Reliable and Secure Energy

We provide 24/7 convenience for millions of customers who depend on us.

Energy keeps our economy running and powers our customers' lives. Because of this, providing safe, clean, reliable energy service at a competitive price is fundamental to our mission. Company-wide, our electric service is consistently ranked among the top one-third of U.S. energy providers, with customers having electricity on average 99.9% of the time. Natural gas is a safe, affordable and environmentally efficient energy source that is inherently reliable for heating homes and businesses, especially in colder climates. Our natural gas system is highly flexible and resilient with nearly 100% reliability.

We continually invest to strengthen and modernize our infrastructure—the plants, power lines and natural gas system that serve customers. This includes upgrading technology and diversifying our energy supply to ensure a reliable mix of resources for managing energy cost and environmental impact while making sure we don't depend too heavily on any one resource. As we decide where to invest, we consider projects that provide the greatest value and meet the diverse interests of stakeholders, including customers, communities, regulators, policymakers and investors.

Governance

The Operations, Nuclear, Environmental and Safety Committee of the board of directors oversees all aspects of Xcel Energy's electric and natural gas operations. This includes reviewing operating performance, metrics and regulatory compliance. Within Xcel Energy, the president and chief operating officer oversees natural gas operations and electric distribution and transmission. The chief generation officer oversees Energy Supply and the company's nuclear operations, and the chief customer and innovation officer oversees cyber and physical security. All three officers report to the chairman and CEO.

Currently, we are upgrading our distribution network infrastructure to include smart meters, advanced software, equipment sensors and related data analytics capabilities. These investments will further improve security, reliability and reduce outage restoration times for our customers, while at the same time, enabling new options and opportunities for increased efficiency savings. Through planned and proposed transmission investments, we are creating the pathway to deliver abundant wind and solar energy resources to customers.

As our systems become more interconnected, security of the power grid is a greater concern. We continue to implement security measures designed to protect our information technology systems, network infrastructure and other assets, working closely with government and industry peers to identify and adopt best practices for grid security.

HIGHLIGHTS

- We added nearly 1,500 megawatts of company-owned wind capacity in 2020, including three large self-build projects—Cheyenne Ridge in Colorado, Sagamore in New Mexico and Blazing Star 1 in Minnesota. Constructing and operating wind projects has become a core competency at Xcel Energy. When the COVID-19 pandemic emerged, there was concern it would slow down our progress completing the nation's largest multi-state wind investment, but we overcame multiple challenges and kept the projects on track.

- Xcel Energy has proposed groundbreaking energy plans in both Colorado and the Upper Midwest that if approved by regulators will reduce carbon emissions 80% from 2005 levels and deliver electricity that is more than 70% carbon free to our customers.

- According to the Institute of Nuclear Power Operations, Xcel Energy's nuclear generating plants are among the best in the country receiving the organization's top exemplary rating. Both plants are also in the Nuclear Regulatory Commission's Column 1—the highest rating.

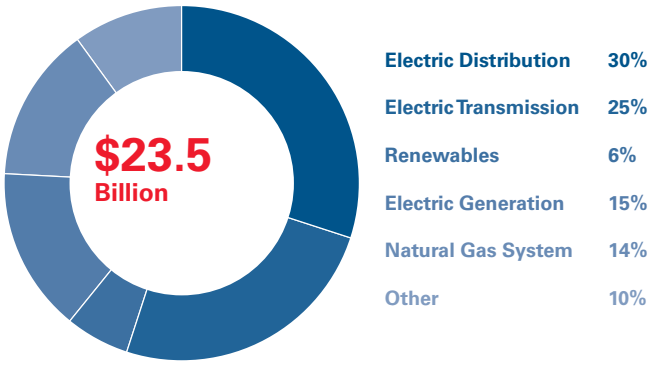
- Our company delivered best-in-class public safety performance in 2020 through continued reductions in the number of third-party dig-ins to underground pipes and wires. Company-wide, we had 1.11 excavation damages per 1,000 locate requests—which is a 17% improvement over the past five years. We have achieved these results by continuously refining our processes and working with the industry and third-party contractors who encounter power lines and natural gas infrastructure as part of their jobs.

- At least 96% of customers' power was restored within 24 hours following severe weather events in 2020. Xcel Energy was recognized with two Emergency Recovery Awards from the Edison Electric Institute for its outstanding efforts to restore service to customers after a Minnesota tornado in August 2020 and Winter Storm Billy in Texas. We also received a 2019 ReliabilityOne Award for Outstanding Reliability Performance in the Plains Region by PA Consulting.

