Nebraska Energy Quarterly

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

June 2025

NDEE and NeDNR to merge into new agency

July 1, 2025, will mark the first official workday for employees of the Nebraska Department of Water, Energy, and Environment (DWEE)... **Continue...**

Applications for diesel school bus and truck rebates accepted through July 25, 2025

The Nebraska Department of Environment and Energy's 2024 Clean Diesel Rebate Program is accepting applications for two types of rebates: diesel school bus replacements and medium- to heavy-duty diesel truck replacements... **Continue...**

Weatherization training helps contractors make a difference

When a low-income Nebraskan applies for assistance through the Weatherization Assistance Program, the first step is understanding the home's story... **Continue...**

Energy Statistics

Nebraska by Numbers Quick Facts

This edition's Nebraska by Numbers will focus on quick facts about Nebraska's energy landscape from the Energy Information Administration...**Continue...**

Energy Tips

Reduce hot water use for energy savings

Faucets and appliances can use a lot of hot water, which costs you money. You can lower your water heating costs by using and wasting less hot water in your home...**Continue...**

NDEE and NeDNR to merge into new agency

July 1, 2025, will mark the first official workday for employees of the Nebraska Department of Water, Energy, and Environment (DWEE).

On May 7, 2025, Governor Jim Pillen signed LB317, which formally merged the Nebraska Department of Environment and Energy (NDEE) with the Department of Natural Resources (NeDNR), creating the new agency.

Preserving and enhancing the state's water resources will be one of the focal points of the new department, in addition to increasing focus on long-term natural resource management issues.

Nebraska Gov. Jim Pillen signs LB 317 during a May 7 ceremony. The passage of LB317 officially creates the Nebraska Department of Water, Energy, and Environment (DWEE). Pictured are, from left: DWEE Chief Water Officer Matt Manning; DWEE Director Jesse Bradley; Pillen; Senator Tom Brandt; and Senator Barry DeKay.

"Water is our life blood, and our pot of gold is the Ogallala Aquifer," said Pillen. "In Nebraska, we irrigate millions of acres – more than any other state in the nation. When you couple that with the advancements in cattle production and the other industries that are becoming part of our bioeconomy, that's what makes this merger a timely development -- one that is important for future generations."

Jesse Bradley
DWEE Director

Matt Manning
DWEE Chief Water Officer

At the bill signing, Pillen announced Jesse Bradley as the director of the new agency. Bradley has been serving as interim director of both NDEE and NeDNR. He started at NeDNR in 2006 as an integrated water management analyst. In 2012, he became head of the Water Planning Division, and two years later, was promoted to deputy director of NeDNR. He has degrees in environmental geology and hydrogeology and is a licensed professional geologist in Nebraska.

Bradley said he was honored by Pillen's appointment and looked forward to being the first director of the Nebraska Department of Water, Energy, and Environment. The merger, he continued, will join the best of both agencies in supporting the management of Nebraska's natural resources.

"In accomplishing that objective, we will ensure that Nebraska remains a leader in sustainable natural resources management and that those resources will continue to support our agricultural producers, energy providers, communities, and all Nebraskans for generations to come," Bradley said.

Back to page 1

Matt Manning, an engineer with NeDNR since 2023, will be the DWEE's chief water officer. He currently oversees the planning and development of the Perkins County Canal. Prior to joining NeDNR, he worked for several engineering firms and founded his own heavy civil construction firm.

"I am excited to work with Governor Pillen, Director Bradley, and our various stakeholders to enhance and protect the state's most important natural resource for all Nebraskans, now and into the future," Manning said.

In addition to the logistics of combining both agencies over the coming months, Bradley said top priorities would include continued work on the Perkins County Canal as well as engagement with the newly formed Water Quantity and Quality Task Force, slated to gather in June.

"Like the Governor said, we want to take a more proactive approach to these issues," Bradley said. "We're asking: How can we use the technology that is out there to help producers innovate? How do we educate them about possible options and opportunities and help leverage that into improving our water quality and enhancing our water quantity?"

