

# THE RESOURCE

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## Recruiting and mentoring: what's working? Chaska's Pete Wyffels talks to MMUA

*Editor's note: Pete Wyffels has worked in the electrical utilities industry for more than 30 years, most recently as Electrical Director at the City of Chaska since 2022. Pete sat down with MMUA and shared some thoughts on a topic very important in the utility world right now: recruiting and mentoring employees.*

**MMUA:** What strategies or methods have you used to recruit workers into the industry over the years?

**Pete:** We have seen quite a bit of success when we talk to kids that are thinking about going to college or have a year left of high school. A lot of kids don't know what they want to do for a career. Sometimes just talking to them is enough to spark an interest. Sharing with them where they can go to attend schools and how long they will need to attend before they graduate and enter the workforce helps them put together a plan.

Our line workers try to go to local schools for high school career days. They talk about



The excellence of Chaska Electric's crew is the result of successful recruiting and mentoring activities. (Courtesy of Pete Wyffels)

what the electric trade is all about and what they do day-to-day to keep the lights on. They will bring safety demos in and some of the equipment they use to climb poles and work on

the lines. We have city events throughout the year in which we will bring out some of our trucks so that the kids can climb up in the cab and see what the trucks look like up close.

At a previous job we had what they called a ride-along day. We would allow a student that was looking to go into the trade the opportunity to spend some time out in the field observing the

*Continued on page 6*

## What recent disasters could mean for Minnesota's municipal utilities

By Kent Sulem

**A spate of lawsuits against Hawaiian Electric were announced within days of the tragic and devastating fires on Maui.**

The filings illustrate what may look like a growing trend in today's jurisprudence—holding a utility liable for the damages alleged to have been caused by the utility's actions or inaction leading up to and during a disaster. In the case of Hawaiian Electric, videotape purports to show a fire being started by arcing of fallen utility wires when lines snapped and poles fell during periods of sustained high winds.

**An easy win?** With such videos, one might assume that it will be a slam dunk to hold the utility liable. After all, Pacific Gas and Electric (PG&E) was bankrupted after being found liable when downed lines were shown to be

the cause of the fire that burned through a large area of California's wild lands a few years ago. However, California imposes a standard of strict liability on utilities, so it really didn't matter if other contributory causes also played a role.

Hawaii has not yet imposed such a standard, and so other factors will be examined. In fact, one of the law firms involved with some of the early filings has amended its initial filings against the utility. Those filings now include claims against telecommunication companies that the firm alleges weakened the utility poles by overloading them with antennas and related structures, thus making them more vulnerable to breakage. The same firm has gone so far as to name individual landowners as defendants for failing to water the vegetation next to the poles,

*Continued on page 7*

## T&O Preview: Conference speakers bring essential lessons

**As the December 5-7 Technical and Operations (T&O) Conference in St. Cloud draws nearer, the conference's speakers are working to refine their messaging for the conference's theme of "Lead to Succeed."**

Here is a preview of the speakers who will be driving that message home in December.

"Kim Becking is one of the few people who can deliver a virtual speech and be compelling in that environment," says Mike Willetts, MMUA's Director of Training and Safety. This has been proven in real time, as Kim spoke virtually during the 2020 T&O Conference and was a hit with attendees. Kim will be delivering the opening keynote at the 2023 T&O Conference.

Kim has worked as an attorney, entrepreneur, communications strategist and political consultant. Her interest has always been in dealing with the fast-paced, stressful nature of life and



Kim Becking

turning it into positive growth. Her talk will focus on the "momentum mindset", where people and organizations fight through the tough stuff to focus on being more resilient and successful in a difficult world. Kim's presentation looks to be a humorous and compelling look at our complicated lives, and how we can "cut through the clutter" to come out on the other side even better.

On the second day, the focus will shift from understanding human behavior to understanding animal behavior, with a presentation by Hector Hernandez.

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## Inside Stories

**8 National Energy Assistance Directors Association releases winter heating price outlook**



**12 States that update building codes eligible for \$400 million in Department of Energy funds**



**20 World's largest wind turbine sets 24-hour generation record**

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# Sixth annual Minnesota Lineworkers Rodeo a success

The sixth annual MN Lineworkers Rodeo was held at the MMUA Training Center in Marshall on September 12, and it was a beautiful day.

Twenty lineworkers competed across three events: hurtman rescue, an obstacle course, and single-phase tie in.

Thank you to all participants and volunteers for their work to make this event a special reminder of the incredible skill

and commitment required by the craft of linework. The winners of the overall competition are as follows:

- First place, journeyman: Mike Enright, Shakopee Public Utilities
- Second place, journeyman: Chad Peterson, Rochester Public Utilities
- Third place, journeyman: Matt Tupper, Rochester Public Utilities

- First place, apprentice: Brandon Heitz, City of Chaska—Electric Department
- Second place, apprentice: Bryson Whyte, Marshall Public Utilities
- Third place, apprentice: Spencer DeFrang, Rochester Public Utilities

Congratulations to the winners, and thank you again to all participants!



Cody Raveling helps to raise the Minnesota and MMUA flags and has a great view of "Old Glory" during the flag-raising ceremony.



Rodeo participants compete in the hurtman rescue event.

## Minnesota Lineworkers Rodeo winners take home the hardware



Journeyman show off their awards. L-R: Mike Enright (Shakopee), Chad Peterson (Rochester), Matt Tupper (Rochester), Chad Grinhaug (Rochester)



Apprentices show off their awards. L-R: Jack Schintz (Shakopee), Jordan Stocker (Shakopee), Spencer DeFrang (Rochester), Bryson White (Marshall), Brandon Heitz (Chaska)

# Dealing with change when you don't want to

## “Electric vehicles are stupid.”

My dad announced this during a recent phone call. He had read a thing in the paper, then heard a guy on TV, and now his bi-weekly coffee klatsch at Hy-Vee agreed. “Why,” he wanted to know, “should we replace something that works well with an inferior technology? And where are we supposed to charge the things? I wouldn’t get one, not ever. I don’t want to be stranded on the side of the road. It’s just happening because a bunch of [blinking] idiots think they are helping the economy by inventing fake reasons to change!”

