this year's program were accepted from October 1 through December 15, 2022. More information on NDEE's Clean Diesel Program can be found here: <http://dee.ne.gov/NDEQProg.nsf/OnWeb/NCDGP>.

Below is the list of 2022 Clean Diesel Rebate recipients:

Recipient	County	Rebate
Bartels Corporation	Franklin	\$20,000
Brandes, Evan	Merrick	\$20,000
Cockerill's Pork Chop Valley Inc.	Keith	\$16,476
Creutzberg, Mark	Merrick	\$20,000
French Farms Inc.	Holt	\$20,000
Greenamyre, Rodney	Antelope	\$20,000
H and P Land Co	Hall	\$20,000
Janak Farms	Butler	\$20,000
Kallhoff, Dorothy J Trust	Lincoln	\$20,000
Klabenes Trucking Inc	Rock	\$19,803
Nielsen, Tim	Knox	\$17,636
O'Brien, Dale	Hayes	\$20,000
Panowicz, John	Hall	\$14,364
Sabata, Greg	Butler	\$20,000
Smith, Joann D.	Perkins	\$20,000
Thies Farms North LLC	Holt	\$16,762
Yindrick Farms, LLC	Butler	\$20,000
Total		\$325,041

NDEE's Clean Diesel Program began in 2008, and throughout the years has funded agricultural irrigation pump diesel engine replacements, diesel school bus replacements, and diesel refuse truck replacements. During that time, the Clean Diesel Program has:

- awarded \$6,224,035 to 223 recipients
- funded early replacement of 40 school buses by new cleaner-burning buses
- funded early replacement of 31 diesel trucks by new cleaner-burning trucks
- funded replacement of 130 diesel irrigation engines with all-electric equipment
- retrofit pollution control devices on 334 diesel engines
- installed idle-reducing auxiliary power units on 39 long-haul trucks
- reduced nitrogen oxide emissions by 1,100 tons
- reduced diesel particulate emissions by 53 tons
- reduced hydrocarbon emissions by 73 tons
- reduced carbon monoxide emissions by 227 tons

