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Photo by Chad Peltola on Unsplash

The Nebraska Department of Environment and Energy submitted the state's Priority Climate Action Plan to the U.S. EPA on March 1. This plan's submittal makes Nebraska eligible to apply for grant funds to implement greenhouse gas reduction measures identified in the plan.

NDEE submits Priority Climate Action Plan

The Nebraska Department of Environment and Energy (NDEE) submitted the state's Priority Climate Action Plan (PCAP) to the U.S. Environmental Protection Agency (EPA) on March 1.

This PCAP was developed with a \$3 million Climate Pollution Reduction Grant (CPRG) from the EPA through the Inflation Reduction Act (IRA). The CPRG awarded funds to state and local governments to develop climate action plans to reduce greenhouse gases (GHG).

NDEE conducted outreach throughout the development of the PCAP to solicit input and feedback from Nebraska citizens and stakeholders. NDEE hosted webinars and online and in-person meetings to ensure the PCAP reflected the needs of Nebraska and its residents. The PCAP is available on NDEE's [CPRG webpage](#).

Now that Nebraska's PCAP has been submitted, the state is eligible to apply for funds to implement the GHG reduction measures outlined in the plan. The implementation grant funds are competitive, and NDEE is currently working on Nebraska's application, due to the EPA April 1, 2024.

In addition to the PCAP, the CPRG also provided funds for development of a Comprehensive Climate Action Plan (CCAP). While the PCAP focused on GHG reduction measures that can be readily implemented, the CCAP will provide long-term planning to continue reducing GHG emissions. The CCAP is due in August 2025. NDEE will continue its outreach efforts as it develops the CCAP.

Additional updates from NDEE’s IRA and Infrastructure Investment and Jobs Act (IIJA) programs

Grid Resiliency Grant Program

NDEE accepted preliminary project proposals for the Grant Resiliency Program through Jan. 31, 2024. These preproposals are being assessed for eligibility and alignment with program objectives. The full application period will be announced at a later date, and awards are expected to be announced in the fall of 2024.

Read more from our press release: [NDEE accepting preliminary grid resiliency project proposals](#).

Energy Efficiency and Conservation Block Grant

NDEE was awarded \$1.779 million in Energy Efficiency and Conservation Block Grants. These funds will be made available to Nebraska communities through a competitive subaward grant process.

Eligible projects include upgrades to energy efficient lighting and installation of renewable energy systems on government buildings; development of alternative transportation infrastructure such as pedestrian walkways and bicycle paths; and public education to promote energy efficiency and conservation.

The application period for subawards is open through April 30, 2024.

Read more from our press releases: [NDEE awarded Energy Efficiency and Conservation Block Grant](#) and [NDEE opens application period for Energy Efficiency and Conservation Block Grant Program](#).

High-Efficiency Electric Home Rebate Program and Home Energy Performance-Based, Whole-House Rebates (collectively known as the Home Energy Rebates Programs)

NDEE submitted an application for early administration funds for the Home Energy Rebates Programs in January. These funds will help NDEE develop the programs for the State of Nebraska prior to the full award of funds. NDEE is preparing its full applications for the Home Energy Rebates Programs.

For more information about NDEE’s various IIJA and IRA programs, visit the agency’s [front page](#), where there is a link to an NDEE IIJA/IRA Grant Funding Status PDF.

