Environmental Management

Through our clean energy leadership and commitment to continuous improvement, we're responsibly managing and reducing our environmental footprint.

Our customers and local communities expect us to act as careful stewards of the environment, protecting the air, water and land while delivering reliable, affordable electricity and natural gas. Throughout our operations, we aim to go beyond regulatory standards to further reduce environmental impact. We earn public trust and confidence through a strong record of compliance, focus on clean energy and collaboration on state and regional issues. A well-established corporate policy and environmental management system guide us.

Xcel Energy's reputation as an environmental leader began decades ago as we engaged with environmental agencies and stakeholders to help address state and regional air quality issues. We were among the first to install state-of-the-art emissions controls on our coal-fueled power plants. Over the years, our projects have served as national models for power providers to support air quality plans while maintaining reliable, affordable energy.

Today, we're investing in carbon-free energy and retiring all coal operations by the end of 2030. By encouraging the use of clean energy in the built environment, transportation and other sectors of the economy, we support cleaner air and a better world.

Governance

The Operations, Nuclear, Environmental and Safety Committee of the board of directors oversees all operational aspects, which includes annually reviewing the company's environmental strategy, compliance performance and initiatives. Within the company, the chief operations officer is responsible for environmental performance, compliance and reporting, and the chief sustainability officer is responsible for environmental strategy and policy. Both report to the CEO and belong to the executive committee.

LEARN MORE

The Reach Net Zero Responsibly section of the Sustainability Report

Affordable, Safe, Reliable and Resilient Energy Brief

Community Relations and Economic Development Brief

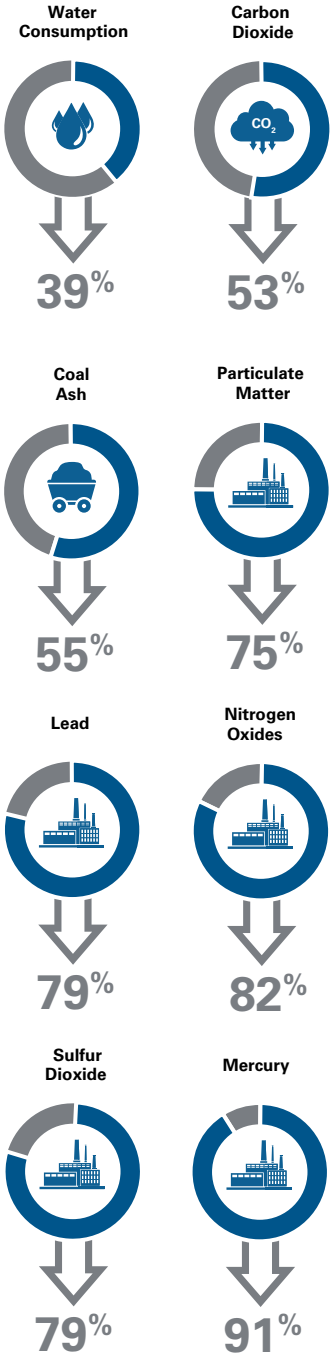
Xcel Energy Environmental Policy

Environmental Justice Position Statement

Sustainability Report Data Summary

Xcel Energy's Form 10K for environmental risk and expenditure information

Environmental Improvement (2005-2022)



Reductions in carbon dioxide emissions and water consumption are from owned and purchased electricity that serves our customers. All other reductions are from owned generating plants.

Environmental Management System

Xcel Energy's comprehensive environmental management system is designed to promote excellence, continuous improvement and compliance with applicable requirements. Although we have not pursued formal certification under ISO 14001, our system incorporates its nine elements: policies, responsibilities, environmental interaction, impacts, compliance, objectives and targets, monitoring and measurement, performance review and continuous improvement.

Our management system provides:

Oversight

- Board of directors — Operations, Nuclear, Environmental and Safety Committee
- Chairman, president and CEO
- Executive committee
- Energy and Environmental Policy department
- Environmental Services department

Risk analysis

- Goals and performance indicators at corporate and operating levels
- Multidisciplinary teams for developing new compliance programs
- Environmental audit program
- Regular risk assessments

Policies and procedures

- Corporate environmental policy
- Formal, documented processes, procedures and standards
- Routine monitoring of new, evolving regulatory activity

Monitoring

- Centralized and automated compliance tracking system using real-time data
- Monthly performance reporting
- Routine facility audits

Follow-up for compliance gaps

- Tracking for corrective action and internal audit findings
- Event learning assessments
- Sharing lessons learned and fleet best management practices

Training and communication

- New employee orientation
- Site- and topic-specific employee training and tracking
- Updates and information communicated through internal channels
- Human performance policy and action

Environmental Policy

Xcel Energy's environmental policy lays the foundation for the company's approach to minimizing our impact to air, water and land; reducing waste; and supporting biodiversity. It covers all environmental media and sets expectations that align business practices with our commitment.

