

This is MMUA's Summer 2022 edition of The Resource. Our next issue will run in September. See you at the Summer Conference in August!

Wadena updates healthcare infrastructure with a hand from WU

A new hospital and clinic are coming to Wadena, and Wadena Utilities (WU) is key to helping make it happen.

Tri-County Health (soon to be Astera Health) has served the community of Wadena from their current building since 1974, but after many remodels and expansions, it was clear that a new building would make the most sense. The hospital and clinic had run out of room for expansion and needed a new site.

Tri-County Health looked at the county fairgrounds location but was unable to reach an agreement with the fair board. After a long search, they found a piece of property in Otter Tail County just outside of the city limits. The property is about seventy-seven acres, and the hospital will use about thirty acres for their new facility. Located on the northwest side of town along Highway 10, the new site was perfect for the hospital's needs.

City staff had two issues to



Construction is well underway on Wadena's new hospital and utility extensions.

solve at once: the property was not part of the City of Wadena, and about half of the property was in Todd-Wadena's Electric Cooperative's service territory.

In 2019, the city began working to annex the future hospital's property. Also in 2019, the city began negotiating with Todd-Wadena to acquire service territory for this new part of the city.

In early 2020, the annexation and service territory acquisition

were completed. The developer and the city of Wadena each paid 50% of the cost of acquiring the service territory from Todd-Wadena. With this, the longtime community goal could become a reality.

However, the hard work was just beginning. As is often the case with expansion to new territory, the annexed property lacked city electrical connections, sewer and water, all of which are provided by Wadena Utilities.

Through the developer's agreement with the city and the hospital, it was determined that a looped water main and a sewer main would be extended to the site, and a lift station would be constructed to accommodate the new facility's needs.

The hospital picked up most of the costs for this expansion: an estimated 90%-95% of a \$5 million sewer and water project. Approximately \$4.7 million in project bond funds were released to the city on July 13, providing the financing for this part of the utility expansion. The city will then pass these costs on to the hospital over time.

For this sewer and water project, Bolton-Menk engineered the system and consulted with the hospital. R.L. Larson was hired as the general contractor and built the infrastructure.

For the city electrical expansion, Wadena Utilities crews are doing most of the work themselves. The extension is a looped electrical system that will

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Effect of Supreme Court ruling on EPA reach likely nominal in Minnesota

by Karleen Kos

In the case of West Virginia v. EPA, the US Supreme Court (Court), by a 6-to-3 decision released on June 30, limited the Environmental Protection Agency's (EPA) ability to create regulations unless the authority to do has been expressly conferred upon the Agency by Congress.

Specifically, the Court ruled the EPA does not have the authority under the Clean Air Act to limit emissions at existing power plants through unit-level heat rate improvements, generation shifting to cleaner sources, or cap-and-trade agreements. The Agency can still regulate discharges at plants by emissions reductions technologies as they have done in the past.

Beyond the scope of the specific regulatory issues raised in the case, the ruling is significant because

the Court agreed to hear it even though the regulations to which it pertained were no longer in existence. The rules, known as the Clean Power Plan (CPP), were put in place under the Obama administration and had been repealed by the Trump administration. The Biden administration had stated that it had no desire to bring back the CPP. In fact, the EPA is working on new rules expected to be released for review in March 2023.

The Court, however, held that the EPA's pledge not to bring back the CPP did not mean they couldn't bring it back. They said these regulations could cause harm to individuals, and thus the Court had jurisdiction to review and rule on the case. It will be interesting to see what other, if any, regulatory procedures may be challenged under the

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Solar for Schools program presents challenges

by Kent Sulem

In the past few weeks, MMUA has been fielding questions from members whose utilities provide service to schools granted awards under Minnesota's Solar for Schools program.

The inquiries revealed significant problems in proposals made to those schools by solar developers. It quickly became apparent that these matters warranted action by MMUA, so we alerted leaders at the Department of Commerce, describing the situation. One issue of concern was an exceedingly high annual utility rate increase assumption being used by solar providers vs. the utility's actual history of rate changes, resulting in a skewed forecast of when a school would break even on its solar investment. Another concern was the way at least one solar provider's proposals to multiple schools violated the

local utility's exclusive service territory right under state law. Their arrangement called for the school to buy all electricity produced by the solar array which would be installed at the school but leased back by a third-party created by the solar provider. When alerted to the problem with such an arrangement, the solar provider proposed prohibiting the school from reselling the electricity it purchased from the provider, missing the fact that it was the provider's sales to the school that created the service territory violation. Yet another proposal attempted to package third-party electric sales with a number of other items and call the package a "service" that would be purchased by the school.

Underlying all of the issues above was the fact that the utilities had primarily learned of the proposed contracts between

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Fishing tournament success

The Minnesota Public Power Walleye Tournament was held on June 4 on Rush Lake near Ottertail. Easton Dale from the city of North Saint Paul and Travis Pederson from the city of Anoka caught the largest fish, coming in at 24.5." The first place team was Kacee Skogg and Toby Curtis with Lakes Area Tree Service.



FERC concerned about extreme cold and heat on transmission

The Federal Energy Regulatory Commission (FERC) is proposing a rule to direct the North American Electric Reliability Corporation (NERC) to modify its Transmission System Planning Performance Requirements to address reliability concerns pertaining to transmission system planning for extreme heat and cold weather events.

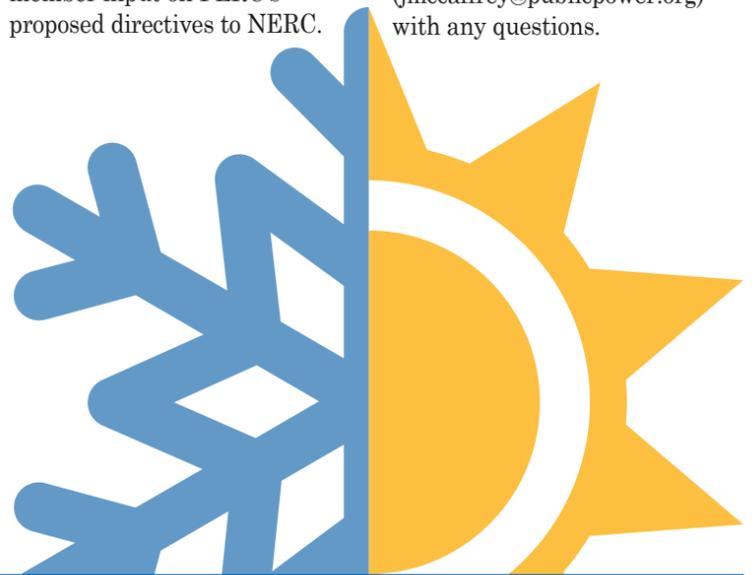
Under the proposed rule, NERC would be required to: develop benchmark planning cases based on major prior extreme heat and cold weather events or future meteorological projections; plan for extreme heat and cold events using steady state and transient stability analyses expanded to cover a range of extreme weather scenarios including the expected resource mix's availability during extreme weather conditions; and

develop corrective action plans that include mitigation for any instances where performance requirements for extreme heat and cold events are not met.

Comments on the proposed rule are due August 26, 2022. APPA staff is considering filing comments in response to the NOPR, and they are seeking member input on FERC's proposed directives to NERC.

In order to facilitate any coordinated comments from municipals, APPA would appreciate hearing from members as soon as possible. There also will be opportunities to discuss the NOPR on APPA's weekly NERC reliability conference calls.

Please contact John McCaffrey (jmccaffrey@publicpower.org) with any questions.



Duluth considers city-owned broadband network

On June 27, the Duluth City Council got its first look at a plan that could bring city-owned broadband to the community's future.

The plan, called the "Digital Access Master Plan," proposes to begin the process of moving to a city-owned fiber optic system with a small broadband project estimated to cost between \$7 million and \$9 million. The pilot network would be built in Lincoln Park next year.

This small project will help determine if the construction of a city-wide broadband network looks feasible. The price of that total project is estimated at \$76 million to \$79 million.