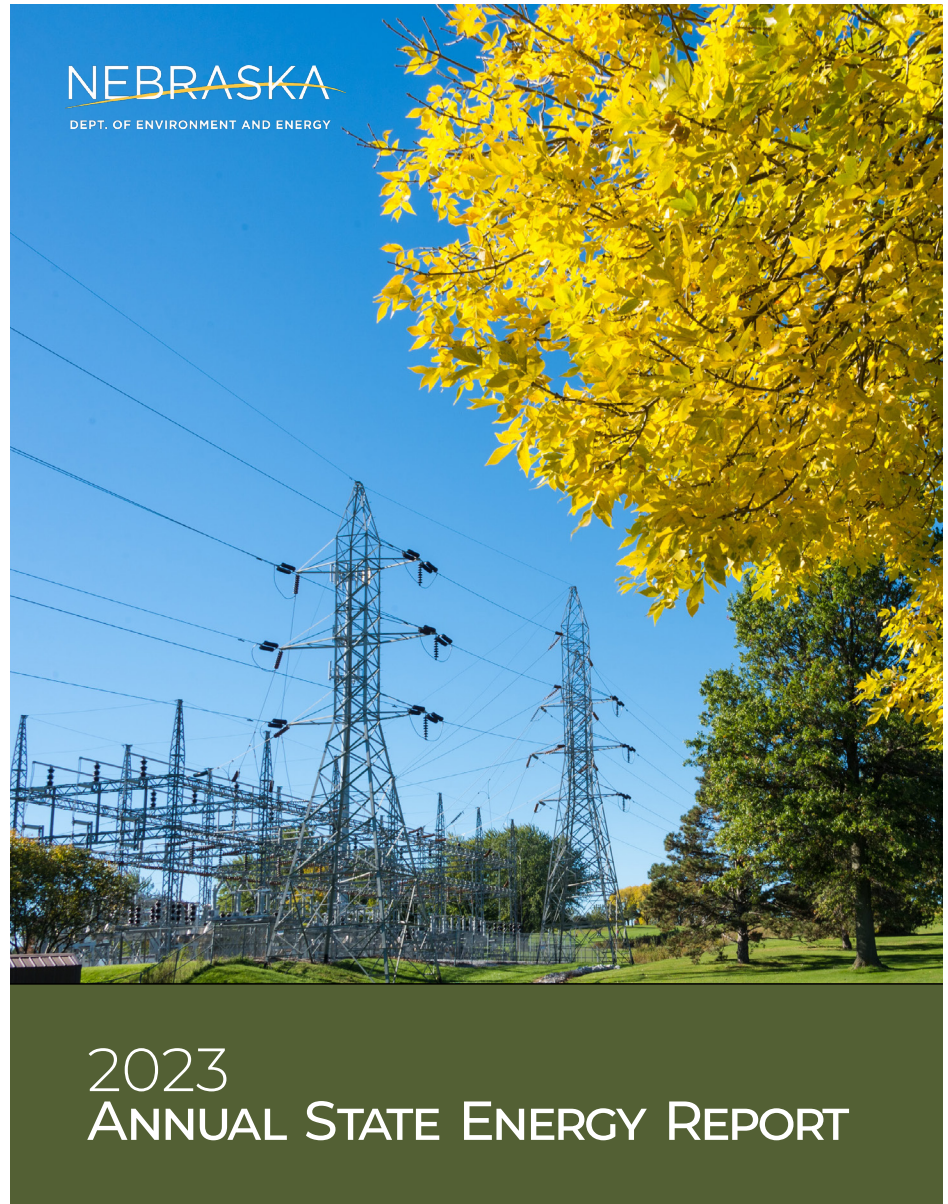
NDEE releases 2023 Annual Energy Report

The Nebraska Department of Environment and Energy has released its 2023 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 FY2023 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.



Cover photo courtesy American Public Power Association on UnSplash

Energy Innovations

Community solar and you

by Andrew Hug
NDEE Environmental Specialist

Solar power can arrive at your doorstep from distant utility-scale solar farms or from solar panels on your roof. But it can also arrive from a local neighborhood community solar farm built in coordination with the local utility.

Community solar, also known as solar gardens or shared solar, is a small- to medium-size solar installation located near a town or neighborhood, which makes power available to residents. Generally, there are three ways customers can participate.

One allows customers to essentially purchase panels upfront or through a monthly charge on their utility bill. Customers receive credits on monthly bills for the power their panels provided to the grid, which at times can exceed what they owe.

The second option allows customers to subscribe to the farm, buying a certain number of kilowatt hours each month. Customers pay for power specifically from the community solar farm, often at a [lower price](#) than [power](#) from the general grid, even before the Inflation Reduction Act's new incentives.

The third approach allows customers to participate by investing directly through a crowdfunding model. As a pure investment, this approach is subject to taxes like any other investment, but it provides an option for people who live in areas where the grid is not yet prepared to incorporate a community solar project.

Benefits of Community Solar

Community solar provides stable, long-term, locally produced, reliable, renewable, low-carbon power to people who cannot install solar on their home for a variety of reasons including being a renter, roof issues, too much shade, homeowner association rules, or up-front expense.

It can bring local economic value to many non-productive sites, such as parking lots, abandoned industrial sites sometimes known as brownfields, or large commercial or industrial rooftops. A farm family seeking a reliable income stream could lease 10 to 40 acres to a project.

