

MMUA Transformer School draws from multiple states

MMUA held its annual Transformer School and Pre-Conference Dec. 10-13 at the MMUA Training Center in Marshall. Both events were held in conjunction with the Minnesota Rural Electric Association and American Public Power Association. The school was attended by 43 and the Pre-Conference by 27 utility personnel from Minnesota and the Dakotas.

Scott Meinecke of the Iowa Association of Electric Cooperatives, who brought more than 25 years of experience to the school, served as our instructor.

Pre-Conference covered the basics of single-phase transformer connections and theory and included classroom and hands-on instruction.

School participants learned about the basic three-phase systems. In the hands-on portion of the course, participants worked with miniature transformers that are energized, which provided immediate feedback when something was wired incorrectly.



A group of students and instructor Scott Meinecke (in the gray shirt) talked three-phase transformer connections, using miniaturized and energized transformer banks, at the recent MMUA Transformer School.

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Increasing reliance on renewable generation poses challenges

by Steve Downer

Minnesota electric utilities are ready to serve peak load reliably for winter 2019-2020, but incorporating increased renewable generation may lead to reliability issues. Those were among the conclusions to be drawn from a Midcontinent Independent System Operator (MISO) quarterly update meeting held Dec. 13 at the Minnesota Public Utilities Commission (MPUC).

According to a presentation from MISO staff, adequate resources are available this winter to meet normal load under typical conditions. However, over recent years, MISO has seen an increase in total outages during the winter, particularly in Jan-

uary, while the base of renewable "limited use resources" has grown.

Total generation outages, including forced outages, have almost doubled from January 2015 to January 2019, from 24,681 megawatts (MW) to 44,411 MW. Much of this is due to "significant challenges" presented by increasing reliance on wind generation, which typically goes off-line at -22 degrees Fahrenheit.

The capacity adequacy of intermittent wind and solar generation is "always a concern," said MISO's Jordan Bakke. "Sun is not well matched to load."

"Transmission solutions" are needed to further utilize renew-

able resources, and to significantly reduce curtailment. At 30 percent renewable penetration, MISO's Renewable Integration Impact Assessment (RIIA) "indicates integration complexity increasing sharply." At 40 percent renewable penetration, "the transmission system is insufficient to further facilitate renewables and access the diversity in renewables and load."

The MISO presentation contained information from its RIIA, which studies capacity and energy adequacy and operating reliability, including the ability to withstand unanticipated component losses or disturbances, such as occurred during last winter's coldest days.

MISO's RIIA found that integration complexity increases sharply beyond 30 percent renewable penetration. The probability of losing load is "expected" to be one day in 10 years, over all penetration levels.

The effects of a high percentage of wind in the MISO North geographic footprint include a reduced effective load carrying capability (ELCC) during winter.

From its Base to 50 percent renewable "milestone," MISO assumed the majority of its thermal fleet remains available to maintain adequacy (with 17 gigawatts retired), and 100 gigawatts of renewable capacity

MISO: next page please

Brooks retires from Princeton Public Utilities after 39 'interesting' years

by Tim Hennagir

Princeton *Union-Times*

Princeton Public Utilities Electric Superintendent Jon Brooks retired Jan. 2 after 39 years of service to the community.

He fondly remembers his first days on the job, which were spent riding on the back of a garbage truck.

"Jobs were hard to find, because the economy wasn't that good," Brooks said, recalling his move to Princeton from Sedan, a tiny town near Glenwood.

When he arrived, Brooks stopped at the Princeton Public Works office and inquired about employment.

That city department wasn't hiring, but someone suggested

Brooks head over to Princeton Public Utilities and see General Manager Harold Stephun.

"Harold didn't have anything, but said come back in a week or so," Brooks said. "I did. At the time, the utility was responsible for hauling trash. Harold told me, 'When these two weeks are up, I'm probably not going to have work for you.' I thought, 'Well, two weeks is better than nothing.'"

That's when another opportunity presented itself to Brooks.

Two power plant workers were getting ready to go on vacation.

Brooks lined up work in the power plant for four weeks. Stephun then paid him another visit.



Jon Brooks

"Harold came over and I thought he was going to tell me he didn't have any more work for me," Brooks said. "I reported to the line crew the following

Monday."

In almost four decades of employment, Brooks has worked with five general managers: Stephun, Dale Dunham, Dave Thompson, and Connie Wangen.

His most recent general manager is Keith Butcher, who was hired earlier this year.

"It's been an interesting 39 years," Brooks said. "Back then, our summer peak [requests for power] were probably 2 megawatts. Now its around 12 megawatts."

Brooks started out on the ground, getting tools and materials for linemen.

"I basically learned how to

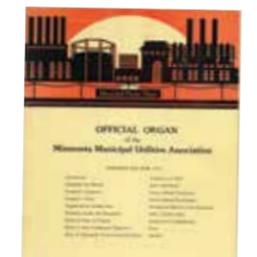
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MISO:

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added.