Duluth's consideration of this project driven by the same forces that often cause municipal decisionmakers to spring into action. Customers say broadband service is unreliable in Duluth and prices are too high from current providers.

The nearby city of Superior, Wisconsin is also considering

its own city-owned system to address many of the same shortfalls.

The cost of broadband for residents with the new network is estimated at between thirty and fifty-five dollars a month, a significant savings from the current average of approximately sixty-eight dollars a month.

The City believes this investment will drive economic growth, provide equity to underserved communities, and create a better quality of life for all Duluth residents.

Local control is a check on bargain shoppers

Who doesn't love a good bargain?



When I was a kid in small town Minnesota, shopping for deals was a way of life. Each summer, everybody hit the racks on the streets during Crazy Days, where things nobody wanted the rest of the year could be purchased on sale. What I remember most about those outings was (a) the event really should have been renamed “Crazy Hot,” or “Crazy Interminable,” and (b) my mother’s immense satisfaction at having picked up great items so inexpensively.

When it was over, my mother and her friends would compare notes and gloat. They’d bask in the success of outsmarting everyone else in getting school clothes or Christmas presents (in July!) for pennies on the dollar. These moms knew that one person’s trash is another’s treasure.

This whole Crazy Days concept of “value is in the eyes of the beholder” came to mind recently. I was being briefed about a city in Minnesota that is in the process of selling its utility to another entity, the history of that situation, and some of the decision drivers.

Whenever a transfer of ownership is contemplated,

MMUA’s leaders always wonder about the long-term impact of a present-day decision to sell. We know, statistically, that rates and downtime are usually lower when the utility is locally owned and controlled. We wonder: will the citizens regret a chosen sale down the road?

That’s anybody’s guess, of course. The bigger questions at the beginning of such a process are these:

- Do the voters understand the pros and cons of giving up their community-owned assets?
- Are there short-term challenges that, if overcome, would make keeping the assets and running the utility locally the obvious choice?
- Who is getting a bargain with the sale – and will they be gloating behind the scenes about how much they got for so little?

Every community has its ups and downs. Sometimes an election sweeps in new personalities that want to shake things up. Sometimes a longtime leader retires and the heart goes out of the utility. Sometimes councilors or commissioners just feel overwhelmed with the challenges that go with keeping things going, and the offer of a lot of money looks enticing—especially when the voters don’t have much of an opinion one way or the other if the lights, furnace, and water all come on when they are supposed to.

At MMUA we want to make sure we are doing everything we can to help communities and utilities preserve local ownership and local control if they have a

desire to do so. That’s why one of the pillars of our strategic plan addresses the issue of strategic preservation of local control. (Side note: attend the Summer Conference where we’ll discuss the entire strategic plan and check out MMUA’s website where it will be posted in late August.) Over the next three to five years, we will:

- Champion the three pillars of future utility success: reliability, affordability, and sustainability, within the municipal model.
- Develop and deploy a comprehensive communications strategy to engage MMUA members and their communities in articulating the value of local ownership and continuously evolving their utilities for the changing times.
- Design and offer a series of educational workshops and tools to help municipal utilities staff improve customer connections and loyalty.
- Prepare and implement one or more tools empowering local leaders to effectively evaluate and communicate regarding alternative ownership options if they are presented.

A strategic plan isn’t worth the paper it is printed on unless it is put into action. So, at MMUA we are committed to the following actions in FY 2022-23. They are the first of what will be many steps over the next few years toward helping towns and utilities preserve local control where that is desirable.

- We will begin the process of developing an ambassador program for municipal utilities.

From My Desk to Yours

Karleen Kos
MMUA CEO



One of the joint action agencies recently announced that they also plan to sponsor a similar program. It’s a powerful idea, and we hope to take it state-wide. The concept is to identify utility customer champions in each town, empower them with information, resources, and a network of peers, and help them effectively speak to questions around local control. Because the ambassadors will not otherwise “have a dog in the fight,” given that they are neither utility employees nor elected officials, we hope their voice will be credible on the issues that may arise in their towns.

- We will begin to design a toolkit and offer items members can use to educate their communities and promote local control. We don’t know what is needed nearly as well as you do. So, this tactic will require working hand-in-hand with members on concepts to complement efforts already in place locally. While the idea is to create things of direct usefulness in helping utilities carry the message, these tools will also be helpful to the ambassadors in their roles.

In time these tools will be used in workshops and training sessions for anyone who cares about carrying the message.

In the end, only a community and its ratepayers know what is best for their utility. That’s why our goal isn’t to promote and protect all local control at all costs. Rather, we want to make sure that the value of every municipal utility is fully known and appreciated regardless of whether a sale is sought or an offer considered.

Back during the Crazy Days shopping extravaganzas of my youth, not everything was on the sale racks. Plenty of inventory was marked at full price inside the store. You could get it, but not without paying what it was worth. MMUA is determined to do what we can so that Minnesota’s municipal utilities are understood as the valuable community assets they are – not mistakenly let go to a bargain hunter who knows exactly what a treasure they might be. The bargains belong in local hands, with neighbors doing the gloating about the reliability, affordability, and sustainability of their utility services.

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“Stepping Into Leadership” filling up fast!

MMUA’s premiere program for leadership development in the utilities space, “Stepping Into Leadership,” is offering a new group starting on October 5, 2022. Registration is limited, so make sure you sign up before it sells out!

This sixteen-class series gives attendees the tools they need to grow as a person, a leader, and a manager. During the fourteen month course, attendees examine their leadership abilities and how their own personal talents can translate into being a leader.

For more information, please visit <https://www.mmua.org/events/schools/stepping-in-to-leadership>. To register, please visit <https://www.mmua.org/event/stepping-10052022>.

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New report provides considerations and digital tools for the wide-scale introduction of electric vehicles in Minnesota

EVI-Pro Lite and Energy Zones Mapping Tool provide new level of detail for EV planning

A new report released by the United States Department of Energy's (DOE) Office of Electricity provides a state-by-state guide for each state's adoption of electric vehicles (EVs).

The reports use two innovative planning tools, EVI-Pro Lite and EZMT (Energy Zones Mapping Tool) to estimate electric vehicle infrastructure needs. These tools can be used by decisionmakers and planners to make choices and plot their course as electric vehicles become more widely adopted. Reflecting this, this report is described as "high-level," with guidance on modifications that can reflect local planning choices. The report notes that transportation has recently passed electricity generation as the largest emitter of carbon dioxide, making the argument for widespread EV introduction even more compelling.

Using the EVI-Pro Lite tool, the report provides two simulated adoption scenarios of EVs in Minnesota. The first, a "conservative adoption scenario," imagines 7,990 plug-in electric vehicles

being added to Minnesota's roads.

Under this scenario, the report projects that 135 workplace level 2 charging plugs would be needed. These stations would operate at 240V, powering up to 25 miles of range per hour of charging.

This path for electric vehicle adoption would also require 100 public level 2 charging plugs in addition to the workplace plugs. Currently, there are 1,012 public level 2 charging plugs in Minnesota.

In the 7,990 EV scenario, these new electric vehicles would also require 208 public DC fast charging plugs. The fast chargers would be grid-connected at 50 kilowatts (kW) and power up to 100 miles of range per hour of charging. Currently, there are 234 plugs of this type in Minnesota.

An extremely aggressive adoption scenario elicits higher numbers across the board. Should Minnesota have 494,029 plug-in electric vehicles on the road, they would require 7,784 workplace level 2 charging plugs, 4,479 public level 2 charging plugs, and 6,262 public DC fast charging plugs. These numbers

show the level of work that needs to be done with charging infrastructure when adoption becomes widespread.

Under these widespread adoption scenarios, grid infrastructure will have to adapt too. Distribution systems that have not been upgraded to higher voltages will need to be modified to prevent overload and operational issues.

The EV-Pro Lite tool is useful because it can also be used to forecast EV impacts on electricity load. Users can input information that can show how EVs will affect load, and how they can plan ahead to make sure that peak demand will be met in the future.