Utilities can site a solar farm where it helps manage and stabilize the grid, which saves money on grid operations and maintenance. Local reliability is further enhanced if the solar farm is designed to "island" itself, so it can continue to supply power even if the larger grid goes down. A solar farm also helps utilities meet their goals for renewable generation and greenhouse gas emission reductions.



A rooftop solar array in Norfolk. While some homes and commercial buildings can have their own solar arrays, community solar projects provide an opportunity for others in a village or city to benefit from solar energy.

Support for Community Solar

Starting in 2023, community solar projects under one megawatt qualify for a 30% Investment Tax Credit due to the Inflation Reduction Act enacted in August 2022.

Projects can earn [additional credits](#) as well:

- 10% for meeting domestic content specifications
- 10% if sited on a brownfield or in a community directly impacted by fossil fuel industries
- 10% if sited in a low-income community or on tribal land
- 20% if a part of a Low-Income Residential Building Project or Qualified Low-Income Economic Benefit Project.

To learn more about the opportunity to establish community solar for your area, talk with your neighbors about the idea, contact your local utility and check out the websites below.

For more information on community solar

Lincoln Electric Service

<https://www.les.com/sustainability/solar-power>

Nebraska Public Power District

<https://www.nppd.com/powering-nebraska/solar/community-solar>

Omaha Public Power District

<https://www.oppd.com/residential/products-services/community-solar-program/>

EnergySage

<https://www.energysage.com/solar/solar-101/what-is-community-solar/>

<https://communitysolar.energysage.com/>

U. S. Department of Energy

<https://www.energy.gov/eere/solar/community-solar-basics>

<https://www.energy.gov/communitysolar/community-solar>

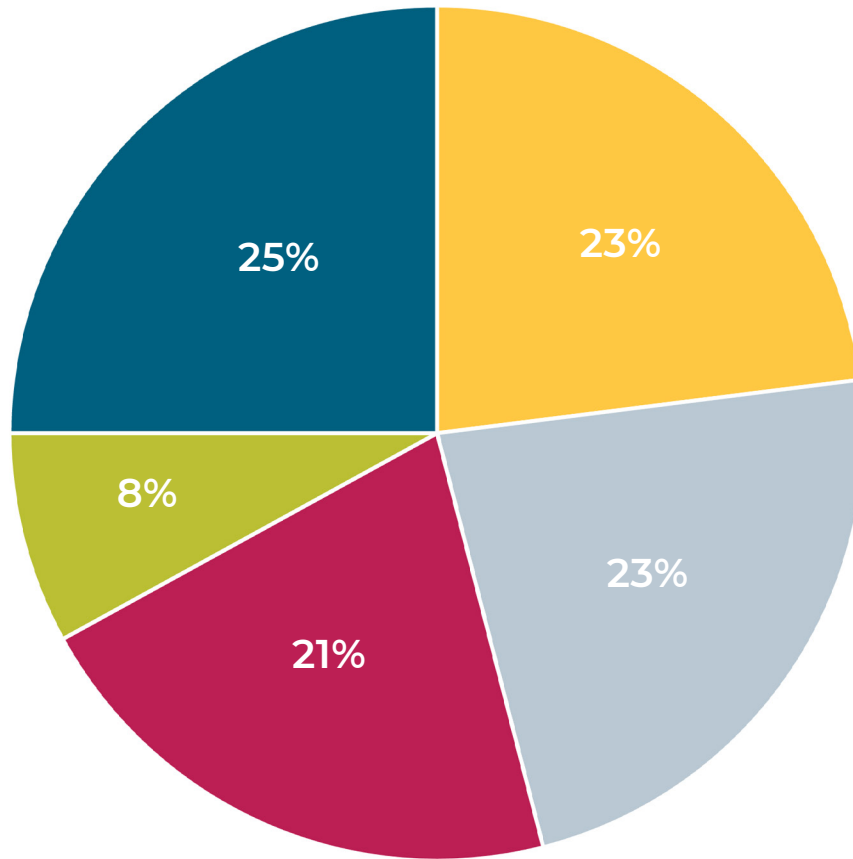
Nebraska by Numbers Solar Generation in Nebraska

Sources of energy for Nebraska are changing. According to the Nebraska Department of Environment and Energy's [2023 annual energy report](#), renewable energy accounted for 23% of Nebraska's energy consumption in 2021. This continues a trend: renewable energy made up 21% of Nebraska's energy consumption in 2019 and 22.5% in 2020.

NDEE is keeping up with this changing energy landscape by updating its wind and solar community generation maps. These maps show communities with wind facilities and solar energy generation across the state. As wind turbines and solar panels go online, these maps will be updated.