Investing for the Future

Over the next five years, we plan to invest $23.5 billion in projects that, in addition to ongoing maintenance and repair, will increase renewable energy ownership, strengthen the power grid, ensure security and offer customers more options.

2021-2025 Capital Forecast



We've also proposed two more projects not included in the forecast: the 460-megawatt Sherco Solar project and 120-megawatt Allete wind repowering. If approved by regulators, the two projects would add $760 million of investment, raising the forecast to $24.3 billion

System Resource Planning

We are required by some state regulatory commissions to regularly conduct a system resource planning process. The process varies by state, but generally begins with Xcel Energy filing a proposed long-term resource plan with the public utilities commission. Regulators then evaluate the plan and many stakeholders provide input, including customers, environmental organizations, and communities.

The plans assess the overall generating resources we need to serve our customers and other related items, such as associated transmission needs and total load obligations, which are influenced by things like our energy efficiency program goals.

Once the plan is approved, it may result in the need to add resources to serve customers. We then typically release one or more requests for proposals, which may be general or targeted toward specific resources, such as natural gas or renewable energy. As the regulatory commission decides on specific resources to be acquired, our stakeholders may provide input.

We are currently engaged with regulators and stakeholders in several states on proposed resource plans that, if approved, will achieve our goal of reducing carbon emissions 80% by 2030 from 2005 levels. In 2020, we updated our planning model and worked with stakeholders to resubmit our Upper Midwest Energy Plan to regulators in Minnesota. We are proposing to close our remaining coal units in Minnesota by 2030, extend the use of nuclear energy at the Monticello plant and significantly add more wind and solar power, as well as firm capacity resources, such as natural gas or possibly storage. We also proposed our Clean Energy Plan for Colorado, which is estimated to reduce carbon emissions approximately 85% from 2005 levels and provide customers in the state with 80% renewable energy by 2030. In addition, we are preparing to propose a new energy plan to New Mexico regulators in July 2021.

Find details on our **Colorado Clean Energy Plan**, the **Upper Midwest Energy Plan** and **current plan for our Southwest region** on xcelenergy.com.

Utility Operations

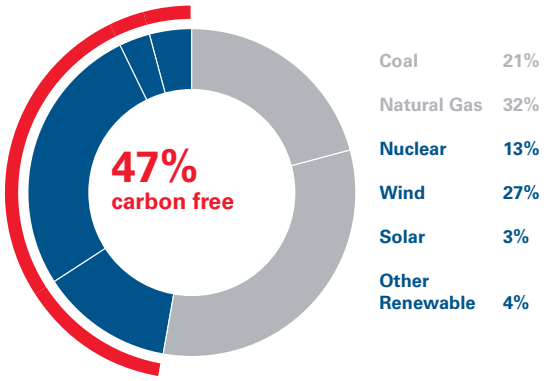
Generating Electricity

Xcel Energy provides electricity from a diverse mix of energy sources, including coal, natural gas, nuclear and renewables. We currently own 20,140 megawatts of generating capacity across our eight-state service area. Traditionally, our generation portfolio has depended on coal, but we are transitioning away from coal to rely more on renewable energy, our carbon-free nuclear fleet, and cleaner 24/7, dispatchable power resources, such as natural gas generation.

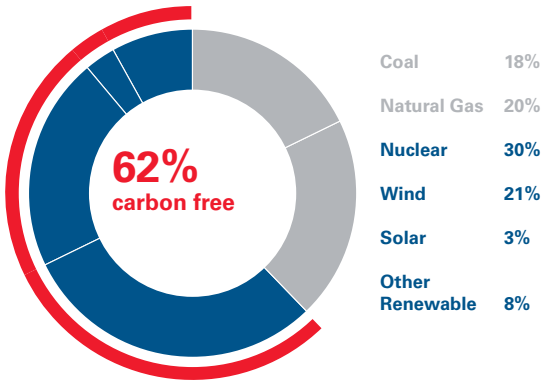
Xcel Energy power plants consumed 14.8 million tons of coal in 2020, down from 19.3 million tons in 2019. While generation from coal declined, we produced slightly more energy with nuclear power and increased wind and solar generation by more than 20% during the year.

Xcel Energy delivered electricity to customers in 2020 from a diverse mix of energy resources, including electricity produced at the company's plants and purchased from third-party suppliers.