For load profiles, these inputs include things like average daily temperature, EV vehicle types, and charging times during the day (off-peak or peak).

Based on the extremely aggressive adoption scenario, EVI-Pro Lite created a load simulation based on most charging being done by home level 2 charging when the EV comes home after work. In the Minneapolis-St. Paul urban area, load peaked at approximately

8 PM at about 250 megawatts (MW) during the workweek. On the weekends, electric load was higher hour-by-hour, but peak load was not as dramatic and never reached 250 MW.

The number of simulations and scenarios that can be created by this tool are truly amazing. By playing with the inputs and using the best projections available, policymakers and individuals in the electrical industry can estimate how to plan for the future and message their customers.

The second tool provided by DOE is called the Energy Zones Mapping Tool (EZMT) and is a web-based application. The tool has over 360 layers to help decisionmakers place energy projects or charging station locations.

EZMT can be modified to allow for community planning or needs. It can assess population density, existing electrical infrastructure, and areas that could use an economic boost.

Users can plug in the geo codes and using their preferred options, assess the plausibility of a charging station at that location. For instance, the report demonstrates the viability of

locating a charging station in Orrock, a small crossroads community north of Big Lake and west of Zimmerman in Sherburne County. Locations that may be best for charging station placement include those where there are other public amenities at the site such as a gas station, restaurant, or convenience store. Using various filters available with EZMT, the report shows how this site fits the bill. Another positive for the potential Orrock site is that is 13.2 miles from the nearest public charging station in Monticello.

The EVI-Pro Lite tool is available at <https://afdc.energy.gov/evi-pro-lite>. Individuals can find the Energy Zones Mapping Tool at <http://ezmt.anl.gov>. Both tools offer an amazing amount of detail so that smart choices can be made as EV use and charging patterns change over time.

Electric vehicles are coming, and they offer a lot of opportunity and challenges for many groups, including electrical operators. These tools can help everyone better understand the important impacts of planning choices that will be made.

Minnesota wind by the numbers

With things in the renewable energy space moving so quickly, it is often difficult to keep track of exactly where Minnesota is. Here is a quick recap.

Minnesota ranked 9th in the nation for wind generation in 2020. The state generated 12.2 terawatt-hours (TWh) of electricity from February 2020 to February 2021, surpassed by only a few states including leaders Texas, Iowa, and Oklahoma.

In 2021, Minnesota's wind capacity was 4,591 megawatts (MW). Two of Minnesota's largest wind farms were Buffalo Ridge, which generates 225 MW, and Fenton, which generates 205.5 MW. Approximately 340 MW of wind energy is currently under construction in the state.

In 2018, wind energy provided 17.9% of Minnesota's in-state electricity generation. Wind energy helped Minnesota save 7.8 million metric tons of carbon dioxide (CO2) emissions that year. Minnesota also saved 3.9 billion gallons of water in 2018 because wind generation does not use water in the process.

In the manufacturing space, Minnesota has twenty manufacturing facilities making turbines, blades, and other wind turbine equipment. In 2019, wind energy provided over 3,000 jobs either directly or indirectly.

Any way you measure it, Minnesota is a national leader in wind energy.

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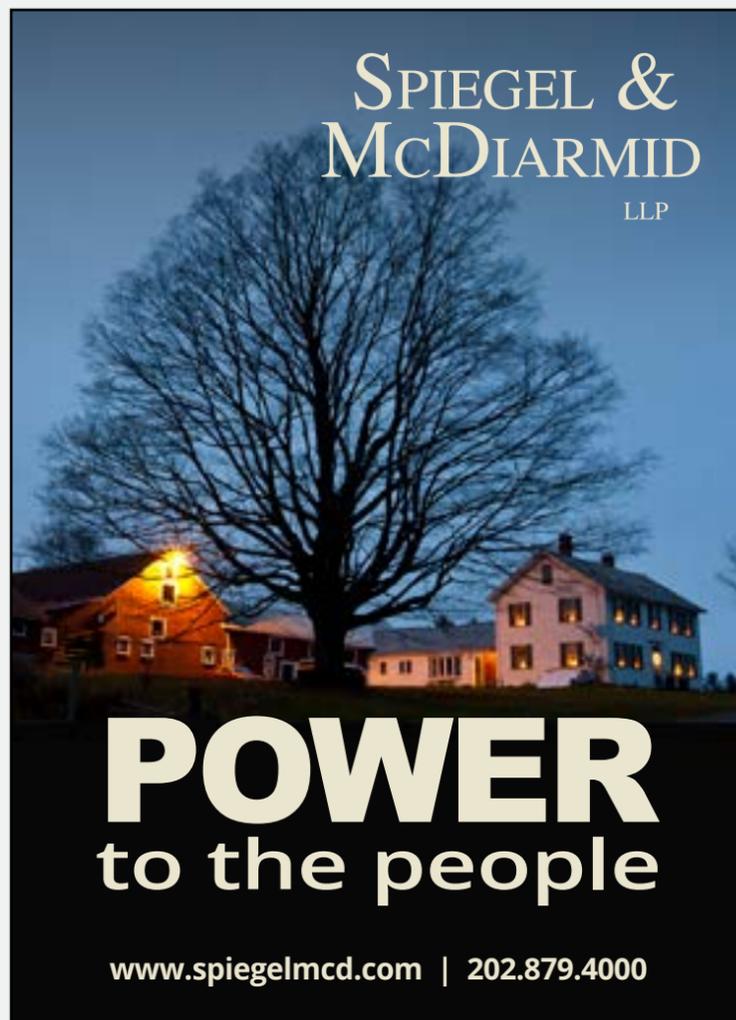
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Extreme weather prompts stronger transmission system performance requirements



On June 16, the Federal Energy Regulatory Commission (FERC) issued a proposed rule that will direct the North American Electric Reliability Corporation (NERC) to develop modifications to reliability standards.

These modifications will allow for increased responsiveness to transmission needs during extreme hot and cold weather events.

The proposed rule is an outgrowth of FERC's technical conference on climate change and extreme weather, which highlighted the increased pressure being placed on the bulk-power system because of extreme weather events. The 2021 Texas winter storm was noted as an example of extreme weather causing enormous issues including uncontrolled blackouts and near system collapse.

In order to adjust to this new

reality, NERC will develop modifications to reliability standards. The first modification will be the development of benchmarks that are based on previous extreme weather events or future projections. The benchmarks will help better plan for system needs going forward.

The second modification is using expanded steady state and transient stability analyses to cover a broad mix of possible weather events, as well as the possible impacts of those events.

The third modification is to develop a corrective action plan for times when performance requirements are not met under this new planning.

With reliability struggling during unprecedented weather events, FERC hopes these strengthened performance requirements will adjust to the new landscape and allow room for further adjustment when the need arises.

MISO studies generation retirement

With this summer seeing projections of electricity shortfalls and possible brownouts within MISO, the organization is studying ways to make its generation retirement studies more attuned to the times.

In particular, MISO is looking to better meet local reliability requirements when studying generation retirement. It also wants to provide more notice and ease confidentiality rules when releasing its studies.

MISO would like to see a one-year notice requirement on retiring generation. The grid operator is also proposing to collect retirement studies in quarterly batches instead of when the

studies are received. This will help MISO better handle a growing number of incoming retirements, as well give MISO staff more time to study these retirements and existing energy infrastructure to ensure that generation resources will be adequate for the load requirements.

MISO is not the decision-maker on the timing of generation retirements, but it can provide important information about how the retirement will affect reliability.

MISO sees incoming retirements as a challenge on many levels, and the organization wants to do its part in providing a reliable grid while staying within its purview.

Travis Denison joins MMUA



Travis has already been hitting the road, teaching bucket rescue (pictured here) as well as many other things. He's in the camo jacket.

Travis Denison has joined MMUA as Safety Coordinator and JT&S instructor for the South Dakota group, replacing Bruce Westergaard.

