





Camaraderie and culture at Chestnut

(Editor's Note: Ben Fowke, chairman, president and CEO, periodically writes a blog on XpressNet, as well as other articles and communications. *Xtra* features Fowke's comments on a recurring basis to share his thoughts with a wider audience.)

It's impossible to walk out the front door of our downtown Minneapolis campus and not see significant street construction on Nicollet Mall. It's safe to say that every employee in the city is looking forward to this fall when the major renovation project is "substantially complete." I know I am.

Xcel Energy's heavy lifting for the Nicollet Mall renovation effort is over, but construction continues. Our teams logged approximately 60,000 hours to update the city's "main street" before Super Bowl festivities take place next year — hopefully involving the Vikings and the Broncos.

Moving underground utilities is difficult work, and our employees did it efficiently, effectively and safely. No injuries were reported during this multi-year project.

After visiting our utility construction team at the Chestnut Service Center, I'm not surprised at this outstanding safety record. You can't have a strong safety program without a strong culture — employees who value and promote safety and look out for each other.

A few years ago, it was difficult to get people from the team to serve on the employee safety committee. Now, there is a waiting list.

It is no surprise that this is the group that won

our recent employee safety-suggestion contest. And I absolutely love what the team did with the \$5,000 prize money.

"Moving underground utilities is difficult work, and our employees did it efficiently, effectively and safely. No injuries were reported during this multi-year project."

Because it was a team suggestion, the entire group enjoyed a huge team barbeque, paid for with their winnings. Talk about teamwork.

Safety is so important to this organization that we recognized two of the instrumental Chestnut team members – Tim Mahoney and Nic Rush – at a recent Xcel Energy board of directors meeting.

Congratulations to all members of the team on their strong safety and operational results, and thanks for all the heavy lifting underneath Nicollet Mall. The entire city of Minneapolis is looking forward to the finished product. \leftarrow

I Deliver, Innovator



We've been looking for ways to reward our team for outstanding work as it happens to help encourage collaboration and excellence, and I'm pleased that we now have a new system to do just that. Our new I Deliver and Innovator Awards allow leaders to award performance incentives when their teams and employees deliver greater than expected results.

We are committed to offering rewards that not only motivate employees, but also give leaders the ability to promptly recognize results that exceed our expectations.

By approaching our work in the spirit of continuous improvement, we will be ready to capitalize on the opportunities ahead. These award opportunities are designed to help fuel innovation, continuous improvement and an enhanced customer experience.

I am proud of the work that is being recognized in this first round. The following are brief descriptions of some of the accomplishments of recent Innovator, I Deliver and Spot-On Bonus award winners.

Congratulations to all of the award recipients and keep up the good work.

-Ben Fowke

I Deliver Awards

 Environmental Stewardship – An environmental analyst worked with local landowners, subject-matter experts and others to promote milkweed plantings on irrigation plots near a company power plant. Demonstrating the company's core values and community involvement, the effort is helping increase the amount of ideal habitat for bees, monarch butterflies and other pollinator species.

- Process/Productivity Improvement Early in Energy Supply's
 deployment of SAP, a senior generation reliability analyst
 identified a gap in the work-order process that could allow
 accounting errors to slip through unchecked. He developed
 a system of automated checks, and due to his efforts,
 thousands of work orders are now checked and errors
 resolved promptly.
- Process/Productivity Improvement A company engineer created an automated tool for tracking contractor progress on wind farm construction. Previously, this data was only available to the company once a week through the contractor. Now, real-time information is available, allowing Xcel Energy to quickly react to problems or delays, as well as better manage costs and other project risks.
- An engineer developed an innovative approach to waste disposal and material fill work, saving the company significant money. Due to the large amount of waste needing disposal, the engineer negotiated a reduced fee for removal. Additionally, she discovered excess waste needing removal and conducted a cost analysis, finding a more cost-effective approach. These methods saved the company approximately 6 percent of overall costs, and demonstrated a commitment to continuous improvement and challenging the status quo.

Innovator Awards

 A cross-functional team competed and won new a natural gas service opportunity at a 200-acre development in Eagan, Minnesota, bringing in future estimated gas revenues of \$1.5 million per year. The team overcame direct competition to win the new gas business, and also completed a new competitive gas agreement with the Minnesota Vikings. Key departments

Awards under way

involved included: Gas Business Development, Gas Engineering, Account Management, Service Design, Legal and Community Relations.

- A cross-functional team in Colorado developed operational changes to safely achieve lower minimum operating loads – by more than 300 megawatts – for the majority of the state's coal fleet. This work allows for more renewable generation and helps maintain thermal unit availability. The effort will save customers more than \$4 million per year in generation cost, allows for greater operational flexibility and reduces long-term 0&M costs. This type of work could possibly be replicated across Xcel Energy.
- A cross-functional team supporting Business Systems'
 continuous-improvement efforts transformed how work is
 performed in the business unit, delivering \$16 million in savings \$4 million more than targeted. The team created a plan
 to change the IT operating model, capture sustainable 0&M
 savings and develop new strategic capabilities. The team
 demonstrated its ability to change the way the business unit
 works and transform its cost structure.
- A team of employees worked on the passage of the Becker Gas and the Biomass bills in Minnesota. The Becker bill provides an opportunity for investment in a natural gas power plant as part of the replacement of Sherco Generating Station's Units One and Two. The bill passed in record time and was publicly signed at a ceremony with the governor, who praised company efforts to find a solution supported by stakeholders. The Biomass Bill supports the unwinding of substantially over-market, biomass power-purchase agreements that are a significant cost to customers. The effort required careful negotiations to turn opposition into support. These legislative victories will create more than \$500 million in savings for customers.

Spot-On Bonus Awards

 An employee from Distribution took the initiative to create outbound call notification scripts to inform customers that wood chips may be available when Vegetation Management crews are working in their area. She also ensures that the



"These award opportunities are designed to help fuel innovation, continuous improvement and an enhanced customer experience."