In response, I pointed out that people with much faster and entirely reliable horses said pretty much the same thing when automobiles were becoming popular a century ago. I also mused how the rapid adoption of automobiles led to significant design improvements within a short time (enclosed cabins, automatic starters, interior heat, and windshield wipers are my particular favorites). In 1900 there were only about 8,000 passenger vehicles in the U.S.; by 1930, half of American households had a car and Dan Patch was out to pasture. Whether the reasons for moving to automobiles were real or fake to begin with, the free market had decided to go all in.

I didn’t have the statistics handy as we talked, but I also knew my dad’s concerns about being stuck by the side of the road were common back in the day as well. When I looked it up, I found the U.S. went from just a few curbside hand pumps for gas in 1907 to 15,000 service stations in 1920, and more than 100,000 in 1930. Underneath the service station growth was a whole new industry of petroleum producers, refineries, and truckers

who made that possible.

Meanwhile, the U.S. went from 141 miles of paved roadways in 1904 to a countrywide highway network by the late 1920s. Consumer-driven demand propelled surfacing innovation, provided funding—by 1929 all 48 states had a gas tax—and caused economic evolution. Makers of horse harnesses and buggy whips had to find new jobs, while the entire automobile industry and its associated supply chain rose to take their place.

But yes, for a while, horses were better, cars were dumb (see the photo with this story for evidence circa 1927), and the whole thing really seemed to be the fault of a bunch of idiots from somewhere else who couldn’t leave well enough alone.

Change is hard, and how we react to it is not logical. It’s biology. I learned in my tenth-grade class that organisms seek homeostasis—the internal, physical, emotional, and social conditions of steadiness and comfort. Change upsets the apple cart. Even when the change is something we

desire (getting married, having a baby, buying a house), it is highly stressful. So, it is natural to try to keep things steady, predictable, and low worry.

That, however, is not always an option. At 83, my dad can probably get away with never buying an electric vehicle (EV) or embracing the other energy changes that are underway. Those of us who are younger, and those of us working in an industry making way for EVs and renewable energy, don’t have that luxury.

### As leaders and influencers in municipal utilities, how do we need to show up during this time of disruptive change?

How do we help our ratepayers, employees, and other stakeholders through the process, especially if we don’t fully embrace it ourselves? Here are some ideas to get you started.

**1. Practice acceptance.** Many of you are familiar with the Serenity Prayer, which begins, “God, grant me the serenity to accept the things I cannot change.” Changing how I feel



Horses pulling a car out of mud on a dirt road. Minnesotans advocated for better roads in the 1920s and accepted a new gas tax as the transformation to a motorized society was underway. Photograph by Kenneth Melvin Wright, ca. 1927, from the Minnesota Historical Society collection.

## From My Desk to Yours

Karleen Kos  
MMUA CEO



about something begins with whether I accept it or not. Acceptance doesn’t mean I agree with it or like it; it means I understand it is happening. Period. I stop fighting the “what” and start focusing on the “how.” If I can’t stop something from happening, I can decide how to react to it.

Right now, like it or not, transformational change is happening in our space. Whatever anyone’s personal opinions about it, the movement to renewables and electrification of our economy is inevitable. We can go kicking and screaming, or we can go kicking field goals.

### 2. Adjust how you approach change.

In their book, *Switch: How to Change Things When Change is Hard*, Chip and Dan Heath explore the psychology behind change. They introduce the metaphor of the “rider” (representing rational thinking) and the “elephant” (representing emotions and instincts) on the path of life. To overcome our basic biological aversion to change and navigate it successfully, one must direct the rider, motivate the elephant, and shape the path.

How can you, as a leader or participant in our changing industry, direct your thoughts

and influence those of the people around you? Obviously, being rational and providing facts, like I did with my dad, is one option. Facts alone may not be successful, though, as they weren’t with my dad. So you’ll also have to motivate the emotions—the elephant in the room—around change-related topics too.

No, that doesn’t mean weeping, drama, and kum-bay-ah moments. It means acknowledging that change is hard, they may not agree with it, but it’s happening anyway. Ask yourself—and help them figure out—how to show up on a path that is changing. What does everyone want to remember about themselves when they look back? Some may be okay with telling their grandkids how they resisted EVs as long as possible, just as some folks were still riding horses in the 1940s with cars whizzing by. But you can motivate many who will want to point to the charging stations or solar gardens or battery storage facilities they helped build and say, “I did that.” Motivate them (and yourself) by thinking about the stories they want to tell when this transition is old news.

Einstein was right when he said, “We cannot solve our problems with the same thinking we used when we created them.” We have to find the right balance between logic and emotion, create clear and manageable goals, and alter the work environment on an emotional level to smooth the path. As influencers in our workplace and our communities, we can make change easier or harder for people. Who do you want to be?

**3. Build the new.** The ancient Greek philosopher Socrates (d. 399 BC) said, “The secret of change is to focus all of your energy not on fighting the old, but on building the new.” I have spoken to many of our municipal utilities colleagues around Minnesota, from commissioners to general managers to lineworkers. Everyone takes pride in providing something meaningful to their community.

What is your utility doing to prepare for the energy transition? Of course, you have to worry about MISO, rolling blackouts and all the rest of the realities during this time of evolution—but that is like making sure you feed the horses in case the

Continued on page 4

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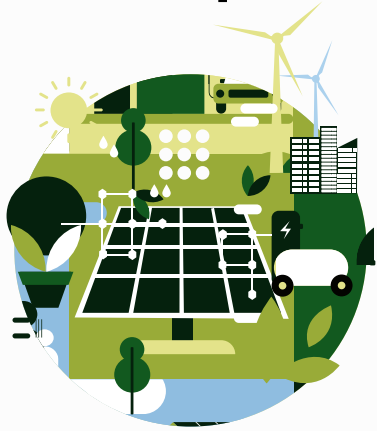
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## International Energy Agency's 2023 Net Zero Roadmap offers optimism, warnings



The 2023 edition of the International Energy Agency's (IEA) Net Zero Roadmap says the unprecedented growth of renewable energy is keeping the target of no more than a 1.5°C rise in global temperature within reach.

However, it also noted that much more needs to be done to achieve that target and avoid the worst impacts of climate change.

While 1.5°C is still within range, the opportunities to reach it are starting to narrow. While demand for coal, oil, and natural gas are all expected to peak in

the 2020s, and electric vehicles (EV) are on track with their adoption rates, these things may not occur fast enough to stop global warming beyond the target.

