

Creating a strong management handoff: how **Elk River Municipal Utilities** is approaching the challenge

In the world of lineworkers and other utility professionals, a phrase that is occasionally used is “preserving the craft.”

The work that is done in the utility space is an art and can be complicated even for experienced employees. The same phrase could be applied to utility management. The skilled leaders who do it have to contend with an ever-changing utility of recruiting and guiding a unique workforce. How do communities and utilities deal with these challenges, especially when that leadership position is turning over?

MMUA spoke with Theresa Slominski, outgoing General Manager at Elk River Municipal Utilities (ERMU) to learn more. She is in the midst of a turning over management of ERMU to Mark Hanson, who previously served as Public Works Director



Outgoing Elk River Municipal Utilities General Manager Theresa Slominski and incoming General Manager Mark Hanson have executed a successful management transition.

with the City of St. Louis Park, Minnesota, who also participated in the conversation.

MMUA: How did this transition start? What is the process you are using in Elk River for transferring leadership?

Theresa: I gave over two years notice. I shared my plans at the end of 2020 so we could get my successor hired upon my retirement. It has been helpful [to have so much time]. We started the hiring process in January 2022 and Mark came on in the

middle of July. He’s been able to shadow me, go to all of the same meetings...then I could gradually step back. I can still do the administrative stuff that way, and he can work in the field and get to know people. It’s been huge.

Continued on page 13

MMUA and MREA focus on common interests

by Kent Sulem

On September 29, 2022, five representatives from municipal utilities met with five representatives from electric cooperatives to discuss issues of mutual concern, how MMUA and MREA could benefit from joint efforts at the Capitol, and to judge the level of support for trying to develop uniform guidelines that would be used in boundary adjustment proceedings.

The meeting was conducted under the leadership of Karleen Kos, MMUA’s CEO, and Darrick Moe, CEO of MREA. Kent Sulem from MMUA and Mike Bull from MREA helped staff the meeting and were available for questions. They also reviewed legislative issues such as the ECO Act of 2021 as an example of where municipals and coops worked well together.

After introductions, and

consensus on the process that would be used throughout the day, the group identified some common principles shared by municipal and cooperative utilities. These principles include being non-partisan, the constant and growing challenge of educating legislators about community owned utilities (COUs) and why they are different from Investor Owned Utilities (IOUs), and the fact that COUs are locally owned and directly responsive to their customers.

Following good discussions, the group identified a number of suggestions on how COUs could build upon past joint efforts at the Capitol. These suggestions include a joint legislative conference (note – due to logistical issues and timing constraints, it does not appear that a full joint conference will be feasible in 2023.) joint editorials in local newspapers, and joint visits to specific legislators. Topics of possible jointly sponsored

Continued on page 14

Lanesboro’s new wastewater plant comes online in late 2022

For some time, Lanesboro has had one of the oldest wastewater treatment plants in Minnesota.

The plant was built in 1938, and it still used older processes to treat wastewater. Later this year, Lanesboro’s new wastewater treatment plant will come online, giving the city one of the most modern wastewater facilities in the state and readying the city for the future.

The process began in 2016, when Lanesboro realized it was a good time to assess their wastewater plant. Municipal engineering firm Bolton & Menk entered the picture, and based on the condition of the plant as well as some obvious needs identified by the Lanesboro team, the firm did a facility plan report. It was determined that based on the age of the plant and the cost of a renovation, a new plant would be

the way forward.

In March of 2017, the facility plan report was submitted to the State of Minnesota. Lanesboro hoped to get on the funding list for a Water Infrastructure Fund (WIF) grant and a Clean Water Revolving Fund (CWRV) loan based on their information and the initial cost estimate. The project scored well and was in a good position to get funding.

Based on this assumption, in late 2017 and early 2018 Lanesboro was doing final design work, as well as detailed engineering drawings and specifications. The project was then submitted to the state and certified.

Lanesboro was now ready to bid the project, which they completed in March of 2020. Wapasha Construction of Winona, Minnesota was chosen as general contractor, while Bolton & Menk was chosen as the lead design

Continued on page 7

Periodicals
Postage
PAID
at
Twin Cities, MN

Inside Stories

2 Brainerd hosts MMUA tree trimming school



11 MMUA and MNOSHA complete silica study



12 MMUA member utilities deploy to Florida after Hurricane Ian



To unify, support and serve as a common voice for municipal utilities

Officers

President

Don Martodam, Hawley

President-Elect

Julie Kennedy, Grand Rapids

Secretary/Treasurer

Scott Grabe, Staples

Directors

Jeremy Carter, Hutchinson

Bruce DeBlieck, Willmar

Scott Grabe, Staples

Kevin Lee, Marshall

Scott Magnuson, Brainerd

Dave Meyer, Glencoe

Pete Moulton, St. Peter

Mark Nibaur, Austin

Staff

Chief Executive Officer

Karleen Kos, kkos@mmua.org

Director of Administration

Rita Kelly, rkelly@mmua.org

Director of Finance

Larry Pederson, lpederson@mmua.org

Director of Gov't. Relations and Senior Counsel

Kent Sulem, ksulem@mmua.org

Director of Training and Safety

Mike Willetts, mwilletts@mmua.org

Government Relations Attorney

Bill Black, bblack@mmua.org

Multimedia Journalist and Content Creator

Reid Baumann, rbaumann@mmua.org

Marketing and Member Relations Manager

Christian Glanville, cglanville@mmua.org

Accounting Assistant

Karen Heiden, kheiden@mmua.org

Safety Services Coordinator

Theresa Neddermeyer, tneddermeyer@mmua.org

Assistant Director of Quality Assurance and On Demand Services

Anthony Lenz, alenz@mmua.org

Assistant Director of Education and Outreach

Cody Raveling, craveling@mmua.org

Assistant Director of Technical Services

Jay Reading, jreading@mmua.org

Assistant Director of Workplace Safety Services

Joseph Schmidt, jschmidt@mmua.org

Regional Safety Group Program Leader

Mike Sewell, msewell@mmua.org

JT&S and Apprenticeship Instructor

James Monroe, jmonroe@mmua.org

Regional Safety Coord./JT&S Instructors

Keith Byklum, kbyklum@mmua.org

Travis Denison, tdenison@mmua.org

Dan Nath, dnath@mmua.org

Generation Coordinator/JT&S Instructor

Paul Helling, phelling@mmua.org

Natural Gas Circuit Rider

Dennis Danielson, ddanielson@mmua.org

Regional Safety Coordinators

Janet Aultman, jaultman@mmua.org

Mike Grabow, mgrabow@mmua.org

Brad Gunderson, bgunderson@mmua.org

Rusty Kaderabek, rkaderabek@mmua.org

Brad Levasseur, blevasseur@mmua.org

Dave Lundberg, dlundberg@mmua.org

Bernie Richards, brichards@mmua.org

MMUA The Resource USPS #009836. ISSN: 1080-3750 is published monthly; except combined July/August, by MMUA at 3131 Fernbrook Lane North, Suite 200, Plymouth, MN 55447-5337. Periodicals postage paid at St. Paul, MN. POSTMASTER: Send address changes to MMUA The Resource, 3131 Fernbrook Lane North, Suite 200, Plymouth, MN 55447-5337. Annual subscription

Brainerd hosts MMUA tree trimming school

MMUA's annual tree trimming school met at Brainerd Public Utilities (BPU) October 18-20 during some beautiful autumn weather. This year's programming included classroom and hands-on sessions, as well as consultation with a tree expert from the Department of Natural Resources (DNR).



Tree trimming students move a cut tree towards the woodchipper.



RDO Equipment (Vermeer) was on site to demonstrate and help chip the cut trees.



MMUA instructor James Monroe, who previously worked as a professional tree trimmer, shows students how to execute a safe and successful cut.

Keeping **Hometown Utilities** Above the Fray

Did you hear about the fellow during Civil War times who couldn't decide whether to support the Union or the rebels? When the battle came close to his home, he put on a blue shirt and gray pants.

Both sides shot at him.

Some might think this man's story illustrates the wisdom of picking a team in great disputes. Only half the people would shoot at you, and the others might even keep you safe.

I would argue that isn't the lesson at all.

Instead, I think it is a cautionary tale about casualties in war. Rather than avoiding musket balls, the guy became a target for everybody even though he was a noncombatant.

For those of us working in municipal utilities, partisanship is like that. We serve everyone, whether we agree with their ideas or not. We serve everyone no matter what they think of one another. We don't get to pick sides.

Because of this unique role, we need to make sure we are above the fray as we advocate for our communities.

Utilities are inherently nonpartisan.

They are necessities of life, and we have been charged with ensuring those services are always there, reliably and affordably, for all of our ratepayers. That's why MMUA's bylaws specifically state, "The affairs of the [Association] shall be conducted in a strictly non partisan manner." When political parties go to war, we are noncombatants.

MMUA's founders knew that we needed to influence all voters and legislators, not just some of them. We need all these decision

makers to understand the value of what we do, and we need them all to support us on the issues that matter to our success. Our ratepayers need to be confident that we have only their best interests at heart. It doesn't matter which politician's signs are in their yards.

We will serve as an honest broker for the community's quality of life. Have you ever felt burnt out by nonstop political campaign ads and the toxic divisions in our public discourse? Your ratepayers certainly have, and the last thing they want is more of that from the people who make the lights come on and the water run.

By ensuring your utility is understood to be politically neutral, you can position yourself as an impartial advocate whose only motive is what is best for the community. In this way you ensure that whatever you promote is more likely to be seen for what it is, rather than viewed through partisan lenses where its merits can get lost.

Being nonpartisan doesn't mean being apolitical. Being nonpartisan means that we need to work very hard to communicate in a manner that resonates with everybody. Our issues are everybody's issues. No matter what you personally feel about the outcome of the election earlier this month, the people who are now sitting on your council, representing you and other Minnesotans at the legislature, or traveling to Washington on our behalf need to be educated about the issues important to hometown utilities.

All these elected officials, regardless of party, need to see their success linked with the success of hometown utilities

like yours. MMUA members will need to work together to carry that message. Our government relations team will also do everything we can to connect with elected leaders at the committee and chamber levels whose support will be the difference between our issues getting a hearing or being ignored. We will also lead the charge on building coalitions with like-minded groups, and we'll do everything in our power to ensure issues that need attention get noticed. The rest of the time we'll be monitoring legislation being introduced by others that could have a detrimental effect on our utilities and doing what is necessary to make sure it doesn't succeed.

Our only side is the best interest of hometown utilities. In the hyper-partisan environment of 2022, there are going to be relevant issues at the state and national levels that will seem to align more closely with liberal or conservative points of view. Certain fuels are perceived as being favored or scorned by one party or the other. Tax and bond plans come and go. Infrastructure dollars and grant funds are targeted in ways that may or may not be helpful to us, and regulatory actions are always looming. Even mom and apple pie are sometimes accused of belonging to one side or the other.

In this environment, we are still going to have to take positions and lobby elected officials to get things done. Our goal, though, isn't to get whatever party is dominating the day to support us. Our goal is informed debate and reasoned decision-making, so the result is something anyone can get behind when the vote is over.

From My Desk to Yours

Karleen Kos
MMUA CEO



In short, we are *for* things that benefits hometown utilities, and we are against things that harm them. Period. As long as we are positioned as nonpartisan, and we operate true to this ideal, we remove a conflict point that keeps legislators from doing their jobs and benefitting ratepayers in our communities.

Helping hometown utilities thrive is smart politics. Our issues matter to voters all over the spectrum, and constituents will judge harshly any leader(s) they deem responsible for making rates go up or service reliability falter.

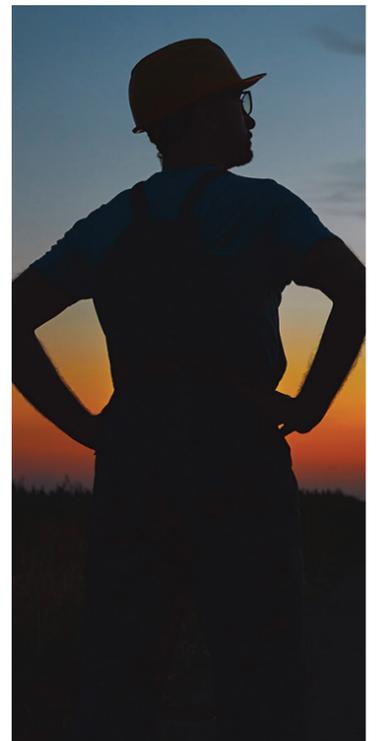
Most politicians care about getting re-elected. So, we need to show our elected officials that making decisions which ensure hometown utilities thrive can only help them in the long run. The actual work of governing, which includes appropriating money, planning for the future of our state and nation, policymaking, interfacing with regulatory agencies, and communicating with the public, is not as exciting as the hot-button partisan issues of the day. But it is the work that ultimately impacts voter satisfaction and re-election outcomes.