DWEE contact information

Physical and mailing location:
245 Fallbrook Blvd., Suite 100
Lincoln, NE 68521

Phone number:
402-471-2186

Website:
dwee.nebraska.gov

Email:
ndee.moreinfo@nebraska.gov

Fax:
402-471-2909

Applications for diesel school bus and truck rebates accepted through July 25, 2025

The Nebraska Department of Environment and Energy's 2024 Clean Diesel Rebate Program is accepting applications for two types of rebates: diesel school bus replacements and medium- to heavy-duty diesel truck replacements. Applications must be submitted to NDEE by 5 p.m. on Friday, July 25, 2025, to be considered.

The number of rebates offered in each category may be subject to change, depending on the number of applications received in each category. Rebates will be offered for:

Diesel School Bus Replacements
Public school districts, private schools, and contractors serving schools may apply to replace an operational diesel school bus that has driven at least 7,000 miles in each of the past two years. A bus with engine model year 2009 or older may be replaced by a diesel, gasoline, or Low-NOx propane bus; a bus with engine model year 2010 or newer may only be replaced by a Low-NOx propane bus. The replacement bus can be new or used, but it must have an engine model year 2021 or newer and be in the same or lower gross vehicle weight class as the replaced bus. The replaced bus must be permanently disabled and scrapped.

NDEE will reimburse 25% of the base purchase price of a new diesel bus (up to a maximum reimbursement of $31,000) and 35% of the price of a new Low-NOx propane bus (up to a maximum rebate of $49,000). The applicant is responsible for the remainder of the purchase price.

NDEE anticipates awarding rebates for 11 diesel or gasoline replacement buses and one Low-NOx propane replacement bus. NDEE will determine the number and type of school bus rebates to award after evaluating applications for both Nebraska Clean Diesel programs.

Back to page 1

A new propane school bus purchased with help of a Clean Diesel rebate in 2019.

Local Diesel Truck Replacements

Public and private entities may apply to replace up to two operational, medium- to heavy-duty diesel trucks, including refuse trucks or diesel trucks used in local delivery, construction, or maintenance operations. To be eligible, a truck must have been driven at least 7,000 miles in each of the past two years. A truck with engine model year 2009 or older may be replaced by a diesel or Low-NOx CNG (Compressed Natural Gas) truck; a truck with engine model year 2010 or newer may only be replaced by a Low-NOx CNG truck. The replacement truck can be new or used, but it must have an engine model year 2021 or newer and be in the same or lower gross vehicle weight class as the replaced truck. The replaced truck must be permanently disabled and scrapped.

NDEE will reimburse 25% of the base purchase price of a new diesel truck (up to a maximum reimbursement of $100,000) and 35% of the price of a new Low-NOx CNG truck (up to a maximum rebate of $160,000). The applicant is responsible for the remainder of the purchase price.

NDEE anticipates awarding rebates for replacing five diesel trucks. Preference will be given to projects proposing to purchase CNG-fueled trucks. NDEE will determine the number of diesel truck rebates after evaluating applications for both Nebraska Clean Diesel programs.

More information about these programs, including rebate applications and instructions, can be found at NDEE's Clean Diesel Program web page: https://dee.nebraska.gov/aid/air-loans-grants-rebates/nebraska-clean-diesel-rebate-program.

Back to page 1

Weatherization training helps contractors make a difference

When a low-income Nebraskan applies for assistance through the Weatherization Assistance Program, the first step is understanding the home's story. Weatherization contractors begin by identifying key issues: Where are there air leaks? Do the bathroom and kitchen fans pull air at an appropriate rate? Is the water heater working safely?

Weatherization contractors use a variety of tools to answer these questions. With the right information they're able to determine what improvements are needed to make the home safe and comfortable, as well as ensure those fixes are working as intended.