The IEA encourages countries that can do more to speed up the adoption of renewables for electricity generation to do so. Encouragingly, the advanced economies of the world, as well as China, are on track to reach 85 percent of their commitments to renewable electricity generation. The report emphasizes the importance of taking that number to 100 percent, and supporting economies that are not as advanced as they transition to renewables is essential as well.

Across all categories, the IEA report describes the things that need to be done to curb global temperature rise as "well understood, most often cost effective and taking place at an accelerating rate." The report indicates the worst of global warming's impacts can still be avoided if the global community pushes a little harder to make it happen.

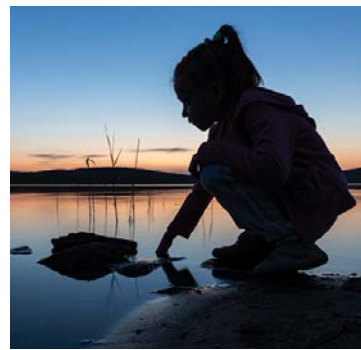
## Ontario's Native youth aim to make clean water a career

"Water is life" is a phrase often used by the native peoples of the Americas because water sustains us.

It is with this ethos that a group of native youth in Ontario are taking the next step and working to become water treatment plant operators through an innovative training program.

The 15-month drinking water program has guided 11 young people through an internship that has given them 1,800 hours of real-life experience working in water treatment plants. The program has also enabled students to pursue additional certifications and move toward working in the field, progressing from "intern to operator in just 15 months."

The program has moved around Ontario, allowing different regions and native communities to get involved. In 2020-2021, the program was in the Kenora area north of Minnesota and around the northern part of Lake of the Woods. In 2021-2022, the program moved to the Georgian Bay area of Lake Huron. In 2022-2023, it was offered in



the North Shore area of Lake Huron.

The program is rewarding for many reasons. It provides a paid internship to students, allowing them to learn a valuable career while also staying close to their home communities and positively impacting the quality of the water where they live.

In Ontario, 25 percent of First Nations communities are affected by a drinking water advisory. The program hopes to change that by inspiring students to bring up the next generation of water operators and ensuring that clean water continues to be part of life for all people in Ontario.

## Dealing with change

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Model T won't run or the road is too muddy. It's necessary, but it's not the whole ballgame. What forward-looking plans do you have? With all the grant money available, this is a great time to be thinking about infrastructure upgrades and innovative concepts for your community. How can you engage your ratepayers so they see your utility as proactive, responsive, and successfully riding the elephant on the path of transformation?

In the end, we all have our personal journey, and we travel some of it in our work on behalf of municipal utilities. Indeed, change is hard, but the roads have been built and we are lucky to be serving at such an exciting time. The truth is my dad has embraced many changes in his life, and I believe if he lives long enough, he'll relent and buy an EV too. He always likes to have a nice car with all the latest gadgets. When he does that, I'm grateful there'll be a bunch of charging stations powered by municipal electricity in his hometown.

## Minnesota PUC approves Xcel's Sherco Solar expansion plans



On September 21, the Minnesota Public Utilities Commission (MPUC) approved Xcel Energy's plans to expand the Sherco Solar project in Becker, Minnesota.

With this approval, Xcel expects to add a 250-megawatt (MW) solar array to the 460 MW solar array that had already been approved. The MPUC also approved a 20-year power purchase agreement between Xcel and National Grid Renewables for power from the 100-MW Apple River solar project, which will be located in Polk County, Wisconsin. That project is expected to reach commercial operation in 2025.

The approved expansion will cost Xcel an estimated \$406 million. The cost of the entire project is estimated at more than \$1 billion. The entire 710-MW project should be complete by the end of 2025.

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## Mike Sewell named assistant director of regional safety group services



Mike Sewell, who previously served as regional safety group program leader for MMUA, has been named to the new role of assistant director of regional safety group services.

In his new role, Mike will lead the League of Minnesota Cities Insurance Trust (LMCIT) regional safety group (RSG) program, ensuring accuracy and consistency throughout the RSG

program. He will interface with the LMCIT, as well as develop and supervise a team of training professionals to deliver safety programming to MMUA and LMCIT members.

Mike has been with MMUA since 2015. Prior to his tenure, he spent four years at the Iowa Association of Municipal Utilities as a safety services specialist. Mike attended the University of Northern Iowa and received a Bachelor of Arts degree in Business Management.

Mike lives in Milford, Iowa with his wife, April, and his three daughters. In his spare time, Mike likes to go hunting and traveling. When he can do both on a hunting trip, that's the best of both worlds!

Congratulations, Mike!

## Dan Nath named assistant director of quality assurance and on demand services



Dan Nath, who previously served as a regional safety coordinator for MMUA, has been named assistant director of quality assurance and on demand services.

In this role, Dan will lead MMUA's on demand safety services team and ensure quality and compliance across the MMUA safety system. The excellence that Dan will help

maintain will enable MMUA member utilities to experience accuracy, consistency, and quality assurance across the safety services team.

Before joining MMUA in 2022, Dan worked as a computer programmer for about 35 years. He used these skills in the area of communication management and created many of the forms used by the League of Minnesota Cities Insurance Trust. He is also a retired firefighter who taught on safety topics related to firefighting for 12 years at Minnesota West Technical College. Dan has served his community as a member of the Luverne City Council for the past seven years.

He lives in Luverne with his wife and enjoys spending time with his eight grandchildren who all live within 30 minutes of his house.

Congratulations, Dan!

## Department of Energy announces \$325 million in funds for battery storage, including in Minnesota

On September 22, the United States Department of Energy (DOE) announced it would be investing \$325 million in battery types that will allow for storage of renewable energy.

## UP TO 100 HOURS OF POWER ON SITE

The funds will go to 15 projects in 17 states and to the Red Lake Nation.

The projects feature different battery types that can provide up to 100 hours of power on site. Minnesota projects include the previously announced Xcel battery storage project in Becker. Xcel plans to build a 100-mega-watt battery storage system there. Funds will also go to a battery storage project at the Red Lake Nation in Northern Minnesota that will provide battery storage at a worker training center. That project will use repurposed electric vehicle batteries for storage.

The goal of these projects and the funding is to move energy storage from providing storage overnight or during a cloudy day to providing storage over longer periods of time.

## Jacob Kuntz joins MMUA



Jacob Kuntz joined MMUA as its new field safety services coordinator on October 2.

