



LEADING THE ENERGY FUTURE  
CORPORATE RESPONSIBILITY **REPORT**

2017



## Safe Harbor Statement

Except for the historical statements contained in this report, the matters discussed herein are forward-looking statements that are subject to certain risks, uncertainties and assumptions. Such forward-looking statements, including the 2018 EPS guidance, the TCJA's impact to Xcel Energy and its customers, long-term earnings per share and dividend growth rate, as well as assumptions and other statements identified in this document by the words "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "objective," "outlook," "plan," "project," "possible," "potential," "should," "will," "would" and similar expressions. Actual results may vary materially. Forward-looking statements speak only as of the date they are made, and we expressly disclaim any obligation to update any forward-looking information. The following factors, in addition to those discussed elsewhere in this Annual Report on Form 10-K for the fiscal year ended Dec. 31, 2017 (including the items described under Factors Affecting Results of Operations; and the other risk factors listed from time to time by Xcel Energy Inc. in reports filed with the SEC, including "Risk Factors" in Item 1A of this Annual Report on Form 10-K and Exhibit 99.01 hereto), could cause actual results to differ materially from management expectations as suggested by such forward-looking information: general economic conditions, including inflation rates, monetary fluctuations and their impact on capital expenditures and the ability of Xcel Energy Inc. and its subsidiaries to obtain financing on favorable terms; business conditions in the energy industry, including the risk of a slowdown in the U.S. economy or delay in growth, recovery, trade, fiscal, taxation and environmental policies in areas where Xcel Energy has a financial interest; customer business conditions; actions of credit rating agencies; competitive factors including the extent and timing of the entry of additional competition in the markets served by Xcel Energy and its subsidiaries; unusual weather; effects of geopolitical events, including war and acts of terrorism; cyber security threats and data security breaches; state, federal and foreign legislative and regulatory initiatives that affect cost and investment recovery, have an impact on rates or have an impact on asset operation or ownership or impose environmental compliance conditions; structures that affect the speed and degree to which competition enters the electric and natural gas markets; costs and other effects of legal and administrative proceedings, settlements, investigations and claims; financial or regulatory accounting policies imposed by regulatory bodies; outcomes of regulatory proceedings; availability or cost of capital; and employee work force factors.



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## Who We Are

Every day we power millions of homes and businesses across eight Western and Midwestern States, including Colorado, Michigan, Minnesota, New Mexico, North Dakota, South Dakota, Texas and Wisconsin. Our commitment starts with the basics — customers can count on us 24/7 to be there with safe, reliable and affordable energy. But, what we provide goes much deeper than that.

Based in Minneapolis, we are a recognized industry leader in delivering renewable energy and in reducing carbon and other emissions, efforts that have put us on a path to a more sustainable energy future. Through a growing range of innovative solutions, we continue to empower our customers with industry-leading options and energy alternatives to support their goals and objectives.

In a rapidly changing industry, we are taking a smart and thoughtful approach to how we produce and deliver energy, looking for better ways to serve our customers and ensure we are Leading the Energy Future.



**Our Vision**

We will be the preferred and trusted provider of the energy our customers need.

**Our Mission**

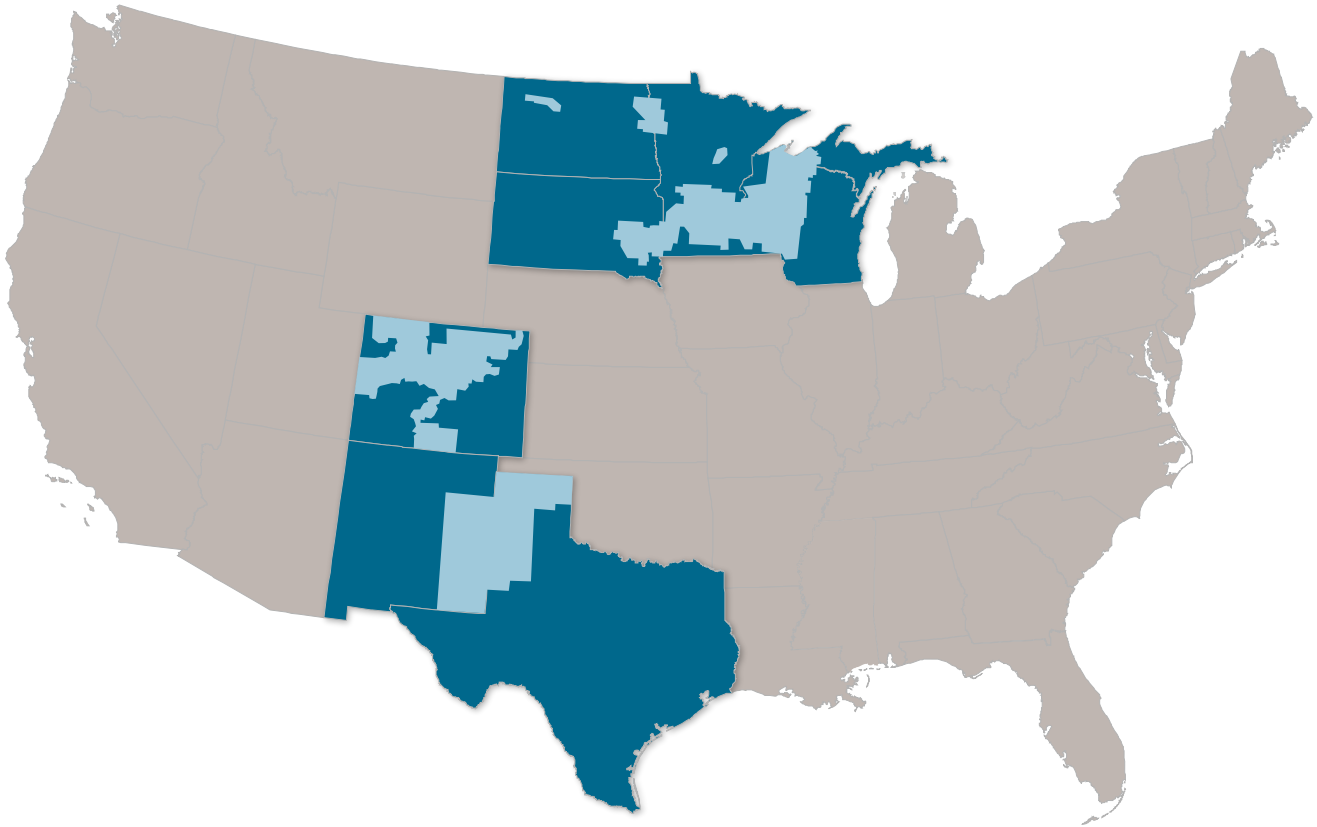
We provide our customers the safe, clean, reliable energy services they want and value at a competitive price.

**Our Values**

Our values reflect our core beliefs — who we are, how we conduct our business and the importance of our customers. They guide us in our work and in our interactions with each other. We are committed, connected, safe and trustworthy.

**Our History**

Xcel Energy's roots go back more than 100 years through its three predecessor companies. Both Northern States Power and Southwestern Public Service Company began serving customers in the early 1890s, followed by Public Service Company of Colorado in the early 1920s. Public Service Company of Colorado and Southwestern Public Service Company joined in 1997 to become New Century Energies, and merged with Northern States Power in 2000 to form Xcel Energy.





## Message from the CEO

### **To Our Stakeholders:**

Never before has energy been so important to society. From homes and businesses to hospitals and airports, communities run on energy. And while it's largely invisible, energy supports nearly every aspect of people's lives — from food production to education, health care and even our ability to connect with friends and family. Energy helps us achieve our goals.

Most people take energy for granted because it's so reliable. The devastating hurricanes last year in Texas, Florida and Puerto Rico, however, reminded us of the challenges to live without power for a significant period of time. Energy not only powers our lives every day, but it's the engine that drives our economy and progress across America and around the world.

As an energy provider, Xcel Energy drives progress for the communities and customers we serve. And just as they rely on us, we depend on them.

As the theme for this year's report describes, we have a vision for where we're going, Leading the Energy Future. We have set a path that provides our customers and communities with a more sustainable, prosperous energy future — one that ensures our mutual progress.

## Fueling Local Economies

At a very basic level, local economies depend on us for reliable, affordable energy. Last year we delivered our best-ever performance in system reliability, but running our system well and keeping the lights on are table stakes in our business.

One of our major challenges is balancing the need to keep investing in our systems while managing the cost of energy for customers. That's why keeping bills low is one of Xcel Energy's three strategic priorities. By focusing on all aspects of the customer bill, we've kept it in check. Our average residential monthly customer bill for electricity has declined 3 percent since 2013 while natural gas bills have declined 14 percent, for the same period. Some of that decline can be attributed to our suite of 150 energy efficiency programs, falling energy prices and investing in new technologies that help our employees do their work more efficiently and effectively.

If we achieve our goal to keep bills at or below the level of inflation going forward, we can help free up a portion of our customers' budgets to spend or invest in other ways that benefit the economy. As a local business, we're mindful of local spending. Last year 70 percent of our spending was with businesses located in our service territory and 10 percent of our spending was with businesses owned by women, minorities or veterans. In addition, some of the projects we invest in, such as transmission lines and wind farms, create hundreds of local construction jobs and significant tax base.

Finally, by providing valuable products and services, we help drive economic development. For example, our renewable choice programs, like Renewable\*Connect, can make our cities more attractive to companies with sustainable energy goals.

This past year, we worked side-by-side with local economic development authorities to attract and retain business, something that supports all of our bottom lines. Together, we identified or supported more than 140 business development opportunities that generated nearly 700 jobs and \$72.2 million in investment for the communities we serve.

## Leading the Clean Energy Transition

For more than a decade, we've embraced the tremendous responsibility entrusted to us to reduce our environmental footprint while balancing our customers' need for safe, reliable, affordable energy. We also recognize that for many of our stakeholders addressing climate change is an urgent and pressing issue. We're among the industry leaders in carbon reduction and are happy to deliver energy today that is greener than ever before.

It's the catalyst for efforts that have reduced our carbon emissions 35 percent since 2005 from the electricity serving our customers, as we work toward our target to reduce carbon 60 percent or more by 2030. Through cleaner energy, we're delivering other environmental benefits too — we've reduced water consumption by more than 40 percent, sulfur dioxide emissions by 72 percent and nitrogen oxide emissions by 76 percent since 2005.

Those are outstanding results, but we have aspirations to do even more. Through our strategic priority to lead the clean energy future, we continue to change the way we produce and deliver energy — retiring aging coal plants and replacing them with a combination of wind and solar power and more carbon-friendly natural gas for backup. By 2030, we expect that half of our energy will come from renewable sources. Our plans are contingent on the ability to run our nuclear power plants through their licensing period in the early 2030s — nuclear energy is currently the only 24/7 carbon-free baseload energy source available.

Our Steel for Fuel growth strategy — building wind farms that deliver both environmental and economic benefits — is at the core of this transition. It's a win-win scenario that appeals to stakeholders across the political spectrum. Last year, we announced the largest multi-state wind investment in the country — we have 12 new wind farms in various stages of development across seven states. When they are completed by 2022, we expect to be the first energy provider in the country to surpass 10,000 megawatts of wind capacity on our systems.

As a clean energy leader, we see the opportunity to reduce carbon beyond the energy sector. For instance, we can reduce reliance on fossil fuels by electrifying the transportation sector. Today an electric vehicle charged on our systems operates with 70 percent fewer carbon emissions compared to a typical car running on gasoline, and the results will get even better as we continue to transition away from fossil fuels.



## Powering our Customers and Communities

Serving people is at the heart of what we do. We power their lives, providing comfort and convenience and always strive to do better, which is fundamental to another strategic priority, enhancing the customer experience. More than ever, we are looking at our processes through the lens of customers to give them the products and services they want and value and to make it easier to do business with us.

Last year we stepped up our outage notification efforts. We understand the inconvenience that rare power outages cause and know the best thing we can do is provide timely and accurate information about when power restoration is expected. To this end, we launched a new online storm center that features improved outage maps, developed an award-winning mobile app and enrolled millions of customers to receive outage notifications by email, text or voicemail.

Just as we are focused on individual customers, we are enhancing the experience of our communities too. We recently forged proactive partnerships with two Colorado communities — Denver and Breckenridge — to not only deliver energy but to help them achieve their clean energy and sustainability goals, as well as other priorities. It's a model we want to replicate and are discussing with other communities.

Part of serving our customers and local communities is working to keep them safe. Throughout the year, we promote public service campaigns that raise awareness around the hazards associated with natural gas and electricity. Last year we had our best-ever public safety performance as we surpassed our goal for reducing accidental dig-ins to underground equipment by contractors and others. Another, less-visible aspect of protecting the public is enhancing the grid and protecting it from physical attacks and cyber criminals. In October, we opened our state-of-the-art Cyber Defense Center to protect our customers from the growing sophistication of cyberattacks.

Employee safety is equally important. While we finished 2017 strong with fewer injuries, several employees unfortunately suffered serious injuries during the year. In response, we took action and doubled down on our Journey to Zero safety commitment. Creating a safe workplace and developing our workforce are among the most important investments we make. As we bring in the next generation of workers and seek employees with the right skills and talents to serve our customers, we continue to build a workforce that reflects our communities and provides opportunities for everyone. Last year 23 percent of newly hired employees were ethnically diverse and 10 percent were veterans — who bring outstanding leadership, teamwork and technical skills to the job.

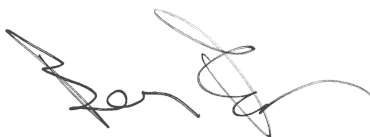
Beyond these customer and workforce commitments, we recognize that our responsibilities go much deeper. Giving back to our communities is part of our DNA. Last year we provided nearly \$60 million to programs and agencies that support families and individuals in need — our largest single area of community support. On top of this, through the Xcel Energy Foundation, our employee United Way campaign and other giving, we contributed \$11.7 million to support programs that help our communities thrive.

## Leading the Energy Future

We've enjoyed the privilege of serving customers for more than 100 years, helping to shape and contribute to the significant progress that they've achieved over that time. As you read our Corporate Responsibility Report, you will learn more about how we are leading the energy future and the many ways we are fulfilling our economic, environmental and community responsibilities — ways we are supporting the ongoing progress of those we serve.

Never before has our energy been safer, cleaner and more resilient and reliable than it is today, and we anticipate that with emerging technologies, evolving customer preferences and a commitment to doing business responsibly for our communities, it will be even better in the future.

Sincerely,



Ben Fowke  
Chairman, President and CEO



## Managing Corporate Responsibility

### **How we define, govern and align corporate responsibility with our strategic priorities**

For more than a century, Xcel Energy has had the privilege of serving customers and operating in hundreds of communities across its eight-state service territory. We have accomplished this by never losing sight of our responsibilities and the understanding that our success is uniquely tied to the success of those we serve.

### **Defining Responsibility**

We see our success today and in the future not simply as a measure of profit but equally as our broader impact on the public good. The safe, clean, reliable and affordable energy we provide enables our local economies and individuals to thrive and communities across our service territory to grow, develop and achieve their goals.

## **Economic Responsibility**

We power communities with reliable, affordable energy and contribute to local economies through our ongoing investment and partnership. Now more than ever, we must invest in our system and the technology and clean energy that will enhance our service for the future, all while keeping customer bills low. Through our investment, we contribute to the local tax base and provide good jobs with competitive wages and benefits. Most of our spending on goods and services is with local businesses, and we support a broad base of suppliers including businesses owned by women, minorities or military veterans. For the long term, we can support our communities as a partner in economic development. As low-cost, clean energy becomes more important to companies, we play a greater role in helping our cities and towns to attract and retain business. By supporting economic development, we deliver financial value not just for our communities and Xcel Energy, but for our investors who expect us to grow the business.

## **Environmental Responsibility**

We operate in an industry that relies on natural resources, and as such, we are committed to minimizing and carefully managing our environmental impacts. In our daily operations, our communities can count on us to do what's right and to protect the environment. We were an early adopter of renewable energy, and continue to lead the clean energy transition with an aggressive clean energy strategy. We set an ambitious goal to reduce carbon emissions 60 percent by 2030, from 2005 levels, and longer term, we are challenging ourselves to do even more while maintaining reliable, affordable energy. By serving customers with an increasingly clean energy mix, we also create other environmental benefits, such as lower air emissions, waste and water consumption. Beyond our operations, we also support important stewardship and conservation projects through our community investment — projects that further protect and preserve the places where we live, work and do business.

## **Community Responsibility**

We serve people, powering their daily lives and providing comfort and convenience. Our vision is to be their trusted energy provider, and to achieve this, we must constantly find opportunities to create value by providing the products and services they want and making it easy to do business with us. A top priority is ensuring safety for those who live and work around energy because a safe community is a strong community. As an employer, we provide a safe and rewarding workplace, one that values people and their contributions. And, a workplace that reflects the diversity and strength of the communities we serve through hiring and workplace practices that offer opportunities for all, including our military veterans. Beyond this, we believe in helping customers in need and in the value of giving and supporting our communities through our time and financial contributions to do our part to improve the overall quality of life in our communities.

Throughout our Corporate Responsibility Report, we demonstrate our leadership and progress in fulfilling these economic, environmental and community responsibilities. We cover performance across 24 issues that are associated with these responsibilities and that are important to our industry and to those we serve. We put special emphasis on 10 focus areas that our stakeholders identified as currently being of most interest to them through a survey conducted in early 2017.

## **Aligning Corporate Responsibility with Corporate Strategic Priorities**

Through our strategic planning process, the board of directors and executive leadership team identified three strategic priorities that represent the keys to our continued success in achieving our vision to be the preferred and trusted provider of the energy our customers need. These priorities include:

- Lead the clean energy transition
- Enhance the customer experience
- Keep bills low

Strong alignment exists between these strategic priorities and our corporate responsibility. The table here demonstrates this alignment to our corporate responsibility focus areas.



## Corporate Responsibility Governance

	Strategic Priorities	Corporate Responsibility Focus Areas
<b>Economic Responsibility</b>	<p><b>Keep Customer Bills Low</b></p> <ul style="list-style-type: none"> <li>Carefully manage our costs</li> <li>Continuously improve how we work to improve efficiency without compromising safety or reliability</li> <li>Keep total bill increases at or below the rate of inflation</li> </ul>	<p><b>Affordable Energy.</b> Transform our cost structure to become more efficient and customer focused, while investing in projects that reduce fuel and other expenses for customers</p> <p><b>Reliable Energy.</b> Deliver strong system reliability and outage response capabilities</p> <p><b>Local Economic Development.</b> Support local economies through infrastructure investment, quality of service and economic development support</p>
<b>Environmental Responsibility</b>	<p><b>Lead the Clean Energy Transition</b></p> <ul style="list-style-type: none"> <li>Serve customers with cleaner, reliable energy through increased ownership of wind and solar generation and continued operation of our nuclear fleet.</li> <li>Invest in the grid, including advanced technologies and transmission that enable more renewable energy</li> <li>Reduce carbon and other emissions, improving environmental performance</li> <li>Encourage and help enable the electrification or implementation of low-carbon solutions in other industries</li> </ul>	<p><b>Renewable and Advanced Clean Technologies.</b> Increase the use of economic renewables and position the power grid as a platform for new energy services</p> <p><b>Greenhouse Gas Emissions and Air Quality.</b> Continue to pursue a cost-effective clean energy strategy to reduce carbon and other air emissions</p>
<b>Community Responsibility</b>	<p>Enhance the Customer Experience</p> <ul style="list-style-type: none"> <li>View our work through customers' eyes</li> <li>Make it easy for customers to do business with us</li> <li>Offer products and services that our customers value</li> <li>Help strengthen our local communities</li> </ul>	<p><b>Public Safety and Employee Safety.</b> Ensure those living and working near our facilities are aware of potential hazards and respond safely to them</p> <p><b>Energy Efficiency.</b> Support customers and the communities we serve in attaining their energy conservation goals</p>

### The Foundation of All Our Efforts

**Corporate Governance.** Ensure sound corporate governance and a culture of compliance by focusing on strong practices, independent oversight and shareholder rights

## Corporate Responsibility Governance

Corporate responsibility is embedded throughout our organization and integrated into our governance processes. With strong leadership from our board of directors and executive management team, along with engaged leaders and organizations across the company, we are able to effectively manage risks and opportunities and drive strong performance across a spectrum of corporate responsibility issues.

The table below describes key aspects of our corporate governance that cover corporate responsibility.

<b>Board Oversight</b>	<p>Our board of directors, led by the chairman, president and CEO, oversees corporate responsibility-related issues and initiatives.</p> <ul style="list-style-type: none"> <li>• Board committees and responsibilities related to corporate responsibility include:           <ul style="list-style-type: none"> <li>– The Governance, Compensation and Nominating and Audit committees oversee respectively the Code of Conduct and corporate compliance.</li> <li>– The Operations, Nuclear, Environmental and Safety Committee oversees environmental strategy and compliance, safety and operational performance, customer service levels and all aspects of excellence in delivering electricity and natural gas service to customers.</li> <li>– The Finance Committee oversees our clean energy investments, investor relations and financial health.</li> </ul> </li> <li>• The board follows a regular meeting schedule that ensures it is able to consider and address key issues, including those related to corporate responsibility. In addition, it conducts an annual strategy session to consider new and emerging trends, consult with outside experts and assess current strategies and initiatives.</li> </ul>
<b>Executive Oversight and Management</b>	<p>The executive team plans and executes on strategies designed to achieve Xcel Energy's priorities, including corporate responsibility-related issues and initiatives.</p> <ul style="list-style-type: none"> <li>• The executive team is responsible for the strategic direction of the company and sets key initiatives, including growth plans, the clean energy strategy and other corporate responsibility efforts. They consider evolving customer trends and preferences, industry and technology needs affecting our business, developments in the external landscape and policy considerations.</li> <li>• Strategies and key initiatives are crafted and executed to strike a balance between reliability, affordability and environmental impact.</li> <li>• Our executive compensation is tied directly to company performance, specifically reliability, cost management, customer loyalty, public and employee safety, achievement of carbon emission reduction goals and financial performance.</li> </ul>
<b>Business Area Management</b>	<p>While the entire organization supports our corporate responsibility efforts, specific issues are directly tied to individual areas to manage. We use effective performance management techniques and compensation design to align employees around successful execution of our goals and efforts.</p> <ul style="list-style-type: none"> <li>• General Counsel: Ethics and compliance</li> <li>• Corporate Secretary: Governance, ethics and compliance, strategic planning and disclosure</li> <li>• Operations: Energy affordability and reliability, fuel diversity, advanced grid and environmental performance</li> <li>• Customer and Innovation Office: Energy efficiency, customer programs and satisfaction, economic development, security and emerging technology</li> <li>• Human Resources: Labor practices, safety and community giving</li> <li>• Financial Operations: Risk management, investor relations and disclosure</li> <li>• Nuclear Operations: Nuclear generation, safety and waste management</li> </ul>
<b>Operating Companies</b>	<p>Our operating companies execute on our corporate strategy and develop and implement plans that address corporate responsibility and fulfill our economic, environmental and community responsibilities.</p> <ul style="list-style-type: none"> <li>• Operating company staff engages with stakeholders to help ensure mutual priorities and goals are addressed.</li> <li>• Policy staff develops strategy and engages on energy policy issues, including climate change, environmental policy and sustainability strategy.</li> <li>• Resource plans are developed and analyzed for meeting customers' future energy needs and achieving clean energy and other stakeholder priorities.</li> </ul>

## Stakeholder Engagement

As a regulated, public utility we can only be successful if we have insight into the needs and priorities of those who our business relies on and serves. Because of this, we regularly engage with our stakeholders and seek opportunities to better understand their interests, concerns and emerging trends. The feedback we receive from these interactions helps to inform our business plans and strategies.

Xcel Energy's stakeholders are those individuals and groups who affect or are affected by our business operations. They fall within the following general categories:

- Customers
- Employees
- Communities, including local government officials, non-profits and community organizations, and advocacy groups
- Legislators and regulators
- Investors

Our stakeholder engagement is far-reaching, with regular, ongoing business interactions and special meetings, presentations and proceedings before our state public utilities commissions. Our account management and state and local affairs and community relations teams have always engaged with large customers, city and county governments, influential organizations and individuals, state legislators and policy makers to discuss important service and energy-related issues and projects. We also have a strong presence in our service territory through our community giving and volunteer support of community initiatives and programs.

Based on this solid foundation, we have been working to enhance our model for stakeholder engagement over the past several years, particularly in Colorado. We are taking these interactions to another level by using them as opportunities to improve how we listen to stakeholders and to educate and inform them on important energy-related initiatives, advocating for projects and policy solutions that we believe can provide mutual value for Xcel Energy and our stakeholders.

Through this effort, we are building trust, deepening our relationships and bringing our stakeholders with us to support important initiatives. Not only are we listening and responding to their interests, but stakeholders are taking ownership of our efforts, as our plans and initiatives become their plans and initiatives. An example of this is the Colorado Energy Plan, where we announced the effort with a broad coalition of diverse groups that also supported the plan, including consumer and environmental advocates, cities, large customers and industry groups. Support for the plan has been extensive, with more than 55 stakeholders — including large customers, city and county governments, school districts and others — sending positive letters to the Colorado Public Utilities Commission, advocating for the plan.

In addition to this ongoing engagement, we conducted a special survey in 2017 to better understand our local stakeholders and their priorities related to corporate responsibility. Results from the survey helped to inform the content and focus for this report, as well as our efforts in general.



## How We Engage

The table below outlines our regular, ongoing engagement with stakeholders and our response to stakeholder interests.

Stakeholder group	Engagement	Key interests	Our response
<b>Customers</b>	<ul style="list-style-type: none"> <li>• Customer Contact Center</li> <li>• Key account managers</li> <li>• Personal account representatives for customers in need</li> <li>• Customer advocate process</li> <li>• Surveys and focus groups</li> <li>• Customer communications and account information</li> <li>• Special events and meetings</li> </ul>	<ul style="list-style-type: none"> <li>• Energy service start and stop</li> <li>• Service reliability and timely outage response</li> <li>• Electric and natural gas safety</li> <li>• Energy affordability and money saving opportunities</li> <li>• Easy billing and online account management</li> <li>• Information privacy</li> <li>• Neighborhood construction or repair work</li> <li>• Renewable and clean energy</li> </ul>	<ul style="list-style-type: none"> <li>• Public safety materials, programs and advertising</li> <li>• Extensive energy-saving programs and tips</li> <li>• Online account management programs and the Xcel Energy app</li> <li>• Online outage map and improved outage communications</li> <li>• Construction project communications</li> <li>• Data privacy process</li> <li>• Renewable choice programs</li> <li>• Clean energy leadership and strategy</li> </ul>
<b>Employees</b>	<ul style="list-style-type: none"> <li>• Leadership meetings</li> <li>• Employee meetings and webcasts</li> <li>• Bargaining unit negotiations and communications</li> <li>• Employee surveys</li> <li>• Employee Communications</li> <li>• Quarterly performance connections</li> </ul>	<ul style="list-style-type: none"> <li>• Market-based compensation and benefits</li> <li>• Professional development</li> <li>• Communication</li> <li>• Recognition</li> <li>• Community involvement</li> <li>• Engagement in energy policy</li> </ul>	<ul style="list-style-type: none"> <li>• Total Rewards statement and tools, such as My Financial Future planning tool</li> <li>• Connect4Performance performance management</li> <li>• Professional development resources and tuition reimbursement</li> <li>• I Deliver and Innovator recognition awards</li> <li>• New employee orientation</li> <li>• Print, electronic and video communications</li> <li>• Volunteer activities and paid-time-off program</li> <li>• United Way campaigns and matching gift program</li> <li>• Business Resource Groups</li> <li>• Diversity and inclusion education</li> <li>• Wellness programs</li> <li>• Grassroots political events and political action committees</li> </ul>
<b>Communities</b>	<ul style="list-style-type: none"> <li>• Project-specific stakeholder meetings and open house events</li> <li>• Community relations staff</li> <li>• Partnerships and local memberships</li> <li>• Franchise agreements</li> <li>• Presentations and speaking engagements</li> <li>• Sponsorships and community events</li> <li>• Volunteer projects</li> </ul>	<ul style="list-style-type: none"> <li>• Public safety</li> <li>• Project input and communication</li> <li>• Community giving</li> <li>• Economic development and jobs</li> <li>• Support for community goals</li> <li>• Renewable and clean energy</li> <li>• Energy efficiency</li> </ul>	<ul style="list-style-type: none"> <li>• Public safety programs</li> <li>• Project communications</li> <li>• Xcel Energy Foundation giving and United Way campaigns</li> <li>• Employee volunteer programs and community board support</li> <li>• Programs for customers in need</li> <li>• Clean energy leadership and strategy</li> <li>• Renewable choice and energy efficiency programs</li> </ul>

Stakeholder group	Engagement	Key interests	Our response
<b>Legislators and regulators</b>	<ul style="list-style-type: none"> <li>• Policy and legislative involvement</li> <li>• Governmental and regulatory staff</li> <li>• Regulatory filings and proceedings</li> <li>• Political action committees and grassroots employee events</li> <li>• Speaking engagements</li> </ul>	<ul style="list-style-type: none"> <li>• Affordable energy</li> <li>• Reliable energy service</li> <li>• Renewable and clean energy</li> <li>• Climate change and greenhouse gas emissions</li> <li>• Environmental protection</li> <li>• Responsible corporate governance</li> </ul>	<ul style="list-style-type: none"> <li>• Continuous improvement and cost management</li> <li>• Clean energy leadership and strategy</li> <li>• Renewable choice and energy efficiency programs</li> <li>• Corporate environmental policy and environmental management system</li> <li>• Voluntary emissions reduction initiatives</li> <li>• Highly rated corporate governance program</li> </ul>
<b>Investors</b>	<ul style="list-style-type: none"> <li>• Investor meetings, presentations and teleconferences</li> <li>• Participation at investor conferences</li> <li>• Website</li> <li>• Annual report, 10-K, 10-Q, proxy, financial press releases and other disclosures</li> <li>• Annual shareholder meeting</li> </ul>	<ul style="list-style-type: none"> <li>• Stock appreciation and company growth prospects</li> <li>• Meet earnings per share guidance</li> <li>• Meet long-term EPS and dividend growth objectives</li> <li>• Deliver a superior total shareholder return relative to our peer group</li> <li>• Solid credit ratings</li> <li>• Financing needs</li> <li>• Favorable regulatory environment</li> <li>• Transparency</li> <li>• Risk management</li> </ul>	<ul style="list-style-type: none"> <li>• Corporate strategy that includes a fair return on investment, utility business investment and stakeholder alignment</li> <li>• Clean energy leadership and Steel for Fuel strategy</li> <li>• Highly rated corporate governance programs</li> <li>• Investor relations communications and mobile app</li> </ul>

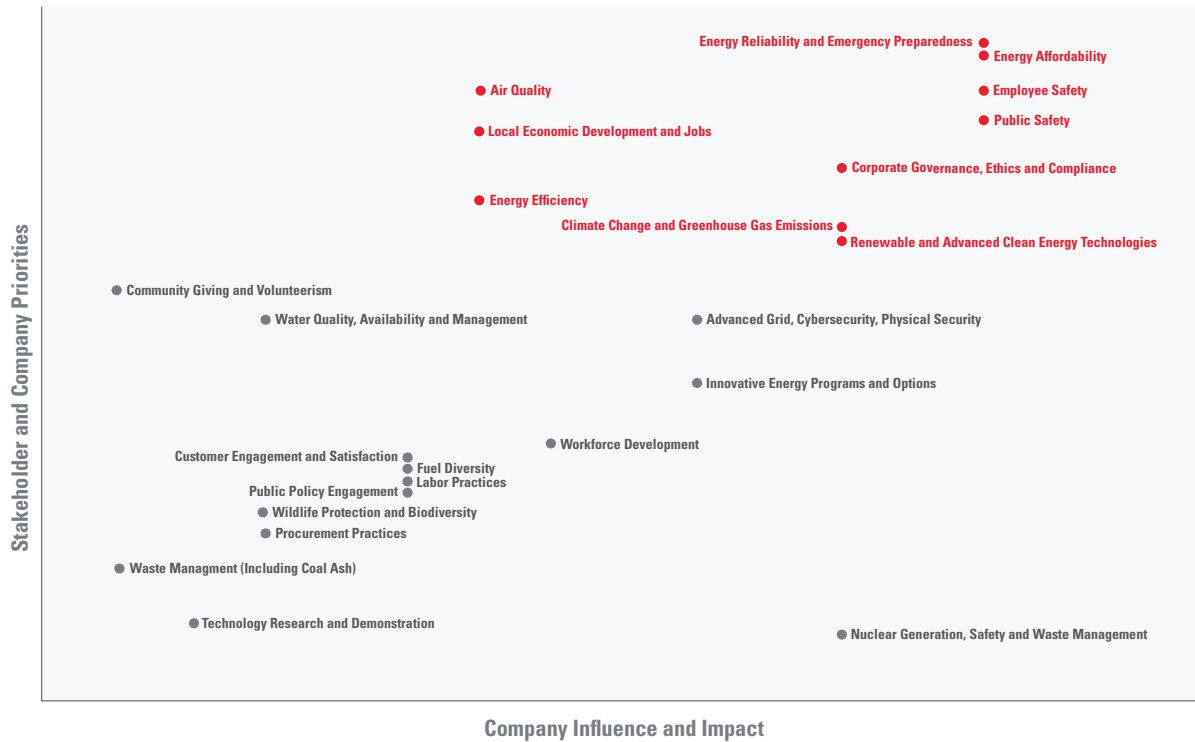
## Identifying Areas of Focus for Corporate Responsibility

Based on stakeholder engagement, research and participation in a number of industry and sustainability forums, we have identified 24 major corporate responsibility issues for Xcel Energy. These issues closely align with the sustainability issues facing the entire electric sector, as identified through an extensive study conducted by Electric Power Research Institute's Energy Sustainability Interest Group — of which, Xcel Energy is a member.

In early 2017, using the Global Reporting Initiative methodology to guide us, we conducted an online survey with nearly 1,000 stakeholders to understand which issues are currently most important to the individuals and organizations within our service territory, as well as within our own organization. The results are provided in the chart here.

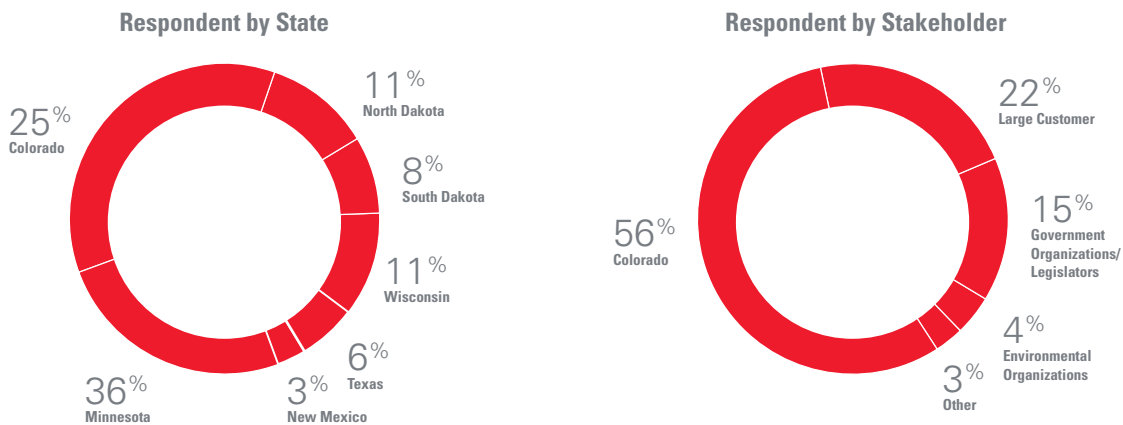
While all of these issues are important, we consider the issues highlighted in red to be focus areas. They reflect the current priorities of our stakeholders and for our company where we can have a meaningful impact. Consequently, to the extent we are successful in addressing and managing these issues, we will be delivering real value.

### Corporate Responsibility Focus Areas



### Methodology for Corporate Responsibility Survey

The corporate responsibility survey was conducted internally and designed to have stakeholders identify their top priorities for Xcel Energy’s corporate responsibility efforts. Xcel Energy’s executive leadership also answered the survey to understand our internal priorities. Altogether, the survey was distributed to nearly 1,000 internal and external stakeholders across our eight-state service territory. Approximately 26 percent of potential respondents participated. The respondents represented a good mix of our local stakeholder categories and our service territory.



The survey was based on the 24 corporate responsibility issues we identified for our company. These issues were based on our experience through regular stakeholder engagement, research and participation in a number of industry and sustainability forums. Many of these issues align with industry research conducted by the EPRI Sustainability Interest Group.

Throughout the survey, respondents were asked to prioritize the corporate responsibility issues in different ways and had the opportunity to identify new issues. First, the respondents ranked their priority issue within five categories. These are the responses shown in the graph in the section above. Second, respondents listed their top five corporate responsibility issues without any categories. Lastly, respondents could add new issues and describe any sustainability goals that their own organizations may have and how Xcel Energy could help meet those goals.

Xcel Energy Corporate Responsibility Issues and Definitions, including 10 identified focus areas that are highlighted below.

