

THE RESOURCE

Official Publication of the
Minnesota Municipal Utilities Association

MMUA

September 2022
Volume 27, No. 8

MMUA
3131 Fernbrook Lane North
#200
Plymouth, MN 55447
763.551.1230

Inflation Reduction Act will have major impacts on energy sector

On August 7, the United States Senate passed the Inflation Reduction Act of 2022, which was co-sponsored by Senator Chuck Schumer (D-NY) and Senator Joe Manchin (D-WV). The Act passed the House on August 12 and it was signed into law by President Biden on August 16.

The Act includes sections on drug price reduction, tax reform, and health care, but is most significant in the area of energy and climate change. The bill provides \$369 billion for energy security and climate change, making it the largest investment in clean energy in the history of this country.

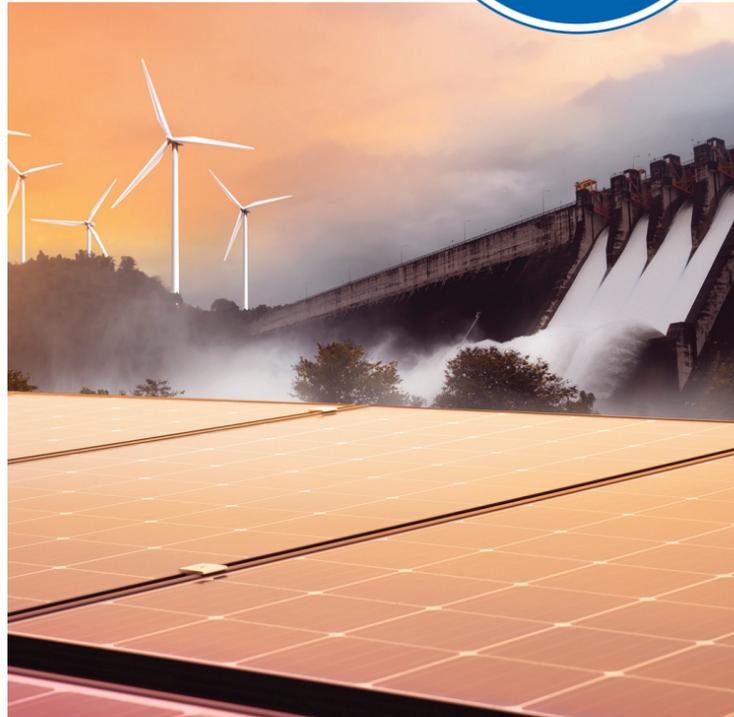
According to independent research provider Rhodium, the Inflation Reduction Act will have the effect of reducing greenhouse gas emissions anywhere from 31% to 44% from 2005 levels by the year 2030. Moody's also estimates that the

bill would increase real gross domestic product (GDP) by taking on the energy transition in a proactive way.

It is projected these results will be achieved through the implementation of tax credits and rebates that will allow consumers to electrify their homes. Direct rebates through the High Efficiency Electric Home Rebate Act (HEERA) will provide income-based refunds on items such as electric stoves, heat pumps, and water heaters. These rebates are significant and, in many cases, will cover the cost of these items for low to medium income families.

The Energy Efficient Home Improvement Credit will allow homeowners a tax deduction for adding things such as new breaker boxes and improved insulation to their homes.

One well-publicized aspect of the Act is for electric vehicles tax credits. Consumers will receive a \$7500 tax credit for the purchase of a new electric vehicle, and



\$4000 for the purchase of a used electric vehicle.

Aspects of the law will address energy savings in areas like new construction, commercial retrofits, and investments in green

affordable housing.

In green energy manufacturing, the Act provides \$30 billion for the domestic manufacturing of solar panels, batteries, and wind turbines. With the

Continued on page 4

MMUA refocuses approach to government relations

by Bill Black

With support from the Board of Directors, MMUA's leadership has sharpened the association's Government Relations (GR) focus under its Director and Senior Counsel Kent Sulem.

Emphasizing initiatives where MMUA can have impact that affects members directly, the current team of in-house and contract lobbying professionals will continue working together as in years past but with greater attention to what connects municipal utilities and public policy.

While association members will notice little outward difference in team member roles, they will benefit from a new process to incorporate MMUA members' influence over the GR agenda through the association's Board of Directors. In fact, the 2022 state legislative agenda was set through a preliminary version of the new process. Each Board member prioritized a variety of

timely policy topics developed by the GR team with informal input from MMUA's volunteer Government Relations Advisory Group (GRAG), a body formerly known as the Government Relations Committee. Prior to future legislative sessions, that process for gathering and prioritizing input will be further streamlined for even greater connectedness with the needs and concerns of MMUA's members...

As part of the maximum effectiveness strategy, the growing complexity and pervasiveness of state legislative policy and regulatory impact will receive an attention boost from MMUA's in-house GR team in the years to come. At the same time, broad federal policy monitoring will plug in more intentionally to the resources of APPA while the team targets the Minnesota Congressional delegation with even greater precision. MMUA's continued relationship with Michael Nolan in Washington is

Continued on page 4

Record-setting MISO grid expansion in the works



On June 25, the Midcontinent Independent System Operator (MISO), which manages the electrical grid for fifteen states and Manitoba, took the large step of approving eighteen new high-voltage transmission lines across the Midwest.

The group of eighteen new power lines, known as Tranche 1,

will stretch across nine states, including the Dakotas, Minnesota, Wisconsin, Iowa, Missouri, Illinois, Indiana, and Michigan.

The reason for this expansion from the MISO perspective is four-tiered. First, MISO sees the transmission expansion as providing a more reliable system that can maintain strong electricity delivery and performance as the grid moves to more renewable power. Second, the expansion will be more cost effective because an expanded grid will enable more access to lower-cost energy sources. Third, this new resource fleet will be able to serve load across the expanded grid footprint. Finally, customers will be better able to choose which fuels they want to use for their personal energy purchases.

The implementation of this grid expansion plan will provide increased synergies and cost-savings across the board. On a broad basis, the expansion is expected to provide a benefit to

Continued on page 14

Full coverage
of MMUA's
summer conference
inside on pages
10-12.

Periodicals
Postage
PAID
at
Twin Cities, MN

Inside Stories

2 Safety Team Meeting and Retirements



8 MIT research drives efficiencies for wind turbines



16 Biden Administration promotes community solar through new initiatives



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 & Sr. 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

Admin. & Safety Services Assistant

Theresa Neddermeyer,

tneddermeyer@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./JTS Instructors

Keith Byklum, kbyklum@mmua.org

Travis Denison, tdenison@mmua.org

Dan Nath, dnath@mmua.org

Jay Reading, jreading@mmua.org

Generation Coordinator/JT&S Instructor

Paul Helling, phelling@mmua.org

Natural Gas Circuit Rider

Dennis Danielson, ddanielson@mmua.org

Training Center Coordinator/JT&S Instructor

Cody Raveling, craveling@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

Anthony Lenz, alenz@mmua.org

Brad Levasseur, blevasseur@mmua.org

Dave Lundberg, dlundberg@mmua.org

Bernie Richards, brichards@mmua.org

Joseph Schmidt, jschmidt@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 rates: \$12 per subscription (included in dues), associate members, \$12 (included in dues). 3131 Fernbrook Lane North, Suite 200, Plymouth, MN 55447-5337. Phone 763-551-1230, (Minnesota only) 1-800-422-0119. FAX 763-551-0459.

Happy trails to MMUA veterans

The MMUA Safety Team met in early August to share information and get updated about changes. During their meeting, the group bid farewell to two longtime Safety Team members, Bruce Westergaard and Mark Hottel. The group reminisced and shared some laughs as MMUA wished them both a very happy retirement!



Photos brought back memories of Bruce and Mark's long careers as leaders in their safety groups.



Bruce Westergaard and Mark Hottel show off their retirement cake.



Bruce Westergaard and his wife Lori. Mike Willetts is behind them all the way.

More than Fair



It's September, and the Great Minnesota Get-Together has wrapped up for another year.

I mean the MMUA Summer Conference of course, not the State Fair. In the world of municipal utilities, our gathering each August gives us something to look forward to and plenty to talk about afterward, even without dizzying carnival rides and pronto pups.

Elsewhere in this month's issue of The Resource there's a full recap of this year's event and plenty of photos. I thought I would give you a read-out on the feedback we've received through the post-event surveys and tell you what we think that means for next year.

Generally, attendees were very happy with the event.

Of those completing the survey, 61% rated the event nine or ten on a 1-10 scale. Only one person rated it below a 7. Comments like this one were common:

"I have been to several of the MMUA summer conferences. I felt that the content at this conference was better than previous conferences. The topics were good and the flow was good. Great conference."

"Best content and format that I've seen in many years."

You attend to connect and learn.

Networking tops the list of reasons people attend the Summer Conference, cited as important or very important by 87.6% of attendees. It was closely followed by a desire to hear speakers and educational content, with more than 70% viewing that as important or very important. Attendees said,

"Great place to connect utility leaders and talk about/network on utility needs."