Through our corporate strategy and daily operations, we aim to achieve environmental excellence and demonstrate leadership by doing what's right — advancing initiatives that benefit the environment. We balance this commitment with our duty to provide customers low-cost, reliable energy.

We work to conduct our operations in an environmentally responsible manner, including:

- Monitoring and minimizing environmental impacts.
- Meeting or surpassing regulatory requirements and investing in environmentally sound technologies.
- Evaluating costs and benefits to inform adoption of pollution prevention measures in operations and resource planning.
- Minimizing corporate risk and liability arising from environmental issues.
- Performing environmental due diligence before beginning a new project or real estate transaction.
- Engaging with stakeholders to address environmental issues.
- Training and empowering employees to take responsibility for protecting the environment and environmental activities related to their jobs.

In making decisions, we consider opportunities to reduce emissions, eliminate waste and conserve or protect resources, such as water and wildlife. We often participate in environmental research and stewardship projects or community partnerships.

We have more than 40 policies, procedures and guidance documents that support our ongoing performance and foster environmental excellence. All Xcel Energy employees, as well as contractors and vendors, are expected to follow these policies.

NOTEWORTHY

Environmental Justice

Because we provide essential energy services, Xcel Energy is positioned to advance environmental justice in our communities. As we lead the clean energy transition, our company is committed to considering environmental justice in all our work and provide meaningful ways for all people — no matter who they are or where they live — to participate in the energy decisions that affect them.

Environmental justice is the engagement, fair treatment and meaningful involvement of all people regardless of race, color, national origin or income in the development and implementation of energy, climate and environmental initiatives.

We live this commitment by:

- Continuous improvement in environmental performance, improving air quality and reducing water use and waste.
- Working to ensure equitable allocation of both costs and opportunities from our expanding carbon-free energy system.
- Viewing energy affordability, reliability and resiliency as critical to the well-being of the communities we serve, especially to vulnerable people.
- Developing partnerships in disproportionately impacted places, including communities near our facilities.
- Supporting the continued vitality of places affected by the transition away from coal.
- Making clean energy options and services available to all our customers.
- Encouraging inclusion and participation by making outreach events easier for anyone to access — considering location, multiple language support, timing, the needs of parents and disabled people, how events are publicized and other factors.

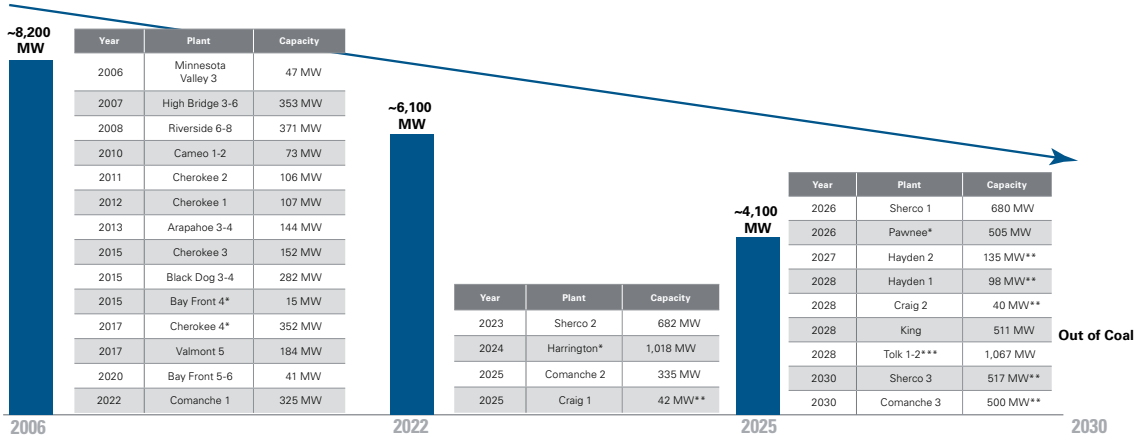
These initiatives touch many areas of our business, including employment and sourcing, construction planning and permitting, giving and volunteering, product and program design, public policy and community involvement at all levels of government.