Photo courtesy United Way of the Midlands

NDEE's Weatherization Assistance Program and its partners provided training to new Douglas County weatherization contractors on April 16. Training focused on a whole-system approach to weatherizing a residence, which considers how the entire home functions.

The Nebraska Department of Environment and Energy (NDEE) and United Way of the Midlands (UWM) provided energy audit training on April 16 to Douglas County area weatherization contractors. They discussed how these home energy audits are completed to assess energy efficiency issues and taught the contractors about the equipment used to conduct audits.

Photo courtesy United Way of the Midlands

United Way of the Midlands' Weatherization Program Director Mike Linarez provides information about different diagnostic tools weatherization contractors can use before and after providing weatherization services.

"Home energy audits are key to making the right improvements to a home," NDEE Weatherization Supervisor Katie Svoboda said. "NDEE and UWM are committed to working with weatherization contractors to ensure they have the knowledge they need to continue to provide excellent service to Nebraskans who use the Weatherization Assistance Program."

[Back to page 1](#)

In December 2024, NDEE announced it had selected UWM to administer the Low-Income Weatherization Assistance Program in Douglas County. The Weatherization Assistance Program enables low-income individuals and families in Nebraska to reduce their energy bills by making their homes more energy efficient at no cost.

Since becoming a weatherization provider, UWM has been accepting applications to determine client eligibility for services, as well as finding contractors who will make weatherization improvements.

Weatherization partners from Omaha Public Power District and Omaha Metropolitan Utilities District and contractors from Blair Freeman and Future Energy Dynamics attended the training. They learned about different diagnostic tools in home energy audits, such as fan flow meters, combustion analyzers, and blower door tests, among other topics.

Photo courtesy United Way of the Midlands

Mike Linarez, the director of the Weatherization Program at United Way of the Midlands, and Craig Schieffer, environmental specialist at NDEE, demonstrate a fan flow meter and a monometer, which measure fan flow on a kitchen or bathroom fan.

Fan flow meters measure the air flow rating of a bathroom or kitchen fan. This tells contractors how much air is being pulled out of a home, the rate at which it's being pulled out, and if the fan is operating correctly. According to NDEE Environmental Specialist Craig Schieffer, these measurements can be used to determine if air leaks in the home are too tightly sealed.

For example, in homes with natural draft water heaters, fans that exhaust too much air out of the home could potentially put negative pressure on the water heater while it is running, which could pull harmful carbon monoxide back into the home.

"We never want to leave a home with issues after we have provided service," Schieffer said. "If the fans are too big and pulling too much air, we correct that problem."

Training participants also learned how to use a combustion analyzer to test water heaters for efficiency and draft. Testing the water heater's efficiency ensures it is working correctly. Schieffer said the draft test ensures the air pressure in the flue allows the carbon monoxide generated by the water heater to exhaust out of the home, even under "worst case depressurization," which is when all the exhaust fans are running at the same time.

Also during the training, NDEE and UWM discussed blower door tests. The blower door

Photo courtesy United Way of the Midlands

NDEE Environmental Specialist Craig Schieffer demonstrates how to use a combustion analyzer to test a water heater for efficiency and draft.

Back to page 1

Photo courtesy United Way of the Midlands

NDEE Environmental Specialist Craig Schieffer demonstrates how to run a blower door test.

puts a home under negative pressure, which means it pulls air out of the house, and shows contractors how leaky a home is. With all the windows and doors shut, and the blower door running and connected to a monometer, contractors can assess where air from the outside is coming in.

"With the blower door running, we can walk around the home and see how leaky windows and doors are, holes in the floors, foundation or walls, and tell if some ducts or vents are not hooked up properly," Schieffer said.

In addition to these tools, the training covered personal protective equipment, testing for carbon monoxide levels from combustion appliances, gas detectors, and the steps to conduct a thorough initial walk-through to look for visible issues.

These tests and tools are just a starting point in making a home more energy efficient. Weatherization improvements made from these diagnostic tools not only save residents money on their energy bills, they also increase the safety and comfort of the home.