"Speakers were excellent. Kudos to the team that selected them. They were interesting without speaking above people's heads. They were friendly, relatable, and knowledgeable."

Content is king.

Ratings on the various educational sessions ranged from a high of 3.97/5.00 for the EV session track to a low of 3.10/5.00 for one of the speakers. More than 64% of attendees said the EV track exceeded their expectations, and all raters, on average, said the overall content either met expectations (3.0 rating) or went beyond them. Comments included:

"Very informative with the breakout sessions. You could pick the issues that your community is dealing with."

"I enjoyed the two keynote speakers and the discussions on EV charging. I always enjoy the legislative update."

Roundtables are a keeper.

This year at the Conference, MMUA offered four roundtable sessions with more than a dozen topics from which to choose. A whopping 93% of respondents said these sessions met or exceeded their expectations, and several offered ideas for how to make them even better next year.

"Really enjoyed the conference and the way the roundtables were done. Thank you!"

"Great concept for the roundtable discussions. To facilitate better acoustics and fewer distractions, I would have preferred to have less groups in the main room, with some groups dispersed to other rooms/areas."

You have ideas for future content.

We always love to hear member input on topics that would be valuable at our next event. A few that were mentioned included:

"Changes in the power generation supply need to be addressed."

"Continue to ensure relevant topics are brought to the conference along with expanding topics for the other utilities [such as] water, natural gas, etc..."

"Keep focusing on emerging tech. Many of our members rely on MMUA for this."

"Need much more time for Washington legislative update."

"Add a track for elected and appointed officials that are

From My Desk to Yours

Karleen Kos
MMUA CEO



involved in utility governance. Let's help new commissioners network and learn from others about the proper role of commissioners and how they can support management while providing the necessary oversight."

There are always a few kinks to work out.

Nobody is perfect, and with the size of our group versus the size of facilities available in the Brainerd area, most of the challenges people faced had to do with logistics.

"Trade show could be in a larger area, with more than a few hours to visit."

"Just a bit too spread out for me. Like a centralized contained event with everything together. Hotel, conference and food in one space."

"Unfortunately the room block at Maddens' filled so quickly, I had to stay at CRAGUN's. That was an inconvenience."

"...[I stayed offsite and] did not know or it was not clear to our admin to get meal tickets so I did not get to eat at the site. Make it part of the conference ..."

You are mostly encouraged by

what you hear regarding MMUA's direction.

We didn't specifically ask attendees how they felt about MMUA, but we did ask, "What were your greatest learnings or take-aways from the event?" Many of the answers focused on perceptions of MMUA.

"MMUA [is] finally focusing on rapid changes to the electric utility industry. In previous years it felt like MMUA wasn't interested in leading the effort to help its members adapt to changes. Very pleased to see more EV and DER topics, and a greater emphasis on the various roles we can play with those technologies."

"I was very impressed with the material on the last day, talking about MMUA's Strategic Plan and some "tough love" on the budget. These are really good changes that have been needed for a long time. In past years this part of the conference was usually a snooze, but this year I actually came out of the conference excited about what is to come for MMUA."

"The combination of the roundtable sessions, the multiple learning tracks, and MMUA embracing a strategic plan and fiscal responsibility were all big wins for me."

"MMUA is moving to a higher level."

Next year's location is TBD.

As you can see, attendees have a host of ideas on how to grow the conference and make it even more relevant. One of the facts of life as attendance at the Summer Conference expands to include more member personnel and more representation from elected officials is that we have outgrown the resort spaces. Feedback we have received so far indicates that people do enjoy the resorts, but they would likely attend the event wherever it is held, provided it meets their needs.

The MMUA Board, staff, and I are currently looking at proposals for the site of next year's conference. Wherever it is held, you can be sure we will be building on this year's success and taking your input into account as we create the program. In the utility space, it is—indeed—the Great Minnesota Get-Together!

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 WWW.EMSenergy.com
USING OUR ENERGY TO SAVE YOURS

McGRANN

SHEA

CARNIVAL

STRAUGHN

& LAMB

CHARTERED

www.mcgrannshea.com

Providing Legal Counsel to Minnesota Municipalities in:

<ul style="list-style-type: none"> ■ Energy and Utility Matters ■ Electric Service Territory ■ Administrative Proceedings ■ Legislative Representation ■ Municipal Law 	<ul style="list-style-type: none"> ■ 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

APPA comments on Inflation Reduction Act

AMERICAN PUBLIC POWER ASSOCIATION

On August 8, American Public Power Association (APPA) President and CEO Joy Ditto issued the following statement on Senate passage of the Inflation Reduction Act:

“The Inflation Reduction Act supports investment in clean energy technologies—and makes these investments available to all Americans, including the more than 49 million Americans served by more than 2,000 public power utilities operating nationwide.

APPA appreciates the efforts to find the compromises needed

to get this bill passed in the Senate and looks forward to a vote in the House on Friday to get it to the President’s desk. Making federal energy tax incentives available to all utilities, including public power and rural electric cooperative utilities that serve nearly 30 percent of all U.S. retail customers, will ensure that American energy stays affordable, reliable, clean, and secure.

APPA also appreciates congressional leadership’s commitment to work toward legislation to speed up much-needed siting and permitting of energy infrastructure.”

Tesla models become best-selling vehicles of any type in California

According to a report released by the California New Car Dealer Association (CNCDA) the Tesla Model Y and Model 3 are the top two selling vehicles of any type for the first half of 2022 in California.

The Tesla Model Y had 43,320 registrations so far this year, with the Tesla Model 3 having 38,993 registrations. This is more than any other vehicle, including trucks or sport utility vehicles. The report also said that electric vehicle (EV) sales now make up 15% of the California auto market. This is up from 2% as recently as 2016.



Inflation Reduction Act

Continued from page 1

importance of rare earth metals in green technology, the Act provides funds for the building of new production facilities that will process these minerals and metals.

The Act makes significant improvements for utilities in the realm of clean energy. According to Energywire, the Act will make it easier for utilities to own their own renewable projects, such as wind farms or solar installations.

This will be accomplished by adding another tax credit option for solar projects. The production tax credit will pay out over ten years, a much shorter period than previously, and will make solar installations more attractive as a result.

Utilities will also be able to transfer tax credits to a third party, helping them avoid tax equity markets.

Energywire notes that the Act will positively affect nonprofit utilities. Many nonprofit and municipal energy producers could not directly claim tax credits for renewable projects in the past. The Act changes that. MMUA has long supported these

“comparable incentives” and has worked closely with Senator Tina Smith’s office over the years to ensure these provisions made it into legislation.

The Inflation Reduction Act looks towards new emerging technologies as well, with tax credits in areas such as carbon capture, clean hydrogen, and modern nuclear energy.

As a result of these inclusions, many small and large utilities alike lined up in support of the bill in the days and weeks before final passage. The general consensus was that even though there may be some negative aspects of the Act from a business perspective, the positives outweighed them in the final version of the bill.

It will take time for consumers and utilities to unpack all of the details in this law, but the impact will be significant. Implementation of the Act’s provisions is expected to get the United States closer to its climate goals and to reset the energy landscape for individuals, families, homeowners, developers, and utilities alike.

MMUA refocuses approach

Continued from page 1

flexible, allowing the Association’s reach to increase their whenever conditions on the Hill require it. Michael will continue to provide his skilled policy analysis and periodic Washington reports at meetings of the GRAG.

In addition to concentrating MMUA’s current firepower, the refocused strategy will add to the GR arsenal by welcoming a new in-house Government Relations Liaison. Intended to be an added direct link for members to the GR team for individual assistance and special projects, the best candidate for this new position will be sought through advertising this fall and will join the team by year’s end. The presence of this new GR colleague will allow MMUA to repurpose some of the resources previously devoted to engineering and policy analysis during Bob Jagusch’s tenure toward activities that provide shorter-term action on emerging issues, supplementing and extending the work of the current GR team.

The end result will provide MMUA members with a right-sized strategic approach to government relations at the federal, state, and local levels, and multiple points of engagement in the processes that determine how MMUA will represent municipal utilities in matters affecting them.