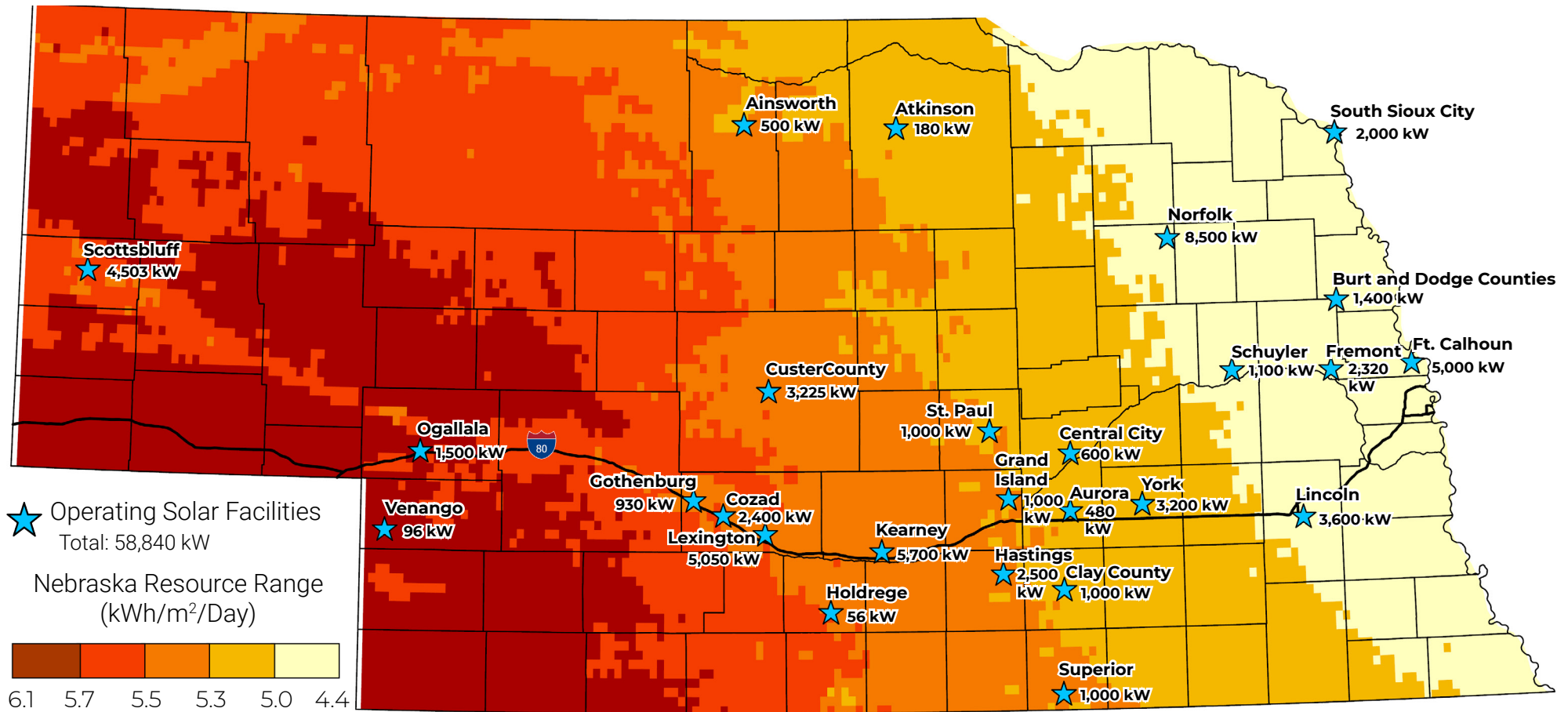
The solar map can be seen below, and a wind map was included in the [December 2023 NEQ](#). Both the [wind](#) and [solar](#) maps are available online, and more energy information can be found on our [statistics webpage](#).

Nebraska's Total Energy Consumption by Fuel Type 2021



 Petroleum  Coal  Natural Gas  Renewable  Nuclear Electric Power

Nebraska Community Solar Power Generation



Solar facilities as of September 2023.
 All solar facilities are in AC power.