<b>Advanced Grid, Cybersecurity, Physical Security</b>	Upgrading the power grid with advanced technologies to improve reliability and security; protecting important systems and infrastructure from unauthorized access or attack; drilling emergency scenarios both with and without external stakeholders to ensure effective response to potential events
<b>Air Quality</b>	Reducing air emissions other than greenhouse gases from our operations, including nitrogen oxides, sulfur dioxide, mercury and particulate matter, both through emissions controls and fleet transformation
<b>Climate Change and Greenhouse Gas Emissions</b>	Managing and reducing the greenhouse gas emissions from our operations, including carbon dioxide, methane and sulfur hexafluoride (SF6) through fleet transformation
<b>Community Giving and Volunteerism</b>	Giving both time and money to local nonprofit organizations; supporting energy assistance programs for customers in need
<b>Corporate Governance, Ethics and Compliance</b>	Ensuring adherence to the rules, practices and processes that direct and control our company; setting ethical expectations and values and monitoring adherence to applicable laws and regulations
<b>Customer Engagement and Satisfaction</b>	Working with customers to understand their needs and improve the service and products we provide; ensuring a positive customer experience with interactions that are focused, simple and transparent; meeting our scorecard objective of building customer loyalty
<b>Employee Safety</b>	Adopting, enacting, and promoting effective programs that protect the health and safety of employees and contractors
<b>Energy Affordability</b>	Ensuring electricity and natural gas bills are affordable for consumers
<b>Energy Efficiency</b>	Providing programs to help customers take control of their energy usage and save money, including traditional rebate programs and advanced home solutions
<b>Energy Reliability and Emergency Preparedness</b>	Providing electricity and natural gas with few to no interruptions; being prepared to quickly repair outages caused by storms or other incidents
<b>Fuel Diversity</b>	Minimizing dependence on any one energy source by using a diverse mix of sources to generate electricity
<b>Innovative Energy Programs and Options</b>	Offering programs that give customers choice over their energy sources, such as helping them access more wind and solar power or helping them fuel electric or natural gas vehicles
<b>Labor Practices</b>	Adopting responsible practices related to employee pay, benefits and equal opportunity
<b>Local Economic Development and Jobs</b>	Working with the community to attract and support new business development and economic growth
<b>Nuclear Generation, Safety and Waste Management</b>	Maintaining Xcel Energy's nuclear fleet that provides reliable, carbon-free electricity, in a way that ensures safety and emergency preparedness; safely handling and storing solid waste from nuclear generation
<b>Procurement Practices</b>	Doing business with responsible, local and/or diverse suppliers for the equipment, materials and services we purchase
<b>Public Policy Engagement</b>	Engaging and collaborating with policymakers and providing input on proposed legislation and regulations



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**Public Safety**

Providing education to prevent accidental contact with electric power lines and natural gas pipelines; protecting the public around our facilities and facility operations; ensuring effective emergency response to public safety issues around our facilities

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**Renewable and Advanced Clean Technologies**

Increasing electricity generation from clean, renewable energy sources, including wind farms and solar power plants; deploying advanced technologies to reliably manage higher levels of wind and solar energy

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**Technology Research and Demonstration**

Participating in projects to test advanced energy technologies that have potential for providing customers with new products and services in the future; supporting industry research efforts through financial contributions, staff involvement and demonstration projects

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**Waste Management**

Preventing and reducing waste produced from our operations, including coal ash; reusing or recycling waste instead of disposing of it in landfills; operating power plants fueled by waste

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**Water Quality, Availability and Management**

Ensuring the availability of water for electricity generation and all other users; protecting water quality

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**Wildlife Protection and Biodiversity**

Avoiding or minimizing impacts to protect species and their habitats; supporting raptor habitat and providing education and conservation opportunities on raptors

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**Workforce Development**

Maintaining a workforce of the right size and skill profile, includes our talent management strategy and diversity and inclusion efforts; engaging in community efforts to develop pipeline of future employees; providing competitive employment opportunities and supporting diverse business resource groups



## About this Report

**Publication Date:** May 22, 2018

**Reporting Period:** Jan. 1, 2017 – Dec. 31, 2017

**Date of Previous Report:** May 2017 (for 2016)

**Reporting Cycle:** Annual

**Report Boundary:** Xcel Energy and its four regulated utility subsidiaries, referred to as operating companies, including Northern States Power Company-Minnesota, Northern States Power Company-Wisconsin, Public Service Company of Colorado and Southwestern Public Service Company

**Contact Point:** [corporateresponsibility@xcelenergy.com](mailto:corporateresponsibility@xcelenergy.com)

Powering the lives of our customers and communities is at the core of what we do each day. We are committed to delivering clean energy without sacrificing reliability or affordability, and we understand the tremendous responsibility we have to

ensure public safety, drive economic growth in our communities and protect the environment. Xcel Energy's annual Corporate Responsibility Report focuses on this commitment and our economic, environmental and social contributions. Our report is built on 24 issues related to our corporate responsibility that we have identified as important to stakeholders and our company. This year marks the 13th year we have published this report. Our first Corporate Responsibility Report (formerly known as the Triple Bottom Line report) was published in April 2005, with the contents covering the 2004 calendar year, and we have published a similar report in each following year. In 2012, we began publishing the full report online at [xcelenergy.com/CorporateResponsibility](http://xcelenergy.com/CorporateResponsibility). We believe the online format provides easier access to information for our stakeholders. To raise awareness for our reporting and encourage stakeholders to access the report online, we print a highlights brochure that is distributed at our annual shareholders' meeting and at other events throughout the year. We also provide links to the report throughout our corporate website, [xcelenergy.com](http://xcelenergy.com).

### **Global Reporting Initiative Guidelines**

Xcel Energy continues to base its Corporate Responsibility Report on Global Reporting Initiative (GRI) guidelines, which we have used since 2008. This year's report is based on GRI's Standards in accordance with the Core option and the Electric Utilities Sector Supplement. We have tried to meet the intent and follow the standards as closely as possible; however, there are instances where we track information for disclosure differently or not at all, based on our company or stakeholder information needs.



## COMPANY AND WORKFORCE



100 percent of employees completed our annual Code of Conduct training in 2017. The training sets expectations to ensure we work safely and effectively while meeting the highest ethical standards.



## ETHICS

# Corporate Compliance and Business Conduct

### **Our Approach**

For more than 100 years, we have had the privilege of serving our customers and doing so with honesty and integrity. We've spent decades fostering a culture of compliance and ethical business conduct, striving to earn and maintain the trust of our stakeholders.

Because trust is so essential to our ongoing success, it's included in our corporate vision to be the preferred and trusted provider of the energy our customers need. To help deliver on this vision, we hold our employees, contractors and board of directors to the highest ethical standards and ensure their decisions are consistent with our values.

Xcel Energy's board of directors has overall authority and monitors our Compliance and Business Conduct program while our CEO and leadership team set the standard within the organization. We have a company-wide Code of Conduct that establishes

expectations. Our policies, annual training and regular communications help to improve understanding and decision making. And if on the job something doesn't seem right, we offer multiple ways for employees to reach out and tell someone.

Every day we deliver safe, clean, reliable and affordable energy while holding ourselves accountable and acting responsibly. Through our commitment to doing what's right, we have established a reputation that our employees can be proud of and gives customers confidence in doing business with us.

## Ethical Foundation: Code of Conduct

Our Code of Conduct serves as the foundation for our Corporate Compliance and Business Conduct program. It guides everything we do — how we work together, make business decisions and interact with stakeholders. Our Code of Conduct also provides guidance for handling difficult judgement calls and reporting concerns.

The board of directors approves any changes we may make to the Code of Conduct, ensuring top-level ownership for this foundational resource.

Some features in the Code of Conduct that makes it even more useful to our employees include:

- Questions and answers that demonstrate real-world applications of company policies
- Details on what steps are taken after employees report concerns
- Guidance on behaviors every employee should embrace to contribute to our honest, ethical workplace

Employees at all levels, as well as contract workers and our board of directors, are expected to apply the Code of Conduct to their work with Xcel Energy. As part of annual training, employees and the board are asked to attest to their understanding of, and adherence to, the Code of Conduct.

While contract workers are not required to take Code of Conduct training, they are required to perform services in accordance with the Code of Conduct as specified in the terms of their agreements with Xcel Energy.

## Corporate Compliance and Business Conduct Program

The focus of Xcel Energy's Corporate Compliance and Business Conduct program is to:

### Do What's Right: Report What *Seems* Wrong.

#### Sound Governance Practices

Xcel Energy's board of directors has overall authority for the Corporate Compliance and Business Conduct program, with key elements of oversight delegated to the Audit and Governance, Compensation and Nominating committees. Our Corporate Compliance and Business Conduct Council is comprised of leaders from across the company and ensures engagement with all employees.

## Independent Program Assessment

To gain greater insights into where our culture of compliance is strong and where opportunities exist to improve, we engaged PricewaterhouseCoopers to complete an independent assessment in 2017. The results found that our compliance and ethics program meets or exceeds industry standards and has been enhanced significantly since the previous assessment conducted in 2013.

Since that time, we have increased oversight of the Corporate Compliance and Business Conduct program, through broader and deeper ownership in the organization, and we've increased communication and made our annual training more interactive. We also established a post-hire due diligence process for executives upon promotion or once every five years.

Overall, we received strong scores for having the chief ethics and compliance officer report directly to the CEO, as well as having senior management oversight of investigations. Among our employees, we have a 100-percent completion rate for corporate compliance training, and there is high recognition of the tagline "Do What's Right: Report What *Seems* Wrong."

We look forward to achieving an even higher standard with our program, as the assessment provides a meaningful three-year roadmap for further advancement.

The company's CEO sets a strong tone at the top and demonstrates commitment to compliance by assigning program responsibility to the chief ethics and compliance officer, who also oversees the company strategy and corporate governance functions, effectively driving our company culture and values. The integration of these activities and responsibilities ensures that compliance is part of how we make decisions across the company.

### **Policies, Training and Communications**

Company policies, training and communications help employees understand expectations in order to make good decisions every day. Information about policies and expectations is shared through multiple channels and in multiple ways to ensure that it's a regular part of all employees' work experience.

Employees are responsible for knowing and following not only the Code of Conduct but also multiple other corporate policies associated with Corporate Compliance and Business Conduct. Training courses include content from corporate policies and other information that demonstrates how our values guide the way we do business. Employees use training information to ensure their actions protect and enhance the company's brand and reputation by working safely and effectively and complying with the many policies, laws, regulations and expectations governing our work.

Regular, consistent communications are designed to help employees do what's right. We use a variety of channels to reach employees across teams, such as emails, posters, fact cards, intranet news articles and in person discussions.

### **Issues, Investigations and Actions**

When things don't seem right, employees are encouraged to discuss concerns with their leaders. We know reporting a potential issue takes courage, so we offer multiple reporting options that include contacting:

- The employee's next level of management
- Workforce Relations
- The Compliance Hotline, available 24 hours a day and with the option to remain anonymous
- The Corporate Compliance and Business Conduct Office
- Legal Services
- The Xcel Energy Board of Directors


Employees working at our nuclear generating plants have additional reporting options that include completing a Nuclear Corrective Action Request form, reporting issues to the Employee Concerns program or contacting the Nuclear Regulatory Commission.

Our Compliance Hotline also offers employees the opportunity to ask questions about decisions they are unsure about.

As we follow up on reports, we conduct effective and timely investigations, take appropriate action and ensure employees are protected from retaliation. The Investigations Governance Committee oversees the investigation process and is comprised of the chief ethics and compliance officer, general counsel, chief financial officer and chief administrative officer.

When concerns are reported through the Compliance Hotline, the Corporate Compliance and Business Conduct Office assigns them to the appropriate business function to investigate based on allegation type. Business functions include Equal Employment Opportunity and Employee Relations, Workforce Relations, Legal, Security or Audit. These business functions also receive and investigate concerns reported through other channels. All reports are tracked and processed through a case management system that provides the company with a comprehensive view of allegations.





We promote an inclusive workplace culture that's focused on safety. We pride ourselves on keeping our employees engaged and helping them to develop their skills and talents, in addition to making it a priority to recognize their achievements.

WORK FORCE DEVELOPMENT

## Our People and Culture

### Our Approach

At Xcel Energy, we operate in a dynamic and changing industry, one that requires us to challenge ourselves and embrace new opportunities every day. To succeed, we must create a workplace that is equally dynamic where employees are challenged, respected and rewarded. Because our people are our greatest strength and the most significant contributors to achieving our goals, cultivating a workforce that is customer focused with a competitive mindset is one of the most important investments we make.

Our efforts begin with a mission to proactively attract, retain and develop high-quality talent. Through our workforce planning, hiring and management processes, we are building a more diverse and inclusive workplace that reflects the communities we serve, as well as a workplace that welcomes military veterans who bring outstanding technical expertise and leadership skills.

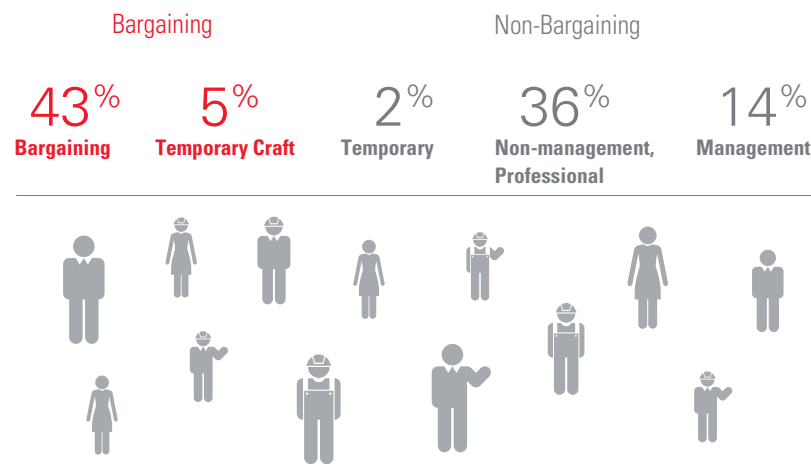


We continue to receive accolades as one of the top military-friendly employers in the industry, and for the second year in a row, we received a perfect score as one of the Best Places to Work for LGBT Equality.

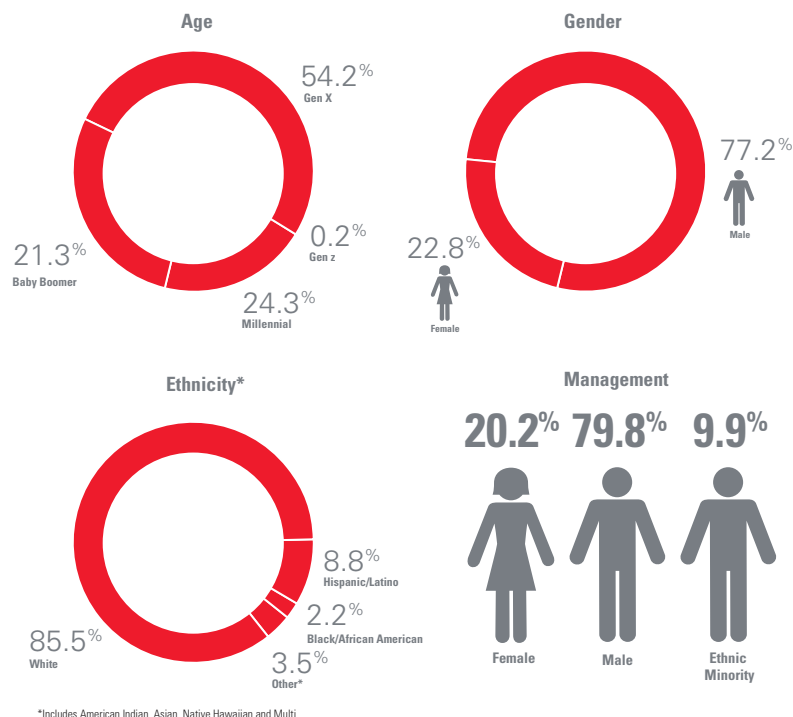
Once employees are part of our team, we offer extensive training and engagement opportunities to develop their skills and talents and help them grow professionally, in addition to making it a priority to recognize their achievements. Through our efforts, we are developing inspirational and courageous leaders and holding employees accountable to achieve results.

In 2017, Forbes magazine honored Xcel Energy as one of the World's Best Employers, recognizing our commitment to and success in developing a safe and rewarding workplace.

## Workforce Profile



As of year-end 2017, Xcel Energy had 11,726 full-time, part-time and temporary employees.



\*Includes American Indian, Asian, Native Hawaiian and Multi

## Shaping our Future Workforce

When Katie Honey was hired as an engineer at Xcel Energy, she'd actually already worked for the company for five years through our internship programs. Beginning in 2008, Honey participated in our high school summer job shadow program. She had a strong interest in engineering, and knew she wanted to pursue a career in electrical engineering. Her experience that summer solidified her aspirations. In 2009, as a freshman at the University of Wyoming, she came back for our college student summer internship program — and her performance was so good that she remained an intern for the next four years, working during school breaks. She says that her on-the-job experience helped her to be more successful in school. "Having the experience in the power plant, and then hearing about the theories in class, made things much easier to understand because I'd seen it in action."

By her senior year of college, Honey was leading projects and working independently. When she graduated in 2013, we were happy to offer her a full-time position. Honey is one of many internship success stories around the company. "Our internship program is one of the best recruiting tools Xcel Energy has," said Sharon Brady, director of Plant Engineering and Technical Services. "We've gotten some amazing talent as a result of internships. Katie is just one example." In fact, all of Honey's staff engineer colleagues at the Fort St. Vrain Generating Plant started as interns.

Our high school and college internship programs offer on-the-job education that prepares a pipeline of qualified employees for our operational and business needs. We're proud to help students launch their careers, and thrilled when they choose to bring their talents to Xcel Energy.

The average employee turnover in 2017 was 10.5 percent. About 42 percent of turnover was the result of retirements, about 43 percent were resignations and the remaining 15.4 percent includes turnover for other reasons, such as unsatisfactory performance, misconduct, severance or death.

Our projections show that 29 percent of our workforce will be eligible for retirement over the next five years and 43 percent over the next 10 years. However, we do not expect all employees to retire once they become eligible.

## **Workforce Planning and Analytics**

Our strategic workforce planning models and process support leaders in using the opportunities that arise as a result of changes in our business objectives, including work/demand and turnover. By leveraging data and analytics, we have been able to more accurately determine what the organization will need in terms of size and skill sets to achieve its objectives. The strategic workforce plan supports a more intentional approach to deploying solutions that will address our changing workforce. In conjunction with this effort, we help leaders make data-based decisions by providing a Human Capital Report, a dashboard-style tool that includes standardized measures of cost, engagement, employee movement and performance management. This helps to inform leaders on workforce costs and provides monthly information on the state of their organizations to help in decision making.

## **Attracting Top Talent**

To ensure a steady stream of qualified candidates for Xcel Energy's available jobs, we proactively engage with community and educational organizations to prepare a future workforce. We are focused on helping military veterans make the transition to civilian jobs through targeted recruitment and participation in the Hiring our Heroes program. To ensure we can best support our customers' needs, we are committed to having a diverse workforce that is reflective of the communities we serve.

Xcel Energy posted 1,876 job openings in 2017, with internal candidates successfully filling 750 (40 percent) of these positions. Of these new hires, 96 percent were sourced from the states we serve.

Some of our targeted recruitment activities include:

### **Educational Relationships**

We work with a number of colleges, universities and technical schools to provide an avenue to educate students on the opportunities for stable, well-paid jobs with energy providers like Xcel Energy. As a member of the Center for Energy Workforce Development, we also help develop training and curriculum that prepares students for skilled jobs in the energy industry.

### **Internships**

Through internships we ensure a pipeline for our future workforce needs. In 2017, we hired 21 college interns into full-time positions with the company. We work with high schools throughout our Texas and New Mexico service areas, where we have the greatest needs. In Colorado, we have four programs in partnership with Denver Public Schools and Jefferson County high schools. In Minnesota, we continue our partnership with Step-Up Achieve, Legacy program, and Right Track to hire high school summer interns.

### **Targeted Job Fairs**

We seek out employment events that help us successfully identify and hire qualified employees who are customer focused, curious, and innovative. We maintain relationships with several schools and local organizations within our service territory that hold job fairs for diverse populations. Partnerships like this allow us to reach prospective employees to continuously improve our candidate pool.

### **Search Engines**

Xcel Energy markets its jobs on several key sites, including Indeed, LinkedIn and Energy Central, and has leveraged social media and Rigzone, an online resource for jobs in the oil and gas industry. In partnership with Professional Diversity Network and other industry and skill-specific boards, we target diverse, local talent and individuals that have specialized skills. We also work with local, community-based organizations to reach candidates throughout our service areas, reducing the need for candidate relocation and supporting our local economies.

### **Military and Veteran Outreach**

We remain focused on strengthening our strategic partnerships with military veteran organizations and engaging in activities that maintain our visibility as a preferred employer for veterans. Through military-specific marketing and communications efforts and participation in more than 35 job fairs that specifically targeted military veterans throughout our service territory, our commitment to hiring veterans and active duty reservists remains strong.

In 2017, 9.7 percent of Xcel Energy's new hires were veterans. We were honored to have Minnesota Governor Mark Dayton name us a Beyond the Yellow Ribbon company for helping military families find resources. We also signed a national Statement of Support with the Employer Support of the Guard and Reserve, a Department of Defense office. Xcel Energy has been named a Best for Vets employer by Military Times for the fourth consecutive year and a Military Friendly Employer by GI Jobs for the ninth consecutive year. In early 2018, we were honored to be one of 37 companies named to Military Times' Best for Vets Index.

### **Diversity Outreach**

Through our partnerships with workforce centers in Minnesota, Colorado, Texas and New Mexico, Local Job Network and Diversity Minnesota, we are able to reach diverse job seekers in the places where they live and work. We also engage with diverse student groups such as National Society of Black Engineers, Society of Women Engineers, Society of Hispanic Professional Engineers and Society of Asian Scientists and Engineers to attract diverse entry-level employees. In 2017, 23 percent of our new hires had ethnically diverse backgrounds.

## **Diversity and Inclusion**

We believe that a diverse and inclusive workforce makes us stronger as a company. Our commitment to diversity and inclusion goes beyond human resource policies and practices — it is an integral part of who we are, how we operate and how we see our future. This commitment to supporting our employees in bringing their authentic selves to work was recognized in 2017 by the Human Rights Campaign — Xcel Energy achieved a score of 100 on the organization's Corporate Equality Index for the second year in a row, again earning us a spot as one of the Best Places to Work for LGBT Equality.

Our inclusive work culture embraces all employees and provides them with equal access to employment opportunities and development. To us, diversity is more than ethnicity, gender, age, race, national origin, disability, religion and sexual orientation. It includes differences in thought processes, educational backgrounds, work experiences, personalities, lifestyles and cultural backgrounds.

Each Xcel Energy employee is empowered to make a difference when it comes to creating an inclusive environment. We encourage our employees to remember **Diversity Exists: Inclusion is My Responsibility**.

### **Diversity and Inclusion Training**

Xcel Energy's commitment to Diversity and Inclusion is instilled in our employees from their first day on the job, as part of our new employee orientation program. Employees receive ongoing education in these areas, and in 2017, more than 200 Xcel Energy employees and leaders throughout our service territory participated in half-day diversity and inclusion training sessions. The classes are designed to provide knowledge, insight and skills to manage diverse teams and create an inclusive culture.

### **Business Resource Groups and the Council for Diversity and Inclusion**

Our 11 Business Resource Groups give Xcel Energy employees an inclusive and supportive venue to unite for personal and professional growth. More than 10 percent of our workforce participates in the effort, engaging in opportunities for cultural exchange and community outreach and helping solve business challenges. Additionally, through the Council for Diversity and Inclusion, leaders of our Business Resource Groups collaborate with leaders from our business areas to help address key challenges and achieve goals.

- **ECN (Employee Connection Network):** Connects new and existing employees and helps broaden all employees' understanding of Xcel Energy through networking opportunities, meet-ups and community service events.
- **GCEEE (General Counsel Employee Excellence and Equality Committee):** Aids the general counsel in fostering a spirit of inclusiveness throughout the company.
- **GenNext:** Aims to support employees through employee education, collaboration and development.

- **GROW:** Identifies and implements innovative ideas and strategies for recruiting, developing, promoting and retaining women in non-traditional work roles in our Energy Supply business area.
- **MOVE (Military Ombudsmen for Veterans and Employees):** Sustains awareness on issues of interest to veterans and active military employees in our workforce focusing on the development, implementation and communication of programs and policies centered on the welfare of veterans and their families.
- **SAGE (Supportive Association for Gay/Lesbian/Bisexual/Transgender Employees):** Works to help the company become and remain a leader in this area of workforce diversity by addressing issues relating to sexual orientation and gender identification.
- **SOURCE (Strategic Organization Utilizing Resources for Career Enhancement):** Promotes career development, continued education, training and cultural awareness with a focus on African Americans.
- **Tribal Wind:** Supports diverse workforce initiatives and the Native American population through business initiatives such as recruiting, retention, professional development and cultural awareness.
- **WIN (Women's Interest Network):** Focuses on issues of interest to women, such as professional development and work/life balance.
- **!Xcelentej:** Increases visibility of Latino employees within the company and community while also promoting professional development and sharing Latino culture through awareness, inclusion and celebration.
- **XE WiN (Women in Nuclear):** Explores and develops programs that help all employees working within our nuclear organization to expand their leadership skills, network and create positive visibility for the nuclear industry within the communities we serve.

#### Equal Employment Opportunity and Non-discrimination Policies

Our corporate Code of Conduct prohibits all forms of discrimination and promotes equal employment opportunities. We have Equal Employment Opportunity and Non-Discrimination policies in place that apply to all operating companies and subsidiary companies throughout the company. Xcel Energy provides equal opportunity in hiring, training, compensation, promotion, termination, transfer and all other terms and conditions of employment, without regard to race, color, religion, creed, national origin, gender, age, disability, veteran status, sexual orientation or any other protected class status in accordance with applicable federal, state and local laws.





## Performance Management

Last year was the second year for *Connect 4 Performance*, our new performance management approach for non-bargaining employees who make up 52 percent of our workforce. Focusing on frequent, simple and meaningful conversations between employees and leaders, *Connect 4 Performance* is designed to enable employees to align their individual goals with the priorities of Xcel Energy. By abandoning numerical ratings, heavy documentation and formal meetings, employees and leaders are free to work together to identify opportunities that support the employee's professional development while helping achieve the company's strategic priorities.

In 2017, 95 percent of employees participating in *Connect 4 Performance* met with their leaders for Quarterly Connection conversations once each quarter.

## Employee Engagement

For a number of years, Xcel Energy has relied on an annual enrollment engagement survey as one method for obtaining employee feedback. In 2017, we began exploring alternatives for a more comprehensive assessment method that will give us greater insight into the sentiment of our workforce. We are evaluating options for the next stage of our employee listening efforts to be introduced in 2018.

We help employees stay engaged through a number of channels, including regular webcasts with our senior leadership team, an intranet site that is updated daily, a regular company news magazine for employees and retirees, rewards and recognition programs, company-sponsored volunteer opportunities and our annual Day of Service.

Employees are continuously encouraged to offer feedback to Xcel Energy leadership through a variety of methods. They can submit anonymous comments and questions during regular leadership webcasts and face-to-face meetings, and respond to blogs and articles that our leaders publish throughout the year.

## Workforce Relations

Xcel Energy is committed to providing all employees with a safe, rewarding workplace that values their contributions and ensures fair treatment. We respect our employees' right to organize if desired, and approximately half of our workforce is currently represented by unions.

While each collective bargaining agreement is negotiated with a specific local union, we include equal opportunity clauses in all our bargaining contracts. We also operate in compliance with the policies of the National Labor Relations Board, the statutes of the National Labor Relations Act and the guidance of the federal Department of Labor.

Xcel Energy recognizes that all parties benefit by coming together to achieve mutual goals, so we meet frequently with our unions to discuss new and ongoing issues. Employee safety is a mutual focus for both bargaining units and the company. Bargaining unit employees fully support and participate in the company's safety advisory councils, committees, training and other programs.

Interim bargaining has been used for the past 18 years to improve union relations and promote collaboration on business challenges that impact our operations and workforce. We also hold regular meetings between management and labor unions to address grievances with the goal of resolving issues between the parties.

In early 2018, Xcel Energy reached a new, tentative agreement with the union representing our employees in Colorado.

With 21 policies that direct our actions, working safely is the first consideration while planning and performing our work. All employees are empowered to stop work if they see unsafe practices.



JOURNEY TO ZERO

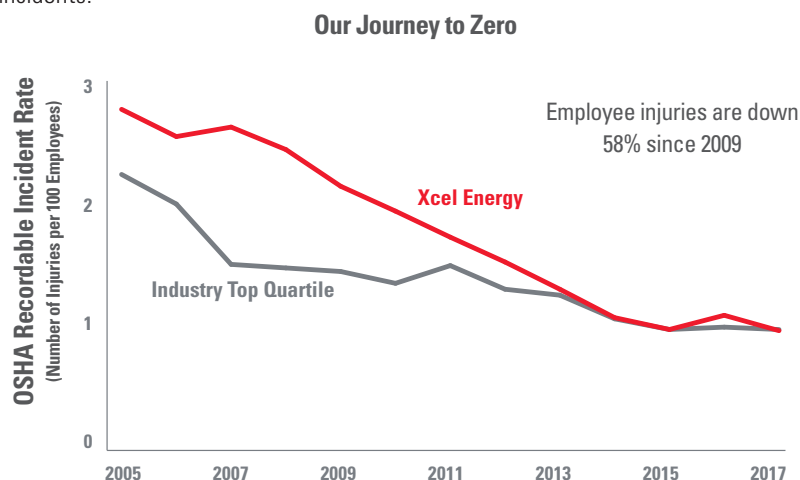
## Employee Safety

### Our Approach

Our Journey to Zero injuries is not just a slogan or a program. It's an Xcel Energy core value and a commitment that all employees will return home from work injury free every day. Given the nature of our business, our employees face numerous hazards while performing their jobs. Through the work of our safety committees, company policies, training and ongoing awareness campaigns, we continue to instill a culture that values safety as a top priority.

We've come a long way on our journey so far, improving our safety performance by 58 percent from 2009 to 2017. After experiencing a minor uptick in injuries in 2016, we rebounded with our best year ever for safety, finishing 2017 with the fewest number of injuries in our history.

Unfortunately, we also experienced some serious injuries in 2017. In response, we introduced a Safety Leadership Training program for all at-risk employees and made several other program changes to help reduce the potential for these life-changing incidents.



## Annual Employee Safety Results

Xcel Energy recorded 102 OSHA recordable injuries in 2017, 19 fewer than in 2016. Strains and sprains continue to be the leading injury type, resulting in approximately 41 percent of all injuries and illnesses on an annual basis. Lacerations, fractures and foreign bodies in the eye are the next most frequent injury types. We track safety performance of 335 workgroups, and of those groups, 77 percent have gone one year or more without an OSHA recordable injury.

In 2017, we also recorded 54 injuries classified as Days Away, Restricted and Transferred or DART — 14 fewer than occurred in 2016. These are incidents in which there are one or more lost days, or one or more restricted days, or one that resulted in an employee transferring to a different job within the company. Fortunately, there were no fatalities among Xcel Energy employees and contractors in 2017.

All contract employees receive safety training from their employers as a requirement of working with Xcel Energy. Job briefings and job-site safety reviews occur daily. In 2017, our contractors recorded 33 injuries, nearly half of the 62 experienced in 2016, while working more than five million hours.

## Policies and Training

We have 21 corporate safety policies in place to address occupational safety and health issues. These policies apply to all Xcel Energy bargaining and non-bargaining unit employees, as well as contractors, as applicable. Our policies cover a wide range of topics — from working in confined and enclosed spaces to preparing for and responding to emergency situations.

As part of our corporate values, and to protect our employees and the public, working safely is the first consideration while planning or performing work. It's the role of Xcel Energy management to foster, develop, implement and provide training and communication about safety programs that will help reduce occupational injuries and illnesses at work. We expect employees to report unsafe acts, behaviors or conditions to management in a timely manner so that we may address these safety concerns. Any retaliation against an employee who, in good faith, reports a safety violation or suspected violation is strictly prohibited.

## Our Journey to Zero

Xcel Energy's Journey to Zero injuries is about creating a safer work environment by putting safety at the forefront of everything we do. Starting with top leadership, we continue to actively demonstrate support for safety throughout the organization. We strive to advance a safety culture through strategic behavioral safety programs and initiatives that encourage employees to take personal responsibility for their safety and the safety of others.

To accomplish this, we have specific business-area safety plans that focus on four aspects:

- **Leadership effectiveness.** Line of sight to executive levels, expectation setting and participation in safety leadership at all levels (including foremen and crew leaders)
- **Employee engagement.** Taking responsibility for personal safety and the safety of crews, maximizing impact of safety teams and ensuring employees are engaged, effective and working together
- **Incident prevention.** Providing the right personal protective equipment, increasing awareness, communication and safety meetings, taking a proactive approach, outlining medical management and leveraging information, learning and insights
- **Bargaining unit engagement.** Engaging union leadership to be active in safety programs and improvements

We entered into the eighth year of this ambitious effort in 2017 and continue to realize significant progress, having improved our safety performance 58 percent. But, as the name of our effort implies, we won't be satisfied until we reach 100 percent, when all employees go home injury free.

The Corporate Safety, Field and Energy Supply Safety and Training, and Contractor Safety departments — all under the leadership of the vice president of Safety and Workforce Relations — are responsible for overseeing implementation of regulatory compliance, providing technical consultation to business areas, tracking and communicating the company's safety performance, and fostering our safety philosophy and core value.

There are three key components to our safety and health culture that include:

- **Communication:** Within each business area, we verify that OSHA-required written programs are current and maintained at our facilities. Employees must be thoroughly briefed on site-specific hazards and protective measures prior to starting any job at an Xcel Energy operating facility or on electric and natural gas transmission and distribution lines and equipment. Finally, we establish a system of hazard analysis, which includes hazard identification and control in each business area, and we communicate this system to all affected employees.
- **Safety Committees:** Our safety committees are organized and represented by bargaining unit and non-bargaining unit employees and management. The expectations for these committees are outlined by management and periodically audited to track progress and effectiveness. Managers in each business area provide support for safety committee findings and recommendations that align with our corporate values.
- **Training:** Each business area and Corporate Safety develop training plans annually to include OSHA-required training and required elements of our Corporate Safety and Industrial Hygiene programs. We maintain thorough records of all training, including recording the names and dates of employees who complete required safety training.

We provide effective safety and health communications in various formats, including verbal instructions, written documents and posters, safety committee meetings and multimedia presentations, such as video and computer-based training. Through these various media, all employees have access to required safety and health training, policies, programs and safety manuals, as well as federal or state required communications. All Xcel Energy employees are expected to actively participate in the company's safety and health training and communications program.

## Safety Campaigns

We continued a number of important safety campaigns in 2017, while also launching new initiatives to help keep employees safe.

### 24/7 Safety Campaign: Bringing Safety Home

Our 24/7 Safety campaigns focus on maintaining a safety mindset around the clock, helping employees to be safe both on and off the job. We provide home safety information through several avenues, such as our weekly Safety News and employee news magazine. 2017 campaigns focused on concussions and avoiding line-of-fire hazards, such as lawnmower blades, chemical releases and suspended bicycles.

### Crew Observations Increased

After several serious incidents in 2017, our leadership began requiring field supervisors and managers to complete three comprehensive safety observations per week and document their findings. By increasing the frequency and formality of field-crew observations, supervisors have more opportunity to intervene when safe work practices are not followed, as well as to offer coaching and reinforce appropriate behaviors in the field.

### Ergonomics Campaign

Musculoskeletal Disorders (MSDs or strains and sprains and cumulative trauma disorders) are the leading type of injury at Xcel Energy, with sprains and strains representing more than 41 percent of our injuries. Several Ergonomics Training modules were initiated in 2017 to help improve this, including:



- **Knee Ergonomics.** The ergonomics training video series continued in 2017 with Knees - Who needs them anyway?, which takes employees through the parts of the knee and what causes it pain, as well as some exercises and tips for strengthening and protecting our knees.
- **Elbow Ergonomics.** While our shoulders and the hands our shoulders move are very mobile, our elbows are not. Elbow problems start because we push them too far, which is why the When your elbow becomes unhinged video was released in 2017.
- **Jump Up, Not Down.** To help employees realize the effects that jumping down has on our bodies, our ergonomist created the Jump Up, Not Down video in 2017.

### Job Briefings

One of the most important things we do is to complete thorough job briefings with employees working on projects. We have improved the quality of our job briefings with some additional tools to assist foremen and managers.

### Line of Fire Campaign

More than one quarter of all injuries to Xcel Energy employees in 2016 were line-of-fire injuries. To increase awareness about recognizing line-of-fire hazards, a special campaign was launched in 2017. Materials were released quarterly in the weekly Safety News email and on the company's intranet site addressing hazards that result in injuries where people are caught between, caught in or struck by objects or equipment.

### Near Miss Amnesty

Sharing near misses with coworkers provides a learning opportunity that can prevent similar situations in the future. To encourage employees to share their stories, we decided in 2017 not to pursue discipline for employees who turn in near misses. While individuals were rarely disciplined after near miss submissions in the past, the policy change completely removes this barrier to sharing.

### Safety Leadership Training

To help reduce serious life-changing incidents, the Safety Leadership Training program was introduced in 2017 for all at-risk employees. The program is designed to transform how employees view their role in safety because everyone is a leader when it comes to safety. The employee-driven curriculum reviews the company's Rules to Live By and Safety Intervention and Stop Work responsibility, while also identifying barriers to using them and tactics for removing those barriers.

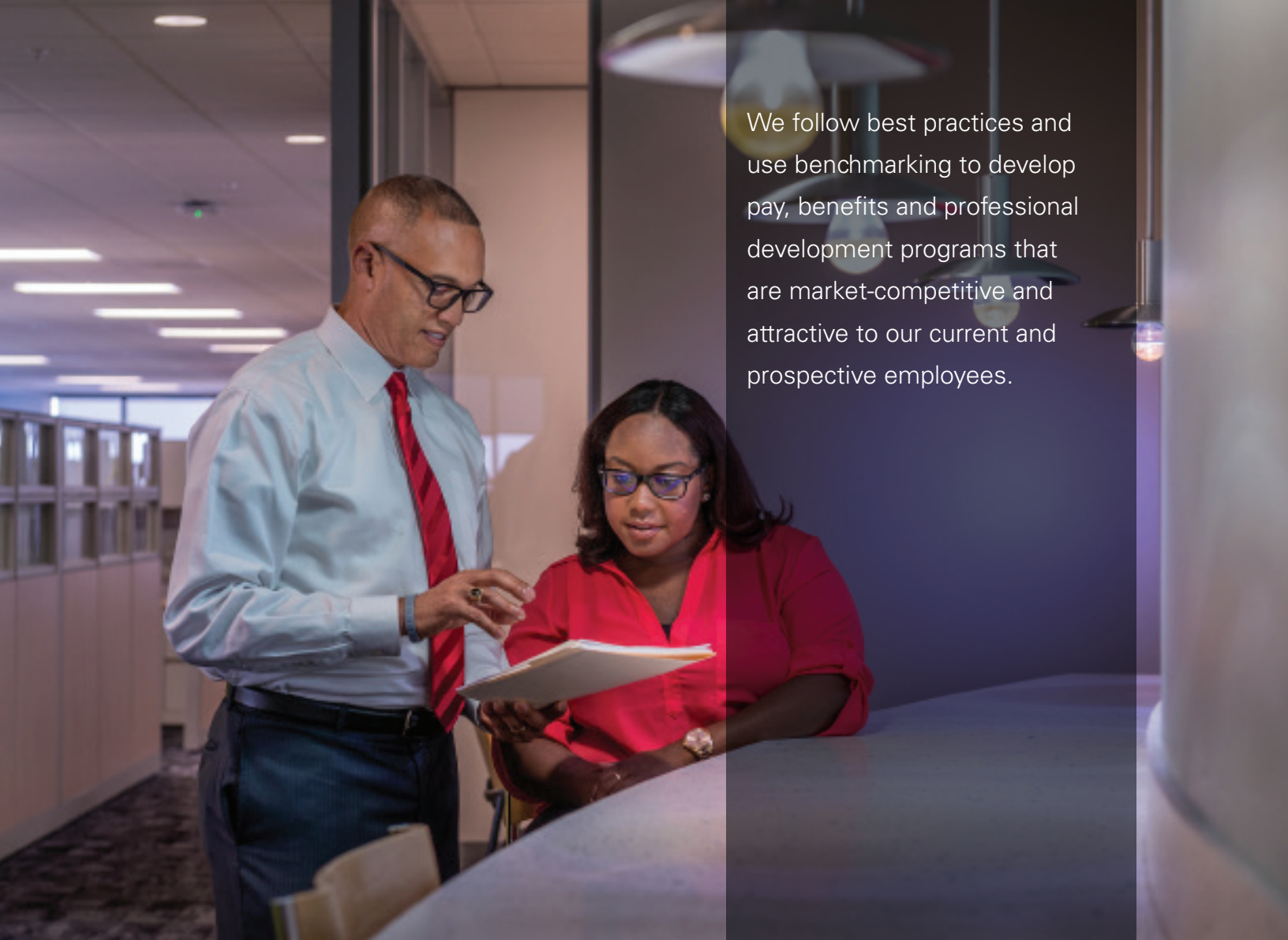
### Safety News

The Safety News continues to be an effective tool for educating and informing employees about current safety topics. The publication provides all employees with weekly safety information and near miss reviews, as well as findings and lessons learned from accident investigations.

## Life Sustaining Awards

The Xcel Energy Life Sustaining Awards are given to employees who go beyond the call of duty and save, or attempt to save, the life of another.

Recipient	Position	Location
Daniel Dines	C&I Billing Analyst	Roseville, MN
Barbara Fox-Wong	Customer Contact Center Rep.	Roseville, MN
Anthony Hernandez	Apprentice Control Specialist	Keenesburg, CO
Andy Olson	Maintenance Repairman Technician	Chippewa Falls, WI
Valerie Phelps	Associate Call Center Agent	Eau Claire, WI
Al Powers	Sr. Technical Instructor	Denver, CO
Corey Youso	Electrician Journeyman	Amarillo, TX



We follow best practices and use benchmarking to develop pay, benefits and professional development programs that are market-competitive and attractive to our current and prospective employees.