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)

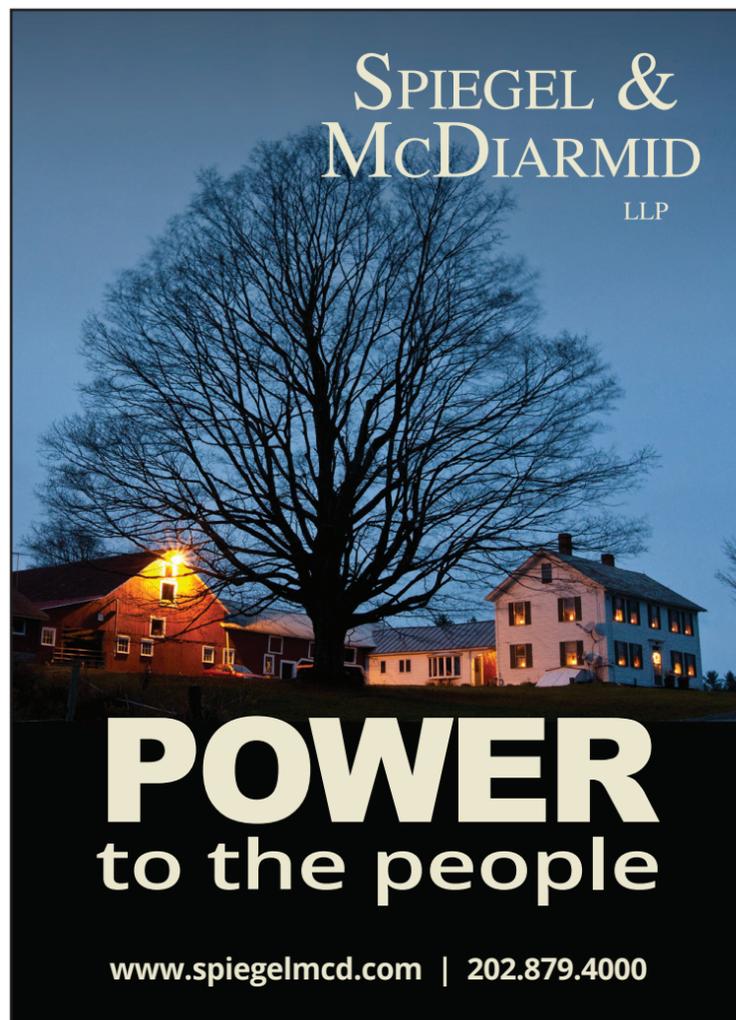
NOW AVAILABLE
for 2-1/4" and 2-1/2" Reel Bars

For more information call: 320.274.7223

FS3^I_N_C

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>

MMUA staff learns about personal and professional strengths

“Don’t just put this in your drawer, try to keep it present in your personal and professional life.”

These were wise words from presenter Dana Haagenson as the MMUA team explored a new way of looking at individual abilities.

In early August the MMUA staff participated in part I of “Your Impact on the Workplace,” a training series that will focus on a range of topics intended to promote high performance

and greater sensitivity to others. Session I uses the Gallup Organization’s CliftonStrengths methodology to help participants view themselves and others more clearly.

Developed by Don Clifton, a psychologist and war hero, the idea for the tool came to Mr. Clifton when he realized that psychologists of the time were only looking at what was wrong with people. Mr. Clifton decided that he would look at what was right with people and developed

a program to tease that out.

Prior to the event, MMUA staff completed an online profile that took participants through a variety of scenarios related to personal and business life, asking how individuals interact with them. Based on these findings, the methodology is able to identify 34 strengths themes that match up to individual ways of interacting.

Through fun activities and breakout sessions, staff were able to learn about and reflect

on their unique strengths. The program highlighted the importance of building on strengths that already exist so that individuals can reach their full potential in areas that they are naturally good at.

The event was hosted and facilitated by Dana Haagenson, a Society for Human Resource Management-Certified Professional. Ms. Haagenson is also on the Accounting and Human Resource faculty at Minnesota State-Moorhead.

Offshore wind comes to the Great Lakes

On August 10, the Ohio Supreme Court ruled 6-1 that a state permit for the Icebreaker wind farm in Lake Erie was properly granted, allowing the project to proceed.

The wind farm will be the first freshwater offshore wind farm in the United States. The project will consist of six to eight wind turbines situated off the Lake Erie coast, about eight to ten miles from Cleveland. The installation will generate 20.7 megawatts (MW) of electricity.

Lake Erie Energy Development Corporation (LEEDCo) is developing the wind farm. One-third of the power is under contract to the City of Cleveland and Cuyahoga County. The rest will be marketed to other customers.

The project is estimated to have a \$253 million economic impact and create around 500 jobs.

MMUA welcomes Bernie Richards

MMUA is pleased to announce that Bernie Richards has joined the MMUA staff as the newest Regional Safety Coordinator.



Bernie comes to MMUA after 22 years as a safety administrator with the federal prison system, a role that led him across the country. He is glad to be planted once again in his native Minnesota, and he will be covering the Rochester-Owatonna-Austin region.

Bernie went to school to be a teacher, and the opportunity to teach safety standards and techniques is what drew him to MMUA. He holds credentials from OSHA, the National Fire Protection Association (NFPA), and is a PRO Board-certified

food inspector. Bernie also says that “he loves a good audit.” Utilities in southern Minnesota will benefit from Bernie’s attention to detail and commitment to education. Bernie lives in Rochester with his wife, Lynette, and they have two grown children who live in Chanhassen and Mankato.

Minnesota Public Utilities Commission rules on winter storm costs

In a hearing on August 11, the Minnesota Public Utilities Commission (PUC) deliberated on the portion of natural gas costs resulting from Winter Storm Uri that could be passed on to consumers.

The PUC determined, as previously reported, that the regulated utilities could have done more to prevent these massive price spikes through use of peaking plants and storage.

As a result, the PUC reduced the amount of costs that will be passed on to ratepayers by \$58.5 million. By utility, the allowed amounts are:

- Xcel Energy: \$19 million
- CenterPoint Energy: \$35.7 million
- Great Plains: \$845,000
- Minnesota Energy Resources Corporation: \$3 million

The PUC Chair, Katie Sieben, said in a statement, “...Utilities could have done better...they need to be more diligent as these extreme weather events are becoming more frequent.”

Man sentenced for St. Peter Electric Utility break-in

A man who broke into a St. Peter Electric Utility electrical box in November was sentenced on August 10 to almost two years in jail.

Travis Olson of Moose Lake pled guilty to one count of felony energy or telecom damage and one count of misdemeanor theft. He also will have to make more than \$18,000 in restitution for damage to the electrical box.

Olson attempted to take items from the electrical box in early November 2021 when he saw that it was going to be demolished. He touched a live wire inside the box and was severely burned, as well as blinded for a time.

St. Peter Electric Utility Staff noticed the attempted theft on November 2. Olson’s medical records showed that he had sought treatment at Mayo Clinic for electrical burns on November 2.

Records show 440 St. Peter Electric customers lost power for three hours because of the attempted theft.



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.....

Funding round for expansion of rural broadband opens

On August 4, U.S. Department of Agriculture (USDA) Rural Development Undersecretary Xochitl Torres Small announced that starting on September 6, round 4 applications will be accepted for the ReConnect program.

The USDA program, which received funding from the Infrastructure Investment and Jobs Act (IIJA) will provide more than \$1 billion for the expansion of high-speed internet to rural areas across the country.

To be eligible, applicants must serve an area where high-speed internet is not available at speeds of at least 100 megabits per second (Mbps) for downloading and 20 Mbps for uploading. Applicants must also commit to the construction of facilities that are able to provide high-speed internet service of 100 Mbps (download and upload) in their proposed service area.

The package includes more than \$150 million in loans, \$300 million in loan/grant combinations, and up to \$700

million in grants. In Round 4, funding will target areas where access to high-speed internet is minimal. Any area where less than 50% of households have access to high-speed internet are eligible, but a new funding category will focus on projects where 90% of households lack access to high-speed internet. For this category, no matching funds will be required. Matching funds requirements will also be eliminated for Alaska Native Corporations, Tribal Governments, and counties dealing with persistent poverty.

To make sure that people in rural areas are able to afford broadband after it is put in place, the IIJA provides a discount of up to \$30 per month towards internet service for qualifying households and up to \$75 per month for households on Tribal Lands.

To learn more about this program, visit www.rd.usda.gov or contact the nearest USDA Rural Development state office.



One of the important services provided by MMUA Regional Safety Coordinators is testing high-voltage electrical tools, like the "hot sticks" seen here.

U.S. generating capacity continues to grow in '22

A new filing by the United States Energy Information Administration (EIA) revealed that the grid continues to add capacity in the United States as the energy mix gradually transitions towards green energy.

The data in the report captured all utility-scale power plants with a nameplate capacity of at least one megawatt (MW).

Of the new generation that came online in the first half of 2022, 34% was wind, with more than 40% of that infrastructure being in Texas. The other generation types that came online, in order of amount, were natural gas, solar, and battery storage. Together, they made up 15.1 gigawatts (GW) of capacity.

In the second half of the 2022, 29.4 GW of capacity are expected to come online, with solar leading the way at 13.6 GW, and wind at 6 GW.

Retirement of 15.1 GWs will occur in 2022. Retirements of coal-fired power plants lead the way by far at 76%. Natural gas plants make up 12% of retirements, and nuclear make up 9%.



NORTHLAND
PUBLIC FINANCE

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. Fith 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



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



DGR
ENGINEERING

Rock Rapids, IA
712-472-2531

Sioux Falls, SD
605-339-4157

Sioux City, IA
712-266-1554

dgr.com 



PSE Power System Engineering

Forward-Thinking Professionals Helping Clients Achieve Their Goals

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

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

Carbon storage could be energy game-changer

A paper published by the Electric Power Research Institute (EPRI) in the journal Nature Communications on August 12 illustrates that carbon capture subsidies, an aspect of the Inflation Reduction Act (IRA), could be game-changing for American carbon-based generation.