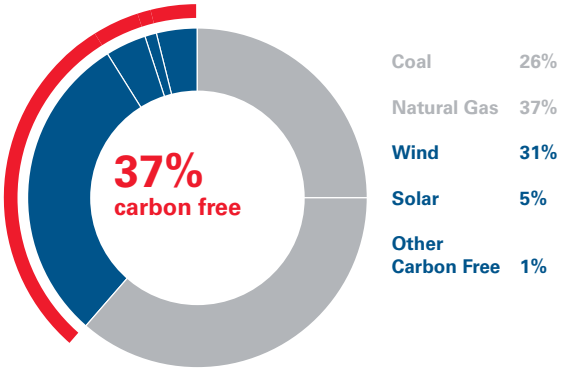
2020 Energy Mix – Xcel Energy



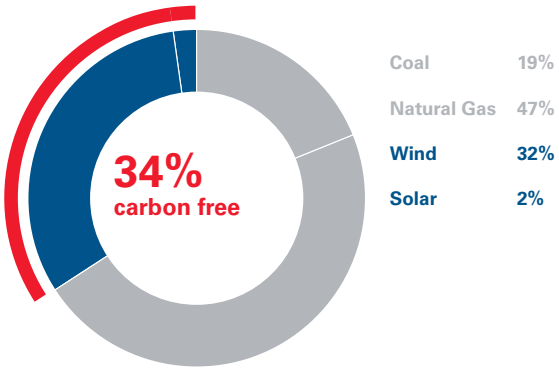
2020 Energy Mix – Upper Midwest



2020 Energy Mix – Colorado



2020 Energy Mix – Southwest



We report on our coal plant retirements and flexible plant operations in the **Reducing Air and Other Emissions brief** in the Sustainability Report and discuss our plans for expanding wind and solar energy in the **Renewable Energy brief**. Information on our **Monticello** and Prairie Island (**Unit 1** and **Unit 2**) nuclear plants is available on the U.S. Nuclear Regulatory Commission website.

Delivering Power

Xcel Energy operates thousands of miles of transmission and distribution power lines as well as substations and other equipment to safely and reliably deliver electricity to customers.

Transmission lines are a vital link to bring electricity over long distances from power sources to substations closer to homes and businesses. Xcel Energy is one of the fastest growing, investor-owned transmission systems in the country.

The following are notable projects in 2020:

- Thanks to favorable weather conditions, the Huntley-Wilmarth project in Minnesota was completed weeks ahead of schedule in December 2020. The 50-mile 345-kilovot transmission line north of Mankato is a partnership between Xcel Energy and ITC Midwest LLC and provides additional capacity on the system for delivering wind and solar power.

- The TUCO-China Draw project, a three-year effort to build a 240-mile superhighway for high-voltage electricity transmission between West Texas and southeastern New Mexico, was completed, marking a major achievement of Xcel Energy's Power for the Plains grid enhancement initiative. The project will transport more carbon-free, reliable and affordable electricity, plus boost economic prospects in both states. Construction of the $400 million, 345-kilovolt project included one new and five expanded substations. The line stretches between the China Draw Substation, south of Carlsbad, New Mexico, and the TUCO Substation north of Abernathy, Texas. The final portion connecting the Yoakum Substation southeast of Plains, Texas, and the TUCO Substation was completed in mid-2020. Xcel Energy brought the project in 9% under budget, delivering even more long-term savings to customers.

- To connect customers with the Cheyenne Ridge wind farm in Colorado, we constructed a new 70-mile 345-kilovolt transmission line that runs from the wind project in Cheyenne County to the Shortgrass Substation in Lincoln County. Both the wind farm and associated transmission line are important investments for achieving our goal to reduce carbon emissions 80% by 2030 from 2005 levels.

In early 2021, Xcel Energy requested permission from the Colorado Public Utilities Commission to construct the Colorado Power Pathway Project. The $1.7 billion proposal will enable about 5,500 megawatts of new generation, primarily renewable energy, called for under our proposed Clean Energy Plan. If approved, 560 miles in total of proposed new 345-kilovolt double-circuit transmission line will connect rural counties rich in renewable energy resources with energy customers in other parts of the state.

Fueling Homes and Businesses

We fuel the homes and businesses of approximately 2.1 million customers in Colorado, Michigan, Minnesota, North Dakota and Wisconsin, and operate some gas transmission in South Dakota and Texas. Natural gas is a safe and efficient way to heat homes, from both a cost and environmental perspective, especially in our cold weather service areas. With nearly 2,200 miles of transmission and more than 35,900 miles of distribution pipelines in service, we plan to add approximately 750 miles of new pipeline over the next five years.