As renewable penetration increases, the change in fuel mix at various electric demand points drives changing reliability risks. Increased percentages of wind generation coupled with decreased natural gas generation leads to increased reliability risk. Constantly shifting wind and solar generation leads to the need for increased ramping up and down of thermal (fossil-fueled) generation.

System-wide voltage stability is the main driver of

dynamic complexity starting at 40 percent and worsens at 50 percent, which requires transmission technologies equipped with dynamic-support capabilities.

After the presentation from MISO, utility industry representatives responded to the presentation and Commissioners added some comments and questions. The discussion at this point revolved around batteries, electricity storage and various other technologies that, it was generally acknowledged, are not yet commercially available.

Electronic aids will likely be applied in various upcoming situations, but the ulti-



An increasing reliance on renewable electric generation appears to call for another round of electric transmission line building, similar to the CapX 2020 effort, according to the Midcontinent Independent System Operator. The CapX line at left is located east of Marshall.

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mate electronic solution is not yet identified and MISO staff warned that without thermal, rotating generation, the grid "loses ability to remain stable."

As the region's genera-

tion portfolio becomes more weather dependent, the transmission system gets more stressed. Given our "current tool set," said an ITC repre-

sentative, more wind means more 345-kilovolt lines. And, significant transmission upgrades "won't happen overnight."

SMMPA takes output of Stoneray Wind Project

Southern Minnesota Municipal Power Agency (SMMPA) began taking energy from the 100-megawatt Stoneray Wind Project under a contract with EDF Renewable Energy (EDF.) The project consists of 39 Siemens Gamesa turbines located in Pipestone and Murray counties.

The wind farm began commercial operation in December of 2018. EDF had been selling the energy to others until Jan. 1, when SMMPA began taking delivery under the 20-year term of the agree-

ment.

The Stoneray project, combined with the 100.5 MW Wapsipinicon Wind project and eight megawatts of SMMPA-owned wind turbines, will increase SMMPA's wind generation portfolio to over 200 megawatts. With the 5-megawatt Lemond Solar Center and other biomass/biogas generation, SMMPA is positioned to meet the requirements of Minnesota's renewable energy standard for the foreseeable future.



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Buyout, sellout efforts roil several cities in California, Colorado and Florida

by Paul Ciampoli
News Director, American Public Power Association

There were significant developments in November related to municipalization efforts in California and Colorado.

Meanwhile, in Florida residents of a public power city rejected a ballot initiative that would have made it easier to sell the city's utilities.

Colorado

In Colorado, municipalization efforts advanced in Pueblo and Boulder last month.

The Pueblo Electric Utility Commission, a seven-member panel created to consider the issue, voted unanimously on Nov. 21 to support breaking away from Black Hills Energy and forming a public power utility. The panel presented its recommendation to the Pueblo City Council at a work session.

The city council will consider its options, according to Pueblo Mayor Nicholas Gradisar. "I think it's a possibility it'll be on the ballot in May," Gradisar told a local news outlet.

The council will need to make a decision by March for a question about forming a public power utility to make the May ballot, Gradisar said. If the council doesn't act on the issue, it's likely citizens will launch a petition drive to get the measure on the ballot, he added.

During the work session, a representative from the Electric Utility Commission told the city council that two studies indicated forming a public power utility was feasible and would lead to lower rates and opportunities to add renewable energy.

Creating a municipal utility in Pueblo could save Black Hills Energy electric customers 10 percent to 14 percent, partly because of lower estimated power costs, according to a report drafted for the city. Other benefits of creating a public power utility include local control over power supply resource types, rates, local programs and key decision-making, according to a mid-October report drafted by EES Consulting, an engineering and management services firm.

Meanwhile, Boulder offered to purchase certain portions of Xcel Energy electric infrastructure for \$93.96 million in a Nov. 20 letter to the investor-owned utility.

The city's offer came after a Colorado Public Utilities Commission ruling in October that approved transfer of Xcel Energy assets outside substations to the city.

Washington Report

tions to the city.

The appraised value of the assets outside substations is \$62.3 million. The basis for the city's offer is the value Xcel reports for financial filings; the offer is double the original cost of the assets, less depreciation.

Boulder said the offer is the first step in the city's acquisition process that will result in a key variable—the cost to purchase some of the electric system from Xcel Energy. The city anticipates that the acquisition process, which may involve a condemnation proceeding, will continue through next year.

Florida

Meanwhile, voters in the city of Lakeland, Fla., in November rejected a ballot initiative that would have made it easier to sell the city's utilities.

On Nov. 5, voters weighed in on three ballot measures, the third of which would have changed the city charter regarding the legal process necessary to sell city-owned water plants or its public power utility, Lakeland Electric.

The current requirement calls for two-thirds of registered voters to vote in favor of a sale in order for it to move forward. The ballot measure sought to change the requirement to approval by two-thirds of commissioners voting in favor of a sale and then two-thirds of votes voting in favor of a sale.