## PROGRESSIVE WORKFORCE POLICIES

# Total Rewards for Employees

### **Our Approach**

As the energy industry evolves and becomes more competitive, it is vital that we continue to offer current and prospective employees an attractive package of pay, benefits and professional development. With that in mind, Xcel Energy is committed to providing employees with market-competitive compensation and benefits. We use best practices and benchmarking to ensure the programs we offer are aligned with the market and attractive to our workforce, while also finding ways to manage costs to keep our compensation and benefits programs financially viable.

## Employee Total Rewards

Xcel Energy's Total Rewards package includes base and variable compensation, along with benefits like health and wellbeing, retirement and pension, paid time off, recognition and talent development.

We have a pay-for-performance philosophy, recognizing and providing larger rewards to our best performers. Base pay is influenced by job descriptions and external market pay data, as well as the employee's skills, experience and job performance. Bargaining unit employees are paid in accordance with their collective bargaining agreements.

In 2017, we modified our annual incentive plan to include two new award opportunities, I Deliver and Innovator awards. These awards are given to exempt, non-bargaining employees who achieved results that helped Xcel Energy advance on the accomplishment of our corporate goals. Our non-exempt employees are eligible for Spot-On bonus awards in recognition of above-and-beyond results in their responsibilities. Employees and leaders can also recognize one another through an online system, and where appropriate, give points-based awards that can be redeemed for merchandise and gift cards.

Our Total Rewards Statement tool is offered to show our employees the full value of the pay and benefits we provide. It offers a personalized snapshot of pay and benefits information, as well as links to additional program and service information. Employees can access their individual statements online.

## Benefits

A significant portion of our investment in employees is made through a benefits package that remains consistently competitive in the marketplace. Offering a comprehensive approach to well-being, Xcel Energy provides programs that address the physical, emotional and financial health of our employees.

We are committed to supporting the health of employees and offer a medical plan that provides comprehensive coverage, encouraging preventive care so health issues can be identified.

Our Employee Assistance Program connects employees with free, confidential support to resolve a variety of issues, from mental health counseling to elder care, financial and legal advice.

Xcel Energy continues to offer a basic pension plan along with a 401(k) savings plan, which demonstrates our commitment to partnering with employees to meet their long-term financial goals. Unlike many employers who have frozen pension plans or reduced contributions to 401(k) accounts, we continue to contribute to these plans at market-appropriate levels to indicate our commitment to help employees save for their futures. These plans enable employees to fully engage while working and to exit the workforce at an appropriate age. We also balance financial and workforce objectives with providing a fair and market-based benefits package that helps in recruiting and keeping top talent to serve our customers.

## Rewarding Great Work

To drive continuous improvement and innovation in our everyday activities, Xcel Energy leaders can now reward employees who deliver great results through two new award opportunities, I Deliver and Innovator awards.

"Our new plan design is intended to inspire employees to achieve outstanding results that make Xcel Energy better and help us reach our goals," said Darla Figoli, chief human resources officer. "Rewarding employees for their contributions through our incentive programs is part of our pay-for-performance philosophy, and I'm excited to say that we have evolved the program to allow for more timely recognition of great work."

I Deliver awards recognize results in the areas of cost savings, productivity or process improvement, customer experience, safety, environmental stewardship and community. The cash-based awards are approved on a monthly basis. Innovator awards reward employees and teams for significant accomplishments with measurable results in the areas of cost savings, productivity or process improvement and business development. There is also an "other" category for significant results that don't fit into one of the predefined groups. Innovator awards will be comprised of a blend of cash and long-term incentive stock grants, based on the type of results being recognized, and are approved on a quarterly basis.

"With our new incentive programs, we are walking the talk — not only asking employees to drive customer loyalty and help us get better every day, but rewarding them for delivering on these priorities throughout the year," added Figoli.

**Health Benefit Plans**

- High Deductible Healthcare Plan (HDHP)
  - Reasonable and affordable premiums
  - Includes a Health Savings Account (HSA) employees can contribute pre-tax dollars
  - In aggregate, Xcel Energy pays almost 75% of medical costs
- Dental plan
  - Xcel Energy offers a basic and enhanced dental plan
- Vision plan
  - Xcel Energy offers access to a vision plan
- Wellness program
  - Financial incentives to encourage healthy lifestyles
  - Wellness coaching including tobacco cessation, weight management, diabetes management, onsite yoga and flu shots
  - Fitness center reimbursements

**Retirement Plans**

- Pension plan
  - 5 percent cash balance plan for new employees and legacy formulas for other employees
  - 100 percent paid by Xcel Energy
- 401(k) savings plan
  - Savings plan allows employees to save for their future through automatic payroll deductions (pre-tax, Roth 401(k) after-tax or a combination of both)
  - Variety of investment options (cash, bond and stock investments)
  - Company matching contributions

**Income Protection**

- Life insurance
  - Xcel Energy covers the full cost of basic life insurance
  - Offers voluntary supplemental and dependent life insurance coverage
- Paid Time Off
  - Xcel Energy covers the full cost of short-term and long-term disability for eligible employees

**Work/Life Balance Programs**

- Employee Assistance Program (EAP)
- Paid Time Off
  - Vacation/Paid Time Off
  - Sick leave
- Transit pass subsidies
- Adoption Assistance
- Maternity/paternity leave as covered under Family Medical Care Act (FMLA)
- Flexible Spending accounts
  - Dependent care
  - Medical
  - Transportation

**Professional Development Programs**

- Tuition reimbursement
- Variety of internal and external development opportunities

\*Xcel Energy employees are eligible for benefits based on employee group and status (regular, full-time and regular, part-time non-bargaining). Bargaining unit benefits are based on the contract negotiated with the specific local union.

**Professional Development**

Total Rewards is more than pay and benefits. It also includes providing opportunities for the professional development of our employees. Xcel Energy is committed to professional development and maintaining an environment where learning and growth can occur. Employees are ultimately responsible for owning and managing their own professional development. However, we expect managers to encourage development through feedback, coaching and support.



With this in mind, we offer employees resources and tools to support their personal and professional development, including a Learning Management System, which provides e-learning, virtual and traditional training options. We also provide employees with development planning tools, assessments and suggestions for practicing new skills and behaviors.

In 2017, employees participated in a total of 5,845 internal learning opportunities. Additionally, our tuition reimbursement program provided \$899,767 to 275 employees.

### 2017 Professional Development Opportunities

Learning Programs	Completions in 2017	Opportunities
Online Courses	384,375 completions of 2,917 course titles	We offer an extensive catalog of online courses for employees to complete, ranging from technical and computer application training to professional and management training to compliance-related education and more. Some of these training programs are mandatory.
Classroom Courses	205,982 completions of 2,928 course titles	Employees can choose to attend a number of different training programs that are taught in person, ranging from safety and compliance-related classes to professional development classes to technical trainings. Depending on job responsibilities, some of these courses are mandatory.
Career Development Assignment Program	24 completions	The Career Development Assignment Program is an intentional effort to support the development of high performing employees through cross-functional experience aligned to business - needs. Employees may be pre-identified through succession planning, or in some cases, the opportunity may be posted.

### 2017 Leadership Development Opportunities

Programs	Completions in 2017	Opportunities
Succession Planning	2,100 assessments complete	Our talent review process identifies individuals who might be successors for critical positions at Xcel Energy. In all, about 260 key positions have been identified and more than 2,100 leaders and individual contributors have been assessed. Through this systematic process, executives and managers discuss assessments regarding the long-term performance, leadership potential and career aspirations of their employees. Working in teams, they determine the developmental readiness of each employee, create customized development plans and identify talent gaps. In 2017, we identified 350 "ready now" successors to key positions around the company. These successors possess the necessary skills to make a seamless transition into the role for which they have been identified.
Coaching in the Moment	617	Coaching in the Moment is a course that teaches leaders how to coach employees by using insightful observations, shifting their worldviews and empowering them to take meaningful action. Offered both in a classroom and online setting, this training is transforming how our leaders interact with their team members by helping them learn to resolve their own dilemmas.
The Leadership Challenge	2,633	The Leadership Challenge is a leadership development program designed for leaders to equip and empower them to lead effectively through change and transition. The program targets Xcel Energy leaders (supervisor to director) who have direct reports, or who regularly manage people as part of their job, with an emphasis on those who will be impacted most by change.



Xcel Energy has a corporate policy that sets guidelines and rules for political contributions and to ensure all contacts with government officials meet legal and ethical standards.

ENGAGEMENT

Public Policy

**Our Approach**

Over the next decade our industry will undergo significant changes, driven by market forces and encouraged or supported by government policies. We have more than a century of on-the-ground energy experience — whether we are meeting everyday customer needs, managing complex systems or responding to an emergency. It is critical that we share our expertise with policy makers and elected officials as they make decisions that may impact our business and the service we provide to customers and communities.

Xcel Energy participates in industry, trade, business and other associations to provide our perspectives and to learn from the perspectives and experiences of others. We also meet and discuss issues and solutions with policy makers and legislators through special events, associations and one-on-one meetings, and we provide input and formal comments on proposed legislation and regulation.

## Discussing Drone Technology on Capitol Hill

In early 2017, Ben Fowke, chairman, president and CEO of Xcel Energy, testified before the U.S. Senate Committee on Commerce, Science and Transportation about the company's experience with Unmanned Aircraft Systems (UAS) — or drones. Xcel Energy is using the technology in a number of applications that demonstrate the value of UAS in improving safety and reliability, protecting the energy grid and increasing the efficiency of utility operations.

Fowke, along with other industry leaders, discussed public policy issues related to the safe use of UAS in the country's airspace. They also explored practical uses for this emerging technology, as well as developing economic, privacy and safety implications.

Part of Fowke's testimony centered around Xcel Energy's research partnership with the state of North Dakota, the University of North Dakota and other partners, to use UAS technology to assess damage after severe weather events. The committee also heard about the company's partnership with the Federal Aviation Administration. Xcel Energy has entered into a first-of-its-kind safety

partnership with the FAA to help inform the regulatory process and to demonstrate the safe operation of UAS technology to inspect critical infrastructure. This agreement, known as the Partnership for Safety Plan, involves using UAS to inspect more than 20,000 miles of Xcel Energy transmission lines in 10 states.

As federal regulations around UAS are further developed, Xcel Energy has two priorities — protecting critical utility infrastructure from the unauthorized use of UAS and obtaining more authority to use UAS in beyond-visual-line-of-sight operations.

Since Fowke's testimony, Xcel Energy has supported the state of North Dakota in its successful application to participate in the Department of Transportation's U.S. Drone Integration Pilot Program, a three-year effort initiated by President Trump to accelerate safe drone integration into the National Airspace System. The company also achieved an industry milestone in 2017 by flying over 1,000 miles using drones and virtualizing the inventory and inspection process for transmission lines.

We engage on policy and regulatory issues important to serving our customers with safe, clean, reliable and affordable energy. For 2018, we are involved in the following federal policy discussions:

- Next steps on national tax reform. We are working with policy makers on efforts to implement the Tax Cuts and Jobs Act approved in 2017.
- Nuclear waste policy. The U.S. House of Representatives passed a bill in spring 2018 that allows for consolidated interim storage facilities and encourages the finalization of a permanent repository. We support the bill and are encouraged there may be a solution to this long-standing issue.
- Wind farm permitting. We are advocating for a more efficient and effective permitting process under the U.S. Fish and Wildlife Service that would enable wind development while also protecting eagles and other avian species
- Forest health. To address the increased risk of forest fires, we support a public-private partnership that would give utilities limited access to remove flammable debris surrounding transmission infrastructure on U.S. Forest Service land.

## 2017 Federal Policy Highlights

### National Tax Reform

In the final days of 2017, the U.S. Congress adopted major tax reforms. We support the reforms overall and believe they will benefit our customers and economy as a whole. Specifically, we expect the lower tax rate will enable us to continue investing in important projects for the future — projects that result in better levels of service for customers and provide the benefits of a modern electric system at a lower price. This includes our transition to clean energy and plans to invest in renewables and reduce carbon emissions while keeping customer bills low.

Unlike other companies that are enjoying one-time windfalls because of tax reform, regulated utilities, like Xcel Energy, operate under very different rules. Our state public utilities commissions will oversee how we manage the benefits and certain issues that tax reform creates for our system and our customers. We are working with state regulators to discuss and make decisions around the unique circumstances in each jurisdiction. Regardless of how our commissions treat the benefits of tax reform, our customers will benefit through lower prices and a cleaner, more modern system.

We also are pleased that Congress recognized the unique nature of our industry by allowing us to continue deducting interest expenses — a provision that supports our increased investment in infrastructure projects. We are also pleased that renewable tax credits were maintained. We had advocated that the credits remain intact, as they were originally negotiated through a bipartisan agreement several years ago. After all, we have made significant investment decisions based on the availability and planned phasedown of the existing renewable tax credits.

### **PURPA Reform**

Congress passed the Public Utility Regulatory Policies Act of 1978, or PURPA, to address long-past energy challenges of the 1970s. State resource planning is critical to ensuring reliable energy and maintaining reasonable customer bills. Under rules created by PURPA, utilities can be forced to take energy from Qualifying Facilities (QFs) that they do not need and that is outside of state competitive resource planning processes, thereby imposing higher costs on consumers.

In testimony to the U.S. House of Representatives, we have encouraged Congress to take actions to address the problems that have arisen from PURPA. Xcel Energy believes states should be in control of their own energy planning. Open, transparent, competitive planning processes are the way to develop clean energy in a way that keeps bills low for our customers.

### **FERC Energy Storage Rulemaking**

Throughout 2017, federal and state regulators accelerated their efforts to develop policies related to the growing role of energy storage in the energy marketplace. FERC considered proposals to allow storage and distributed energy resources to participate in wholesale markets. In early 2018, FERC adopted an order designed to remove barriers to energy storage resource participation in the capacity, energy and ancillary services markets operated by RTOs and ISOs. FERC is still considering the role of distributed energy resources.

Xcel Energy is participating in the Energy Storage Task Force at MISO — the Midcontinent Independent System Operator — the regional market we belong to in our Upper Midwest states. We support the growing role of storage on our system, but we also believe it is important to get the rules and the policy right. For that reason, Xcel Energy has filed a request for rehearing on the order based on jurisdictional issues, cost recovery issues and the lack of flexibility in the required implementation timeline.

## **Political Contributions and Lobbying**

Xcel Energy has a corporate policy that sets guidelines and rules for political contributions and to ensure all contacts with government officials meet legal and ethical standards.

Our board of directors, leadership and employees must comply with all federal laws restricting the making of political contributions or expenditure using corporate funds in connection with elections for federal offices. When communicating about matters involving Xcel Energy, the board of directors, leadership and employees must accurately convey corporate messages and support the Xcel Energy brand. Xcel Energy's Political Contributions Report provides corporate contributions and dues paid to trade associations.



## Employee Policy Engagement

Grassroots advocacy is important to Xcel Energy because our industry is so complex. Xcel Energy employees can help educate their friends, neighbors and community leaders by participating in:

- **Legislative Day:** We offer employees a special day at the capitol in each of our jurisdictions for employees to meet their elected officials and learn more about the legislative process.
- **Local events and meetings:** Employees can represent the company at community meetings and special events.
- **Political Action Committees:** Employees can voluntarily participate in seven different groups that are organized and run by employees.

### Political Action Committees

Xcel Energy sponsors seven Political Action Committees or PACs organized and run by employees, six at the state level and one at the federal level. Participation in the company's PACs is completely voluntary and is part of the engagement activities that we offer employees.

Each of the company-sponsored PACs has its own board of directors elected by its members that make contribution decisions. All of our PACs are strictly voluntary, and there are no employment benefits based upon participation. Each complies with all applicable local, state and federal laws.

### 2017 Xcel Energy Political Action Committee Activity

PAC	Employees Participating	Total Employee Contributions to PAC	Total Contributions Made to Candidates*
Minnesota**	322	\$50,451	\$44,150
North Dakota	333	\$4,299	\$175
South Dakota	309	\$2,223	\$0
Texas/New Mexico (SCOPE)	387	\$34,517	\$12,500
Colorado (Western PAC)	345	\$39,318	\$5,700
Wisconsin	352	\$31,846	\$23,400
Federal PAC (XPAC)	402	\$248,045	\$258,917

\*Funds contributed by employees can accrue over multiple years and are not necessarily distributed in the same year they were contributed. Contributions vary by year and are typically lower in nonelection years or years when state legislatures are in session.

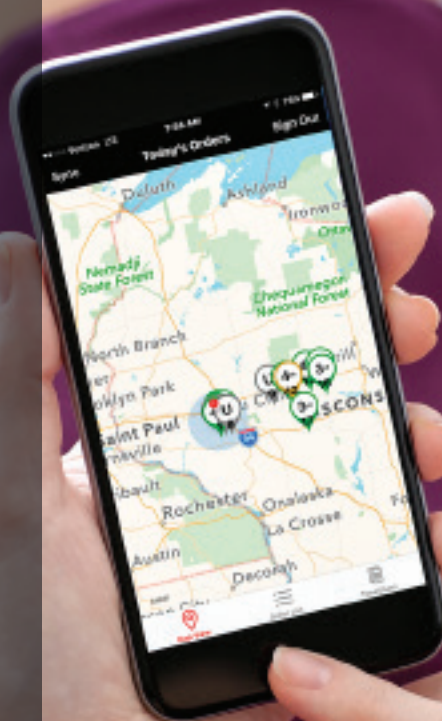
\*\*The state PAC in Minnesota is operated outside of Xcel Energy in accordance with state law that prohibits the use of corporate resources to support the PAC; although, payroll deduction is specifically permitted in Minnesota. Activity for the Minnesota PAC is only included in this report for transparency and informational purposes.



SERVING CUSTOMERS AND COMMUNITIES



Our mobile app lets customers easily access their accounts, view and pay their bills and receive outage information, whenever they need it.



ENHANCING

## Customer Experience

### Our Approach

Each and every time our customers engage with us, we want to make it easy for them and deliver a positive, best-in-class experience. We continue to improve all levels and points of service whether a customer is new to our service area, struggling to pay a bill or experiencing a service outage. We are constantly managing the systems, processes and people we have in place to meet different customer needs and circumstances.

As customer requirements evolve, one thing we know is that customers want convenience. They should be able to pick the time and place that works for them to do business with us. We launched a mobile app in 2017 that lets customers easily access their accounts, view and pay their bills and receive outage information, whenever they need it. By the end of last year, the app was downloaded more than 160,000 times, exceeding expectations. In addition to app downloads and positive customer reviews, the industry research and intelligence group, E Source, recognized Xcel Energy with an Innovation in Customer Design Award for the project's customer centricity.

## Business is Strong at the Xcel Energy Store

Xcel Energy's online store started small, but continues to grow. After launching as a pilot several years ago, the Xcel Energy Store expanded in 2017 to continue connecting customers with energy-saving products and services. Customers can buy products that offer rebates, sign up for Home Energy Squad visits and much more.

"Through the online store, we can connect our customers with products that provide convenience and comfort while also helping them manage their energy costs and keep bills low," said Colin Lamb, team lead, Product Strategy and Development for Xcel Energy. "It positions Xcel Energy as a partner and provides one more way to enhance the customer experience."

Through easy-to-access buyer's guides, customers can find products through the store that fit their lifestyles and needs. For example, customers who prefer a certain showerhead finish can browse the selection from their mobile devices or personal computers, sort by price and popularity and see a variety of product offerings by category type. That more personalized experience is resonating with customers, with about \$1 million in sales since the store expanded.

Smart thermostats that include rebate offers are the top seller with more than 3,000 units sold in 2017. These thermostat sales also help drive enrollments in AC Rewards, Xcel Energy's new residential demand response program. At the same time, the company continues to improve the AC Rewards website and enrollment process based on learnings from the online store.

In addition, plenty of products have been sold without rebate offers. About 25 percent of sales in 2017 were for non-rebated items, including smart smoke detectors, rechargeable batteries and small items such as flashlights, which were popular during the holiday shopping season.

"Looking forward, Xcel Energy is now positioned as a leader in this rapidly evolving space of online marketplaces," added Lamb. "We plan to continue finding new ways to use the online store as a tool to support customer engagement and develop the customer relationship of the future."

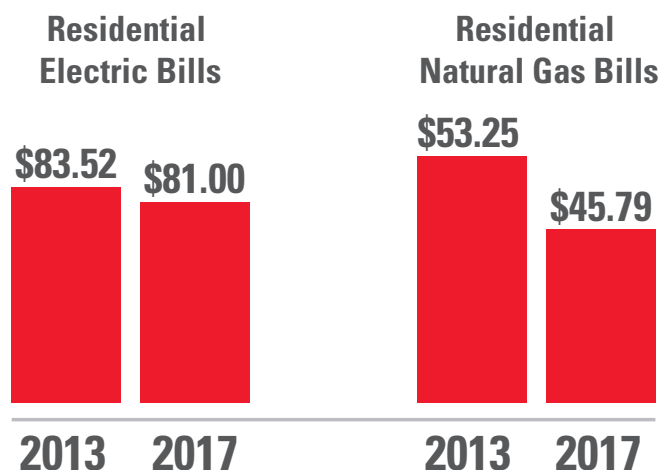
One key function of the app is the ability to easily report outages. We recognize that for customers an outage can feel like an uncontrollable situation, and it's a time when they need us most. To help empower customers, we continue to focus on outage communications to provide accurate and timely information. We have a new Storm Center on our website with better outage maps, and by the end of 2017, had enrolled more than 3.2 million customers to receive email and text notifications during outages — ten times the customers enrolled compared to 2016. Our efforts are clearly paying off. Xcel Energy was recognized with a 2017 Best Practices for Outage Communications Award from Chartwell, a company that provides information services to the utility industry. Most importantly, customer perceptions of our outage communications have improved to a level that surpasses nearly 20 of our industry peers.

As we look to the future, we will continue to deliver on the fundamentals, providing reliable energy at an affordable price while also enhancing the customer experience and making sure our customers know how important they are. To earn our customers' trust and become their preferred energy provider, we must always put the customer first and continue sharing our energy expertise to help them reach their goals. Our employees play an important role in achieving this through their daily interactions. That's why through training and other initiatives we continue to foster a culture where all employees take ownership in ensuring a dependable, easy, enjoyable and personal experience for our customers.



## Managing Customer Energy Bills

One of the most basic customer requirements and a key priority for Xcel Energy is keeping energy bills low. Over the past five years, the average Xcel Energy residential customer bill has actually gone down, even as we have continued to invest in a cleaner and more advanced energy grid. That's because we constantly seek ways to improve productivity and reduce our costs while also offering customers a comprehensive portfolio of programs to help them manage their energy use and take control of their bills.



\*Based on EIA data; represents Xcel Energy annual average of monthly bills, excluding taxes and franchise fees

## Education and Outreach

Xcel Energy's Education and Outreach program is designed to promote and encourage participation in the company's energy efficiency and renewable choice programs. We leverage our partnerships and sponsorships as opportunities to meet customers in the communities where they live and provide information in a compelling way. By attending local community and sporting events, we facilitate one-on-one interactions that give customers a better understanding of who we are, what we do and how we can improve their lives. In 2017, we gained exposure to nearly four million people and generated nearly 17,600 targeted customer leads, resulting in more than 4,300 direct sign-ups to our energy efficiency and renewable programs.

Our most significant sponsorship is with the Xcel Energy Center in St. Paul, Minnesota. Every year this multipurpose arena hosts more than 150 sporting and entertainment events for 1.7 million visitors, providing a highly visible opportunity for Xcel Energy to reach customers with energy information. For 2017, our older display space was upgraded with more interactive experiences. We installed an engaging phone charging station and built the Xcel Energy Warming House that includes the Puck-O-Matic puck maker. Fans can create custom pucks and the proceeds benefit the Salvation Army HeatShare program. In its first season, the Puck-O-Matic helped reach more people with our energy information and earned several marketing awards. Most importantly, it sold nearly 180 pucks, raising about \$9,000 to help HeatShare provide emergency energy assistance.

We also unveiled our Xcel Energy tiny houses at several Earth Day events in 2017. These small, novelty homes are outfitted with solar panels and energy-saving products, such as LED lighting, programmable thermostats, low-flow shower heads and much more. Throughout the year, the houses traveled to 36 events in Minnesota and Colorado, helping to educate customers on the low- and no-cost ways to make their homes more energy efficient and promote programs like Xcel Energy's Home Energy Squad®.

Finally, our most successful sponsorships for the year happened during June 2017 in conjunction with national Pride Month. By attending a number of events, we demonstrated our commitment to the community and energy efficiency, as well as diversity and inclusion. The events exceeded our goals in terms of attendance, signups and overall positive engagements.

## Customers in Need

We work with state and local agencies and advocates for low-income customers to provide energy assistance to those in need. Our Personal Accounts department helps to monitor and assist customer accounts where medical needs are present, provide services that promote the efficient use of energy, while making energy bills more affordable to income-qualified families through payment plans and energy assistance programs.

In 2017, we provided \$59.5 million to customer energy assistance programs that helped about 130,000 individuals and families throughout our service territory. This support of energy assistance includes:

- Public policy and advocacy supporting efforts on the state and federal level for funding of Low-income Home Energy Assistance Programs (LIHEAP)
- Funding for state and local energy assistance agencies and energy weatherization programs
- Encouraging our customers to contribute to statewide fuel funds via their Xcel Energy bills
- In-kind marketing and public relations to support energy assistance organizations and advocates for low-income customers

We established a new Medical Affordability Program in 2017 for our Minnesota electricity customers, similar to the Medical Exemption Program we offer in Colorado. The state public utilities commission approved the program, which was developed in partnership with the Energy CENTS Coalition, a community-based organization that promotes more affordable utility service for low-income Minnesotans with special medical needs. Qualifying customers make a monthly income-based payment in exchange for the discount and potential assistance with past-due accounts. We expect the program to reach about 1,000 residential customers in the state.

In addition to these programs, we work with customers who have difficulty paying their energy bills and encourage them to contact us to develop a payment plan and determine if additional assistance is available. We only disconnect service as a last resort if we are unable to resolve the issue or arrange a payment plan. For customers behind on their payments, we typically send a reminder notice 33 days after the unpaid bill is due and a disconnection notice 64 days after the original due date. In 2017, we disconnected service to a total of 75,685 customers. The majority of these customers were reconnected after they arranged payment plans or paid their bills in full. Heat-affected disconnections are not performed in our five Upper Midwest states during the heating season. In each of our states, our Customer Care leadership has the authority to suspend disconnections during extreme weather or other emergency situations.

## Scam Awareness

We continue to monitor scam activity and help inform and protect our customers. While all types of scams have become more common, our customer losses are down by more than half since our formal scam awareness efforts began.

Scam activity first increased in 2014, targeted at all customers, especially business customers. We launched an awareness campaign and made technology changes that have proven effective at protecting customers. Thanks to the reports of customers, we're also able to track both in-person and phone-based scam attempts. This data is used in partnership with law enforcement to investigate possible larger scam efforts and trends across our territory, with the ultimate goal of shutting down scammers that attack our customers and others.

In 2016, we joined Utilities United Against Scams, a collaborative of more than 90 utilities across the United States. Members share leading practices and updates about how scams are affecting their customers, as well as ideas and updates on what they're doing to spread awareness. In its first year, the group introduced a national bill to establish an awareness day — National Utilities United Against Scams Day — which takes place on the third Wednesday each November.

The organization continued to strengthen its ability to address scams in 2017, creating an executive committee that includes an Xcel Energy representative, as well as several task groups focused on specific anti-scam efforts. It also established partnerships with outside companies like Somos, which manages toll-free numbers. Working with Somos since March 2017, we have shut down more than 1,000 toll-free numbers used by scammers to trick customers.

## **Measuring Customer Satisfaction**

We monitor customer perceptions of the company and our performance through several tools. The two most notable are the J.D. Power & Associates Electric Utility Customer Satisfaction studies and the customer transactional satisfaction studies that we implement with our partner, MaritzCX.

J.D. Power & Associates implements an industry-wide benchmark that provides details of the relationship Xcel Energy has with its residential and small- to medium-sized business customers and how that compares to industry peers. For the residential electric study, we placed in the second quartile nationally in 2017. Residential customers provided the most positive feedback in the areas of reliable electricity service, efforts to develop energy supply plans for the future and total monthly cost of electric service. With business customers, Xcel Energy ranked in the third quartile nationally in 2017. We received the highest scores for reliable electric service and scored favorably for actions to take care of the environment.

We also continue to demonstrate strong performance at our Customer Contact Centers. Through regular transactional surveys in 2017, more than 85 percent of residential and business customers reported that they were satisfied with their contact center transactions. More than 86 percent of customers reported their problem or issue was resolved on the first call to Xcel Energy. Our Customer Care organization sets annual goals with satisfaction and first call resolution, and we successfully met our goals in 2017 for both metrics.



We engaged with people more than 140 million times in 2017 through our proactive public safety awareness efforts, including social media, mailings, email campaigns, advertising and event participation.

## PROVIDING COMPREHENSIVE OUTREACH

### Public Safety Awareness

#### **Our Approach**

Ensuring the safety of our employees, our customers and the public is a responsibility that Xcel Energy takes very seriously. We want everyone who lives, works or gathers near our facilities to be aware of possible hazards and to respond safely to them. To do this, we provide comprehensive outreach programs that promote safe behavior among our customers, communities, emergency responders and third-party workers.

Our goal is to prevent accidents that can result in serious injury or death, property damage, costly repairs or fines and decreased service reliability. Most serious accidents happen because someone directly or indirectly makes contact with an overhead electric line, digs into an electric or natural gas line, or fails to respond safely to the warning signs of a natural gas or electric emergency.



## Public Safety Demonstrations

Xcel Energy is committed to public safety and is active in educating the public about the potential risks related to electric and natural gas service. But explaining safety protocols around company facilities can cause yawns and blank expressions.

However, telling people real-life stories — and showing them concrete examples of hazards and how to avoid them — often makes them perk up and listen. To that end, the company’s Public Safety group has two tools that it regularly uses in public-safety demonstrations — Hazard Hamlet and Power Town.

The tabletop displays graphically illustrate potential risks related to gas and electric service and equipment. Combined with storytelling by Lori Warner and Erica Fink, coordinators with Public Safety, those safety presentations come to life and actively engage audiences.

“Both safety simulators are very effective in bringing various scenarios to life and getting our audiences interested,” Warner said.

“Essentially you can think of Hazard Hamlet as the G-rated Disney version of the two safety simulators,” Fink said. “Everyone can use it — it’s safe and you don’t need special safety equipment, so it’s good for schools and similar venues.

“Power Town, on the other hand, is 10,000 volts of electricity,” she said. “You must wear protective

equipment and be thoroughly trained to use it. It’s for real.”

The main focus of the two simulator presentations is electric safety, and the demonstrations illustrate scenarios for downed power lines, excavation damage, trees/poles/kites/ladders, substations, transformer and other dangers. However, because Xcel Energy is a combined gas and electric utility, natural gas safety also is incorporated into the effort.

Audiences for the safety presentations include a wide range of customers, schools, excavators, emergency responders and third-party contractors, Fink said. Venues and organizations include community safety fairs, chamber of commerce meetings, fire department open houses, elementary school assemblies and other community or organization meetings.

In addition to Fink and Warner, Public Safety also has an Employee Ambassador Program, which trains and coordinates volunteer employees to help with public-safety presentations.

“Our ambassadors help us in reaching out to the public,” Warner said. “Often, they know a teacher, firefighter or first responder, and will sign them up to receive the safety materials we have that are tailored to those professions, as well as follow up to make sure they’re using them effectively.”



Our public safety program’s primary goal is to ensure Xcel Energy maintains compliance with American Petroleum Institute Public Awareness Programs for Pipeline Operators Recommended Practice 1162. But, keeping the public safe is more than just a requirement at Xcel Energy, it’s a value. We share safety messages with customers, communities, investors, employees, public officials, at-risk workers, educators and the utility industry with the goal of increasing safety awareness and ensuring these stakeholders trust Xcel Energy facilities and services are safe. By going beyond compliance, we can ensure that we are doing our part to help keep the public safe.

## Advertising Campaign

Xcel Energy's Always Delivering campaign launched in mid-2016 and continued to carry public safety messages throughout 2017. While the campaign uses simple language and consistent, entertaining visuals, as well as subtle humor and a friendly approach, we adjusted safety language to be a bit more serious and even more direct to make a quicker connection to our critical safety messages.

Our goal was to increase awareness of safety messages in four important areas:

- Call before you dig
- Overhead lines
- Natural gas
- Ice on meters

Through a mix of television, radio, print, digital and other advertising, we try to reach as many customers as possible, achieving more than 138 million impressions in 2017.

## Public Safety Initiatives

Raising awareness about the dangers associated with activities near overhead and underground electric and natural gas lines is no easy task. We send direct mail to thousands of customers each year and offer free safety materials through fulfillment programs and partner organizations. We also offer online safety resources for emergency responders, public officials, elementary educators, students and their parents, and third-party workers. Here's a list of the tactics we employ to raise public safety awareness:

- Advertising
- Broadcast media appearances
- Email communications
- Event appearances
- Mailings
- Meetings
- Social Media
- Sponsorship
- Trainings
- Websites

Our targeted outreach messages include:

### Call 811 Before You Dig

We continue to focus on preventing accidental dig-ins to underground gas and electric service. In 2017, we reduced our underground damage incident-rate by 33 percent compared to 2008, surpassing our annual target of 1.34 or fewer dig-ins per 1,000 locate requests by more than 7 percent.

Xcel Energy is a member of the Common Ground Alliance, a member-driven association committed to saving lives and preventing damage to underground infrastructure by promoting effective damage prevention practices. The association's most well-known initiative is the three-digit national phone number (811) that people can call to have underground utility lines marked before they dig.

Some of our outreach efforts in 2017 included:

- Increasing our 811 awareness campaign in Colorado, Fargo, North Dakota, and Eau Claire and Lacrosse, Wisconsin, after these markets experienced above-average excavation damages. We partnered with local fire chiefs to film 811 and natural gas safety advertorials.



- Collaborating in lighting the Lowry Bridge in Minneapolis green for National 811 Day, as well as Xcel Energy's Hiawatha and Midtown substations in Minneapolis.
- Participating in the second annual Colorado 811 5K run, which included a post-run safety event with electric safety demonstrations and bucket truck rides, local emergency responders, Red Cross information and a climbing wall with 811 trivia questions. Registration was full before race day.
- Sponsoring JJ Harrison, the 811 Rodeo Clown.
- Partnering with Colorado 811 to provide safety education and materials to attendees of the National Gas Rodeo hosted in Colorado.
- Distributing safety messages and materials at 10 community events the company helped sponsor in Colorado and Minnesota and engaging attendees through a safety quiz.

### **Electric Safety**

Contact with electricity can result in serious injury or even death. As such, we continually work to engage and educate the public, urging them to stay away from our equipment, such as overhead lines, underground lines, downed power lines and damaged electrical equipment.

Some of our outreach efforts in 2017 included:

- Conducting dozens of electric safety demonstrations featuring the Power Town arcing display.
- Conducting electric safety demonstrations at the Minnesota State Fair for an estimated 30,000 people. Employees volunteered nearly 200 hours to educate customers about electric and natural gas safety and calling 811 before you dig.
- Providing thousands of electricity and natural gas safety pamphlets at safety events throughout our service territory.

## Natural Gas and Pipeline Safety

We annually distribute materials through 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. Through these organizations in 2017, we helped distribute more than 172,000 safety guides, books and newsletters to excavators and to public and emergency officials in states where we have natural gas distribution and transmission pipelines. We also participated and helped sponsor many pipeline emergency responder meetings in our states and provided additional, in-person pipeline safety trainings to hundreds more emergency responders.

In addition, safety information designed to share details about staying safe around natural gas is sent twice a year to our approximately 1.7 million natural gas customers with their bills. The bill inserts include a special "rotten egg" mercaptan scratch-and-sniff badge that shares what it smells like to have a natural gas leak.

## Outreach to Specialty Audiences

### Emergency Responders and Public Officials

Our Responding to Utility Emergencies online training provides local emergency responders, such as firefighters and law enforcement, with important safety information about situations involving natural gas pipelines and electricity. We also share safety information in our communities through traditional advertising, our website, social media sites and our electronic newsletters and bill inserts.

Our outreach efforts to emergency responders and public officials in 2017 included:

- Mailing information directly to emergency responder agencies and community officials across our service territory and providing information specific to their regions regarding response to life-threatening and non-life-threatening emergencies, including essential public service restoration.
- Sponsoring the Responding to Utility Emergencies and First Responder Beware websites.
- Conducting numerous emergency drills involving local emergency responders from the communities we serve.

### Third-party Contractors

Third-party excavation damage remains the biggest threat to our natural gas distribution systems. To spread awareness, we engage in fulfillment programs that provide safety information to third-party workers and contractors. We offer free videos and related safety materials that address the specific needs of these audiences. Our programs also direct workers to our e-SMART worker website, where safety information is continuously available.

Our outreach efforts to third-party contractors in 2017 included:

- Mailing safety posters to nearly 69,000 businesses with at-risk third-party contractors and including an offer for free visor cards and DVDs about working safely near power lines and natural gas pipelines. In response to this offer, we provided more than 16,000 additional pieces of safety information to at-risk workers (excavators, plumbers, general contractors, etc.), including an industry-leading DVD entitled Worker Beware. We also sent out "Tips of the Trade" emails with additional safety information and had several thousand visits to our e-SMART worker website.
- Including information for tree workers and gutter, siding and roofing installers in the mailing to third-party contractors to further emphasize the hazards of performing work in areas near energized electric lines. We offered a Tree Worker Safety video program and vehicle visor cards, both in English and Spanish to workers who install gutters, siding and roofing and use scaffolding in our service areas.
- Providing Spanish translation of safety information throughout the website for third-party contractors. Additionally, Xcel Energy field workers have access to a bilingual business card for Spanish speaking contractors.
- Contributing an article to National DP damage prevention magazine addressing electrical safety and how to help children understand the conceptual side of safety.



- Developing and mailing an agriculture postcard to more than 19,200 farming and agricultural businesses to point them to our online at-risk worker website and safety information.
- Partnering with the newly created Public Agriculture Safety Alliance leveraging existing relationships within the agricultural community. Every state has its own Ag agents, and the alliance partners with these agents to strategically communicate vital pipeline safety messaging to our Ag community. An annual publication, similar to The Farmers' Almanac, is sent to agents for their communities.

### **Educators**

Our fulfillment programs provide safety information to children and educators, including principals and superintendents, with a focus on second- through sixth-grade students. We offer free videos and related safety materials that address the specific needs of these audiences. Our programs also direct elementary educators — including younger students and their parents — to our e-SMARTkids website where safety information is continuously available.

Our outreach efforts to educators in 2017 included:

- Mailing safety brochures to more than 15,600 elementary educators, which included suggested safety activities for the classroom. In response to our offer, we placed more than 100,000 pieces of safety material directly into classrooms. These safety materials help educators meet national science education curriculum standards, and the related e-SMART website continues to be a valuable educational resource, as demonstrated by more than 16,000 website visits in 2017. An increase of more than 11 percent from 2016.
- Emailing utility safety information to school principals and superintendents.
- Distributing electric and natural gas safety activity sheets at public events and presentations.
- Creating an online course for employees who engage as Public Safety Ambassadors, which helps us recruit volunteers for community safety presentations and event participation.

### **STEM Students**

As we look to grow our next generation of employees, students interested in the STEM disciplines (science, technology, engineering and math) have become an increasingly important audience.

- Public Safety attended the 3M Wizard Fair, a day-long conference for teachers and students affiliated with STEM programs in the state of Minnesota.
- We also provided safety demonstrations and information to audiences for more than 10,000 attendees at STEM Con in Highlands Ranch, Colorado, and Girls in Science at the Denver Museum of Nature and Science.



Customers have saved enough electricity through our programs to help avoid building 20 average-size power plants.