He is a NRECA-Certified Loss Control Professional, has completed OSHA-specific training in general industry safety and health, and he is a journeyman lineworker with more than twenty years of experience in the field.

Travis has a long history in the utilities space. He started his career when he attended the Mitchell, SD Technical Institute in the powerline construction program. After graduation in 1994, his first job was a 1000-hour temporary position at East River Electric. He then moved into the municipal world when he worked in Arlington, SD for a year and a half.

Travis spent eleven years at Brookings, SD Municipal Utilities, where he worked with none other than Bruce Westergaard as his partner and trainer. He later spent seven years with Otter Tail Power stationed in Lake Preston, SD.

Travis had his first job in the area of safety when he took a position with South Dakota Rural Electric Association in the Safety and Loss Control Department. That position took him across South Dakota where he developed safety programs, conducted technical trainings and workshops, and monitored and interpreted OSHA, EPA, and DOT regulations as well as the National Electric Safety Code. He is an experienced safety incident and accident investigator, apprentice supervisor, and team leader.

Travis has been married to his wife Stacey for twenty-seven years and has three boys, one of whom works as a power lineworker. Travis lives east of Lake Preston, SD.

Welcome to MMUA, Travis!

North Branch Power and Light sells electrical assets to East Central Energy

East Central Energy (ECE) and the North Branch City Council, together with North Branch Water and Light (NBW&L), have reached a tentative agreement for ECE's purchase of NBW&L's electrical assets.

NBW&L's electrical distribution system and its 2,000 customers will soon be part of ECE. Still to be determined is the status of NBW&L's generation equipment

as well as many of its contractual relationships.

The purchase agreement in the amount of \$5,318,943 also includes a non-compete clause that will prevent North Branch or NBW&L from reentering the electrical distribution business and competing with ECE in the future.

The deal is expected to close before the end of the year.

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Germany pivots to coal to replace gas losses

Germany, historically famous for its coal industry, had announced in the past few years that it was moving quickly to phase out most if not all coal-burning power plants in the country.

Now, the Russian war in Ukraine and the loss of Russian gas supplies have Germany resetting their plans.

In a statement on June 19, German Economy Minister Robert Habeck said that the country's gas supply is "adequate," but that other fuels will have to pick up the slack as demand for electricity grows. Habeck stated that coal-based power generation will need to increase "for a transitional period" to replace Russian gas supplies.

Germany still plans to completely phase out the use of coal for power generation by 2030, but it is clear that the disruptions caused by the war in Ukraine are going to momentarily reverse this direction and slow the transition overall.



New generators promise future fuel flexibility

On June 22, a generation startup called Mainspring Energy announced that its innovative generators have successfully run at high efficiency on both 100% hydrogen and 100% ammonia fuels.

The generators can also run on traditional fossil fuels and then be switched over to alternative, cleaner fuels as they become available with few modifications.

According to Mainspring Energy, the new generators use a new method to create energy. Called linear generation, they make power by capturing the energy of oscillators that are moved by the reaction of fuel with air in a compartment.

These types of generators may become another of the emerging options for energy producers who want the reliability of traditional fossil fuels, but also want the ability to switch to alternative fuels as regulations change or these fuels become the better choice.

EPA announces new PFAS drinking water advisories

On June 15, the Environmental Protection Agency (EPA) released four drinking water health advisories for different per- and polyfluoroalkyl substances (PFAS).

These advisories presage EPA's anticipated release of National Primary Drinking Water Regulation for PFOA (perfluorooctanoic acid) and PFOS (perfluorooctane sulfonic acid) which is slated for fall of 2022.

EPA's guidance acknowledges for the first time that PFAS levels that are so low that they cannot be detected in drinking water still post a health risk to humans. EPA is taking a holistic look at the PFAS issue by noting that PFAS exposure from other food and consumer products still adds to the cumulative effects of PFAS in the human body.

With respect to PFAS remediation in drinking water, the EPA is recommending that water providers install filters to remove them, even in communities that have not had historically high PFAS levels. The EPA also asks water providers to inform residents about PFAS so that they can mitigate their exposure. During the 2022 Minnesota



legislative session, MMUA lobbied for PFAS funds to assist communities in monitoring PFAS levels. This, like so many other efforts this year, failed to pass when the session ended.

The Infrastructure Investment and Jobs Act (IIJA) signed by President Biden in 2021 provides \$1 billion in grant funding to help towns of 10,000 or less in population or disadvantaged communities remediate PFAS and other emerging contaminants in their drinking water. This will be the first step in a total of \$5 billion in funding that will help address this issue. The grants will flow through state agencies, and it is unclear at this time if Minnesota will apply for first round funds when the program opens later this year.

Ocean Shipping Reform Act looks to alleviate supply chain logjams

On June 13, Congress completed their passage of the Ocean Shipping Reform Act (OSRA) when the House passed the measure 369-42.

The bill had previously passed the Senate with unanimous support and President Biden signed it into law on June 16, 2022. Senators Amy Klobuchar (D-Minn) and John Thune (R-SD) introduced the bill in February.

The new law will help American exporters, who have seen issues with everything from added fees to ocean carriers declining to ship various U.S. exports. The Federal Maritime Commission (FMC) will be given more investigative authority to research unfair business practices and hold those responsible accountable.

The law will also help the rising prices of imports, and resultant inflation, which have been partially created by unfair business practices.

Rep. John Garamendi, (D) California, said, "Nine multinational ocean shipping companies formed three consortiums to raise prices on American businesses and consumers by over 1000% on goods coming from Asia. This allowed these foreign companies to make...a sevenfold increase (in profits) in one year."

What remains unclear is how much the new law will address the other post-Covid difficulties related to moving imported goods into American ports. According to Gartner, an S&P 500 listed market research firm, "OSRA will bring benefits to shippers long term, but it will not have any effect—today or in the future—on the market challenges logistic leaders face, including port congestion and high shipping rates. These issues are more structural in nature and rates are a function of high demand and low supply, neither of which OSRA will resolve."



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Proposed FERC reforms will assist interconnection

New rules would streamline process

On June 16, the Federal Energy Regulatory Commission (FERC) issued a multi-part notice of proposed rulemaking (NOPR) that focuses on connecting new electrical generation to the grid.

Interconnection backlogs have been a widespread issue, with more than 1,400 gigawatts (GW) of generation and storage waiting to go online as of late 2021. The new rules are designed to eliminate this backlog and get new generation connected at a time when the energy generation mix is changing quickly.

The proposed reform would put in place a first-ready, first-served cluster study process. This means that transmission providers will conduct larger interconnection studies that look

at several proposed generating plants simultaneously instead of conducting separate studies for each proposal. In addition, monetary commitments and readiness surveys would be imposed on interconnection customers, providing a further degree of certainty, and further minimizing delays.

The second proposed reform would create deadlines and penalties for transmission providers that do not complete their interconnection studies on an agreed-upon deadline. A part of this reform would include a more detailed study process for affected systems, and a simplification of interconnection request studies that relate to the same state-authorized or mandated resource solicitation.

The third reform that would be part of this rule is the

incorporation of technological advancements into the interconnection process. This process of streamlining would allow things like interconnection providers to add a generating facility to an existing interconnection request and allow more than one resource to co-locate on a shared site behind a single point of interconnection.

The last reform proposal would make certain updates to modeling and performance requirements for non-synchronous generating facilities. These updates would ensure that these generating facilities are better able to support reliability and provide energy when there are issues with the grid.

This Notice of Proposed Rulemaking (NOPR) grows out of FERC's advance notice of proposed rulemaking (ANOPR) released in July 2021, which solicited industry input on a wide range of issues relating to transmission planning, cost allocation, and generator interconnection. APPA submitted initial and reply comments addressing many of the questions posed in the ANOPR, and APPA staff expects to file comments on the June 16 NOPR as well. To provide input on FERC's proposed reforms, please contact John McCaffrey at jmccaffrey@publicpower.org.

FEMA stockpiles materials in readiness for severe weather; implications touch Minnesota

In response to the calls of several states and the growing threat of a severe weather season, the Federal Emergency Management Agency (FEMA), has been proactively stockpiling emergency response materials for use at distribution centers across the country.