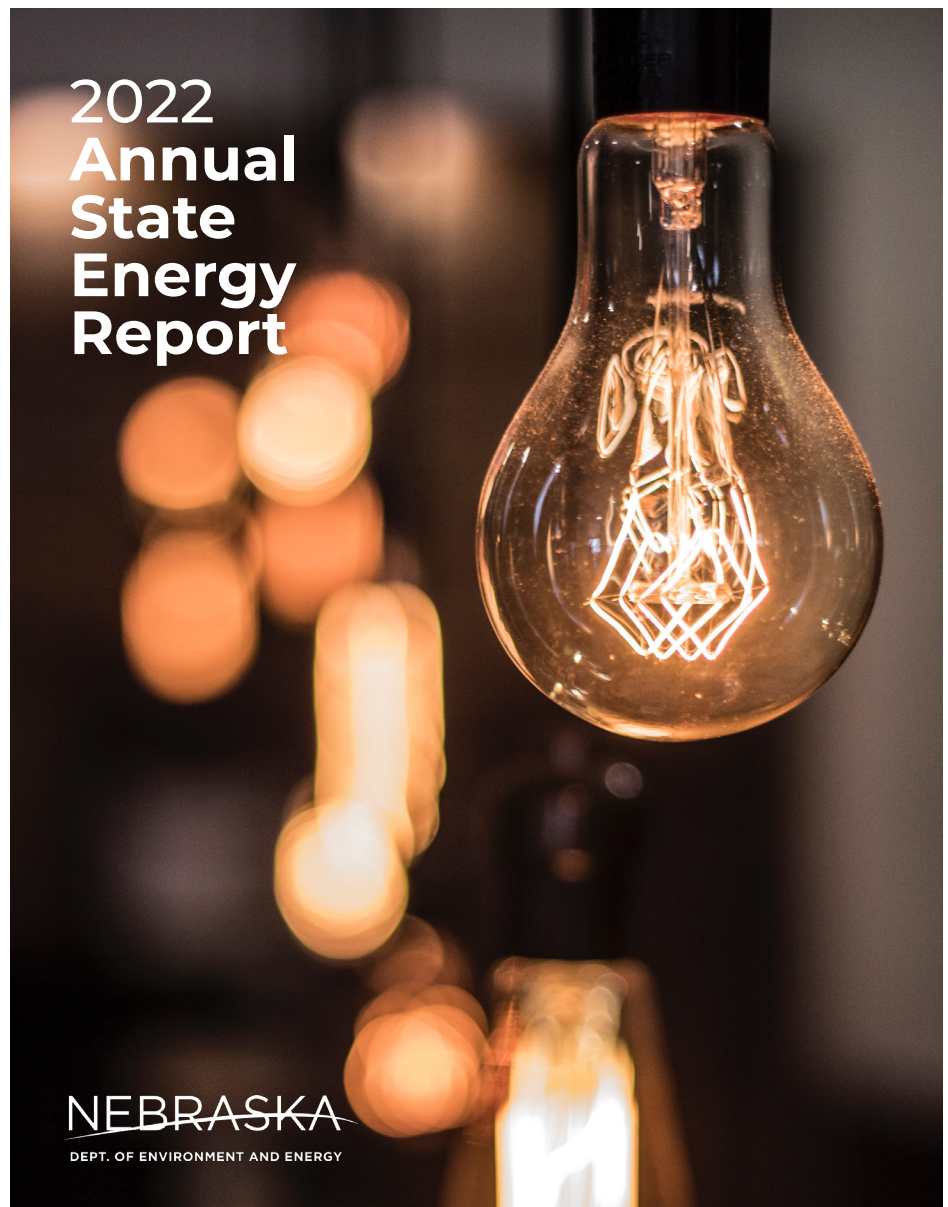
NDEE releases 2022 Annual Energy Report

The Nebraska Department of Environment and Energy has released its 2022 Annual Energy Report to the legislature. It can be found in its entirety on the [agency's website](#).

This report fulfills obligations set by [Neb. Rev. Stat. §81-1607](#), which requires NDEE to submit an annual report that identifies emerging trends in energy supply, demand and conservation within the agricultural, commercial, residential, industrial and transportation sectors, along with other sector information that may be useful.

Information on NDEE's energy programs is also included in this report. There are summaries of FY2020 activities for NDEE's Weatherization Assistance Program, Dollar and Energy Saving Loans Program, State Heating Oil and Propane Program and other special projects.

Questions or comments on this report may be submitted to neo.energy@nebraska.gov.