The measure failed as 6,476 voters, representing 65 percent of all votes cast, voted against it, leaving the current requirement in place.

California

In California, there were several developments related to municipalization efforts that came in the wake of a series of major power shutoffs implemented by Pacific Gas & Electric intended to mitigate the threat of wildfires.

In a Nov. 13 letter to California Gov. Gavin Newsom, Jeff Shields, former General Manager of the South San Joaquin Irrigation District in California, outlined the reasons for why PG&E should be replaced with a public power entity and offered a set of principles that would govern the new utility in several areas including accountability, a transition to a new regulatory regime and a plan for the future.

"You recently called for a 'Reimagined PG&E,'" Shields wrote to Newsom. "You are absolutely correct. Today, when making any decision, PG&E executives ask themselves 'How will this benefit our shareholders?' Public Power utilities ask a different question: 'How will this benefit our customers?'"

Also last month, in a Nov. 4 letter to California utility regulators, a large group of California mayors and county officials said that there are several compelling reasons

for transforming PG&E into a customer-owned utility including being able to raise capital from a broad pool of debt financing in amounts substantially greater than can an investor-owned PG&E, and at much lower cost.

"As local leaders across Northern and Central California, collectively representing more than 5 million residents, we write to you about a matter vital to the safety and quality of life of the communities we serve," the mayors and county officials wrote to members of the California Public Utilities Commission.

Newsom in early February called on various stakeholders to meet in order to accelerate a consensual resolution to PG&E's bankruptcy cases, and warned that if the parties failed to reach an agreement quickly "to begin this process of transformation, the state will not hesitate to step in and restructure the utility" and said that "all options are on the table."

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Parade of wind power proceedings dominates energy permitting before regulators

Minnesota's march to a renewable energy future is reflected in proceedings before the Minnesota Public Utilities Commission (MPUC), which recently acted on a number of proposals, including:

The MPUC on Jan. 3 dealt with separate applications for a certificate of need, a site permit, and a route permit for Plum Creek Wind Farm, an affiliate of Geronimo Energy, for a proposed 414 megawatt (MW) large wind energy conversion system (LWECS) consisting of 74 to 110 wind turbines ranging from 2.8 to

5.6 MW in size and an associated 31-mile 345-kilovolt (kV) transmission line.

The project is the largest wind facility that has been proposed in Minnesota to date. The project is also the second to include a 345-kV transmission line interconnection and will be the longest interconnection proposed at approximately 31 miles.

The transmission line would connect the wind facility to the existing Brookings-to-Hampton 345-kV transmission line via a new switching station. The proposed project would be located in portions

of Cottonwood, Murray, and Redwood counties.

Plum Creek has not secured a power purchase agreement for the sale of the energy as of this writing.

Laborers' International Union of North America (LIUNA MN and North Dakota) filed comments in the application, similar to issues raised in other recent wind energy dockets where construction hiring has emerged as a potentially relevant consideration for the Commission.

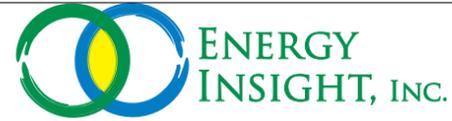
The MPUC Dec. 5 approved Xcel Energy's site permit application amendments to the Blazing Star 2 Wind Project, an up to 200 MW Wind Energy Project in Lincoln County.

The proposal included use of Obstruction Marking and Lighting installed pursuant to particular Aircraft Detection Lighting System (ADLS) standards specified by the Federal Aviation Administration (FAA). The amendment allows the permittee to install an FAA approved lighting system without ADLS if the Permittee demonstrates, in a request for a site permit amendment, that despite its reasonable efforts to secure FAA approval for an ADLS, one of the following conditions exists: 1) The FAA denies the Permittee's application for an ADLS system; 2) Permittee is unable to secure FAA approval in a timely manner; or 3) ADLS installation costs exceed \$2 million. If any of the above three conditions occur, the permittee may request a site permit amendment approval of a non-ADLS based system.

turbine technology. Motions for environmental review and request for a contested case from the Association of Free-

born County Landowners were denied.

- Steve Downer



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The MPUC on Dec. 12 accepted the Application of Three Waters Wind Farm for a Site Permit for the up to 201 MW Large Wind Energy Conversion System in Jackson County. The application was referred to the Office of Administration Hearings and more time than usual was allowed for public informational meeting and comment.

The proposed project footprint would occupy approximately 48,087 acres (75.13 square miles) in Jackson County in southwest Minnesota, southwest of the city of Lakefield along the Minnesota-Iowa border (Project Area).

Site permit amendments were approved Dec. 19 for Xcel Energy for the 84 MW Freeborn Wind Farm in Freeborn County. The permit amendments were requested mainly to reflect a change in

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Office move compels MMUA staff to decide what to throw away, and what to keep

The MMUA office is moving. While certainly an inconvenience, it also presents an opportunity to go through drawers and files to see what should be kept and what ought to be thrown away.