The field safety services coordinator is responsible for environmental, health, and safety programming for MMUA members.

Jacob has served in municipal public works since 2016 for the

cities of Eagle Lake, Brooklyn Park, and Elk River, Minnesota. He has also worked as an owner/operator of a small lawn care company since 2020.

Jacob holds an Associate in Science degree in Horticulture in Landscape Design and Nursery Technology. He holds many certifications, including a Class A CDL, Class D Water Operator

License, MN Tree Inspector License, and First Aid and CPR Certification.

Jacob lives in Big Lake. Welcome to MMUA, Jacob!





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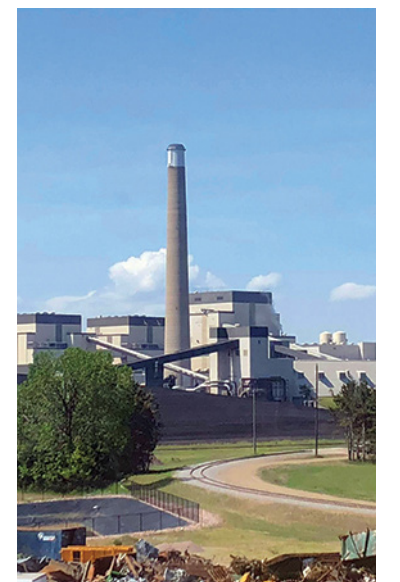


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## Recruiting and mentoring

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crews working. They would visit sites to get a real feel for what the trade was about and ask questions.

**MMUA:** Who are some mentors you had as you were coming up?

**Pete:** I have had a lot of mentors throughout my career. Everyone I ever worked for has helped play a part and has been a mentor in some shape or form. There was always someone who taught me something new every day. You never quit learning in this industry. That is the great part of this job and is another reason why it is so important to continue to teach the guys around you everything you know and help inspire them to be teachers as well.

I would say one of the most influential ones was a brother-in-law, Leroy VanVickle. He was the electric supervisor in Brainerd. I will never forget we were deer hunting. I was around 14 years old and really had no idea what I was going to do in life. Leroy came and grabbed me out of the deer stand and said "We got to go. There is an outage." I had no idea what we were going off to do. One minute I was hunting in an ice-cold deer

stand and the next minute I was heading to town in a nice warm truck. Not going to lie. The warm truck ride was nice!

The outage call was quick to restore. I think it was a squirrel that blew a line fuse, but the thing that stuck in my mind was the response from the people we helped that day. They were so appreciative, and it was such a rewarding feeling, even though I really had nothing to do with it. That's what inspired me to become a lineman. I wanted a career that was helping other people.

That one time was all it took for me to start my pursuit. Having someone who was able to answer questions and steer me in the right direction made a big impact.

**MMUA:** How specific do you get about different positions?

**Pete:** I primarily talk about being a lineman because that's the field I specialized in. I think it is important to share that there are other electric-related careers in our field and try to connect them with someone in that career if that sparks an interest.

I like to talk about different career paths, such as being in



the meter department, a generation plant, substation maintenance, or construction. There are many rewarding careers and paths; it's just a matter of connecting the right person with the right job.

**MMUA:** How do your employees help in mentoring new employees?

**Pete:** I think everyone can relate to when they were new to the industry, and [the more seasoned workers] want to play a part in training and teaching the next generation the correct way to do things.

The summer help or 1000-hour employees will work hand-in-hand with our line crew, so we try to pair them up equally with mentors on the crew.

Taking their time explaining to the newcomers what the job is and the steps to get it done safely is rewarding. Having patience is the key to success.

Young workers just need a

little guidance, and with the right training and time they evolve into great employees serving their community.

**MMUA:** What are some strategies you use to keep people once they're in the door?

**Pete:** I think a family atmosphere in the workplace, great benefits, and a safe place to work are what keep employees. Giving them opportunities to succeed in their career is paramount. We take every opportunity to send them off to training with MMUA to keep them at the top of their game. We build incentive programs for them to take advanced training and to better their skill set. There are a few employees here that started working when they were in their teens and have continued their careers all the way to retirement. Our Line Superintendent, Jack Worm, is retiring after 45 years of service with the City of Chaska.

**MMUA:** What else do you want to share about this process?

**Pete:** Having that opportunity for someone coming into the trade to connect with someone who has been in it for a while is instrumental. I think it shores

up uncertainty when kids are making those decisions in life. I have seen kids come work for a summer and go off to school for something completely different but then decide down the road that they really liked the line worker field and go back to school to make it a career.

Even in my current position, I get the opportunity to meet with leaders that have been in their roles for a long time and are very good mentors to me. They help by sharing ideas that have worked for them and different ways to navigate tough decisions.

MMUA conferences, schools and regional workshops are very important and allow us to network, communicate, and share information with one another.

Another source is American Public Power Association's DEED (Demonstration of Energy & Efficiency Developments) program because it supports grants and scholarships that can assist utilities and students.

I feel that helping people discover the trade and then helping them pursue it is very rewarding. It is a way that we can also give back to our trade.

## TVA to study carbon capture at two of the Authority's gas plants



On September 14, the Tennessee Valley Authority (TVA) and Canadian energy infrastructure firm TC Energy announced they will invest \$1.25 million in studies to determine the possibility of retrofitting two existing TVA gas plants for carbon capture.

The plants are the 713-megawatt Ackerman Combined Cycle Plant in Ackerman, Mississippi, and the 1.1-gigawatt (GW) Paradise Combined Cycle Plant in Drakesboro, Kentucky.

TVA's current total energy production is 40 GW, with 22 GW coming from carbon-based sources. The outcome of the studies will help TVA understand the feasibility of implementing carbon capture technologies across its other carbon-based power plants.



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## What recent disasters could mean

Continued from page 1

creating a massive tinderbox that quickly fed the fire and allowed it to spread fast and out of control.

**Minnesota is different.** Based on statutory language and existing liability law, it seems unlikely that the Minnesota courts would impose a strict liability standard. Instead, they would view the liability of a utility to be based on specific facts, the utility's actions/inaction, and the actions/inaction of others. This is similar to the way things could progress in Hawaii if the cases go to trial.