-Ben Fowke

CRS system in Customer Care is updated with critical information when Vegetation Management is engaged in negotiations with a customer.

 In addition to her role working with external customers for credit and collections, a Customer Care employee takes the initiative to coach and provide feedback to call agents regarding processes and areas in need of improvement. She also offers hands-on support to her team and assists in providing guidance to newly hired agents. In addition, she creates weekly team-building questions to help team members learn more about each other.

Xtra will periodically run a short list of some of the winners going forward. To learn more about the I Deliver and Innovator awards, visit the Annual Incentive Program page on XpressNET.









As blood is to the human body, water is to the modern power plant. Impurities can wreak havoc and cause harm.

However, a new boiler water system at Nichols Generating Station near Amarillo – serving both Nichols and nearby Harrington Station – is putting future worries to rest.

"This boiler make-up system is state of the art," said Bruce Gomm, project manager. "It takes advantage of the latest technologies and sets us up for the rest of the operating lives of both plants."

The Nichols Demineralization Project replaced an aging boiler-water facility at the plant. Ultra-pure water is used to "make up" or compensate for loss from evaporation and leakage as steam is super-heated to 1,000 degrees Fahrenheit, he said, and is used to spin turbines at 3,600 rpm to produce electricity at just the right frequency.

Harrington and Nichols have a combined output of more than 1,500 megawatts and require boiler pressures approaching 2,800 pounds per square inch, requiring extremely high water purity

The former water-treatment facility was comprised of a mix of components installed over the life of the Nichols plant,

with some components dating back 45 years. Major components such as vessel liners, valves, resin and outdated controls were beginning to fail, he said.

An economic analysis showed that performing repairs was comparable to a complete replacement of the treatment facility.

Water for the boilers needs to be very pure, as in equal to the semiconductor industry. The equivalent of one teaspoon of sand in one 40,000-gallon Harrington unit will force it offline, Gomm said. Drinking water has roughly 20,000 times more dissolved minerals, and distilled water roughly 20 times more.

The exceptional water quality produced in the new facility is created at 300 gallons per minute in separate 150 gallon systems. They send the water through the following processes:

- Ultrafiltration utilizes ceramic straws, bundled into vessels that remove suspended solids down to .04 microns. In comparison, a human hair is 30 microns in diameter.
- Double Pass Reverse Osmosis is a water-purification technology that uses a semipermeable membrane to remove ions, molecules and larger particles from drinking water. A double pass happens when the permeated water is fed into a second unit to produce even purer water.









- Electrodeionization is a water-treatment technology that utilizes electricity, ion-exchange membranes and resin to deionize water and reject dissolved impurities from the water.
- And Finish Polishing uses a mixed-resin bed of both cation (negatively charged) and anion (positively charged) resin that

 like a magnet – attracts opposite ions, removing positively
 and negatively charged impurities from the water. The mixed
 beds also help protect the water supply should the electrode ionization process fail.

The new treatment system is similar to the water plant installed at the Jones Generating Station near Lubbock, Texas in 2012.

The Nichols project included construction of a new 50-foot by 80-foot building next to the existing water plant, he said. When completed, the new plant was tied into the water-delivery piping and configured into the existing Nichols controls system.

Plant chemical technicians Chris Shadbolt and Ken Sudbury were instrumental during the design and construction phases of the project, Gomm said, along with technical oversight by Bernie Wieck of Chemistry Resources.

"In terms of reliability and long-term use, a new building made the most sense after we considered all of the options," he said. "It is now a very advanced, high-tech system."

Nichols

The Nichols Demineralization Project replaced an aging boiler-water facility at the plant, which also serves Harrington Station. Both power plants near Amarillo have a combined output of more than 1,500 megawatts and have boiler pressures approaching 2,800 pounds per square inch, requiring extremely high water purity. Pictured above is Ken Sudbury, chemical technician, working at the new facility. At far left is Chris Shadbolt, chemical technician, checking a monitor, with chemist Bernie Wieck in the background. Nichols Generating Station is pictured above center. (Photos by Troy Foos)



Xcel Energy is gradually trimming its use of coal for energy generation and turning to natural gas as a way to reduce emissions and meet the demands of customers.

Black Dog Generating Station, originally built as a coal plant in Burnsville, Minnesota, is the latest company power plant to be converted to a natural gas-fired plant, slated to be up and running early in 2018. It follows the path of High Bridge, Cherokee and Riverside — power plants that went before Black Dog in the transition from coal to natural gas.

The \$100 million budgeted project entails the tear down and reconstruction of previous, outdated equipment, as well as the connection of a natural gas pipeline to the existing plant,

said Mark Danberg, project portfolio manager of current Black Dog projects. The move is occurring within a larger effort by the company to cut carbon-dioxide emissions.

"It is going fill a generation-need gap at times during the year, mostly the summer and the winter peak periods."

Danberg said.

The first two original coal-powered units were replaced from 1999 to 2002 with a natural gas, combined-cycle facility, rated at 282 megawatts, summer capacity. Then two years ago, Black Dog saw its two remaining coal units retired.

A new gas-fired combustion turbine now sits in the place of once coal-fired Unit Four, he said, after the removal of parts of



the retired Unit Four to fit the larger, more powerful turbine now named Unit Six.

Black Dog soon will have total production of 496 megawatts in the summer from three gas units, and 530 megawatts of capacity in the winter.

Planning for this current project began before the retirement of coal Units Three and Four. Once these units were no longer in use, the infrastructure became available for other purposes.

"What really drove the need for this project was the retirement of Black Dog Units Three and Four," Danberg said. "After their retirement, we had some room on our transmission system

where they used to produce power, and we wanted to be able to reuse that capacity. We didn't want to give that up."