Rummaging through the office, it is apparent that, in many cases, what seemed crucially important at one time is no longer needed. On the other hand, most of us probably remember something we wish we would have kept.

That something is old doesn't mean it should be discarded. In fact, sometimes just the opposite is true.

I have in my possession the first MMUA publication, from 1933. How this treasure came into my possession, I do not recall. It may well have been that I made sure to take it the first time I was involved in an office move.

To say that the booklet is foundational to my understanding of MMUA and municipal utilities would be an understatement.

The municipal electric leaders of the time had a sense of mission. And they took the

We're moving!

With our offices slated for demolition to make way for re-development, MMUA is moving across the street to 3131 Fernbrook Lane N., Suite 200, Plymouth, MN 55447. Moving day is tentatively scheduled for Jan. 24. Other contact info remains the same.

time and trouble to write it down.

Consider the times: the worst economic downturn in the history of the industrialized world—the Great Depression—which followed the stock market crash of 1929 and the collapse of utility holding companies.

Electric service was a proven benefit to society, but many smaller cities and rural areas went without. Other cities were served by private companies, but only poorly.

The municipal franchise was still a serious regulatory tool, and many cities took the franchise unto themselves.

Municipal utilities were (and are) formed via referendum, and these votes were the source of much passionate debate. Charges of communism were hurled at municipal proponents.

In Detroit Lakes, a municipalization opponent shot an advocate in the head. The intended victim was saved as the bullet deflected off a metal hat band.

The referendum passed.

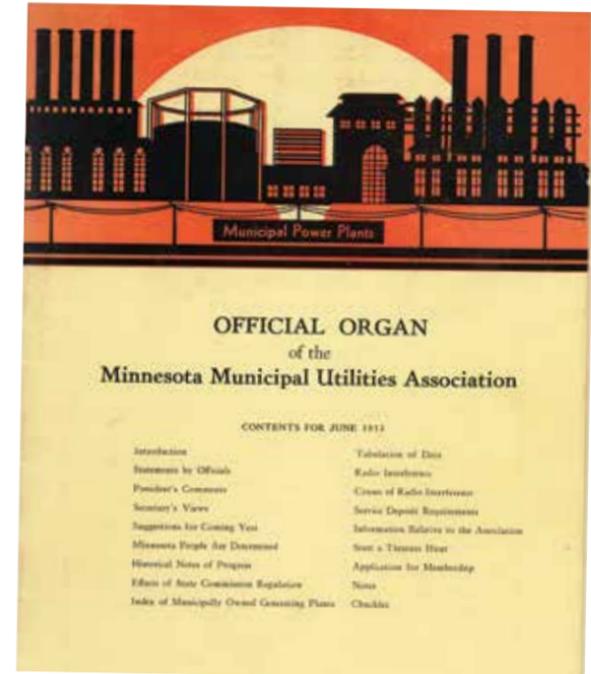
To say that the people who created the Minnesota Municipal Utilities Association had a sense of mission would be an understatement. I offer a few of their thoughts for you here:

If the citizens are wise . . .

The introduction to MMUA's first publication ends with this: "The members of this organization are unselfishly and wholeheartedly devoted to the progress of municipal ownership."

I don't know if organizations had mission statements in the 1930s, but this serves admirably—to the point, memorable, inspirational.

As a counterweight, else-



Cover of MMUA's first publication, which was prepared for the association's first mid-summer conference, June 21-22, 1933 in Hibbing. While some of the language sounds a bit funny to modern ears, the principles expressed are timeless.

where the document notes that the Association was not intended as a "missionary society." In other words, it would not proselytize a city to municipalize electric service. That, my friends, is a decision that cannot be imposed by others. On the other hand, Association members would testify to the benefits of municipal ownership, and extend the hand of friendship to

any who would take the yoke of city electric service upon their own shoulders.

This position is evident in the reprinting of a March 5, 1933 letter from the Worthington city clerk to a man from Staples, who inquired of the wisdom of municipal electric service.

The brief reply contains, at its heart, this statement:

"We do heartily believe that a city owned plant has many advantages over other methods. Perhaps the greatest is that the citizens can control the extent and quality of service to which their money entitles them. And when we consider that while we are enjoying such service our plant is able in addition thereto to pay for various public improvements that otherwise would necessitate a bond issue, our endorsement of the municipally owned plant becomes enthusiastic."

"All we have said may be summarized in this one statement: We believe that a municipally-owned plant is an advisable undertaking if the citizens are wise in their handling of its affairs."

That statement remains true today.

Does Minnesota Public Power remain true to its founding principles?

I would say, by and large, it does.

As one piece of evidence I offer the comments of Jon Brooks of Princeton Public Utilities, captured in a story elsewhere in this newsletter:

"It became a lifestyle. It's my job and my crew's job to keep the lights on. The people of this community mean a lot to all of us."

Brooks clearly caught the clear sense of mission the founders of this organization described.