Our Clean Energy Transition: Reducing Air Emissions

In the early 1900s, coal-fueled power plants were considered engineering marvels that improved people's lives with modern conveniences from electric washing machines to toasters. They were located close to customers in downtown and urban areas or near critical infrastructure, like railroads and rivers.

In the 1980s, we started installing new emissions controls on the plants, and by the early 2000s, we engaged with environmental agencies, utility regulators and stakeholders to develop plans to further reduce emissions. Under the Minnesota Metro Emissions Reduction Project, completed in 2009, we repowered two of our oldest coal plants in the Twin Cities to natural gas. In Colorado, we retired two coal plants and repowered a third to natural gas under our Clean Air-Clean Jobs Plan, completed in 2017.

Xcel Energy has plans to retire or repower all remaining coal-fueled plants, ahead of their scheduled retirement dates.



Year	Plant	Capacity
2006	Minnesota Valley 3	47 MW
2007	High Bridge 3-6	353 MW
2008	Riverside 6-8	371 MW
2010	Cameo 1-2	73 MW
2011	Cherokee 2	106 MW
2012	Cherokee 1	107 MW
2013	Arapahoe 3-4	144 MW
2015	Cherokee 3	152 MW
2015	Black Dog 3-4	282 MW
2015	Bay Front 4*	15 MW
2017	Cherokee 4*	352 MW
2017	Valmont 5	184 MW
2020	Bay Front 5-6	41 MW
2022	Comanche 1	325 MW

Year	Plant	Capacity
2023	Sherco 2	682 MW
2024	Harrington*	1,018 MW
2025	Comanche 2	335 MW
2025	Craig 1	42 MW**

Year	Plant	Capacity
2026	Sherco 1	680 MW
2026	Pawnee*	505 MW
2027	Hayden 2	135 MW**
2028	Hayden 1	98 MW**
2028	Craig 2	40 MW**
2028	King	511 MW
2028	Tolk 1-2***	1,067 MW
2030	Sherco 3	517 MW**
2030	Comanche 3	500 MW**

* Conversion from coal to natural gas.
** Based on Xcel Energy's ownership interest.
*** Proposed early retirement of the Tolk Station, pending approval by public utilities commissions.

As we transition our operations away from coal, we are lowering or eliminating air emissions, reducing carbon dioxide emissions and cutting waste and water consumption. Communities near coal plants see significant environmental benefits from early retirements.

We have reduced emissions and waste in those communities, as shown below.

Community Emissions Reductions from Retired Coal Operations (from 2005 levels)

	Sulfur Dioxide	Nitrogen Oxides	Mercury	Particulate Matter	Coal Ash
Arapahoe Station: South Denver	100%	100%	100%	100%	100%
Cherokee Station: North Washington Neighborhood in Denver	100%	95%	100%	77%	100%
Riverside Station: Marshall Terrace Neighborhood in Minneapolis	100%	99%	100%	99%	100%
High Bridge Station: West Seventh Neighborhood in St. Paul	100%	99%	100%	99%	100%

We're also in the process of closing the first two coal units at Comanche Station in Pueblo, Colorado. Comanche Unit 1 was shut down at the end of 2022, and Unit 2 will shut down in 2025. Once both units are retired, we expect to achieve the following emissions reductions at the plant compared to 2021 levels: sulfur dioxide 51%, nitrogen oxides 69%, mercury 39%, particulate matter 42% and coal ash 46%. Under our Colorado Clean Energy Plan, the last unit at the Comanche Plant will retire no later than Jan. 1, 2031.

Compliance Results

We strive to comply with all applicable federal, state and local rules and regulations. However, regulatory agencies may issue Notices of Violation or compliance advisories. These notices can result in fines or penalties. If there are disputes about the alleged noncompliance, even when we believe we remained in compliance, settlements are often reached to avoid the costs of litigation and to cooperate with the regulatory agency.

Every year, as part of our internal and ongoing efforts to self-identify and self-correct any potential noncompliance issues, we conduct our own facility audits.

We received the following compliance orders, advisories or NOVs involving activities at our facilities over the past year:

2022 Compliance Activity*

	2020	2021	2022
Notices of Violation or Compliance Advisories	4	1	2
Penalties Paid	$41,800	$750	$0
External Agency Audits or Inspections	41	42	45
Internal Audits Conducted to Ensure Compliance	69	81	92

*Because of the regulatory process and timing, penalties are not typically paid in the same year that notices of violation or compliance advisories are issued.