We don't need municipal utility issues to be seen as "sexy."



We need them to be seen as vital to the success of our towns, our state, and our nation. And that is why we are, and must remain, nonpartisan.

Hometown utilities are more than noncombatants. We are the heroes in the story. When the smoke clears and the political armies regroup to fight another day, we will be there making sure the lights are on, the furnace runs, and the water flows. For everybody.



Reduce Utility Rates Up to 5% - No Cost / No Risk

CIP Goal Savings

- Reduce CIP kWh Goals
- Cut CIP spending by 50% in 2023
- Use Fuel Switching to increase kWh sales



Free EV Chargers

- Increase kWh sales
- Install EV Chargers - No Cost/No Risk
- Bring Electric Vehicles to your town



Energy Management Solutions has been working with Municipal Electric Utilities for 18 years helping them to find ways to reduce costs.

CALL Gary Swanson, PE (612) 819-7975 gswanson@EMSenergy.com

Energy Management Solutions WWW.EMSenergy.com USING OUR ENERGY TO SAVE YOURS



Staying on daylight savings time year-round

A clean energy expert from the University of Belfast in Northern Ireland estimated in a recent study that if homes in Northern Ireland stayed on Daylight Savings Time (DST) year-round, the average household would save more than £400, which is more than \$460 at current exchange rates.

Increased sunshine in the early evening hours would make up for the cost savings due to decreased energy demand. The expert, Aoife Foley, did not take into consideration savings from decreased gas use or other energy sources, which would make the savings even greater.

Providing Legal Counsel to Minnesota Municipalities in:

- Energy and Utility Matters
- Electric Service Territory
- Administrative Proceedings
- Legislative Representation
- Municipal Law
- Litigation
- Municipal Bonds
- Economic Development
- Real Estate Law
- Environmental Law

Contact: Doug Carnival or Kaela Brennan

800 Nicollet Mall, Suite 2600, Minneapolis, MN 55402-7035

Telephone: 612-338-2525 ■ Facsimile: 612-339-2386

McGRANN

SHEA

CARNIVAL

STRAUGHN

& LAMB

CHARTERED

www.mcgrannshea.com

APPA and LPPC comment on FERC rulemaking regarding interconnection queue processing

On October 13, the American Public Power Association (APPA) and the Large Public Power Council (LPPC) commented on the Notice of Proposed Rulemaking (NOPR) issued by the Federal Energy Regulatory Commission (FERC) in June of 2022.

The rulemaking surrounded proposed reforms to NERC's generator interconnection agreements so that existing interconnection backlogs and uncertainty related to the cost and timing of interconnection can be addressed.

APPA and LPPC generally support the proposal, particularly "the NOPR's focus on improving the incentives generation developers have to stand behind bona fide interconnection applications" which they believe will have a "substantial stabilizing effect" on the marketplace. Another point of support was FERC's desire to improve modeling and performance requirements of nonsynchronous generation sources like solar and wind.

APPA and LPPC were also in favor of the FERC's plan for



Melrose Public Utilities staff used Legos during an MMUA-led safety training to simulate problem-solving related to hazardous energy control procedures. (Photos courtesy of Joe Schmidt)



increased financial commitment and readiness as part of the interconnection process. They urged FERC not to accept deposits in lieu of a true showing of commercial readiness.

In the June NOPR, FERC had proposed the "clustering" of interconnection study requests in a certain area for greater efficiency. While generally in favor of this, APPA and LPPC argued that an exception should be granted when there are too few interconnection requests to justify cluster studies.

APPA and LPPC also stood up against parts of the rulemaking they viewed as negative for public power. FERC had proposed that transmission providers

undertake informational interconnection studies. APPA and LPPC argued that, "Substantial information is already made available to prospective interconnecting customers, and the... requirement would transfer then current burdens associated with processing speculative interconnection requests to an extra-LGIP process."

In total, APPA and LPPC offered around a dozen suggested changes to the proposed improvements to generator interconnection procedures and agreements, supported with more than 30 pages of rationale. A complete copy of the comments is available from APPA.

40 MW solar park coming to Alexandria

On October 5, the development of a new 40 megawatt (MW) solar park was announced outside of Alexandria, Minnesota.

The park will sit on 200 acres of land, and it is estimated that the park will provide electricity to about 7,600 homes in the area. The project is being developed

by Allied Solar, a partnership between Greenwood Sustainable Infrastructure (GSI) and SolarGen. GSI is a renewable energy operator and investor, while SolarGen is a solar developer.

The project will have to go through the permitting process in Douglas County before it is approved.



Department of Energy opens application process for hydrogen hub program



On September 22, the Department of Energy (DOE) opened applications for the new \$7 billion hydrogen hubs program, which is part of the Infrastructure Investment and Jobs Act (IIJA).

The funding process will select six to ten hubs from across the country for a total of up to \$7 billion in federal funds.

The DOE also released a draft of the National Clean Hydrogen Strategy and Roadmap for review. This roadmap puts forward a comprehensive plan for the production and use of hydrogen across the country and the economy. This plan will be released in its final form soon.

New & IMPROVED!

Tapered Race Rotary Reel Collars



Improve Efficiency & Safety

Reduce your Labor Costs

Works Great on Plows, Trailers & Trucks

Tapered Sleeves to Fit Various Size Reel Hubs



3pt. Bolt Safety Fastening System (Bolts will NOT fall out & Reel will NOT slide on Bar)

NOW AVAILABLE
for 2-1/4" and 2-1/2" Reel Bars

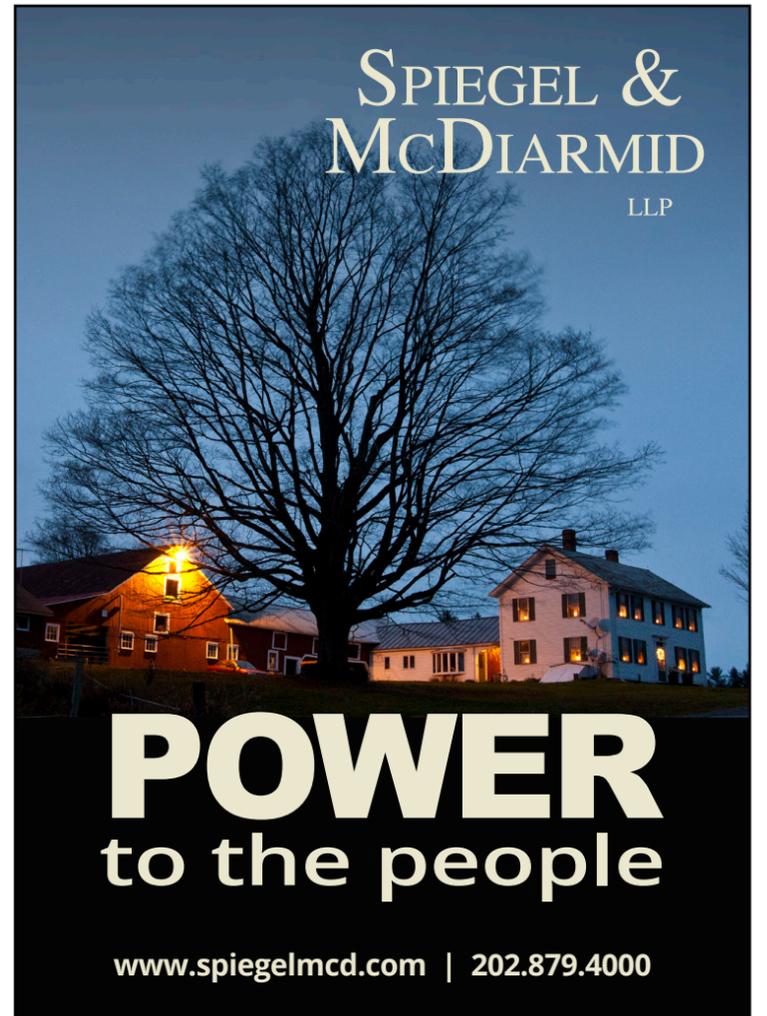
For more information call: 320.274.7223

FS3 INC

9030 64th Street NW
Annandale, MN 55302
WWW.FS3INC.BIZ

SPIEGEL &
McDIARMID

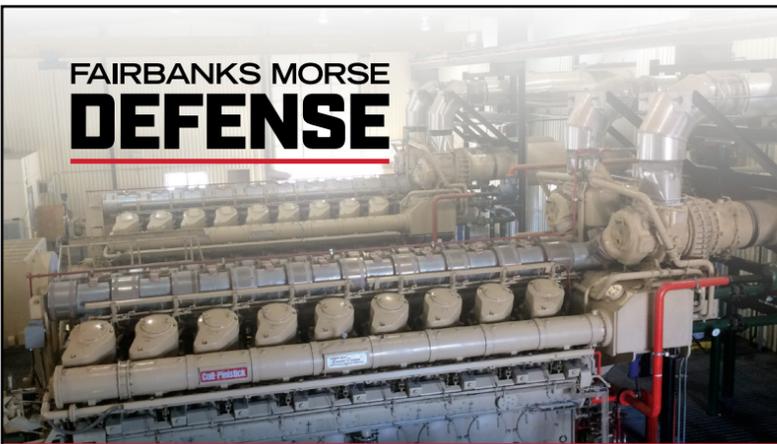
LLP



POWER
to the people

www.spiegelmc.com | 202.879.4000

FAIRBANKS MORSE DEFENSE



EXCEPTIONAL SOLUTIONS FOR INDUSTRY-LEADING ENGINES AND POWER SYSTEMS

Fairbanks Morse Defense offers an extensive portfolio of services to optimize performance, ensure reliability, and extend your engine's life cycle — from the day it's commissioned and for the many years that follow.

Contact us today +1-800-356-6955 <https://www.fairbanksmorse.com/contact>

Levelized cost of electricity is changing the equation on new builds

The levelized cost of electricity (LCOE) for different generation technologies is changing rapidly, something that is likely to continue as the sector moves away from fossil fuels and accelerates the transition to renewables.

As this occurs, the calculus for new builds is changing too.

The US Energy Information Administration defines LCOE as “the estimated revenue required to build and operate a generator over a specified cost recovery period.” LCOE is calculated by dividing the net present value of the plant’s total costs over its lifetime by the net present value of the electrical energy generated over its lifetime. LCOE considers costs such as construction, fuel, maintenance, and decommissioning expenses. Subsidies and taxes also impact LCOE, and the resulting ratio is usually priced in dollars per megawatt-hour (\$/MWh).

At the meta level, experts are able to calculate LCOE in aggregate for various fuel types. A review of the latest unsubsidized figures in the United States as reported by the financial advisory and asset management firm Lazard in their 2021 Levelized Cost of Energy Analysis provides an interesting window into how the LCOE is evolving.

As renewable energy technology has matured and utilities have constructed more of these projects, the LCOE of many renewable forms of electricity has dropped significantly. Economies of scale allow for lower prices and more efficiency. As utility-scale solar

LCOE

projects have commenced in ever-growing numbers, their size has driven down the LCOE compared to smaller solar gardens and rooftop solar. The LCOE of thin-film, utility-scale photovoltaic (PV) cells in 2021 was \$28-\$37 per MWh, very close to the LCOE of wind at \$26-\$50 per MWh.

Nuclear energy still deals with a high LCOE because of factors such as the construction/permitting process and decommissioning. Nuclear’s LCOE is high, at \$131-\$204 per MWh, and it is in the same range as gas peaking (\$151-\$196 per MWh) and rooftop residential solar (\$147-\$221 per MWh).

Conventional electrical generation sources like coal and combined-cycle gas lie in the middle ground between these two points. Coal ranges from \$65-\$152 per MWh, while combined-cycle gas generation is between \$45-\$74 per MWh.

It is essential that utility decision makers recognize the benefits and limitations of considering the LCOE for a potential build. For instance, the LCOE for renewables is comparatively low, but the dispatch qualities of renewables

are not as reliable as conventional sources of electricity. This does not enter into the LCOE calculation, even though it has base load effects. What does affect LCOE is when the reliability of renewables is improved through the addition of storage, as it raises the cost of the system and thus raises the LCOE. To adjust for this, planners often utilize the levelized cost of storage (LCOS) to make further calculations about a certain energy type’s dispatchability and value within the existing energy mix of a certain area.

Another issue with LCOE is that the calculations often do not include externalities. These hard-to-estimate factors can include anything from lost farmland to pollution from carbon or sulfur. Since these costs must be borne by someone, it factors into the overall cost of the plant but is not easily calculated or included in the LCOE.

As mentioned previously, the effect of subsidies and taxation can also play a role in LCOE, because they can affect all of the inputs of the cost, including construction and fuel price. The Inflation Reduction Act (IRA) includes tax credits for wind, solar, nuclear, and clean hydrogen. These credits and subsidies will cause the LCOE of renewable energy generation types to drop compared to conventional forms of generation. The result will be a friendlier economic environment for renewables and nuclear as build options are considered by power decision makers in the near future.