The new 214-megawatt, turbine-generator unit sits on a newly constructed concrete foundation to support the 475 tons of equipment. Special Construction crews constructed the foundation using a particular mixture of concrete in order to withstand the weight of the turbine-generator.

Construction crews and a large crane moved the components — each weighing about a half a million pounds — inside the plant in March, he said. An inlet air filter is now being constructed, along with an exhaust stack and other support equipment.







The most challenging part of the process involved configuring the new unit within the existing plant building at Black Dog, Danberg said. Modifications were needed in order to make the move-in possible.

The new natural gas line is being installed to the plant from a town border station in Eagan, Minnesota. Xcel Energy's gas business won a competitive bid to meet Black Dog's additional fuel needs and is currently installing the pipeline.

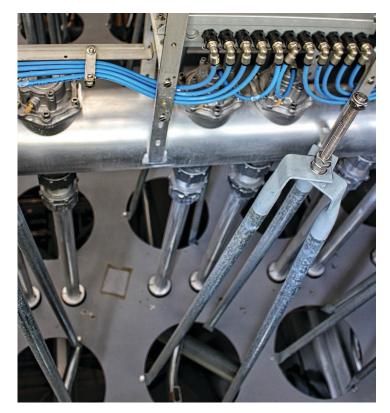
On the hottest days of the year, energy demand goes up.

This is primarily due to systems that require an increased load of power such as air conditioners. The same can be true in the winter, however, on days of extremely low temperatures.

Unit Six has a shorter startup time for high-demand periods than Units Two and Five, which are combined-cycle units. These combined-cycle systems are designed to run for longer periods to meet power demand. Unit Six will be used for short periods of time to meet peak demand.

"It's a lowest-cost option for short periods of higher









New Generation

Black Dog Generating Station, originally built as a coal plant in Burnsville, Minnesota, is the latest company power plant to be converted to a natural gas-fired plant, slated to be up and running early in 2018. It follows the path of High Bridge, Cherokee and Riverside – power plants that went before Black Dog in the transition from coal to natural gas. Pictured here are several scenes of the ongoing construction taken by Josiah Mayo, Strategic Communications intern.

demand," Danberg stated. "You have to be able to meet the demands of power consumption when the customer wants it."

For the purposes of meeting high demand, a simple-cycle unit such as Unit Six is the most cost-effective option, he said.

The project at Black Dog also serves a dual purpose. The completion of Unit Six will allow the company's system to assist renewable energy sources, as well. New wind generation continues to be installed, and the simple-cycle unit will help meet demand on days of low wind.

Unit Six will help allow Xcel Energy keep on track as the No. 1 wind provider in the nation, he said. The project is one more step in the process of producing cleaner energy across the company.

"There will be days that the customer wants power and the wind isn't there, and this is a resource that's available to make sure the customer gets power on those days," Danberg said. "It will be available to ensure they get the power they need — and expect to have — when they flip the light switch." ←



A major effort is improving the customer experience for requesting new service from Xcel Energy – including everything from new single-family homes to new commercial buildings.

"We're working together to expose customer pain points, develop solutions and make it easy for all customers to do business with us," said Jen Wood, co-team lead of the Customer Strategy Team in Distribution Operations. "We're working to make sure employees have the right tools, training and technology to deliver exceptional experiences to our customers who request new service.

"By stripping down the complexity of our processes and making it easier for customers to do business with us, we will become more efficient and produce cost savings," she added. "And by improving our customer's interactions with us in the new-service request process, their satisfaction will increase and have a positive impact on the company's overall reputation."

The company's new-service process includes all of the work involved in setting a new gas or electric meter on a site, including the backbone infrastructure leading to the meter. The effort began by gathering a group of frontline employees to map out what customers currently experience and what the ideal experience should look like when the effort is done. The maps were then validated in interviews with homeowners, builders and developers, who gave the team direct feedback.



Various employees handle many customer touch points, and customers may interact with numerous employees during the process, including Builders Call Line agents, field crews, engineering, designers and metering departments.

"Our vision is to provide employees with the tools they need to deliver an easy, seamless and consistent experience for our customers who are requesting new service," said Cheriese Marczyk, the team's other co-lead. "New-service interactions are an important moment in our relationships with customers and a significant part of what we do."

For instance, new service requests and the associated work involved totaled more than half of all work orders for Distribution in 2016. Plus, an increasing number of requests, along with customer expectations, are putting pressure on the company's efforts to maintain its positive reputation.

"Our customers' trust and the company's reputation are at stake, which none of us should take lightly," Marczyk said. "To that end, this effort involves our drive for operational excellence and continuous improvement."

The Customer Connection effort began in July 2016 with mapping current processes and what is needed for an ideal experience — by taking a walk in customers' shoes. A gap analysis at the time revealed five major issues. They included:

- Expectations and Education, including project planning and the need to clearly communicate all steps in the process to create a smoother journey. The new service pages on xcelenergy. com are being revamped to make it easier for customers to find the information they need.
- Constant Communication, so customers never feel in the dark, and the number of calls needed is reduced through improved communications.
 The team is pursuing development of

an online, self-serve customer portal available at all times on all devices. The portal will enable automated updates to customers, giving them peace of mind and allowing them to plan.

- Access to Information, again to improve overall communications. Employees will have more and improved information to better serve customers so everyone is on the same page.
- Opportunities for Feedback, so the new-service process can continue to be improved. To keep up with changing expectations and measure progress along the way, a new survey is asking for customer feedback on the entire new-service journey.
- And Partnerships, which will help develop more specific solutions to address gaps. Other entities that the company works with also must work with customers in the new-service process. The continuous-improvement effort is helping make hand-offs to cities and trade partners more seamless.

The team, made up of employees from all areas of Distribution Operations, is now developing and implementing numerous solutions, based primarily on three criteria, Wood said. Those include priority, determined by customer pain points; time estimates, determining how long it will take for implementation; and the consideration of Work Asset Management timelines.