Of particular concern this year is an active hurricane season across the southern hurricane belt. These projections, along with a still-struggling international supply chain, are encouraging federal administrators to be proactive with material requisitions.

Florida, in particular, has been vocal about the supply and labor shortages facing their electric community.

Twenty-three of the twenty-seven members in Florida's congressional delegation wrote to the FEMA administrator, saying among other things that, "FEMA must employ mitigation efforts with the local Florida community to ensure that transformers, bare wire, meters, and other electric grid equipment will be available ahead of the first disaster."

What does this mean for

Minnesota's electrical providers? Not too much yet. FEMA is not stockpiling the electrical grid equipment that would only exacerbate supply issues. Currently, they are simply acquiring generators and other equipment that would be used temporarily during recovery efforts.

It seems unlikely that FEMA would shift away from its traditional role of acquiring only these types of materials, but MMUA and our public power partners will be watching carefully. Irrespective of FEMA's efforts, significant damage to system infrastructure in any part of the country will mean that the limited inventory of equipment and supplies currently available would be strained, perhaps to the breaking point. At a minimum, it would likely mean that most new equipment that comes available would be diverted to storm-affected areas, negatively affecting Minnesota utilities' ability to acquire or afford the limited supply.

MMUA's recent "Supply Chain for Mutual Aid" survey is intended to help us get a handle on the particular inventory stresses here in Minnesota so that we can work with our legislative delegation on possible fixes.

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Randall, Minnesota hit by 500-year flood

Randall Minnesota personifies the power of municipal utilities.

After a quick response to a car accident that affected the city's utilities on April 5, a 500-year flood in late June posed another major challenge that the city met head-on.

The trouble started when rain began falling on June 23-June 24. Ten to twelve inches fell, which caused the Little Elk River to overflow its banks and flood Randall.

Thirty homes were evacuated, some by boat, and electricity and

gas were disconnected to those homes. Highway 10 through town was closed by the Minnesota Department of Transportation. City staff carefully monitored the status of the city utilities over the weekend to keep everything operating.

"We received support from agencies around Randall," said City Manager Matt Pantzke. "We are doing everything we can to maintain service...we used every resource."

By June 28, Pantzke estimated that only two to three homes were still without electricity.

The biggest long-term effect of the flood was impacts to the water treatment plant. It was taken offline during the flooding. While it is being returned to its normal operation, the city will use its well #2 to meet Randall's water needs.

Just like in April, the city of Randall and Randall Utilities were handed a difficult situation that imperiled lives. Their quick action and hard work made sure that people were safe and that utility service would be restored quickly even under difficult conditions.



This photograph shows several submerged vehicles and structures after the flooding that hit Randall on June 23-24. Photographer unknown

Walleye Wind breaks ground



NextEra Energy Resources broke ground on their new 110-megawatt (MW) wind farm in Rock County on June 22. The project will feature 40 General Electric wind turbines and is expected to begin operations in late 2022.

Photo provided by NextEra Energy Resources.

NextEra Energy Marketing is a wholesale power supplier responsible for the electricity and fuel management for all of NextEra Energy Resources' generation fleet, which includes the largest renewable energy portfolio in North America.

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Falcons enjoy life among the stacks

In 2023, Minnesota Power will celebrate the 30th anniversary of hatching peregrine falcon chicks at its Boswell Energy Center near Cohasset, Minnesota.

Boswell Energy Center as well as the Hibbard Renewable Energy Center in Duluth feature nesting boxes perched more than two hundred feet up on the stacks.

Peregrine falcons move into the boxes in March, eggs are laid in April, and chicks hatch in late May. Since 1993, over seventy falcons have hatched.



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Wadena

Continued from page 1

provide for more redundancy and better service to the new hospital. Per city policy, Wadena passed on the cost of materials (at cost) to customers but did not charge for their labor or equipment time.

Construction started on the new medical facility in early 2021, but utility work did not start until May of 2022.

The entire project was set back six to nine months due to the Coronavirus (COVID) pandemic and the need of Tri-County Health to focus on patients during this time.

Now the utility extension is well underway. Construction crews have torn up Greenwood Avenue near the hospital site to add utilities and remake the roadway.

David Evans, Wadena Utilities Superintendent, is upbeat about growth for the utility in the future.

Wadena is in the process of doing a residential development in the southeast part of the city that will eventually have sixty new homes. That will be in 2023. The hospital site could also see complementary development on the remaining land, with a new assisted living center, a hotel, or homes."

With all of this growth, Wadena's future looks promising.

Supreme Court ruling

Continued from page 1

court's apparent willingness to expand the scope of its review.

Meanwhile, what does this mean for Minnesota?

First, it is important to remember the ruling did not eliminate the complete authority of EPA or the Administration to limit greenhouse gas (GHG) emissions. While not what climate scientists and environmentalists wanted to hear, it is a rather narrow finding, according to a New York Times article quoting Romany Webb of the Sabin Center for Climate Change Law at Columbia University.

Even after the ruling, the EPA can still push power plants to become more efficient and to shut down plants with high GHG emissions. The Agency just can't adopt broad policy that affects the entire energy industry without specific authority from Congress.

EPA can also regulate power plants one at a time, but not through sweeping measures that impact all generators. Because of this, it is likely that new EPA rules will be tailored around the contours of the West Virginia v. EPA decision.

Michael Gerrard, an environmental law expert also from Columbia University, on June 30 tweeted other ways that government agencies could continue to

address climate change including regulating new power plants and factories, limiting other air pollutants, regulating leakage from oil and gas production, and encouraging the buildout of renewable sources. Importantly, he noted that the Court's decision "doesn't limit the considerable powers of states and cities."

That observation is key for Minnesota utilities. In our state the regulations that make the most difference day to day are those of the Minnesota Pollution Control Agency (MPCA) and the work of the Public Utilities Commission (PUC). These agencies can place more stringent regulations on Minnesota utilities than those at the federal level. They cannot require less.

Momentum toward renewable energy in Minnesota is significant and likely to continue. A Minneapolis Star-Tribune article published the day after the decision was announced declared, "Supreme Court ruling won't affect clean energy push in Minnesota." The article noted that the state's transition to cleaner power is well underway, and large generators such as Minnesota Power and Xcel Energy have pledged to close their remaining coal plants by 2035 at the latest.

More than a dozen cities across

the state have created local blueprints for reducing carbon emissions and preparing for extreme weather events. From cities as small as Grand Marais to the Minneapolis-St. Paul metro area, climate action plans are in place. And the Green Step Cities initiative begun in 2010 enrolled more than 140 communities representing more than half the population of Minnesota. Green Step has worked to reduce GHGs by 25% and resulted in nearly 600 renewable energy sites.

At the regulatory level in Minnesota, the PUC has been forceful in insisting that the long-term plans submitted by utilities reflect a commitment to cleaner generation. With the reappointment of Commissioner Matt Schuerger to a second six-year term, that direction is unlikely to change. Schuerger is a thirty-five-year veteran of the utilities industry, having worked both as an engineer on the power system planning and operational side, and as a regulator.

On the day of the Court's decision, Governor Walz tweeted the following message, "Today's SCOTUS decision limiting the EPA's authority is incredibly disappointing. While I'm Governor, Minnesota will continue to prioritize climate initiatives and create new jobs, build healthier

communities, and preserve the environment for generations to come."

The governor's term ends in early January 2023, and he is running for re-election in November. Should he win, Walz will likely continue to promote policies that limit GHGs and accelerate the transition to clean energy sources as much as possible.

On the other hand, should the 2022 midterm election result in a change of party control, especially if Republicans sweep both legislative chambers and the governor's mansion, it is possible that environmental regulations will be eased and the transition to renewables will be allowed to slow to some extent in Minnesota. However, regulations here cannot be relaxed further than EPA guidelines allow, and EPA still has many arrows in its regulatory quiver that will ultimately continue to push power generation to renewable sources as quickly as science and engineering can handle the transition.