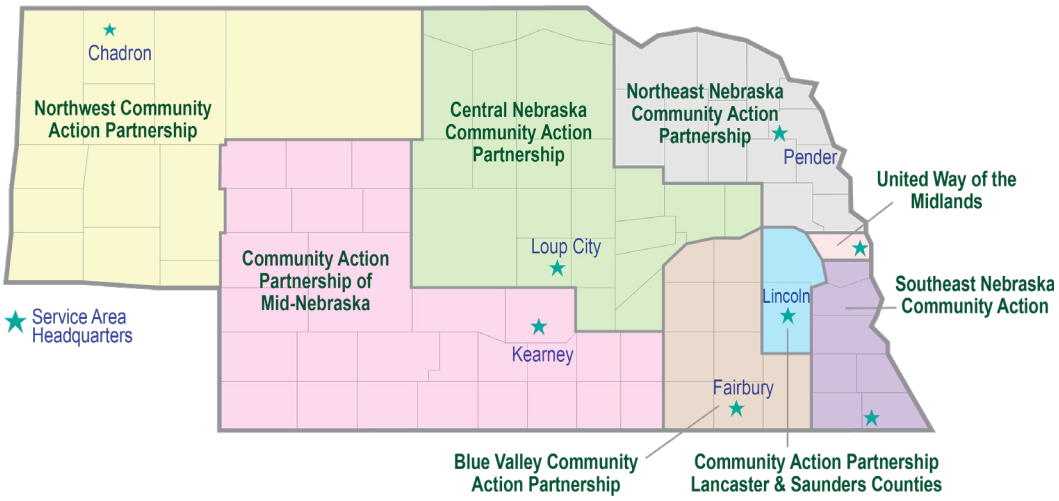
"The money these families spend on utilities cannot be used for other household essentials like food, housing, or education," Svoboda said. "These improvements can help Nebraska families enjoy their home and afford other necessities."

NDEE receives federal funding through the U.S. Department of Energy and the U.S. Department of Health and Human Services to administer the Weatherization Assistance Program. NDEE then allocates those funds to regional nonprofit organizations, which work with individuals and families in their areas to make weatherization improvements.

To be eligible for weatherization services, a household's income must fall below 200% (or double) the federal poverty level, which is revised annually. Those who wish to apply for weatherization services should reach out to their area provider.

Nebraska Weatherization Providers

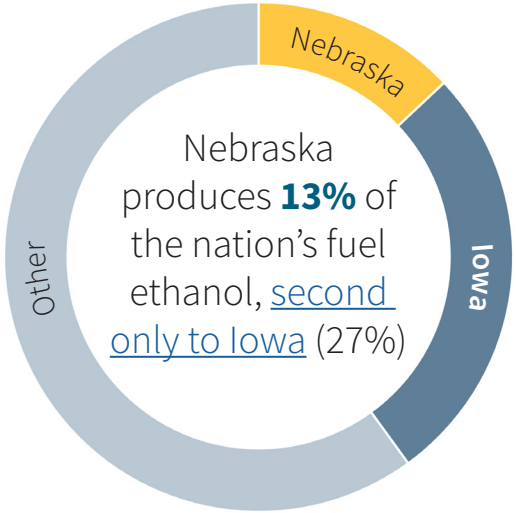
- Blue Valley
- Central Nebraska
- Northeast Nebraska
- Lancaster and Saunders Counties
- Mid-Nebraska
- Northwest Nebraska
- Southeast Nebraska
- United Way of the Midlands