## CUSTOMER SOLUTIONS

# Energy Efficiency

### **Our Approach**

Customers rely on the energy we provide for their comfort and convenience, but increasingly they want more control and new options for using and managing energy. We are paying attention, listening to our customers and responding with new and improved solutions.

We offer a comprehensive portfolio of more than 150 solutions designed to empower customers and meet their individual needs and preferences — from rebate programs to energy audits to recycling services. Our programs give all types of customers an opportunity to participate, whether they operate an industrial facility, a small business or live on a fixed income.

## St. Paul Effort a Boon to Historic Buildings

Xcel Energy's Turnkey Services is a full-service effort that provides customers with both onsite assessments and free implementation support for various energy-savings improvements. The company has been offering the program since 2012, and more than 1,100 assessments and projects have been completed since then.

The program played a major role in Minnesota's largest energy efficiency effort ever — saving in one project the energy used by 1,200 average households, which resulted in an energy efficiency rebate of approximately \$1.5 million. Xcel Energy worked with Madison Equities on the project, owners of three major buildings grouped together in downtown St. Paul — the First National Bank Building, US Bank Center and the 375 Jackson Building.

The First National Bank Building, in particular, is an iconic St. Paul structure, recognized for its giant red "1st" sign emblazoned on the top. The buildings' systems, however, were still operating with old, outdated equipment. For example, manual pushbuttons from the 1960s were needed to physically turn fans and pumps on and off every morning and evening.

Madison Equities' goal through the Turnkey Services program aimed at retrofitting lighting, heating, cooling and other systems with modern electronic controls to create completely intelligent buildings. To create a priority list, they turned to Xcel Energy and a third-party contractor to develop a comprehensive plan. "This was one of the largest energy-saving endeavors Xcel Energy has been involved with in terms of a comprehensive holistic project in the office-building segment," said Michael Hepfler, a field representative with the Business Solutions Center. "It was beyond ambitious and impressive for the customer to do all three of these buildings back-to-back-to-back within a year."

The Turnkey program is a great place to start when a building owner wants to identify and undertake energy efficiency measures for an entire building. The program starts with an onsite assessment and follows that with free implementation services. Most projects identified in an assessment also qualify for a 30 percent bonus rebate, if completed within a year of the assessment.

We are continuously evaluating emerging technologies and program models to develop products that benefit different customer groups. An important part of the process is considering what our customers and communities want and value. Xcel Energy assesses its energy efficiency product offerings based on several criteria in addition to cost effectiveness. We seek to ensure:

- Value to all stakeholders
- Options for all customers groups
- Control over costs and customer rate impacts
- Balance between energy and demand savings
- Products that provide long-term energy and demand savings to meet future customer needs

We have offered energy-saving solutions since the 1990s, and today, we have one of the longest-running and most successful programs in the country, which helps customers to reduce bills and create efficiencies. Based on the 2017 American Council for an Energy Efficient Economy's scorecard rankings for statewide energy efficiency policy and program efforts, two of our largest service areas — Minnesota and Colorado — ranked 9 and 15, respectively.

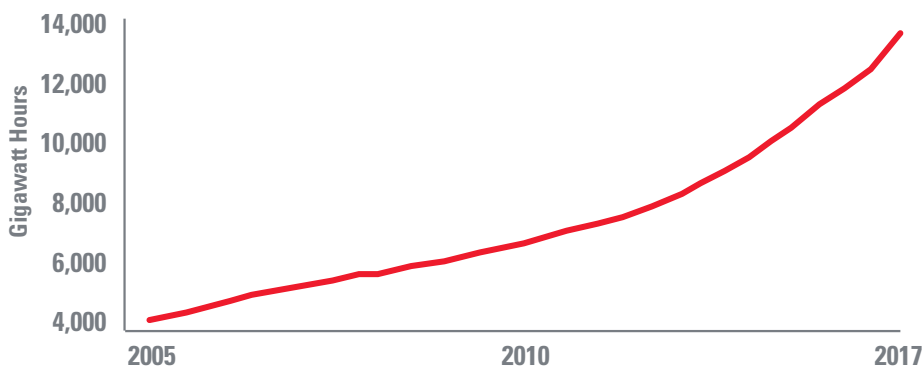
## Energy Efficiency Achievements

We surpassed our commission-approved efficiency goals in Minnesota and Colorado in 2017, and provided nearly \$118 million in rebates to residential and business customers throughout our service territory. In total, we had approximately 3.1 million electricity and 1.1 million natural gas participants in our programs, with some of our customers participating in multiple programs. Customers saved about 1,195 gigawatt hours of electricity, equivalent to powering 152,000 average homes, and 1.5 million dekatherms of natural gas, enough to fuel 21,000 average homes. This annual energy savings is enough to avoid about 628,000 tons of carbon emissions.

The Midwest Energy Efficiency Alliance honored our Partners in Energy program as one of its 2017 Inspiring Efficiency Award winners, which recognizes the best and the brightest in energy efficiency. The program is unique in that it provides the opportunity to connect directly with community officials and organizations to build sustainable relationships by promoting our entire portfolio of programs in the community, including renewable, efficiency and even payment programs.

Since we began consistently tracking results in 1992, we estimate that customers have saved enough electricity to help avoid building 20 average-size power plants.

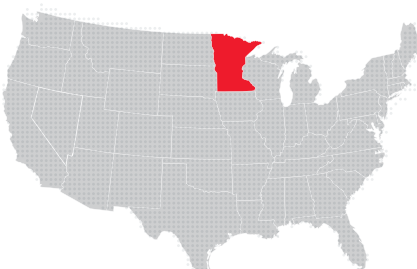
### Cumulative Customer Energy Savings:



## State-by-State Efficiency Programs and 2017 Results

### Minnesota

2017 Approved Savings Goals:	433,513,457 kWh 719,360 Dth
Electric Program Participants:	1,857,028
Natural Gas Program Participants:	641,961
Spending:	\$109,109,805
Electric Savings:	658,868,750 kWh
Natural Gas Savings:	799,597 Dth



### Residential Programs:

Program offerings range from prescriptive rebates to in-home services providing energy efficient materials and installation labor. Consumer education is included with most of the residential programs to increase conservation awareness and encourage energy-wise choices and behavior in the home.

The Residential Segment exceeded its electric and gas participation, savings and spending goals. Popular programs such as Home Lighting, Home Energy Squad, Heating System Rebate and other prescriptive electric and natural gas rebates continue to drive portfolio performance.

### Business Programs:

The business segment includes electric and natural gas commercial, industrial and small business customers. We offer a variety of programs that encourage business customers to save energy, lower their energy bills and/or peak demand and minimize environmental impacts.



These include:

- Equipment rebate and custom rebate programs that lower the upfront cost for customers to purchase and install energy efficient equipment or process improvements.
- Studies and audits that help customers identify, plan, prioritize and implement energy efficiency projects.
- Holistic programs that encourage long-term energy management planning to help customers analyze, track and implement efficiency plans rather than ad-hoc efficiency projects.
- Demand response programs that help lower customers' electricity demand during peak periods in exchange for lower rates or energy bill discounts.
- Business education, advertising and promotional efforts that work to increase customer and trade awareness of energy use and conservation options, which drives behavioral changes and leads to future participation in our programs.

The energy efficiency and conservation program portfolio continues to experience strong customer engagement with a number of business program offerings, including Turnkey Services, Process Efficiency, Commercial Efficiency, Business New Construction and Lighting Efficiency.

Trade and community groups continue to engage in efficiency projects. We provide the tools and resources they need to help customers participate in energy efficiency. Through these partnerships, we are able to expand our reach, generate awareness and increase participation in our efficiency programs.

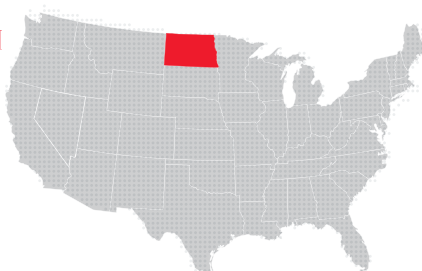
#### **Low-income Programs:**

The low-income segment includes the Home Energy Savings program (HESP), Multi-Family Energy Savings program (MESP) and Low-income Home Energy Squad program. These services and products help income-qualified customers reduce their energy use and ultimately lower their bills. HESP offers customers a home energy use analysis to identify areas for energy savings and free energy efficiency upgrades. MESP provides electric energy efficiency measures and information to customers in multi-family buildings. The Low-income Home Energy Squad program performs a quick assessment of each participant's home and implements energy saving measures during one visit.

The Multi-family Energy Savings Program (MESP) and Home Energy Savings Program (HESP) were important offerings in the low-income segment in 2017. MESP continues to reach a high number of participants in large complexes with strong engagement among property management organizations.

#### **North Dakota**

Electric Program Participants:	281
Natural Gas Program Participants:	827
Spending:	\$127,037
Electric Savings:	2,945 kWh
Natural Gas Savings:	10,402 Dth

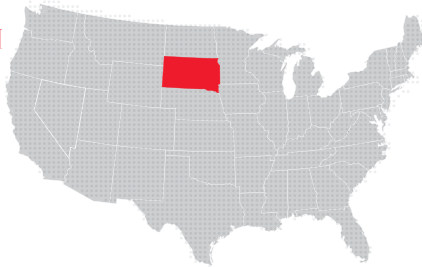


#### **Residential and Business Programs:**

Xcel Energy provides savings opportunities for North Dakota customers through load management programs, as well as residential natural gas rebate programs and home energy audits.

### South Dakota

2017 Filed Savings Goal:	5.264 GWh
Electric Program Participants:	79,710
Spending:	\$816,194
Electric Savings:	6,047,504 kWh

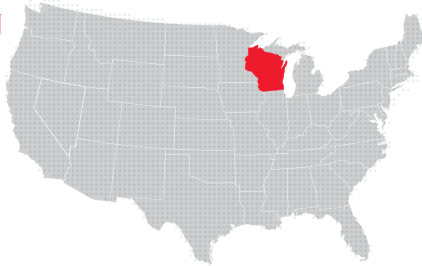


#### Residential and Business Programs:

Xcel Energy's energy efficiency portfolio for South Dakota customers is a mix of electric programs designed to encourage residential and business customers to save energy and lower their energy bills in a variety of ways. We offer programs for lighting, load management and educational outreach for business and residential customers and continue to work with our trade partners to promote our programs.

### Wisconsin:

Electric Program Participants:	37,857
Natural Gas Program Participants:	37,199
Spending:	\$8,220,029
Electric Savings:	58,706,549 kWh
Natural Gas Savings:	95,753 Dth



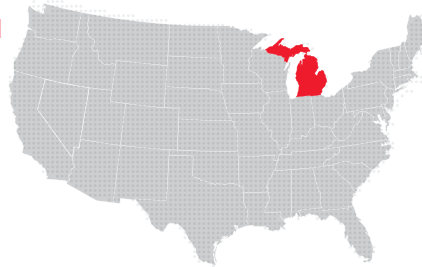
#### Residential and Business Programs:

Xcel Energy participates in a statewide program called Focus on Energy that provides incentives to eligible Wisconsin residents and businesses for installing cost-effective energy efficiency and renewable energy projects.

We retain a portion of the approved annual funding for our voluntary customer programs and to promote the Focus on Energy programs. The retained dollars also fund general conservation activities, advertising and energy efficiency education for residential customers, commercial customers and trade allies in our service territory.

### Michigan:

Electric Program Participants:	3,021
Natural Gas Program Participants:	222
Spending:	\$297,011
Electric Savings:	2,988,166 kWh
Natural Gas Savings:	11,980 Dth

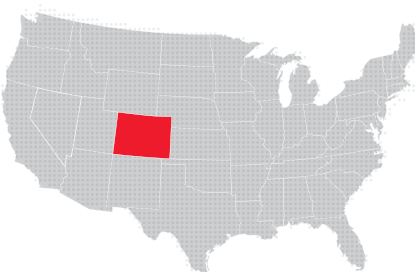


#### Residential and Business Programs:

In Michigan, Xcel Energy participates in a statewide program called Efficiency United that educates residential and commercial customers about energy efficiency and offers cost-effective solutions and rebates for reducing energy use. Michigan does not allow Xcel Energy to retain any of the funding dollars for internal programs.

## Colorado:

2017 Goal/Target:	400 GWh goal/421 GWh target 636,078 Dth
Electric Program Participants:	801,218
Natural Gas Program Participants:	471,824
Spending:	\$88,260,328
Electric Savings:	415,369,902 kWh
Natural Gas Savings:	626,978 Dth



### Residential Programs:

Xcel Energy's residential energy efficiency programs focus on cost-effective, direct impact products that target household appliances, HVAC and lighting. This effort is supplemented with educational services intended to further increase customer understanding and interest in conservation and energy efficiency.

Several residential electric and gas products contribute to achievement, including Home Lighting & Recycling, ENERGY STAR® New Homes, School Education Kits, Energy Efficient Showerhead, Energy Feedback Residential and Residential Heating.

### Business Programs:

Energy efficiency sales to business customers are achieved through Xcel Energy's account managers and Business Solutions Center, end-use equipment vendors and energy service companies. Our business program — for commercial and industrial customers of all sizes — offers a broad portfolio of demand side management products designed to meet the needs of this varied segment. The portfolio has three primary components:

- Prescriptive products focus on the most common equipment
- Custom products encourage savings from unique situations, often involving newer technologies or measures
- Study and educational products help customers identify energy efficiency opportunities

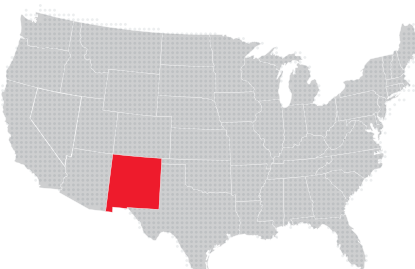
### Low-income Programs:

The low-income segment consists of Energy Savings Kit, Multifamily Weatherization, Non-Profit and Single-Family Weatherization products. These products analyze natural gas and electric consumption for low-income customers and provide them with products, services and education designed to assist in lowering their energy bills.

In 2017, all four products exceeded gas goals and the Multifamily Weatherization and Non-Profit products also exceeded electric savings targets.

## New Mexico:

2017 Energy Goal:	32.864 GWh (net generator), 29.444 GWh (net customer)
Electric Program Participants:	289,960
Spending:	\$8,342,728
Electric Savings:	36,733,924 kWh

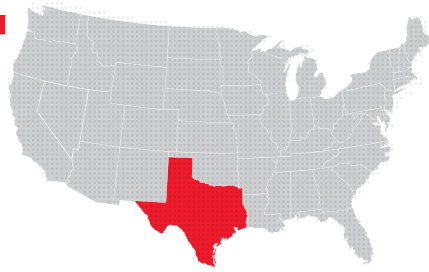


### Programs:

Xcel Energy offers a broad portfolio of programs to meet the needs of business, residential and low-income customers in our eastern New Mexico service territory.

## Texas:

2017 Energy Goal:	9.627 GWh (9,627 MWh)
2017 Demand Goal:	0.005495 GW (5.495 MW)
Electric Program Participants:	96,352
Spending:	\$3,918,866
Electric Savings:	16,880,398 kWh



### Programs:

We offer our Texas customers energy efficiency programs through Standard Offer Programs and third-party Market Transformation programs. These programs are provided to residential, low-income, commercial and industrial customers.

## Conservation at Xcel Energy Facilities

Xcel Energy owns or leases more than 150 office building and service centers throughout the eight states that it serves. We align our building management practices with our policy on protecting the environment and strive to set an example with conservation. Similar to how we encourage customers to use energy more efficiently in their homes and businesses, we look for ways to save energy and water in our own facilities, especially when those opportunities reduce our costs and conserve resources.

Looking beyond efficiency, we have incorporated a number of environmentally safe practices into our daily building management, including steps that ensure indoor air and water quality, green cleaning and the use of GREENGUARD Certified products and materials.

In 2008, we proactively began managing our facilities to reduce environmental impact, and by the end of 2017, we accomplished the following through projects at our buildings and service centers:

- Saving more than eight million kilowatt hours, including 335,000 kilowatt hours for the year
- Conserving more than 173,600 therms of natural gas and 3,500 therms for this year
- Reducing water usage by 4.7 million gallons since 2008

Our energy management initiative in 2018 plans to continue working to identify and implement projects that reduce energy use and costs at our facilities while helping to reduce overall maintenance needs. Projects will consist of individual, standalone opportunities, as well as efforts to support and improve new construction, remodeling and HVAC replacement projects that are planned and approved. To do this, we review past facility energy audits and the company's 2018 capital budget to identify energy improvement opportunities to support.

### LEED Certified Facilities

We continue to seek LEED (Leadership in Energy and Environmental Design) certification for our facilities. LEED is a U.S. Green Building Council certification program that recognizes sustainable building strategies and practices. To receive LEED certification, building projects satisfy prerequisites and earn points to achieve different levels of certification. LEED certification has four levels — Certified, Silver, Gold and Platinum — based on achievement in five areas: sustainable site development, water savings, energy efficiency, materials selection and indoor environment quality.





Xcel Energy currently has 15 facilities that are LEED certified throughout the eight states where we operate:

Building	Location	Certification
1800 Larimer	Denver, Colorado	LEED Platinum Certified
401 Nicollet Mall Headquarters	Minneapolis, Minnesota	LEED Gold Certified
Alamosa Service Center	Alamosa, Colorado	LEED Certified
Arvada Service Center	Arvada, Colorado	LEED Silver Certified
Ashland Service Center	Ashland, Wisconsin	LEED Silver Certified
Carlsbad Service Center	Carlsbad, New Mexico	LEED Certified
Faribault Service Center	Faribault, Minnesota	LEED Certified
Greeley Service Center	Greeley, Colorado	LEED Certified
Hugo Training Center	Hugo, Minnesota	LEED Silver Certified
Ironwood Service Center	Ironwood, Michigan	LEED Certified
Montrose Service Center	Montrose, Minnesota	LEED Certified
Maple Grove Fleet Building	Maple Grove, Minnesota	LEED Certified
Newport Service Center	Newport, Minnesota	LEED Certified
Red Wing Service Center	Red Wing, Minnesota	LEED Certified
St. Cloud Service Center	St. Cloud, Minnesota	LEED Certified

We have plans to register projects at the following facilities:

Building	Location	Pending LEED Registration
Amarillo Headquarters	Amarillo, Texas	Registered/Underway
SkyPark Headquarters	Eau Claire, Wisconsin	Five-year log of activity
Hudson Service Center	Hudson, Wisconsin	Registered/Underway
Phillips Service Center	Phillips, Wisconsin	Registered/Underway



More customers joined our renewable choice programs in 2017, with participation reaching more than 150,000 as program choices increased.

CUSTOMER SOLUTIONS

## Renewable Energy Choices

### Our Approach

We recognize that just as customers want more control over their energy use, they also want more choice in how their energy is produced. It's our goal to offer innovative solutions that help customers meet their priorities around clean energy and the environment, while balancing these choices with the cost that all customers pay to support them.

This includes offering a range of renewable energy programs, making it possible for customers to choose the personal energy options that best suit their individual needs and interests. More customers joined our renewable solutions in 2017, with participation reaching more than 150,000 as program choices increased.



## Unique Gardens

Xcel Energy played a constructive role in establishing a new solar garden project that will exclusively serve low-income families in the Denver area. Denver Housing Authority will own the project and create cost savings for low-income families, as part of the company's Solar\*Rewards Community program.

A team from Xcel Energy's Customer Solutions helped install a portion of the nearly 6,000 total solar panels that will be part of the community solar build. "Xcel Energy employees gained hands-on experience building the garden, panel-by-panel," said Eric Van Orden, team lead of the Renewable Choice Programs team for Xcel Energy. "This was a great way for us to give back to the community, while learning more about the technology and installation details behind the programs we support.

"This is the first time that a 100-percent, low-income garden has successfully competed with more traditional, commercial solar gardens to win an RFP," he added. "Declining solar prices, combined with the volunteer nature of parts of the installation, helped make that work." The housing authority partnered with GRID Alternatives to support the installation event and build the solar garden. As a local nonprofit, GRID Alternatives aims to make renewable energy technology and job training accessible to underserved communities.

In addition, Xcel Energy has proposed a first-of-its-kind pilot program in Minnesota, which will give low-income customers more access to renewable energy through a proposed partnership with the Energy CENTS coalition to help residents in St. Paul's Railroad Island community subscribe to a local community solar garden. The company is seeking Minnesota Public Utilities Commission approval for this low-income solar garden, along with efforts to help residents in this community save energy through energy efficiency efforts.

"We're excited to work with Energy CENTS Coalition and roll out a locally driven, grassroots project that gives the community access to solar energy, while also finding ways to reduce their energy use," said Tom Santori, portfolio manager with Customer Solutions for Xcel Energy. "This program has great potential to save energy for those who need assistance most, and increase renewable energy for this community and beyond." As part of the pilot program, Xcel Energy will develop a half-megawatt community solar garden for the community. Pending approvals, this program is expected to launch later in 2018.

We began offering Renewable\*Connect®, a more flexible and lower cost option, to Minnesota customers in 2017, and plan to offer the program to Colorado customers in 2018. In Wisconsin, Solar\*Connect Community continues to expand as the state's largest solar garden program. We energized our first garden under the program in Eau Claire and have plans to install two more gardens near La Crosse and in Ashland. Finally, our Solar\*Rewards Community® program in Minnesota continues to be the largest garden program in the nation, significantly outpacing all others.



Our renewable choices, and the locations where they are available, are driven by the interests of our customers and third-party solar companies, as well as by our states and their policy goals.

### Renewable Choice Programs

		REC* Owner	MN	WI	ND	SD	CO	NM	TX	MI
Renewable*Connect®	A flexible and affordable way to subscribe to up to 100 percent renewable energy	Participant	■				■			
Windsourse®	An easy, low risk way to subscribe to clean wind energy	Participant	■	■			■	■		■
Solar*Connect Community®	Subscribe to a solar garden and get full rights to the solar claims, plus a bill credit for choosing solar energy	Xcel Energy		■						
Solar*Rewards Community®	Subscribe to third-party solar gardens and receive electric bill credit payments for solar energy produced	Xcel Energy	■				■			
Solar*Rewards®	Install your private on-site solar system and earn an incentive for transferring the RECs to Xcel Energy	Xcel Energy	■				■	■		
Net Metering	When you produce wind or solar energy through on-site equipment, you're able to retain RECs and sell any excess energy back to the grid	Participant	■	■			■	■		■

\*Find more information about Renewable Energy Credits (RECs) in the Renewable Energy brief in our Corporate Responsibility Report.

■ New Mexico Solar\*Rewards availability varies from year to year and is not currently available

### Renewable\*Connect

Our newest renewable energy option is flexible and convenient and gives customers the potential for saving money with a long-term contract. Through Renewable\*Connect, customers can power their homes and businesses with up to 100-percent clean renewable energy without having to install their own on-site solar panels or wind turbines. Participants can choose how much they want along with the subscription length that best fits their needs, with options for month-to-month, five-year or 10-year terms. The longer-term options provide more price certainty with lock-in price schedules over the term of the contract. The associated Renewable Energy Credits are Green-e Energy certified and retired on behalf of Renewable\*Connect participants, allowing these customers to claim and promote their use of renewable energy and meet sustainability goals.

We launched the program to Minnesota customers in 2017 with locally generated solar and wind energy from the North Star Solar project in Chisago County and the Odell Wind Farm in southern Minnesota. The program was well received by residential and business customers, with the majority of the program's available power subscribed at the end of 2017.



In Colorado, we will begin offering Renewable\*Connect in summer 2018. The program will be powered with green energy from a new 50-megawatt solar resource in Deer Trail, Colorado. Program pricing is very competitive, and customers have expressed strong interest in subscriptions.

### 2017 Renewable\*Connect Results

	Customers			Sales
	Residential	Commercial & Industrial	Total	Megawatt Hours
Minnesota	2,104	106	2,210	36,639
<b>TOTAL</b>	<b>2,104</b>	<b>106</b>	<b>2,210</b>	<b>36,639</b>

### Windsource

Xcel Energy was an early leader in customer choice wind energy when we launched the Windsource program in Colorado in 1998. As one of the nation's first voluntary green energy programs, Windsource continues to be an option for customers interested in purchasing renewable energy above what is provided in our standard energy supply. For a small premium, customers can purchase as little as one 100-kilowatt-hour block or opt to have 100 percent of their electricity consumption covered by renewable energy. On behalf of participating customers, we retire the Green-e Energy certified Renewable Energy Credits associated with the wind energy provided under Windsource, allowing these customers to claim and promote their use of renewable energy.

The Windsource program continues to enroll new customers and maintains its position as the third largest voluntary green energy program in the country, according to the National Renewable Energy Laboratory based on 2016 customer participation.

### 2017 Windsource Results

	Customers			Megawatt Hours
	Residential	Commercial & Industrial	Total	
Minnesota	52,721	334	53,055	178,613
Wisconsin, Michigan	7,824	62	7,886	16,936
Colorado	48,904	782	49,686	188,608
New Mexico	851	84	935	3,793
<b>TOTAL</b>	<b>110,300</b>	<b>1,262</b>	<b>111,562</b>	<b>387,950</b>

### Solar\*Connect Community

Solar\*Connect Community makes it easy for Wisconsin customers to power their homes, apartments or businesses with energy from local-based solar gardens. Participants choose their subscription levels and get paid for their portion of the energy produced through an Xcel Energy monthly bill credit.

The program's first one-megawatt solar garden in Eau Claire County began generating power in fall 2017 for subscribers to Solar\*Connect Community. Under the program, customers have the flexibility to choose their own subscription levels, up to 100 percent of their electricity needs.

By the end of 2017, the program was nearly fully subscribed with plans underway to build a second one-megawatt garden near La Crosse County in 2018 and a third project in Ashland in 2019. With these additional projects, local gardens will be available to customers throughout our Wisconsin service territory. This program is unique from Solar\*Rewards Community in that incremental program costs are covered by subscription fees, so that non-participating customers don't pay extra to support the program or its bill credits.

## Solar\*Rewards Community

We operate the nation's largest community solar garden program in Minnesota, according to the Smart Electric Power Alliance. During first quarter of 2018 alone, the program added 25 new gardens with nearly 90 megawatts of new solar capacity. In Colorado, our program is also growing. We added three new gardens in early 2018, increasing the program's solar capacity by six megawatts.

Xcel Energy's Solar\*Rewards Community program gives customers in Colorado and Minnesota an option to invest in solar energy without having to install, own and maintain their own solar panels.

Under the program, Xcel Energy seeks operators to apply and install community solar gardens. Garden operators then sell or lease subscriptions to the community solar garden directly to our business and residential customers. We then credit participating customers' bills as payment for their portion of solar energy produced by the gardens.

### Solar\*Rewards Community Results (as of yearend 2017)

State (year program launched)	Under Development		Completed	
	Gardens	Megawatts-DC	Gardens	Megawatts-DC
Colorado (2012)	50	72	33	33.5
Minnesota (2014)	178	394	66	246.0
<b>TOTAL</b>	<b>228</b>	<b>466</b>	<b>99</b>	<b>279.5</b>

## Solar\*Rewards

We offer customers in Colorado and Minnesota incentives to install solar panels on their homes and businesses through Solar\*Rewards. As a customer's solar panels produce energy, we purchase the RECs at a rate that includes the incentive, giving us the right to claim the renewable energy.

As part of a global agreement in Colorado, we will add up to 225 megawatts of new capacity under the Solar\*Rewards program from 2017 to 2019. In Minnesota, 2017 marked the fourth year of a five-year plan to fund Solar\*Rewards annually with \$5 million from the Renewable Development Fund, which supports about 4.6 megawatts of solar energy capacity each year with the potential to install 23 megawatts over the five-year program.

In addition to Solar\*Rewards in Minnesota, the state also supported a Made in Minnesota program administered by the Department of Commerce. The legislature discontinued the program in May 2017, and due to this, funding for our Solar\*Rewards program increased to \$15 million for 2018 to support about 13.7 megawatts of additional solar energy capacity. Made in Minnesota has installed about 15 megawatts of solar capacity through more than 1,160 systems so far, with more installations expected before the program's late 2018 installation deadline.

Previously, we also offered Solar\*Rewards in New Mexico, but in December of 2015, the program closed under the state's Reasonable Cost Threshold after the state determined that it was not cost effective. The program has not reopened since.

## Solar\*Rewards Results (as of yearend 2017)

State (year program launched)	Total	
	Systems	Capacity (Megawatts-DC*)
Colorado (2006)	34,931	311.0
Minnesota (2010)	1,672	19.5
New Mexico (2009)	145	8.1
<b>TOTAL</b>	<b>36,748</b>	<b>338.6</b>

Some customers in Colorado, Minnesota and New Mexico use the solar power they generate and sell any excess back to Xcel Energys under the states' net metering policies, without incentives. By the end of 2017, we had more than 6,000 of these installations and 48 megawatts of capacity interconnected to our systems outside of our incentive programs, with most of this net-metered solar power located in Colorado. For the first time in 2017, more customers in Colorado chose to net meter outside of Solar\*Rewards, allowing them to maintain full rights to their renewable energy claims.



Our nation-leading clean energy initiatives are a perfect complement to our efforts to support the growth of electric vehicles.

CUSTOMER SOLUTIONS  
Transportation

**Our Approach**

While electric vehicles (EVs) create a significant opportunity for drivers and fleet operators to save on fuel and other costs, there are barriers that exist to wider-scale adoption, including customer awareness, high up-front costs and the availability of fueling infrastructure. We intend to overcome these barriers by developing new services, piloting them and then rolling out our most successful ideas to customers on a broader scale.



We begin with these objectives in mind:

- Empower customers with information, tools and options
- Increase access to electricity and natural gas as transportation fuels
- Encourage efficient use of infrastructure
- Improve air quality and decrease carbon emissions
- Ensure reliability, interoperability and safety of equipment
- Leverage public and private funding opportunities
- Provide benefits to all customers (even those who do not drive)

### Leading by example

A rapidly growing number of Xcel Energy employees now drive EVs to and from work, and we look forward to piloting new transportation technologies in our own operations and fleet.

Several years ago, Xcel Energy signed on to the Edison Electric Institute's Fleet Electrification Commitment by agreeing to spend at least 5 percent of the company's annual fleet capital budget on EVs and associated charging. With the availability of vehicle models on the market today, we are now essentially replacing all sedans scheduled for retirement in our fleet with electric-hybrid vehicles. Additionally, we are testing various trucks as the technology for medium- and heavy-duty electric power take off (EPTO) vehicles matures — these vehicles use batteries to run the boom function of the vehicle only. We currently have more than 30 electric vehicles in our fleet — about triple the number of vehicles we had in 2015.

### Supporting Customers

We work closely with customers interested in adopting electric and natural gas vehicles, both to better understand their needs and work collaboratively toward solutions that could benefit all customers down the road.

- Along with specific Xcel Energy initiatives that support customer vehicle fueling and public education, we encourage customers to contact us to ensure that adequate system infrastructure is in place to support their fueling needs.
- We work with auto manufacturers and station developers to build public fueling stations for both electric and natural gas vehicles. In the recent past, we enabled the installation of more than 50 new public fueling stations, including more than 20 electric fast chargers.
- Xcel Energy offers residential rate options for customers and specifically for EV drivers in Minnesota that enable customers to save on EV charging during off-peak hours.
- We have piloted smart charging technologies to study customer charging behaviors, and as the technology evolves, we will continue to evaluate options to optimize charging.

### Paving the Way

The way we move in and around town is evolving, with improving technology, declining costs and new business models driving the future of transportation. We are embracing a future that includes more autonomous features in vehicles, new — often shared — mobility services and more electric-powered transportation options than ever before. As an energy provider, Xcel Energy has the unique opportunity to support customers and communities that want to participate in the electric and natural gas vehicle markets. We offer safe, reliable and increasingly clean energy to fuel electric and natural gas vehicles at an affordable price.

The market for electric and natural gas vehicles remains in the initial growth stages. We estimate there are currently more than 18,500 electric vehicles (EVs) throughout our service territory. While most people prefer to charge their EVs conveniently at home, we also provide electricity for more than 600 public charging stations throughout our service territory. Additionally, there are a few hundred medium- and heavy-duty natural gas vehicles (NGVs) that fuel at more than 35 public and 35 private natural gas fueling stations in Colorado, Minnesota, Texas and Wisconsin.

The market is projected to grow, especially as new models of alternative fuel vehicles become more available and more affordable for both individual and fleet use. There were just two electric vehicle models on the market in 2010, while in 2017, there were more than 30 with many more coming in the next few years. Electric vehicles with a range of more than 200 miles at a price point around the average cost of a new car are reaching the market now. Additionally, there are many more plug-in vehicle styles, such as SUVs and minivans that reach a broader audience of drivers.

- Our Windsource® for EVs program is specifically marketed to EV owners who want a renewable fueling option. Currently, a majority of our customers who drive EVs participate in one of Xcel Energy's renewable energy programs, including Windsource.
- We host booths and participate in public education and outreach events to provide customers with information, including Drive Electric Week events in Colorado and Minnesota, and the Twin Cities and Denver Auto Shows.

## **System Readiness**

We have conducted several studies of our electric and natural gas systems to verify that we can manage the increased load as customers begin using our energy to fuel vehicles. To make it easier for third parties to install public electric and natural gas fueling stations, we work individually with developers to identify locations based on preferred gas pressure or power needs, vehicle traffic and fleet needs. Additionally, customer research, as well as the use of EVs in our fleet and by employees, continues to inform our strategy for the future.



We generated and supported more than 140 new business prospects in 2017. Of those, 13 located and began doing business within the communities we serve, supporting nearly 700 jobs and \$72.2 million in capital investment.

## ECONOMIC IMPACT AND DEVELOPMENT

### Serving Communities

#### Our Approach

As an energy provider, we can play a valuable role in helping local economies grow and prosper. Through our ongoing investment in our infrastructure — the plants, pipes, poles and wires that make up our business — we generate tax revenue, purchase goods and services and employ local workers. Also, by keeping our energy prices affordable, local residents and businesses have extra money to spend in their communities too. But, our connection and contribution to local economies goes much deeper than this.

Our utility system is often integral to the success of major local initiatives, such as downtown revitalization efforts, new industrial parks and public works projects. For example, we are actively participating in several forward-looking, sustainable developments within our service area that are models for cutting-edge, efficient energy design, including the Ford Site and Rice Creek Commons in the Twin Cities and Pena Station in Denver.

By working side-by-side with local chambers of commerce and economic development organizations, we can provide our expertise and valuable service to attract and retain area business. After all, for many businesses, energy is an important consideration for where they locate — it may be their largest expense or key to achieving corporate sustainability goals. By offering a complete package of energy solutions, including a comprehensive portfolio of renewable and energy-saving options, along with competitive prices and outstanding service reliability, we are helping our communities successfully compete for business.

Through a renewed focus on economic development in 2017, we generated and supported more than 140 new business prospects for the year. Of those, 13 located and began doing business within the communities we serve, supporting nearly 700 jobs and \$72.2 million in capital investment.

In recognition of our commitment to local economies, Finance & Commerce recognized Xcel Energy with a 2017 Progress Minnesota award for the company's commitment to the state's economy, including energy efficiency and renewable energy leadership.

## Xcel Energy Direct Economic Impacts

### 2017 Economic Value Generated (in millions)

Total revenues	\$11,404
Electric utility revenues	\$9,676
Natural gas revenues	\$1,650
Other operating revenues	\$78

### 2017 Economic Value Distributed (in millions)

Electric fuel and purchased power costs	\$3,757
Cost of natural gas sold and transported	\$823
Employee compensation, including wages and benefits	\$1,932
Property tax payments	\$412.6
Franchise fees	\$180.4
Community giving	\$72.9
Interest charges and financing costs	\$628
Common stock dividends	\$721

## Spurring Downtown Revitalization

More than anyone, Paul Harpole knew the struggle to entice businesses to invest in downtown Amarillo.

"Our downtown was stagnant," said Harpole, who served as mayor of the 200,000-person Texas Panhandle community from 2011 until 2017. "It had been decades since we had any new construction downtown."

That changed in January 2015 when Xcel Energy announced plans to partner with a developer for a new \$42 million facility on the eastern edge of downtown, ensuring the company's regional headquarters would remain in downtown Amarillo, a tradition that dates back to 1925.

"I look around Amarillo and say, 'What would this city be without Xcel Energy?' The company's vision and forward thinking served as a catalyst to our entire downtown revitalization," said Harpole. "Your commitment led to the building of a \$45 million hotel down the street. We just broke ground for a minor league baseball stadium that will open next year. The energy downtown is so exciting."

David Hudson, president of Xcel Energy—Texas and New Mexico, worked with local leaders on plans to invest in the downtown corridor but also considered other sites in Amarillo. The seven-story facility includes three stories of parking and retail shops on the first floor. Approximately 300 employees work in the regional headquarters, supporting our customers and communities in the Texas Panhandle and eastern New Mexico.

"We will only be as successful as the communities we are privileged to serve," said Hudson about the important role Xcel Energy plays in driving economic development. "Our No. 1 job is to keep the lights on, but we work very hard at driving economic development through transmission lines and wind farms — projects that directly lead to jobs, tax base and landowner lease payments."



## Energy Future Collaborations

Through Energy Future Collaborations, Xcel Energy is taking a new approach and uniting the specific energy goals of communities with the company's services and expertise to achieve shared objectives. The collaborations are aimed at addressing a wide range of priorities, including how best to:

- Meet specific renewable energy targets
- Reduce a city's carbon footprint
- Maximize energy efficiency programs
- Support economic development
- Integrate emerging energy-related technologies into area homes and businesses

The proactive approach taps into many existing Xcel Energy programs and offerings, but also focuses on uncovering creative solutions to new ideas and needs. From the company's standpoint, not only do we develop a more meaningful relationship with some of our largest customers — our communities, but the collaborations provide an opportunity to inform key leaders and community members about our business and significant initiatives. Ultimately, the collaborations can help increase support for company initiatives that support community goals, such as the Colorado Energy Plan.

The company has signed Memorandum of Understandings (MOUs) for Energy Future Collaborations with Denver, the mountain town of Breckenridge, and Alamosa in southern Colorado. We also are in the process of finalizing MOUs with other Colorado municipalities in 2018, including Windsor, Nederland, Lakewood and Lone Tree. Altogether, the customers in the seven communities initially identified for this effort represent about 30 percent of the retail load in our Colorado service territory and reflect a cross-section of our diverse Colorado municipalities — from rural to urban to mountain settings. We also believe the collaborations can be replicated with other cities and towns throughout Colorado, as well as in other jurisdictions.

With the MOUs in place, the company and the communities will develop work plans involving a number of projects, along with objectives, timelines, resources required, funding needed, metrics for success, reporting measures and ultimate deliverables. An important point about the new framework is that the guiding principles for the MOUs allow flexibility but also protect nonparticipants from things like cost shifts.

## Focus on Economic Development

Xcel Energy takes a strategic approach to local economic development, helping to attract new businesses and assisting existing businesses to grow across our eight-state service territory. With outstanding reliability and customer service, combined with competitive prices and our ability to provide renewable energy and efficiency options, we provide a competitive solution to meet customer needs. But we can do more to proactively market our service territory as a great place to do business and are currently focused on three key areas for identifying and pursuing new development opportunities: relationships, research and real estate.

Over the decades of serving our communities, we have cultivated strong partnerships with local, state and regional economic development organizations that we continue to support and leverage to advance opportunities for customer growth. In 2017, we also attended more than 20 national conferences and other events to promote our services and opportunities within the states we serve, and we pursued relationships with other industries and associations to tell our story and further advance business development.

Primary to supporting successful business growth is having data and information about the issues that affect the businesses we serve and want to attract. We continue to expand and improve our understanding of the business challenges our customers and potential customers face. Market intelligence better prepares us to compete for new customers and retain existing customers, further increasing our competitive value to the marketplace.

This work includes identifying the top industry clusters that are best suited to locate in our service territory.