In the end, momentum backed by public and private investment, as well as the very real impact climate change is having on our state, is likely to trump the impact of this ruling. Utilities should plan accordingly.

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Solar

Continued from page 1

the schools and solar providers second-hand. In fact, several schools appeared ready to sign such flawed agreements before the utility became aware of the proposals.

To their credit, Solar for Schools Program Manager Mandi Schienebeck and State Energy Office Director Michelle Gransee were immediately receptive to MMUA's alarm, suggesting that a step could be added to the award process to address our concerns. The Department then drafted a template for a memorandum of understanding (MOU) between each school selected for a Solar for Schools grant and its utility. Schools would be required to discuss the solar financing plan with their utility and obtain

the utility's signature indicating (1) that it had provided the school with its utility rate history and (2) based on the facts at the time it signed the MOU, the utility did not see anything in the proposal that would prevent the inter-connection process from moving forward (e.g., third-party sales or other immediate disqualifiers).

MMUA invited all municipal utilities serving a Solar for Schools awardee to participate in a video conference to analyze the draft MOU and suggest edits for MMUA to convey to the Department. Turnout for the meeting was robust, especially given the limited notice. The Department's final version of the document contained all of MMUA's suggested edits. In addition to the MOU form, awardees would receive a revisable financial analysis spreadsheet tool developed by the Department to utilize more accurate utility-informed rate increase assump-

tions.

MMUA considers these documents a welcome response that will help ensure important utility-school dialogue, prevent unforeseen customer costs, and help preserve relationships between municipal utilities and some of their most important public customers.

Uncertainty remains as to what really will happen if a school



district fails to submit a utility-signed MOU. Ideally, as indicated by the Department, the State would withhold the grant payment. However, there will be political pressure to distribute the Solar for Schools funding. MMUA will monitor developments as closely as possible, and we welcome

any related information gleaned by members.

It should also be noted that currently there is no simple answer under law regarding the best way for a municipal utility, if its governing body were so inclined, to allow third-party sales. This is true even if the utility limited eligibility for the third-party sales to schools. The primary reason for the third-party sales structure is to allow the solar provider to utilize federal solar tax incentives on behalf of the non-taxed school. However, it is possible for solar providers to offer project financing that does not involve third-party sales. Another possibility may be for the utility itself to offer project financing, avoiding unregulated sales and, perhaps, providing a better investment return for the school.

Solar for Schools was created by the 2021 Legislature. The Legislature provided \$8 million

to fund the program at the school district level. The Department of Commerce received 122 applications for Solar for Schools grants, totaling \$11.8 million in requests. The Department awarded grants to schools in 45 school districts. Sixteen of the 45 school districts receiving grants are in municipal electric service areas. There will be a separate round of grants for state colleges and universities. The legislature appropriated \$1.242 million in 2021 for grants to state colleges and universities. Applications are due August 7. Funding for additional grants was included in 2022 legislation, but the bill failed to have any final action taken before the legislature adjourned sine die.

As always, any municipal utility with questions about the issues raised here or by similar situations are encouraged to contact Kent (ksulem@mmua.org) or Bill (bblack@mmua.org).



Clean school bus revolution

An initial investment in electrifying America's school buses is just the first step in a total of \$5 billion that will eventually transform America's school bus fleet.

Made available by the Infrastructure Investment and Jobs Act or IIJA, the first \$500 million of this funding became available on May 20 for school districts and other eligible school bus operators.

Officials hailed the plan as not only creating healthier communities, but also in its ability to lower carbon emissions significantly in the transportation sector. The plan will also encourage more American manufacturing and create good-paying jobs.

The Environmental Protection Agency (EPA) will be accepting applications until August 19, 2022, for the first round of funding. The IIJA focused priority applications on communities including high-need local education agencies, Tribal Schools, and rural areas. EPA is also making concrete efforts to reach out to these communities and assist them in making grant applications.

Grant programs will run every year over the next five years. This program is intended to spur the transformation of America's school bus fleet and thereby contribute to achieving zero emissions from transportation in the United States.

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DOE proposes new gas furnace rules

Rules have not been modified since 1987

On June 13, the United States Department of Energy (DOE) issued a Notice of Proposed Rulemaking (NOPR) addressing energy efficiency for residential gas furnaces.

If implemented, these rules could have a major effect on both residential gas and electric use.

Under the proposal, less-efficient non-condensing type furnaces would be phased out by 2029. DOE estimates that along with lower carbon emissions, the cost savings to consumers would total around \$30 billion over the next thirty years at a 3% discount rate, while the value of climate and health benefits would account for another \$35.5 billion in savings.

In the NOPR, the Department projects what heating system consumers would choose if these furnaces were phased out. The majority of consumers are expected to choose another furnace fueled by natural gas,



while DOE estimates that approximately 7% of consumers would move to a heat pump, with about 2% moving to an electric furnace.

Gas furnaces account for about 15% of annual U.S. residential energy use. The Biden Adminis-

tration is moving ahead by using the Defense Production Act (DPA) to drive the production of American-made clean energy technology, including heat pumps. The goal is to drive down the pricing of these technologies so that they are an attractive alternative for consumers.

The American Public Gas Association (APGA), the American Gas Association (AGA), and natural gas provider Spire, met together with representatives of the Office of Management and the Budget (OMB) in April. All are concerned that the NOPR might set minimum efficiency standards that could create a de facto ban on non-condensing equipment. The groups are concerned that the more extensive venting requirements for the new furnaces are impractical in older homes and in other structures common in lower income areas.

If adopted, the proposed rulemaking would be the first major modification to furnace efficiency rules since 1987.

Schuerger nominated to second term on the PUC

Governor Tim Walz and Lieutenant Governor Peggy Flannagan announced Friday, July 8 that Matt Schuerger is being appointed to a second six-year term on the Public Utilities Commission (PUC).

His new term will run until January 3, 2028.

Commissioner Schuerger was appointed by Governor Dayton in 2016 and requested a second term. In 2016 was appointed as an Independent, and over the years he has been a moderate voice on the PUC. Eleven others interested in the position filed for consideration, including longtime Minnesota Senator David Senjem, but in the end Walz and Flannagan chose to stay with Schuerger.

In their announcement, they lauded Schuerger's commitment to efficient and reliable utility services, his dedication to the commission, and his technical expertise. PUC chair Katie Sieben observed that he is recognized nationally for his "robust

knowledge" of grid operations.

Schuerger serves on the Board of Directors of the National Association of Regulatory Commissioners (NARUC) and is the Chair of the NARUC Committee on Electricity. He has also been elected to the Member Representatives Committee of the North American Electric Reliability Corporation (NERC). Prior to Schuerger's work on the PUC, he spent thirty-five years in the energy industry. He holds degrees in both mechanical and electrical engineering as well as an MBA.

Historically if an appointee is named by a governor of the opposing party but is acceptable to the party for which the seat is designated—as may be the case with Schuerger's reappointment—confirmation hearings are not held. It remains to be seen whether the Minnesota Senate will decide to hold hearings when the body is next in session.

Bruce Westergaard retires from MMUA



Bruce Westergaard

Bruce Westergaard has retired from MMUA as of June 30.

Bruce was a member of the MMUA team for eighteen years as a Safety Coordinator and JT&S Instructor. Before that, he worked for twenty-six years as a lineworker, starting his career with Brookings Utilities in South Dakota.

Interestingly, Bruce worked with Travis Denison, his direct replacement, for eight years before moving on to MMUA.

Bruce notes, "It has been a very rewarding experience serving in the utility field as both a worker and safety person."

Thank you for your service Bruce, and best of luck in retirement!

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Green hydrogen comes to Minnesota

Two utilities with major Minnesota operations, CenterPoint Energy and Xcel Energy, are taking a dive into the world of green hydrogen with pilot projects in Minneapolis and Red Wing, respectively.

Hydrogen is a fuel that is “green” when it is produced by renewable sources. Since hydrogen, when combusted, does not create carbon dioxide, it is an alternative to carbon-based fuels.