We are investing approximately $1.4 billion to renew our natural gas system over the next five years, and so far, have replaced more than 700 miles of pipe since 2012. In 2014, we finished replacing all cast-iron pipes and have less than eight miles of unprotected bare steel pipe remaining to replace. Currently, all our transmission pipe is protected steel and nearly all our distribution pipe is plastic or protected steel. Low natural gas prices and the use of a special monthly bill charge or riders in both Colorado and Minnesota have made it possible to invest in our system and accelerate upgrades with minimal impact to customer bills.

By upgrading our system, we ensure safety and reduce the loss of natural gas and methane emissions. Over the past five years, we have decreased the occurrence of leaks on our system and other equipment by more than 20%. We track this through annual inspections, day-to-day operations and customer reports. Once problem areas are identified, they are prioritized for repair, which involves a variety of measures from tightening joints to full-scale pipe replacements.

Our work to improve the integrity of the natural gas system also reduces methane emissions and is part of our comprehensive plan to reduce the environmental impact of natural gas across the supply chain. We report on this effort in the **Leading the Clean Energy Transition brief** in the Sustainability Report.

As a natural gas provider, we work to raise awareness and take steps to keep customers safe around natural gas in their homes and communities. This includes improving our emergency response time by nearly 18% over the past five years. In 2020, our personnel arrived on-site within one hour of receiving a call associated with a suspected natural gas leak or other emergency 95% of the time. We also are a founding member of the Gold Shovel Standard, an industry-leading association aimed at reducing system damages. Third-party damage to facilities is the number one risk to that nation's natural gas infrastructure, and our damage prevention program is achieving top-quartile results.

We also follow the American Petroleum Institute Public Awareness Programs for Pipeline Operators Recommended Practice 1162. This involves implementing measures to increase awareness about the safety of our facilities and energy service. Twice a year, we send information on staying safe around natural gas to customers through their bills. As part of our membership with the national, nonprofit Pipeline Association for Public Awareness and our participation in state-specific pipeline associations, as well as Minnesota's Community Awareness Emergency Response association, we distribute materials to important audiences. This includes providing safety guides, books and newsletters to excavators and to public and emergency officials, in addition to sponsoring and participating in pipeline emergency responder meetings and trainings.

We provide additional information on public safety awareness programs in the **Customer Commitment brief** in Xcel Energy's Sustainability Report.

Wildfire Mitigation

As part of our commitment to safety, Xcel Energy has developed a fire risk mitigation plan designed to help protect lives, homes and property from the threat of wildfire. We recognize that wildfires pose a significant threat to our customers and communities as a whole, and we are proactively implementing programs to minimize ignition risks associated with operating our system. While the work is currently taking place in Colorado, it could be expanded to other states as needed.

Our Wildfire Mitigation Plan focuses in three main areas to promote public safety and systematically mitigate ignition risks from utility infrastructure.

- **Engagement:** We have increased outreach to local, county and state entities to coordinate planning and mitigation efforts across organizations and ensure our customers, communities and emergency responders are informed of our operations, procedures and Wildfire Mitigation Plan.

- **Technology:** Through equipment upgrades and advanced technology, we are systematically mitigating the risk of utility infrastructure starting a wildfire. This includes using Unmanned Aerial Systems (UAS) to inspect the tops of poles and Light Detection and Ranging (LIDAR) data to analyze the strength and ability of transmission and distribution structures to withstand higher than normal windspeeds.

- **Acceleration:** We are increasing certain utility practices that mitigate wildfire risk, such as routine pole inspections and replacing structures in areas designated Wildfire Risk Zones.

In developing the plan, Xcel Energy's Wildfire Mitigation Team conducted exhaustive research, analysis and engagement. They collaborated with other leading utilities, trade groups, consultants, fire professionals, and local and federal government agencies. Engaging across virtually every business area of the company, they sought to better understand our vulnerabilities and how to minimize them.