DNR asks Minnesotans to conserve water during drought

On October 13, deepening drought conditions in the state led the Minnesota Department of Natural Resources (DNR) to take several actions in accordance with the agency’s Statewide Drought Plan.

These actions including the notification of the Statewide Drought Task Force, providing more information about the drought on the Minnesota DNR webpage, and notifying public water suppliers and operators so that demand reduction and

water conservation measures can be taken in their communities.

The DNR urges all Minnesotans to conserve water as the drought continues, particularly in the central and southern parts of the state. By taking action now, drought conditions can be prevented or improved for spring of 2023.

The U.S. drought monitor map for Minnesota can be accessed at the DNR’s website at <https://www.dnr.state.mn.us/climate/drought/index.html>.

Biden Administration seeks public input on increasing energy security for rural and municipal utilities

On October 20, the United States Department of Energy (DOE) issued a Request for Information (RFI) for public comment on a \$250 million program designed to help rural and municipal utilities strengthen their cybersecurity.

Called the Rural and Municipal Utility Advanced Cybersecurity Grant and Technical Assistance (RMUC) program, RMUC will help eligible utilities strengthen their cybersecurity systems and increase cybersecurity skills. This process will happen through financial and technical assistance,



with priority given to utilities with limited cybersecurity resources.

Responses to the RFI should be made by December 19, 2022.

New York State sets 2035 deadline for full implementation of zero-emission vehicles

Governor Kathy Hochul of New York took regulatory action on September 29 that will require all new vehicles sold in the state to produce zero emissions by 2035.

The state’s Department of Environmental Conservation (DEC) will implement this regulation.

The requirement will be phased in over time, with zero-emission vehicles making up a required 35% of sales in 2026, 68% of sales in 2030, and 100% of sales by 2035.

New York’s leadership said that California’s finalization of their similar clean cars regulation, called “Advanced Clean Cars II” allowed New York to adopt the same regulation.

New York will share more information about public comment and stakeholder outreach later this year.



DAVE BERG CONSULTING, LLC

David A. Berg, PE - Principal
‘Dedicated to providing personal service to consumer-owned utilities’

Cost of Service Studies
 Utility Rate Design
 Contract Negotiations
 Utility Education
 Expert Testimony
 Feasibility Studies

dave@davebergconsulting.com

15213 Danbury Ave W
 Rosemount, MN 55068
 (612)850-2305
www.davebergconsulting.com



220 South Sixth Street
 Suite 1300
 Minneapolis, MN 55402

TEL 612.349.6868
 FAX 612.349.6108
 Info@AvantEnergy.com



For over 35 years, Avant Energy has supported municipal utilities and power agencies in their effort to deliver economic and reliable power. Avant works with its clients to develop innovative, yet practical solutions based on a simple, overarching belief that, “better is possible.”

BETTER IS POSSIBLE

STRATEGIC PLANNING
 UTILITY CONSULTING
 ENERGY PROJECT DEVELOPMENT

.....WWW.AVANTENERGY.COM.....

Stephenson and Weber win LIUNA awards for Natural Gas Innovation Act



Representative Zach Stephenson, (D) Coon Rapids, and Senator Bill Weber, (R) Luverne, won the 2022 LIUNA (Laborers' International Union of North America) Leadership Awards for their work on the Natural Gas Innovation Act (NGIA) in the 2021 legislative session.

The NGIA allows natural gas utilities to implement new technologies and plans in order to meet Minnesota's greenhouse gas (GHG) emissions targets. Some of the technologies the NGIA encourages include clean hydrogen, renewable natural gas, biogas, and carbon capture.

Over 800 LIUNA members work for natural gas utilities, and these efforts in natural gas innovation will help workers

as they build the pipelines and systems that will bring these new ideas to life.

Dan Olson, who is a LIUNA International Representative and Local 1091 Business Manager based in Duluth-Superior, said to the legislators, "We hope that if you return to the Laborers' Training Center in five or ten years, LIUNA apprentices will be helping install digesters and equip landfills for methane capture, or learning the difference between hydrogen and CO2 lines."

This Act will allow existing energy technologies to transition in many surprising and interesting ways, and allow Minnesota to meet its carbon goals more effectively.

Minnesota Power dedicates Jean Duluth solar project

On October 19, Minnesota Power dedicated the Jean Duluth solar project, a new 1.6 megawatt (MW) solar installation on the north/northeast end of Duluth on Riley Road.

The installation, which has 3,770 solar panels, will produce approximately 2,500 megawatt-hours (MWh) of electricity per year, enough to power 300 homes. The panels will track to follow the sun.

In a statement, Minnesota Power President, Chair, and CEO Bethany Owen said, "This project... was conceived early in the COVID-19 pandemic... to do our part to help make the state more economically healthy [and] help our recovery from the pandemic."

The installation is expected to be producing electricity by early December.

Offshore wind coming to Pacific coast

In an announcement on October 18, the Department of the Interior (DOI) said that for the first time ever, the Bureau of Ocean Energy Management (BOEM) will begin holding offshore wind energy lease sales for the Outer Continental Shelf (OCS) of central and northern California.

The sales will begin on December 6, 2022.

The planned lease areas will total over 370,000 acres and will have the ability to create 4.5 gigawatts (GW) of offshore wind energy.

The California Final Sale Notice (FSN) was published in the Federal Register the week of October 16 and delineated more information about the lease areas. Three lease areas off central California and two lease areas off northern California will be included in the sales.

Even though these are the first sales on the United States' Pacific coast, BOEM has already had ten lease sales and issued 27 active leases on the Atlantic coast.

WMMPA sells \$43 million in power supply bonds

MARKET	NAME	YIELD	+
	3 Month	0.18 %	+12
	6 Month	0.42 %	+26
	1 Year	0.58 %	+36
	2 Year	0.80 %	+48
	5 Year	1.15 %	+51
	10 Year	1.48 %	+47

On October 20, the Western Minnesota Municipal Power Agency (WMMPA) closed on power supply refunding bonds that totaled more than \$43 million.

According to Missouri River Energy Services (MRES) the refunding will allow WMMPA to lower their debt service on pre-existing bonds and reduce interest costs.

The issue of the 2022 refunding bonds will create a savings of \$823,000 per year through 2030. WMMPA's bonds remain strong and were recently upgraded by Moody's Investors Services from a Aa3 to Aa2 with a stable outlook. Fitch Ratings maintained its AA- rating with a stable outlook.

Minnesota joins Heartland Hydrogen Hub consortium



On October 5, Minnesota, along with Montana, North Dakota, and Wisconsin, signed a Memorandum of Understanding (MOU) to establish a framework for developing a regional clean hydrogen hub.

The memorandum set forward a plan that one or two individuals from each state would lead their state's hydrogen hub coordination as the project moves forward. The main goal of the hub will be to develop proposals for the Department of Energy's (DOE) announcement asking for concept papers on the formation of four or more regional hydrogen hubs.

In Minnesota, the Department of Commerce State Energy Office will be a major participant in the development of proposals for the hydrogen hub.

The MOU was signed by Governor Tim Walz of Minnesota, Governor Tony Evers of Wisconsin, Governor Doug Burgum of North Dakota, and Governor Greg Gianforte of Montana.



HELPING MUNICIPAL ENTITIES PLAN FOR THEIR FINANCIAL FUTURE IN CHANGING TIMES

- Commitment to integrity
- Creative solutions to complex issues
- Engaged team approach
- Customized financial planning models
- Staff with depth and experience

- Competitive Bond Sales
- Debt Refinancing
- Property Tax Impact Analysis
- Tax Increment Financing
- Financial Management Plans

- Bond Underwriting
- Bank Private Placement
- Referendum Assistance
- Capital Improvement Plans
- Equipment Financing

PROVIDING DIRECTION PRODUCING RESULTS

OUR COMMITMENT IS IN THE MIDWEST:
We are thankful to be a Sponsor with Minnesota Municipal Utilities Association, and look forward to helping with your financing needs this year!



150 S. Fifth Street, Suite 3300 | Minneapolis, MN 55402
612-851-5900 | 800-851-2920
www.northlandsecurities.com/public-finance
Division of Northland Securities, Inc. | Member FINRA/SIPC | Registered with SEC and MSRB
RC 22-317 Muni 22-273 0622



Trusted.

Professional.

Solutions.



- Substations
- Distribution
- Transmission
- Generation
- Long-Range Plans
- Relaying & SCADA
- Rate Studies
- Mapping & GIS
- Construction Staking
- Sectionalizing Studies & Coordination
- Arc Flash Studies
- Distributed Generation Studies





Rock Rapids, IA
712-472-2531

Sioux Falls, SD
605-339-4157

Sioux City, IA
712-266-1554

dgr.com  



Forward-Thinking Professionals Helping Clients Achieve Their Goals

- Economics, Rates, & Business Planning
- Energy Resources
- Utility Engineering & Operations
- Technology, Communications, & Automation
- Industrial Engineering

FULL SERVICE CONSULTANTS

866-825-8895

Visit our website and find your expert today!
www.powersystem.org

We welcome the opportunity to work with you

New wastewater plant

Continued from page 1

consultant on the project.

Construction began in the fall of 2020. The supply chain issues affecting many areas of the municipal world also affected construction of the new plant: equipment deliveries and other supply chain issues made things more challenging. Electrical and computer systems were two crucial components that were slow in coming; these supply delays pushed the opening of the plant back from June 2022 to November 2022.

The plant itself was designed to have slightly more capacity than the old facility. It was designed to be easily expandable, and it can be modified for future permit limits, like nitrogen or phosphorus. The old plant was unable to accommodate changes like this.

Finalized funding for the plant came through in February of 2021. The total received was \$9,844,331, with \$5 million coming in the form of a WIF grant and \$4,844,331 coming from a CWRP loan at 1%.

When the new Lanesboro wastewater treatment plant comes online in late 2022, about a month will be needed for the new facility to take over for the old. This process can be affected by colder weather or the pace of biological processes being facilitated by the plant.

The first step will be to combine the wastewater flow from residents in town into the new plant and the old plant simultaneously. This is necessary so that if there are any problems, the old plant can work in tandem with the new plant, thereby

avoiding effluent violations or failure to meet the requirements of the city's permits.

To do this, wastewater from the new pump station will be sent to the new plant. The various components of the system will fill with wastewater, and the plant will treat it as it would if it were in operation. Then the treated wastewater will be pumped back to the old plant for quality control and testing. Once all permit levels have been met and things are looking good, the flow from the new plant will be diverted to the river, and the old plant can go offline permanently.

It will take until spring of 2023 for all the detail work at the new plant to be complete, such as landscaping and fencing. Demolition of the old plant will follow later in 2023.

Lanesboro's old wastewater plant has provided decades of faithful service to the community. With its new, modern facility, Lanesboro will be able to serve the city's needs for many decades to come.

Biden administration asks for public comment regarding the Defense Production Act and energy production

On October 3, the United States Department of Energy (DOE) made a Request for Information (RFI) as the first step in using the Defense Production Act (DPA) as a tool to accelerate manufacturing and deployment of clean energy technologies to bolster national defense, tackle climate change and environmental injustice, and improve employment opportunities and broader economic prosperity for Americans.

The goal of the RFI is to determine how best to leverage DPA authority to accelerate domestic production and deployment of four technologies, including transformers and electric grid components; solar photovoltaics; insulation materials; and electrolyzers, platinum group metals, and fuel cells for clean hydrogen. DOE is also gathering input from the public, through an RFI and Notice of Intent (NOI) on the fifth aspect of DOE's DPA authority, heat pump manufacturing and deployment.

The DPA of 1950 was created to ensure that the development and distribution of materials and

facilities necessary for national security would be made available. The DFA has been used many times, including its notable use during the coronavirus pandemic to spur the manufacture of critical masks and personal protective equipment (PPE).

This public comment period will allow American citizens, business, and agencies to reflect on how DPA could better assist in areas such as:

- Technology supply chain challenges and opportunities.
- Domestic manufacturing
- American workforce investment
- Energy equity, community access, and economic benefit

Responses to this RFI must be submitted by November 30, 2022.



FRONTIER
energy

Matt Haley
Vice President
Frontier Energy, Inc.
mhaley@frontierenergy.com
612.598.8743

7935 Stone Creek Dr. Suite 140 | Chanhassen, MN 55317 | FrontierEnergy.com



RESHAPING THE FUTURE OF UTILITY TECHNOLOGY

Our products provide best-in-class solutions for:

- Customer Information System (Billing)
- Financial Accounting
- Customer Empowerment/Mobility
- GIS
- MDM
- Fiber Billing

Make us prove it.

 **Central Service Association** |  **Professional Computer Solutions**

888-843-3106 • pcs-csa.com

Intelligent Solutions for Tomorrow's Utilities

FERC dismisses capacity fee complaint

On October 3, the Federal Energy Regulatory Commission (FERC) dismissed a complaint by a group of industrial companies who sought to leave the Midcontinent Independent Service Operator's (MISO) market without paying their capacity payments.