- The Colorado Department of Public Health and Environment issued a compliance advisory to Cherokee Station for wastewater discharge reporting that shows three exceedances during the year: One pH and two total inorganic nitrogen. The Water Quality Control Division initiated a process to determine whether a formal enforcement action would be taken; however, none was taken in 2022. The plant began using potable water to address the source of the problem as the use of refuse water has high nitrogen. No fines or penalties were assessed as a result of the compliance advisory.

- The Colorado Department of Public Health and Environment issued a compliance advisory to Hayden Station for exceedances of air emission permit limits. Failure of scrubber controls resulted in one event of sulfur dioxide emissions exceeding the limit of 0.13 lb/MMBtu (30-day rolling average) and two events for failure to meet the sulfur dioxide percent reduction of 82% (30-boiler- operating-day rolling average). No fines or penalties were assessed as a result of the compliance advisory.

In spring 2022, we finalized a compliance agreement with the U.S. Environmental Protection Agency associated with implementation of the Coal Combustion Residuals Rule at Comanche Generating Station in Pueblo, Colorado. Find details in our Waste, Recycling and Reuse Brief.

Community Right to Know and the Toxics Release Inventory Program

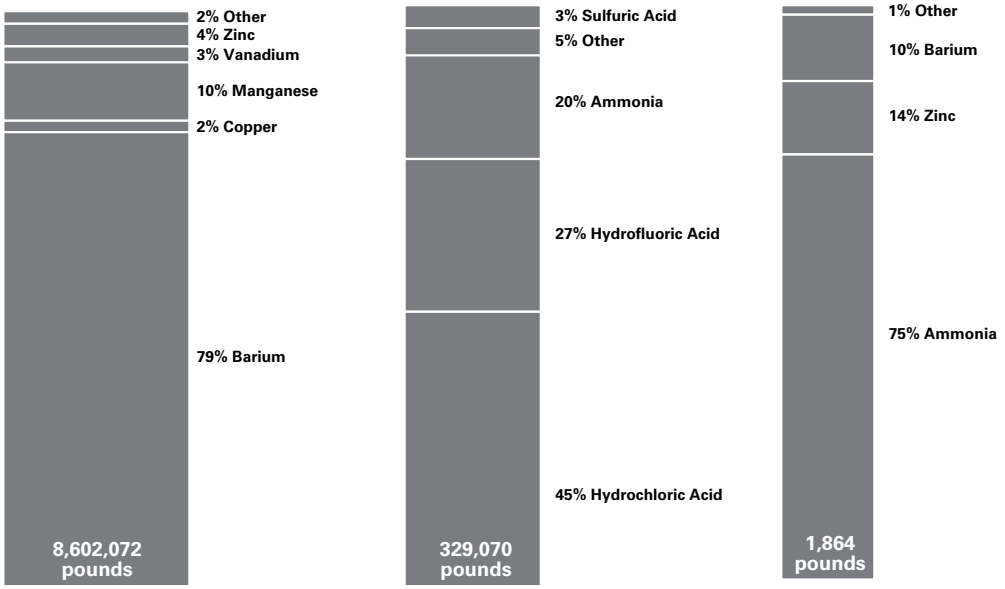
The EPA has administered the Emergency Planning and Community-Right-to-Know Act since 1986. Under this federal law, residents have the "right to know" about potential hazards in their communities from hundreds of chemical substances. Each year, facilities in specific industries that manufacture, process or use any of these substances must report their releases to air, land and water. The EPA manages the information in a publicly available database under the Toxics Release Inventory program.

Xcel Energy has participated since 1999 when the TRI program expanded to include electric utilities. We annually report our releases, the result of using coal, oil and refuse-derived fuel (processed municipal solid waste) to produce electricity. When these fuels are combusted, they release trace amounts of TRI reportable substances, including barium, chromium, copper, lead, manganese, mercury, nickel and zinc.