These include:

- Aerospace and defense contractors
- Data centers
- Refrigerated storage warehouse and distribution
- Food and beverage processors
- Industrial manufacturing
- Medical device, instrument and supply manufacturing
- Oil and gas

By outlining the trends that affect the growth of these industries and detailing the relevancies between our services, the business climate of our service territories and broader business issues these clusters face, we connect with these industries in a comprehensive manner and earn their trust and business by bringing value beyond our energy services.

Finally, we can help facilitate development by doing the leg work to offer ready-made locations for new business. Through our new Certified Site Program, we provide business prospects with real estate options to increase the speed to market in locating their operations. In 2017, we developed an inventory of 27 certified sites throughout our eight states that are ready for business and offer the site information on [xcelenergy.com](http://xcelenergy.com).

Our site certification process involves rigorous review of more than 120 data points to ensure proposed sites hold the attributes necessary to attract business development. We work directly with site representatives, which can include landowners, developers, municipalities and economic development organizations, to develop the data and underlying reports that complete the certification process. The reports are reviewed by a nationally recognized site selection expert who validates the data and its significance for identifying prominent real estate options for potential users.



## Minneapolis Clean Energy Partnership

The city of Minneapolis, Xcel Energy and CenterPoint Energy teamed up to form a novel Clean Energy Partnership in 2014 in support of the city's Climate Action Plan and 2040 Energy Vision. Now in its fourth year, the partnership is building on a long history of collaboration to explore innovative approaches and enhanced outcomes in energy efficiency and the use of renewable energy in Minneapolis. The partnership provides a leadership framework through which the city and utilities can work together to prioritize, plan, coordinate, implement, market, track and report progress on clean energy activities in the city.

The Clean Energy Partnership has approved the following priorities:

- Lower energy consumption and maximize energy efficiency savings in the industrial, commercial and residential sectors
- Make more clean energy (renewable energy and energy efficiency) accessible and available through new financing tools
- Make the city more sustainable or resilient through increased local renewable energy

In early 2017, the partnership board finalized its new 2017-2018 work plan, with goals of establishing low-income community solar gardens within the city and developing a small business refrigeration energy efficiency program targeted at grocery stores and gas stations. The small business refrigeration program was recently launched with extensive utility/city collaboration. It will leverage Xcel Energy program resources, utility rebates and city grants and financing. The low income solar gardens are currently under regulatory review.

According to the partnership's latest annual report, released in mid-2017, citywide greenhouse gas emissions are down 17.4 percent from 2006 levels, surpassing the 2015 reduction goal of a 15 percent reduction. Xcel Energy continues to contribute to the partnership's progress by helping city residents save energy, increasing participation in our renewable choice programs, and transitioning to a cleaner generation mix.





We provided \$72.9 million in total community giving through energy assistance, the Xcel Energy Foundation and other corporate giving in 2017.

## OUR COMMITMENT

# Community Giving

### **Our Approach**

Xcel Energy serves hundreds of cities and towns throughout our service territory. With our active and ongoing investment in their infrastructures — through our poles, pipes and wires — we are literally connected and serve as an integral member of those communities.

We believe it is our responsibility to have a positive impact — as an energy provider, good neighbor, community advocate and environmental steward. After all, we know that our success is directly tied to the success of our communities. Our support is far-reaching — from charitable giving to employee volunteering to economic development and support for energy assistance programs.



## Cultivating Lasting Connections

Through our community support, we provide much more than funding for hundreds of organizations across our service territory. We have relationships with organizations that, through their own partnerships and connections, are doing important work to improve people's lives in our communities.

### Environmental Stewardship

We take a comprehensive approach to supporting community organizations. As an example, we have a unique partnership with RiversEdge West, an organization with a mission to advance the restoration of riparian lands, and through its Desert Rivers Collaborative, is protecting and restoring native river habitat in western Colorado.

"Xcel Energy's support is making an invaluable impact on the lives of individuals in the Grand Valley and on the health of the Gunnison and Colorado Rivers—from inspiring and educating youth to be river stewards and providing community members with an opportunity to experience the river—in some cases for the first time in their lives—during our annual Raft the River event, to hosting volunteer events that clean-up and restore the rivers in our community," said Stacy Beaugh, executive director of RiversEdge West. "River restoration work does not happen overnight, it takes a village or as we say—a collaborative—and our partners at Xcel Energy are instrumental in this process."

### Arts and Culture

In Minnesota, we support the Ordway in St. Paul to help bring the arts to children of all socioeconomic backgrounds through the annual Flint Hills International Children's Festival. In 2017, the event brought the world's best performing arts to more than 40,000 children and their families.

"With 641 artists and companies with backgrounds in over 13 nations, the festival included a high-energy drum drama, a journey through indigenous music, a mystery adventure, and even a whale!" said Jamie Grant, president and CEO of Ordway. "The parks around the Ordway were filled with free arts activities, art exhibits, and performances on the Festival's two outdoor stages."

The festival is often the first experience for students at Phalen Lake Elementary to experience the arts. According to one teacher, as a school with high poverty and high second language students, this event gives them an opportunity to see a live show, watch people perform, see art and artists and feel the power of art

through the music and performance. It is a glimpse into alternative opportunities in life.

### STEM Education

We have also exposed thousands of students and other community members to nature and science through our long-standing support of HawkQuest, an organization dedicated to environmental education in Colorado.

"Through the Xcel Energy Foundation, we continue to deliver our message to diverse populations and to nurture their understanding of the world around them," said master falconer and executive director of HawkQuest, Kin Quitugua. "By taking steps to educate our kids about the environment and the animals that live in it, we are helping them to appreciate their ability to positively influence the environment."

Fifth grade students in Aurora Public Schools have enjoyed HawkQuest's educational assemblies over the past five years. According to Carol Davis, the district's program director, approximately 6,000 students have experienced the joy of seeing a bald eagle at close range or have witnessed a Harris's Hawk fly across the room. The program makes a difference in the lives of students who might otherwise never get a chance to see these creatures up close.

### Economic Sustainability

Sometimes the organizations we support benefit most from our time and talents. In Amarillo, Texas, employees show up twice a year to share information with middle and high school students about careers in the energy industry as part of the Step Up to Success college and career leadership conferences. Los Barrios de Amarillo hosts the events that help raise awareness and encourage higher education and career readiness.

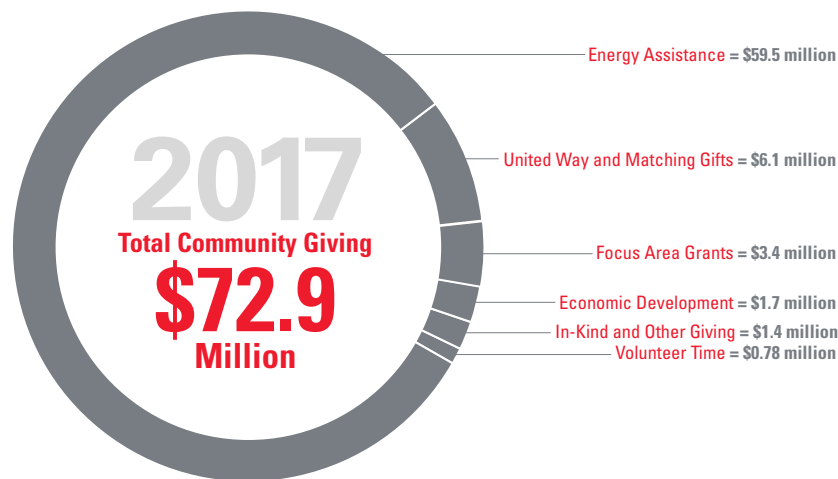
Through Xcel Energy's Volunteer Paid Time Off program, employees are able to spend time, sharing their experiences with students and managing a number of tasks, from helping to set up the event to monitoring halls and serving lunch. In addition to volunteer support, the program also receives matching funds through the company's Dollars for Doing program, which go toward a student scholarship. "Due to Xcel's partnership and willingness to volunteer, we have been able to have successful events for middle and high school students from the Texas Panhandle area," said Tina Sisneros, the membership chair for Los Barrios. "Because of the company's volunteerism, we are so proud to award a \$1000 scholarship in the honorary name of Xcel Energy."

Through several matching donation and volunteer programs, we encourage our employees to be involved and to share their time, energy and talents. From supporting our annual volunteer Day of Service to our successful United Way Campaign, our employees have a tradition of giving generously and supporting our communities.

The Xcel Energy Foundation is our company's charitable arm and oversees our giving and volunteer programs. Our foundation support is focused generally in four areas:

- **STEM Education (science, technology, engineering and math):** The economic growth and future of the communities we serve relies on the educational systems and programs that produce a quality workforce for tomorrow. Just like other businesses in the community, Xcel Energy's future success relies on having a workforce that is educated and well trained.
- **Economic Sustainability:** Employment levels directly impact a community's economic prosperity, and ultimately, quality of life. We believe that all of our customers should have the skills and opportunity to be successfully employed so we support organizations that promote workforce development and economic self-sufficiency.
- **Environmental Stewardship:** Our communities count on us to produce energy responsibly and to conserve natural resources. While we do all we can in our operations to meet these expectations, we can do more by supporting organizations and programs that work to protect and enhance the natural environment.
- **Arts and Culture:** Thriving arts and cultural activities are a key component to vibrant and strong communities. With a mission to help create desirable communities in which to live, we support programs that increase the opportunities and accessibility of arts and cultural programs to all.

We provided \$72.9 million in total community giving in 2017 through energy assistance, the Xcel Energy Foundation and other corporate giving



## 2017 Focus-area Giving

We contributed more than \$3.4 million in foundation grants in 2017 to promote our primary focus areas of STEM education, economic sustainability, environmental stewardship and access to arts and culture. Altogether, 346 nonprofit organizations received grants, averaging about \$9,900 each.



## Employee Involvement

Our employees live, work and have families in the cities and towns we serve. Because of this, we are committed to giving back to the community through charitable donations and volunteerism.

Xcel Energy offers a number of programs to encourage employee involvement, including:

- **Volunteer Paid Time Off (VPTO):** Full-time employees are eligible for up to 40 hours per year to volunteer for nonprofit organizations in our service area to help strengthen the communities we serve.
- **Dollars-for-Doing:** The Xcel Energy Foundation matches each hour an employee volunteers with a \$10-per-hour contribution to the nonprofit, up to 100 hours annually per employee.
- **Volunteer Energy:** Groups of employees and retirees that volunteer together on a project are eligible for Volunteer Energy funding of up to \$1,000 annually, which goes to the associated nonprofit from the Xcel Energy Foundation, in appreciation for the volunteer effort.
- **Matching Gifts:** The Xcel Energy Foundation matches dollar for dollar any employee and retiree charitable donations of \$50 or more, up to \$750 for nonprofit organizations and up to \$2,000 for higher education institutions.
- **United Way:** Xcel Energy sponsors an annual United Way campaign and matches the pledges of employees, retirees and contractors.
- **Day of Service:** Xcel Energy sponsors a special volunteer day where employees demonstrate collectively their community spirit.
- **Board service:** Throughout our service territory, we currently have hundreds of employees serving on nonprofit boards, with some employees serving on multiple boards.

## United Way Campaign

Xcel Energy has a long-standing tradition of supporting United Way and the community organizations it assists. Each year, we sponsor an employee campaign that for eight consecutive years has raised well over \$2.5 million annually in employee and retiree pledges, which the company matches.

The campaign is a fun and rewarding part of working at Xcel Energy, with a number of special fundraising events — from chili cook-offs to sport tournaments. In 2017, we created a new “dress down” badge that was sold to employees, giving them a pass to wear jeans to work and raising more than \$100,000 for the campaign.

Combined with the company match, the campaign raised a total of more than \$4.8 million to support United Way programs and hundreds of nonprofit organizations throughout Xcel Energy’s service territory. Nearly 5,400 employees and retirees contributed \$2.67 million in pledges and event contributions, with the average pledge increasing by about \$65.

## 2017 Day of Service

Xcel Energy continues to make a difference in numerous communities during its annual Day of Service held in September. On this single day in 2017, about 4,200 employees, family members, friends and even customers came together to support more than 100 nonprofit projects. Volunteers performed a number of tasks from packing food boxes to planting trees and park cleanup.

Examples of some outcomes include:

- 155,000 meals prepared for Colorado families
- 12,000 pounds of food prepared for Minnesota families
- Backpacks and supplies packed for more than 3,000 teachers and children affected by Hurricane Harvey
- 525 fleece blankets made for homeless veterans and children
- More than 200 trees and shrubs planted in local parks and countless weeds pulled, flowers planted and gardens harvested
- Dozens of rooms, picnic tables and fences painted
- More than five miles of trails restored
- 120 sandwiches made for homeless children

In total, the effort contributed about 16,800 volunteer hours to support our local communities, valued at more than \$425,000.

## Other Community Giving

In addition to focus area giving, the Xcel Energy Foundation may provide strategic philanthropic grants to projects that are a priority for our local communities. In 2017, we contributed \$75,000 to the American Red Cross and the 100 Club of Amarillo in support of 21 local fire departments. The contributions followed one of the most devastating wildfires in the state of Texas, charring hundreds of square miles in the Panhandle and affecting many communities in Xcel Energy’s service territory.





## Energy Education

We support energy education in a number of ways because we believe it's important for our customers to know how their energy is produced and delivered. Most of our major non-nuclear power plants provide public tours for their neighboring communities, and through our online Energy Classroom, we offer educational resources for teachers and students.

Through a special community program in New Mexico, we support solar energy education for customers and schools. In 2017, we relaunched our solar education center in Roswell that demonstrates different technologies for collecting sunlight to generate electricity. We own four photovoltaic systems located on partner sites that are available to help teachers with energy curriculum specifically developed for New Mexico classrooms. Students, as well as the general public, can access live and historical data to measure ambient temperatures, wind speed and levels of solar production at the sites.

## About the Xcel Energy Foundation

The Xcel Energy Foundation was established in 2001 to fulfill the mission of using the collective knowledge, resources and skills of our staff and colleagues to make a positive impact in communities throughout our service territory.

The foundation board provides oversight and is comprised of five directors and three officers, including Ben Fowke, who serves as the foundation's chair and president. The board meets annually to review financial statements and approve the annual budget, which is determined by prioritizing what the board hopes to accomplish with the available resources. They also set policy on a number of items, including the levels at which we provide matching funds for employee efforts, our focus areas for giving and overseeing the foundation's investments. The majority of Xcel Energy Foundation funding comes from Xcel Energy shareholder dollars.



## OPERATIONS





For Xcel Energy residential customers, average electric and natural gas bills have declined in the past five years while we've invested in clean energy and a more advanced energy grid.

## THE FUNDAMENTALS

# Affordable, Reliable and Safe Energy

### Our Approach

We provide 24/7/365 convenience for millions of customers who depend on us for the fundamentals —affordable, reliable and safe energy from an increasingly cleaner mix of resources.

Xcel Energy electric reliability is among the top-one third of U.S. electric utilities, with customers having electricity service on average 99.9 percent of the time in 2017. When a major storm hits, we are prepared to respond swiftly and effectively to restore energy service, as has been demonstrated time and again in our own jurisdictions, as well as in other parts of the country where we have responded through mutual-aid agreements.

As we invest in strengthening and upgrading our pipes, wires and plants, we naturally consider projects that provide the best overall value for customers and the communities we serve. This includes diversifying our energy supply to provide energy from a reliable mix of resources while managing cost, environmental impact and making sure we are not too heavily dependent on any one energy source.

## Advancing Colorado's Energy Future

We announced the Colorado Energy Plan in 2017 with a diverse coalition of supporters who believe, as we do, that now is the time to take advantage of the state's abundant renewable resources and available tax credits to benefit Coloradans. The plan proposes a path that will:

- Secure low-cost power for customers
- Stimulate economic development opportunities in rural communities
- Grow the state's use of renewable and clean energy resources
- Reduce carbon and other emissions

Colorado regulators will consider the plan as part of our electric resource plan proceedings in summer 2018. We are proposing to early retire two coal units in southern Colorado and replace the power with hundreds of megawatts of new wind and solar capacity, as well as some dispatchable resources such as storage batteries and natural gas. We believe we can achieve this clean energy transition without increasing costs to our customers and even saving them money. If approved, the plan will

increase renewable energy on our Colorado system to 55 percent by 2026 and dramatically reduce carbon and other emissions, while also supporting about \$2.5 billion in clean energy investments in rural areas.

The new generation projects were identified and selected through a competitive acquisition process that included a mix of resources that could be owned by Xcel Energy or independent power producers. The plan will only be advanced if the resulting portfolio of resources reduces, or at least does not increase, the cost of energy to our Colorado customers.

Parties to the stipulation for the plan included Xcel Energy, Colorado Public Utilities Commission staff, Colorado Office of Consumer Counsel, Colorado Energy Office, City of Boulder, Climax Molybdenum Company, Colorado Energy Consumers Group, Colorado Independent Energy Association, Colorado Solar Energy Industries Association, Interwest Energy Alliance, Invenergy LLC, Southwest Generation Operating Company, Rocky Mountain Environmental Labor Coalition and Colorado Building and Construction Trades Council (AFL-CIO), Vote Solar and Western Resource Advocates.

We are mindful of our responsibility and role in managing our costs to ensure energy bills remain affordable for customers — while at the same time, continuing to invest in our system and enhance service. Our goal is to keep customer bills flat or at the rate of inflation, and so far, we've delivered with the average Xcel Energy residential electric bill declining 3 percent and the average residential natural gas bill declining 14 percent over the past 5 years.

For the third year in a row, we reduced our operating and maintenance costs in 2017. And we continue to look for new opportunities to cut costs while improving the service we provide. We currently have underway a comprehensive effort to analyze our people, processes and technology to produce results and strengthen our culture to be one focused on continuous improvement.

An example of doing things better and removing costs from our business is our work to renegotiate Minnesota biomass contracts in 2017. The projects were significantly more expensive than our new wind power projects and other forms of generation, and by taking this proactive step, we expect to save our customers more than \$600 million over the next decade. Technology is an important component in our drive to improve how we serve customers and reduce costs. In 2017, we completed a four-year project, Productivity through Technology, that successfully deployed new software and processes to leverage technology for improving operations and creating efficiencies.

We are using unmanned aircraft systems or drones in a number of applications. From inspecting power lines to power plant boilers and evaluating substations for equipment upgrades, drones are making these tasks easier, safer and helping to reduce costs. In early 2017, working with the FAA, we announced a first-of-its-kind Partnership for Safety Plan that is facilitating the use of drones in the National Airspace System as we inspect 20,000 miles of transmission lines throughout our geographically diverse territory. We also achieved an industry milestone by flying over 1,000 miles using drones and virtualizing the inventory and inspection process for transmission lines.

Finally, we are using technology to protect the energy grid from cyber criminals that are becoming more sophisticated. We are enhancing our security on all levels to keep our systems safe from both physical and cyberattacks. In 2017, we launched our state-of-the-art Cyber Defense Center that monitors and protects our networks 24 hours a day, seven days a week.



Technology applications such as these are changing the way we plan and perform our work and are significantly altering our workplace culture. Throughout our operations, we have a mantra among our employees of getting better every day, as we cultivate a culture of continuous improvement and strive to work better and smarter for our customers.

## The Regulatory Compact

We operate under carefully regulated conditions that are determined in part by state public utilities commissions — a governing body that regulates the rates and services of utilities such as ours. In exchange for the exclusive right to provide electricity and natural gas services in certain regions, we agree to the following regulatory compact:

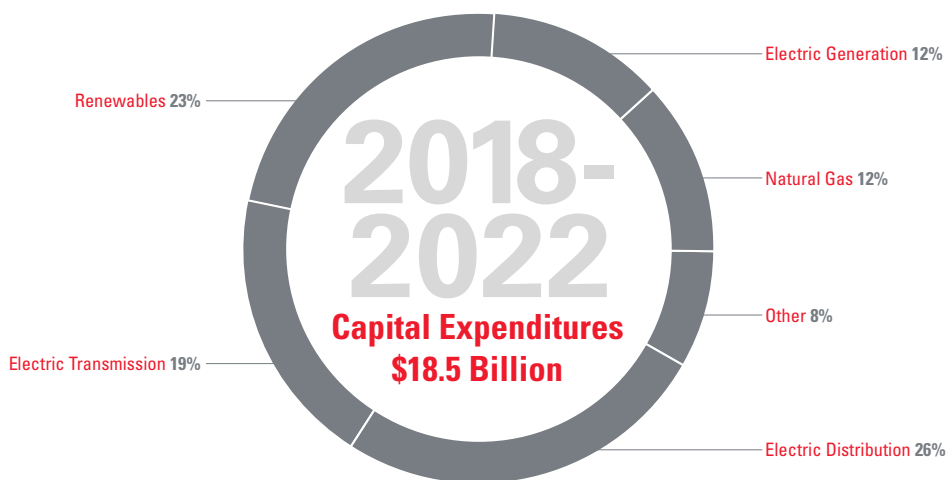
- **Duty to serve:** We cannot pick and choose our customers. We will provide service to any residence or business within our service territory that requests it under reasonable terms and conditions.
- **Cost of service pricing:** We cannot arbitrarily raise prices to levels beyond our costs. Pricing for our services is regulated by the costs we incur to deliver them.
- **Resource planning process:** Every few years, we go through a process to determine the resources necessary to serve customers' future energy needs. Resource plans must be reviewed and approved by regulatory commissions, and stakeholders can provide input on the plans through a public process.

In return, we are granted the ability to recover our costs of doing business and earn a reasonable rate of return. Although, this rate of return is not guaranteed — we have only the opportunity to earn it. To operate effectively in a closely regulated business like ours, it is imperative that we stay in sync with the current demands of the public and our policy makers.

## Investing for the Future

Over the next five years, we plan to invest \$18.5 billion in projects that, in addition to ongoing maintenance and repair, will improve energy production, strengthen the energy grid, ensure security and offer customers more options.

**We are investing in projects that offer the most value for customers.**



## System Resource Planning

We are required by some state regulatory commissions to regularly conduct a system resource planning process. The process begins with Xcel Energy filing a proposed long-term resource plan with the regulatory commission, which is then evaluated by regulators, as well as environmental, business and community stakeholders. The plans generally assess the resources we need to serve our customers and meet future energy needs. They also discuss energy efficiency program goals and summarize transmission plans and other resources that we may need, based on our studies of future load growth.

Once the plan is approved, it may result in the need to add energy resources to serve our customers. We then 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 commissions decide on the resources to be acquired, our stakeholders have the opportunity to provide input.

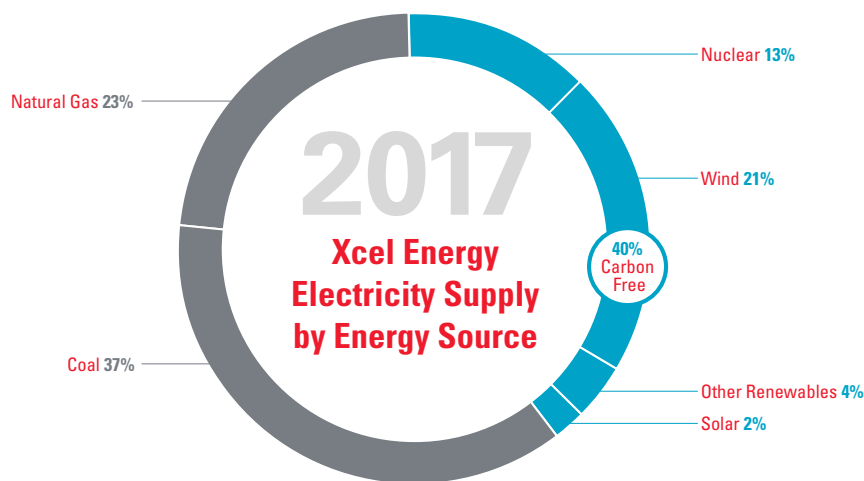
In Colorado, we are completing phase two of our 2016 resource plan to meet future customer energy needs. We plan to file a report with the state public utilities commission in June 2018 discussing the results of our evaluation of power-supply proposals and the proposals we recommend. The Colorado Public Utilities Commission is expected to make a final decision on our recommended selections in early September 2018.

In the Upper Midwest, we are preparing to file a new resource plan in early 2019. Xcel Energy leadership met with the Minnesota Public Utilities Commission in fall 2017 to share the company's progress in meeting key priorities and discuss additional carbon and clean energy objectives. With a supportive policy framework, we have a vision for our Upper Midwest system to reach 85 percent carbon-free energy by 2030, with more than 60 percent coming from renewable sources, while keeping customer bills at or below the rate of inflation. We are currently working with stakeholders on our vision and upcoming plan.

In our southwestern states, we are only required to file a resource plan in New Mexico. We are preparing to file the next plan in 2018 and project that customer energy needs will remain relatively flat. Earlier in 2018, regulators in New Mexico and Texas approved our plans to add 1,230 megawatts of new wind generation for the region in 2020. The projects will meet customer energy needs while saving money long term through lower fuel and other costs.

## Our Energy Supply

Xcel Energy provides electricity from a diverse mix of energy sources, including coal, natural gas, nuclear and renewables. We delivered nearly 110 million megawatt hours of electricity in 2017 produced at Xcel Energy generating plants and purchased from third-party suppliers.



## Utility Operations

### Generating Electricity

We currently own 67 generating plants that operate across our eight-state service territory with nearly 17,400 megawatts of capacity. Traditionally, our generation portfolio has depended on coal, but we are transitioning our energy supply away from coal to rely more on renewable energy and natural gas generation as backup. From 2005 through 2026, we will retire more than 40 percent of the coal-fueled capacity we own under approved plans, and if regulators approve our proposed Colorado Energy Plan in 2018, we will retire even more.

As part of this transition, we finished construction of the new natural gas combustion turbine at the Black Dog Generating Plant in Burnsville, Minnesota. The new unit is set to begin producing power by summer 2018.

We also continue to invest in wind energy under our Steel for Fuel strategy, capitalizing on historic-low wind prices and available tax credits to install new wind farms — where the cost to build the projects is offset by future fuel savings. Xcel Energy is recognized as a national leader in wind energy. Currently, most of the wind power on our systems is contracted under long-term agreements with third parties, but that is changing. In 2017, we announced plans to increase our wind portfolio by 55 percent with the addition of 12 new wind farms in seven states. We plan to own more than 3,000 megawatts or 83 percent of the new wind capacity. This includes the 600-megawatt Rush Creek Wind Farm that is under construction in Colorado. By the end of first quarter 2018, foundations were poured for Rush Creek's 300 wind turbines and crews were constructing 15 turbines per week. The project is on track to begin producing power in fall 2018.

Our two nuclear generating plants in Minnesota play an essential role in our energy future, providing about 1,650 megawatts of carbon-free, base-load power. The plants delivered exceptional performance in 2017, with both achieving their highest capacity factors since 2010, while reducing costs by \$25 million. Both plants also received the top rating under the Nuclear Regulatory Commission's Reactor Oversight Process that classifies the nation's nuclear reactors into categories based on safety. Our Monticello Nuclear Generating Plant was honored with the Institute of Nuclear Power Operations' Excellence Award for achieving an excellent rating on the plant's annual evaluation.

### **Delivering Power**

Xcel Energy operates nearly 300,000 conductor miles of power lines and more than 1,200 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.

In 2017, we completed CapX2020, a forward-thinking, massive transmission project started in 2004 to enhance grid reliability and bring wind energy to customers across the Upper Midwest. The 13-year, \$2 billion transmission system upgrade in Minnesota, the Dakotas and Wisconsin was an unprecedented partnership between 11 utility organizations to expand and strengthen the grid and stimulate future renewable energy production.

The backbone of the energy grid, transmission lines and substations are a significant driver of clean energy and economic development. As of early 2018, nine new wind projects and one natural gas generation facility had already requested interconnection to the final CapX2020 section, a 75-mile line that runs parallel to the Minnesota border in eastern South Dakota. Looking forward, the entire project has the capacity to deliver renewable energy from numerous proposed wind and solar projects across the Upper Midwest.

### **Emergency Preparedness**

We again demonstrated in 2017 that we are ready when customers need us most by successfully managing major storm events. For the third year in a row, we received an Edison Electrical Institute Emergency Recovery Award for our efforts to restore power following Winter Storm Jupiter, which caused the worst damage to the grid in Texas and New Mexico since 1999. More than 1,000 workers, contractors and mutual aid responders logged 92,000 hours and repaired 7,500 structures.

Our crews also traveled to support hurricane recovery efforts, with more than 150 employees spending long, hot days restoring power to the residents of Fort Myers, Florida, and more than 200 employees supporting recovery efforts in Puerto Rico.

In addition to our skilled crews, we are investing in technology and practices to protect utility infrastructure and improve our ability to respond to natural disasters. For example, technology installed as part of our Advanced Grid Intelligence and Security initiative will improve our outage capabilities, enabling us to respond more quickly and provide more timely and accurate information for customers.

With the risk of wildfires across the Texas-New Mexico Panhandle and the bark beetle-ravaged forests in Colorado, we are taking additional steps to protect our electric infrastructure from natural disasters. This includes testing a number of fire-resistant coatings for wood poles and using light detection and ranging (LiDAR) technology to identify dead trees and other flammable debris around our facilities. Through our Transmission Wildfire Protection Program, we are working with fire scientists and government agencies to develop radius clearances for transmission infrastructure based not only on distance but the type of debris around the structures. Armed with the information, we are deploying contract crews to go structure by structure to more effectively clear debris from the areas and reduce the risk of devastating fire damage.

### **Fueling Homes and Businesses**

According to the American Gas Association, Xcel Energy is the fourth largest provider of natural gas service in the country. We currently operate more than 2,400 miles of natural gas transmission and more than 36,000 miles of natural gas distribution pipelines to serve our customers in Colorado and the Upper Midwest.

We continue to upgrade and renew our natural gas pipelines and other equipment to ensure reliable and safe natural gas service for our customers. Low natural gas prices have made it possible to invest in our system and accelerate upgrades with minimal impact to customer bills.

Xcel Energy purchases natural gas from third-party producers and relies on a consistent supply to generate electricity and distribute to customers for use in their homes and businesses. Natural gas production is governed by federal, state and local regulations, with additional regulations under consideration. We expect our suppliers to conduct their operations responsibly and in compliance with all regulatory requirements. We encourage our natural gas producers to adopt best practices and manage their environmental impact.

### **Safety: Grid Resilience and Security**

As the use of technology and interconnected systems expands, the grid is increasingly subject to attack by those who might choose to do us harm, whether for criminal purposes or as part of an effort to undercut our national security. Ensuring our energy grid is secure from cyber and physical threats is an ever-evolving responsibility that demands our constant vigilance and is a top priority for Xcel Energy.

As part of this commitment, Ben Fowke, Xcel Energy chairman, president and CEO, 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.

We are executing on an array of efforts to increase preparedness and decrease vulnerability. Through our state-of-the-art Cyber Defense Center, we monitor and protect our networks 24 hours a day, seven days a week. Our cyber security program is risk-based and uses known standards and best practices which encompass security controls that provide adherence to government and regulatory requirements. It also includes "Defense-in-Depth" methodology that provides multi-layered safeguards to reduce or eliminate single points of failure and weakness.

While it is impossible to protect our systems and grid against every malicious attack, we are taking reasonable and prudent steps to prevent, detect and mitigate the impacts of an intrusion. We are hardening systems to limit opportunities for attack and deploying enhanced monitoring and detection systems to help us promptly identify any successful intrusion.

We are also engaging with other members of our industry, other segments of the economy and the government to increase threat information sharing and test our combined capabilities to respond to an attack. Individually and in collaboration with other energy providers, we are working to prepare our employees and systems for responding to a successful attack by developing inventories of spare equipment and processes for preserving reliability in the unlikely event our key operational systems were to be compromised.



In the next five years, we project that nearly half of our energy will come from renewable sources if we can achieve our plans.



LEADING THE INDUSTRY

## Renewable Energy

### Our Approach

Renewable energy plays a vital and growing role in our energy supply and future plans for meeting customer needs. Increasingly, the customers and communities we serve want their energy from clean, renewable sources, and we are delivering.

Xcel Energy is fortunate to operate in regions considered rich in wind and sun for producing power, and we are putting these resources to work. In 2017, we had more than 8,000 megawatts of utility-scale renewable capacity on our systems for serving customers, while at the same time, we offered a selection of programs for customers who want more, including, Windsource<sup>®</sup>, Solar\*Rewards<sup>®</sup>, Solar\*Rewards<sup>®</sup> Community<sup>®</sup>, Renewable\*Connect<sup>®</sup> and Solar\*Connect Community<sup>®</sup>.

Today wind energy is a low-cost, reliable and fundamental part our energy supply. Not only do wind projects help reduce carbon emissions and improve our overall environmental footprint, they also produce significant financial savings by reducing fuel and other costs over time. As a national leader in wind energy, we operate about 7 percent of the nation's wind capacity, and have plans for more. We've committed to expanding our wind capacity by 55 percent through 12 new wind projects, with nearly all of the projects installed in 2020 to take advantage of full production tax credits.

With our significant wind resources, we have extensive experience acquiring, managing and operating wind generation. Nearly two decades ago, we began adding wind to our energy mix, as the public became more interested and our states began setting some of the nation's first renewable energy standards. Rather than waiting to respond, we chose to be an early adopter, which required that we break new ground and develop the expertise to integrate significant wind resources as part of our energy supply. We refined our operating practices and collaborated to develop an advanced forecasting system that makes wind energy a more predictable energy source for serving our customers.

### Renewable energy is a vital and growing part of our energy supply



### Growing the use of solar energy

Just as we are committed to wind energy, we are dedicated to meeting customer demand for clean, renewable energy from the sun. In 2017, we achieved a significant milestone as we doubled solar energy production for the year. This included generation from all types of solar — including large solar plants to community gardens and private, rooftop panels.

We currently have more than 700 megawatts of solar capacity on our systems from large-scale projects, and expect this to increase in the future under the Colorado Energy Plan and other initiatives. These large solar power plants are currently the most cost effective form of solar generation, providing energy at about half the cost of rooftop panels and producing about 50 percent more energy panel per panel. They benefit from a number of efficiencies, including economies of scale, site locations that maximize sun exposure, and technology enhancements, such as sun tracking, that help capture the full power of the sun.

In 2017, we added the 100-megawatt Aurora Solar Park in the Upper Midwest. The project includes 16 large solar installations located throughout Minnesota that together can power, on average, more than 17,000 homes. Xcel Energy purchases the power from Enel Green Power North America, Inc.

### Investing in Our Own Backyard

When your service territory produces some of the best wind resources in the country, it makes both economic and environmental sense to build in your own backyard. Xcel Energy took its Steel for Fuel growth strategy to another level in 2017 by proposing the largest multi-state wind investment in the country — a dozen wind farms in seven states. If all the projects are approved as expected, by 2022 Xcel Energy, a national leader in wind energy since 2005, will become the first U.S. utility to surpass 10,000 megawatts of wind capacity.

Under Steel for Fuel we are adding low-cost wind energy to benefit customers, where the cost to build the wind farms is offset by billions of dollars in fuel savings over the lives of the projects. It resonates with constituents across the spectrum because it delivers carbon-free renewable energy without raising customer bills. Building and owning wind farms also provides an attractive organic growth opportunity for shareholders — our proposal will more than quadruple our company-owned wind portfolio.

We are building wind farms throughout our wind-rich service territory — from Upper Midwest farmland through the plains of eastern Colorado to the Texas-New Mexico border. This proposal showcases our ability to move swiftly, taking advantage of the federal production tax credit before it begins to phase down.

Building wind farms and the accompanying substations and transmission lines needed to deliver the energy to the marketplace provides a powerful source of economic development in rural America. Our multi-state proposal is expected to create 2,700 construction jobs and 150 full-time positions, and generate \$800 million in landowner lease and property tax payments over the lives of the projects.

By 2022, 38 percent of our energy will be supplied by wind — double the amount on our system in 2017. Our proposed wind farms are expected to generate enough clean energy to power 1.7 million homes and avoid 142 million tons of carbon emissions over the projects' lifetimes.

We launched our first community solar garden program, Solar\*Rewards Community, in Colorado back in 2012, when at the time, it was one of the nation's first programs of its kind. Solar\*Rewards Community continues to grow and was expanded to Minnesota about five years ago, where it has become the country's largest community solar garden program, significantly outpacing all others, according to the Smart Electric Power Alliance.

## Integrating Wind and Solar Power

The significant wind and solar resources on our systems have fundamentally changed the way we operate. With each increase in renewable capacity, we have improved system operations, enabling us to incrementally grow the use of wind and solar power and set new system records. Our most significant milestone occurred on March 6, 2017, when renewable energy provided more than 45 percent of our customers' energy for 24 hours throughout our service territory.

Some of our operational improvements for accommodating more wind and solar energy include:

- **Adding more flexible backup generation.** As we retire aging coal plants, we are replacing some of the energy with more carbon-friendly natural gas generation, which can more efficiently and cost-effectively ramp up or down to follow renewable generation.
- **Cycling coal offline.** Once considered infeasible, we are ramping down coal units to accommodate more wind generation. Ramping up and down with a coal unit is much more challenging than with a natural gas unit because of all the systems involved, but an Operations team has studied the issues and is working to cycle coal units more efficiently and cost effectively, helping to reduce fuel use and emissions.
- **Investing in transmission.** We are improving and building new transmission facilities that can deliver more wind and solar energy to customers.
- **Using control equipment.** We use set-point controls for wind farms in combination with automatic generation control of thermal units that lets wind farms operate at peak levels while fossil-fuel production is reduced.
- **Establishing a 30-minute flexibility reserve.** We previously carried one megawatt of reserve capacity for every megawatt of wind generation as backup in case winds suddenly dropped off. As our wind portfolio grew, we studied the maximum amount of wind energy typically lost within 30 minutes and were able to reduce this reserve, dramatically decreasing costs associated with carrying large wind reserves while maintaining system reliability.
- **Adjusting planned maintenance.** We now plan transmission and plant maintenance outages around times of the year when wind and solar production is lowest.

Generally, we find that wind and solar are very compatible resources for meeting customer needs. Solar production happens during the day but starts to taper off just as our customers' load starts to increase around sunset. About this same time, wind production typically starts to increase. Because of this inverse relationship, wind and solar can generally complement each other to meet customer needs around the clock.

While solar energy is relatively simple to forecast, wind generation has been notoriously difficult because of its variability. Most weather forecasting models are designed to generate information about winds near ground level rather than at 200 to 300 feet, where turbine hubs are located. Also, landscape features such as hills and trees can reshape wind speeds and directions, causing turbulence in ways that can greatly influence the amount of energy produced.

To improve on this, we began working in 2009 on a multi-year research and development project with the National Center for Atmospheric Research (NCAR) and its affiliate company Global Weather Corp. (GWC). Today the WindWX system helps utilities around the globe including Xcel Energy to make better commitment and dispatch decisions. It uses real-time, turbine-level operating data and applies sophisticated algorithms to forecast the amount of wind power that will be produced. Forecasts for a 168-hour period are provided every 15 minutes across Xcel Energy's entire service territory — from the hills of western Minnesota to the plains of eastern Colorado and the Texas Panhandle.

Xcel Energy's Colorado system is somewhat unique in that it is relatively small and serves a limited geographic area, which presents greater challenges for integrating high levels of wind and solar energy. Because of this, we continue to explore opportunities for increasing the flexibility of our Colorado system by developing a larger, organized market in the West. As a member of the Mountain West Transmission Group, we are currently evaluating joining the Southwest Power Pool in the future.

As a step in this direction, we began the joint dispatch of Xcel Energy's resources with the resources of other Colorado utilities in 2017 to allow for more efficient and cost-effective, real-time system operations. For economic and system reliability reasons, we need to curtail wind operations throughout the year. Through the use of joint dispatch, as well as coal retirements that provide room on the system for other generation, we were able to reduce wind curtailments by more than one-third, from about 3.1 percent in 2016 to 1.9 percent in 2017.