The group, called the Coalition of MISO Transmission Customers, first filed their complaint in May of 2022. They argued that since the customers in their coalition leaving would lower load

demand for MISO, that it was inappropriate for the customers to incur any penalties.

FERC's dismissal was strong and argued that MISO's planning involved more than the facets of the Coalition's argument. FERC said, "MISO's capacity construct is designed to not only place capacity requirements on [load-serving entities] to promote resource adequacy in a given Planning Year, but also to produce price signals that promote long-term resource adequacy and economic

efficiency by, when appropriate, creating incentives for existing resources to stay or new resources to enter the market ... We find that the absence of a Tariff provision allowing load to exit the system without charge following the Auction is by design." FERC argued that if the Coalition left without any obligations, they would upset the price signals and auction results that set fair prices for all participants in the energy market.

Department of Energy awards \$38 million for nuclear fuel recycling

On October 21, the United States Department of Energy (DOE) awarded \$38 million to twelve projects that will work to improve the disposal of used nuclear fuel (UNF).

Among the plans that were selected were a project from the University of Alabama at

Birmingham that will develop a single-step process to recycle UNF by recovering the bulk of uranium and other transuranics from UNF after dissolution in nitric acid. Another winning proposal, from the University of Utah, will develop a pyrochemical process for converting UNF into a fuel feedstock that can be used

in sodium-cooled fast reactors or molten-salt fueled reactors.

A major goal of this initiative is to reduce the amount of used nuclear fuel at America's nuclear plants, ultimately turning it into a useful commodity instead of a liability.

German-based energy company RWE buys Consolidated Edison's green energy installations for \$6.8 billion

On October 1, RWE AG, a multinational energy company based in Essen, Germany purchased a large complement of solar installations and wind farms from New York City-based Consolidated Edison in a \$6.8 billion deal.

The subsidiary, called Con Edison Clean Energy Businesses,

Inc., is based in Valhalla, New York.

Approximately £2.4 billion (\$2.7 billion) of the transaction was financed by Qatar's sovereign wealth fund. The deal will immediately make RWE the fourth-largest owner of renewable generation in the United States, and the second-largest solar

operator. The transaction adds 3 gigawatts (GW) of generation and a development pipeline of 7 GW to RWE's holdings, giving them 7.2 GW of total U.S.-based clean energy generation.

Consolidated Edison said that they will continue to make large investments in green power infrastructure.

New startup efficiently recycles solar panels

As solar panels become a more present part of the energy landscape, an old problem remains.

How will the solar panels be effectively recycled at the end of their 25-30-year lifespan? Until recently, it could cost more to break down a solar panel than the value of the raw materials.

However, this may be starting to change. A California company called SolarCycle has begun using an advanced, proprietary technology to cost-effectively extract more than 95% of the valuable materials from solar panels. These materials, which

include copper, silicon, and silver, can then be recycled.

Part of the issue with recycling panels in the past has been economies of scale. It is not efficient to recycle solar panels unless there is a disassembly line of sorts, where a large number of older panels are available. To meet this challenge, SolarCycle has teamed up with solar services provider Sunrun to provide solar panels that are ready to be recycled.

By making large-scale solar panel recycling efficient and even profitable, the industry will be able to move closer to being totally "green."



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.

Kristi Johnson
Director Power Marketing/Oriation
Kristi.Johnson@nee.com
561-304-5114

NextEraEnergyResources.com



Minnesota sees first landfill gas to renewable natural gas facility

On October 25, the first landfill gas to renewable natural gas facility opened in Inver Grove Heights.

The Pine Bend Renewable Natural Gas (RNG) facility will take biogas from the Pine Bend Landfill and make it into a renewable form of natural gas.

When the facility is running at full production, it is expected to turn 3,350 standard cubic feet per minute (SCFM) of landfill gas into 6.3 million gasoline gallon equivalent (GGE) of renewable natural gas per year. This gas will then be included in a small percentage in gas pipelines operated by Xcel Energy.



Midwest supplier for:
ERMCO Transformers

SUPPLYING THE CO-OP ADVANTAGE

From the transmission line to the home, RESCO stands ready with the supplies you need. Receive quality products and superior service from one of the Midwest's largest full-line distributors of high-voltage electrical products.

RESCO

Office & Warehouse:
4100 30th Ave. S, Moorhead, MN
800.346.3330
info@resco1.com | resco1.com

STORM RESPONSE
866.273.5030

We take pride in our work throughout Minnesota.
BECAUSE WE LIVE HERE TOO.

Worthington's New WWTF Under Construction
Worthington Public Utilities



BOLTON & MENK
Real People. Real Solutions.

Bolton-Menk.com

Annual meeting previews 2022-2023 Energy Assistance Programs



Senior staff of the Energy Assistance Program (EAP) under the Minnesota Department of Commerce held their annual meeting with municipal and cooperative utility representatives on October 27 to preview the program for the 2022-23 heating season.

Low-Income Heating and Energy Assistance Program funding will return to more normal levels following two high funding pandemic years, including double funding last year. Applications from new assistance seekers are up 24% over the same time last year. Consequently, program

changes from last year to this year include the following:

Income eligibility returns from 60% to 50% state median income (SMI). Initial grants will be reduced to a range of \$200 to \$1,400 per household. The maximum allowed regular benefit will be \$1,400, down from \$2,000. The program aims for an average benefit of \$500 per household, down from \$1,000. Maximum crisis benefit payments (when disconnection notice has been received or the heating system is not working) is returned from \$3,000 to \$600. Past due amounts no longer qualify as "crisis." However, water assistance payments are still allowed to cover the entire past due amount.

Last year, recipients below 25% SMI received an additional \$75 from leftover funds. They represent about half of all eligible applicants.

The program did a soft launch of an online application interface in early October for local agencies assisting your customers with the application process. After a few bugs are worked out, the site will go fully live in late December. Then it will also be translated into additional languages.

Congress approves \$18 million in federal funding to help Minnesotans heat their homes this winter



In a press release on October 5, United States Senators Amy Klobuchar and Tina Smith of Minnesota announced that Congress had approved more than \$18 million in funds to help Minnesota families with the cost of heating their homes this winter.

The funds will go to the Low-Income Housing Energy Assistance Program (LIHEAP) which provides families with payment assistance in order to pay their home heating bills. More than 127,000 households received assistance through this program last winter.

In the release, Senator Smith said, "As global energy markets respond to the pandemic and Putin's war in Ukraine, we need to make sure Minnesotans have the support they need to heat their homes this winter. For low-income families, high energy prices can force an impossible choice between heating their homes and other essentials like rent, food, or medicine."

More information can be found on the program by calling Minnesota's Energy Assistance Program at 1-800-657-3710 or by visiting the website energyhelp.us.

Ukraine's renewable energy affected by conflict with Russia

Along with widespread damage to their transmission and conventional energy sources, Ukraine has suffered major effects to their renewable energy infrastructure due to the war with Russia.

According to Ukrainian Energy Minister German Galuschenko, 90% of wind energy facilities and 45-50% of solar installations in Ukraine have been put out of service by the conflict.

In a statement, Galuschenko said that Ukraine had originally targeted 25% of Ukraine's energy to be green by the year 2030. Even with the setbacks caused by the war, Galuschenko said that they plan to revise these targets upward so that Ukraine goes green even faster.

TRANSFORMERS DISTRIBUTION AND SUBSTATION

T&R ELECTRIC
SUPPLY COMPANY INCORPORATED

BOX 180
COLMAN, SOUTH DAKOTA 57017

"THE TRANSFORMER PEOPLE"®



Modern Rewind Facilities
More than 61 Acres Inventory
Prompt Delivery—Coast to Coast

CALL TOLL-FREE
800-843-7994
FAX 605-534-3861
E-Mail: t-r@t-r.com
Internet: www.t-r.com



Complete Outdoor
Substations,
Circuit Breakers,
Regulators,
and Switchgear

The October 2022 Mutual Aid Deployment in photos

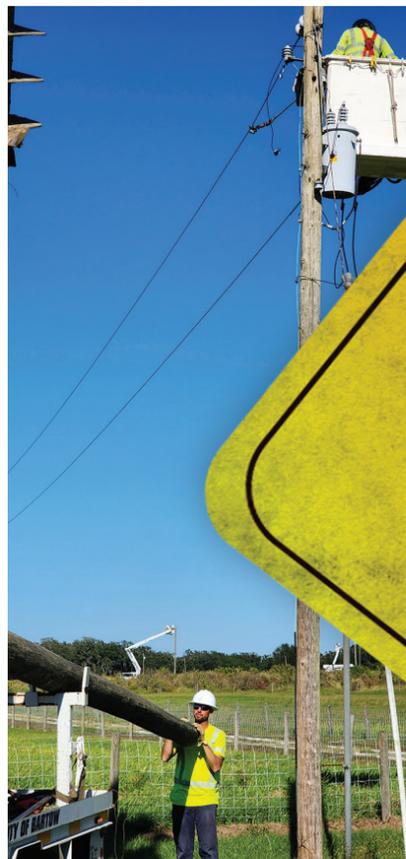
See page 12 for full coverage



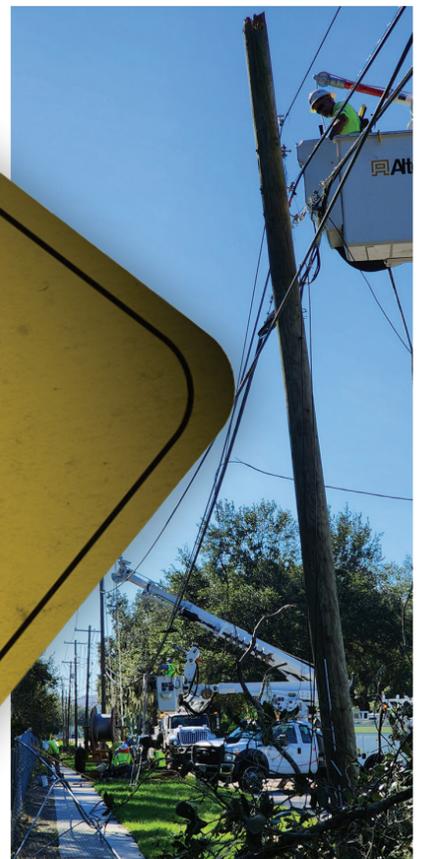
Marshall and Willmar equipment is visible as crews replaced a broken corner pole.



Crews set a new pole to replace a broken pole.



Crews prepared to replace a damaged pole with 2 other crews in the background doing repairs.



Crews repaired downed feeder lines through town.



Crews replaced a riser pole that feeds a CVS pharmacy.



A main feeder line was taken down by trees.

MMUA and MNOSHA complete silica study

By Mark Hottel

In 2018, MMUA and MNOSHA's Workplace Safety Consultation (WSC) started a three-year study together concerning silica dust exposure.

The third and final year of testing was intended to occur in 2020, after which a report was to be generated for the benefit of members and other employers. COVID-19 in early 2020 severely changed the way WSC conducted their in-person activities. Two of the four original project leaders, including myself, have retired. Another has transferred out of the WSC unit. The fourth person remaining, Pat Donahue, has other projects going on and so it seems prudent to publish results now, at least on a qualitative basis. We expect Mr. Donahue to formally publish the study data and his conclusions at a later time.

Before we begin, a brief review of the rationale for the study is in order. To many readers silica dust probably sounds like a very low priority occupational health issue. However, even the ancients knew that rock dust could be dangerous. We know now that respirable crystalline silica can cause silicosis, lung cancer, tuberculosis (TB), kidney disease, chronic obstructive pulmonary disease (COPD), and a variety of autoimmune diseases.

The most stunning example of the risk of working around silica dust involved a single power plant. A West Virginia tunneling project near the start of the Great Depression has been called by some authors, "The worst industrial disaster in American history."

The Hawks Nest Tunnel was constructed for a hydroelectric power plant. Hundreds of laborers died during the project or shortly afterwards. The exact number was never pinned down because many workers got sick and went home to eventually die in various other parts of the country. The highest estimates of death go above 1,000 for this tunnel.

As a result of this event and others, silica dust was on the occupational health radar well before OSHA and MSHA (Mine Safety and Health Administration) were formed in the 1970s. OSHA developed a silica standard early on which was ultimately considered to be too weak. It was revised in 2016 in a much more robust fashion. Implementation began in 2018 with certain pieces starting in 2020 and 2021 that involved engineering controls and/or medical surveillance.

Employers having operations that might produce respirable silica dust levels in excess of the new "action level" (25 micrograms/cubic meter of air using an 8-hour time weighted average) are required to do testing for

employee exposure at the employer's expense. That is true unless the employer can refer to existing objective data such as industry studies. Of course, if the action level is exceeded, the employer obligations become very involved. These would include engineering controls, respirator use, written programs, medical surveillance for pulmonary function, X-rays, TB tests, medical exams, and more.