More than 40 different solutions have been identified, she said, and more than 20 of them are up and running.

"We began designing solutions earlier this year," Wood said. "Solid governance is helping, along with many crucial partnerships with other company departments. Although we have a ways to go, we are well on our way to a much improved customer experience."

Lori Gustafson, a service policy analyst in Distribution in Wisconsin and Michigan, is serving as a subject-matter expert on a number of the identified solutions. The overall effort has helped the company overcome a lot of challenges with customer touch points, she said.

"It's been a great effort," Gustafson said. "We're looking at the big picture — from start to finish — for both internal and external customers, including our trade allies.

"We're considering everything, including how the changes will affect both company departments and customers," she added. "This effort will help us be more prepared for the future in terms of boosting customer satisfaction. I believe the company is on the right track to improve customer focus and operational performance."

Gustafson currently is on three teams, where all members add insight on how current processes and functions work, she said, while also offering suggestions for potential improvements.

Matthew Young, a service policy analyst in New Mexico, took part in a team that helped create a cover letter that can be used across the company. It provides customers with information and details, including their construction account, their upfront payment and next steps to keep their project moving smoothly from design to construction.

Young also was involved in a team looking at payment notifications, in which he helped develop an internal solution to notify designers of customer payments.

"Good communications are paramount to good customer service and staying competitive, he said. "With better processes and communication, we will give customers confidence that we're improving our operations and looking out for them.

"It's been challenging and involved a lot of good conversations to get on one page and synch up everyone's thoughts," he added. "Ultimately, it's been an important and fun experience. And it's great to now see it all coming together."



Roseville Pole

Sam Maslonkowski, nuclear engineer II at 414 Nicollet Mall, got up close and created a nice angle for this photo of a company utility pole in Roseville, Minnesota.

Editor's Note: "Photo Op" is a standing feature in Xtra. Each issue, a photo submitted by a reader or produced by a member of Corporate Communications will be published. Please submit high-resolution digital photos to the editor at the email address listed on the back page of this publication. By submitting images for "Photo Op," employees give Xtra permission to run the photos.

Second quarter earnings announced

Xcel Energy recently reported 2017 second quarter GAAP and ongoing earnings of \$227 million, or \$0.45 per share, compared with \$197 million, or \$0.39 per share, in the same period in 2016.

Earnings for the second quarter of 2017 increased due

Finances

to higher electric and natural gas margins to recover infrastructure investments, along with a lower effective tax rate and lower operating and maintenance expenses, partially offset by higher depreciation.

"Second quarter results were in line with our plan and positions us to deliver earnings within our guidance range," said Ben Fowke, chairman, president and CEO. "At the same time, we have accomplished key milestones in the regulatory arena that will bring tremendous value to our customers and shareholders over the longer term."

The Minnesota Public Utilities Commission recently approved Xcel Energy's plans for seven new wind farms in the Upper Midwest, part of the largest wind energy expansion in the country. And the Colorado Public Utilities Commission approved the settlement regarding the company's proposal to deploy new and innovative technologies on the distribution grid.

"These initiatives are key components of our plans to keep energy costs low, improve reliability, reduce carbon emissions by more than 60 percent by 2030, and enable new ways for customers to manage their own energy use," Fowke said. "We look forward to executing on these plans and realizing their value."

'Up and running in less than two minutes'

Dear Xcel Energy:

Today at approximately 6:20 p.m., all of my electricity suddenly went off. The temperature here in Roswell was

110 degrees Fahrenheit.

Letters

After checking all of the breakers and not resolving the problem, I called my daughter and son-in-law.

They, in turn, called your service department.

They were told it might be as long as three hours before a Roswell serviceman could respond. I went to my neighbor's home as she still had service.

About 45 minutes to an hour later, I heard a noise. I went outside and then directed the Xcel Energy truck to my home.

A very polite serviceman, Jerry Ives (line working

foreman/serviceman, Roswell, N.M.) had me up and running in less than two minutes. The main outside breaker had tripped.

I had overloaded the system. God bless Xcel Energy and Jerry.

-Donna Blair, Roswell, N.M.

'Find more guys like him'

Dear Xcel Energy:

Just wanted to take a moment to praise the service that we got today from Jim Linehan (troubleman, White Bear Lake, Minn.). He went out of his way to provide the kind of service that everyone hopes for.

He was quick, efficient, polite and did an excellent job. Find more guys like him. Jim - many thanks!

—Larry Puckett, Stillwater, Minn.

Xcel Energy Earns EEI 'Emergency Recovery Award'

The Edison Electric Institute (EEI) recently presented Xcel Energy with the association's "Emergency Recovery Award" for the company's outstanding restoration efforts after Winter Storm Jupiter hit the Texas Panhandle earlier

The award is presented twice annually to EEI member companies to recognize their extraordinary efforts to restore service to customers after severe weather conditions cause service disruptions. The winners were chosen by a panel of judges following an international nomination process, and the awards were presented during EEI's Annual Convention in Boston.

Extensive damage from freezing rain and high winds caused 58,000 customers to lose service in the northeastern counties of the Texas Panhandle following Winter Storm Jupiter. Xcel Energy's crews worked quickly to repair damage to more than 7,500 structures, including 43 miles of a distribution line that serves four rural communities.

Crews devoted more than 92,800 hours to restore service. In total, 1,350 poles, 3,700 cross-arms and 6,000 insulators were replaced. Transmission construction crews also repaired damaged transmission lines, fiber-optic lines and transmission structures.

"The tireless work of Xcel Energy crews to restore service following Winter Storm Jupiter exemplifies our industry's commitment to customer service and safety," said Tom Kuhn, EEI president. "The courageous and dedicated Xcel Energy crews who faced hazardous conditions are greatly deserving of this recognition."