## Compliance with State Renewable Energy and Portfolio Standards

Xcel Energy is on pace to surpass renewable energy requirements in the states we serve through at least 2030. New Mexico is an exception, where the company anticipates meeting the state's wind energy requirement through 2024 and has requested a waiver for acquiring additional solar energy from large, universal solar power plants due to constraints under the state's Reasonable Cost Threshold (RCT).

Renewable Energy Requirements in Xcel Energy States			
State	2017	Next Increase	Notes
Colorado Renewable Energy Standard	20 percent	30 percent by 2020	30 percent of retail sales by 2020, with 3 percent from distributed generation (DG), including at least 1.5 percent from retail net-metered DG resources and up to 1.5 percent from wholesale DG resources (defined as resources ≤30 megawatts located in Colorado)
Michigan Renewable Portfolio Standard	10 percent	12.5 percent by 2019; 15 percent by 2021	Goal of 35 percent by 2025
Minnesota Renewable Portfolio Standard	25 percent	31.5 percent by 2020	30 percent of retail sales by 2020, with at least 24 percent from wind, plus 1.5 percent of retail sales from solar by 2020, with at least 10 percent of this from on-site solar under 20 kW
New Mexico Renewable Portfolio Standard	15 percent	20 percent by 2020	Solar 20 percent by 2020, Wind 30 percent by 2020, Other 5 percent by 2020, DG 3 percent by 2020 (Xcel Energy is not required to procure additional solar energy because it has already exceeded the state's Reasonable Cost Threshold)
North Dakota Renewable and Recycled Energy Objective	10 percent	Voluntary	No RPS Requirement for ND
South Dakota Renewable, Recycled and Conserved Energy Objective	10 percent	Voluntary	No RPS Requirement for SD
Texas Renewable Generation Requirement	Statewide Goal	10,000 MW statewide by 2025 (goal achieved) & (non-wind goal: 500MW)	Xcel Energy's portion is approximately 3.3 percent of the statewide goal (the 3.3 percent is based on Xcel Energy TX Electric retail sales as a percentage of the total TX electric retail sales)
Wisconsin Renewable Portfolio Standard	12.89 percent		

## Renewable Energy Credits

A renewable energy certificate or credit (REC) is created for every megawatt-hour of renewable electricity generated (1 REC = 1 MWh). RECS provide a mechanism to commoditize renewable energy attributes and are tracked in national commission-approved REC tracking registries. RECs can be disaggregated or separated from the underlying renewable energy and sold separately. Typically, RECs are traded to companies looking to claim green energy or transferred to other utilities to reduce compliance costs.





Xcel Energy uses RECs to satisfy compliance with state renewable energy standards throughout our service territory. Our company carefully tracks its REC ownership and works to comply with the rules and best practices around renewable energy claims. Only parties that own and retire RECs can claim to use the renewable energy, according to the Federal Trade Commission's Green Guides. However, renewable energy separated from or without the associated REC can retain its value and be used for compliance with environmental regulations.

In 2017, we continued to look for ways to increase the value of the renewable energy on our systems through the sale of RECs. In several states, Xcel Energy has more renewable energy on its system than is needed for compliance with renewable energy standards. Based on market opportunities and the projected shelf life of RECs, we sold more than seven million RECs in 2017, about three million more than in 2016. The renewable energy that generated these RECs came from Colorado, New Mexico, Texas and the Upper Midwest. Our customers benefit by sharing portions of the profits associated with the sales. REC sales make up a minor portion of our REC holdings.



Over the next 10 years we plan to invest \$1.8 billion to transform the energy grid into an intelligent, integrated network for the future.

TRANSFORMING ENERGY

## Advanced Technology

### Our Approach

Within the next decade and beyond, it is possible that there will be more change in our industry than we have experienced in the last half century. Rapidly evolving technology is a major driver and will continue to change how we serve customers, as it also changes customer preferences for more sophisticated products and services.

Through collaborations with researchers, technology developers and others in our industry, we actively monitor and stay abreast of developments in emerging and advanced energy technology. We have underway a number of pilot and demonstration projects that are testing the real-world application of cutting-edge technologies and serving customers today. As the backbone of our energy system, the energy grid — including all of its distribution, transmission and generation components — will enable and deliver advanced technology solutions. The grid is in the early stages of becoming an integrated network of optimized, centralized and distributed energy resources. It is transforming from a centralized, one-way delivery model to a system of resources that introduce two-way flows.

Changes to the grid will require significant, long-term investment in technologies to keep the system safe and secure, reduce carbon emissions and deliver new energy solutions to customers. This grid transformation is a key piece of our strategic planning that we are implementing through significant regulatory proposals, such as our Advanced Grid Intelligence and Security initiative in Colorado, through pilot and demonstration projects, and through policy discussions with our states.

## Advanced Grid Intelligence and Security

Through our Advanced Grid Intelligence and Security (Advanced Grid) strategic initiative, we are leading the clean energy transition, enhancing the customer experience and keeping bills low. We plan to invest \$1.8 billion over the next 10 years to transform the grid into an intelligent, integrated network that securely, efficiently, reliably and safely integrates distributed energy resources.

Advanced Grid technology infrastructure installment has started in Colorado where the Public Utilities Commission approved our Advanced Grid Intelligence and Security request for a Certificate of Public Convenience and Necessity in June 2017.

Approval allows us to:

- Install advanced meters for 1.5 million Colorado electric customers from 2019 to 2024.
- Integrate Volt-VAR Optimization technology (IVVO) from 2017 to 2022 which allows customers' appliances to run more efficiently and, in turn, use less energy and potentially reduce monthly bills.
- Install the Field Area Network (FAN), a new communications network that provides the infrastructure necessary to enable two-way communications between intelligent devices on the grid — such as advanced meters — and the control center. These communications include automatically notifying us when customers lose or regain power, improving our ability to identify outages and more efficiently deploying repair crews. The FAN was mostly installed in the Denver metro area by the end of 2017.

Currently Advanced Grid technology is also planned to be deployed in Minnesota — starting in 2018 — and Texas — starting in 2020.

## Colorado Innovative Clean Technology Projects: Battery Demonstration Projects

Through our 2009-approved Colorado Innovative Clean Technology program, we are testing emerging technologies that are intended to lower emissions. We have and continue to test several new technologies and evaluate their cost, reliability and environmental performance on a small, demonstration scale before determining whether to deploy them more widely for our customers.

## Energy Impact Partners

With the pace and scale of emerging technologies and changing customer interests, the energy industry is evolving in ways it never has before. Xcel Energy joined Energy Impact Partners in 2015 as an opportunity to better understand technology's impact on our business and to drive greater efficiency and innovation as we meet customer needs. EIP is a collaborative, strategic investment platform that provides capital primarily to clean-tech companies that seek to optimize energy consumption and improve sustainable energy generation. Our planned \$50 million investment over five years represents a new era for us, where we move beyond clean energy implementation for our customers and into the clean-tech investment space.

Xcel Energy was an original participant in the collaboration that now includes more than 15 utility and industrial participants. By joining with peer companies, we gain greater visibility into the business models and technologies of promising companies and have the opportunity to influence emerging business models so that energy companies and third parties can collaborate and grow together. Also EIP brings together energy companies from around the world to share diverse, global perspectives and insights into policy and regulations, helping position us for new trends, rules and other requirements in the states we serve.

By early 2018, EIP had invested \$212 million in 17 companies, supporting a number of advancements from distributed energy resources to storage, electric vehicles, microgrid applications and more. We are gaining insights that are helping inform our strategic decisions and how we conduct our business across the organization from energy supply to distribution, customer solutions and cybersecurity.



We have two battery storage demonstration projects currently under the program:

- As demand for solar energy at our customers' homes and businesses increases, we are examining how battery storage can help integrate higher concentrations of customer solar energy on our system. Through a project in Denver's Stapleton neighborhood, in 2017 six homeowners have received Sunverge customer battery systems to test with their rooftop solar installations. In 2018, we continue to work to finish installing six larger grid battery systems, supplied by Northern Reliability, Inc., in right-of-ways or easements.
- Through a public-private partnership, Xcel Energy, Panasonic and Denver International Airport are collaborating to test a battery storage system that can both serve as a microgrid to provide backup power to Panasonic's Denver headquarters and to support Xcel Energy's grid at other times. As part of the project, Xcel Energy owns a 1.3 MW-AC solar carport installation and a 1 MW/2MWh lithium ion battery. Panasonic also owns a 0.20 MW-AC solar array located atop its building, which is also tied into the system. Battery and grid functionality testing started in January 2018 with initial results expected in the third quarter of 2018.



### **GridNXT at SolarTAC**

The Solar Technology Acceleration Center (SolarTAC) in Aurora, Colorado, is a world-class facility for demonstrating and validating advanced solar technologies in a real-world, grid-connected environment. Even before the project's grand opening in 2011, Xcel Energy recognized the potential benefit of and signed on as an original founding member.

Our investment has paid off for customers. Not only have we tested important battery projects at the site, solar technologies fine-tuned at SolarTAC serve our customers in Colorado and New Mexico with more cost-effective, efficient solar energy. Through testing, solar developers were able to make adjustments for adverse weather conditions before installing the technology in our service areas.

Recently, the 74-acre site embarked on its next evolution to become a test-bed for solar, storage and other distributed energy enabling products and components. GridNXT at SolarTAC now supports the demonstration of advanced technologies for integrating distributed generation, including microgrid capabilities at the edge or end of the electric distribution system.





71 percent of our spending on goods and services in 2017 went to local suppliers.

## RESPONSIBLE SOURCING

# Supply Chain

### **Our Approach**

Suppliers play an important role in our ability to grow and operate effectively, and the money we spend through our supply chain adds to the overall prosperity of our communities and beyond. Our Supply Chain organization is responsible for the sourcing and procurement of normal goods and services, materials management, fleet management and accounts payable for all of Xcel Energy's operations.

## One-stop Shopping for Wind Turbines

Colorado has emerged as the one-stop shop for wind turbines. Xcel Energy Supply Chain's procurement processes have enabled the company to take advantage of "home grown" turbine components for its wind projects through a partnership with Vestas, the world's largest manufacturer of wind turbines.

Vestas builds the three main wind turbine components — towers, nacelles and blades — at four Colorado plants, which employ more than 3,500 people in the state. Each wind turbine produced supports approximately 30 full-time jobs over the course of its lifetime. When assembled, the turbine stands taller than the Statue of Liberty.

Vestas' 13 million-square-foot facility in Pueblo, 120 miles south of Denver, manufactures thousands of 250-foot, 240-ton steel towers a year and is the world's largest tower factory. Blades weighing eight tons and spanning 120-180 feet are manufactured in Brighton and Windsor, communities north of the Denver metro area. Nacelles that sit atop the towers are assembled in another Vestas factory in Brighton.

Vestas has supplied turbines for the Rush Creek Wind project in Colorado and other Xcel Energy wind farms. "Rush Creek is an important part of Colorado's Energy

Future," said Jerry Kelly, project manager. "We're on schedule to have it online by the end of 2018 so we can increase the supply of clean, low-cost energy we offer to our customers. Rush Creek demonstrates our commitment to reducing carbon emissions and leading the clean energy transition."

"We are honored to partner with Xcel Energy to help deliver low-cost wind energy to Colorado households with made-in-Colorado wind turbines," said Chris Brown, president of Vestas Americas. "Xcel has been a national leader with their visionary commitment to wind energy, and we're proud to join them in bringing to life the Rush Creek project — the largest wind project in Colorado."

Xcel Energy is building, operating and owning wind farms as part of its Steel for Fuel strategy. The company has been a national wind leader for more than a decade and has nearly 6,700 megawatts of wind on its system company wide, enough to power about three million average homes annually.

## Local Spending

We set an overall target for local spending, with much of our spending occurring naturally on the local level, as we build relationships within our communities. In some circumstances, necessary materials and services cannot be obtained locally or it is not feasible to do.

### 2017 Local Supply Chain Spending

State	Spending
Colorado	\$ 877,036,536
Minnesota	\$ 632,869,997
North Dakota	\$ 213,185,667
South Dakota	\$ 3,102,831
Wisconsin	\$ 229,001,446
Michigan	\$ 153,668,617
Texas	\$ 384,357,490
New Mexico	\$ 7,141,481
<b>TOTAL LOCAL SPEND</b>	<b>\$ 2,500,365,065</b>

## Supplier Diversity Program

Our corporate policies underscore our commitment to supplier diversity by recognizing that it is in our best interest to encourage a broad base of supplier relationships. Using diverse suppliers contributes to the economic growth and expansion of the communities we serve. Our policy is to offer these businesses the opportunity to compete in our procurement for products and services. We develop and strengthen business relationships with diverse suppliers by:

- Conducting outreach efforts to seek, identify and encourage supplier diversity in our procurement processes
- Facilitating alliances and partnerships
- Educating businesses about our procurement and business processes
- Identifying and encouraging subcontracting (tier two) opportunities with major suppliers when direct participation is not possible

We are an active member of the Edison Electric Institute's Supplier Diversity Best Practices Group, as well as the National Minority Supplier Development Council, the Women's Business Enterprise National Council, the National Association of Women Business Owners, the National Association of Veteran Business Owners and most local chambers of commerce in our service territory. In 2017, we spent \$378 million, directly and indirectly, with businesses owned by women, minorities or veterans.

### Annual Spending with Diverse Suppliers

	Dollars spent	% of total purchases
2017	\$378 million	10.5%
2016	\$401 million	11.2%
2015	\$395 million	10.3%
2014	\$385 million	10.3%
2013	\$365 million	9.3%
2012	\$265 million	8.7%
2011	\$248 million	8.3%
2010	\$209 million	7.1%
2009	\$153 million	6.9%

### 2017 Spending with Diverse Suppliers by State

State	Dollars Spent
Colorado	\$64 million
Michigan	\$0.49 million
Minnesota	\$50 million
New Mexico	\$37 million
North Dakota	\$0.88 million
South Dakota	\$0.60 million
Texas	\$41 million
Wisconsin	\$4 million
Other	\$179 million

## Supply Chain Process

Among many other things, the Supply Chain organization is involved in negotiating contracts for everything from day-to-day business necessities, such as office supplies and furniture, to capital items used to construct, operate and maintain our generation and transmission assets, including transmission poles and transformers. The group implements vendor, supplier and contractor management strategies and policies, handles accounts payable and puts in place company-wide sourcing and procurement strategies to achieve cost savings.

We sort our annual supply chain spending into 35 categories with more than 800 sub-categories. This data is used to determine risk, opportunity and negotiation leverage with suppliers. We employ a systematic sourcing method to get needed materials and services to the right place at the right time for the right price. The five-step sourcing process used to select suppliers includes preparation, request for information, request for proposal, contract evaluation and negotiation, and implementation. Four key business objectives — each associated with specific initiatives — drive our supply chain strategy:

- maximize investment yield
- achieve operational excellence
- manage risk and opportunities
- support community and environmental leadership

We have developed guidelines for bid analysis for all categories of spend. Within these guidelines, up to 20 percent of the bid analysis weight can be allocated to social and environmental factors such as safety performance, diversity and environmental performance.

### 2017 Supply Chain Spending Categories

Battery	Engineering Services	Meters	Steel Structures
Boiler Systems	Environmental	MRO Materials	Transformers
Cable and Wire	Fleet	Other Plant Systems	Transportation Services
Chemicals Gases and Lubes	Gas Materials	Property Services	Travel Services
Circuit Breakers	HR and Benefits	Radiation Protection	Turbine and Generator Systems
Construction	IT and Telecom	Revenue Cycle	Vegetation Management
Consulting Services	Logistics Integrator	Safety	Wind
Dry Fuel Storage	Maintenance Services	Solar	Wood Poles
Electrical Materials and Equipment	Marketing and DSM	Staff Augmentation	





## Monitoring Suppliers and Managing Risk

Xcel Energy works with a broad range of suppliers of goods and services. While the majority of our spend is with American suppliers, we also do significant work with American-based affiliates of foreign suppliers and a small amount of work with other non-American suppliers.

We have a Supplier Qualification program that uses services from Dunn & Bradstreet to monitor all active suppliers for Office of Foreign Assets Control, Excluded Parties List System, OSHA and EPA violations, as well as criminal proceedings and disaster events. We assess suppliers' financial health, safety and use of diverse subcontractors before contracting with them, and suppliers who will have access to confidential data from Xcel Energy must undergo a data security review. We also periodically conduct key risk assessments, looking at categories such as commodity price risk, supply continuity, quality and governance processes.

We have recently implemented a new program for Security Vendor Risk Assessment that focuses on exposure to cyber and other security risks to Xcel Energy that could result from suppliers' access to our systems, confidential information and critical infrastructure. The requirement for this additional level of scrutiny is established in sourcing and contracting processes and involves a comprehensive testing of the supplier's security environment by our Enterprise Security Services team.

All contractors who provide services or materials at company sites are required to complete a contractor health and safety questionnaire and submit five years of safety-related performance data. Our contractor safety department reviews this data and may reject a contractor or require a safety improvement plan. We continue to monitor safety performance once a contract is implemented.

All contracts include a clause requiring suppliers to abide by equal employment opportunity and affirmative action mandates prohibiting discrimination on the basis of race, color, religion, sex, national origin, actual or perceived sexual orientation or gender identity of an individual, or physical or mental disability. Additionally, all suppliers are expected to comply with our Code of Conduct, which is referenced in our standard agreement language and is made available to them upon request.

### Supplier Classifications

We classify our suppliers in four tiers based on a combination of overall supplier spend and criticality or risk to operations. Critical suppliers provide key materials and services required to support daily operations. Tier 1 suppliers, including those who are critical to our operations, are part of our Supplier Relationship Management program. The program enables us to build longer-term contracts with these strategic suppliers and implement continuous improvement initiatives to benefit both the supplier and Xcel Energy in terms of costs and operations.

Suppliers are also tiered, based on their total spend. See below:

Tier	Annual Spending	No. of Suppliers	% of Annual Spend
Tier 1	More than \$10 million	43	54%
Tier 2	Between \$4-10 million	78	16%
Tier 3	Between \$1-4 million	240	16%
Tier 4	Less than \$1 million	6,579	15%

We support suppliers in non-tier one spend classifications through collaborative initiatives and programs. For example, Xcel Energy is a founding member of the ITASCA-Project in the Twin Cities, which is dedicated to helping smaller local suppliers grow through procurement opportunities. The ITASCA-Project group is made up of chief supply chain personnel from large corporations, such as Xcel Energy, U.S. Bank, Target, United Health and General Mills, who meet monthly to discuss ideas for supporting the local economy by growing the capacity of small- and medium-sized businesses.



ENVIRONMENT



It's our policy to pursue environmental excellence through our corporate strategy and daily operations, striving to demonstrate leadership by doing what's right and advancing initiatives that will benefit the environment.

OUR POLICY

# Environmental Management

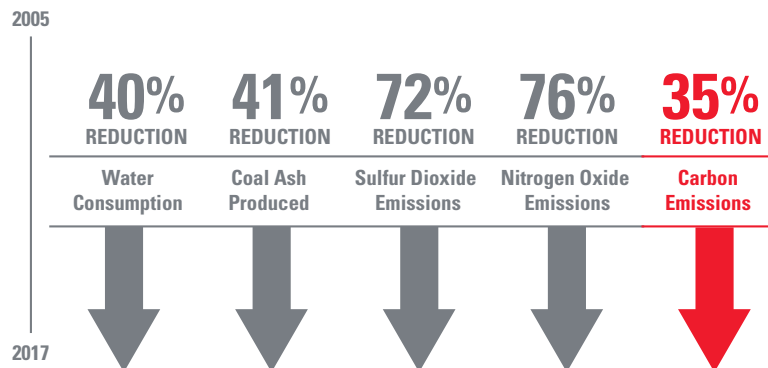
## Our Approach

Every year we produce millions of megawatt hours of electricity and deliver millions of cubic feet of natural gas to serve our customers, fueling their homes and businesses. Our operations depend on natural resources — from fossil fuels to water and wind and solar — and they have an impact on the environment. It's an important relationship, and one that we are committed to managing carefully.

It starts with making the environment a priority and having a policy that requires all employees and contractors to protect the environment as part of their jobs. This policy is just one piece of a comprehensive Environmental Management System designed to make sure we meet the many rules and requirements that apply to our operations.

We evaluate opportunities and look for ways to do more while minimizing the cost to customers. The customers and communities we serve depend on us to provide safe, reliable and affordable energy from sources that are increasingly clean and renewable. And through our daily actions, they expect that we will protect our air and water, reduce waste and conserve natural resources.

**Since 2005, we have significantly reduced our environmental impact**



**Environmental Policy**

Xcel Energy’s environmental policy lays the foundation for the company’s commitment and approach to protecting the environment and sets expectations for aligning our business practices with this commitment.

Our policy is to pursue environmental excellence through our corporate strategy and daily operations, striving to demonstrate leadership by doing what's right and advancing initiatives that will benefit the environment. At the same time, it’s important that we balance our environmental commitment with our ability to provide customers with reliable and affordable energy.

Examples of our environmental leadership include:

- Significantly reducing carbon emissions through our proactive clean energy strategy
- Reducing other air emissions beyond what is required
- Surpassing state-level renewable standards by adding more cost-effective wind and solar
- Offering customers a robust portfolio of energy efficiency and renewable choice programs to meet unique needs and interests
- Conserving and reducing water consumption through electric generation
- Establishing more than 1,000 acres of pollinator habitat on the land we manage

**Our Environmental Principles**

Engaging with stakeholders is essential to our work in addressing policy issues involving energy and the environment. As we engage on these matters with our regulators, elected officials, community leaders and others, we keep the following principles in mind:

- Proactive solutions. On behalf of customers, we have invested substantially in clean energy and environmental improvements. We continue to look for ways to proactively address environmental issues, especially when we can improve efficiency and reduce costs.
- Rewarding leadership. We believe that environmental and clean energy policy should appropriately recognize the environmental benefits of our proactive efforts made on behalf of our customers and communities.
- Supporting technology. Environmental and clean energy policy should drive forward the development of new, cost-effective technologies. As a national leader in wind energy, as well as energy efficiency and renewable choice programs, we are optimistic about the future opportunities that clean energy technologies present. Additionally, we are committed to owning these resources to improve the overall value and cost savings to our customers and stakeholders.
- Efficiency and cost effectiveness. The most efficient and effective response to environmental mandates, is not always stack-by-stack or emission-specific compliance requirements. In some cases, compliance should be coordinated on a system-wide basis to maximize cost effectiveness and environmental benefits.
- Flexibility. Flexibility mechanisms, such as alternative compliance options and market-based environmental programs, should be incorporated into environmental rules. Flexibility yields real cost benefits to customers while maintaining environmental benefits.



As part of our decision making, we consider opportunities to reduce emissions, eliminate waste and conserve resources, including taking additional steps to protect wildlife. We also regularly monitor our operations to ensure we are acting in an environmentally responsible manner, and if appropriate, take steps to improve our efforts. We support environmental research and development, as well as environmental projects and partnerships in our communities.

All Xcel Energy employees, as well as contractors and vendors, are expected to follow the policy, and our employees are trained and empowered to take responsibility for protecting the environment through their jobs. In 2017, we launched a new training program on our commitment to the environment that is available to all employees and required for those who work in our generating plants and in the field.

## Environmental Management System

We have a formal environmental management system designed to promote environmental excellence and ensure continuous improvement and compliance with all applicable environmental requirements.

Our management system provides:

<b>Oversight</b>	<b>Board of Directors — Operations, Nuclear, Environmental and Safety Committee</b> Chairman, president and CEO Executive Committee Environmental Policy department Environmental Services department
<b>Risk analysis</b>	<b>Goals and performance indicators at corporate and operating levels</b> Multidisciplinary teams for developing new compliance programs Environmental Audit program Regular risk assessments
<b>Policies and procedures</b>	<b>Corporate environmental policy</b> Formal, documented processes, procedures and standards Routine monitoring of new, evolving regulatory activity
<b>Monitoring</b>	<b>Centralized and automated compliance tracking system that uses real-time data</b> Monthly performance reporting Routine facility audits
<b>Follow-up for compliance gaps</b>	<b>Tracking for corrective action and internal audit findings</b>
<b>Training and communication</b>	<b>New employee orientation</b> Site and topic specific employee training and tracking Updates and information communicated through internal channels

## 2017 Compliance Results

We strive to operate in compliance with all federal, state and local rules and regulations. However, there are occasions when regulatory agencies issue notices of violation (NOVs) or other types of notifications of potential noncompliance for alleged exceedances of permit limits or regulatory requirements. These NOVs can result in fines or penalties. Often there can be disputes about the alleged noncompliance, and even when it is our view that we remained in compliance, settlements are often reached to avoid the transaction costs of litigation and to cooperate with the regulatory agencies.

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.

### 2017 Compliance Activity

Activity*	2015	2016	2017
Notices of Violation or Compliance Advisories	2	4	7
Penalties Paid	\$0	\$25,000	\$14,949
External Agency Audits or Inspections	83	83	64
Internal Audits Conducted to Ensure Compliance	89	99	95

\*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.

## Environmental Expenditures for 2017

Environmental costs include payments for nuclear plant decommissioning, storage and ultimate disposal of spent nuclear fuel, disposal of hazardous materials and waste, remediation of contaminated sites and monitoring of discharges to the environment. As we've reduced emissions through the addition of environmental controls, the total costs of investing in and operating the controls has risen somewhat over time.

Operating expenses for environmental monitoring and disposal of hazardous materials and waste, including nuclear decommissioning and spent nuclear fuel disposal expenses, were approximately:


- \$303 million in 2017
- \$304 million in 2016
- \$292 million in 2015
- \$292 million in 2014
- \$275 million in 2013
- \$263 million in 2012
- \$265 million in 2011
- \$256 million in 2010
- \$225 million in 2009
- \$213 million in 2008

More detailed information regarding nuclear decommissioning and spent nuclear fuel disposal expenses is provided in our 2017 Form 10-K.

Capital expenditures for environmental improvements at regulated facilities were approximately:

- \$61 million in 2017
- \$93 million in 2016
- \$184 million in 2015
- \$373 million in 2014
- \$517 million in 2013
- \$255 million in 2012
- \$48 million in 2011
- \$473 million in 2010
- \$89 million in 2009
- \$230 million in 2008





Since 2005, we have reduced carbon emissions 35 percent from the electricity that serves customers — avoiding 30 million tons of carbon dioxide in 2017, equivalent to taking 5.8 million cars off the road for a year.

OUR LOW-CARBON FUTURE

## Climate Change and Greenhouse Gas Emissions

### Our Approach

At Xcel Energy, our clean energy strategy is transforming how we produce and deliver energy. For more than a decade, we've strived to serve our customers with a cleaner mix of resources and with an energy grid that is more reliable and secure — all while keeping customer energy bills low. We are committed to leading the way and creating a cleaner, more affordable and sustainable energy future for all of us.

We know climate change is a priority for many of our customers and other stakeholders. We understand this concern and the demand for action. It is a priority for us too. That's why we've set an ambitious emissions-reduction target, and we tie our executive compensation to reaching it. Company-wide, our goal is to reduce carbon emissions 60 percent from 2005 levels by 2030, and we continue to challenge ourselves to do more to reduce emissions while enhancing reliability and keeping energy costs affordable.



## A comprehensive approach to clean energy

When it comes to reducing carbon emissions and improving our overall environmental footprint, there is no single solution. It takes a combination of efforts to provide our customers with cleaner energy while maintaining reliable, affordable service.

Our all-inclusive clean energy strategy focuses on improving in the following ways.

- **Increasing the use of wind and solar energy.** Renewable sources made up 27 percent of our energy supply in 2017, and we expect that by 2022, about 48 percent of our energy will come from these clean energy sources. Under our Steel for Fuel strategy, we are executing plans for 12 new wind farms across seven states that will increase our wind capacity to more than 10,000 megawatts, with nearly all installed in 2020 to take advantage of full production tax credits.

In addition to serving customers with cleaner energy, we continue to offer new renewable energy options for customers who want more. We launched Renewable\*Connect® in Minnesota and will begin offering the program to Colorado customers in 2018. It's a new, more flexible and convenient option for customers who want up to 100 percent renewable energy.

- **Using energy efficiently.** We've been a leader in energy efficiency for decades and offer our customers a comprehensive portfolio of programs to save energy and help manage their bills. Through more than 150 programs in 2017,

customers saved over a tera-watt hour of electricity. Cumulatively, we estimate that customers have saved enough electricity through our programs to avoid building 20 average-size power plants.

- **Transforming the energy grid.** By retiring aging coal units, adding flexible natural gas and continuing to operate carbon-free nuclear plants, our conventional plant fleet is cleaner, more efficient and more responsive for operating with increased levels of wind and solar energy. We have shut down or plan to shut down 20 coal units, retiring more than 40 percent of our coal fleet from 2005 to 2026. And we can do more, if our proposal to retire two additional coal units in Colorado is approved.

The way we deliver energy is changing too. In 2017, we continued with our advanced grid project in Colorado, putting in place components to transform our grid into a more intelligent, integrated network that will operate more securely, efficiently and reliably, especially as we integrate more distributed energy sources.

Combined, all of these efforts are helping to significantly reduce our carbon emissions from the electricity that serves our customers. And as our carbon footprint shrinks, we are helping our customers to reduce their emissions from the energy they use.

Our strategy includes retiring aging coal plants and replacing them with a combination of renewable energy and more carbon-friendly natural gas, as well as maintaining our carbon-free nuclear plants.

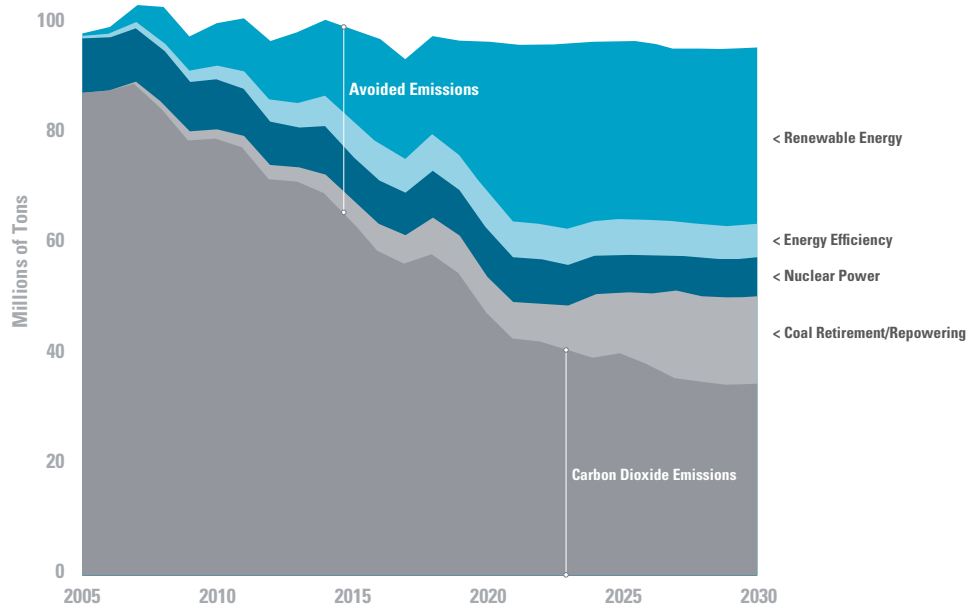
To empower our customers, we offer a comprehensive range of renewable energy and energy-saving choices that fulfill their goals to save money, promote clean energy and protect the environment.

In addition, we are looking at ways to remove carbon from other sectors — like transportation — by helping our customers adopt electric vehicles charged on our increasingly clean electric system.

Because the regions we serve are each unique, so are the solutions to their energy futures. We work closely with our states to support their interests and develop the policies and programs that will further reduce carbon emissions and continue building a more advanced and resilient energy system for the future, in the most efficient and cost-effective manner.

Our efforts are a model for how energy companies and states can work together to reduce carbon emissions at an affordable cost, and ultimately, address the physical, economic and policy risks of climate change.

## Our clean energy strategy is driving reductions in carbon emissions.



## Our Pathway to a Low-carbon Future

The most significant way we demonstrate climate leadership is to reduce carbon dioxide emissions from our largest source of emissions — the electricity that serves our customers.

Electricity generation makes up 99 percent of our entire carbon footprint, which includes emissions from our electricity and natural gas operations, as well as our supply chain, facilities and travel. Nearly all of the carbon emissions from electricity generation are associated with the electricity that serves our customers. This includes the energy we produce at our power plants and that we purchase from others.

### Current Progress

In 2017, we reduced carbon emissions from the electricity that serves customers by 35 percent compared to 2005 levels. We achieved these results by continuing to reduce fossil generation and growing renewable energy. Specifically, we continued to increase wind generation and doubled our solar production since it was the first full year of operations for several large solar plants installed in 2016.

### Near-term Projections

Over the next five years, we expect to invest approximately \$5.8 billion in clean energy projects. This includes capital spending on renewable energy, such as our multi-state wind plans, and related transmission projects, as well as spending on our advanced grid intelligence and security initiative.

If we are able to achieve our plans and complete these investments, we expect to reduce carbon emissions associated with the electricity that serves customers by 50 percent from 2005 levels in 2022. That's nearly double the U.S. commitment under the Paris Climate Accord which called for a 26 to 28 percent reduction in carbon emissions by 2025. If the EPA Clean Power Plan were still in place, we would have surpassed that goal as well, to reduce carbon emissions 32 percent from 2005 levels by 2030.

### 2030 Goal and Beyond

Considering the future beyond 2022, our goal is to reduce carbon emissions company-wide 60 percent by 2030. To reach this goal, we have regulatory approval for retiring two large coal units in Minnesota by the end of 2026 and expect additional wind and solar development. We also have proposed retiring two coal units in Colorado and replacing the energy with a mix of wind, solar and natural gas generation by 2026. The Colorado Public Utilities Commission is expected to make a decision on our plan in early September 2018.

We continue to look for opportunities to do more, while maintaining reliable and affordable energy. As we prepare to file our next resource plan with Minnesota regulators in 2019, we are talking to stakeholder about our vision to reduce carbon emissions 80 percent by 2030 for the region, with an energy mix that is 85 percent carbon free.

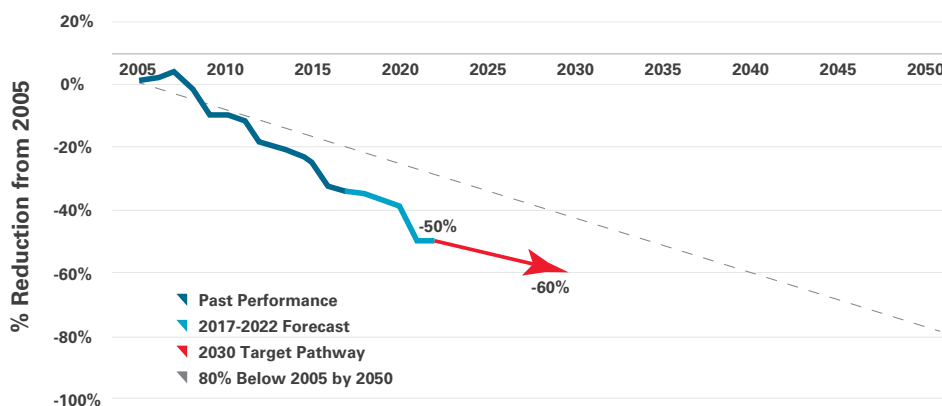
Today, our current goal and plans put us on a carbon reduction path that aligns with potential policy outcomes and with customer and community-driven goals for a low-carbon future. Our efforts support the states, cities and businesses we serve that have set targets which are based on or follow international discussions.

Beyond 2030, we anticipate that emissions reductions will likely continue, assuming that we can:

- Continue to increase renewable energy on our system
- Replace carbon-free nuclear generation or relicense the plants
- Extend purchase contracts for renewable resources
- Obtain cost-effective natural gas
- Realize continued advancements in power technology

**Our current progress and emissions projections put us on a trajectory that is well below an 80 percent by 2050 pathway.**

### Xcel Energy Carbon Emissions Pathway



### Carbon Policy and Regulation

We have managed significant federal policy uncertainty around carbon emissions for a number of years. In 2017, President Trump signed an Executive Order directing the U.S. Environmental Protection Agency to review the Clean Power Plan and other greenhouse gas regulations focused on the nation’s electric generating plants. EPA responded by proposing a rule to repeal the Clean Power Plan, and at the end of 2017, issued an Advanced Notice of Proposed Rulemaking requesting public comment on how EPA should replace the rule.

We continue to advocate for sound energy and environmental policy that provides greater regulatory certainty, flexibility for states and paves the way for significant emission reductions. While the Clean Air Act’s existing authorities are not optimal to regulate greenhouse gases, we think that in the short term having a federal climate rule in place under the Clean Air Act is in the best interest of our customers.

In comments to EPA we have advocated for:

- A replacement rule to the Clean Power Plan that builds on the industry's clean energy progress and results in lower energy prices and a stronger economy
- A rule that gives states full flexibility to design cost-effective plans that achieve or surpass clear requirements for reducing carbon emissions
- Enforcement authority that leaves states in charge of their own energy programs
- Recognition of the early actions of states and utilities — carbon emissions from the electric power sector fell 25 percent nationwide from 2005 to 2016, a remarkable achievement, along with our own progress of 35 percent from 2005 to 2017

Given the importance of these issues to our company and customers, we will continue to participate in this federal rulemaking process, but these regulatory developments do not change our strategy. We plan to continue moving forward with our cost-effective clean energy efforts and will work with our states, communities and customers to achieve their preferred energy and environmental outcomes.

## Energy and Carbon Emissions Reporting

Xcel Energy joined The Climate Registry as a founding member in 2007 to help establish a consistent and transparent standard for calculating, verifying and reporting greenhouse gases. Today, our reporting is based on The Climate Registry and its Electric Power Sector Protocol, which aligns with the World Resources Institute and ISO 14000 series standards.

Not only are we transforming our system and the way we do business, but our reporting is evolving too. We continue to add more disclosures to ensure transparent, complete reporting in a way that best meets our customers' needs for their own reporting and business decisions.

We publicly report greenhouse gases, primarily carbon dioxide, through a number of different programs that require a specific look at our emissions. While the reporting programs vary, the information we provide starts with the same foundational data that is third-party verified and registered with The Climate Registry. This includes verified emissions from 2005 through 2016, with work underway to verify our 2017 emissions by the end of 2018.

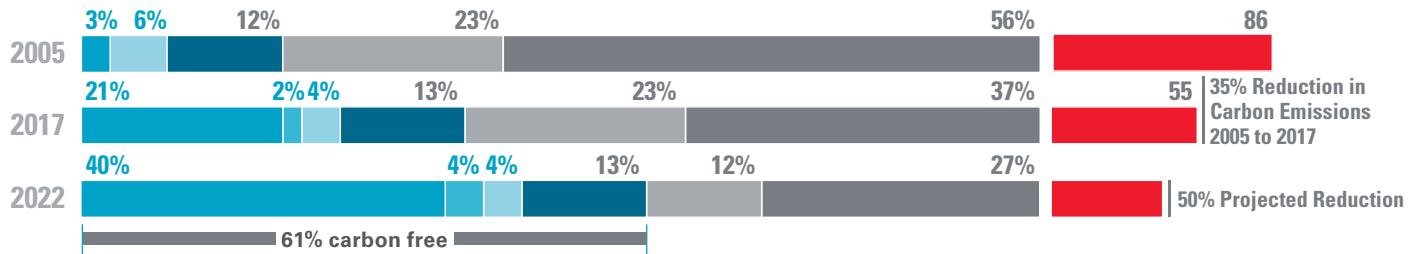
Beginning in 2018, we have fine-tuned our carbon goal and the progress we report to focus on the electricity that serves our customers and the associated carbon emissions. It's an area where we can make the biggest difference.