WSC's Dave Ferkul and I discussed the idea of joining forces by having his industrial hygienists collaborate with our member employees performing relevant work for which studies had not already been done. A contract was drafted and signed by both organizations. One slight hitch early in the process was coming to agreement on which activities both parties were interested in. Street sweeper operation became the main focus of the study after a couple of early candidates were eliminated due to clean test results. Street crack filling had a surprisingly low test level as did small batch chip seal coating using Durapatcher equipment.

Many cities and utilities do a significant amount of mowing. One of our tests indicated that it might be possible to exceed the action level if conditions are right. For example, if recent creek flooding had deposited silt and mowing was done on a dry day for a long enough time period, the silica level could be high. We believe that normal mowing conditions would not present a significant silica hazard for employees.

A word of explanation might be appropriate at this point in our discussion. The activities we sampled during the study contained numerous variables. Some examples are humidity, precipitation, source of dust, dust load, wind, artificial watering, equipment maintenance, and ventilation. No concerted effort was made by us to minimize the dust sample results. In fact, some of the samples were possibly "worst-case." This was because test dates, times, and locations were pre-planned regardless of weather or condition forecasting. Therefore, testing was completed on certain activities (like street sweeping) even if operators would have normally not done it when it was so dry and dusty. Although the sampling techniques and lab analysis were very scientific, we cannot claim that the numbers generated are accurate, apart from the particular situation on the specific day of sampling.

Sweeping out Public Works or Utilities garages is a good example of how variables could be manipulated to stay below the action level. We set up two-man teams to sweep for approximately two hours using

push brooms in large, closed truck garages. In one case an employee exceeded the action level. In the silica standard, in section 1910.1053(h)(1) OSHA forbids dry sweeping "...where such activity could contribute to employee exposure to respirable crystalline silica..." What we demonstrated is that two men sweeping for two hours in a closed truck garage could violate this rule. However, if sweeping was done with overhead doors open, or adequate building ventilation running, then silica levels should remain acceptable. Small sweeping jobs such as around one vehicle stall or a work bench area should not be a problem. Commercial sweeping compound was the appropriate solution to large scale dry sweeping that triggered the action level breach. Wet methods, where useable, would even be better.

The last targeted activity we will consider is street sweeping. We were unable to find any current useable studies relating this process with silica exposure. It became the main focus in terms of time and effort. Street sweeping results are the most important contribution the study will be making to the field of occupational health. We assessed work using a variety of sweeper models manufactured by three companies, Elgin, Global, and Tymco. Models can be divided into two categories, front tank and rear tank. All of our participants were association members in the southern or western parts of the state.

Referring back to the numerous variables, it was initially difficult to see patterns emerging. In fact, at times we felt somewhat baffled, except for rear tank machines. All three manufacturers make rear tank units. These have the operator's cab in front of the "business end" of the vehicle. The mechanical brooms, dirt conveyor, and tank are behind. Not once did a rear tank machine trip the action level. We eventually stopped testing them.

That left the front tank vehicles to continue studying. Elgin's Pelican is the most common example of this style. With front tank sweepers, we did have results that were high. But it was hit and miss. Part of the hits were an effect of operating on days that were too dry, dusty, and/or calm. Controlling variables didn't always produce the expected results.

Enough tests were completed along with input from operators and equipment representatives to draw some reasonable conclusions. They include:

1. Older front tank sweepers with "shop built" cabs are susceptible to silica dust levels high enough to trip the

Silica Health Hazards

KNOW THE HAZARD



- Silicosis - a disabling, non-reversible and sometimes fatal lung disease
- COPD - progressive lung diseases including emphysema, chronic bronchitis, refractory (non-reversible) asthma, and some forms of bronchiectasis.
- Lung cancer, Kidney disease, including nephritis and end-stage renal disease.

Symptoms: shortness of breath, severe cough, fatigue, loss of appetite, chest pains, fever, cyanosis (bluish skin)

© Power Tools 2018 © All rights reserved

Courtesy of IQ Power Tools

1. action level.
2. Newer front tank machines with "automotive" type cabs (e.g., Elgin Pelican series beginning in 2008) are unlikely to go above the action level.
3. We believe that a plausible explanation for #1 above, is as follows: Shop built cabs have a variety of openings in the floor and other lower cab areas. The main broom acts like a giant fan pressurizing the cab with dusty air through these openings. Holes exist for features such as hydraulic hoses, mechanical linkages, electrical conduits, etc.
4. Rear tank machines are unlikely to trip the action level.
5. Older front tank machines can be operated in an acceptable manner by laying down adequate water using on-board water systems or by following a water truck when sweeping. (Some larger cities do this.) Also, time sweeping to follow rain events where streets are still wet.
6. Clean or change cabin filters regularly and run with windows up during dusty conditions. Keep in mind that this is not a guarantee for good results on shop-built cabs.
7. Moisture and natural breeze are normally of benefit to the operator.
8. Length of operation must also be considered when achieving compliance. For example, if sweeping needed to be done when dust conditions were poor, an hour of operation might be very tolerable. The dust exposure is averaged into an 8-hour workday. So, a high level for an hour would be very acceptable.
9. Our testing never produced alarming levels of over-exposure and often involved operation that was not normal or desirable for the department participating.

10. Lastly, refer to these conclusions when reading the upcoming report with data provided by WSC.

To summarize, our testing showed that small scale crack-filling of streets or seal coating can be done with low risk of exceeding the OSHA permissible exposure level or silica action level. Riding mower operation during extreme conditions could be an issue and employers should limit mowing certain fields on these occasions.

Large scale garage sweeping with push brooms, (in lieu of cleaning with water) should either include the use of ventilation or sweeping compound. Street sweeping can be done without violating the silica standard by using methods to reduce ambient dust or by using newer equipment or different style equipment.

Task duration can also be a factor. In many cities we surveyed, operators spend a small percentage of their work week in their sweeper. The silica dose they might receive would be less than operators who operate daily or as often as practical. Those cities should consider job rotation to lower the exposure for individuals of greatest concern.

Lastly, supervisors should be looking out for employees who are performing miscellaneous tasks that could generate silica dust. Tasks like dry cutting concrete are known to be unhealthy.

The damage done by silica is cumulative over a lifetime. Many people have had off-the-job and previous employment exposure. Any effort to reduce future exposure is in our best interest. By analogy, it's like hearing damage from noise exposure. It creeps up on the worker over time and cannot be reversed.

MMUA member utilities deploy to Florida



A mutual aid event precipitated by Hurricane Ian led workers from Minnesota's municipal utilities to deploy to Florida from September 28 to October 7.

Departing from Rochester Public Utilities (RPU) in Rochester, Minnesota on September 28, the crews began making their way towards an anticipated destination of Kissimmee, Florida, in the Orlando metro area. The team was composed of personnel from 13 Minnesota municipal utilities, Missouri River Energy Services (MRES) and MMUA. In the convoy were 13 bucket trucks, three digger derricks, four pickup trucks, two flatbed trucks, and a mechanic's truck.

As things developed in Florida on Thursday, September 29, a conversation with Aaron Haderle from Kissimmee Utility Authority revealed that the storm had tracked away from Kissimmee

and left the area with very little damage to electrical infrastructure. Aware of the change of the storm track, Florida Municipal Electric Association's Amy Zubaly engaged with the team and redirected them to the City of Bartow, which is about 40 miles east of Tampa and 12 miles southeast of Lakeland. Mike Willetts, MMUA's Director of Training and Safety, spoke with the manager of Bartow, who was excited to see the Minnesota crews redeploy to their city. The Minnesota crews stayed in Gainesville, Florida for the night.

On September 30, the crews left early and arrived in Bartow, Florida in the morning. Cody Raveling, team leader, organized the crews into four units which each included a journeyman lead. With this arrangement, it was easier to tackle whatever scenario the crews would run across.

On site in Bartow, MMUA's crews found that many mature oaks had fallen, and that overhead lines were down across the city. Crews got to work right away and made significant progress on their first day on the ground.

As of 6 PM on that day, there were 1,623,887 customers without power in the state of Florida, with 69,387 of those customers being public power customers. Hometown power's needs were met throughout the state, with some resources dispatched to neighboring states and to cooperatives and investor-owned utilities.

On October 1, the crews continued to repair infrastructure in Bartow. Cody Raveling reported things were functioning smoothly and everyone was working safely. Besides a problem with a truck, most equipment worked well. Second day repairs included fixing and replacing poles, crossarms, and wire. During the most intense work, crews had to restring electrical lines that crossed water. Using a boat, they pulled it off, keeping their eyes open for snakes and alligators!

By October 2, MMUA's crews had made significant progress toward restoring power to Bartow. Community members were very complimentary about the good work being done by Minnesota's group. Most of the hard work was done by the end of this third day, and crews began addressing detail work.

At the end of October 3, the

City of Bartow released all of their mutual aid crews except for the contingent from Minnesota. A group of 56 people from New England was also in the area and started for home shortly afterward. Our Minnesota crew was still experiencing a few truck problems, but the group of three mechanics who accompanied the crew kept everything operational.

On October 4, Minnesota's mutual aid efforts saw their final day. The team cleaned up the last of the damage to electrical infrastructure, making sure power was restored, and attended to more minor issues that had yet to be addressed.

The morning of October 5 saw the Minnesota contingent depart for home. Just like with the deployment, the entire Minnesota contingent travelled in a convoy with Cody Raveling leading and James Monroe bringing up the rear. After a sleep stop in Nashville, Tennessee the destination was Waterloo, Iowa. At that point, the group dispersed, with some arriving at home the night of October 6 and the rest making it the next day.

Staff from Alexandria, Austin, Brainerd, Buffalo, Elk River, Marshall, Moorhead, New Ulm, Owatonna, Rochester, Shakopee, Willmar, MRES, and MMUA participated in this mutual aid event. Each person who answered the call to help in Florida reflected the best of public power. MMUA thanks everyone who pitched in to make things better.

MMUA deployment in the news

The deployment of staff from MMUA's member utilities to Florida did not go unnoticed by Minnesota's press.

Mentions of the deployments were made in the Alexandria *Echo Press*, the *Austin Daily Herald*, the *Marshall Independent*, Willmar's *West Central Tribune*, and KAAL-TV, Austin, among others. In addition, MMUA's social media coverage of the event was reposted by Senator Tina Smith.

World Bank estimates energy prices will drop in 2023

According to the World Bank's October 26 Commodity Markets Outlook, the bank projects that world energy prices will decrease by 11% in 2023.

A barrel of Brent crude is estimated to be \$92 a barrel in 2023 and \$80 in 2024. Natural gas and oil prices are also expected to drop from 2022 levels.

DECEMBER 6-8

2022 TECHNICAL & OPERATIONS CONFERENCE

*Power of the Past,
Force of the Future*

BEST WESTERN PLUS KELLY INN,
ST CLOUD, MN

For more information, visit mmua.org

MMUA
Minnesota Municipal Utilities Association



Duluth wins “best tasting water” award

Duluth is not only famous for the big water of Lake Superior, but now the city has won acclaim for its drinking water.

At the Minnesota Section of the American Water Works Association (AWWA) annual conference, Duluth won the 2022 “Best in Glass” award for the best drinking water in the state.

The winner was determined by two rounds of judging. In the first round, the top three water

samples were determined by a vote of all conference participants. After the three finalists were identified, samples were judged by taste-testing professionals. The winner of the water contest from the Minnesota State Fair was also included in this round.

Water was provided to the contest in one gallon or larger containers, preferably made out of glass. All water was served at room temperature, between 68- and 74-degrees Fahrenheit.

After all was said and done, Duluth’s water came out on top. In a statement, Public Works and Utilities Director Jim Benning said, “Duluthians have always known our water tastes better than anything you can buy in a bottle, but it’s really nice to have it made official.”

Duluth will now represent the state at the 2022 AWWA Annual Conference and Exposition in June 2023 in Toronto, Canada.

Strong management handoff

Continued from page 1

Mark is learning about how we do things, who the people are that do things, and building those relationships. Not everyone has the ability to have this overlap time—it’s really nice that Mark has this time.

Mark: Agreed. The added flexibility the overlap has created has been very helpful in providing opportunities to learn the administrative role while still having time to meet with field staff and learn about our service boundaries, processes, and equipment.

MMUA: How did the Elk River team decide what to look for? What made Mark a great hire for ERMU?

Theresa: With our executive search, we had a skills test our consultant gave that looked at different strengths and weaknesses that each candidate had. Mark had the best breadth of types...he was very even keeled. For the things Mark was not as well-versed in, he always talked about wanting to learn more and do more. He wanted the next challenge! Ultimately, it was his experience, skills, excitement, and enthusiasm that made him a great hire.

MMUA: You talked about the overlap time that has been crucial to handing over the leadership of ERMU. In your opinion what is the minimum time that a utility should have to complete this process?