As carbon-based generation decreases markedly over the next few decades, the paper estimated that if some natural gas plants stayed in operation with appropriate carbon capture, the power sector could save \$300 billion by 2035.

The IRA has increased federal tax credits for carbon capture markedly, so what is needed to make that number a reality is more research into efficient,



implemented carbon capture and storage. Progress has been incremental, but with new subsidies and energy breakthroughs coming quickly, this savings number is viewed as attainable.

Prairie Island Indian Community plans for transition to “net zero”

The Prairie Island Indian Community has big goals when it comes to decarbonization

The Community is a federally recognized tribe that lives on a reservation near Red Wing as well as on off-reservation lands.

With just over 1,000 enrolled members, not all of whom live on reservation lands, the Tribe is not large in number. However, the group plans to transition their reservation and their adjacent Treasure Island casino to net zero within just a few years.

After years of planning, a 2020 bill passed by the Minnesota legislature and signed by Governor Tim Walz codified the “Prairie Island Net Zero Project,” which requires the Tribe to file an annual report describing the progress made and steps taken in moving toward the goal.

According to the July 2022 report, Prairie Island has already made strong progress towards achieving net zero.

By July 1, 2021, the Tribe had approved a comprehensive plan for the project which included energy conservation, renewable energy generation, and the deployment of innovative technologies.

Some key parts of the plan include the construction of a ten-to-fifteen-acre solar array,



the deployment of geothermal power, electrification of gas infrastructure, and increased electrical efficiency.

Prairie Island is now at the stage of seeking project bids and selecting vendors. Unfortunately, the global COVID-19 pandemic has caused supply chain and labor disruptions for their project as well as many others.

As a result, the Community has asked for and been granted a one-year extension for this phase of the project.

Even with global disruptions, Prairie Island plans to have their solar array commissioned by late 2023 or early 2024 and its geothermal infrastructure in place by 2026.

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.



888-843-3106 • pcs-csa.com

Intelligent Solutions for Tomorrow's Utilities

Wastewater tests continue to give communities early warning of disease

Most everyone has heard of the role wastewater has played in the coronavirus (COVID-19) pandemic, as multiple variants have emerged and levels of infection have been traced through wastewater.

Now, with the emergence of other diseases that spread worldwide in a matter of weeks, wastewater is again proving a valuable tool in understanding the presence of disease.

On August 12, the New York City Department of Health and Mental Hygiene announced that

their tests had found poliovirus in New York City's wastewater. This came months after the virus was detected in wastewater north of the city.

The information gives scientists a heads-up that even though there is not a wide polio outbreak, it is likely spreading in New York City undetected.

This information has given communities the ability to get ahead of disease and offer vaccinations to forestall its spread.

Monkeypox was also found in wastewater in New York City and other places before it had begun to spread visibly in the

community. Just like with COVID 19, declines in Monkeypox's concentration in wastewater can be a sign that the real-world spread of the infection is declining.

Some pathogens—including many bacteria—cannot be tracked through wastewater. Despite this limitation, there is a lot of interest in using wastewater testing on a more permanent, widespread basis than in the past. When disease moves fast, wastewater gives scientists and public health officials the time and knowledge to help the community respond.

New research from MIT drives increased efficiency in wind output



In a new study published in the journal *Nature Energy*, a team from the Massachusetts Institute of Technology (MIT) proved that when wind turbines work together, the energy output from a wind farm can be increased, sometimes dramatically.

This can be done with little increased cost or re-siting of wind turbines.

The team used "flow-physics" to better understand how

wind flows within a wind farm and how it interacts between turbines. By analyzing flow and understanding how it can hurt or help individual turbines as they produce wind, the team was able to develop a new flow model.

The model is predictive, using various inputs to determine the ideal positioning of a turbine in space. Instead of individual turbines seeking their own ideal positioning, the model helps turbines work as a team to drop their own individual output, while increasing the output of others.

The raw data shows that the use of this algorithm could increase wind output worldwide by 1.2 percent at all wind speeds, and 3% at speeds between

thirteen and eighteen miles per hour. This simple change could lead to millions of dollars in additional annual income for energy producers.

According to MIT, all that is needed is a centralized control system that would optimize all of the wind flow interactions within a wind farm. No hardware changes or moving of turbines would be required; only software programmed with the MIT algorithm is necessary.

Energy producers and consumers have been looking for new efficiencies for decades, and progress like this in the renewable space promises quicker progress towards the energy goals that countries and governments around the world are eager to hit.

Xcel plans to purchase two wind projects from Allete

In a filing on August 15 with the Federal Energy Regulatory Commission (FERC) Xcel Energy announced its plans to buy two wind projects from Allete for \$216 million.

The proposed purchases are the 100 megawatt (MW) Northern Wind installation and the 20 MW Rock Aetna wind installations, which are located in southwest Minnesota.

Xcel stated in the release that ongoing issues with the Midcontinent Independent System Operator's (MISO)

interconnection queue and the solar supply chain were factors in its decision to acquire these wind farms.

The transaction was originally approved for \$210 million in July of 2021, but inflation led Xcel to agree to pay several million dollars more for the wind projects.

Xcel and Allete requested that FERC approve the transactions by October 31.



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/Origination
Kristi.Johnson@nee.com
561-304-5114

NextEraEnergyResources.com



Consumer confidence rises in August, buoyed by lower gas prices

On August 30, the Conference Board announced that consumer confidence had risen to 103.2 for the month of August, after decreasing in May, June, and July. Citizens' views of business conditions also became more positive; however, consumer confidence in the number of available jobs dropped slightly.

Much of this increased confidence was perceived as coming from lower gas prices, with gas being a major driver of inflation.

The Conference Board is a not-for-profit, non-partisan think tank founded in 1916. Its American headquarters is based in New York City.



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

British Petroleum's 2022 Statistical Review of World Energy highlights global energy usage trends

In its recently released **Statistical Review of World Energy**, **British Petroleum (BP)** captured the changes affecting world energy markets, usage, and production.

Not surprisingly, global energy use rebounded from the declines of 2020 that were precipitated by the coronavirus (COVID-19) pandemic and the resulting economic shutdowns and slow-downs. Energy demand increased by 5.8%, exceeding 2019 levels by 1.3%. Fossil fuel use dropped 1% from 2019. Along with this came carbon dioxide levels that rebounded close to 2019 levels.

Oil prices were higher in 2021 as well, averaging \$70.91/barrel. Oil consumption increases were mostly derived from gasoline use worldwide. Oil consumption rose by 5.3 million barrels per day (b/d) but remained 3.7 million b/d below 2019 levels.

These price movements helped play into 2022's spike in gasoline prices, along with a decrease in refining capacity. Refining capacity dropped for the first time in thirty years, and refining capacity in thirty-eight western countries dropped to its lowest level since 1998.



Natural gas demand grew by 5.3% in 2021, going above 2019 consumption levels. Unsurprisingly, natural gas prices increased in 2021, rising to record annual levels in Europe. United States prices reached their highest point since 2014.

With coal, prices also increased sharply, bringing costs to their highest levels in several years. Europe and North America both increased their consumption of coal in 2021 after about ten years of declines. China and India were responsible for 70% of the growth in coal demand.

China was also responsible for 36% of global wind capacity

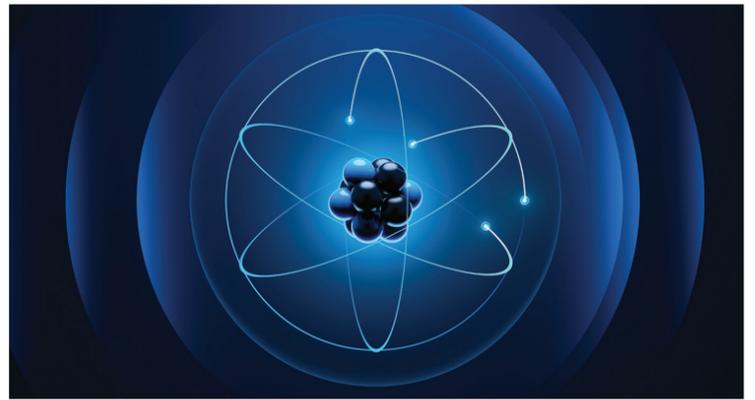
growth and 40% of solar capacity growth in 2021. This can be attributed to their rapidly developing economy and a generation mix that is broad-based. The country also led the world in new nuclear generation.

Electricity generation also increased in 2021, going up by 6.2%. The global electricity generation fuel breakdown consisted of coal at 36%, natural gas at 22.9%, and wind and solar at 10.2%. Nuclear, hydro, geothermal, and others made up the remainder.

The increases in generation and gasoline usage precipitated a rise in carbon dioxide (CO₂) levels. Emissions in 2021 returned to levels last seen in 2019.

Overall, the developing world's partial reliance on new carbon-based generation is a cause for concern in light of climate concerns. What is promising is the western world's commitment to lowering carbon usage, as well as China and India's implementation of solar and wind as part of their generation mix. If prices continue to drop in this sector, the affordability of renewables will lead these countries to increase their profile in solar and wind.