Implementation officially started in 2019 and will be carried out through 2025 on the following core components to the plan:

- Repair and replace equipment and poles that do not meet our inspection or strength criteria—through 2020, we've replaced approximately 6,000 distribution poles and plan to rebuild eight 69-kV transmission lines and several sections of distribution feeders over the next five years

- Accelerate inspections of facilities in Wildfire Risk Zones, conducting new and enhanced inspections on equipment to further identify potential safety concerns—we completed 10,000 UAS distribution pole inspections, nearly 59,000 physical pole inspections and 2,900 miles of visual transmission line inspections in 2020

- Develop a comprehensive enhanced system protection program for feeders in Wildfire Risk Zones—this includes improved technology and communications on feeders and at substations and will use an Advanced Distribution Management System to improve operational flexibility

- Expand vegetation management practices, such as continuing our Mountain Hazard Tree Program that helps us stay ahead of tree mortality caused by the Mountain Pine Beetle and applying "pole brushing" where we clear a 10-foot radius of vegetation around equipment poles to minimize the risk of ignitions—we performed pole brushing on more than 1,400 poles in 2020 and plan to complete the work on 4,000 poles in 2021

- Outreach to communities and stakeholders to educate them on the work being done for wildfire mitigation, answering questions about the plan and receiving feedback on what is most important—in 2020, we hosted the first ever Colorado Wildfire Summit with eight of the state's electricity providers and participated in more than 20 county commissioner and community outreach meetings, in addition to launching a website for the general public **xcelenergwildfireprotection.com** and hosting two public virtual townhall meetings

- Track and report multiple metrics to measure plan cost, efficacy and wildfire risk reduction over time as programs are implemented

- Ongoing assessment of other activities for future consideration—we continue to study new, emerging and evolving technologies and practices

We also developed comprehensive training programs in 2020 for employees, including fire prevention, wires down and ignition reporting, and new equipment and standards training. In May 2021, the Colorado Public Utilities Commission approved our Wildfire Mitigation Plan and provided a deferral mechanism to recover the incremental and accelerated cost of distribution investments. Transmission investments are already covered through a Transmission Cost Adjustment.

Cybersecurity and Physical Security

Critical infrastructure owners and operators faced ever-evolving cybersecurity and physical security threats in 2020. Increased telework, civil unrest and mounting threats from domestic violent extremists were but a few of the challenges facing our industry. Protecting the energy grid from all hazards is a responsibility that demands our constant vigilance and is a top priority for Xcel Energy.

Throughout 2020, we implemented numerous initiatives and processes to increase preparedness and decrease vulnerability. The Enterprise Security and Emergency Management team undertook a reorganization to improve its oversight and coordination of all security efforts, including employee training and awareness, compliance with federal regulations, and corporate security governance. Importantly, we are leading our industry's security efforts by combining cybersecurity and physical security into one Enterprise Command Center (ECC), a first of its kind in the electric sector. The ECC includes monitoring and protecting our networks 24/7 from cybersecurity threats while also including monitoring of natural and manmade events.

Our defense-in-depth and breadth approach aims to reduce single points of failure and improve the resilience of our systems. We are hardening our infrastructure by deploying technologies that help our teams to proactively prevent and detect cyber and physical events. Our technology deployments also provide critical data that can facilitate both prevention of incidents and mitigate the impacts from the incidents should they occur. We also use industry standards and best practices, which not only ensure our compliance with various federal regulations but also improve our overall culture of security.

A strong culture of security is supported by continuous learning and improvement. To advance our understanding of security best practices, we regularly engage with our industry peers, other critical infrastructure sectors, and the government. We actively collaborate with these entities on threat information sharing and test our combined capabilities to respond to an attack. We are involved in peer review activities that provide opportunities to explore other security programs and implement lessons learned. We are assessing threats from our supply chains, improving the situational awareness and protection of our operational technology environments, and coordinating with our industry to prepare for "black sky" events by exercising and shoring up key operational elements of critical systems.

As part of our commitment to security, Xcel Energy chairman and CEO, Ben Fowke, is a member of the National Infrastructure Advisory Council, which advises the president on ways the nation can protect its critical infrastructure. He also participates in the Electric Sector Coordinating Council, which serves as the principle liaison between the federal government and the electric power sector on these issues. Both of these organizations have been instrumental in assessing systemic risk and recommending policies to our federal government partners that will mitigate the impacts from these systemic risks.

Xcel Energy is subject to mandatory cybersecurity and physical security standards adopted by the North American Electric Reliability Corporation (NERC). Our practice is to self-report all identified instances of actual or potential noncompliance with the NERC physical and cybersecurity standards, regardless of severity. In 2020, we discovered several instances of actual or potential noncompliance that have been determined to be minimal risk violations not subject to penalty or tracking of repeat violations. The severity of five instances of potential noncompliance with the NERC standards discovered in 2020 has not yet been determined, but we expect they will be determined to have posed minimal risk.