**Broader issues in utility liability.** It will be important to watch the type of defense Hawaiian Electric will mount. For example, some reports indicate the damning videotape shows the start of a fire that was actually quickly extinguished. If a hotspot reignited the blaze, should the

fire department shoulder any of the blame? Who is to blame if a separate start of unknown origin ignited the devastating fire that followed? Is it fair to expect landowners to water vegetation adjacent to the powerlines? That could significantly raise their water bill. What if a watering ban were in place, like there has been in many Minnesota cities in recent years? Should such a ban exempt watering vegetation near powerlines? Do we want to promote activity within the rights-of-ways held by utilities? These and other questions are the ones a court will need to consider before imposing liability on any defendant, including the utility, and are issues utilities will need to think about.

To further complicate things, more than one party can share

responsibility, and thus liability could be attributed to multiple parties. In Minnesota, each party found to share responsibility must pay damages equivalent to the percentage of liability found. If one party is found more than 50% liable, that party can be held responsible for any damages the other parties are unable to pay. This is known as joint and several liability.

It should also be noted that telecommunication companies in Minnesota are required to enter into indemnification agreements with utilities under which they agree to defend, indemnify, and hold harmless the utility for any damage caused by the placement of their equipment. So, it is possible that if a power line were to snap from a pole found to be overloaded, the telecom whose equipment was on the pole could have to cover the utility's share of liability should any be found.

**Implications of the PG&E lawsuits.** There are other issues that played a role in the PG&E lawsuits that will likely be part of the Hawaiian Electric litigation, and those would also be an issue in a Minnesota lawsuit. Maintenance plans and execution and the decision of whether to turn off power ahead of a high-risk event (high winds, tornado warnings, and ice storms, etc.) Hawaiian Electric is taking a



lot of heat for keeping the power lines on, although they claim the lines in the path of the worst of the fire were deactivated. In fact, in reporting immediately after the fire, there was speculation that a lack of power may have impacted the ability to activate warning sirens. If this should prove true, it is conceivable the utility will be sued for damages related to a lack of warning. PG&E received a lot of criticism for putting millions of people in the dark when it opted to power down lines that could have contributed to later fires after the original devastation blamed on active wires sparking.

**Recommended actions.** Does that mean a utility is wrong no matter what it does? Well, it may be sued under both scenarios, but at least in Minnesota the amount of debate before setting and subsequently executing a policy of when to shut down

power could provide grounds to avoid liability. The key is to have a full discussion about the pros and cons of turning off the power under various likely risk scenarios faced by Minnesota utilities. The policy should be adopted by the local commission or city council. Look at as much information as possible and make an informed decision that is right for your community.

Similarly, periodic reviews should be made of the utility's infrastructure and plans made as to replacement schedules, maintenance schedules, etc. Then the plans should be executed to the greatest extent possible with the reason for deviation being well documented. For example, if supply chain problems, excess costs, declined revenue, staff shortages, or something else mean the plan can't be implemented or the schedule kept, that should be placed in the record.

Finally, municipal utilities should strive to remain current on advice coming from sources like MISO, your power agency, LMC, LMCIT, and of course MMUA. Knowing and implementing best practices and current safety protocols can go a long way in both avoiding a disaster and avoiding liability if one should occur.



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## National Energy Assistance Directors Association releases winter heating price outlook

On September 20, the National Energy Assistance Directors Association (NEADA)—made up of the state directors of the Low Income Home Energy Assistance Program (LIHEAP)—released its estimates for the cost of home heating in the winter of 2023-2024.

The following numbers are based on a weighted average of projected winter heating spending per household.

Natural gas heating costs are expected to drop by 7.8 percent compared to last winter, with the cost of using heating oil for the season expected to increase 8.7 percent year over year. Electrical

heating costs are expected to rise 1.2 percent, while heating with propane is expected to cost 4.2 percent more than last year.

The projected average costs of different heating types for 2023-2024 are:

- Heating oil: \$2,275
- Propane: \$1,538
- Electricity: \$1,374
- Natural gas: \$726

The rise in heating costs is of concern to NEADA. The Association has requested a \$2 billion supplemental increase in LIHEAP to maintain the current program funding level of \$6 bil-



lion. NEADA noted that applications for energy assistance are up between 10 and 20 percent over last year.

## FCC plans to reinstitute net neutrality rules

On September 26, Federal Communications Commission (FCC) Chair Jessica Rosenworcel announced the FCC would pursue the reinstatement of net neutrality rules for internet service in the United States.

Net neutrality is defined as the idea that all internet activity

should be treated equally, with internet service providers (ISPs) providing access to all sites equally. This would mean ISPs would be forbidden from blocking websites, giving preference to certain websites, and slowing down or speeding up access to different websites for their own reasons.

Net neutrality was previously

put into place in 2015 and was repealed in 2018 by then-President Donald Trump. The move comes after Democrats took over the majority on the FCC on September 25. An initial vote on the reinstatement of net neutrality is expected at an FCC meeting on October 19.

## Greenpeace calls out a 'dangerous nuclear crisis' in Ukraine

According to a September 28 dossier sent by Greenpeace, the international environmental campaigning organization, international regulators are currently unable to monitor conditions at the Zaporizhzhia nuclear power plant in Ukraine.

Greenpeace says the International Atomic Energy Agency (IAEA) has only been allowed to have four inspectors at the plant,



and their ability to do their job has been severely curtailed by the Russians who currently

control it. Moreover, the organization said hundreds of attacks and explosions have occurred in the immediate vicinity of the plant, putting the world in danger.

The dossier was accompanied by a military assessment that estimates that hundreds of Russian troops are based inside of the plant itself, with most of their activities hidden from the outside.

## Innovative Wisconsin energy storage project moving forward with an assist from federal monies

On September 22, Alliant Energy, a public utility holding company based in Madison, Wisconsin, announced it had received a \$30 million federal grant for the construction of the Columbia Energy Storage Project.

The unique storage facility will be located in Pacific, Wisconsin, about 20 miles southeast of Wisconsin Dells.

The project will be the first utility-scale facility in the country to store energy by compressing carbon dioxide into a liquid. When energy is needed, the

liquid is converted back into a gas and used to immediately generate electricity. The system should provide about 10 hours of energy storage, enough to power approximately 20,000 homes.

Construction is expected to begin in 2025.