It is something we would do well to keep.

- Steve Downer



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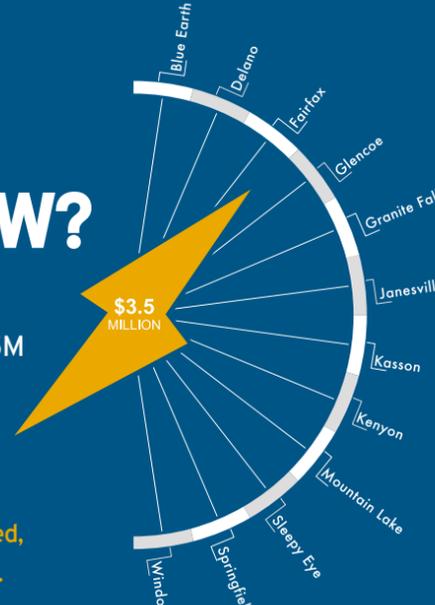
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The U.S. Army Corps of Engineers said electric generation from the Missouri River's six upstream dams was up 5.6 percent from 2018 and more than 38 percent above average. Power from the dams is marketed to municipals and cooperatives by the Western Area Power Administration.

El Paso Electric on Dec. 19 said it was enacting a long-term energy supply resource plan that includes utility-scale battery storage. The two 50-megawatt battery storage projects will be the Texas utility's first utility-scale battery storage resources.

The Glendale, Calif., City Council on Dec. 10 adopted a resolution to enter into a 25-

year power sales agreement with the Southern California Public Power Authority (SCPPA) for a 12.5 percent share of the renewable solar energy, battery energy storage products, and associated environmental attributes from the Eland 1 Solar and Storage Center.

The Eland Solar and Storage Center will be the Los Angeles Department of Water and Power's first utility-scale, integrated solar and battery project. The project will include two large-scale solar facilities that will capture 400 megawatts of solar energy and store up to 1,200 megawatt-hours of energy.

Wright-Hennepin Electric Cooperative (WH) has made an equity investment in ZEF Energy, and will have a seat

Bits & Pieces



on ZEF Energy's board.

ZEF Energy is Minnesota and Wisconsin's largest independently-owned and operated direct current fast-charging electric vehicle network, having installed over 80 percent of the area's fast chargers.

The company also operates ZEFNET, which allows utilities and consumers to view how much energy is used and when, as well as to curtail and shape load. WH recently conducted a study of 12 electric vehicle owners, which found they tend to charge vehicles when they returned home from work (not overnight), straining the grid at peak demand times.

In an emergency meeting held on Dec. 24, the board of directors of Jacksonville, Florida, public power utility JEA voted to cancel an Invitation to Negotiate (ITN) related to the potential privatization of the utility, as well as reject all replies submitted in response to the ITN.

JEA received 16 bids in response to the ITN, which was issued during the summer of 2019.

The JEA board on Dec. 17 revamped its leadership team, with several former executives leaving the utility.

Xcel Energy has purchased the Lake Benton II Wind Energy Center, a project located in Pipestone County, Minn., that was originally built in 1999.

A subsidiary of NextEra Energy Resources LLC has owned and operated Lake Benton Wind for the last 20

years. The company then led the recent rebuilding of the project into Lake Benton II.

While the project provides the same output as the original wind farm (100 MW), it produces the energy using fewer wind turbines with greater efficiency – reducing the project's footprint and maximizing the amount of energy generated at the site.

Two other wind projects in southwest Minnesota – Jeffers and Community Wind North – will soon be rebuilt with new technology and combined into the new Longroad Wind, which recently received Minnesota Public Utilities Commission approval.

The U.S. Congress has declined to extend a \$7,500 tax credit for electric vehicles.

Under the bill, which passed the U.S. House of Representatives on Dec. 17, wind companies will get just one more year of subsidy, while solar developers lost out in their bid to extend another key tax credit. Under the bill, wind energy projects would be able to keep their current level of tax credit if they break ground before Jan. 1, 2021 – as opposed to current law requiring them to break ground by Jan. 1, 2020. The wind power tax credit is currently worth 1.5

Bits: see page 11 please



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MMUA thanks and recognizes its roster of 2020 Annual Sponsors

Municipal utilities are generally small compared to other utilities, and rely, to varying degrees, on business partners.

Many of these businesses have joined MMUA as Associate Members.

MMUA appreciates all its Associate Members, and particularly wants to recognize those who are supporting the association as Annual Sponsors.

The MMUA Annual Sponsorship offers a convenient way for a company to participate in our popular events and have a significant presence in and on our most visible communications vehicles.

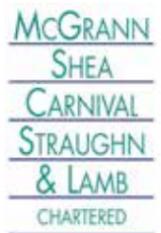
MMUA thanks those Associate Members who renewed their annual sponsorships and those who signed-up for the first time!