David Hudson, president of Xcel Energy-Texas and New Mexico, said Winter Storm Jupiter was memorable not just for the hardships, but also the kindness shown to close to the 1,000 Xcel Energy employees

and contractors who responded.

News Briefs

"Our communities went above and beyond to accommodate such a large influx of people during a stressful time," Hudson said. "They provided us locations to stage our crews, businesses donated food, and we even had a group of residents provide a dessert buffet. This meant a great deal to the crews who traveled long distances to help."

Online Xtra subscription available for employees and retirees

Xtra readers can now opt out of receiving the print version of Xcel Energy's employee and retiree publication, and instead read the online version on XpressNet or via a portal on the company's website at xcelenergy.com.

To complete the opt-out process, employees need to fill out a form on the Xtra homepage of XpressNet, providing their name, employee ID and company email address. Those who choose to opt out will receive an email when a new issue is available for online viewing.

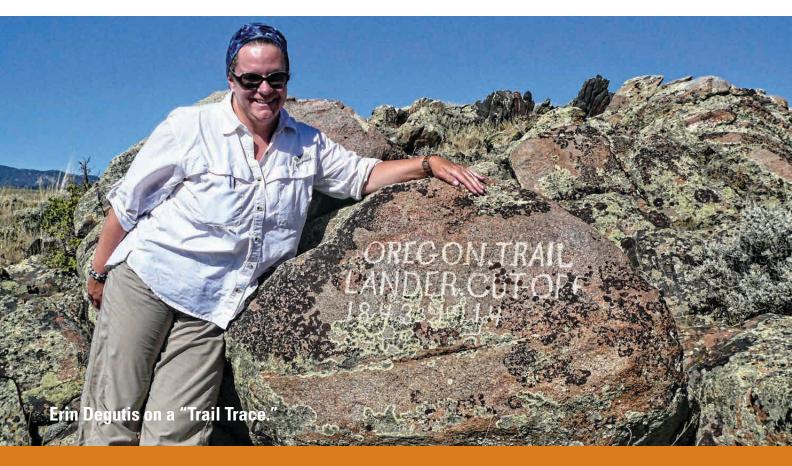
The opt-out form and online versions of *Xtra* can be found by clicking on the "Xtra Online" link, located at the bottom of the XpressNet homepage. The online edition of Xtra also can be found at xcelenergy.com/Xtra – or from the home page, look under Community/Community Involvement/Retiree Directory.

In addition, retirees can opt out of receiving the print version, or request address changes regarding home delivery of the print edition, by calling the Human Resources Service Center at 800-689-7662. They also are invited to visit the webpage noted above (or xcelenergy.com/Retirees) to view the latest issue, as well as a number of back issues of Xtra.

As a reminder, Xcel Energy's main phone number is 800-328-8226. Just hit "0" for an operator to contact various departments and employees.

Saber-Toothed Cat

Fossil find made on Rush Creek Transmission Line



Erin Degutis has three big finds to her credit. The third one – found recently along the route of a new transmission line – left her feeling small and humbled.

Finding something that predates mankind and is millions of years old will do that to you.

On a foggy and freezing morning on the eastern plains of Colorado, the senior siting and land rights agent made a discovery. While walking a stretch of private property in preparation for construction of the 83-mile Rush Creek transmission line, she saw something sticking up out of the sand.

"When I looked down, I thought I saw a thorn sticking out of the ground," Degutis said. "I wasn't sure, so I picked it up and brought it back to the office to be examined. But after looking through my botanical books, I knew it had to be something different."

The thorn turned out to actually be part of an upper-right canine tooth belonging to a saber-toothed cat that lived in the area between 5 and 10 million years ago.

"At first glance it looked like a bone, but after analysis and consulting with the Denver Museum of Nature and Science, we concluded it was part of a tooth from a Scimitar cat," said Bob Rowe, a paleontologist and senior cultural resources specialist with the firm Burns and McDonnell.

Scimitar cats were meat eaters and were about the size of mountain lions. Their official name is Adelphailurus kansensis.

Fossils are common in this area of the country, according to Rowe.

"I have identified a similar tooth in New Mexico," he said. "Some of my other interesting finds include a mammoth fossil in lowa and an extinct bison species in North Dakota."

Degutis' two other finds run the gambit – from Florida to Utah and from bones to precious metal.

Her first find came during work to create large, freshwater marshlands in the Everglades by converting old orange and sugar cane fields to wetlands. At the time, it was the largest wetlands mitigation project in the world. Degutis worked on it for three years, she said, about 50 miles inland from West Palm Beach, Florida.

While digging a borrow pit (borrowing soil to build levees) and as an excavator dumped a scoop into a dump truck, she heard a distinctive clunk. The item making that sound turned out to be a large section of vertebrae from a prehistoric sloth, weighing about 10,000 pounds and standing 15 feet tall.

Later in the same area, the partial remains of an ancient armadillo were found, as well. This armadillo was the size of a VW Bug. And then still more — the remains of a three-toed camel. Paleontologists removed the bones and brought them to research facilities.

The second find came while Degutis worked under contract for the U.S. Bureau of Land Management (BLM) in Utah on a





historic trail-trace project, completed in advance of new oil and gas development. The trail trace followed the old path of the Central Nevada Route of the Pony Express Trail, blazed in 1859.

The find? A shiny object she noticed poking out of the ground — an 1865 silver half-dollar that probably fell out of a pocket moving along the trail.

Degutis documented the coin, took photos and then, because the BLM did not have the curation agreement needed to keep the coin, she reburied it near where she found it.

More than 100 stations, 400 to 500 horses and plenty of riders were needed when the Pony Express opened for service — its first run embarking from St. Louis on April 3, 1860. The Express needed a new horse every 10 or 15 miles and a new rider every 75 to 100 miles. About 75 horses were needed for a one-way trip.