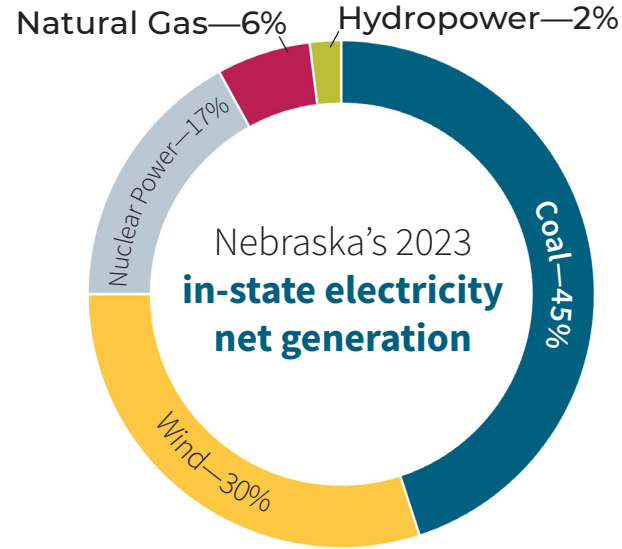


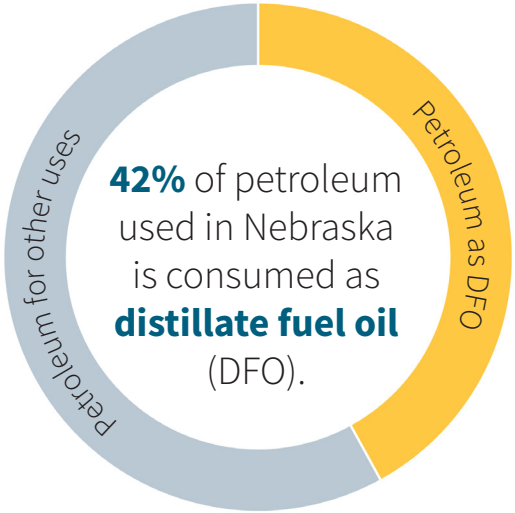
Back to page 1

Nebraska by Numbers — Quick Facts

One of NDEE's duties is to maintain a collection of energy data to assess trends in the availability, consumption, and development of all forms of energy. This information can be found on NDEE's statistics pages. This edition's Nebraska by Numbers will focus on quick facts about Nebraska's energy landscape from the Energy Information Administration.







Only Wyoming and North Dakota use a larger share of petroleum as DFO.

8th

Nebraska consumed a total of 430 million Btus in 2020.

Nebraska's rank for total energy consumption per capita. While Nebraska has a small population, it has an energy-intensive industrial sector (which includes agriculture), and its hot summers and cold winters increase energy use.

3rd

Texas and California have more industrial electricity consumers.

Nebraska's rank in its number of industrial electricity customers. About 39% of electricity sales went to Nebraska's industrial sector, which includes agriculture, where electricity is used to run irrigation systems.

Back to page 1

Reduce hot water use for energy savings

Information from the U.S. Department of Energy

Faucets and appliances can use a lot of hot water, which costs you money. You can lower your water heating costs by using and wasting less hot water in your home.

Water heating is the second largest energy expense in your home, accounting for about 18% of your utility bill. To conserve hot water, you can fix leaks, install low-flow fixtures, insulate accessible hot water lines, and purchase an ENERGY STAR certified dishwasher and clothes washer.

Simple equipment and actions can help you reduce your water use, and therefore reduce you water heating costs. Some of those actions include upgrading to a standard, lower flow showerhead, installing low-flow fixtures, replacing aerators on your faucets, and fixing water leaks.

Showerheads

There are two basic types of low-flow showerheads: aerating and laminar-flow. Aerating showerheads mix air with water, forming a misty spray. Laminar-flow showerheads form individual streams of water. If you live in a humid climate, you might want to use a laminar-flow showerhead because it won't create as much steam and moisture as an aerating one.

Before 1992, some showerheads had flow rates as high as 5.5 gallons per minute (gpm). Today, most standard showerheads have a flow rate of 2.5 gpm, so if you have fixtures that pre-date 1992, you might want to replace them if you're not sure of their flow rates. Here's a quick test to determine whether you should replace a showerhead:

1. Place a bucket -- marked in gallon increments -- under your shower head.
2. Turn on the shower at the normal water pressure you use.
3. Time how many seconds it takes to fill the bucket to the 1-gallon (3.8 liter) mark.