CenterPoint derives its green energy from renewable electricity that Xcel has produced. At its new Minneapolis facility, which became operational on June 3, this power is used to produce hydrogen that can be integrated into local natural gas systems.

A 1-megawatt (MW) electrolyzer does the work. Using clean electricity and two gallons of water a minute, hydrogen is

produced by splitting water into hydrogen and oxygen. CenterPoint estimates the facility can produce up to 432 kilograms of hydrogen gas per day.

After the gas is produced, it can be added to the natural gas distribution system in low concentrations of up to five percent. CenterPoint estimates that the use of this hydrogen as a component of the gas system could save almost 1,200 tons of carbon dioxide emissions a year.

Xcel Energy is not only providing clean electricity for CenterPoint’s project but is also pursuing a clean energy project of its own. Xcel’s pilot hydrogen plant at Prairie Island is in partnership with the U.S. Department of Energy, which is paying \$12 million for the project.

Xcel’s plant is expected to open in about two years and only



operate for about three months. The plan is to use excess nuclear capacity at Prairie Island to produce about 90 kilograms of hydrogen a day. After this pilot, Xcel could explore next steps in producing hydrogen commercially.

Xcel is using high-temperature electrolysis to produce its hydrogen. This process is not as common but uses 30% less electricity than low-temperature electrolysis.

Green hydrogen offers

applications in areas that are difficult to decarbonize, including high-heat industrial activities like fertilizer and cement production. Producing hydrogen from excess generation capacity allows power sources as diverse as wind and nuclear to capture energy and make it useful.

The implementation of hydrogen will require infrastructure changes such as improved pipelines and modified home appliances. However, its ability to eliminate large percentages of carbon use make it an attractive technology despite these changes.

CenterPoint and Xcel’s projects set the stage for a carbon-free future with green hydrogen as part of the solution. Pilots like these will explore how hydrogen can be most effectively harnessed to be a part of that mix.

St. Cloud wastewater plant plans to be first in the world to create green hydrogen on-site



City of St. Cloud, Minnesota

St. Cloud’s wastewater plant, through its public works department, has applied for a \$1.1 million grant from the Legislative Citizens Commission on Minnesota Resources (LCCMR) to put towards green hydrogen production on-site and the creation of renewable natural gas for heating.

The project, which has a total cost of \$3 million, would be the first in the nation to create green hydrogen at a wastewater plant. Water will be split into hydrogen and oxygen, with both elements being used to the benefit of the facility.

The oxygen from the process can be concentrated and used to treat the water. This will lower power costs, as less electricity is needed to treat the water with the addition of oxygen.

Hydrogen produced will be used for power on site, and any excess power can be sold to the grid.

St. Cloud also plans to convert its on-site natural gas production so that the gas can be used as heating fuel. These projects should be completed by late 2023 or early 2024.



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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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**Around
the State**



Audubon celebrated its 150th birthday during its annual Summer Fest on June 25. The festivities included an aerial community photo taken with a drone.

Brainerd saw significant storm damage on June 20 from high winds and more than three inches of rain. Minnesota Power, Crow Wing Power, and Brainerd Public Utilities (BPU) customers were affected. BPU Superintendent Scott Magnuson said that more than twenty customers in Brainerd remained without power on June 21 because connections to homes were affected by the storm.

Caledonia has a new City Clerk/Administrator. Jake Dickson was formally introduced to the Caledonia City Council on June 13.

Ceylon will see road construction on Highway 263 between Ceylon and Interstate 90 beginning July 5. The project includes a utility update in Ceylon. It is anticipated to be completed by October.

Detroit Lakes saw a section of Washington Avenue, the city's main street, closed from June 2 to June 16 to accommodate city events and the installation of utility improvements for a new downtown brewery. On June 6, construction of new water and sewer service laterals began. This will provide water and better drainage for the new Bucks Mill Brewery.

Kasson experienced a fire on June 28 that destroyed a downtown building housing several businesses. The fire burned for eight hours on the morning of June 28, and the building was declared a total loss. No one was killed or injured.

In June, **Marshall** voted to use grant funds to reduce the amount of salt in city wastewater. City residents were offered \$50 rebates to get their water softeners optimized to use less salt.

Marshall will hold a public meeting on July 26 to discuss the annexation of eighty acres into the city for the site of a 10-megawatt (MW) solar installation. The solar installation would be run by Missouri River Energy Services (MRES) and provide power locally, as MRES supplies power for Marshall Municipal Utilities. MRES is also considering battery storage as a component the project, providing a projected 20 megawatt-hours (MWh) of electricity storage.

In **New York Mills**, the 29th annual "Great American Think-Off" crowned a new champion on

June 11. Illinois resident Blaine Rada convinced the audience that social responsibility is more important than personal choice. He argued that the cure for most societal ills is simply to be a better listener and sincerely seek to understand others' perspectives.

Owatonna Public Utilities held two free, educational rain barrel classes on June 16 in their conference room. The classes taught attendees how to build, install, and use a rain barrel to conserve water and reduce runoff.

Rochester Public Utilities' historic Silver Lake Power Plant is now

an official city landmark. Instituted by a 6-1 vote of the city council on June 6, the designation will require review of any changes to the exterior of the building. Built in 1949, Silver Lake's

architecture includes elements of Streamline Moderne, a cousin of Art Deco.

On June 7, the **Thief River Falls** City Council approved the appointment of John Kinsman as interim electric superintendent, effective Sunday, June 12. He will serve in this capacity until the position is filled permanently.

On June 13, a representative of **Willmar** Municipal Utilities spoke at the regular utilities commission meeting about MISO's predicted supply shortages for the summer. Willmar Municipal Utilities is

developing a plan to share with the community so they know the issues and what to expect if Willmar is affected.

On May 23, the **Willmar** Municipal Utilities Commission took a final tour of the Willmar Municipal Power Plant. The plant is scheduled for demolition in 2023 after a new substation is built to house the power controls that are currently at the old plant.

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**Member
News**



JM Test Systems has joined MMUA as an associate member.

JM Test Systems provides electric services and equipment for the electrical industry.

Contact is Shelbi Kendrick, Marketing CSR. Phone is 225.925.2029 and email is shelbikendrick@jmttest.com

Open Access Technology International, Inc. has joined MMUA as an associate member.

Open Access Technology provides technology solutions in the public power space.

Contact is Danah Ortaleza, Communications Manager. Phone is 952.484.4772 and email is Communications@oati.net.

Public Power Energy Services, LLC, has joined MMUA as an associate member.

Public Power Energy Services provides consulting services in the public power space.

Contact is Todd Hegwer, Co-CEO. Phone is 303.981.5004 and email is toddhegwer@gmail.com.

Widseth has joined MMUA as an associate member.

Widseth operates in the engineering field.

Contact is Mike Angland, AIA Vice-President. Phone is 218.316.3608 and email is Mike.Angland@widseth.com

**Bits &
Pieces**



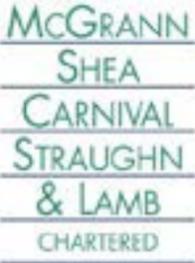
On June 2, two employees were killed at Xcel Energy's Comanche (Colorado) Generating Station when a coal pile collapsed and the workers were trapped underneath. The men worked for Savage Services, which manages coal handling services at the plant. An investigation is underway.

The United States Department of Transportation issued a notice of proposed rulemaking (NPR) on June 9 around minimum standards for a nationally funded electric vehicle charging network. The proposal would include requirements for American-made EV chargers and the ability for fast-charging stations to simultaneously charge four vehicles at a minimum power of 150 kilowatts (kW).

In a new report, the Boston Consulting Group forecasts that by 2028, electrical vehicles will take over as the most popular vehicle type worldwide. The consultants see this forecast moving up the timeline compared to previous forecasts. This is due to falling ownership costs, incentives, and government action, which along with higher oil and gas prices, are driving greater consumer demand.