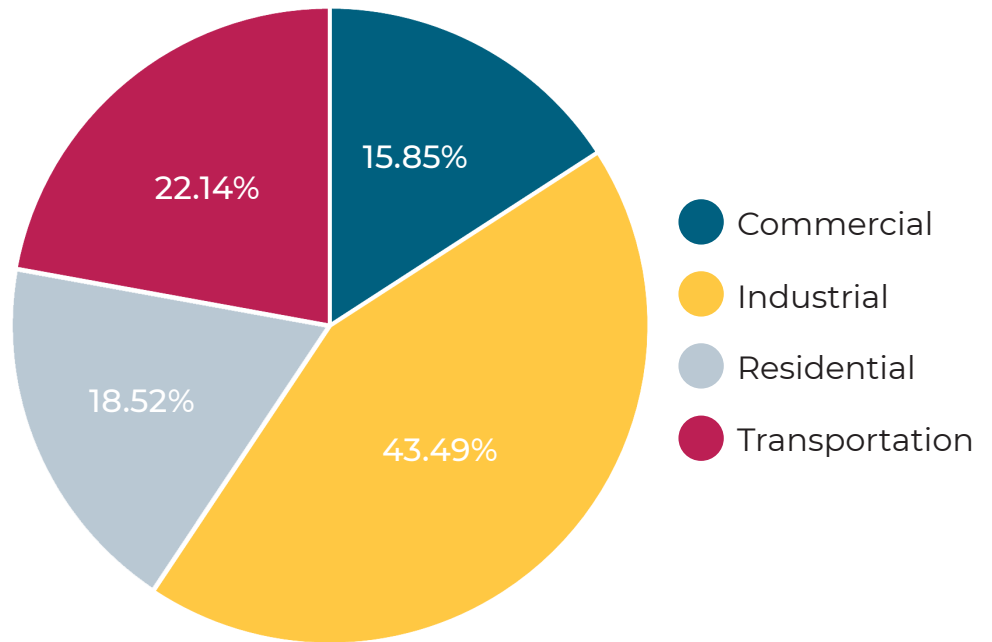


Nebraska by Numbers

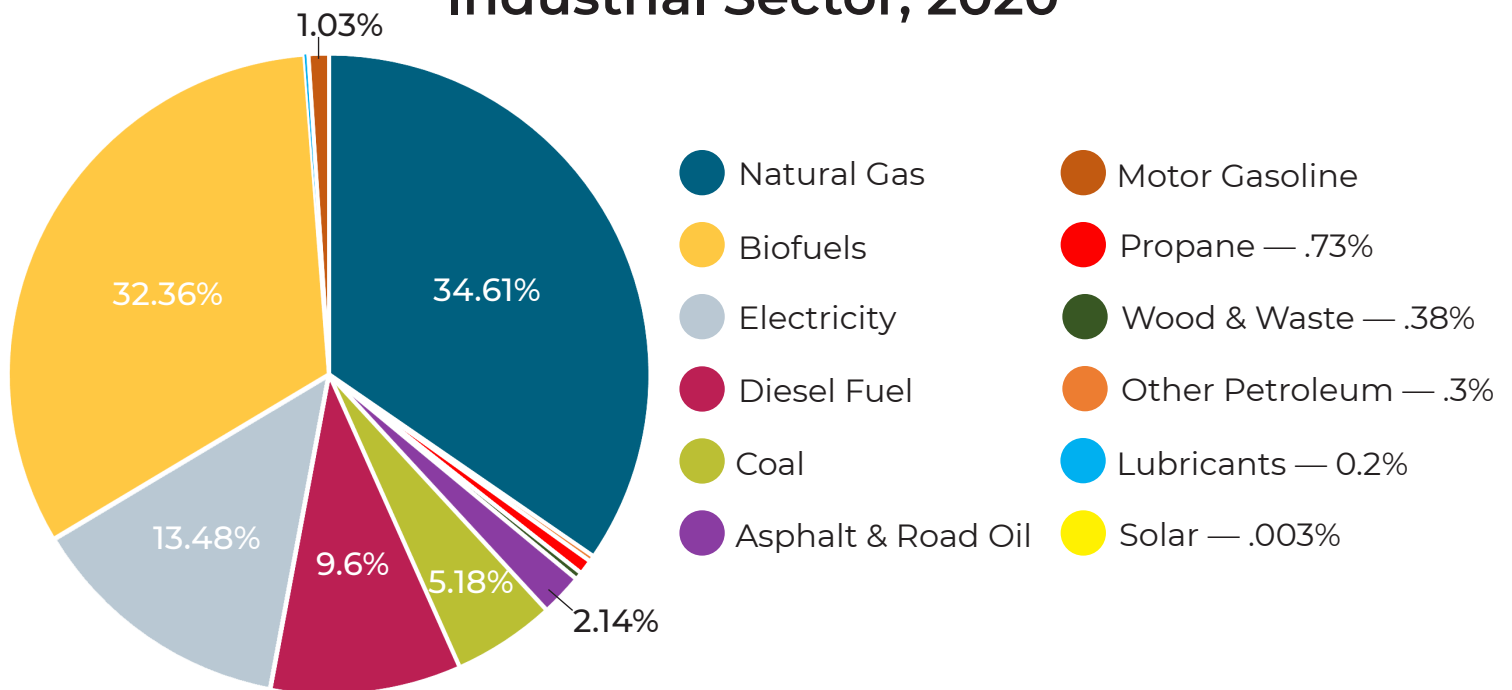
This edition of Nebraska by Numbers focuses on total energy consumption in Nebraska by sector (commercial, industrial, residential and transportation), and takes a closer look at the fuel types consumed by the Industrial Sector in 2020. The Industrial Sector includes agriculture. See future editions of the Nebraska Energy Quarterly to view similar pie charts for the residential, and transportation sectors. The December 2022 edition included information on the Commercial Sector.

Information used to create these graphs comes from [The Nebraska Department of Environment and Energy](#) and the [Energy Information Administration](#).