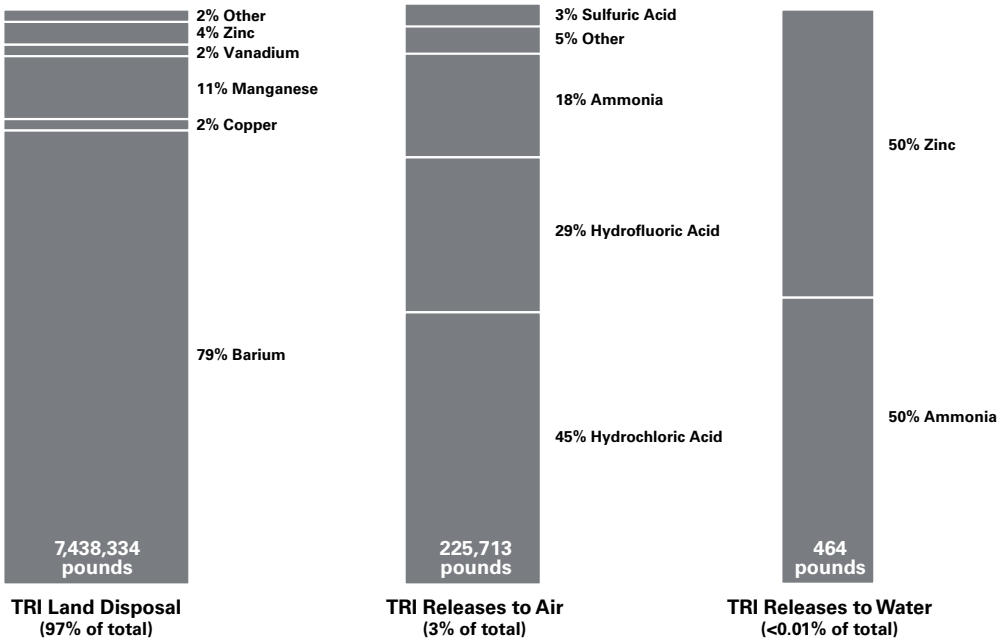
TRI reportable substances are reported by facility and release type — land, air and water. A facility's releases may change slightly from year to year based on the amount of electricity produced and the fuel that is consumed, as well as fuel composition and mineralogy.

From 2005 to 2021, we reduced releases under the program by more than 45% due to the decreased use of coal. Most of our TRI reportable substances are contained in coal ash at our plants, preventing them from entering the air. We capture about 95% of these constituents and safely dispose of them in managed landfills.

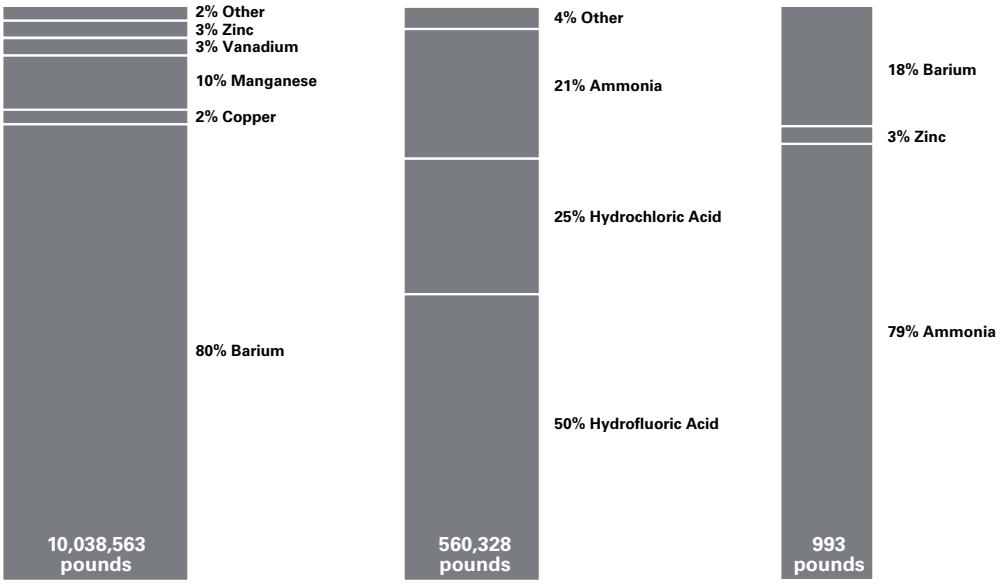
2021 TRI Releases



2020 TRI Releases



2019 TRI Releases



Releases provided here are from nine generating plants across our service area.

Legacy Manufactured Gas Plant Projects

Well into the 20th century, gas was manufactured from coal, oil and petroleum and used for heating, cooking and street lighting. EPA estimates thousands of manufactured gas plants operated in the United States between 1815 and 1960, owned by municipalities and corporations, including predecessor companies to today's utilities.

Manufactured gas facilities produced a variety of wastes and byproducts, including coal tar. Some were sold for reuse or disposed off-site, and some were left at plant sites.

Because our operating companies' history goes back more than 150 years, Xcel Energy inherited legacy MGP sites. All the plant facilities were closed and dismantled years ago, and some properties have been sold. Over the years, Xcel Energy has worked cooperatively with environmental agencies and communities to investigate and remediate former MGP sites when necessary.