## DOE's loan office makes first loan guarantee for virtual power plants; largest commitment to date for solar power

On September 28, the United States Department of Energy loan office closed on a \$3 billion loan guarantee to "Project Hestia", which will facilitate loans to between 75,000 and 115,000 homeowners for the construction of rooftop solar and battery systems.

The systems will function as virtual power plants (VPPs) that will help backstop the grid. The systems in tandem could gener-

ate 568 megawatts of power over the next 25 years.

The loans were made to Sunnova Energy, a residential and commercial solar energy company based in Houston, Texas. The company will administer Project Hestia, which will aim its funding toward low-income homeowners who otherwise may not be able to afford home solar and storage.

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## South Dakota Public Utilities Commission denies permit application for carbon pipeline

On September 11, the South Dakota Public Utilities Commission (SDPUC) voted unanimously to deny Summit Carbon Solutions' request to build 495 miles of pipeline through South Dakota.

Commission staff recommended SDPUC deny the request because the project would not comply with county ordinances relating

to setbacks. Summit Carbon Solutions said it plans to refile its permit application after meeting the concerns of the Commission.

The pipeline will move carbon emissions from ethanol plants in the Upper Midwest to the Dakotas, where the carbon will be sequestered underground.

## Iowa Utilities Board approves underground transmission line in northern and northeast Iowa

On September 13, the Iowa Utilities Board approved a new 174-mile 525 kilovolt underground high voltage direct current line that will be built through eight counties in northern and northeast Iowa, connecting into Illinois.

The Iowa counties include Allamakee, Cerro Gordo, Chickasaw, Clayton, Dubuque, Floyd, Jackson, and Winneshiek.

The company SOO Green was granted a franchise to construct, maintain, and operate the new transmission line. Most of the route will be along right-of-way currently owned by the Canadian Pacific Kansas City Limited railroad.



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## Tropical Storm Hilary damages San Diego-area wastewater plant; repairs needed due to flooding



Assessment of the South Bay International Wastewater Treatment Plant in San Diego has found that heavy flooding resulting from rainfall associated with Tropical Storm Hilary has caused \$8 million in damage that will need to be repaired.

The damage occurred on August 20 and 21 when rainfall from the storm caused flows to exceed capacity by 100 percent

for six hours, and 320 percent for another six hours.

The flooding damaged many parts of the plant, including pumps and electrical systems. Work on the plant is expected to be bid out in 60 to 90 days. This is in addition to other work designed to prevent wastewater pollution from the plant, which is anticipated to cost millions of dollars more.

## Carbon sequestration startup Carba wins Minnesota Cup competition

The 2023 Minnesota Cup, a business and start-up competition that has occurred in Minnesota since 2005, declared Carba, a clean-energy company, as this year's winner.

Carba took home \$85,000 in prize money and invaluable connections to investors and the business marketplace.

Carba's product is a reactor that removes carbon dioxide from the air and turns it into solid carbon that can then be sequestered underground. The company has also developed a special process for carbon burial called Biomass Torrefaction and Burial™ that minimizes the emission of carbon once it is sequestered underground.

Carba's product is a form of the nascent technology called direct air capture (DAC) that can pull carbon dioxide directly out of the atmosphere.

Carba's goal is to use the technology to extract one billion tons of carbon dioxide from the atmosphere by 2035. Carba plans to use its momentum from the win to expand. The firm plans to move to Burnsville from its current home in Litchfield.

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# Overhead School



*Cody Raveling of MMUA welcomed students to Overhead School.*



*Tad Hoeschen from the Saint Cloud Police Department taught students about deescalating tense situations they may encounter with the public.*



*Chad Peterson from Rochester Public Utilities and Brandon Casey from the City of Hecla got ready to work.*



*Students assemble to learn about equipotential grounding.*



*Attendees scope out transitioning a double dead-end to tangent.*



*Students work to change out a power pole at the backyard easements and construction station.*



*Jessie Lloyd from Fairmont instructs on equipotential grounding.*



*Students work at the troubleshooting and system maintenance station.*

## Water quality tests at Stillwater Prison find water meets standards

A report released by the Minnesota Department of Health (MDH) on September 20 found that drinking water met state standards at Stillwater Prison after concerns about the facility's water quality contributed to unrest among inmates in early September.

Inmates at the prison have complained that drinking water in the facility has a brown color and has made inmates sick. While MDH gave the green light to the prison's water, they noted

that water quality can be degraded by the internal plumbing of a building and acknowledged brown water at hot water taps. MDH staff collected water samples from 81 tap water sites at Stillwater.

The Department of Corrections said that they will conduct more tests, implement more protocols, and hire more staff that will focus on the health and safety of the Minnesota prison system's buildings as well as their air and water quality.

## FERC recommends changes to extreme weather reliability requirements for power transmission and gas infrastructure

On September 21, the Federal Energy Regulatory Commission (FERC) recommended that revisions to the reliability standards surrounding power transmission and gas infrastructure be made, due to new research on Winter Storm Elliott in 2022 and recommendations in a report on Winter Storm Uri in 2021.

Some of the recommended changes include monitoring of reliability standards implementation, better coordination between gas operators and electric grid operators, and federal regulation

enacting specific reliability rules.

The recommendations also called on the North American Electric Reliability Corporation to initiate a technical review of causes of cold-related mechanical and electrical generation outages so that preventative measures can be taken and standards can be implemented.

FERC hopes to implement the recommendations as soon as possible, with FERC Chairman Willie Phillips noting that some recommendations from the analysis of Winter Storm Uri in 2021 have still not been put into place.

## Marshall celebrates "Welcoming Week" event



Two girls rode in a Marshall Municipal Utilities bucket truck at the event. (Photo courtesy of Dwayne Black.)

From the *Marshall Independent*:

The city of Marshall's Diversity, Equity and Inclusion Commission hosted a Welcoming Week event

Tuesday at Justice Park. The event included food, games and activities for all ages, including a ride in Marshall Municipal Utilities bucket truck. Local orga-

nizations also had informational booths at the event.

The aim of Welcoming Week is to create an environment where everybody knows they belong.

## Minnesotans will soon be able to track flu, COVID, and RSV wastewater data by region

Researchers at the University of Minnesota, along with the Minnesota Department of Health, are planning to build a combined online dashboard for flu, COVID, and RSV that will use data from more than 30 wastewater plants across the state.