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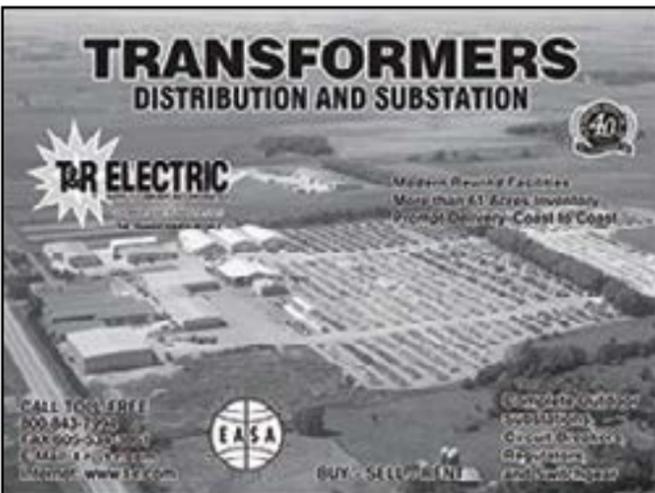


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1 www.bls.gov/oes/current/oes499051.htm | 2 www.bls.gov/oes/2017/may/oes499052.htm | 3 www.bls.gov/oes/2017/may/oes472152.htm



Austin Utilities, the supplier of electricity, water, and natural gas services in Austin, Minnesota, is seeking qualified candidates for the position of Engineering Manager. The electric system will be the primary focus, but interestingly, this role will include preparation of engineering plans, project management and communications for all electric, gas and water transmission and distribution projects.

This is an exceptional opportunity for an electrical engineer or supervising engineer seeking to broaden his or her skills and experience as a manager.

Austin Utilities has operating revenue of \$64M, allowing us to serve over 11,500 customers for their electric, water and natural gas needs.

This is a highly visible and influential position for an engineer seeking to grow their career to include broader management duties.

The ideal candidate will have a Bachelor of Science degree in Electrical Engineering, and either be registered in MN or a reciprocal state as a Professional Engineer –or– with the ability to earn an EE PE within one (1) year of hire.

Experience required: Five years prior engineering experience, ability to complete Natural Gas Operator Qualification training, a valid US state Driver's license, and an ability to develop staff. In this senior management role, communication ability is required, paired with interpersonal skill and proven leadership. We seek at least two years of supervisory experience.

This position reports directly to the Utility Operations Director. Austin Utilities compensation and benefits are competitive, with a target annual salary for the role of \$131,000 at midpoint of the range, dependent upon qualifications and experience.

Contact Details: For more information, or to submit a confidential resume and cover letter, contact the search hotline and Austin Utilities search partner, Tom Jackson, of IdeaBuilder Search at (612) 474-4343 or at IBSearch2020@gmail.com.

CISA report highlights cyber and physical threats to electricity sector



The Cybersecurity and Infrastructure Security Agency (CISA), a subagency of the Department of Homeland Security, as well as the Department of Energy (DOE) have released a new report spotlighting cyber and physical threats to the electricity sector.

CISA has identified four current areas of risk that pose a threat to the nation's electrical grid. The first area is cyber. Cyberattacks are a persistent problem for the electrical grid. The threat of attacks by rogue states is essentially continuous, and criminals are often using ransomware to lock down access to records unless a large ransom is paid.

The second area of risk is physical risk. CISA argues that the nation's inventory of electrical infrastructure, some of which is in remote areas or lightly secured, is at risk from many different groups. This could be anyone from trespassers to state or non-state actors. CISA is observing individuals and groups using unmanned aircraft systems (i.e., drones) to conduct surveillance on electrical infrastructure and to damage it.

The third area of risk is supply chain. Of particular concern is that a manufacturer of import-

ant industrial control systems (ICS) or supervisory control and data acquisition (SCADA) systems could be taken over by bad actors, or their security could be breached. An attack of this type, or an attack on the supply chain more generally, could bring down huge swaths of the electricity sector.

The fourth and final area of risk is peripheral devices. As with regular computers, peripheral devices attached to electrical infrastructure can be compromised, hacked, and manipulated to infiltrate networks or do the will of a criminal.

Six best practices are put forward to help secure the electrical grid against these threats.

- **Protect networks.** The best way to do this is by minimizing network connections. By disabling unnecessary ports and securing network connections to industrial control systems, intrusions by hackers can be kept to a minimum. As a follow-up, continuous monitoring and a cybersecurity plan can help guarantee protection.
- **Secure vulnerable infrastructure.** When a risk management framework is prepared, organizations can assess

their most pertinent threats and create plans not only to minimize them but have contingencies in place if the worst happens.

- **Formalize collaboration across organizational security functions.** The report recommends aligning cybersecurity and physical security teams, as well as doing cross-training on different systems. With this training, organizations can be on the same page and respond better if problems strike.
- **Update outdated infrastructure and technology.** Investing in new technology and doing regular updates can help systems be more secure. By eliminating obsolete equipment, security risks can be minimized.
- **Assess your supply chain.** Especially when supplies are low and end users are excited to get anything, it is important to understand which parts of the system are used for critical functions and which systems can remotely access them. This can further enhance critical security measures.
- **Secure connected devices.** Conduct a survey of all devices that connect directly to electrical infrastructure, and make sure they only connect to the systems that they are needed for. Also make sure that these devices are updated, and that their network is separate from the main IT network.

Threats to the grid are more common than ever in an increasingly unstable world. By being aware of these threats and then taking concrete steps to avoid them, a lot of issues can be avoided down the line—issues that can be extremely disruptive to any utility operator.

Elk River Municipal Utilities hires new General Manager

Elk River Municipal Utilities (ERMU) has hired Mark Hanson as its new General Manager.

He will start July 18 as Deputy General Manager and will become General Manager at the end of the year when current General Manager Theresa Slominski retires after nineteen years of service.

Hanson's previous role was Public Works Director with the City of St. Louis Park, Minnesota. He will also be concluding a

twenty-eight-year career with the United States Air Force early next year.

Hanson holds a Bachelor of Science degree from the United States Air Force Academy, a Master of Science in Civil Engineering from the University of Minnesota, and a Master of Engineering Management from Washington State University. He was hired after an extensive national search, with finalists being named in April 2022.

Carbon capture under the sea



A section added to the Infrastructure Investment and Jobs Act (IIJA) may soon see carbon capture activities occurring in the ocean.

The Bureau of Ocean Energy Management (BOEM) will now have the authority to issue leases for the long-term storage of carbon under the ocean floor.

Carbon capture may become a big business as oil companies and exploration outfits pivot to the storing of carbon.

ExxonMobil is making big

moves in this area by purchasing early offshore carbon leases and proposing major underwater carbon storage plans in the Gulf of Mexico.

The company's ultimate goal is to store 100 million metric tons of carbon dioxide (CO₂) per year under the waters of the Gulf of Mexico. Their biggest customers, at least at first, will be the refineries and chemical plants in the Houston, Texas region. These large emitters of CO₂ will collect their emissions and pipe them to Exxon's new underwater carbon storage sites.

Upcoming Events

Summer Conference

August 22-24, Madden's Resort, Brainerd

This year's conference includes topics on emerging technologies, challenges facing the industry, and the future for MMUA. New this year—Pre-Conference workshop added to Monday's schedule. Visit <https://www.mmua.org/event/summer-2022> for more information and to register.

Minnesota Lineworkers Rodeo

September 13, MMUA Training Center, Marshall

This friendly competition is the perfect venue to test your skills. Complimentary for MMUA members but must register by August 15.

Overhead School

September 13-16, MMUA Training Center, Marshall

Register by August 5 for best rate; registration closes August 15.

Cross Training School

October 11-13, MMUA Training Center, Marshall

Register by September 13 for best rate.

Tree Trimming Workshop

October 18-20, Brainerd

Registration limited to 50 lineworkers. Must be MMUA member. Register by September 19 for best rate.

For more information, see the Events Calendar at www.mmua.org or call MMUA at 763-551-1230.