Theresa: I wouldn’t want anything less than the three and a half months we have had. If something happened to me or I had to leave, Mark would be in great shape. You need at least three months, and four to six is even better.

MMUA: How important is the utility’s “bench” and supportive, experienced staff when a new leader is coming on?

Theresa: It is very valuable and puts [Mark’s] mind at ease. He has the resources he needs. Resources that MMUA offers, APPA offers, the different trainings and conferences are a great place to network and establish relationships. That way, he can learn at a really high level and then determine how to apply that knowledge to the organization.

Mark: I’ve been very impressed with how well the organization is run and the quality of our people. We’ll have some sizable challenges coming our way in the next several years as we plan the expansion of our urban services infrastructure and the implementation of an Advanced Metering Infrastructure (AMI) system. It’s great to know the knowledge and experience of our

staff has us ideally positioned for maximum success.

MMUA: How much of this role is high-level management versus the nuts and bolts of running the utility?

Theresa: As far as the day-to-day boots on the ground operation is concerned, a good manager relies on their experts. You need to know enough about their operations that you can lead and help when they are struggling to make a decision. They may know the answer, they just need to talk about it with someone. That way you give them the tools to succeed on their own.

Mark: I’ve always believed the role of a good manager is to set the expectation, provide the necessary training and resources, then get out of the way so staff can get the job done. My role is to set the vision and direction of the organization and hold staff accountable to it. I prefer to stay out of the nuts and bolts as much as possible so the real experts, our staff, feel empowered to do the work and take ownership of the results.

MMUA: How have you cultivated leadership in others or in yourself?

Theresa: Mark is a fantastic leader who is used to managing many people. For myself, I have said, “Who do I want to replicate? Who can I model myself after?” Our previous General Manager (Troy Adams) was a great example of that: being available, being able to talk over things or bridge the gap on things I hadn’t learned before.

For some people, it’s almost innate. It is hard to teach these things. With some people, it is just a little more natural.

Mark: Leadership is about engaging with your people so they know they’re valued. It’s about sharing the successes of the organization while owning the shortcomings. People want to feel heard, know their work matters, and they can safely work with their peers and managers to learn and grow in the organization. I’m thankful Theresa has been such a great leader for ERMU as she has made my transition easy and her mentorship has ensured the greatest chance of success.

MMUA: What’s next for you as you hand things over to Mark?

Theresa: My family has a cabin up in Cass Lake and we hope to spend more time there. I enjoy volunteering with my church and many of the charities and organizations that are connected with it. I am also going to continue to work with Rotary. I hope to continue to help people and be a resource for others.

Carbon capture pipeline company files plan with South Dakota Public Utilities Commission

On September 27, Navigator CO2 Ventures filed a permit with the South Dakota Public Utilities Commission (PUC) for its plans to build a carbon capture pipeline that will consist of 111.9 miles of pipeline expected to cross the counties of Brookings, Moody, Minnehaha, Lincoln, and Turner.

The pipelines will serve the ethanol industry in South Dakota and will sequester carbon dioxide

(CO₂) for later storage, although some could also be used for industrial purposes. Surveys of properties along the route are expected to start within 30 days of the filing.

Public hearings on the pipeline project have been scheduled for November 21 in Canton, South Dakota and November 22 in Flandreau and Sioux Falls, South Dakota.



Minnesota State Community and Technical College to develop curriculum to train students as electric and hybrid car technicians

Minnesota State Technical and Community College, which has campuses in Detroit Lakes, Fergus Falls, Moorhead, and Wadena, has announced that with the receipt of a \$350,000 National Science Foundation (NSF) grant, the college will be developing a new training program for students interested in working as an electric or hybrid car technician.

The program will be developed by Minnesota State faculty

Shannon Mohn and Allan Lineburg in collaboration with local and national experts. The program will be composed of two, three-credit stackable certificates that automotive technology students can complete as a component of their larger program. The curriculum for hybrids and pure electric vehicles will be constructed so students can pursue certifications in either one or both.

In a press release, Mohn noted that the need for these technicians

is great. “Only 3% of technicians are trained to work on these vehicles...today, 100,000 (electric vehicles) are sold every month in the U.S. alone.”

Minnesota State Community and Technical College serves more than 7,000 students in credit courses each year in more than 70 career and liberal arts programs online and at its four campuses.

First United States wind/solar/battery project comes online

In the last week of September, the first-ever combination wind/solar/storage installation, called Wheatridge Renewable Energy Facilities, opened in Morrow County, Oregon.

The project includes 300 megawatts (MW) of wind, 50 MW of solar, and 30 MW of battery storage.

In the system, solar is used to charge the battery storage. The storage-only section of the facility can provide power for four hours. As battery storage technology improves, combination facilities like this will be able to backstop inconsistent wind and solar output with reliable battery storage output.

The facility is owned by a subsidiary of NextEra Energy, which is based in Juno Beach, Florida. Pacific Gas and Electric (PG&E), which is based in San Francisco, California, owns 100 MW of output from the plant, while NextEra will sell the rest of the plant’s output to (PG&E) under power purchase contracts.

MMUA and MREA

Continued from page 1

legislation identified by the group include permitting reform, net metering reform, and repealing what is commonly referred to as the moratorium on discussing the use of new nuclear reactors.

After lunch, the group began discussions on how to address service territory issues. The participants divided into two smaller groups to continue dialogue on whether it was feasible to develop a common approach to service territory transfers, and whether trying was even advisable.

The group then came back together and reported on the discussions had in the breakout groups. It became obvious that there is no desire to continue conversations in hopes of

developing a universal template or guidance for service territory transfers, particularly if it would endanger joint efforts on legislative and related issues. While the participants shared many reasons for this position, the bottom line appears to be that each situation is different. Interest was expressed in having the associations provide materials on how to have difficult conversations and in continuing to build relationships between members of both organizations so that rapport and trust can grow.

Ultimately, the group developed consensus on four points:

1. The COU management groups or some subset should meet periodically on topics of mutual interest.

2. The meeting of September 29, and any future meetings, should result in joint communication of outcomes.

3. COUs should continue to collaborate on areas of mutual interest.

4. Service territory should not be a near-term area of focus.

To see a complete summary of this meeting, go to the MMUA website at www.mmua.org.

Please contact Karleen Kos (kkos@mmua.org) or Kent Sulem (ksulem@mmua.org) if you have any questions.

Clean energy jobs growing quickly in Minnesota

Clean Energy Economy Minnesota (CEEM), a clean energy industry-led non-profit, recently released its updated fact sheet on clean energy jobs in Minnesota.

The industry is growing quickly, with almost 58,000 total clean energy jobs, increasing almost 5% in 2021 alone.

CEEM breaks these 58,000 jobs down into the different sectors that workers are employed in. The largest by far is the energy efficiency sector, with 42,218 workers. The report describes these workers as doing things such as manufacturing green appliances, installing green buildings systems, and installing energy efficiency materials in buildings.

Some 8,270 Minnesotans work directly in renewable energy generation. This includes 4,873 people employed in the solar subsector and 2,654 employed in wind.

Advanced transportation makes up the third biggest category of clean energy jobs, at 3,994 jobs. These workers mainly work in the hybrid, plug-in hybrid, and electric vehicle sectors.

The fourth significant category of clean energy jobs in Minnesota is grid and storage, with 2,764 workers. These positions include 1,891 jobs in clean storage and 572 jobs in the smart grid/micro grid areas. This sector, in particular, looks primed for strong growth with the development of clean storage technology.

The report put forward the startling fact that more Minnesotans now work in the clean energy sector than lawyers, accountants, auditors, web developers, and real estate agents combined! With these numbers only poised to grow, it is clear that clean energy jobs are important to our state now and into the future.

ENERGY is your BUSINESS

Our energy is focused on your supply chain.

For more than 60 years, our employee-owners have supported you by providing the products you need and the services you've come to expect.

Your success is our priority. Contact us today.

BSE BORDER STATES
Supply Chain Solutions™

borderstates.com | 800.676.5834

INTRODUCING **Adaptiv™** Advanced Metering Infrastructure

- Zero Infrastructure Solution**
Hybrid communications network utilizing both public carrier and RF mesh
- Easy, Targeted Deployment**
Deploy when and where automation is needed first, using existing employees and skills
- Lowest Total Cost of Ownership**
No costly infrastructure to maintain; only a simple, inclusive annual fee

Learn More Now!

David Logsdon
Regional Sales Director
(614) 284-4110
david.logsdon@nighthawkcontrol.com

NIGHTHAWK
NIGHTHAWKCONTROL.COM

Generator interconnection costs rise sharply in MISO region for hydrogen hub program

According to a new report from the Lawrence Berkeley National Laboratory, generator interconnection costs in the Midcontinent Independent System Operator (MISO) region rose sharply from 2018-2022.

Average costs rose from \$48/kilowatt (kW) in 2018 to a recent high of \$156/kW. Some clean energy prices as high as \$250/kW.

Much of the price increase has come from network upgrades that have to be implemented

beyond the interconnection. These have included voltage upgrades and other network upgrade costs.

Some costs have become so extreme that planned generator interconnections have withdrawn from the queue. However, since many of the network upgrades would have to be done eventually anyway, the rise in prices is an expected cost of new generation interconnection.

MVA Technologies, LLC

Providing Turnkey Construction Services Since 1973

Safe. Reliable. Quality Services

www.mptech.biz

Gas. Overhead & Underground Electric Installation. Splicing & Termination. Cable Pulling. Pole Replacement. Maintenance & Support. Conduit & Man-Hole Installation. Hydro Vac. Storm Restoration. Alternative Energy

Minnesota Office:
9938 State Hwy 55 NW Annandale, MN

Texas Office:
14140 Cypress N Houston. Houston, TX

A True Enterprise Experience

Streamline Your Business. Reduce Operational Costs. Increase Efficiency.

All With One Enterprise System.

nisc national information solutions cooperative

Xcel receives draft environmental impact statement on request to increase spent nuclear fuel storage at Monticello



Monticello's spent fuel storage installation is in the foreground; the new concrete storage pad will go to the left of the existing pad within the fencing.

On October 4, the Minnesota Department of Commerce (DOC) filed a draft environmental impact statement (EIS) on plans for Xcel Energy to increase their spent nuclear fuel storage levels at the Monticello Nuclear Power Plant in Monticello, Minnesota.

The initial plans, which were filed in the earlier part of the year,

put forward a storage proposal that would consist of a second concrete storage pad within the Monticello's already-built independent spent fuel storage installation. Spent fuel will be stored in steel canisters which will rest on the concrete storage pad. Xcel says that they will need about 14 additional steel canisters for spent fuel storage

through Monticello's planned closure date in 2040.

The draft EIS was issued with minimum environmental impacts for most of the categories under review. Public meetings were held October 26 and October 27 and public comments were accepted until November 11.

Saga of Zaporizhzhia nuclear power plant continues in Ukraine

Ukraine's Zaporizhzhia Nuclear Power Plant, the largest nuclear power plant in Europe, has arguably been through more dangerous scenarios during the Ukraine conflict than the American nuclear industry has in its entire history.

The plant, which has six reactors and provides power to large swaths of Ukraine, continues to deal with life in the midst of an active war zone. Currently, it remains under the operation of Ukrainian staff, but sits in Russian-held territory seized in March.

Ukraine's state nuclear company, Energoatom, announced on October 11 that the Deputy Head of the plant, Valeriy Martynyuk, had been kidnapped on October 10 by Russian forces and was being held in an unknown location. This kidnapping followed the taking of Ihor Murashov, the then-head of the plant, on October 1. Murashov was released on October 3 and never returned to the plant.

Zaporizhzhia's symbolic value

and real power generation capabilities have made the plant and its people literal and figurative hostages in the war. The kidnapping of key staff reflects Russia's goal of taking full operational control of the plant.

On October 5, President Vladimir Putin of Russia told his officials to take control of the power plant. It should be noted that this declaration came just days after the kidnapping of the plant's head and days before the kidnapping of his deputy.

Russia's move included a promise that they would sate worries about the safety of the plant, which have been of international concern. Russia also guaranteed that plant employees could work for a Russian-owned energy company.

In response, Petro Kotin, the President of Ukraine's state nuclear energy company Energoatom said that he would personally be taking charge of the plant and that staff should not cooperate with Russian officials.

CORE & MAIN

WE'RE ALL ABOUT Minnesota

Our local experts offer smart solutions for all your utility water, electric and gas meter needs.

Local Knowledge | Local Experience | Local Service, Nationwide®

coreandmain.com

CMPAS
CENTRAL MUNICIPAL POWER AGENCY/SERVICES

HAVE YOU HEARD?

In 2021 CMPAS procured 467 gigawatt hours on behalf of member utilities.

Members First.

Member Utilities: SLEEPY EYE, SPRINGFIELD, WINDOM, BLUE EARTH, DELANO, FAIRFAX, GLENCOE, GRANITE FALLS, JAMESVILLE, KASSON, MOUNTAIN LAKE, KENYON.