NuScale nuclear reactor approved by the Nuclear Regulatory Commission



On July 29, the Nuclear Regulatory Commission (NRC) directed its staff to issue a final rule certifying the NuScale small modular reactor (SMR) for use in the United States.

This certification makes the SMR the seventh reactor design to ever be certified by the NRC. NuScale first submitted its application to the NRC in 2016.

Not only is the SMR smaller than many traditional nuclear reactor designs, it has many novel features. The design uses passive processes like gravity and convection to prevent nuclear accidents, allowing for self-contained, automatic shutdown. The design features

are modular, with a module producing 50 megawatts (MW) of power. The modules are submerged in a pool that will be constructed below ground level.

Each unit is approximately 65 feet high and 9 feet in diameter. Because of the modular nature of the SMR, they are easier to mass produce and install than traditional nuclear reactors.

The first real-world implementation of the SMR is expected to take place in 2029, when the power plant will go online at the Idaho National Laboratory as part of its "Carbon Free Power Project" in Idaho Falls. The installation there will generate over 400 MW of electricity.

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



BUY - SELL - RENT

Complete Outdoor
Substations,
Circuit Breakers,
Regulators,
and Switchgear

The Summer Conference in pictures



Dave Krause from EPS gave an excellent pre-conference presentation Monday on asset-based systems vs. resource-based systems.



CEO Karleen Kos managed the putting contest on a beautiful day at "The Classic" at Madden's.



Al Nadeau, member of the Elk River Municipal Utilities Commission, enjoys the welcome reception with his wife.



Attendees enjoyed a wonderful meal, great conversation, and a beautiful setting at the welcome reception on the first night of the Summer Conference.



Outgoing MMUA Board President Jennifer Palmer spoke to the attendees.



Attendees ready themselves for a busy morning of presenters and speakers.



From left to right, Don Martodam, incoming President of the MMUA Board of Directors, Karleen Kos, MMUA CEO, and Kent Sulem, Director of Government Relations and Senior Counsel, talk prior to the awards ceremony.



Keynoter Jim Harris from Toronto, Canada spoke about industry disruptions and how hometown utilities can lead through changing times.



MMUA award winners included from left Mark Nibaur, President's Award; Steve Downer, Distinguished Service Award; Rep. Julie Sandstede, Public Service Award; Jeff Holsen, Community Service Award; Theresa Slominski, Community Service Award; Jenny Palmer (Outgoing Board President); Don Martodam (Incoming Board President); Jason Lee, Rising Star Award; and Chris Schoenherr, Distinguished Service Award.



The roundtable discussions were an interesting and engaging part of MMUA's conference.



Doug Carnival and Michael Nolan (on dais) spoke about the federal and state-level efforts of MMUA on behalf of their members, as well as Congress' legislative activities.



MMUA's Rising Star award went to Jason Lee, Electric Superintendent at St. Peter Municipal Electric Utility.

The 2022 Summer Conference



MMUA met August 22-24 at Madden's Resort on Gull Lake for the Association's Annual Conference.

The theme of this year's event was "Reimagining Municipal Utilities," and every facet of the program was aligned around this idea. The weather was beautiful as staff and the first attendees began to arrive on Sunday.

Monday began with a Board of Directors meeting where the Board conducted routine business and reviewed the performance of both the Board itself and the new CEO.

As the Board meeting was concluding, attendees from member utilities, associate members, and vendors were already checking in. The registration table was busy as attendees headed out to their first activities. Options included golfing on Madden's famous "Classic" golf course, going on a bike ride, or attending a

pre-conference presentation.

As the day wound down, attendees headed for the welcome reception and dinner at The Pavilion, a newly constructed venue at Madden's. Dave Berg gave the awards for the golf tournament and everyone enjoyed a beautiful night.

Tuesday started with a lakeside breakfast, then moved to the Town Hall conference center, where MMUA CEO Karleen Kos and MMUA Board President Jennifer Palmer gave opening remarks. Jim Harris delivered the first keynote speech of the conference, where he discussed the changes buffeting the utility industry, including the rise of electric cars, the opportunities of renewables, and other transformational forces at work in global economics. Jim's presentation was interesting and eye-opening.

After Casey Schmidt and Tony Serati provided an update on supply chains, attendees participated in a roundtable activity. Roundtable topics

included issues including reducing CIP costs, gas vs. diesel for generation, mutual aid, and electric vehicle charging. Many conference-goers felt the roundtables were a valuable experience, and they valued choosing from more than a dozen topics, then discussing them in a small group of knowledgeable peers.

In the afternoon, conference-goers split into breakout sessions tracks: a new addition this year. The subject areas included utilities management, water, and electric vehicles. This allowed people to dig more deeply into topics that were relevant to their utility and role.

After the tracked breakout sessions, many participants attended the trade show and reception in the lower level of Town Hall. Many vendors were on hand to talk about their products and let attendees know about their new offerings.

As evening came, people moved upstairs for MMUA's banquet. The food was wonderful and attendees enjoyed networking over their meals. Jim Harris returned to give the evening keynote, entitled "The Habits of Highly Effective Utility Leaders," which the group rated highly.

Recognizing outstanding contributors to municipal utilities is an essential part of each year's Summer Conference. This year, nine awards were given in areas ranging

from excellence in serving one's community to supporting hometown utilities in the legislature.

Wednesday morning began with MMUA's annual business meeting. In addition to the seating of new officers and formalizing the election of directors that have been appointed to fill open seats, two items of note occurred during the meeting. MMUA CEO Karleen Kos described MMUA's long-range strategic plan and how these efforts, entered into by MMUA staff and partners, will help transform the organization. She also described the operating priorities for the current year. Board treasurer Julie Kennedy then provided a presentation on MMUA's finances and described the measures that are being taken by the Board and staff to strengthen the organization's financial stability.

The annual meeting was followed with a legislative update by Kent Sulem of MMUA, Doug Carnival of McGrann, Shea, Carnival, Straughn & Lamb, and Michael Nolan, MMUA's Washington Representative. The group discussed the partisan bickering that produced few concrete accomplishments during the 2022 Minnesota legislative session. Meanwhile the passage of the Infrastructure Investment and Jobs Act (IIJA) and the Inflation Reduction Act

(IRA) at the federal level will be game-changers for hometown utilities.

Eric Thoms from MISO followed up with a talk about the challenges facing the grid operator as well as electricity producers and customers. Immediately following that, Jim Reid—another Canadian—delivered the closing keynote on the topic of "Driving Successful Change." Jim brought the ideas of the conference full circle, by positioning change and leadership as the way that we grow and excel.

With a lot of information presented, one overarching theme emerged. Change can come quickly and it can be overwhelming at times. However, change is part of life, and if we address change proactively, we can end up in a better place than we were when we started. Hometown utilities are used to change- and are well positioned for the future as a result.

As conference attendees checked out and headed home, they were thinking about the old friends they had seen and the new friends they had made, the beautiful weather and setting, and the concepts they had learned.

MMUA wants to thank everyone who attended, planned, hosted, presented, and offered input and feedback. The next one is only 11 months away!

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

Microgrid testing comes to Minnesota



Have you heard of microgrids?

In a sense, every hometown utility with power generation capabilities is one. A microgrid is a small-scale power system that can generate electricity, either operating independently from the grid or as a part of it.

Microgrids are seen as promising because of their flexibility in an energy world in flux. Extreme weather, changing generation mixes, and occasional brownouts are all causing more instability for consumers. That is why hometown utilities with generation capabilities are commonly seen

as important not only to their town, but to the grid at large.

Cummins, the power generation manufacturer, is seeing real potential for more microgrids across the American landscape. As a result, on August 17 they opened a new \$5 million “microgrid test lab” at their longtime facility in Fridley.

The 20,000 square foot facility will allow engineers to serve customers who are thinking of installing a microgrid. This could be entities like a large corporation or factory that have the need for extremely reliable power. After customers discuss their needs and preferred

generation types with Cummins, Cummins engineers will return to the lab to create a test microgrid.

Test microgrids can include energy types such as diesel, solar, hydrogen, battery storage, natural gas, and hydrogen. In an outdoor test area, different amounts and types of generation are connected and can be switched on and off. This allows engineers to simulate real-life load demand and thereby save time and money for the final build-out.

With respect to customer demand, what Cummins and other experts in the microgrid field have seen is not that different from what most power providers and consumers want. Customers desire microgrids that are flexible, green, and reliable. As a result, many projects engineered by Cummins have had renewable and fossil-fuel based components. Solar and wind can provide power to the microgrid, and energy can be stored in batteries. When renewables aren't producing the baseload required by the system, diesel or natural gas generators kick in to provide the required power.

Cummins' new lab will allow the construction of microgrids to be more efficient and more reliable when they are installed. Being able to assess and retest many components, including power inverters, under real-world scenarios should make microgrid technology even more present in our communities.