If it takes less than 20 seconds to reach the 1-gallon mark, you could benefit from a low-flow shower head.

Install Low-Flow Fixtures

You can purchase quality, low-flow fixtures for around $10 to $20 apiece and achieve water savings of 25%–60%.

Back to page 1

Fix Leaks
You can significantly reduce hot water use by simply repairing leaks in fixtures -- for instance, faucets and showerheads -- or pipes. A leak of one drip per second wastes 1,661 gallons of water and can cost up to $35 per year. If your water heater tank is leaking you will need to replace it with a new water heater.

Faucets
The aerator -- the screw-on tip of the faucet -- ultimately determines the maximum flow rate of a faucet. Typically, new kitchen faucets come equipped with aerators that restrict flow rates to 2.2 gpm, while new bathroom faucets have ones that restrict flow rates from 1.5 to 0.5 gpm.

Average hot water usage

Activity	Gallons per use
Clothes washer	25
Shower	10
Dishwasher	6
Kitchen faucet flow	2 per minute
Bathroom faucet flow	2 per minute
Total daily average	**64**

Aerators are inexpensive to replace and they can be one of the most cost-effective water conservation measures. For maximum water efficiency, purchase aerators that have flow rates of no more than 1.0 gpm. Some aerators even come with shut-off valves that allow you to stop the flow of water without affecting the temperature. When replacing an aerator, bring the one you're replacing to the store with you to ensure a proper fit.

Purchase Energy-Efficient Dishwashers and Clothes Washers
The biggest cost of washing dishes and clothes comes from the energy required to heat the water. You'll significantly reduce your energy costs if you purchase and use an ENERGY STAR certified dishwasher and clothes washer.

Dishwashers
It's commonly assumed that washing dishes by hand saves hot water. However, washing dishes by hand several times a day can use significantly more water and cost more than operating an energy-efficient dishwasher. You can consume less energy with an energy-efficient dishwasher when properly used and when only operating it with full loads.

When purchasing a new dishwasher, look for the ENERGY STAR label, and check the EnergyGuide label to see how much energy it uses. Dishwashers fall into one of two categories: compact capacity and standard capacity. Although compact capacity dishwashers may appear to be more energy efficient on the EnergyGuide Label, they hold fewer dishes, which may force you to use it more frequently. In this case, your energy costs could be higher than with a standard-capacity dishwasher.

One feature that makes a dishwasher more energy efficient is a booster heater. A booster heater increases the temperature of the water entering the dishwasher to the 140°F recommended for cleaning. Some dishwashers have built-in boosters, while others require manual selection before the wash cycle begins. Some also only activate the booster during the heavy-duty cycle. Dishwashers with booster heaters typically cost more, but they pay for themselves with energy savings in about 1 year if you also lower the water temperature on your water heater.

Another dishwasher feature that reduces hot water use is the availability of cycle selections. Shorter cycles require less water, thereby reducing energy costs.

Back to page 1

If you want to ensure that your new dishwasher is energy efficient, purchase one with an ENERGY STAR® label.

Clothes Washer
Unlike dishwashers, clothes washers don't require a minimum temperature for optimum cleaning. Therefore, to reduce energy costs, you can use either cold or warm water for most laundry loads. Cold water is always sufficient for rinsing.

Inefficient clothes washers can cost three times as much to operate than energy-efficient ones. Select a new machine that allows you to adjust the water temperature and levels for different loads. Efficient clothes washers spin-dry your clothes more effectively too, saving energy when drying as well. Also, front-loading machines use less water and, consequently, less energy than top loaders.

Small-capacity clothes washers often have better EnergyGuide label ratings. However, a reduced capacity might increase the number of loads you need to run, which could increase your energy costs.

When purchasing a new clothes washer, choose one with an ENERGY STAR label.

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

Back to page 1