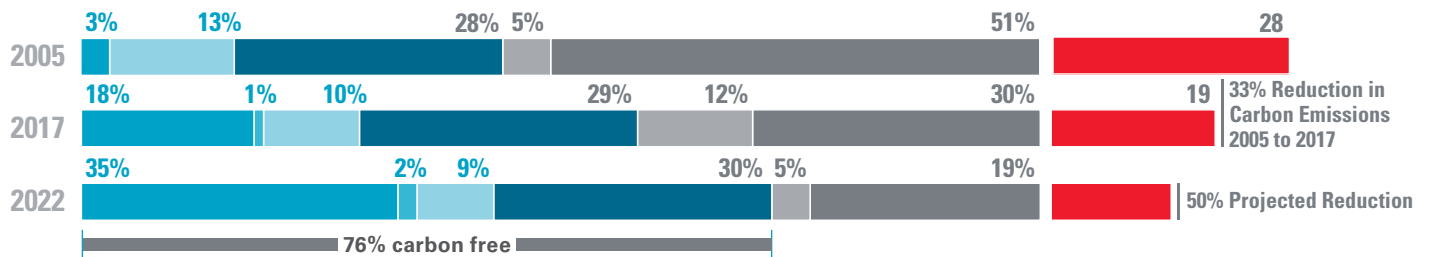


## Our Changing Energy Mix and Carbon Emissions Progress

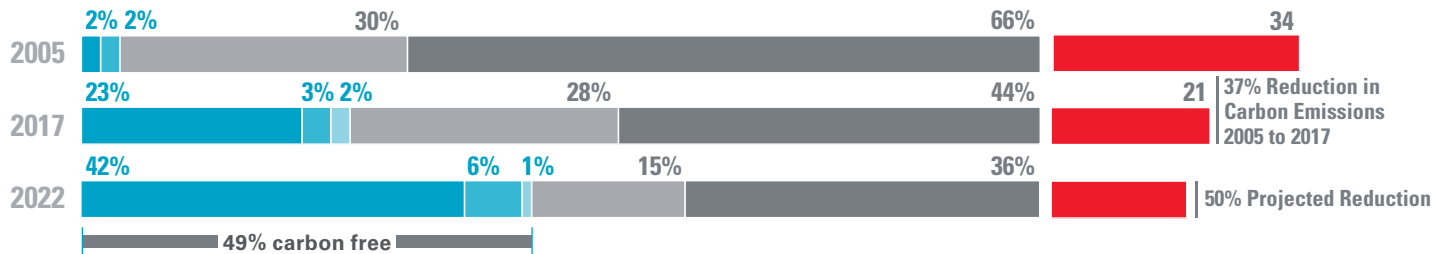
### Xcel Energy



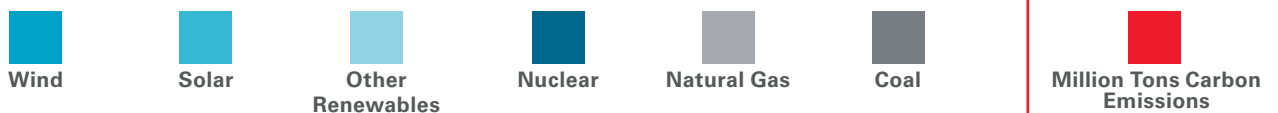
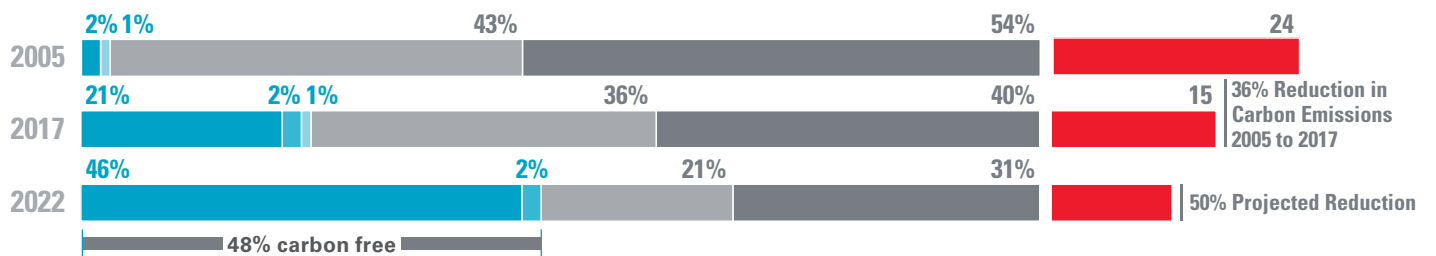
### Upper Midwest (Michigan, Minnesota, North Dakota, South Dakota, Wisconsin)



### Colorado



### Southwest (New Mexico, Texas)



Our energy mix includes electricity generated at Xcel Energy plants, purchased from third-parties, and supplied under Xcel Energy renewable choice programs, such as Windsource or Renewable\*Connect. For every megawatt hour of electricity that renewable sources produce, we receive a renewable energy certificate or credit (REC). In addition to using RECs to comply with state renewable energy standards, we also sell some extra RECs and share any profits with customers. To find more information about RECs, please see the Renewable Energy brief.

## Methane Emissions

Our efforts to reduce greenhouse gas emissions also include methane emissions from our natural gas distribution system. Xcel Energy serves about two million customers with natural gas for heating and other energy uses critical to the colder parts of our territory, Colorado and Minnesota, and does so with very minimal methane emissions.

Methane emissions made up less than one percent of our total greenhouse gas emissions (507.3 million cubic feet or 269,236 short tons CO<sub>2</sub>e) in 2017. While this is a very small portion of our total company-wide emissions, we work to minimize our methane emissions through cost-effective improvements to our natural gas system.

Some of Xcel Energy's methane emission reduction efforts include:

- Replacing the cast iron pipe and unprotected steel pipe on our system, originally installed 50 to 100 years ago. So far, we have completely replaced all 880 miles of cast iron pipe in Colorado and Minnesota and have nearly eliminated bare-steel pipe.
- Using pressure reductions and other methods to reduce methane emissions during pipeline maintenance and repairs.
- Replacing high-bleed controllers on our distribution and high-pressure pipelines. We are currently working to replace the high-bleed controllers in our processing plants and are considering new programs to modernize the high-bleed controllers at our storage fields and compressor stations to reducing emissions at these facilities.

To support these efforts, we are voluntary members of several industry groups devoted to improving the natural gas system and reducing methane emissions. We have been a member of the EPA Natural Gas STAR program since 2008, with a continued commitment to replace aging pipeline. As a participant in the Natural Gas STAR program, we have reported a reduction in our natural gas emissions through 2016 of 326 million cubic feet or 156,642 MTCO<sub>2</sub>e.

Xcel Energy also joined the EPA's Natural Gas STAR Methane Challenge Program in March of 2016 as a founding member to further our commitment to reduce methane emissions from our natural gas distribution system. Under the program, we expect to achieve emissions reductions in excess of 50 percent, as we work to minimize methane emissions from venting pipelines during scheduled construction. While we did not report these values to EPA for 2017, we did reduce our emissions from blowdowns on systems operating at excess of 60 psig by 89 percent accounting for 24 million cubic feet of gas not being released into the atmosphere.

In addition to these programs, we are collaborating within the natural gas industry on initiatives that support our own proactive approach to operating and maintaining a natural gas system that benefits customers and their interests.

Through the Natural Gas Supply Collaborative facilitated by MJ Bradley & Associates, we are voluntarily working with other natural gas providers to promote safe and responsible practices for the supply of natural gas. In fall of 2017, the group released a report that describes 14 non-financial performance indicators for natural gas producers that respond to stakeholder questions about natural gas production. The effort is not intended as a new reporting program but to encourage producers to provide an accessible, clear and thorough discussion of important environmental and social issues through existing reporting and websites. The practices we are recommending are similar to those we use in our own reporting.

Xcel Energy is also a member the Natural Gas Downstream Initiative, a collaborative effort with other major gas utilities, facilitated by MJ Bradley & Associates. The initiative is focused on addressing the regulatory and technical challenges related to the role of natural gas in a low-carbon future. Specific areas of interest include opportunities for substantially reducing methane emissions while supporting safe, reliable and cost-effective service, as well as renewable natural gas and potential pathways for decarbonizing.



As we transition to a cleaner mix of energy sources and install advanced emissions controls on our generating plants, we are significantly reducing air emissions and other environmental impacts.

PROTECTING THE ENVIRONMENT

## Emissions Reduction

### Our Approach

According to the EPA, the Clean Air Act has achieved dramatic results in helping clear the nation's air. Across the country, emissions of sulfur dioxide have declined 87 percent and nitrogen oxides 61 percent from 1980 to 2016. The power sector, including Xcel Energy, has played a pivotal role in this progress.

From 2005 to 2017 alone, we reduced emissions from the power plants we own — sulfur dioxide by 72 percent and nitrogen oxides by 76 percent — and we plan to do more through our clean energy strategy and transition to cleaner energy sources.

We've accomplished these results by taking the lead and voluntarily reducing emissions, beyond Clean Air Act requirements. We've engaged with local stakeholders to find opportunities that meet mutual interests, helping our states to address current and future air quality needs while finding ways to modernize and transform our system for the future at an affordable cost.

## Clean Air Clean Jobs Comes to a Close

Sweeping energy legislation passed in Colorado in 2010 — titled the Clean Air Clean Jobs Act — gave Xcel Energy the chance to propose a plan to modernize its system, significantly reduce emissions and in the end, set itself up for the challenge of adding lots of new renewable energy resources to its system.

This massive Clean Air Clean Jobs effort came to a close seven years later when Cherokee Generating Plant's Unit 4 in Denver switched from coal to natural gas, and Valtmont Generating Plant's Unit 5 in Boulder, Colorado, was retired.

In the end, the \$1 billion project completed the following major objectives:

- Retired 593 megawatts of coal-fueled generation and replaced it with power from a new natural gas, combined-cycle plant at Cherokee.
- Switched 352 megawatts of coal-fueled generation at Cherokee to natural gas.
- Installed highly efficient emission controls at Hayden Generating Plant, near the town of Steamboat Springs, and Pawnee Generating Plant, near Brush, Colorado.

"The project was completed on time and under budget, with emission savings that proved greater than expected," said Steve Mills, vice president of Operations with Energy Supply. "Both sulfur dioxide and emissions

of nitrogen oxides are now down 90 percent, compared to original projections of 83 percent and 86 percent, respectively from the plants involved in the project. And mercury emissions are down 90 percent, compared to original projections of 82 percent."

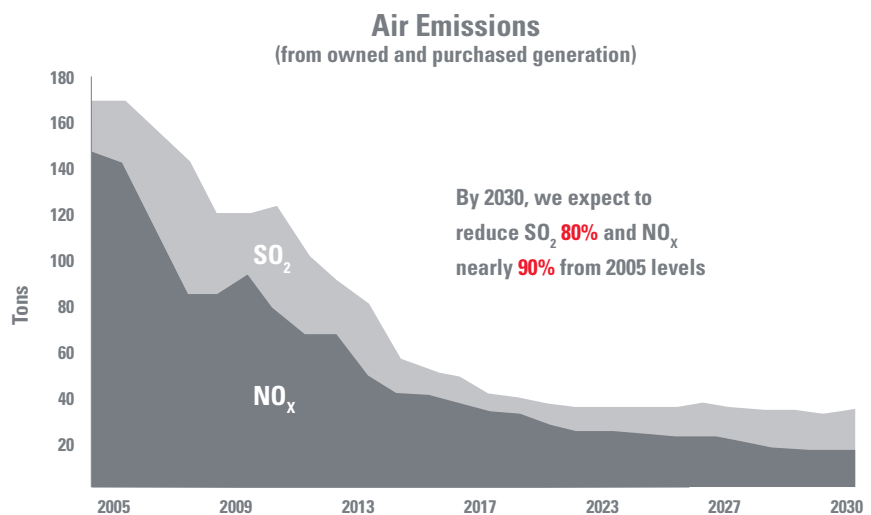
Mills served as project lead once the legislation passed, and worked with others to develop a variety of scenarios for the Colorado Public Utilities Commission to consider. The commission held public hearings and even hired an independent evaluator before ultimately approving a final plan.

In the end, the project helped move the company portfolio from coal to natural gas, a fuel source that is beneficial in working with wind energy to balance the system. It also paved the way for the effort that has become the Colorado Energy Plan, which continues the same clean-energy trends of more renewables and less coal.

"Clean Air-Clean Jobs positioned Xcel Energy to lead an industry change that gives us a high degree of credibility," Mills said. "When we offer ideas, it's not like we haven't done it before. And we are now adding more renewable sources that will work well with our fossil fleet. "The project provided us with an opportunity to work with stakeholders and create a constructive package that benefitted everyone," he added. "We were successful in doing that and in improving our system at the same time."

It's a successful model that we continue to follow because there are still opportunities to explore on behalf of the customers and communities we serve. We know that clean air and cleaner energy are priorities for them, and as a leader in this field, they continue to be our priorities too.

**As we transition to a cleaner mix of energy sources and install advanced emissions controls on our generating plants, we are significantly reducing air emissions of sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>).**





## Transforming our Energy Grid

Since we began our focus on clean energy over a decade ago, we have completed two major initiatives aimed at reducing emissions. The Metro Emissions Reduction Program or MERP in Minnesota was completed in 2009 and transformed three aging coal plants in the Twin Cities. Two of the plants were replaced with more efficient combined-cycle natural gas units and the third plant was rehabilitated with new controls to reduce emissions, while increasing electricity output.

In 2017, we completed Clean Air Clean Jobs in Colorado that involved retiring six Denver-area coal units and switching a seventh coal unit to natural gas. To replace the energy, we built a new, highly efficient combined-cycle natural gas plant. We also installed advanced emissions controls at two other coal plants in the state.

Both MERP and Clean Air Clean Jobs were the result of significant stakeholder engagement and supported our states and their plans for meeting existing and future federal clean air requirements. Both projects also produced significant value for customers by providing a cleaner, more modern energy grid at an affordable cost.

Since MERP, we recently finished repowering the remaining coal units at our Black Dog Generating Plant in Minnesota to natural gas. We also secured Public Utilities Commission approval to retire two coal units at the Sherco Generating Plant in Minnesota in 2023 and 2026, replacing them with a new natural gas plant at the same site that will have much lower emissions. In Colorado, we have proposed retiring two coal units at the Comanche Generating Plant by 2026 as part of our Colorado Energy Plan, which the state Public Utilities Commission will consider in the summer of 2018.

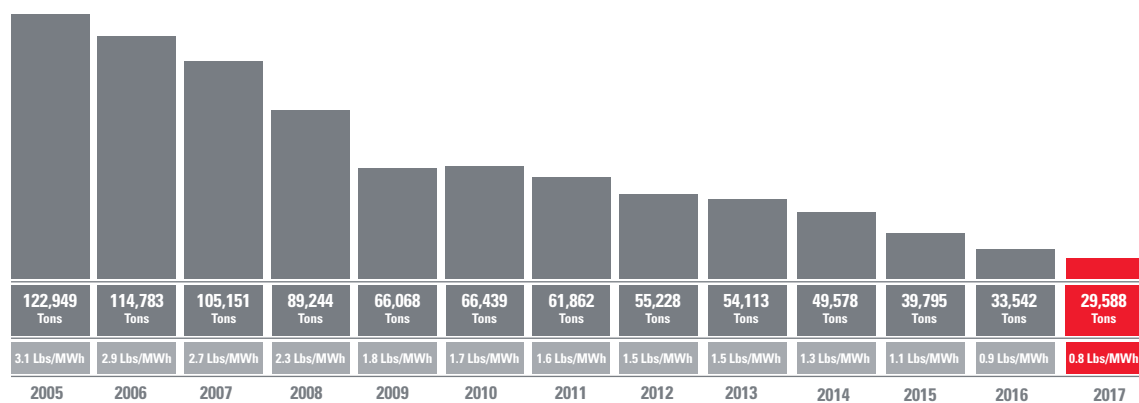
Replacing some of our coal-fueled generation with natural gas not only reduces emissions, it enables clean wind and solar generation. Flexible natural gas plants are an ideal backup to these more variable energy sources because natural gas can quickly and efficiently ramp up or down to follow the wind and sun. It's a powerful combination that's providing our customers with reliable, affordable and cleaner energy to meet their needs.

## Reducing Fleet Emissions

Our fleet of about 7,000 vehicles includes everything from small cars to light trucks, bucket trucks, excavators and trailers. In 2014, our vehicles were equipped with telematics to reduce fuel costs and improve driver safety. Using the technology has improved driver safety while also reducing idling and fuel consumption, wear and tear on vehicles, and emissions. In 2017, we estimate that the use of telematics saved approximately 175,000 gallons of fuel and more than \$500,000 in fuel costs.

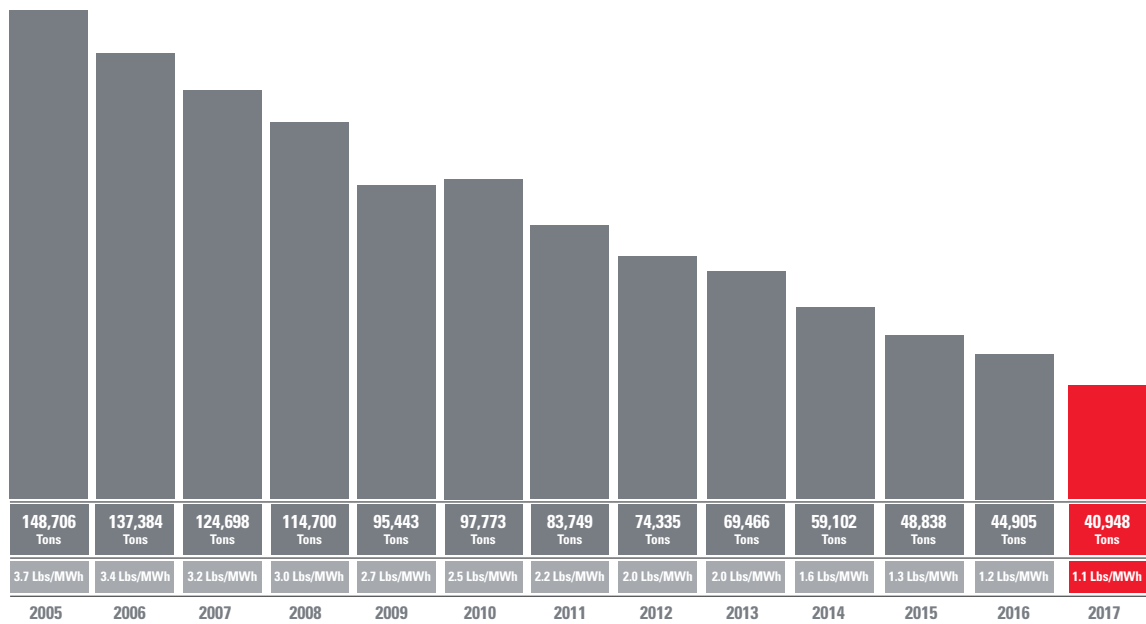
## Air Emissions Reporting

Since 2005, Xcel Energy has reduced emissions of nitrogen oxides by 76 percent company-wide from the generating plants it owns.



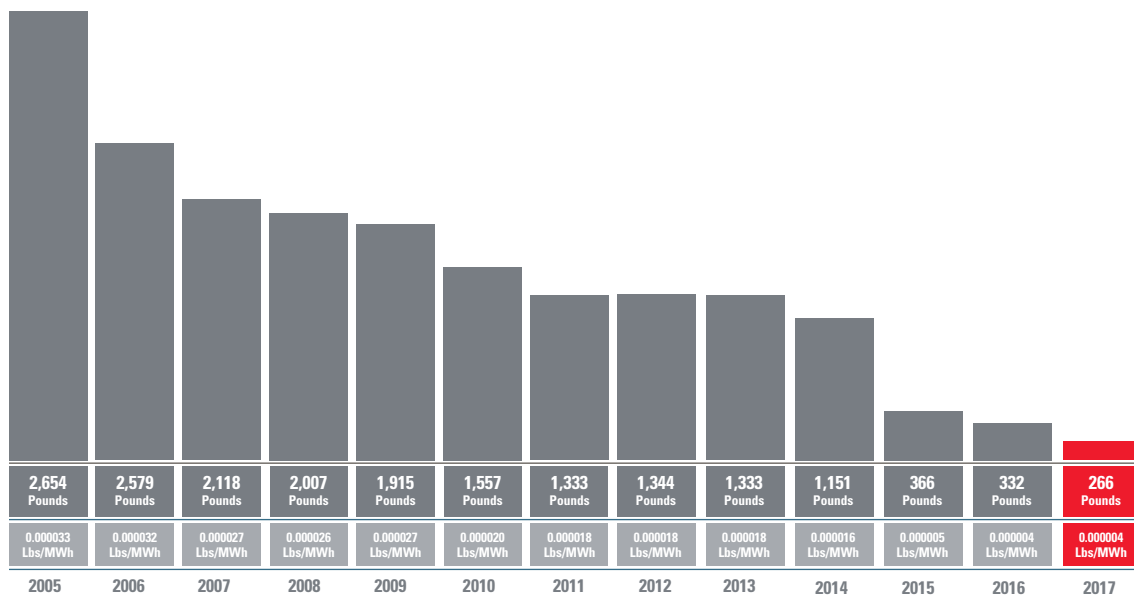
Nitrogen Oxide Emissions (owned generation)

Sulfur dioxide emissions are 72 percent lower company-wide since 2005 from Xcel Energy's owned generating plants



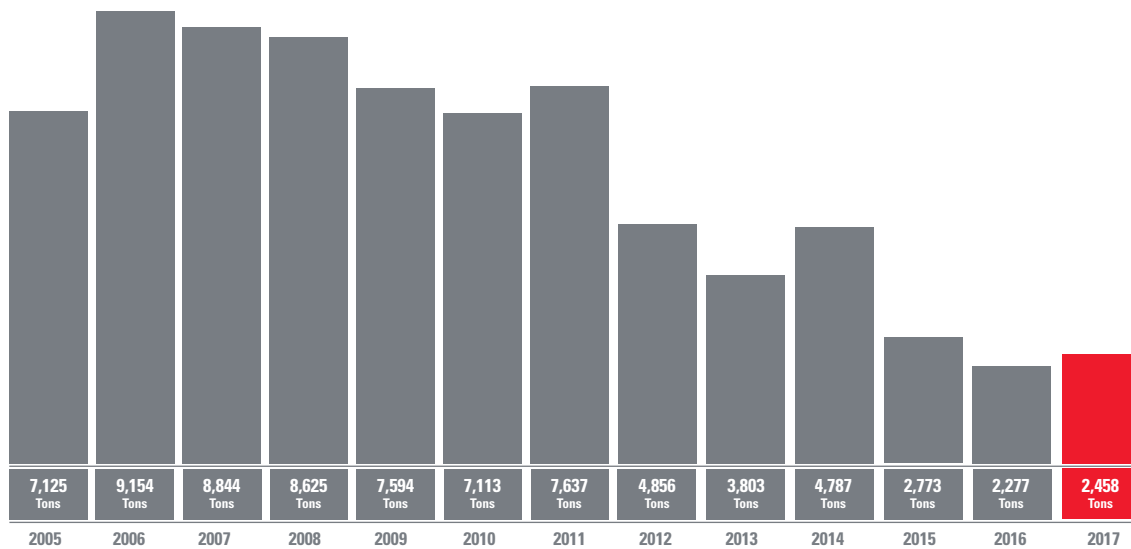
**Sulfur Dioxide Emissions (owned generation)**

Mercury emissions are 90 percent lower company-wide since 2005 from Xcel Energy's owned generating plants



**Mercury (owned generation)**

Emissions of particulate matter are 65 percent lower company-wide since 2005 from Xcel Energy’s owned generating plants.



Particulate Matter Emissions (owned generation)

## Community Right to Know and the Toxic Release Inventory Program

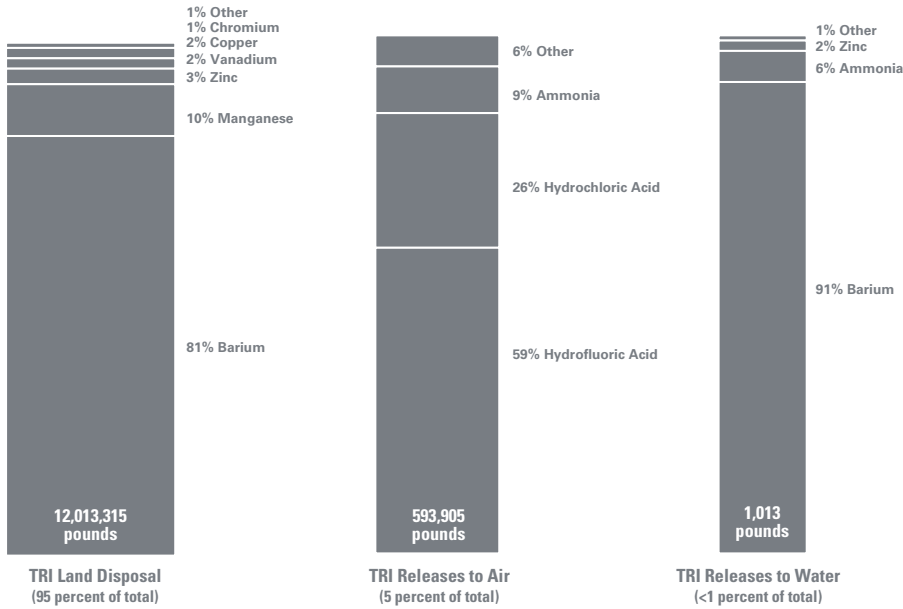
The EPA has administered the Emergency Planning and Community-Right-to-Know Act or EPCRA since 1986. The program is intended to help communities protect residents from potential chemical hazards. Under EPCRA, residents have the “right-to-know” about chemicals in their communities. Each year facilities in specific industries that manufacture, process or use the nearly 650 substances identified under the program must report their releases to air, land and water. The EPA manages the information in a publicly available database under the Toxic Release Inventory (TRI) program.

Xcel Energy supports this type of reporting and has participated since 1999 when the program was expanded to include electric utilities. We annually report to EPA our releases, which are 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.

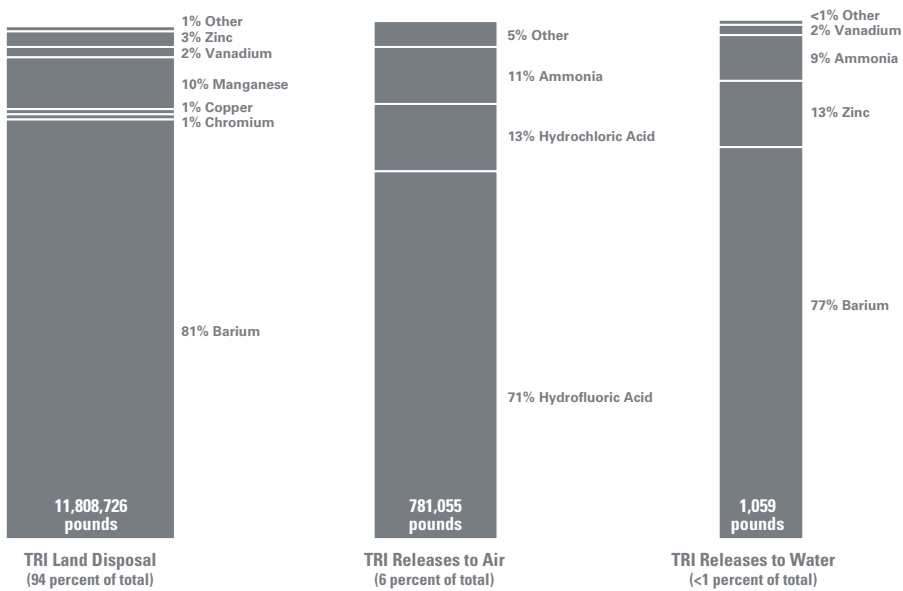
Since we began reporting, we have reduced our releases by nearly 35 percent, as we retire aging coal plants and rely on cleaner sources of energy. TRI reportable substances are reported by facility and release type — land, air and water. A facility’s releases may change slightly from year to year based on the amount of electricity produced and the associated fuel that is consumed, as well as the fuel composition and mineralogy.

The vast majority of our TRI reportable substances are controlled at our facilities as part of the coal ash where they are contained, preventing them from entering the air. We capture about 95 percent of these substances and safely dispose of them in managed landfills.

## 2016 TRI Releases

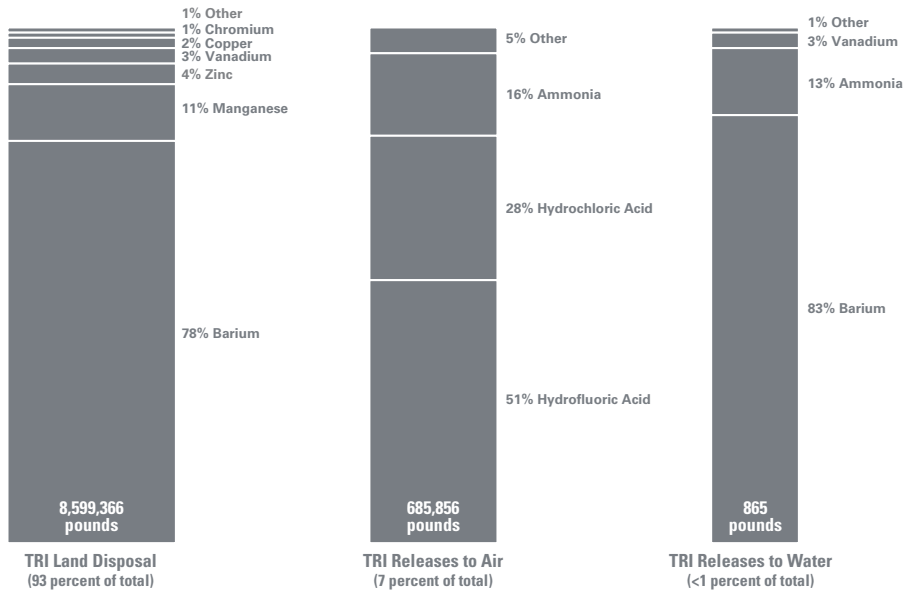


## 2015 TRI Releases





## 2014 TRI Releases



Releases provided here are from 12 generating plants in locations throughout our service territory. For individual plant information visit the EPA's TRI Explorer website or contact [corporateresponsibility@xcelenergy.com](mailto:corporateresponsibility@xcelenergy.com).

## Air-related Regulatory Developments

As we continue to transition to cleaner sources of energy and retire and repower aging fossil fuel plants, we are well positioned to meet evolving federal clean air requirements.

### Regional Haze and Visibility

In Minnesota and Colorado, regional haze state implementation plans are approved and include emission controls and other measures put in place at our Sherco Generating Plant and through Clean Air Clean Jobs. However, there are two types of regulations that EPA has adopted involving our Texas plants: Best Available Retrofit Technology (BART) for units that began operation between 1962 to 1977 and "reasonable progress" requirements of the regional haze program.

In September 2017, EPA issued a Federal Implementation Plan (FIP) adopting a Texas-only trading program as a BART alternative for sulfur dioxide (SO<sub>2</sub>). The program allocated SO<sub>2</sub> allowances to electric generating units in Texas, resulting in an emissions budget for the state that is consistent with the EPA's 2012 ruling finding this level of emissions to be "Better than BART," and therefore, approvable as a BART alternative. Our two coal plants, Harrington and Tolk, were included in the trading program and we expect the allowance allocations to be sufficient to cover emissions from these plants. The National Parks Conservation Association, Sierra Club and Environmental Defense Fund appealed the EPA's final BART rule to the United States Court of Appeals for the Fifth Circuit in December 2017, and filed a petition for administrative reconsideration of the final rule with the EPA. We intervened in the litigation in support of EPA's final rule. The litigation is currently in abeyance while EPA determines whether to reconsider the rule.

For reasonable progress requirements, EPA adopted a rule that would have required installation of sulfur dioxide scrubbers on both Tolk Plant units. After staying the effect of this rule, the Fifth Circuit remanded it to EPA for reconsideration. The court is holding the litigation in abeyance until the EPA completes its reconsideration.

For our Texas operations, our position on EPA's regional haze plan has been consistent. We believe EPA's earlier actions in the state exposed our customers to significantly higher energy costs while producing very little, if any, improvement to visibility in national parks. Because of this, we took action against the rule on behalf of our customers. We believe that EPA's reasonable progress rule that affected the Tolk Plant failed to appropriately weigh the full impact and cost of its plan against the benefits. Conversely, we believe EPA has taken the appropriate action in finalizing the recent FIP for BART.

## Ozone

Ozone, commonly referred to as smog, is formed from the reaction of nitrogen oxides and volatile organic compounds in the presence of sunlight. In 2015, EPA finalized a new ozone standard of 70 parts per billion (ppb). All parts of our service territory in the Upper Midwest and Southwest are in attainment and will likely stay in attainment with the 70 ppb standard. The areas we serve along Colorado's Front Range are already in non-attainment for ozone under the less-stringent 2008 standards, and will likely go further into non-attainment if the 2015 standard remains in place. While our operations contribute minimal amounts to the non-attainment, we will continue to work with the state as further reductions are needed in meeting the 2008 and 2015 standards.

All of our coal units and many of our combined-cycle natural gas units are controlled for nitrogen oxides through some form of precombustion controls, post-combustion controls or both. Any new requirements on our Colorado plants would likely occur in the early 2020s.



We are reducing our water use by serving customers with a cleaner energy mix. In 2017, 23 percent of our energy came from wind and solar power, which requires no water to generate electricity.

SUPPLY, QUALITY AND CONSERVATION

## Water Management

### Our Approach

Having reliable sources of water is essential to our operations and generating electricity at our thermal and hydroelectric plants. To serve our customers, we withdraw and safely return billions of gallons of water annually to nearby rivers and other sources.

Water conservation and protecting water quality are priorities for us. In the more arid Western and Southwestern regions where we operate, conserving and managing our water supply is especially important given challenges we face in dry years and concerns over drought.

## Meeting Mutual Water Needs

We anticipate that the Western and Southwestern portions of our territory will experience drought conditions in the future. To help meet different water needs during dry times, we continue to work with local water boards, management organizations, farmers and ranchers, other utilities and communities to develop innovative partnerships and agreements.

- Our Water Resources staff serves on boards and as officers overseeing nine ditch companies in Colorado where the company owns significant water rights. Conflicts involving water are often identified and amicably resolved through these organizations.
- We own very senior water rights on the Colorado River that are used to operate the Shoshone Hydroelectric Generating Plant. To help meet water needs within the city of Denver, along the Front Range and for some users on the Western slope, we established an agreement in 2006 to “relax” a portion of our water requirements for Shoshone during dry years. Colorado experienced below-average moisture in 2013, which is the most recent year that we executed on the agreement. We reduced Shoshone’s water use by more than half and allowed water to be stored for critical uses, benefitting users throughout the state.
- We have agreements with the cities of Longmont and Westminster in Colorado to exchange high quality water under our water rights with their lowest quality

water or effluent, which we use at our area power plants. It’s similar to a practice we pioneered in Texas where we use recycled municipal effluent for cooling at our power plants.

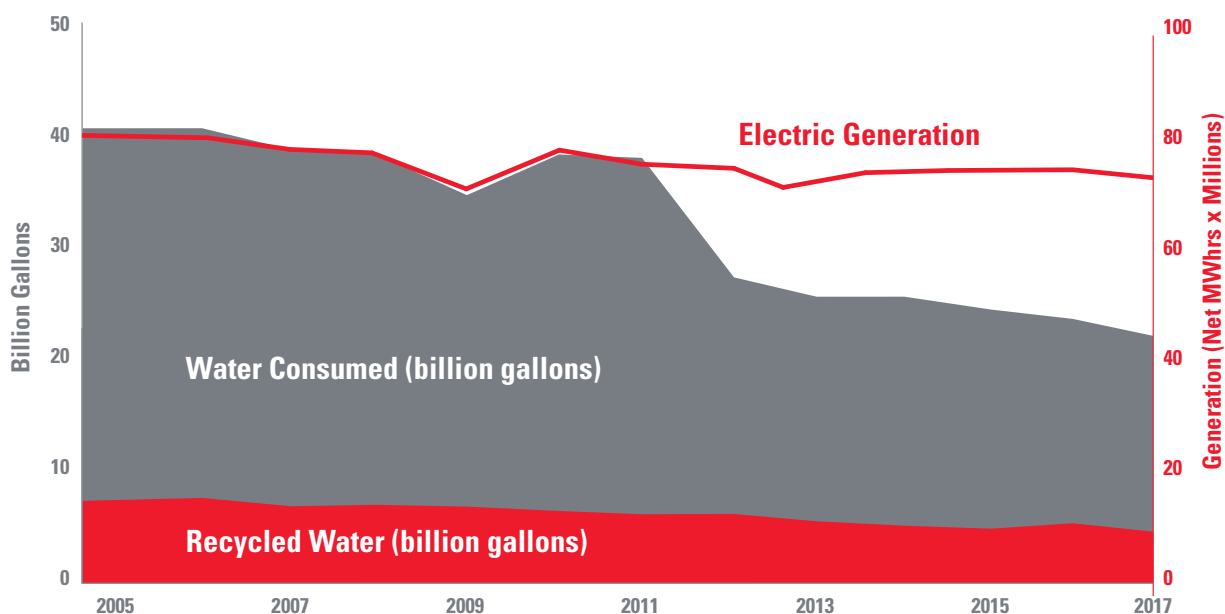
- In dry years, Colorado farmers typically lack the full water supply needed to produce marketable crops. Through a mutually beneficial agreement, we buy limited quantities of water that farmers have available and use it in our power plants. Under this arrangement, farmers are compensated, helping them financially during dry years.
- The Xcel Energy Foundation funds a statewide initiative of the Colorado Foundation for Water Education to help raise awareness about water as a limited and valuable resource. By connecting Coloradans with information and activities focused on water, the organization is motivating residents to become more proactive and supportive participants in the state’s water future.
- Xcel Energy is a member of the Minnesota Sustainable Growth Coalition, a business-led partnership of 33 businesses and organizations working to promote a circular economy in Minnesota. The coalition focuses on energy, water and waste issues. In the water area, the coalition is working on “greening grey infrastructure” or promoting infrastructure and practices designed to mimic the natural water cycle.

We also recognize that as a fundamental, shared resource, water is vital to the growth and development of our communities and for agriculture and other industries, as well as for habitat and wildlife. As competition for water increases and weather patterns change, our water resources will be more stressed. That’s why we continue to work collaboratively with other local water managers, to secure responsible supply options and to conserve water where we can.

As we transition to cleaner energy sources, we are reducing water use. In 2017, 23 percent of our energy came from wind and solar power, which require no water to generate electricity.



Since 2005, we have reduced water consumption associated with electric generation more than **40%**



## Water Use

We use water to generate electricity. At our hydroelectric plants, rushing water is the fuel that operates plant turbines to produce power. But by far, most of our water consumption occurs at thermal generating plants where water is used to produce steam for generating electricity and also for cooling equipment.

Cooling makes up more than 95 percent of a thermal power plant's water needs, depending on plant operations. Thermal plants generally use one of two cooling options that are uniquely designed for optimal heat transfer to water. This allows the plants to operate at maximum efficiency and generate the most electricity possible from the fuel source.

### Open-loop Cooling

For open-loop cooling, water is taken from a river, lake or reservoir and used to cool and condense the steam that drives turbines to produce electricity. Water is then returned to the river, lake or reservoir in accordance with all state and federal permits or requirements and in a condition that protects water quality for human use and the environment. Nearly all of our thermal power plants in the Upper Midwest use open-loop cooling, also referred to as once-through cooling.

### Closed-loop Cooling

With closed-loop cooling, water runs through cooling towers to cool and condense the steam used to drive turbines to produce electricity. Cooling towers require relatively low water volumes to operate efficiently. They operate in a way that minimizes fresh water withdrawals by reusing water multiple times in the cooling water system — up to 25 times at some plants — and providing a second, complementary reuse supply for other plant operations.