Department of Energy releases information on electric vehicle rebates under the Inflation Reduction Act

The Inflation Reduction Act (IRA) which was signed into law in August made several changes to the tax credits that are currently available for purchasers of electric vehicles (EVs).

The \$7500 tax credits that are currently in place on new EVs will be going away and will be replaced with \$7500 rebates at the time of sale. Rebates will go into effect at the point of sale on January 1, 2024. Until then, buyers will continue to need to file for a tax credit while doing their taxes.

These rebates will only apply to cars that sell for less than \$55,000 and trucks and sport utility vehicles priced under \$80,000. They will also end for individuals making more than \$150,000, as well as joint filers making more than \$300,000.

Only vehicles manufactured

in the United States will qualify. Additionally, before the law, certain EVs were not eligible for tax credits once they passed the 200,000-vehicle sales cap. This will change in 2023, when the cap is eliminated. Popular vehicles like the Chevrolet Bolt and Tesla Model 3 and Y will now qualify at all sales levels.

This move should allow EVs popular in the marketplace to increase their sales as well. A variety of less-popular models that are currently eligible for tax credits will continue to be eligible in 2023.

Buyers who purchase a used EV are for the first time able to receive a \$4,000 rebate at the time of purchase. This is part of the Act that focuses on moving EVs towards the mass marketplace so that they can be more widely adopted as time goes on.

As the years progress, more EVs will be required to have

a significant percentage of their battery components and minerals derived from North American sources. To tap into the American market and its rebates, manufacturers will seek to meet these targets.

The IRA introduces many opportunities to the EV market for manufacturers and consumers. An economic analysis in 2018 found that with every \$1,000 offered as a tax credit, average sales of EVs increased by 2.6%. Given this, the net effect of the IRA should be increased sales of popular EV models, increased sales of less-popular EV models due to easier purchasing, and an increase in used EV sales due to the new rebate. What these percentages will be are yet to be seen, but it is clear that the IRA will have a profound effect on consumer choices as they relate to EVs.

New Georgia nuclear plant moves closer to operation

On August 3, the Nuclear Regulatory Commission (NRC) approved the loading of nuclear fuel and the beginning of operations at Vogtle Unit 3, a new nuclear reactor at the Alvin W. Vogtle Electric Generating Plant near Waynesboro, Georgia.

Unit 3 will join the already operating Units 1 and 2 when it comes online in early 2023. Unit 4 is also under construction is expected to come online in late 2023.

Unit 3 is the first nuclear reactor to be certified under the construction and operation license (COL) process, which allows for one-step licensing, as opposed to the old system that required separate construction permits and operating licenses.

When they become operational, Vogtle 3 and 4 will be only the second and third new nuclear reactors to come online in the United States since the year 2000.

New Ulm paper recognizes the benefits of local control

A recent article in the New Ulm Journal did an excellent job of describing why local control with local generation is so important to hometown electric utilities.

The article highlighted four points that are well-known by utility employees but may not be as well known by members of the community. In the article, New Ulm Public Utilities Commission (PUC) Director Kris Manderfeld was credited with sharing these benefits of local control:

1. If a city with a municipal power plant needs more power, it can be produced locally. The city would not have to go out and buy more power capacity.
2. If a power emergency occurred, the city could self-power until a connection to grid was restored.

3. A city can sell capacity to the power grid if the grid needs additional load. The grid gets help and the utility charges for the power provided.

4. Cities with steam heat services provide heating to local business in an efficient and cost-effective way.

As has been seen recently in places like Randall, Minnesota, local control ensures that communities can bounce back more quickly from storms, protect their citizens more rapidly, and get city services restored faster.

MMUA is working to ensure that communities are aware of the benefits of local control. Members are invited to contact Christian Glanville, MMUA's Marketing and Member Relations Manager, for assistance with local press coverage opportunities.

Minnesota Department of Transportation reminds the public about laws regarding signs

From MnDOT:

As summer draws to a close and election season begins, the Minnesota Department of Transportation (MnDOT) reminds the public and city and county workers that signs of any type are not allowed on the right-of-way of any state, city, county, or township road.

Violation of the law is a misdemeanor. In addition, signs cannot be placed on utility

poles or any natural features like trees or rocks.

MnDOT advises everyone to be aware of placing signs where they may damage or interfere with underground utilities. Always call 811 or visit gopher-stateonecall.org to have your utilities marked before digging for signs.

These simple tips will help protect motorists, pedestrians, and our local utilities.

MISO grid expansion

Continued from page 1

cost ratio of at least 2.2 across all Midwest cost allocation zones, which include the states of Minnesota, Iowa, Illinois, Indiana, Michigan, and parts of Wisconsin and Missouri.

The grid expansion's projected cost savings can be attributed to congestion and fuel savings (the money customers would otherwise have to pay for electricity without the project), avoided costs of local-resource investments (the savings from not having to build new, local power plants), and decarbonization (the savings coming from reducing carbon emissions).

MISO estimates that with a total capital cost of \$14.2 billion, customers will realize a total cost

savings of \$36.8 billion over the first twenty years the lines are in operation.

What will the expansion look like in Minnesota? Tranche 1 will include three new transmission lines in Minnesota, including the Wilmarth-North Rochester-Tremval line stretching across southern Minnesota into Wisconsin, the Iron Range-Benton County-Cassie's Crossing line extending from the Iron Range to Sherburne County, and the Big Stone South-Alexandria-Cassie's Crossing line which will extend from far-eastern South Dakota northeast to Alexandria and then southeast to Cassie's Crossing.

The cost of these lines is projected to be \$574 million for the Big Stone-Alexandria-Cassie's Crossing line, \$970 million for the Iron Range-Benton County-Cassie's Crossing line, and \$689 million for the Wilmarth-North

TOTAL COST SAVINGS

\$36.8 BILLION

Rochester-Tremval line. All told, the projected Minnesota MISO investment will be around \$2.2 billion.

On August 2, Rochester Public Utilities (RPU) staff and others hosted an event to celebrate the MISO grid expansion and its significance to the Rochester area. The newly proposed Wilmarth-North Rochester-Tremval line will extend across southern Minnesota and link into RPU infrastructure.

Now begins the hard work of getting the expansion approved. The Minnesota Public Utilities Commission (PUC) has the responsibility to determine the need for and routing of large transmission lines in the state. This process is expected to take several years.

Tranche 1 is the first step in MISO's plans. Another set of lines, called Tranche 2, will focus on the Midwest subregion, Tranche 3 will focus on MISO South, and Tranche 4 will work to address limitations of power exchange between the MISO Midwest and South subregions.

All of these efforts have been parts of MISO's Long Range Transmission Planning (LRTP) activities, which have been focused on imagining long-term futures that involve various levels of demand and differing amounts of decarbonization.

Missouri River president and CEO Tom Heller announces retirement

On August 15, Missouri River Energy Services (MRES) announced that president and CEO Tom Heller will be retiring, effective June 30, 2023.

Heller joined MRES in 1992 and has served as CEO since that time. Previously, he was general manager of Moorhead Public Service and was on the MRES and Western Minnesota Municipal Power Agency boards of directors.

MRES has hired search firm Mycoff Fry Partners to find Heller's replacement. The goal is to hire a new president and CEO prior to May 2023.

PFAS solution in lab could lead to breakthrough in nature

On August 18, research was printed in the journal *Science* that revealed scientists at Northwestern University in Evanston, Illinois had for the first time caused perfluoroalkyl and polyfluoroalkyl substances (PFAS) to break apart in a laboratory setting.

Two major classes of PFAS were dissolved in the experiment, leaving behind only harmless byproducts. The team boiled dimethyl sulfoxide (DMSO) and PFAS to bring about the dissolution of the compound. According to the research, PFAS' weak spot sat at the end of its long carbon-fluorine chains. At these spots, the carbon is usually bonded with oxygen. Using this weak spot, researchers were able to destroy the head group using DMSO and sodium hydroxide. The destruction of the head allowed the fluorine "tail" to undergo several reactions that resulted in fluoride, a safe end product.

The question now is how to apply this technique to PFAS which is found in nature. Scientists are optimistic that through further research, the method could be applied there. It could also presumably be applied to water systems where PFAS is an issue, because of the safe and inexpensive nature of the procedure.

Although two major classes of PFAS were dissolved in the experiment, there are still many others that need to be worked on. The team at Northwestern University and other researchers around the world are optimistic that the strategies employed in this breakthrough can be applied to other PFAS chains.

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

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 www.nisc.coop
national information solutions cooperative

Grid expansion-what are people saying?

There is a lot of excitement around the announcement of the MISO expansion of the power grid.

Here is what various leaders have had to say.

“This investment in our electric grid keeps Minnesota on the path to have reliable and affordable energy into the future. We are expanding critical energy infrastructure, creating jobs and building resilient communities. Building these transmission lines will allow Minnesota’s transition to clean energy to continue, so Minnesota is powered by homegrown energy rather than by imported fossil fuels.”

– Grace Arnold, Minnesota Department of Commerce Commissioner

“The MISO plan supports the transition of SMMPA and other upper-Midwest utilities to a more carbon-free resource mix. SMMPA is proud to have been part of the original CapX2020 transmission projects that serve

as the foundation for this new expansion, and we look forward to working again with our utility partners in the region on these new projects.”

