

INSIDE YOUR 2023 ELECTRIC BILL

FUEL SOURCES • AIR EMISSIONS • UNBUNDLING YOUR BILL

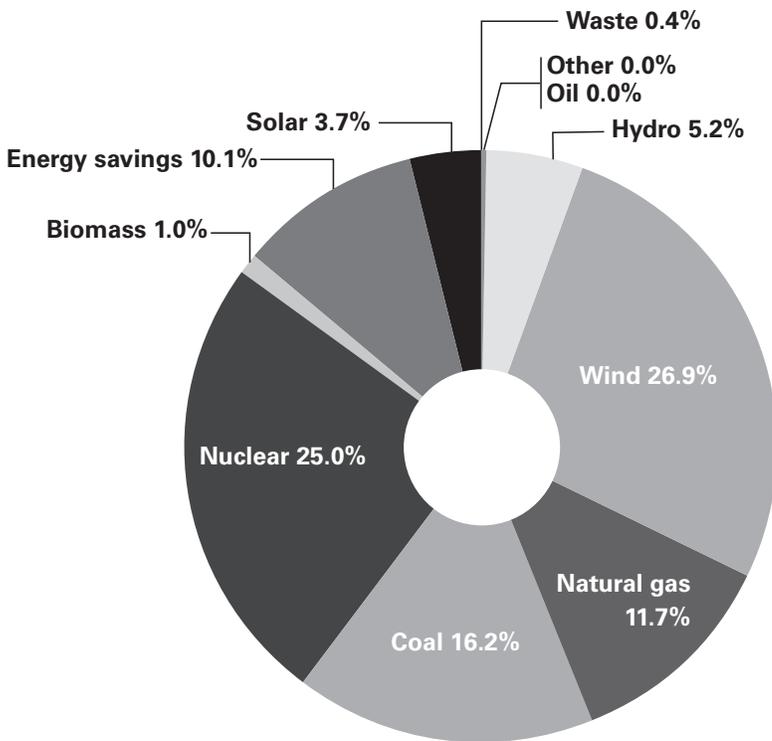


Use electricity wisely to help the environment

Fuels used to generate electricity have different costs and air emissions. You can help the environment by using electricity efficiently. This document provides information about different fuel sources and costs.

How your electricity needs are met

Xcel Energy Fuel Sources — Upper Midwest for the year ending December 31, 2022.*



Renewable Energy Credits, or RECs, are created when a renewable resource generates one megawatt hour of energy. RECs are used for measuring compliance with renewable or clean energy requirements; they also represent the environmental attributes of renewable electricity. Please see Xcel Energy's Sustainability Report for more information on RECs at [xcelenergy.com/Sustainability](https://www.xcelenergy.com/Sustainability).

Customer participation over the past 10 years in Xcel Energy's energy conservation programs reduced our need to generate more than 5.94 billion kWh of electricity by 2023. That's enough electricity to power approximately 800,000 households each year or avoid the need to build more than five medium-sized power plants, which is an approximate reduction in air emissions of:

Carbon dioxide (CO ₂)	1,788,064 tons
Sulfur dioxide (SO ₂)	495 tons
Nitrogen oxides (NO _x)	1,038 tons
Particulate matter (PM)	219 tons
Mercury (Hg)	0.005 tons

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**2022 air emissions by fuel type
(pounds per thousand kWh)**

	Carbon dioxide	Sulfur dioxide	Nitrogen oxides	Particulate matter	Mercury
Coal	2,349	0.7	1.4	0.27	0.000009
Natural gas	974	0.0	0.3	0.07	0.000000
Oil ¹	5,561	11.1	10.9	1.17	0.000024
Refuse derived fuel	4,225 ²	5.4	5.5	0.20	0.000020
Biomass	3,326 ²	2.0	3.6	1.44	0.000010

¹ Oil generation represented 0.02% of total generation for Xcel Energy’s Upper Midwest system in 2022.

² Carbon dioxide emissions from biomass power generation and a portion of the CO₂ emissions from refuse derived fuel represent biogenic CO₂ that is near carbon neutral.

How do air emissions affect the environment?

Carbon dioxide (CO₂) is the principal greenhouse gas linked to global warming.

Nitrogen oxides (NOx) and **sulfur dioxide** (SO₂) contribute to acid rain; NOx also contributes to smog.

Particulate matter (sometimes called soot) contributes to asthma attacks and other respiratory illnesses.

Mercury (Hg) accumulates in some fish to levels exceeding current health department guidelines.

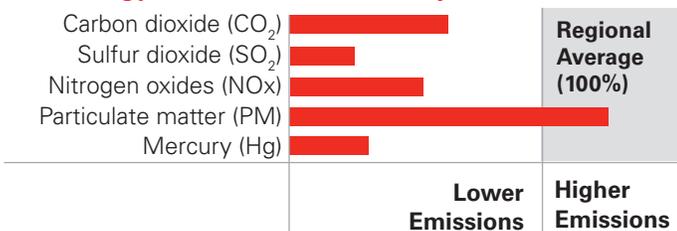
The Minnesota Pollution Control Agency is responsible for ensuring that emissions from utilities meet air quality standards for nitrogen oxides, sulfur dioxide, particulate matter and mercury.

Wind and solar power produce no emissions. Large hydropower may alter ecosystems and cultural resources depending upon the location and design of the facility.