For questions or comments on this map, contact neo.energy@nebraska.gov.
 For more information, visit: <https://neo.ne.gov/programs/stats/inf/198.htm>

Nebraska Community Solar Power Generation

Operating Solar Projects	Year of Commercial Operation	Total kW (AC Power)
Lincoln	2016	3,600
Aurora	2017	480
Central City	2017	600
Holdrege	2017	56
Kearney	2017	5,700
Lexington	2017 and 2021	5,050
Scottsbluff	2017 and 2020	4,503
South Sioux City	2017	2,000
Venango	2017	96
Fremont	2018	2,320
Grand Island	2018	1,000
Superior	2018	1,000
Schuyler	2018 and 2020	1,100
Atkinson	2019	180
Ft. Calhoun	2019	5,000
Gothenburg	2019	930
Hastings	2019	2,500
Burt and Dodge counties	2021	1,400
Ainsworth	2021	500
Clay County	2021	1,000
Cozad	2021	2,400
Custer County	2021	3,225
York	2022	3,200
Norfolk	2022	8,500
St. Paul	2023	1,000
Ogallala	2023	1,500
Total		58,840

Note: Projects with more than one year listed have multiple facilities that began operations in different years.

Spring and summer energy tips

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

Here are strategies to help you save energy and keep costs down during the spring and summer when the weather is warm and you are trying to keep your home cool.

Some of the tips below are free and can be used on a daily basis to increase your savings; others are simple and inexpensive actions you can take to keep energy affordable through the spring and summer. If you haven't already, conduct an [energy assessment](#) to find out where you can save the most.



Photo by Maxwell Ingham on Unsplash

Use your windows to keep out heat

- Install window coverings to prevent heat gain through your windows during the day. Find out about [window treatments and coverings](#) that can improve energy efficiency.

There are several ways to efficiently cool your home in the spring and summer to increase your comfort and decreasing the impact on your energy bill. One tip is to use a ceiling fan to cool yourself with the wind chill effect. Just be sure to turn it off when you leave the room.

Operate your thermostat efficiently

- Set your thermostat at a temperature you find comfortable and that provides humidity control, if needed. The smaller the difference between the indoor and outdoor temperatures, the lower your overall cooling bill will be.
- Keep your house warmer than normal when you are away, and lower the thermostat setting when you return home and need cooling. A [programmable thermostat](#) allows you to do this automatically and without sacrificing comfort.
- Avoid setting your thermostat at a colder setting than normal when you first turn on your air conditioner. It will not cool your home any faster and could result in excessive cooling and unnecessary expense.

Use fans and ventilation strategies to cool your home

- Turn off ceiling fans when you leave the room. Remember that fans cool people, not rooms, by creating a wind chill effect.
- When you shower or take a bath, use the bathroom fan to remove heat and humidity from your home. Your laundry room might also benefit from spot ventilation. Make sure bathroom and kitchen fans are vented to the outside (not just to the attic). Find ENERGY STAR [ventilating fans](#).

Keep your cooling system running efficiently

- For maximum energy affordability, schedule regular maintenance for your cooling equipment. Learn about operating and maintaining your [air conditioner](#), [evaporative cooler](#), or [heat pump](#).
- Avoid placing lamps or TV sets near your room air-conditioning thermostat. The thermostat senses heat from these appliances, which can cause the air conditioner to run longer than necessary. Learn additional tips for operating a [room air conditioner](#) efficiently.
- Vacuum your air intake vents regularly to remove any dust buildup. Ensure that furniture and other objects are not blocking the airflow through your registers.

Consider a range of appliances and lighting options

- Consider lighting options that operate at cooler temperatures. Learn more about your options for [efficient lighting](#). Find out when to [turn off your lights](#).
- If convenient, take advantage of daylight instead of artificial lighting, but avoid direct sunlight. Learn more about strategies for efficient [daylighting](#).
- Wash full loads of dishes and clothes for better efficiency. Learn more about efficient [dishwashing](#) and [laundry](#).

Keep hot air from leaking into your home

- Seal cracks and openings to prevent warm air from leaking into your home. Learn more about [air sealing new and existing homes](#).
- Add caulk or weatherstripping to seal air leaks around doors and windows. Find how to [select and apply the appropriate caulk](#). Learn how to [select and apply weatherstripping](#). Find out other ways to [improve the energy efficiency](#) of your windows.

Lower your water heating costs

Water heating accounts for about 18% of the energy consumed in your home. [The Consumer Product Safety Commission](#) recommends setting your water heater at no more than 120 degrees Fahrenheit to prevent scalding. The lower setting will also conserve energy and save money. Find other strategies for [energy-efficient water heating](#).

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