– Dave Geschwind, CEO of the Southern Minnesota Municipal Power Agency (SMMPA)

“Today, wind and solar energy projects are providing family-supporting wages and benefits for LIUNA members in every corner of the state, from Hoyt Lakes to Fergus Falls to Grand Meadow to Luverne. The investments approved by MISO will provide the transmission resources needed to support continued economic development and clean energy job creation across Minnesota.”

– Kevin Pranis, who represents the Laborers’ International Union of North America (LIUNA) Minnesota & North Dakota, a union of more than 13,000 construction laborers who build and maintain Minnesota’s energy, transportation, water and building infrastructure.



This graphic shows, in red, the proposed lines in Tranche 1 of MISO’s plans.

“Rochester Public Utilities looks forward to collaborating with our regional utility partners on these important transmission projects that will facilitate the reliable and affordable transition to a less carbon intensive energy mix in the future.”

– Mark Kotschevar, Rochester Public Utilities General Manager

“Xcel Energy and our partners are committed to unlocking new renewable energy while also continuing to deliver reliable

and affordable electricity. The Wilmarth-North Rochester project, and other recently approved plans, move us closer to achieving our vision to deliver 100% carbon-free electricity by 2050 as we lead the nation’s clean energy transition.”

– Michael Lamb, Senior Vice President –Transmission for Xcel Energy.

“Today is a significant step toward building the modern, resilient, and reliable electric

transmission system necessary to decarbonize the energy sector. MISO’s approval of the tranche 1 projects will prevent 400 million metric tons of carbon emissions between 2030 and 2050 and allow for updates that the power grid has needed for a long time. These investments are a crucial and cost-effective way to enable MISO states, utilities, and customers to achieve their clean energy goals.”

– James Gignac, senior Midwest energy analyst at the Union of Concerned Scientists

United States is energy storage leader for the foreseeable future

According to the new Global Energy Storage Outlook released by Wood Mackenzie, a global research and consultancy group, the United States is leading the world in energy storage and will do so for at least the next decade.

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.

The United States is estimated to add about 600 gigawatt-hours (GWh) of energy storage to the market by 2031, which exceeds China’s deployment of 420 GWh through the same date.

Europe has also failed to keep pace with the United States, but this could change as the conflict in Ukraine drags on and policymakers move to insulate the continent from the effects of a prospective cessation of Russian gas.

The Resource, September 2022 15

Xcel files electric vehicle charging plans

In a filing on August 2, Xcel Energy took another big step into the electrification of transportation with a plan to add hundreds of charging stations, expand home charging, and begin an electric school bus pilot program.



The charging station plans will add 730 high-speed chargers in Minnesota by 2026, with approximately 20 more being installed in Wisconsin. These chargers will have about 1,500 charging ports for public use. Xcel will work with communities and site hosts to situate the new charging stations in both urban and rural areas. The chargers will be mostly 150 kilowatt (KW) chargers.

Xcel also plans to expand access for charging at home.

Through enhancements and improvements to their “Accelerate at Home” program, customers will be able to work with local electricians to install charging stations simply and easily in their homes.

Minnesota is also the proposed site of an electric school bus pilot program. Under the plan, Xcel would own and operate thirty-two school buses. Xcel will work with school bus companies and other interested parties to get the vehicles on the road and

demonstrate their usefulness as a part of the electrified transportation infrastructure.

All of these steps are part of Xcel’s larger vision of powering all vehicles in its service area with carbon-free electricity by 2050. Xcel noted that an electric vehicle powered by standard Xcel Energy power in 2021 was over 55% cleaner than a conventional automobile and will be at least 80% cleaner by 2030.

These plans will assist in Minnesota’s goal of having electric vehicles be 20% of all vehicles sales in the state by 2020.

The Public Utilities Commission (PUC) must approve these plans before they are implemented. Costs to ratepayers would be spread out from 2022 to 2026.

Biden Administration drives community solar through new initiatives

On July 27, the Biden Administration launched a new initiative to connect all Americans with solar energy through the Community Solar Subscription Platform.

The pilot program will be supported by Colorado, New Jersey, New York, New Mexico, and the District of Columbia.

Through the program, power customers, including those served by the U.S. Department of Health and Human Services’ (HHS) Low-Income Home Energy Assistance Program, will be able to access community solar. Since most Americans are still unable to afford the installation of solar panels at their home, community solar allows neighbors to share a system and reap the cost savings that result.

The Administration estimates that program participants in the states of Illinois, New Jersey, New York, and New Mexico will see 20% energy savings, with participants in Washington, D.C. and Colorado seeing 50% energy savings.

The Biden initiative also has a \$10 million inclusion of funds from the Infrastructure Investment and Jobs Act (IIJA) for the development of solar energy careers in low-income rural and urban communities.

These initiatives will help the Department of Energy (DOE) to meet its community solar target, which is to power five million homes and provide a 20% savings on a subscriber’s energy bills through the implementation of community solar.



NORTHWEST LINEMAN COLLEGE

NEW PROGRAMS AVAILABLE AT NLC

ELECTRICAL LINEWORKER PROGRAM

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

TELECOMMUNICATIONS LINEWORKER 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



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

Saint Peter water is best in the state in MDH contest

The Minnesota Department of Health (MDH) hosted a drinking water contest at the 2022 Minnesota State Fair, with twenty-two Minnesota communities participating. At the conclusion of the event, Saint Peter was crowned the winner.

The City of Saint Peter is proud of this accomplishment and said through a press release that “...The Saint Peter community remains vigilant in meeting source water protection, water conservation, community education goals while continuing to serve the needs of all our water users.”

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



www.zieglercat.com/power



TELCOM CONSTRUCTION

Turn Key

Aerial/Underground Construction
Urban and Rural Construction
Fiber Splicing/Testing
Project Management
Horizontal Directional Boring

Self Perform

Power/Gas/Wind Distribution Services
Trenching; Joint and Single Trench
Pole Replacement
Wireless Network Services
Material Procurement/Warehousing & Logistics

Larry Sanders
320-589-5317

www.telcomconstruction.com
Character - Capital - Capacity

Corporate Office
320-558-9485



An **Austin** woman was recently targeted by phone scammers claiming to be from Austin Public Utilities. Fortunately, she kept a cool head and used common sense to ward off the scam. Experts remind us to slow things down when financial requests are made and survey the situation by asking questions and talking to people we know and trust.

Breckenridge celebrated National Night Out on August 2. Breckenridge police chief Kris Karlgaard thanked Breckenridge Public Utilities for making the event possible.

Brewster has placed more than 90 new pavers in their city park to honor men from Brewster who served in World War I. The project came about when the local American Legion celebrated its 100th anniversary in 2021.

Hibbing Representative Julie Sandstede (D) won the MMUA Public Service Award at the MMUA Annual Conference, which was held August 22-24 at Madden's Resort on Gull Lake in Brainerd, MN. The award is given to elected officials who are strong advocates of MMUA and its members. State Senator David Senjem, (R) Rochester, was also honored with the Public Service Award.

On August 15, **Moorhead** was the site of a memorial service for retired Clay County Sheriff Bill Bergquist. Hundreds of people turned out to honor a man who served his community for decades. He was remembered as a humble, thoughtful leader.

New Ulm provided the grid with power from its steam turbines for two days in July because of high electrical demand due to extreme heat. Utilities Director Kris Manderfeld said that the demand was unusual because it takes sixteen hours to start the steam turbines, and MISO usually calls on quick-start generation first. The anticipated demand was so high that MISO called in advance for the service of New Ulm's turbines.

North Branch is replacing aging water mains along Highway 95. Included in their plans are an immediate repair to the water main between 9th and 10th Avenues and longer-term planned repairs from 2nd Avenue to 12th Avenue along the highway.

The death of famed singer and actress Olivia Newton-John on August 8 brought back memories for many in **Olivia** Minnesota. Newton-John visited the city after being invited to participate in their centennial celebration in 1978. She served as grand

marshal of the city's parade and received gifts from city leaders.

Pierz has approved the purchase of new Christmas decorations for their streetlights. The designs will include a snowflake and a Christmas tree and have LED lights, which will make them less costly to operate than the older decorations.

A bus tour of **Rochester** on August 15 included a look at the new Westside Solar Project, which is expected to go online in about a month. When open, the project will provide about 3% of



Rochester's peak summer energy load during operating hours. **Thief River Falls** had a grand opening and ribbon cutting on August 17 for local employer Digi-Key's new \$400 million

facility. The warehouse is the size of twenty-two football fields and has twenty-seven miles of automated conveyor belts inside the building.

Two Harbors celebrated the "Festival of Sail" on August 4-7 as actual and replica historic ships, including many sailing ships, visited the city.

Willmar received a mention in the Energy News Network for their work in reaching out to mobile home occupants on topics such as energy rebates, LED bulbs, and water conservation.