That first run ended in San Francisco around midnight of April 14, 1860, although the Pony Express's demise began shortly thereafter with the arrival of the telegraph in 1861. However, the trail eventually was used by settlers going to California.

Also in Utah, Degutis worked on a trail trace of the Mormon Pioneer Trail. In this case, the effort followed old wagon wheel ruts and horse paths made by Mormons crossing the West.

"We followed notes made in extensive diaries made at the time, which detailed landmarks, grassy areas, watering holes, etched rocks, cairns and other notable elements along the route," she said. "They wrote some amazing notes, which helped us develop a 'cultural landscapes' document for the BLM."

Circling back to her third find along the transmission line route, since the fossil was collected on private land and there was no reporting requirement to a local, state or federal agency, the saber tooth cat fossil was returned to the landowner of the property where it the fossil was found.

"The landowner was thrilled about the discovery," Degutis said. "They've lived on the property for three generations and were excited to learn some of the history of what has come before them."

Xcel Energy's "Unanticipated Discovery Plan" for siting and land rights work is usually addressed for cultural resources — particularly human remains and paleontological resources like fossils — and does not require further action unless triggered by a location on state or federal lands or by a large paleontological discovery

Degutis has also worked in a bathing suit for weeks on end for open-water filming during the shooting of Pirates of the Caribbean II and III. Movie crews carved a massive hole in a beach in the Bahamas to shoot a life-sized ship sitting on water.

Her work there involved an environmental assessment and monitoring. But that's another story. \leftarrow

Friends We'll Miss

Glida D. Arch, 84, customer service supervisor, Treasury, Hobbs, N.M., died on April 27, 2017. She worked for SPS from 1974 to 1997.

People

Burt W. Adair, 81, chief division dispatcher, Dispatch, Fargo Service Center, Fargo, N.D., died on May 27, 2017. He worked for NSP from 1963 to 1994.

Phillip R. (Bud) Biren, 84, construction superintendent, Transmission, General Office, Minneapolis, Minn., died on May 30, 2017. He worked for NSP from 1953 to 1985.

Danny Blechinger, 56, traveling generation operator, Hydro Operations, Wheaton Plant, Eau Claire, Wis., died on May 16, 2017. He worked for NSP from 1984 to 2017.

Allen Bobeldyk, 90, accounting technician, Business Operations, Sioux Falls Service Center, Sioux Falls, S.D., died on June 17, 2017. He worked for NSP from 1955 to 1988.

Ralph J. Braun, 88, real estate representative, General Office, Minneapolis, Minn., died on May 3, 2017. He worked for NSP from 1962 to 1992.

John Castellanos, 81, inspector trainer, Transportation, Lipan Transportation Center, Denver, Colo., died on June 17, 2017. He worked for PSCo from 1963 to 1994.

Wilfred E. Chartrand Jr., 87, Systems Development, General Office, Minneapolis, Minn., died on May 19, 2017. He worked for NSP from 1956 to 1988.

Grafton C Clarke Jr., 97, senior engineer, Fuel Administration, Amarillo, Texas, died on June 3, 2017. He worked for SPS from 1947 to 1985.

Clinel Cockrell, 88, chief custodian, Chilled Water Center, Denver, Colo., died on April 17. He worked for PSCo from 1961 to 1992.

Everett E. Cumbee, 79, general field person, Electric Meter and Design, Salem District Office, Sioux Falls, S.D., died on June 1, 2017. He worked for NSP from 1967 to 1997.

Lanny Dahlman, 69, production specialist II, Metals and Materials Resources, Chestnut Service Center, Minneapolis, Minn., died on June 4, 2017. He worked for Xcel Energy from 1979 to 2009.

Oscar J. Dittburner, 88, Overhead, Wisconsin, died on May 13, 2017. He worked for NSP from 1964 to 1988.

Dean Estep, 68, principle specialty engineer, Front Range Operations, Kipling Service Center, Lakewood, Colo., died on May 3, 2017. He worked for PSCo from 1973 to 2012.

Jerome R. Evenson, 81, gas foreman, Gas Operations/Construction, Menomonie Office, Menomonie, Wis., died on June 7, 2017. He worked for NSP from 1965 to 1998.

Kenneth A. Gaustad, 81, Division Services, Minnesota, died on March 26, 2017. He worked for NSP from 1968 to 1995.

John D. Grogan, 76, utilization lead, Gas Operations, White Bear Service Center, White Bear Lake, Minn., died on June 28, 2017. He worked for NSP from 1965 to 2000.

Donald H. Halley, 84, superintendent, Maintenance, High Bridge Plant, St. Paul, Minn., died on April 22, 2017. He worked for NSP from 1960 to 1988.

Roger Hawkins, 52, journeyman lineman, Construction Operations and Maintenance, Southwest Service Center, Amarillo, Texas, died on June 1, 2017. He worked for Xcel Energy for 32 years.

Ernest C. Hernandez, 70, senior service fitter, Gas Operations, Fort Collins, Colo., died on May 13, 2017. He worked for PSCo from 1971 to 2009.

Rodney Hitter, 65, scheduler, Monticello Nuclear Plant, Monticello, Minn., died on June 6, 2017. He worked for NSP from 1976 to 2010.

Paul J. Johnson, 86, gas service dispatch supervisor, Lipan Service Center, Denver, Colo., died on May 26, 2017. He worked for PSCo from 1954 to 1988.

James R. Kelly, 84, payroll systems analyst, Payroll Accounting, 414 Nicollet Mall, Minneapolis, Minn., died on May 5, 2017. He worked for NSP from 1957 to 1990.

Minoru R. Kishiyama, 85, senior associate engineer, Electrical Engineering Services, Holly Service Center, Denver, Colo., died on May 23, 2017. He worked for PSCo from 1955 to 1994.