Nuclear energy does not produce air emissions, but does produce nuclear waste. The high-level waste associated with nuclear energy was 0.0000058 pounds per kWh for 2022.

Statewide, coal-fired power plants in Minnesota generate: 34% of all SO₂ pollution, 17% of all CO₂ pollution, 7.5% of all mercury pollution, and 4.7% of all NOx pollution. All other generation sources contribute a small amount of pollution.

Xcel Energy 2022 air emissions compared to the MPCA regional average*



*The MPCA provides regional average emission rates for comparison to our 2022 emissions. The SO₂, NOx and CO₂ rates come from the U.S. EPA’s eGRID database and are available through 2021. The particulate matter and mercury rates are derived by MPCA using 2017 data.

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What does it cost to produce your electricity?

The Minnesota Public Utilities Commission requires electric utilities to provide customers with information on service costs related to the generation, transmission and distribution of electricity.

Electric system components

Generation

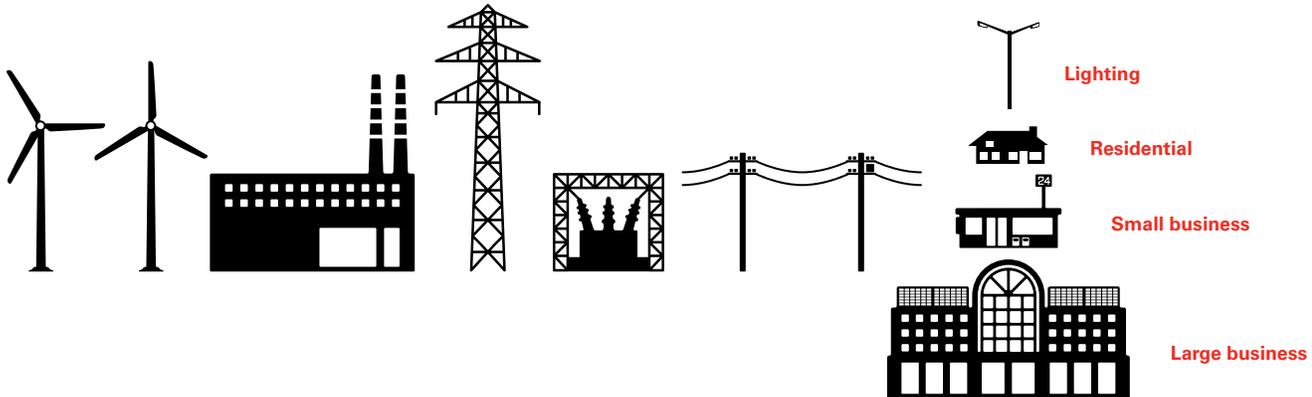
Utilities produce electricity at power plants. Utilities also purchase electricity from other utilities or power suppliers.

Transmission

High-voltage electricity travels from power plants along transmission lines to distribution substations.

Distribution

At distribution substations, the voltage is reduced and low-voltage electricity is delivered to customers.



2022 component costs by customer category

Your monthly bill also displays the average percentages for your specific customer category. Individual monthly percentages may vary from the average.

	Residential	Small commercial/business	Larger commercial/industrial	Other
Generation	49%	68%	78%	26%
Transmission	11%	14%	14%	2%
Distribution	40%	18%	8%	72%
Total	100%	100%	100%	100%

Average percentages are calculated by identifying the cost to provide electric generation, transmission and distribution services to each customer class, then dividing the amounts by the total cost.

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Reduce your monthly bills by saving energy

Improving energy efficiency in your home will help save you money and protect the environment. It's easy to do and you don't need to sacrifice comfort to make an impact. Energy tips that can help save you money and reduce your impact on the environment can be found at [xcelenergy.com](https://www.xcelenergy.com).

For residential customers

If you have any questions or would like to participate in any of our energy conservation programs, call our Customer Contact Center at **800-895-4999** or visit the Programs & Rebates section of our website at [xcelenergy.com](https://www.xcelenergy.com).

For business customers

Want to increase your company's energy efficiency, reduce operating costs and improve your bottom line? No matter what size business you own or manage, Xcel Energy offers opportunities to help you save money and energy.

If you have questions about energy conservation rebates and programs, or energy-saving ideas, contact your Xcel Energy account manager or our Business Solution Center at **800-481-4700**.

Choose clean renewable energy

Windsorce® provides customers a choice to support clean renewable wind energy generated from Minnesota wind farms. An average residential customer with 100% Windsorce pays about \$7 more per month in addition to their standard electric bill. For more information and to sign up, please visit [xcelenergy.com/Windsorce](https://www.xcelenergy.com/Windsorce) or call **800-895-4999**.

The first phase of Renewable*Connect®, a program that offers a blend of wind and solar, flexible contract terms and no equipment to install, is fully subscribed. A second Renewable*Connect offering has been approved and is expected to launch in 2023. Find out more at [xcelenergy.com/RenewableConnect](https://www.xcelenergy.com/RenewableConnect).

Want more information?

Contact Xcel Energy at **800-328-8226**, or visit our website at [xcelenergy.com](https://www.xcelenergy.com) to find out more about air emissions or our energy-saving programs.

Contact the Minnesota Pollution Control Agency at pca.state.mn.us/air/how-s-air-0, or call **651-297-2274** or **800-646-6247** for additional information about air emissions.

Contact the Minnesota Department of Commerce at energy.mn.gov, or call **651-539-1886** or **800-657-3710** for more ideas on saving energy.