Worthington is celebrating its 150th anniversary in 2022. In a commentary, Mayor Mike Kuhle traced the history of Worthington, which has included notable companies like Armour and Campbell Soup, people like George Dayton of the Dayton family, and the waves of immigration that have allowed Worthington to thrive. **Worthington Public Utilities** was mentioned as a key partner that will allow Worthington to address the challenges of the next 150 years, including city improvements and housing shortages.

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 **24/7**³⁶⁵

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



On July 31, a joint venture formed by Toyota and Panasonic agreed to buy lithium from the Rhyolite Ridge mining project in Nevada. The mine will be the first new source of lithium in the United States in decades. The agreement will supply four thousand tons of lithium carbonate annually for five years, with first deliveries anticipated to begin in 2025.

The Associated Press reported on July 22 that Xcel Energy has begun the process of seeking public input on its plans to build a new \$500 million transmission line between Becker, Minnesota and Lyon County, Minnesota. The line is 140 miles long, and if approved, should go online in 2027 or 2028.

According to the Minnesota Department of Employment and Economic Development (DEED) the unemployment rate for July 2022 was 1.8 percent, tying the record low since the number started being tracked in 1976. As of June, this was the all-time lowest state rate on record in the United States. Minnesota added 19,100 jobs in July. Minnesota's labor force also dropped for the first time this year in July.

On August 25, California implemented a plan that called for the end of gasoline-powered automobile sales in the state by 2035. The rule, which was issued by the California Air Resources Board (CARB) will also issue interim targets requiring that 35% of new passenger vehicles sold by 2026 will produce zero emissions, and 68% by 2030.

On August 30, the United States Department of Energy (DOE) made a request for information seeking comment on its plan to provide \$10.5 billion over five years through the Grid Resilience and Innovative Partnerships Program. The planned funding includes \$2.5 billion for grid resilience grants, \$3 billion for smart grid grants and \$5 billion for grid innovation efforts. Responses are due by October 14.

As Earth deals with the effects of rising carbon dioxide (CO2) levels, science is finding other planets with CO2 in their atmosphere. A publication in the journal Nature on August 24 said that the James Webb Space Telescope had for the first time definitely detected CO2 in a planet outside of our solar system. The planet is called WASP-39b and is about 700 light-years from Earth.

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

CALL TOLL FREE
800-843-7723
FAX 605-533-7700
E-MAIL: info@tr.com
Internet: www.tr.com

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

BUY - SELL - RENT

Complete Outdoor
Substations
Circuit Breakers,
Regulators
and Switchgear

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

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

#10-1224 (2016-12)

FS3

INC.

SALES 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 **CAT**

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

Member
News



The City of Franklin has joined MMUA as a Regular Member.

Franklin operates a wastewater and water utility.

Contact is Kevin Kokesch, Public Works Supervisor. Phone is 507.829.4631 and email is franklinutilities@mchsi.com

Ambor Structures has joined MMUA as an Associate Member.

Ambor engineers and manufacturers steel structures for the telecommunications, small wind, lighting, and utility industries.

Contact is Andrew Murray, Sales Director. Phone is 651.414.1276 and email is andrew.murray@amborstructures.com

Brink Constructors, Inc., has joined MMUA as an Associate Member.

Brink is a construction contractor.

Contact is Ron Mickschl, Business Development Manager. Phone is 651.755.0332 and email is rmickschl@brinkred.com

First American Equipment Finance has joined MMUA as an Associate Member.

First American Equipment Finance provides financial and banking services exclusively to energy and utility companies.

Contact is Patrick Corrigan, Assistant Vice President. Phone is 585.643.3381 and email is patrick.corrigan@faef.com.

OSI, An Aspentech Business, has joined MMUA as an Associate Member.

OSI supplies automation solutions for the management and optimization of networks for utilities.

Contact is Chris Murphy, Sales Manager. Phone is 651.442.7195 and email is chris.murphy@aspentech.com.

Rocon, Inc., has joined MMUA as an Associate Member.

Rocon is a construction contractor in the utility space.

Contact is Robert Seykora, President. Phone is 507.451.8810 and email is bob@rocon.com.

Terracon has joined MMUA as an Associate Member.

Terracon is an engineering and testing service provider.

Contact is Bret Borth, Director. Phone is 612.360.0753 and email is Bret.Borth@Terracon.com

FERC approves MISO requests

On August 31, the Federal Energy Regulatory Commission (FERC) issued two orders that will permit the Midcontinent Independent System Operator (MISO) to establish a seasonal capacity auction and availability-based accreditation.

The Commission will not allow the system operator to require a minimum capacity obligation (ER22-495, ER22-496).

In its determination, FERC said MISO's "proposal to implement a seasonal resource adequacy construct is just, reasonable, and not unduly discriminatory or preferential." MISO went on to say this change, taken together with MISO's proposal to accredit generators based on their seasonal performance will "better align resource adequacy requirements with periods of increased risks on the MISO system." However, it said MISO's currently proposed minimum capacity obligation (MCO) isn't likely to improve resource adequacy. FERC left

the door open to approving a future MCO filing by MISO.

At MMUA's 2022 Summer Conference, Eric Thoms, Senior Manager of Resource Adequacy at MISO, explained that the system operator was seeking FERC approval to perform four seasonal capacity auctions with separate reserve margins by the 2023-24 planning year. This would allow MISO to apply a seasonal accreditation based on a generating unit's past performance during tight system conditions, giving MISO a better handle on resource adequacy during critical periods.

Although stakeholders objected to aspects of MISO's request in comments filed with FERC earlier this year, FERC's decision was in line with MISO's request.

FERC said a four-season auction will provide "a more granular assessment of seasonal resource adequacy needs" and ensure that load serving entities (LSEs) don't procure "capacity beyond what is necessary to ensure resource adequacy in a given season."

"This, combined with MISO's proposal to accredit resources based on their seasonal performance, will offer further assurance that MISO's resource adequacy provisions are sufficient to mitigate the system's resource adequacy risk throughout the planning year," FERC said.

In its determination, FERC also addressed concerns that the seasonal accreditation process won't accurately predict availability during system needs. The Commission said while "no capacity accreditation methodology can perfectly predict a resource's future availability or performance during all intervals," MISO had made an acceptable level of effort to establish an acceptable system of forecasting availability.

Despite this statement in support of MISO's proposal, FERC also instructed MISO to complete an informational report that compares the seasonal accreditation results to actual resource availability by the end of the 2025-26 planning year.

Former nuclear plant site sees creative energy reuse

In a filing on June 26, the Iowa Utilities Board (IUB) approved the electric generating certificates for NextEra Energy to build two plants, a 50 megawatt (MW) solar plant and a separate 150 MW solar generating plant with a 75 MW battery energy storage system.

The new plants will be situated on land that is adjacent to the now-closed Duane Arnold nuclear power plant northwest of Cedar

Rapids, Iowa. Duane Arnold operated from 1975 until 2020, when a windstorm closed the plant permanently a few months short of its planned late-2020 closure date.

Next Era Energy, who also operated Duane Arnold, anticipates that the new power plants and storage will be online by 2024. At that point, NextEra will sell the facility to Alliant Energy's Interstate Power and Light. Full decommissioning of the Duane Arnold nuclear plant will occur by 2075.

Night outages make for brighter days

Night outages are a tool often used by electrical utilities as they transition an electrical system from existing infrastructure to new equipment or while repairing or updating existing infrastructure.

MMUA's James Monroe talked to the Resource about a couple recent night outages and how they successfully got customers through them.

James: "A big part of doing night outages is when there are a lot of people who will be affected by a loss of power. We do the legwork to notify people that they are going to be shut down. In Wells (Minnesota) recently, we came early on a weekday and did the prep work for the project. The outage started at 9:00 pm and ended at 1:30 am. When the outage started, we changed out crossarms on a pole and connected everything back together. During this night outage, about eighty to ninety customers were

affected.

We also recently did a night outage in Tyler (Minnesota) where we cut power to their downtown area. Again, we moved fast through good planning, contact, and pre-work. This project involved old overhead wires through downtown that had a building conflicting with them. Tyler decided to convert these three blocks of transmission to underground.

At about 7:00 pm on the evening of the outage, we cut power to that area of downtown. The new underground wires were mostly ready to go. We built a riser, tested the underground system, made the connections, and then energized it. All of this was done by 3:30 am."

Through skilled work, great communication, and planning ahead, night outages allow cities to minimize the disruption to rate payers during electrical down time and make their electrical systems better in many ways.



Upcoming Events

Cross Training School

October 11-13
MMUA Training Center,
Marshall

MMUA's Cross Training program provides excellent, comprehensive training on the basics of electrical work for non-lineworker employees who may be called into service during emergency situations.

Registration closes on September 23.

Tree Trimming Workshop

October 18-20
Brainerd

This workshop offers lineworkers a thorough overview of electrical line tree trimming. This course will stress the importance of the job planning, identify common safety hazards, and cover standard precautions.

Registration closes on September 29.

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." Watch your email for full details. The T&O Conference offers timely

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.

Register for the school and the pre-conference separately by November 11 for the best rate.

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