7550 Corporate Way
Eden Prairie, MN 55344

888.970.8267
Learn more at: cmpas.org

MISO plans changes to energy demand measurements to make pricing more accurate



On October 12, the Midcontinent Independent Service Operator (MISO) said that it will be including a sloped demand curve as a component of its capacity auctions going forward.

MISO brought this issue forward as it moves into holding its auctions for the planning year.

"We can do better than having a straight line, vertical demand curve," said MISO's Mike Robinson. Indeed, MISO has frequently noted that this type of demand curve has resulted in "inefficient market outcomes" and "inefficient price signals." This mismodeling of the demand curve caused market participants to make decisions that were not in the interest of market, like closing power plants that were needed.

Robinson said that since the value of extra capacity past the planning requirement still has value, this curve will better measure and price that value for market participants.

FS3^{INC}

COMMITTED TO MAKING YOUR JOBSITE SAFER!!!

ANNANDALE, MN
320-274-7223
WWW.FS3INC.BIZ



EXCAVATION VERIFICATION KIT Includes:

- (1) Tri-Fold Ruler
- (3) Foldable "MARK" Markers
- (1) Foldable "HIT" Marker
- (1) Whiteboard
- (1) 6 pc. Marker Set
- (1) Eraser

All items compact neatly into a 13" x 17" drawstring backpack.

General Motors to offer storage and management services through new unit

General Motors (GM), with its increasing commitment to electric vehicles, is now entering the energy field with the creation of a new business unit, GM Energy.

This division will take on GM's Ultium Charge 360 public charging service and add two other new groups: Ultium Home and Ultium Commercial. These new businesses will offer products like solar panels, home energy packs, and charging devices to both home and commercial customers.

By entering the home/commercial energy storage and management area, GM is competing with Tesla, whose well-known Powerwall has already allowed consumers to store power.



GM also plans to offer software that will allow consumers to link their GM Energy products with their vehicles and even with their local utility. These tools will allow individuals to build their own energy system and monitor it from their phone.

According to GM, the current domestic market for these products and services is between \$125 billion and \$250 billion. As other automakers delve into the world of electric cars, it won't be a surprise if they also pursue projects similar to GM Energy.

October 5 was Energy Efficiency Day

On October 5, Americans celebrated Energy Efficiency Day, a collaborative effort by dozens of disparate organizations to emphasize the importance of energy efficiency in driving down costs, saving energy, and slowing global warming.

The motto of Energy Efficiency Day is "Save Money, Cut Pollution, Create Jobs." Since its inaugural celebration in 2016, the day highlights how being energy efficient is the quickest, easiest, cheapest way to cut costs and make the planet healthier.

A report by the International Monetary Fund (IMF) in 2020 said that trends in energy efficiency have reduced energy demand by about 1.2% a year

and have helped flatten energy use in the higher income countries.



Minnesota has long been a leader in energy efficiency efforts, including with the recent Energy Conservation and Optimization (ECO) Act of 2021, which modernized the Conservation Improvement Program (CIP). With these efforts, utilities seek new efficiencies, homeowners and businesses learn how to make electricity use more efficient, and spending and pollution is decreased.

This special day kicks off Weatherization and Energy Efficiency Month, which is celebrated in October.

NORTHWEST LINEMAN COLLEGE

NEW PROGRAMS AVAILABLE AT NLC

ELECTRICAL LINEMAN PROGRAM

- ✓ \$73,000 AVERAGE INDUSTRY WAGE¹
- ✓ 15 WEEK PROGRAM

TELECOMMUNICATIONS LINEMAN PROGRAM

- ✓ \$63,000 AVERAGE INDUSTRY WAGE²
- ✓ 7 WEEK PROGRAM

GAS DISTRIBUTION PROGRAM

- ✓ \$66,000 AVERAGE INDUSTRY WAGE³
- ✓ 7 WEEK PROGRAM

LEARN MORE

LINEMAN.EDU | (888) LINEWORK

1 www.bls.gov/oes/current/oes499051.htm | 2 www.bls.gov/oes/2017/may/oes499052.htm | 3 www.bls.gov/oes/2017/may/oes47152.htm

From our very beginning we've focused on **WHAT'S IMPORTANT...**

To us, your project isn't a job - it's an opportunity to make a positive impact, protect future generations, and ensure the vitality of where we live and work.

Providing water engineering and related services to help clients achieve success.

WATER ENGINEERING | SURVEY/MAPPING/GIS | FINANCIAL SERVICES
INSTRUMENTATION & CONTROLS | ELECTRICAL ENGINEERING

AES Advanced Engineering and Environmental Services, Inc.
www.ae2s.com

Nuclear's share of worldwide electrical generation falls below 10%

According to the World Nuclear Industry Status Report (WNISR) the percentage of power generated by nuclear reactors dropped to 9.8% last year, which is its lowest share of global electricity generation in almost 40 years.

Some 415 reactors in 33 countries generated 2,653 terawatt hours (TWh) of electricity in 2021. The United States continues to generate the most nuclear energy in the world, followed by China.

ZIEGLER POWER SYSTEMS

RELIABLE POWER WHEN YOU NEED IT

SALES AND RENTAL

- Diesel and natural gas generators
- UPS, switchgear, circuit breakers, protective relays, and Automatic Transfer Switches
- Portable temperature control units
- Solar panels and battery energy storage

24/7 EMERGENCY SERVICE AVAILABLE:
888.320.4292

Shakopee, MN
8050 County Road 101 East
888.320.4292

ZIEGLER CAT
Power Systems

www.zieglercat.com/power

TELCOM CONSTRUCTION

Turn Key	Self Perform
Aerial/Underground Construction	Power/Gas/Wind Distribution Services
Urban and Rural Construction	Trenching; Joint and Single Trench
Fiber Splicing/Testing	Pole Replacement
Project Management	Wireless Network Services
Horizontal Directional Boring	Material Procurement/Warehousing & Logistics

Larry Sanders 320-589-5317 www.telcomconstruction.com Character - Capital - Capacity
Corporate Office 320-558-9485



Alexandria completed the 2022 portion of its 18th Street Project, which involves the reconstruction of the road as well as the replacement of city utilities. The project is expected to be complete by August of 2023. **Alexandria Light and Power's** share of the \$8.15 million project is about \$900,000.

Aitkin did a public tree inventory the week of October 24-28. A grant from the Minnesota Department of Natural Resources (DNR) allowed Aitkin to create a management plan that will direct a removal and replacement plan for sick/dead trees and provide information about the city's trees to community members.

Austin Utilities (AU) hosted events in early October to celebrate National Public Power and Natural Gas Week, which ran from October 2-October 8. AU's building hosted an open house on October 5 and building tours on October 6. AU also hosted a treasure hunt.

On October 8, it was reported that **Benson**, along with Swift County, has approved a 30-year lease of the Benson-Swift County Hospital and ScandiHaven nursing home to CentraCare Health. CentraCare's board approved the agreement on September 15. CentraCare will take on all operations, assets, and expenses associated with these facilities.

On October 29 and 30, the **Bivabik** Park Pavilion hosted the 7th annual model railroad display put on by the Laurentian Northern Railroad Club.

Grand Marais and **Perham** have been named by the well-known website MyDatingAdviser.com as among the "coziest towns" in the nation. Points were awarded based on the length of the winter season, and the number of bookshops, parks, bakeries, and cafes. Grand Marais was ranked 27th in the country and Perham was ranked 56th.

Grand Rapids celebrated National Indigenous Peoples Day on October 10. The city council joined with community members at Mississippi River Park to celebrate a new sculpture created by Duane Goodman. The sculpture depicts a Native woman holding a dish as an offering to the river. Mayor Dale Christy later read a proclamation at the council's meeting recognizing and honoring the Indigenous peoples who have contributed to the quality of life in Minnesota.

Granite Falls' Minnesota Valley Generating Plant was demolished on October 27. The plant, which is owned by Xcel Energy, was originally opened in 1930. The coal-fired plant generated

75 megawatts (MW) of electricity and was retired in 2009.

In **Luverne**, Highway 75 was closed between Main Street and Dodge Street between October 17 and November 10 so that the City of Luverne could make utility improvements.

Senator Tina Smith toured a new solar garden in **Mankato** on October 6. The Kasota Prairie Community Solar Garden is a 4.5-megawatt (MW) installation that features 4,000 solar panels on eight acres and should provide electricity to 200 homes. The



solar garden serves Xcel Energy customers.

The **New Ulm** Public Utilities Commission has approved a bid for \$368,560 from Ellison Drainage

for the installation of a new water main under the Minnesota River. The project should be complete by the end of the year.

Owatonna held a ribbon cutting on October 13 to celebrate the completion of the city's new downtown streetscape. The project's goals included more greenspace, better accessibility, pedestrian safety, and the preservation of the downtown's identity.

Rochester experienced severe storms on the night of October 23 that caused more than 3,000 electric customers to lose power.

Service was largely restored by Monday morning.

Spring Grove Communications, the city's local television, telephone, and internet cooperative, was named a "Smart Rural Community" provider by NTCA-The Rural Broadband Association. In order to receive recognition, Spring Grove had to show that it offers 25/3 broadband to at least 50% of its service area, that it has broadband subscription rates of at least 50%, and that it is committed to the program principles of collaboration and innovation.

RADIODETECTION[®]

RD8200[®] and RD7200[®]

Optimum precision for damage prevention

811
Know what's below.
Call before you dig.

Your partner in damage prevention

For more information call: **320.274.7223**

FS3^{INC} 9030 64th ST NW
Annandale, MN 55302
WWW.FS3INC.BIZ

here for you 24/7³⁶⁵

Being available for your members round-the-clock has never been easier.

CRC
Cooperative Response Center, Inc.
contact-dispatch center | alarm monitoring
www.crc.coop | 800-892-1578 | info@crc.coop

Osmose[®]

Resilient Grids. Strong Networks. Safe Energy.

Your local Osmose professional is:
Dave LaPlante | 573-590-0137 | dlaplante@osmose.com

osmose.com

A PROVEN PROVIDER of innovative electrical solutions.
AN INDUSTRY LEADER leading a changing industry.
A SUPPLY CHAIN PARTNER who'll be there for you.

irby
A Sonepar Company

- Supporting Utility Systems since 1935
- Full-line Supplier of Utility Products
- Most Extensive Offering of Utility Technical Support Services
- Superior Emergency Support Staff
- Tool Supply and Repair
- Rubber Insulating Equipment
- Certified Dielectric Testing Services
- On-Site Testing
- Arc Flash and FR Clothing Systems
- Custom Grounds and Jumpers
- Broadband Communication Services

Eagan, MN 763.588.0545
 Fargo, ND 800.742.8054

CUSTOMERS. FIRST. ALWAYS.

irby.com



In an opinion piece in the Financial Times on October 10, Jeffrey Sonnenfeld from the Yale School of Management argued that Russia's threats to freeze Europe this winter by restricting their gas supplies have become ineffective as Europe has found sufficient gas on the world market.

Japan is considering the extension of its 60-year limit on the lifespan of nuclear power plants in the country. Under the legislation, plants would be allowed to have operation extensions if approved by the Nuclear Regulation Authority. Under current rules adopted after the 2011 Fukushima Daichi nuclear disaster, nuclear power plants in Japan can operate for 40 years and receive a 20-year extension if approved.

The world's largest offshore wind farm was featured on the October 16 edition of the CBS newsmagazine "60 Minutes." The Hornsea Wind Farm lies off the northeast coast of England and features more than 300 wind turbines spread across 335 square miles. The installation powers more than 2 million homes.

Since the onset of the war in Ukraine, the European Union (EU) has generated 24% of its power from wind and solar, helping it minimize the effects of rising fuel prices and supply problems from Russia.

President Volodymyr Zelenskyy of Ukraine said that since October 10, 30% of the power stations in the country have been destroyed, causing widespread blackouts. Ukrainian leaders are telling the whole country to prepare for electricity, water, and heating outages as the conflict with Russia continues.

On October 12, the California Energy Commission (CEC) adopted updates to the state's load management standards that will give consumers more accurate and timely information on energy costs at various times. With these updates, consumers will be better able to conserve energy, reduce energy use at peaks, and save money.