Nearly all of our thermal power plants in Colorado, Texas and New Mexico and one plant in Minnesota (Sherco Generating Plant) use closed-loop cooling. A portion of the water in closed-loop cooling systems may be returned to the river, lake or reservoir in accordance with all state and federal permits or requirements. Water may also be stored in evaporation ponds or used for other purposes, including coal-ash handling, with emission controls, for irrigation and other uses.

Several advanced, closed-loop cooling technologies are now available that may be built into new thermal plants for reducing water use. While these systems require less water for cooling equipment, they may be less efficient for producing electricity and are best incorporated into facilities located in areas with extreme water scarcity that warrant the use of more expensive technology.

### **Hybrid Cooling**

Both water and air are used for hybrid cooling. Air cooling reduces the need for water when ambient air temperature is sufficient to support the necessary cooling, but uses more water during other times of the year when heat transfer to air is inefficient. Electric production with hybrid cooling requires more fuel and produces less electricity than water cooling because of the less efficient steam cycle and additional electric load required by cooling fans. Only Unit 3 at our Comanche Generating Plant in Colorado uses hybrid cooling.

## **Managing Water Supply**

### **Thermal Operations in the West and Southwest**

According to the Colorado Division of Water Resources Cumulative Yearly Statistics 1996-2008, thermoelectric power generation makes up less than 0.5 percent of the state's water usage, with agriculture making up 86 percent of usage and the remainder going to meet municipal, environmental, recreational and other industrial needs.

In the semi-arid and arid states where we operate — Colorado, New Mexico and Texas — water is acquired for our thermal and hydroelectric plants through water rights and other agreements. We have strategic water resource plans that are updated annually to reflect our current operational requirements, local climate conditions and water use. Throughout the year we conduct a variety of activities to accurately predict and plan for future water supplies, which include:

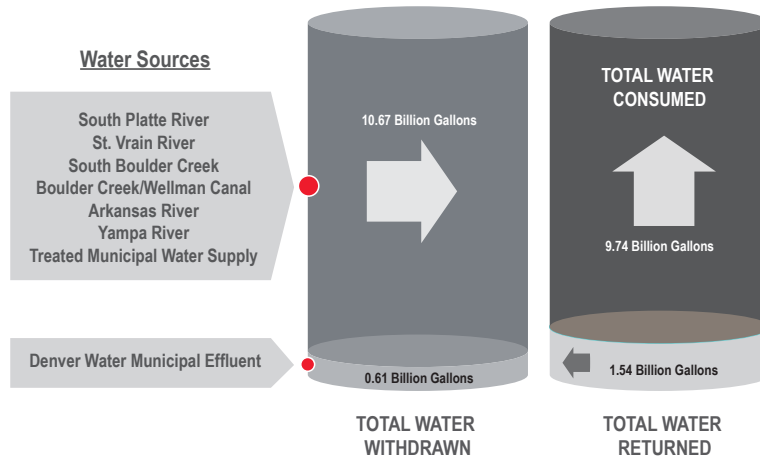
- Forecasting plant water requirements based on anticipated electric generation
- Accounting for the water we need and use
- Monitoring snowpack reports
- Studying stream flow forecasts, seasonal climate projections and changes to the Ogallala aquifer — the primary aquifer that underlies much of the region in Texas and New Mexico that we serve

We have pursued an integrated water supply portfolio strategy, including owned or self-supplied water rights, reservoir storage, groundwater rights and a number of other supplies, such as municipal and recycled water supplies. We own water supplies dedicated for our own use, and in Colorado, these water rights are available depending on regional water supply conditions in accordance with the state's prior appropriation system. Our portfolio also includes water from geographically diverse areas, including trans-basin water imported from other basins. This diversity is critical for maintaining a resilient, reliable water supply in the arid, climatically variable western United States.

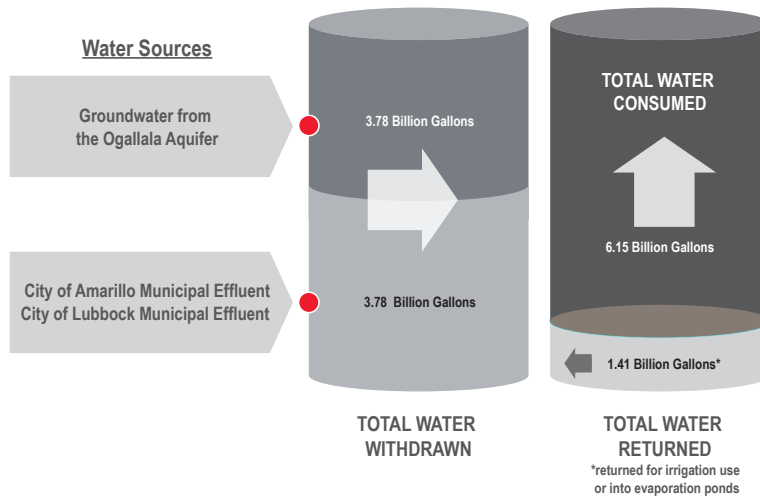
We have expended significant resources to improve our water supply and the resiliency of our systems. Other suppliers that we do business with have responded similarly, taking steps to improve their water supplies and adopt drought response plans for ensuring they meet their municipal and industrial water supply obligations. Further, they pursued the acquisition of geographically diverse water supplies originating in other river basins, enhancing the resiliency of their systems.

Finally, Xcel Energy has implemented recycled water where available and feasible, which minimizes the competition between water needs for power generation and needs for environmental, recreational, municipal or other industrial uses. Recycled water use has the added benefit of increasing the reliability of our water supply portfolio because it is virtually drought-proof. This preserves billions of gallons of fresh water that would otherwise be consumed through various operations.

## 2017 Colorado Water Supply and Consumption



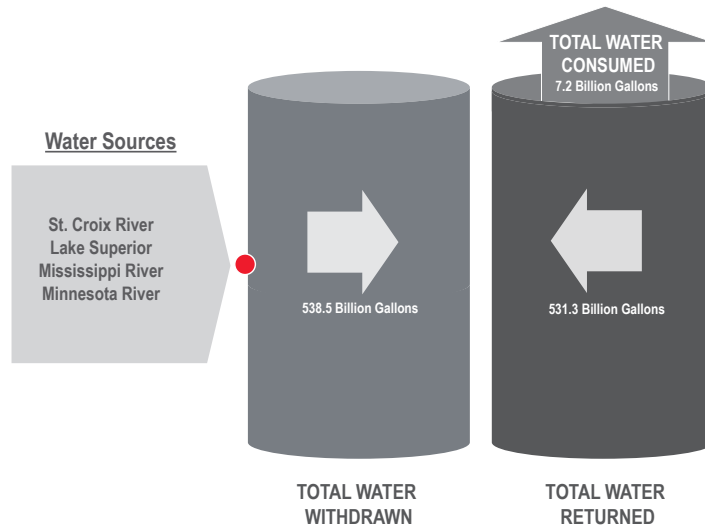
## 2017 Southwest Water Supply and Consumption



### Thermal Operations in the Upper Midwest

In Minnesota, Wisconsin and other northern states where water is more abundant, our thermal plants are permitted to use and return water to nearby rivers and other waterways. While our primary concern is water quality, we still take a strategic approach to water use in these areas by monitoring weather patterns and using meteorological forecasting models to predict and ensure an adequate water supply during times when unusually dry conditions are likely to persist. During these rare dry periods or drought years, we evaluate the use of alternative cooling options for each facility and implement prudent temporary measures to provide supplemental thermal cooling. In time of energy emergencies, our permits have provisions that allow some plant operating flexibility, along with additional environmental monitoring requirements to ensure protection of aquatic wildlife and biota.

## 2017 Upper Midwest Water Supply and Consumption



### Hydroelectric Operations

Xcel Energy operates 26 hydroelectric plants, including six in Colorado, one in Minnesota and 19 in Wisconsin and Michigan. These plants are built on rivers and other waterways where rushing water can flow through turbine generators to produce electricity. The Cabin Creek Generating Plant near Georgetown, Colorado, is a pumped-storage hydroelectric plant and is unique to our system. Water is pumped from a lower reservoir to an upper reservoir where the water is subsequently released through a tunnel to turn turbine generators. The energy helps meet peak generation demand and provides a backup to other renewable sources.

Hydroelectric plants do not consume water in the generation process even though water does naturally evaporate from reservoirs. We work with environmental and wildlife agencies to ensure plans are in place for monitoring watering quality, protecting aquatic life, ensuring minimum stream flow, preventing erosion, and controlling noxious weeds and other invasive plants. Many of our hydroelectric plants offer public recreational opportunities and some are stocked with fish.

**Xcel Energy’s hydroelectric plants operate on the following waterways; many of these are open to public recreation:**

Colorado	Minnesota	Wisconsin
Lower Clear Creek	Mississippi River	Chippewa River
South Fork Arkansas River		Apple River
South Clear Creek		Red Cedar River
Colorado River		Namekagon River
Animas River and tributaries		Montreal River
San Miguel River and tributaries		White River
		Flambeau River
		St. Croix River



## Maintaining Water Quality

All of our large plants in Texas and New Mexico, as well as several plants in Colorado, are zero-discharge facilities — no process water is discharged from the plant site. Instead, it can be reused for growing crops or disposed through evaporation ponds.

Other plants, especially those in Minnesota and Wisconsin, use once-through cooling where water is taken from a river or other waterway and returned to the environment. At all our plants where we return or discharge water, we systematically treat, monitor and analyze the water to ensure we are meeting discharge requirements and to protect fish and other aquatic life.

## Water-related Regulatory Developments

As we continue to transition to cleaner sources of energy and retire and repower aging fossil fuel plants, we are well positioned to meet evolving federal water requirements.

### Waters of the United States (WOTUS)

In 2017, President Trump issued an Executive Order directing EPA and U.S. Army Corps of Engineers to conduct a comprehensive review and revise the WOTUS rule finalized in 2015. The agencies then proposed and signed a final rule delaying implementation of the 2015 rule until February 2020. With this rule, the agencies intend to maintain the legal status quo of pre-2015 implementation, which provides some continuity and certainty while the agencies continue to consider possible revisions to the 2015 Rule.

### Water Quality

EPA periodically evaluates wastewater sources and establishes federal effluent limits based on technology improvements for various types of dischargers and updates its technology based Effluent Limitations Guidelines (ELG) under the Clean Water Act. EPA published its final, revised ELG for the steam electric power generating industry in November 2015. The final rule applies to power plants that use coal, natural gas, oil or nuclear materials as fuel and discharge treated effluent to surface waters, as well as to impoundments at utility-owned landfills that receive combustion residuals. In September 2017, the EPA finalized a rule that delays compliance with the ELG while EPA reconsiders it, delaying compliance by two years until November 2020.

### Cooling Water Intake

EPA has developed rules for cooling water intake structures under section 316(b) of the Clean Water Act, which requires that the location, design, construction and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact. Under the final rule published in August 2014, existing facilities that withdraw more than two million gallons per day from waters of the United States and use at least 25 percent for cooling purposes are required to implement measures to reduce impacts to aquatic organisms. Xcel Energy plants in the Upper Midwest are impacted by the rule and are making plans to address it through current evaluations for entrainment and impingement. The results of these studies will determine necessary improvements for the facilities to comply with the rule.

As we transition to cleaner sources of energy and retire aging coal plants, the coal ash produced at our plants has declined 41 percent since 2005.



REDUCE, REUSE, SAFELY DISPOSE

## Waste Management

### Our Approach

When it comes to managing the waste from our operations, we follow the same high standards outlined in our corporate environmental policy to responsibly reduce, reuse or dispose of our waste.

Our primary waste streams are from producing and delivering energy. This includes the coal ash that is left over from burning coal to generate electricity, and the materials and equipment that come from the maintenance and repair of our transmission and distribution systems, as well as our natural gas system.

In 2017, we recycled about 17,200 tons of waste from our operations while we disposed of nearly 9,400 tons, including 50 tons of hazardous waste. And we produced about 12 percent less coal ash than in 2016, as we continue to transition away from coal to use cleaner sources of energy.

The best way to manage waste is to prevent it, and we have programs in place to help with this, such as our chemical safety program that includes an approved product list to ensure we purchase and use chemicals that are nonhazardous and will not end up as hazardous waste.

As appropriate, we look for opportunities to recycle or reuse our waste. For example, rather than disposing of unusable plastic pipe or scrap metal, these materials can be reclaimed and used by others.

And when we must dispose of waste, we take steps to ensure that it is safely and properly disposed, which requires that our employees have the right training and follow the proper guidelines and procedures and that we use licensed facilities where applicable.

## Coal Ash Management

When coal is burned to generate electricity, the process leaves behind coal combustion residuals or byproducts, commonly referred to as coal ash. Our generating plants consumed 22.6 million tons of coal in 2017, supplied from mines in Colorado and Wyoming's Powder River Basin. From this, our plants produced an estimated 1.67 million tons of coal ash.

Throughout our system, we try to recycle coal ash whenever appropriate for beneficial use, such as in concrete products, roadbed material and engineered-fill material. Using ash for these purposes often helps to conserve and avoid the use of natural materials or resources. Approximately 25 percent of the coal ash produced at our plants in 2017 was reused, including 100 percent of the ash produced at our Texas coal-fueled plants.

As we install and operate new air emission controls at our plants the composition of the coal ash changes, making it potentially less desirable for beneficial use. At the same time, the coal ash produced at our plants has declined 41 percent since 2005, as we transition to cleaner energy sources and retire aging coal plants.

### Coal Ash Summary (estimated in tons)

	2015		2016		2017	
	Produced	Reused	Produced	Reused	Produced	Reused
Colorado	955,489	144,771	934,063	127,657	731,740	91,996
Southwest	280,710	280,710	274,785	274,785	289,391	289,391
Upper Midwest	770,347	155,962	699,401	55,982	649,662	43,531
<b>TOTAL</b>	<b>2,006,546</b>	<b>581,443</b>	<b>1,908,249</b>	<b>458,424</b>	<b>1,670,793</b>	<b>424,918</b>

## Finding Value in Ash

Each year Xcel Energy's Red Wing and Wilmarth generating plants in Minnesota burn about 400,000 tons of processed municipal solid waste to generate electricity. While the plants prevent the material from filling up local landfill space, a byproduct of the process is ash that still must be beneficially reused or disposed.

By finding another use for the ash other than disposal, an Xcel Energy team created a new business opportunity for the company worth \$12.5 million over 10 years. "This is one of those special projects that has something positive for all stakeholders," said Rick Rosvold, manager, Environmental Services for Xcel Energy. "It was very easy to get people onboard with it."

Through the project, Xcel Energy forged a new partnership with LabUSA, a metal-reclamation developer that will take the material to recover and recycle large quantities of metals contained in waste ash to sell into the market. The project built on the company's partnership with the Minnesota Pollution Control Agency and the local communities of Red Wing and Mankato where the plants are located. "All of our partners in this effort appreciate that we are keeping both the municipal waste and the ash out of the environment and out of landfills," said Rosvold, "while at the same time, managing energy costs since the project's revenue ultimately supports the bottom line of these plants."

A team of employees from Operations, Community Relations and Environmental Services all played critical roles to make the project reality. They were recognized with an Xcel Energy Innovator Award for pursuing the project in 2017.

## **Coal Ash Disposal, Groundwater Monitoring and Regulatory Compliance**

Coal ash that is not reused is properly disposed either in third-party owned and operated landfill sites or company-owned sites. Currently, only 22 percent of the coal ash we generate is disposed at company-owned sites, and as we retire aging coal plants, we will need fewer disposal sites. We currently have 13 active coal ash storage or disposal sites on our properties that will be reduced to seven by the end of 2019.

Even though we have operated in states where coal ash management and/or groundwater quality has been regulated for years, our facilities must now also meet requirements of EPA's Coal Combustion Residual Rule. Under the regulation, utilities across the country that dispose or store coal ash are required to conduct annual groundwater monitoring around their landfills or surface impoundments and to make the results publicly available on their websites.

Through this monitoring program, we have identified increases in certain substances at sampling locations immediately adjacent to our permitted coal ash storage and disposal areas above background conditions. From other groundwater sampling that we've performed over the years, we have no indication or reason to believe there are any impacts to local drinking water supplies beyond the testing site or property line.

Generally, these findings mean that we reached a screening threshold and need to do more investigation. Our next steps include either determining whether another source besides plant operations may be impacting groundwater in the area, such as agricultural or industrial activities and conducting additional monitoring of an expanded list of substances to determine if corrective actions may be warranted. If further testing identifies that corrective action is required, we will develop and implement plans to address the issue.

More detailed information on our coal ash management practices and our groundwater monitoring reports are available on [xcelenergy.com](http://xcelenergy.com).

## **Background on EPA's Rule for Managing and Disposing Coal Ash**

The U.S. Environmental Protection Agency's final rule for coal combustion residuals became effective in October 2015. The new rule regulates coal ash as a non-hazardous waste under Subtitle D of the Resource Conservation and Recovery Act. It establishes minimum national standards for the design, operation and closure of landfills and surface impoundments. Beneficial use of coal ash as defined in the rule is exempted.

Xcel Energy's facilities have been well positioned to comply with the new rule without significant impact to operations and cost. A number of parties, including industry and nongovernmental organizations, had challenged the rule, and in March 2018, the EPA proposed changes to it. While we are still evaluating EPA's proposal, these changes were anticipated and we don't expect them to have a significant impact on our operations or compliance plans.

## **Material Recycling and Reuse**

We are committed to preventing pollution and reducing waste as part of our business planning and decision making processes. Some of our waste materials can be recycled, reused or may consist of parts and materials that can be reclaimed. Not only does recycling or reusing materials save landfill space, but it can reduce the need for raw materials and save natural resources.

We began a major effort in 2016 to recycle "cobra head" style streetlights after launching a five-year project to replace these older lights with new energy-efficient LED fixtures throughout our service territory. We are investing in the new technology to support the energy goals of the communities we serve and to reduce operating costs. The new LED fixtures use about 40 to 60 percent less electricity than high pressure sodium lights and have a longer operating life, which means fewer replacements and less maintenance.

We could have potentially sold the fixtures for reuse, but we agreed not to put these older, less efficient lights back on the street. Instead, we are recycling the lights after removing and properly disposing of environmentally sensitive components.

In another unique recycling effort, we turn waste polyethylene plastic pipe into a versatile plastic lumber product. Since 2009, we have collected excess waste pipe from natural gas construction projects and ship it to a recycling facility, where the plastic pipe is transformed into the lumber.



Since 2010, we have donated more than 4,000 used wood poles to the 789-acre Wild Animal Sanctuary located in Keenesburg, Colorado. These poles, which would otherwise be landfilled at a cost to Xcel Energy, are used mainly for fencing at the facility, with excess used for building houses, tunnels, play structures or landscaping. The poles save the sanctuary significant funds each year, which can then be used to help save more animals. A new 9,004-acre facility in southern Colorado was recently opened and will benefit from this partnership as well.

A small natural gas plant in New Richmond, Wisconsin, was slated for decommissioning and demolition in 2017, with the site to be restored to its original state and the lot sold. In the course of soliciting buyers for the equipment, we received an offer from a regional fuel company to purchase the plant with assets left in place. This turned out to be a win-win situation, saving the cost and risk associated with the demolition project, as well as leveraging the value of the installed equipment.

Beginning in 2019, we will begin the multi-year project to replace gas and electric meters as part of the Advanced Grid Intelligence and Security strategic initiative. Depending on regulatory and planning considerations, we could replace up to 5.5 million meters. We are developing a plan for managing and recycling the old meters as part of the sourcing effort for this project.

### Material Recycling Summary (in Tons)

	2013	2014	2015	2016	2017
Cardboard					72
Batteries <sup>1</sup>					49
Plastic	57	83	57	53	72
Scrap metal	14,242	5,753	5,235	20,841	13,390
Used Oil	1,719	3,070	1,760	3,609	3,635

<sup>1</sup> Large lead-acid batteries recycled for reclaiming lead.

### Waste Disposal

The waste we generate and dispose must be disposed at properly licensed facilities, depending on the waste type. All of the vendors that we contract with to manage wastes are required to have a valid contract established in accordance with Xcel Energy's Supply Chain procedures and guidelines. Regulated wastes must be managed through the exclusive use of approved vendors that are systematically evaluated by our Supply Chain and Environmental Services departments. Our program requires routine audits of waste vendors that accept more highly regulated waste streams, such as hazardous wastes, asbestos, PCBs and used oil.

### Waste Disposition Summary (in tons)

	2013	2014	2015	2016	2017
Hazardous	42	65	553	31	50
Universal <sup>1</sup>	35	37	64	78	112
PCB related <sup>2</sup>	438	335	342	517	415
Asbestos	553	271	1,755	546	448
Special <sup>3</sup>	8,924	15,050	12,676	16,978	8,363

<sup>1</sup> Universal waste includes regulated waste such as fluorescent light bulbs, rechargeable batteries and mercury switches.

<sup>2</sup> PCBs (polychlorinated biphenyls) are chemicals controlled under the Toxic Substances Control Act. PCBs were historically used in transformer oil.

<sup>3</sup> Special waste includes oily materials recovered from our operations, such as rags, filters, soil and water.

## PCB Phase-out Effort

We have been phasing out equipment that contains PCBs from our transmission and distribution system for many years. The Toxic Substances Control Act of 1979 defines PCB equipment as equipment containing oil having a PCB concentration of 500 parts per million (ppm) or more, while PCB-contaminated equipment has oil with a PCB concentration of 50 to 499 ppm.

Xcel Energy previously undertook efforts to remove all known PCB (500 ppm or more) equipment from its system, including transformers, capacitors and other regulated categories of equipment. This equipment was targeted, removed and replaced with non-PCB equipment. In many cases, we retrofitted systems to accommodate the removal and replacement of regulated equipment with non-PCB equipment.

Other phase-out efforts include the replacement of regulated equipment with non-PCB equipment as systems are upgraded. Any regulated equipment removed from the field is disposed of and replaced with non-PCB equipment unless there are extenuating circumstances associated with the design or procurement of the equipment. Xcel Energy personnel are trained on PCB regulations and the proper identification, handling, removal and disposal of this equipment to facilitate phase-out efforts.

### PCB Contaminated Equipment and Oil Removed from the Xcel Energy System

	2013	2014	2015	2016	2017
PCB and PCB-contaminated oil (gallons disposed)	23,075	25,951	34,782	21,378	36,632
PCB and PCB-contaminated equipment (units removed from service)	714	764	711	632	815

## Legacy Manufactured Gas Plant Projects

In the late 1800s up until the mid-1900s, gas was manufactured using coal, oil and petroleum. It was used as natural gas is today, primarily for heating, cooking and street lighting. EPA estimates that thousands of manufactured gas plants or MGP facilities operated in the United States between 1815 and 1960. They were owned by municipalities and corporations, including predecessor companies to today's electric utilities. MGPs produced a variety of wastes and byproducts, including coal tar. Some of the waste and byproducts were sold for reuse or disposed off-site, and some were left at plant sites.

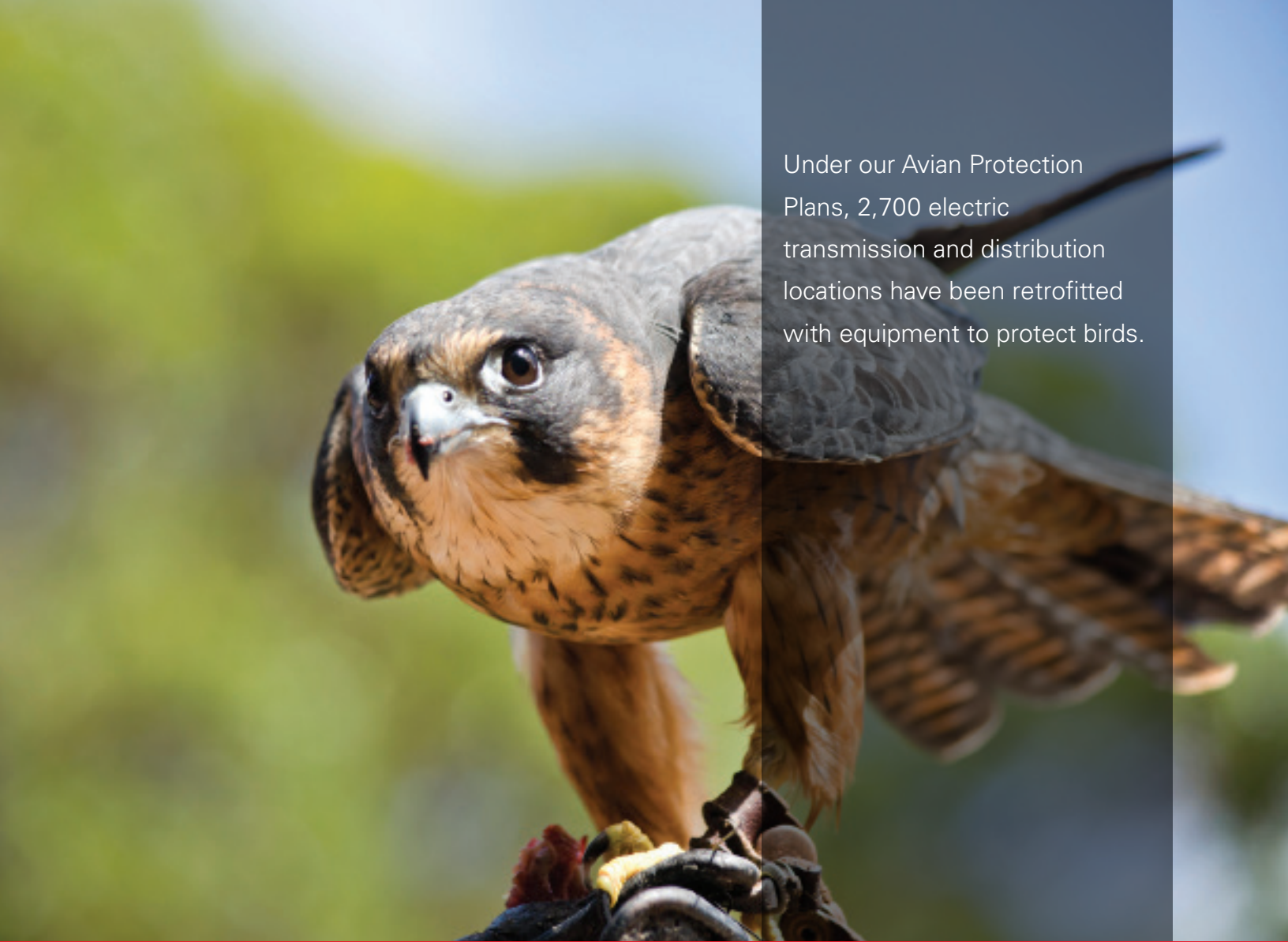
Given the extensive history of our operating companies — going back more than 100 years — Xcel Energy has inherited legacy MGP sites. All the plant facilities were closed and dismantled many years ago, and some of the properties where the MGP once operated have been sold. Over the years, Xcel Energy has worked cooperatively with environmental agencies and communities to successfully investigate and remediate former MGP sites when necessary.

### Ashland

Xcel Energy is part of an extensive remediation project underway in Ashland, Wisconsin. During the late 1800s and early 1900s, the lakefront in Ashland was one of the busiest industrial ports in the country. It was the site not only of a legacy MGP, but also other industrial operations. The MGP was operated at the site from 1885 to 1947 and provided gas for street lighting and businesses. Later, the site was used for a city-owned landfill and waste water treatment plant. In Wisconsin, we have owned a portion of the Ashland site since 1986.

The site is being cleaned under the supervision of EPA and the Wisconsin Department of Natural Resources (WDNR). EPA has identified several parties responsible for the cleanup. Under an agreement with the U.S. Department of Justice, EPA and WDNR, we have conducted Phase I of the project, which includes remediation of the impacted soils and groundwater at the site. The soil cleanup was completed in early 2015, and a long-term groundwater pump and treatment program is in place.

Phase II of the cleanup, which involved wet-dredging material from Lake Superior including wood waste, construction debris and impacted sediments, was initiated and substantially completed in 2017. Phase II will be completed in 2018 with the final hydraulic dredging of the remaining sediment and placement of a restorative sand layer in dredged areas. Final project work, involving construction of a protective cap over portions of the Phase I work areas, will be completed in 2019.



Under our Avian Protection Plans, 2,700 electric transmission and distribution locations have been retrofitted with equipment to protect birds.

## BIODIVERSITY

# Wildlife and Habitat Protection

### **Our Approach**

Xcel Energy's operations cover thousands of miles of transmission and power line right-of-ways, as well as the lakes, rivers and acres of land that surround our generating plants and wind farms. Given our footprint, we must take care and coexist responsibly with wildlife and the natural habitat that surrounds our facilities.

Protecting these special resources is a priority and a key component of our environmental commitment. This means that we consider our impact on wildlife as we upgrade, design and build facilities. For power line and plant construction projects, we may conduct risk assessments and studies to determine potential impacts and take steps to help avoid and minimize impacts from our activities.

We have a long history of working proactively with wildlife agencies and conservationists on special programs, research studies and regulatory efforts designed to protect wildlife and their habitats. If we do have impacts, we have programs in place to document and report incidents to regulatory agencies, and then determine what actions we can take to prevent future issues.

## Xcel Energy Pollinator Initiative Recognized

Spring was in the air as a group from Xcel Energy gathered at the King Plant in Bayport, Minnesota, to celebrate the company's initiative to help pollinators.

Working through the U.S. Fish and Wildlife Service, the Friends of the St. Croix Wetland Management District recognized the company for its work in helping pollinators. The group presented a plaque reading in part, "The support we receive from organizations like yours is critical to our success, and we wish to express our gratitude for your partnership in supporting our conservation program and efforts."

"It is so great to see excitement from co-workers on this initiative," said Pam Rasmussen, senior manager, Siting and Land Rights. "I want to thank employees at the King Plant for taking part in helping to restore this habitat and recognize everyone who helps to make this initiative a success."

In 2015, Xcel Energy signed the "Pollinator Pledge" committing at least 50 acres in the St. Croix Valley area to pollinator-friendly habitat. The company is currently transforming about 15 acres back to native prairie around the King Plant. In the fall of 2017, crews removed the buck thorn and non-native trees and shrubs on a remnant prairie site just south of the plant along the

St. Croix River. This spring, crews will follow up with treatment on the invasive plants, and in the early fall, assess the success of the native plants revegetating the site.

"This past year has been a great success for pollinator conservation thanks to dedicated partners like Xcel Energy," said Caitlin Smith, private lands biologist, U.S. Fish and Wildlife Service. "We sincerely appreciate your commitment and efforts toward this common goal of working together to establish more pollinator habitat on the landscape."

Xcel Energy has been proactive in creating and restoring lands that benefit pollinators and increase prairie habitat. Xcel Energy currently has more than 1,100 acres of active pollinator habitat and more than 200 acres in development in North Dakota, South Dakota, Minnesota and Wisconsin.

The projects include nearly 25 active and potential pollinator habitat sites on our properties and in partnership with other groups. New plantings are scheduled to take place this spring and fall at several locations. This will benefit a variety of pollinators, including the federally endangered rusty patch bumblebee and everyone's favorite, the Monarch butterfly.

As early as 1989, we began working with the nonprofit Raptor Resource Project to install nest boxes at several of our Minnesota generating plants to help restore the peregrine falcon to the Mississippi River Valley. With the program's success, we installed web-based cameras to share live video of the birds and their nesting habits. We currently have four bird cams that feature three different raptor species: bald eagles, great horned owls and peregrine falcons. The program has been tremendously popular with our customers, educators and others who are interested in the birds.

To further this type of work, the Xcel Energy Foundation supports stewardship and conservation projects through its focus area grants in the communities we serve. Last year, it provided more than \$473,000 in funding to support organizations and programs that work to protect and enhance our natural environment.





## Avian Protection Plans

Xcel Energy was the first utility in the country to enter into a historic agreement with the U.S. Fish and Wildlife Service to proactively address potential issues involving birds and power-line structures, while helping the company comply with federal avian protection laws. Our utility operating companies entered into separate voluntary memorandums of understanding with USFWS in 2002 to collaborate on developing Avian Protection Plans.

Transmission and distribution lines and equipment can be attractive to birds for roosting and building nests and can pose a collision and electrocution hazard that may result in death or injury. In addition, threatened and endangered avian species and eagles are protected by the federal Endangered Species Act and the Bald and Golden Eagle Protection Act, respectively. Our Avian Protection Plans are a critical initiative for protecting birds and complying with these federal wildlife protection laws.

As part of its plan, each operating company developed a schedule for retrofitting facilities determined to pose a higher risk for bird injuries or deaths. Since then, we've had great success completing the retrofits in a timely manner, as called for under the plans. All of the initially identified retrofits have been completed in our Colorado, Texas and New Mexico service territories. In our Upper Midwest service territory, we have finished the highest priority lines and poles and are working through the next level of retrofit projects. Additionally, all of our design standards have been updated so that new or modified construction meets avian standards to prevent or mitigate incidents.

In Colorado, we have retrofitted almost 1,700 locations. In our Texas and New Mexico region, we have retrofitted about 750 locations to date and have plans to retrofit an additional 546 locations during routine maintenance activities in the coming years. In the Upper Midwest, we have retrofitted more than 250 locations so far. Additionally, the Avian Protection Plan for the Upper Midwest region has been updated to reflect current design standards to ensure the continued success of our protection measures.

Xcel Energy employees are required under the plans to report injured or dead birds using the company's online reporting form. We then analyze whether reasonable retrofits or the installation of additional avian controls can minimize the risk of avian incidents at the location in the future. This reporting and evaluation process is another step in complying with federal avian protection laws and demonstrating our commitment to taking responsible actions for avian protection.

## Protecting Wildlife near Wind Turbines

Wind energy continues to be an important and growing part of our energy mix, especially as we look to build and operate more company-owned wind farms. Through wind, we are reducing carbon and other emissions and improving the environment in ways that ultimately support and protect wildlife. But, wind farms must be properly located, constructed, operated and monitored to minimize impacts to wildlife and protected species.

### Project Siting and Development

Before construction, we carefully select wind farm sites to ensure impacts to birds and other wildlife are minimized to the fullest extent practicable. As part of this, we work with wind project developers, the USFWS and appropriate state wildlife and natural resource agencies on siting and permitting to ensure turbine locations are not in critical habitat for threatened and endangered species. If issues are identified, we work with the appropriate agencies to avoid or minimize impacts. This includes following the USFWS's Land-based Wind Energy Guidelines, conducting multiple surveys and following other best practices.

Our Sagamore Wind project in New Mexico is an example of our commitment to responsible wind development. In addition to the project developer considering turbine locations that avoid and minimize impacts, we are voluntarily entering into conservation agreements. We have signed a letter of intent with the Lost Draw Conservation Bank to purchase preservation and restoration credits for the Lesser Prairie-Chicken (LPC) pending project approval and transfer of ownership.

Our participation in the Lost Draw Conservation Bank will help support LPC conservation by expanding, improving and protecting high-quality LPC habitat. The bank is expected to restore thousands of acres of habitat by reconvert agricultural fields and removing tall woody species such as mesquite. It will eliminate existing fragmentation, such as pivot irrigation, wind mills, and other tall structures, and provide permanent protection of this high-quality habitat using easements held by a New Mexico land trust.

## Wind Farm Operations

Once a wind farm is built, we continue to perform studies and monitor wind turbine operations. Our wind farms have detailed Bird and Bat Conservation Plans, which provide a framework for how we study, monitor and minimize impacts over the life a project — from wind farm planning to construction to the operation and maintenance and decommissioning.

Despite all these efforts, wildlife can be unpredictable and there are no guarantees. We report injuries or fatalities to USFWS and appropriate state agencies to ensure that additional mitigation measures can be developed if necessary. If protected avian species build nests in close proximity to existing wind turbines, we will evaluate what actions are needed to avoid and minimize impacts and engage our state and federal wildlife experts to ensure we take the right steps.

At our Pleasant Valley Wind Farm, we helped test promising new technology, IdentiFlight, with Boulder Imaging. IdentiFlight is designed to help avoid collisions by detecting and identifying eagles up to 1,000 meters and automatically curtailing turbines when tied to the SCADA system. The pilot test helped Boulder Imaging validate its technology and gave us valuable insights into how we might use the technology in the future.

In addition to the wind farms we own, we also purchase a significant amount of wind capacity. We expect our third-party wind suppliers to perform similar permitting, reporting, reviews and studies of their wind farm operations.

## Enticing Ospreys to Alternative Nest Sites

Ospreys are federally protected raptors that have been successfully reintroduced in the Midwest, following decades of restoration and conservation efforts. Ospreys like distribution poles and transmission structures for nesting, but nests built on utility poles can pose a threat to the birds and may cause outages and damage to electrical equipment. Xcel Energy frequently erects alternative nest platforms that are taller than nearby lines in known osprey nesting areas to provide more attractive and safer nesting sites, while protecting system reliability. We also work closely with communities and civic groups to help them evaluate utility poles near high-quality osprey habitat, to identify alternative sites and assist with building and installing safe osprey nest platforms.

## Lesser Prairie-Chicken Conservation Agreement

Xcel Energy has voluntarily entered into a conservation agreement with the Western Association of Fish and Wildlife Agencies (WAFWA) pursuant to the Lesser Prairie-Chicken Range-Wide Conservation Plan to mitigate impacts to this species of prairie grouse in areas where we operate. The USFWS listed the LPC as a threatened species in 2014 due to the rapid decline in its population over the past 15 years. In 2015, a court vacated this listing and the USFWS is currently reexamining whether to relist the species.

Rangelands in our Colorado, New Mexico and Texas service territories serve as important habitat for the LPC, and under the conservation agreement, Xcel Energy implements conservation measures on enrolled properties that help protect this habitat. The company paid an enrollment fee of \$60,000, and pays mitigation fees based on anticipated development activities on enrolled properties. For enrolled projects, we also follow avoidance, minimization and mitigation measures during operation, maintenance and new construction activities. These measures may include burying distribution lines within a certain distance of active breeding areas and using mono-pole construction in certain LPC habitat areas.

The goal of the WAFWA conservation plan is to increase the population of the species from about 17,000 birds in 2013 to 67,000 birds across the range states of Colorado, Kansas, New Mexico, Oklahoma and Texas. These efforts appear to be working. The 2017 WAFWA survey showed a statistically significant trend in the LPC population increasing since 2013.

## Vegetation Management

Xcel Energy's Vegetation Management department manages millions of trees across approximately 50,000 miles of distribution right-of-way and 20,000 miles of transmission right-of-way throughout our service territory. For more than 20 years, the Arbor Day Foundation has recognized us as a Tree Line USA utility for our commitment to proper tree pruning, planting and care.

We use industry best practices such as Integrated Vegetation Management, which encompasses a progressive system of information gathering and helps us develop compliant solutions for controlling vegetation near electric and natural gas facilities.

The practice helps us achieve our vegetation management goals in an environmentally sensitive, socially responsible and cost-effective manner.

In addition, pruning methods comply with standards set by the American National Standards Institute and the Tree Care Industry Association, which are endorsed by the International Society of Arboriculture.

Our practices seek to balance our customers' need for reliable energy while respecting the natural environment that surrounds our facilities. For example, we work with landowners to determine if trees and other vegetation can be deemed compatible with safe operation of our electric lines.

In our efforts to comply with governmental regulation and to better ensure electric system reliability, our transmission line vegetation management program emphasizes the removal of incompatible vegetation to promote long-term vegetation control. In many cases, this means removing trees in areas where trees had been pruned in the past.

We employ manual and mechanized clearing techniques, as well as responsible herbicide applications. All herbicides used are products that are registered by the EPA and the appropriate state regulatory agency. The herbicides are applied by licensed applicators.