The scientists say the sampling of COVID during the worst of the pandemic illustrated that it was fairly easy to also detect flu and RSV at the same time. The new University of Minnesota dashboard will allow Minnesotans to explore where disease levels are by region, giving citizens a better grasp of disease transmission and risk in their immediate area.

The University of Minnesota COVID dashboard, which took over when the Metropolitan Council dashboard ended in



August, publishes its updated levels every Friday. It is likely that flu and RSV data will also

be provided on a weekly basis, particularly during the flu and RSV seasons.

## Minnesota-based community solar portfolio sold

On September 20, the company DSD Renewables announced they would be purchasing a group of community solar gardens across Minnesota that are under construction or planned.

The seller of the community solar facilities was New Energy

Equity, which is an ALLETE company.

The community solar facilities are located in Belle Plaine, Clear Lake, Howard Lake, Mankato, Mazeppa, Saint Cloud, Sauk Rapids, and Winsted. Construction is underway at several sites, with all expected to be completed

by 2024. The total output of the facilities is 15 megawatts and is expected to generate more than 20,000 megawatt-hours annually.

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## States that update building codes eligible for \$400 million in Department of Energy funds



The Department of Energy (DOE) announced on September 19 that \$400 million in funding would be made available to U.S. states and territories that adopt updated building codes for new homes and businesses.

About \$240 million in funds will go toward code implementation, which can include activities like workforce training, education, and studies. Another \$160 million will go to help adopt the zero-energy sections of the 2021

International Energy Conservation Code.

Letters of intent from states and territories must be submitted by November 21. That will begin a process of each state determining how they will implement the modern building codes.

The updated codes could provide energy savings over 30 years that would be equivalent to powering all the houses in the country for a year, according to the DOE.

## T&O Preview

Continued from page 1

Hector's talk is called "Preparing Yourself for Dog Encounters," and he is well-versed on the topic, having worked as a dog trainer for over 30 years. Hector has experience training all types of dogs, including police dogs.

Hector will use his fun, entertaining style to teach utility staff how to read a dog's body language, and how to quickly understand whether a dog is a potential threat or not. Hector will also teach attendees how to prevent dog bites and therefore prevent injury or even death.

Gary and Jeanne Norland will be delivering the closing keynote at the T&O Conference. Gary presents on the topic of safety, and he has worked in many roles such as laborer and electrician. His talk is called "That Moment When 'I Had Plans' Almost Killed Me..." and will focus on the life-changing time when a live 12,500-volt power line touched in him two places,



Hector Hernandez



Gary and Jeanne Norland

nearly ending his life.

Gary's survival has given him the mission of his life, promoting the safety mindset as often as he can. Gary says, "If you don't leave my presentation, go straight to your home or place of business, and want to make immediate changes that put safety first, then I've failed." Gary and Jeanne's goal is to have every attendee take away

something from the talk they can apply to their everyday lives.

MMUA is excited about this year's conference. The event is moving to the newly refurbished St. Cloud Holiday Inn and Suites this year. The keynotes, combined with roundtables, learning tracks, and the trade show, should make for an exciting conference. We look forward to seeing you there!

## Tiny crustaceans may be key to removing pollutants from water



In a study published in the journal *Science of the Total Environment*, researchers from the University of Birmingham in England announced that by using water fleas from the genus *Daphnia* to clean water, many hard-to-remove pollutants can be removed at low cost.

The creatures are not actually fleas but are crustaceans of a plankton type that range from 0.2 to 6.0 millimeters (200-6000 microns) in length.

The scientists selected *Daphnia* whose embryos were from eras when many of these pollutants were either at high levels or were not present in the environment at all. *Daphnia* embryos can lie dormant in water for decades if hatching conditions are not met. They were chosen after finding that these water fleas clean water the best.

The water fleas were put to the test in cleaning four

pollutants from water: the pharmaceutical compound diclofenac, the pesticide atrazine, arsenic, and perfluorooctane sulfonic acid (PFOS). In both a lab and outdoor environment similar to an actual-size wastewater treatment plant, the fleas were powerhouses at removing pollutants. They absorbed 90 percent of the diclofenac, 60 percent of the arsenic, 59 percent of the atrazine, and 50 percent of the PFOS.

The PFOS percentage by itself is startling, because perfluoroalkyl and polyfluoroalkyl substances are currently notoriously hard to remove from water. *Daphnia*'s ability to fight such a wide variety of pollutants, at low cost, makes this discovery extremely significant.

Scientists will continue to study the organism and start to move toward implementing their use in a variety of wastewater treatment settings.

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## Geologic hydrogen becomes the next target for hydrogen markets

The University of Colorado Boulder is embarking on a three-year study to see whether geologic hydrogen can become an efficient part of the hydrogen supply for the world.

The geologic form of hydrogen develops in pockets in the earth's crust as water combines with

hydrogen. If geologic hydrogen can be found efficiently, the costly processes that are currently used to create hydrogen on earth can be reduced or eliminated.

That is what the University of Colorado Boulder will be up to. Their first goal will be to see whether or not geologic hydrogen can be produced efficiently and

in an environmentally sound manner. Another goal is to see if humans can modify underground environments to create more hydrogen. The team's work will be focused around creating minimal environmental impacts so that the mining of geologic hydrogen remains a net positive for the environment.

## Sacramento Municipal Utility District completes commissioning of iron flow battery system



Pictured are three Energy Warehouse™ systems. The entire system is within a container that can be easily moved and set up in different locations. (Courtesy of ESS Tech)

On September 14, the Sacramento Municipal Utility District (SMUD), the United States' sixth-largest municipal electric provider, completed commissioning of six Energy Warehouse™ systems.

These battery storage systems are a product of ESS Tech and consist of a container the size of

a tractor trailer. Inside is an iron flow battery system that delivers nominal power (i.e., maximum output under normal operating conditions) of 75 kilowatts direct current.

Under a previous agreement with SMUD, ESS Tech will eventually deliver up to 200 megawatts of iron flow battery systems to the utility. The

system is designed to last for 25 years with minimal maintenance required. The Energy Warehouse is designed to provide about 12 hours of capacity at its top end.

Using its new storage batteries and its existing renewable energy infrastructure, SMUD plans to reach zero carbon in its electricity generation by 2030.

## Wood Mackenzie report says American power sector could reach 60 percent carbon free by 2032

A new report from research and consulting firm Wood Mackenzie issued on September 13 says the American power industry could reach 110 gigawatts of carbon-free energy production by 2032.