European natural gas mirrored the phenomenon of crude oil in April 2020 as the gas spot price went negative on October 24. That meant suppliers were willing to pay purchasers money to take gas supplies off of their hands. The negative price was recorded on the main Dutch

Professional Services Directory

Attorneys

**MCGRANN
SHEA
CARNIVAL
STRAUGHN
& LAMB
CHARTERED**

Proudly representing
municipal clients

800 Nicollet Mall, Suite 2600
Minneapolis, MN 55402
(t) 612-338-2525 (f) 612-339-2386
www.mcgrannshea.com

**SPIEGEL &
McDIARMID**
LLP

1875 Eye Street, NW
Suite 700
Washington, DC 20006
www.spiegelmc.com

Phone: 202.879.4000
Fax: 202.393.2866
info@spiegelmc.com

Computer and Software

**Central
Service
Association**

**Professional
Computer
Solutions**

IT solutions for the smart utility

Professional Computer Solutions, LLC
www.pcs-csa.com / Toll free 888.843.3106

Central Service Association
Toll free 877.842.5962 / www.csa1.com

Electrical Equipment and Suppliers

TRANSFORMERS
DISTRIBUTION AND SUBSTATION

T&R ELECTRIC

Modern Rewind Facilities
More than 61 Acres Inventory
Prompt Delivery - Coast to Coast

CALL TOLL FREE
800-843-7723
FAX 605-533-7723
E-MAIL: info@tr.com
Internet: www.tr.com

Complete Outdoor
Substations
Circuit Breakers,
Regulators
and Switchgear

BUY - SELL - RENT

Engineers and Engineering Firms

Providing water engineering and related
services to help clients achieve success.

Maple Grove | Moorhead | Lake of the Woods
www.ae2s.com

Engineers and Engineering Firms

One size fits all – doesn't. And neither do our solutions.

**BOLTON
& MENK**
Real People. Real Solutions.
Bolton-Menk.com

**Trusted.
Professional.
Solutions.**

**DGR
ENGINEERING**

Electrical Power • GIS
Streets • Sewer • Drainage
Water • Airports

Rock Rapids, IA
Sioux City, IA
Sioux Falls, SD
800-446-2531 • dgr@dgr.com

dgr.com

DBC

DAVE BERG CONSULTING, LLC

David A. Berg, PE – Principal

15213 Danbury Ave W
Rosemount, MN 55068
(612)850-2305
www.davebergconsulting.com

Cost of Service Studies
Utility Rate Design
Contract Negotiations
Utility Education
Expert Testimony
Feasibility Studies

dave@davebergconsulting.com
Dedicated to providing personal service to consumer-owned utilities

Building a Better World for All of Us®

Engineers | Architects | Planners | Scientists

800.325.2055 • sehinc.com

Equipment manufacturers, Suppliers, Service

PRODUCTS you NEED
SERVICE you EXPECT

Where you need us, when you need us,
with 11 Minnesota locations to serve you.

Contact us today.

BORDER STATES
Supply Chain Solutions™

borderstates.com | 1.800.676.5834

FS3

INC.
SERVICE

SUPPLY

UTILITY CONSTRUCTION
MATERIALS & EQUIPMENT
TOOLS & SAFETY PRODUCTS

9030 64th Street NW
PO Box 989
Annandale MN 55302

(320) 274-7223
FAX (320) 274-7205
WWW.FS3INC.BIZ

Professional Services Directory

Equipment and Supplies



RESCO
SUPPLYING THE COOPERATIVE ADVANTAGE

Quality products and superior service from one of the Midwest's largest full-line distributors of high-voltage electrical products.

800.346.3330 | info@resco1.com | resco1.com
4100 30th Ave. S, Moorhead, MN



Enterprise Software Solutions
Designed for Utilities



NISC
National Information Solutions Cooperative®
www.NISC.coop

Financial Services



NORTHLAND
PUBLIC FINANCE

FINDING MUNICIPAL FINANCE SOLUTIONS FOR 20 YEARS

The Public Finance Group of Northland Securities, Inc.
(515) 657-4677 | (800) 851-2920
Member FINRA/SIPC | Registered with SEC/MSRB
Visit us at www.northlandsecurities.com
RC 22-273, Muni 22-235

Generation Services and Equipment



energis
HIGH VOLTAGE RESOURCES®

Servicing You Locally in Minnesota with NETA Accredited Technicians

"Servicing everything inside the substation fence"

ENERGISINC.COM
800.928.6960



FULL LIFE CYCLE SOLUTIONS

Fairbanks Morse offers engine and power system optimization, extension, and customization options. Visit us online to view our extensive power solutions.

+1-800-356-6955
<https://www.fairbanksmorse.com/service-solutions>



ZIEGLER
Power Systems



Proven Power Solutions
Sales. Service. Rental.
888.320.4292

Management and Professional Consultants



AVANT
ENERGY

220 South Sixth Street
Suite 1300
Minneapolis, MN 55402

TEL 612.349.6868
FAX 612.349.6108
Info@AvantEnergy.com



Meter Services and Systems



Adaptiv Advanced Metering Infrastructure



Learn More Now!

Lisa Fennell
Sales Director
(612) 963-6867
lisa.fennell@nighthawkcontrol.com



NIGHTHAWK
NIGHTHAWKCONTROL.COM

Power Suppliers



CMP
AS
CENTRAL MUNICIPAL POWER AGENCY/SERVICES



HEADQUARTERS:
7550 Corporate Way
Suite 100
Eden Prairie, MN 55344
cmpas.org | 888.970.8267

Service Providers



Osmose
Making your grid as STRONG as the COMMUNITIES it serves

Wood	Overhead	Products
Steel	Engineering	Joint Use
Contact Voltage	Analytics	Storm Support

770-631-6995 | poleinfo@osmose.com | osmose.com

Training & Education



NORTHWEST LINEMAN COLLEGE

NEW PROGRAMS AVAILABLE

ELECTRICAL LINEMAN WORKER PROGRAM ✓ \$73,000 AVERAGE WAGE ¹ ✓ 15 WEEK PROGRAM	TELECOMMUNICATIONS LINEMAN WORKER PROGRAM ✓ \$63,000 AVERAGE WAGE ² ✓ 7 WEEK PROGRAM	GAS DISTRIBUTION PROGRAM ✓ \$66,000 AVERAGE WAGE ³ ✓ 7 WEEK PROGRAM
--	---	--

LINEMAN.EDU | (888) LINEMAN

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

benchmark, Title Transfer Facility (TTF), for natural gas and lasted for about an hour. The International Energy Agency (IEA) said in an analysis that they project carbon emissions will peak in 2025. Peak will come earlier than previously projected thanks to European investments in clean energy in the wake of energy supply shortages from conventional sources caused by the conflict in Ukraine.

On October 26, wind turbine output in the United Kingdom hit an all-time record when the country's wind turbines produced 19,936 megawatts (MW) in a half-hour period. Wind generated 52.5% of the country's power during the half-hour peak and 50% of power during October 26.



New research from the University of Bristol in the United Kingdom has found that swarming honeybees can produce atmospheric electrical charges greater than the charge produced by a thunderstorm cloud.

Japan plans to cut electricity bills for its citizens by 20% in 2023 through a large package of government spending designed to blunt the effects of national inflation.

A group of Walmart suppliers have signed a power purchase agreement (PPA) to access 250,000 megawatt-hours (MWh) from the Orsted Sunflower Wind Farm in Marion County, Kansas. This PPA is part of Walmart's larger effort to decrease carbon emission from its supply chain.

Member News

The City of Cleveland has joined MMUA as a Regular Member. Cleveland operates a water and wastewater utility. Contact is Charles Hodge, City Clerk/ Treasurer. Phone is 507.931.6380 and email is cityhall@mchsi.com.

Trynzcic has joined MMUA as an Associate Member. Trynzcic is a technology company in the utilities industry. Contact is Jim Murray, Regional Director. Phone is 651.269.5420 and email is jim.murray@trynzcic.com.

Research recommends broadband label format

New research from Carnegie Mellon University, conducted by the University's CyLab Usable Privacy and Security Laboratory, recommends that broadband disclosures take a two-part approach that offers consumer more basic information on top and a greater level of detail on the lower part of the label.

The top-layer summary information would include information like base costs, monthly charges and discounts, and activation fees. The lower part of the disclosure would provide more detailed information for consumers with a color-coded rating system on items like web browsing, video

conferencing, streaming audio, streaming video, and gaming. Study of this arrangement revealed that consumers found this label easier to comprehend than previous designs.

Broadband Facts
Fiber One Gigabit

Fixed broadband consumer disclosure available to residents of 15213
Last updated August 31, 2022

Base monthly cost **\$99.99**
Unlimited data at speeds up to 940/880 Mbps per month. Includes provider fees and government taxes.

Optional monthly charges/discounts
Router lease + tax **Included** Auto Pay and Paper-Free discount **-\$10.00**

Activation fees
Fios Setup **Included**

Performance & Reliability
Government Performance Ratings (fcc.gov/broadband) Typical performance ranges; individual experience may vary.

Web browsing	Good	Streaming audio	Good	Streaming video	Acceptable
Videoconferencing	Marginal	Gaming	Poor	Online backups	Good

Median download speed 903.5 Mbps Median upload speed 811.8 Mbps
Average monthly downtime per customer 1 hour 14 minutes

Giant wind turbine sets output record

A giant wind turbine located in Osterild, Denmark, in the northwest part of the country, recently broke the 24-hour wind power world record.

The giant turbine generated 359 megawatt-hours (MWh) of power in a single day. According to the turbine's manufacturer, Siemens Gamesa, that is enough power for a standard electric vehicle to drive over one million miles!

The turbine, called the 14-222 DD, is an offshore wind generator that creates 14 megawatts (MW) of power in standard operation and up to 15 MW in "Power Boost" mode. It has a 728-foot rotor and a swept area of almost a half million square feet (sf).

As many as 60 of these behemoth wind turbines have been ordered for a new wind farm in Scotland, where they are expected to produce 882 MW of power.

NOPEC bill reenters the national conversation

After the Organization of Petroleum Exporting Countries (OPEC) cut output by two million barrels a day on October 5 triggering higher prices, some members of Congress' interest increased in a bill from the past as a solution for OPEC's control of the oil market.

same "rules of the road" as companies in the United States and most other countries.

The legislation was first proposed in 2000 by Senator Herb Kohl, (D) Wisconsin. It has been introduced many times, but it has never passed Congress. NOPEC 2022 was reintroduced in the 117th Congress by Senator Chuck Grassley, (R) Iowa, and cosponsored by Senator Amy Klobuchar, (D) Minnesota, Senator Patrick Leahy (D) Vermont, and Senator Mike Lee, (R) Utah. The bill was also reintroduced into the House of Representatives.

NOPEC, which is short for the "No Oil Producing and Exporting Cartels Act" would remove the ability of countries to hide behind their status of state immunity. This immunity currently prevents them from being sued, and the bill would, instead, make them accountable under United States antitrust law.

Public support for the legislation is evenly split in both parties. Some experts in statecraft view suing other countries for monopolizing markets as inappropriate and damaging to the international order.

The Sherman Antitrust Act of 1890 was passed in response to the monopolies and anti-competitive agreements that were stifling American industry at the time. Since OPEC is a cartel that acts to reduce market competition between oil-exporting countries, the NOPEC Act would make the cartel subject to the

The White House has not officially backed the bill, but interest is growing in the legislation.

Bree Maki appointed as Director of the Office of Broadband Development

On October 7, Governor Tim Walz appointed Bree Maki as the head of the Office of Broadband Development.

The office is part of the Minnesota Department of Employment and Economic Development (DEED) and assists Minnesotans in finding

broadband services. It also works to improve availability and use of high-speed internet.

In a statement, Governor Walz said, "Bree Maki's past experience working to develop broadband in Minnesota shows that she has the experience and skill set to successfully bring broadband access to all

communities in Minnesota. With her diverse connections in Minnesota and focus on the needs of reliable internet, especially in industries such as education and health care, I am confident she will work to get all Minnesotans access to high-speed internet."

Upcoming Events

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

Technical and Operations Conference

December 6-8
Best Western Plus Kelly Inn,
Saint Cloud

The T&O Conference offers timely information and valuable networking opportunities for superintendents, managers, supervisors, and crew leaders. Municipals are facing many challenges—from infrastructure improvements and system reliability to employee retention and preserving municipal services. This year's theme is "Power of the Past, Force of the Future." Visit <https://www.mmua.org/event/TandO-2022> for more information. Registration Deadline: November 21, 2022.

Transformer School and Pre-Conference

December 13-16
MMUA Training Center,
Marshall

The combination of classroom and hands-on instruction at this school is designed to increase understanding of the inner workings of a transformer, appropriate installations, and applications for maximum reliability. Registration Deadline: November 21, 2022.

Legislative Conference

January 24-25
Double Tree Hotel
St. Paul

MMUA's Legislative Conference is the primary opportunity for municipal utilities to inform and influence state lawmakers. A strong turnout ensures that our message is heard. Register online at mmua.org/legislative-conference-2023.

Meter School and Pre-Conference

February 7-10
MMUA Training Center
Marshall

Meter School is an opportunity to obtain hands-on technical electric metering training. Basic/intermediate and advanced tracks are available. A Pre-Conference is also held in conjunction with the school. Registration online at mmua.org/meter-2023.

Leadership Enrichment Programs

MMUA offers two popular and well-regarded leadership enrichment programs: Leadership Academy and Stepping Into Leadership. Both programs will begin new cohorts in April 2023. Please watch your email for more information in November or reach out to Rita Kelly at rkelly@mmua.org for more information.