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- Annual Sponsor recognition at www.mmua.org
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- One complimentary *Resource* newsletter ad, in color. This includes a complementa-



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ry, color, business-card sized ad in the Professional Services Directory (on pages 10-11 of the newsletter). Sponsors can also upgrade to a larger ad for an additional fee.

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- Two meeting registrations at either the Summer Conference or T&O Confer-

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- A variety of other acknowledgements throughout the year, at various MMUA events and in other media.

For more information, go to the Sponsors/Become a Spon-

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Robin Klug, Bruce Westergaard, Karen Heiden and Steve Downer, from left to right.

MMUA recognizes staff milestones

A quartet of MMUA staff members received employee recognition pins at the association's annual holiday party, held Jan. 3 at Rush Creek in Maple Grove.

They include:

Robin Klug, natural gas utility circuit rider, who has worked with the association five years, starting in September 2014.

Bruce Westergaard, regional safety coordinator and job training and safety instructor, who has worked with MMUA 15 years, starting in

July 2004.

Karen Heiden, accounting assistant, a 20-year employee, who started in August 1999.

Steve Downer, director of communications and member relations, who has worked for MMUA 30 years, starting in December 1989.

MMUA thanks President Vernell Roberts, general manager of Detroit Lakes Public Utility, who attended the luncheon and presented the awards.

St. Charles, MiEnergy adjust territory boundary

The Minnesota Public Utilities Commission Jan. 3 approved a joint petition from the City of St. Charles and MiEnergy Cooperative to approve a service territory compensation and orderly transfer agreement.

MiEnergy and St. Charles negotiated the agreement to assign certain portions of the cooperative's service territory to the city. The agreement was meant to "clean up" the prior purchase of the assigned service area of Alliant Energy by MiEnergy through Southern Minnesota Energy Cooperative. These areas are located on the city's east side.

Additionally, the agreement accounts for the city's expansion of its service area outside of the northwest edge of its corporate limits. This area involves 40 acres of bare ground.

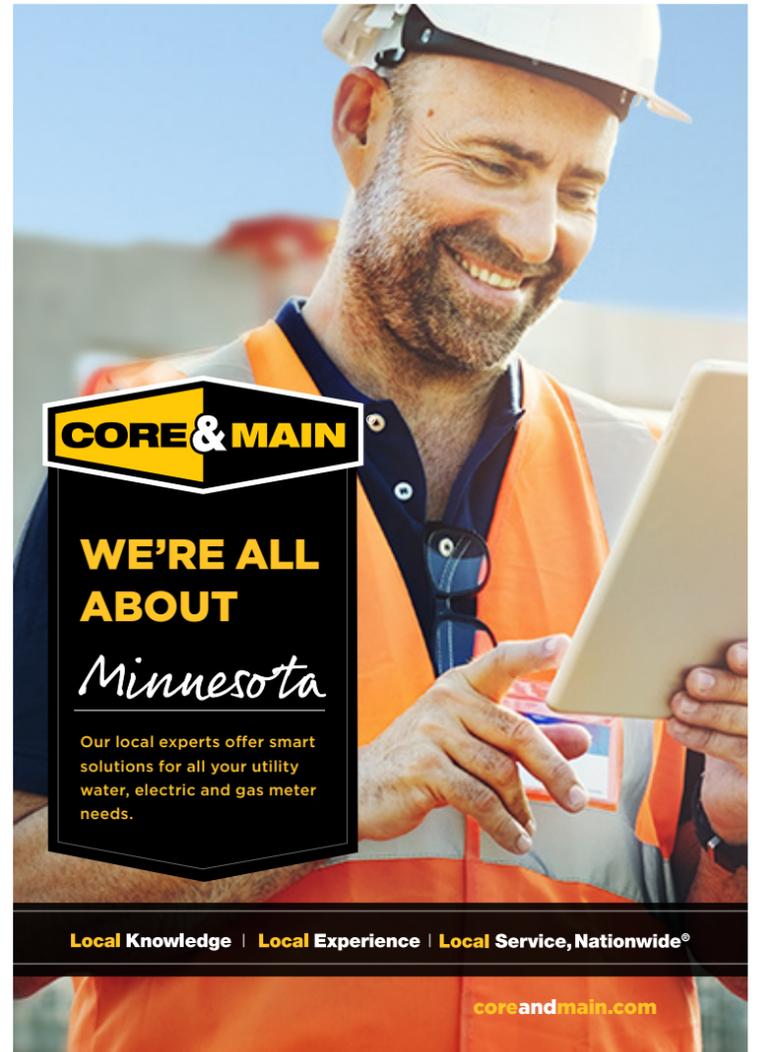
The transfer involves 10 residential and one commercial customer.

The city will pay MiEnergy a one-time payment of \$50,000 for a segment of distribution line, and the actual costs for the cooperative's reconfiguration of its distri-

bution system, not to exceed \$10,000.

MiEnergy was formerly

known as Tri-County cooperative and is headquartered outside of Rushford.



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Brooks:

continued from front page

climb power poles during my coffee breaks,” he said. When asked if there was a special trick to the task, Brooks replied, “Not falling.”