Frank G. Liebl, 83, tool and material man, Underground Construction, Chestnut Service Center, Minneapolis, Minn., died on June 11, 2017. He worked for NSP from 1955 to 1989.

Stanley L. Mau, 74, assistant administrator, Plant Accounting, General Office, Minneapolis, Minn., died on May 8, 2017. He worked for NSP from 1969 to 1992.

Martin E. Opem, 73, project team lead, Engineering, Black Dog Plant, Burnsville, Minn., died on May 2, 2017. He worked for NSP from 1973 to 2003.

Gerald R. Rauvola, 73, district representative, Southeast District, Zumbrota, Minn., died on June 7, 2017. He worked for NSP from 1964 to 2000.

Robert J. Reynolds, 82, airport project unit manager, Denver Metro Management, Gateway Service Center, Aurora, Colo., died on June 15, 2017. He worked for PSCo from 1960 to 1994.

William R. Roeming, 79, manager, Administrative Services, Personnel, Eau Claire, Wis., died on May 2, 2017. He worked for NSP from 1971 to 1993.

Letitia A. Rowe, 92, executive secretary to chairman of the board, Denver, Colo., died on May 23, 2017. She worked for PSCo from 1957 to 1986.

Eddie Sandene, 84, Customer Service, Wisconsin, died on May 3, 2017. He worked for NSP for 29 years.

Kenneth M. Sundlee, 86, collection representative, Accounting, Montevideo Service Center, St. Cloud, Minn., died on May 14, 2017. He worked for NSP from 1956 to 1987.

Garth G. Vaughan, 83, associate, Substation Operations, Comanche Station, Pueblo, Colo., died on June 24, 2017. He worked for PSCo from 1985 to 1998.

Retiring

Ronald Aaker, senior designer, Design, Sioux Falls, S.D., retired on Aug 10, 2017. He worked for Xcel Energy for 33 years.

Delores Abbott, specialist operations, Line Department, Levelland Service Center, Levelland, Texas, retired on June 30, 2017. She worked for Xcel Energy for 26 years.

Kenneth Allen, lead repairman, Sherco Plant, Becker, Minn., retired on July 17, 2017. He worked for Xcel Energy for 31 years.

Mark Anderson (msanderson5658@msn.com), lead rigger, Maintenance, Sherco Plant, Becker, Minn., retired on July 7, 2017. He worked for Xcel Energy for 31 years.

Bret Beard (Bretbeard@msn.com), operations supervisor, Gas Emergency Response, Lipan Distribution Center, Denver, Colo., retired on June 30, 2017. He worked for Xcel Energy for 39 years.

Lynae Bleichner, business consultant, Human Resources, Rice Street Service Center, St. Paul, Minn., retired on July 7, 2017. She worked for Xcel Energy for 27 years.

Jerry Bohlender, welder, Maintenance, Cherokee Station, Denver, Colo., retired on June 27, 2017. He worked for Xcel Energy for 36 years.

Rich Brock, senior training coordinator, Transmission Operations, Lookout Center, Golden, Colo., retired on June 30, 2017. He worked for Xcel Energy for 24 years.

Richard Bush, substation engineer, Substation Engineering and Design, 1800 Larimer, Denver, Colo., retired on July 14, 2017. He worked for Xcel Energy for 11 years.

Reynaldo Cardenas (pkcardenas02@gmail.com), energy efficiency specialist, Business Solutions, 1800 Larimer, Denver, Colo., retired on July 31, 2017. He worked for Xcel Energy for 35 years.

Randol Cassellius, welder, Hydro Maintenance, Chippewa Falls, Wis., retired on July 14, 2017. He worked for Xcel Energy for 32 years. **Thomas Cox**, lead rigger, Monticello Nuclear Plant, Monticello, Minn., retired on June 2, 2017. He worked for Xcel Energy for 33 years.

Christopher DeGeorge, material handler in charge, Lacrosse, Wis., retired on June 30, 2017. He worked for Xcel Energy for 37 years.

Larry Eberhart, field operator, Gas, Salida, Colo., retired on Aug 1, 2017. He worked for Xcel Energy for 34 years.

William Eggert, classified mechanic, Substation Construction, Materials Distribution Center, Henderson, Colo., retired on July 5, 2017. He worked for Xcel Energy for 35 years.

Robert Ferguson, maintenance specialist, Operations, Pawnee Station, Brush, Colo., retired on July 5, 2017. He worked for Xcel Energy for 35 years.

Carrie Fritz (fritz1000clf@gmail. com), senior materials strategist, Supply Chain, Maple Grove, Minn., retired on June 15, 2017.

Robby Hallford, working foreman, Line Department, Levelland, Texas, retired on July 14, 2017. He worked for Xcel Energy for 36 years.

David Hendrickson (david@backacres.com), operations manager, French Island Plant, Lacrosse, Wis., retired on July 5, 2017. He worked for Xcel Energy for 29 years.

Greg Holcomb, system field technician, Electrical Maintenance and Protection, Maple Grove, Minn., retired on June 2, 2017. He worked for Xcel Energy for 36 years.

Kerry Hulkovich (hulk721@ hotmail.com), plant operator, Operations, Pawnee Station, Brush, Colo., retired on May 31, 2017. He worked for Xcel Energy for 31 years.

Donald Humphrey (dhump5702@hotmail.com), plant equipment operator, Gas Department, Westcott, Inver Grove Heights, Minn., retired on July 31, 2017. He worked for Xcel Energy for 41 years.

Kevin Jelen, control room operator, Operations, Sherco Plant, Becker, Minn., retired on May 2, 2017. He worked for Xcel Energy for 30 years.

Virgil Jenkins (Skipjenkins@msn. com), business analyst, Energy Supply Finance, Materials Distribution Center, Henderson, Colo., retired on July 5, 2017. He worked for Xcel Energy for 32 years.