Total energy Consumption by sector, 2020



Net energy consumption by fuel type Industrial Sector, 2020



Sources: [The Nebraska Department of Environment and Energy](#) and the [Energy Information Administration](#)

DIY savings project

Install exterior storm windows with low-E coating

Information from the [U.S. Department of Energy](#)

Storm window installation is one of the most cost-effective solutions for upgrading existing energy inefficient windows. They're easy to install and cost a fraction of replacement windows.

In fact, installing a low-emissivity (low-e) storm window over a single pane window can lower your utility bill just as much as replacing the window with a new energy code-level window.

Coated with an ultra-thin, virtually invisible layer of metal, low-e windows reflect infrared heat back into the home. This coating improves the window's insulation ability, in turn lowering your heating and cooling costs. On average, low-e storm windows can save you 10%–30% in heating and cooling costs. This equates to \$100–\$300 in annual savings, assuming a \$1,000 annual heating/cooling bill. Information on energy performance is available for all rated products through the Attachment Energy Rating Council (AERC). Look for storm windows that have the Energy Star label.

After deciding to install a storm window, your first step will be to choose [which type](#) is right for your home. All storm windows will make your home more energy-efficient, but you can choose between different materials and coatings, and whether you want to install them on the exterior or interior of the home.

This article will focus on exterior storm windows, which fit on all standard double-hung windows and are the most common type installed by homeowners. Outward-swinging windows require interior storm windows. More information on [interior-mounted storm panels](#) be can found at DOE's Building America Solution Center.

When installing any storm window, there is a slight risk of condensation developing between the existing window and the storm window. To minimize this risk, before installing the storm window ensure that the original window is as air tight as possible by caulking the tops and sides (jambes and head), follow the manufacturer's installation instructions, and use a product that includes weep holes at the bottom of the frame to further reduce any risk of condensation between the storm window and the existing window.



Photo by Nathan Fertig on Unsplash

The U.S. Department of Energy states installing low-emissivity storm windows is a cost-effective way to upgrade the energy efficiency of existing windows. These storm windows improve window insulation ability and lower a home's heating and cooling costs.

Before you start

- Ensure that the window and adjacent surfaces are dry. Fix any missing glass, rotting wood, broken parts, and water leaks.
- Get your new storm window measurements.
- Measure the width between the inside edges of the window casing in three places: at the bottom, top, and middle of window (round down to the nearest 1/8 inch).
- Measure the height from the top of the window casing to the sill at its highest point (again, round down all measurements to the nearest 1/8 inch).
- If the horizontal measures differ, use the smallest of the three when ordering a new storm window.

Shopping list

- Storm window
- Tape measure
- Screwdriver
- Putty knife
- Caulk
- Caulking gun

Step-by-step instructions

1) Position the storm window into the opening to check for proper fit. Determine the top of the storm window by noting which direction the movable panels (if applicable) operate. Center the storm window in the opening. Ensure that all screw holes land on solid wood.

2) Remove the storm window.

3) Caulk the top and sides of the existing window opening. Do not caulk the bottom sill. Hold the caulking gun at a 45-degree angle to the edge of the window. Using a “pulling” motion, hold the gun at a consistent angle and slide the tube nozzle along the joint while evenly pressing the trigger of the caulk gun.

4) Reposition the storm window into the opening.

Ensure the top of the storm window is pushed up snugly into the very top of the opening.

5) Secure the storm window to the window frame. Using your screwdriver and the screws, temporarily secure the top corners of the window.

6) Adjust the expander on the bottom of the storm window. Typical storm windows will come with a window sill expander, which allows the bottom of the storm window to expand (around 1/2 inch) to meet the angled sill of the window opening. Use your putty knife to tap down the adjustable expander tight against the windowsill. The expander should make even contact across the bottom sill.

7) Square up the window unit, and then install the remaining installation screws. Make sure the gap between the window and the frame is even (the ideal gap is 1/16 inch on each side of the window).

Installation videos and more detailed guidance can also be found at DOE’s [Building America Solution Center](#).

The Nebraska Energy Quarterly is funded, in part, by the [U.S. Department of Energy through the State Energy Program](#).