Brooks’ line work experiences include a mid-1980s storm that packed 120 mile-per-hour straight line winds that tore through Princeton.

“When it was over, you saw broken and shattered poles and downed wires in any direction that you look out from the shop,” Brooks recalled. “The entire town was a mess. It took us five days to get everyone’s electricity restored. We worked from 5 a.m. to 10 or 11 p.m. at night. You’d sleep for a couple hours, then come back.”

Brooks said during his years working as a lineman for Princeton Public Utilities, he never experienced an ice storm.

New electrical switchgear required a large addition to the backside of the generation building, Brooks recalled.

“For a long time, our system was 4,160 volts,” Brooks said. “When we did the plant

upgrade, and an upgrade at the south substation, we put in provisions to increase the voltage to 12,470 volts. And the two substations was a big change for us.”

Working overnight shifts in the generation plant helped Brooks gain additional utility experience and build his knowledge base, he said.

“We had regular plant operators who would work 12 days on and two days off, so when they had their two days off, I worked in the plant, and on weekends, too.”

Back then, Princeton Public Utilities’ generation units were used to provide peaking power and back-up electricity as they are today, but the plant building was used as a dispatch point for the fire department, Brooks recalled.

“It kind of ended up there because the plant was staffed 24 hours a day,” he said. “The departments weren’t tied to the counties at that time. We had all of the alarm systems in the plant, including a whole wall of additional bank alarms.”

Brooks said Princeton Public Utilities employees used to dispense gasoline for use in



Jon Brooks (third from left) joined co-workers to plant a butterfly garden adjacent to the power plant. Included in the group is former general manager Connie Wangen (behind the sign).

city vehicles.

“We did all of the departments—police, streets, you name it,” he said. “We used to have gas pumps right out in front of our building.”

Serving the community of Princeton was not only important during working hours as a public power employee, but afterwards as well.

“It became a lifestyle,” he said. “It’s my job and my crew’s job to keep the lights on. The people of this community mean a lot to all of us.”

Helping the PPU front-office staff work with customers was a Brooks specialty.

“The ladies in the front office would have me come up for certain customer situations,” he said. “I’d go out and talk to them, and after a couple of minutes, they wouldn’t be angry anymore. And when we are out working among the public, yeah, we have stuff to do, but if our customers want to talk, we listen.”

Brooks said Princeton grew quite a bit in his 39 years on

the job, but there was a time when he knew just about everyone in town.

Computer use was a huge industry change during Brooks’ time as a Princeton Public Utilities employee, he said, adding the tools of the trade also have improved.

“One of the biggest changes has been safety,” he added. “The industry wasn’t as nearly as safe as it is now. One of the original trucks that I used to run had an open side on the bucket. If you hit that opening, you go out flying, and if you wore any sort of safety belt at all, it was just a waist belt. Now, it’s a full-body harness.”

Brooks learned from co-workers before becoming a supervisor.

“I kind of got thrown into the fire and learned along the way.”

After 39 years working for Princeton Public Utilities, Brooks said it’s important for the public to remember when the power does go out, there are utility crews on the job working quickly and safely as possible to restore service.

“Those crews out there working in adverse conditions,” he said. “They will get your power back on eventually.”

Brooks said his retirement plans include a little traveling, and spending more time with hobbies.

Brooks added he’s going to miss his Princeton Public Utilities co-workers a great deal how that he’s retiring.

He won’t miss the emergency calls and dispatches at 3 a.m., however.

“In our business, if there a thunderstorm coming, you always wonder if you are going to have to come into work,” he said. “It’s going to be nice to sit back and just watch one.”

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Lineworker

Elk River Municipal Utilities is accepting applications for a full time Lineworker. This position assists in constructing, operating and maintaining underground and overhead electrical distribution systems. This person will also provide general support for other departments and assist with general duties. Ideal candidate will have strong employment history. Please visit our website at www.elkriverutilities.com/pages/employment-opportunities for a full job description with required and preferred qualifications. Salary range is \$33.48 to \$47.83 per hour with excellent benefits. Resumes, along with a completed Lineworker Application Packet, must be received by January 27, 2020. Please submit resume to: Elk River Municipal Utilities, 13069 Orono Parkway, PO Box 430, Elk River, MN 55330, or via email to: mcanterbury@ermumn.com.

Utility Superintendent

The Spring Valley Utilities Commission is seeking a Utility Superintendent. The responsibilities of the position include planning, directing, supervising, and coordinating all activities of the Water and Light departments for the City of Spring Valley. This includes day to day management and supervision, monitoring the operations of the utility to ensure compliance with applicable laws, rules, regulations, policies and ordinances, preparing and administering the annual budget, managing projects, and developing long range operational plans for the utility. The position reports to the Spring Valley Utilities Commission. Minimum qualifications include a bachelor's degree from a four-year college or university and 4 years progressively responsible related experience and/or training or an equivalent combination of education or experience. Submit resumes to Spring Valley Public Utilities Commission, Attn: Jason Runck by e-mail at jasonrunck@yahoo.com.