Patrick Jensen, technician, Electric Meter Dept., Eau Claire, Wis., retired on June 30, 2017. He worked for Xcel Energy for 33 years.

Mike Kaveny (MKaveny@gmail. com), operations supervisor, Transmission Construction, Maple Grove, Minn., retired on June 2, 2017. He worked for Xcel Energy for 35 years.

John Keahey, principal engineer, 1800 Larimer, Denver, Colo., retired on July 14, 2017. He worked for Xcel Energy for 29 years.

Tom Kennedy, production specialist, Plant Engineering and Technical Support, Fort St. Vrain Station, Platteville, Colo., retired June 2, 2017. He worked for Xcel Energy for 44 years.

Robert Krunchsen, welder specialist, Maintenance, Sherco Plant, Becker, Minn., retired on July 17, 2017. He worked for Xcel Energy for 39 years.

George Kunz, specialist, Meter Reading, Rice Street, St. Paul, Minn., retired on June 2, 2017. He worked for Xcel Energy for 46 years.

Eileen Lund-Johnson (Eileen. lund.johnson@gmail,com), solutions consultant, Business Systems, 414 Nicollet Mall, Minneapolis, Minn., retired in July 2017. She worked for Xcel Energy for 29 years.

Gary Magno (gary.magno56@ gmail.com), manager, Environmental Services, Denver, Colo., retired on July 7, 2017. He worked for Xcel Energy for 20 years.

Mark Markovic (mlmarko1087@ midco.net), foreman-lineman, St. Cloud, Minn., retired on June 2, 2017. He worked for Xcel Energy for 30 years.

Timothy McCann (tenergy1@ outlook.com), locater technician, Damage Prevention, Chestnut Service Center, Minneapolis, Minn., retired on June 9, 2017. He worked for Xcel Energy for 37 years.

William Metcalf, senior instrument and control specialist, French Island Plant, La Crosse, Wis., retired on June 2, 2017. He worked for Xcel Energy for 30 years.

Clarke Newby (Clarke.newby@ yahoo.com), storekeeper, Stores, Arvada, Colo., retired on June 9, 2017. He worked for Xcel Energy for 38 years.

Michael Nusz, mechanic, Fleet Maintenance, Materials Distribution Center, Henderson, Colo., retired on July 14, 2017. He worked for Xcel Energy for 35 years.

Danny Pearson, engineer. Transmission Engineering and Design, 1800 Larimer, Denver, Colo., retired on July 7, 2017. He worked for Xcel Energy for 41 years.

Brenda Peavie (blPeavie@ comcast.net), manager, Capital Asset Accounting, 401 Nicollet Mall, Minneapolis, Minn., retired on July 10 2017. She worked for Xcel Energy for 15 years.

Kevin Preiss, (Kpreiss01@gmail. com), foreman, Overhead Construction, Edina Service Center, Edina, Minn., retired on June 2, 2017. He worked for Xcel Energy for 34 years.

James Reeves, senior technical instructor, Energy Supply Technical Training, Harrington Station, Amarillo, Texas, retired on June 9, 2017. He worked for Xcel Energy for 38 years.

Bill Reynolds, mechanic, Maintenance, Valmont Station, Boulder, Colo., retired on July 5, 2017. He worked for Xcel Energy for 31 years.

Jeff Ricker, engineer, Reliability Services, Chestnut Service Center, Minneapolis, Minn., retired on Aug 2, 2017. He worked for Xcel Energy for 34 years.

Daniel Schafer (Schafam4@ yahoo.com), plant equipment operator, Gas Production, Wescott, Inver Grove Heights, Minn., retired on June 27, 2017. He worked for Xcel Energy for 38 years.

Marvin Seefeld (seefeldfam@ msn.com), plant equipment operator, Gas Plant, Wescott, Inver Grove Heights, Minn., retired on July 3, 2017. He worked for Xcel Energy for 45 years. **Stephen Smiga**, operations manager, Underground, Chestnut Service Center, Minneapolis, Minn., retired on July 5, 2017. He worked for Xcel Energy for 39 years.

Ricky Smith (rickysm@suddenlink.net), manager database display, Business Systems, Control Center, Amarillo, Texas, retried on Aug 6, 2017. He worked for Xcel Energy for 29 years.

Dan Steinkirchner (dsteinkir@ gmail.com), manager, Rifle Design, Mesa County Operations Center, Grand Junction, Colo., retired on June 30, 2017. He worked for Xcel Energy for 35 years.

Peggy Stevens, senior financial analyst, Shared Services Finance, 1800 Larimer, Denver, Colo., retired on June 30, 2017. She worked for Xcel Energy for 27 years.

David Thompson, welder specialist, Maintenance, Sherco Plant, Becker, Minn., retired on July 17, 2017. He worked for Xcel Energy for 32 years.

Fred Tilson, manager, Electric Distribution Engineering, Lipan Distribution Center, Denver, Colo., retired on June 30, 2017. He worked for Xcel Energy for 42 years.

Daniel Todora (dantodora@gmail. com), lead plant mechanic, Maintenance, Wescott, Inver Grove Heights, Minn., retired on June 9, 2017. He worked for Xcel Energy for 38 years.

Paul Uroda (pauluroda@gmail. com), control specialist, Operations, Cherokee Station, Denver, Colo., retired on July 31, 2017. He worked for Xcel Energy for 35 years.

Pat Walker (Plmcwaker@yahoo. com), plant specialist, Operations, Zuni Station, Denver, Colo., retired on July 5, 2017. He worked for Xcel Energy for 32 years.

Paul Watters, lineman, Electric Line, Grand Junction, Colo., retired on July 21, 2017. He worked for Xcel Energy for 30 years.

Scott Weatherby, vice president, Nuclear Finance and Planning, Nuclear Finance, 414 Nicollet Mall, Minneapolis, Minn., retired on July 14, 2017. He worked for Xcel Energy for 25 years.





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