Journeyman/Apprentice Lineman

The City of Grove City has an immediate opening for (1) full time lineman position in the Public Utilities and Maintenance Department.

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This position reports to the Superintendent of Public Works. Minimum qualifications include 1 year of accredited schooling/training and 1 year experience with electrical distribution systems, and class (B) commercial drivers license preferred. Please call Lacey at 320-857-2322 or email grovecity@embarqmail.com to request an application.

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Bits

continued from page 11

cents for every kilowatt-hour of electricity produced. The credit's value began dropping in 2017 and was scheduled to be phased out completely next year. The bill preserves a planned reduction scheduled in a tax credit for solar projects.

The Glendale, Calif., City Council on Dec. 10 adopted a resolution to enter into a 25-year power sales agreement with the Southern California Public Power Authority (SCPPA) for a 12.5 percent

share of the renewable solar energy, battery energy storage products, and associated environmental attributes from the Eland 1 Solar and Storage Center.

The Eland Solar and Storage Center will be the Los Angeles Department of Water and Power's first utility-scale, integrated solar and battery project. The project will include two large-scale solar facilities that will capture 400 megawatts of solar energy and store up to 1,200 megawatt-hours of energy.

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1 www.bls.gov/oes/current/oes499051.htm | 2 www.bls.gov/oes/2017/may/oes499052.htm
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MnOPS moving ahead with One-Call changes

The Office of Pipeline Safety (MnOPS) is moving forward with proposed changes to Minnesota's One-Call Law (Minnesota Statute 216D). It said these proposed changes are in response to statewide issues and an increase in complaints received in 2019.

MMUA staff and several members have been involved in discussions on the changes, which can be viewed on the MnOPS website, will be discussed again Jan. 13.

Safety Manuals available at reduced price!

16th Edition APPA Safety Manual now available at a reduced cost of \$22.00 plus tax. Shipping is extra, unless your MMUA Safety Professional can deliver.

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Upcoming Events

Rodeo Clinic

Feb. 26-27

MMUA Training Center, Marshall

Teams and individuals who are planning on competing at an upcoming Rodeo are invited to attend MMUA's Lineworker Rodeo Clinic.

This indoor clinic will cover the essentials. At the clinic participants can expect to hear from rodeo veterans, and run through a few of the events, in climate-controlled comfort.

While free to members, registration is required by Feb. 7.

PCB Management & Recordkeeping Workshop

March 17-18

MMUA's New Plymouth Office,
3131 Fernbrook Lane, Suite 200

Responsible for PCB management? Attend this workshop,

led by Mark Pennell, president of RCS, a PCB management and liability assessment firm in Springfield, Missouri.



RCS specializes in PCB regulatory compliance and risk management for more than 400 electric utilities. Pennell has spent his entire 32-year career providing expertise within this unique discipline. He interacts directly with EPA officials in all regional offices as well as in Washington, D.C.

Registration fee increases \$50 on Feb. 7 and sign-up closes on Feb. 18, so act today!

Substation School

March 24-26

Anoka Municipal Utility

The school includes classroom instruction on a variety of topics, a behind-the-scenes tour of Anoka Municipal Utilities' substations, and Federal Cartridge.



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- Substation Maintenance and Inspections
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- Proper Switching Techniques
- The "Ins and Outs" of a Substation

Registration fee increases Feb. 18 and closes Feb. 28.

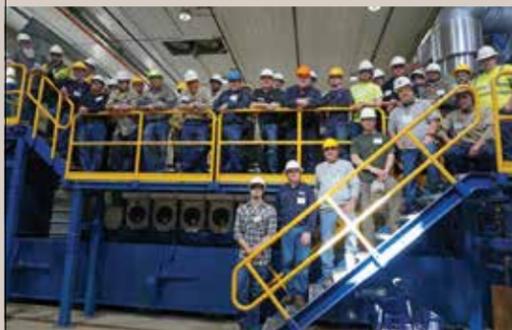


Legislative Conference

March 31 - April 1

St. Paul

2020 promises to be a very active session for municipal utilities. Our program is under development, but mark your calendars for this meeting now!



Generation School

April 21-23

Hutchinson, Glencoe, Delano

Generation School offers participants valuable classroom and hands-on instruction plus networking opportunities for generator operators and technicians. Whether a seasoned operator or just starting out in the field, all can benefit.

This year we will offer in-plant, hands-on instruction on three different engine sets: Enterprise, Cooper and Fairbanks Morse. Plus we'll tour one of Hutchinson Utilities' generation plants and 3M's manufacturing plant in Hutchinson.

School headquarters will be in Hutchinson, with hands-on training in the Glencoe and Delano municipal power plants.

Registration fee increases March 20 and sign-up deadline is March 30.



For more information, see the 'Events' calendar at www.mmua.org



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