This would allow the industry to reach a target of 60 percent carbon-free energy production by 2032.

The report credits billions of dollars in tax credits from the Inflation Reduction Act (IRA) for

the rapid progress. The IRA has done this by making renewables more lucrative and profitable for energy production and many other associated industries.

## Water board in Southern Netherlands calls for music festivals to pay for wastewater cleaning

The De Bommel water board, a board in the Southern Netherlands province of Brabant, has called for music festivals in the province to pay for wastewater cleaning from their events before it enters public sewers.

The problem is contamination from drugs, which enters the sewers and can have adverse effects on nature and public health. Drugs are expensive to filter out, and sometimes impossible to mitigate. The goal is to

prevent these costs from being passed on to taxpayers, and instead to lay the costs at the door of the responsible festival goers and organizers.

## Janesville brings home Wisconsin tap water crown

The city of Janesville, Wisconsin has been named as having the best-tasting tap water in Wisconsin after a competition at the Wisconsin Section American Water Works Association Water Taste Test Competition.

Janesville Water Utility serves about 65,000 people.

Runner-up to Janesville was Menasha Water Utility. The event was judged by a panel of experts from around the State of Wisconsin.



Janesville will compete for the title of "North America's Best Tasting Tap Water" in Anaheim, California in June 2024.

## MPUC unanimously decides against reconsidering June Xcel rate decision

On September 14, the Minnesota Public Utilities Commission (MPUC) voted 5-0 against reconsidering their June decision on Xcel Energy's Minnesota rates.

Xcel asked for a rehearing of the decision, which called for an increase of \$306 million (9 percent) over three years. The

PUC rejected Xcel's argument that the rate hike was reasonable.

The PUC also formally approved Xcel's decision to waive credit card fees for customers starting in 2024.

Xcel can appeal the PUC's decision, although it is not clear at this time whether they plan to do so.

## Europe's largest solar thermal plant opens



The largest solar thermal plant ever built in Europe has opened in Turnhout, Belgium.

Packaging company Avery Dennison's new plant creates energy by using 2,240 surface mirrors to direct sunlight onto a receiver. The receiver heats up a fluid that then can be used to create steam for electricity generation. The plant also has six thermal modules that can be used to store energy.

The plant has a peak energy yield of 2.7 gigawatt-hours of thermal power. As a solar thermal plant, it will also have heat output that will be used to heat Avery Dennison's factory and run the factory's drying ovens.

The project is a collaboration among Norwegian thermal energy storage EnergyNest, Belgian solar thermal energy partner Azteq, and local community group Campina Energie.

## Missouri state government notifies state's water and wastewater operators about cyberattack threat

After receiving a threat advisory from the Environmental Protection Agency (EPA), the Missouri Department of Natural Resources notified the state's water and wastewater operators of potential risks to their systems.

The Water Information Sharing & Analysis Center had also learned of possible cybersecurity threats and coordinated with the EPA.

Volt Typhoon, a Chinese state-sponsored hacking group, was singled out. The group



could be looking for information through phishing attacks that could later be used to damage or disable critical infrastructure.

Strong passwords, password resets, and multi-factor authentication were all mentioned by government officials as methods of slowing down and stopping potential cyberattacks.

## World's first "tri-gen" power system opens in California

On September 7, power system manufacturer FuelCell Energy and Toyota announced the opening of the world's first "tri-gen" power system, which produces clean hydrogen, electricity, and water.

The power system is located at Toyota's main Southern California port facility in Long Beach, California. It works by taking biogas sourced from waste to power a fuel cell system that will produce 2.3 megawatts (MW) of electricity, 1,200 kilograms of hydrogen, and 1,400 gallons of water a day. Toyota uses much of the electricity on-site. The automaker also uses the hydrogen for fuel cell trucks

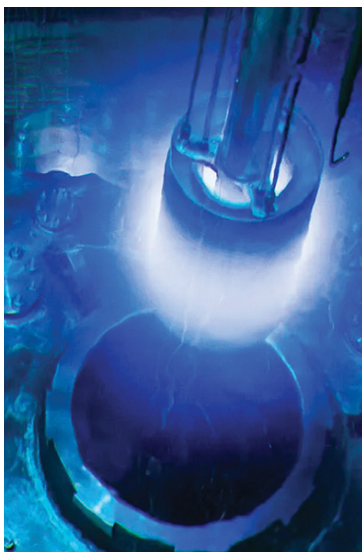


it operates at the port, and for its fuel cell cars as they arrive in port. The water is used to wash new cars entering the port before they go to customers. The system uses a molten carbonate fuel cell that also creates some

carbon dioxide. These emissions are also captured and used for commercial applications.

Toyota plans to build more of these systems at its other company facilities around the world.

## Alaska's Eielson Air Force Base to host first nuclear microreactor on a military installation; contractor selected



On August 31, the United States Air Force issued a notice of intent to award a contract to Oklo Inc., who will design, construct, own, and operate the military's first microreactor pilot.

The 5-megawatt microreactor will support the base's existing coal-fired heat and power plant and could help in the case of a cyberattack on the base's electrical infrastructure.

A microreactor is described by the Air Force as a small nuclear reactor that can produce carbon-free energy. It is equipped with built-in safety features that self-adjust to changing conditions and demands to prevent overheating.

Eielson is the first United States military installation to install a microreactor. The pilot was part of the 2019 National Defense Authorization Act.

Testing of the microreactor could begin in 2027, with full operation expected by 2028.

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## Japan's NTT conducts first successful experiment to inspect wind turbine blades while operating



Japanese telecommunications company NTT has conducted an experiment using two drones that, for the first time, allowed for inspection of wind turbine blades while the turbine is operating.

The experiment worked by flying the drones to a height of 30 meters on a small-scale wind turbine. One drone acted as the transmitter, with the other acting

as a receiver. The drones created a Fresnel Zone, or a place where radio waves could propagate, by flying around the blades of the turbine with correct spacing.

Because they were able to send and receive, the drones could read differences in radio signal reception when the drones were between undamaged blades versus blades that were damaged. This breakthrough

will allow for less downtime at wind farms and quicker analysis of turbine blade conditions in real time.

NTT plans to continue their experiments, including by doing readings at heights of 80 meters, which is closer to the height of an average wind turbine in the United States.

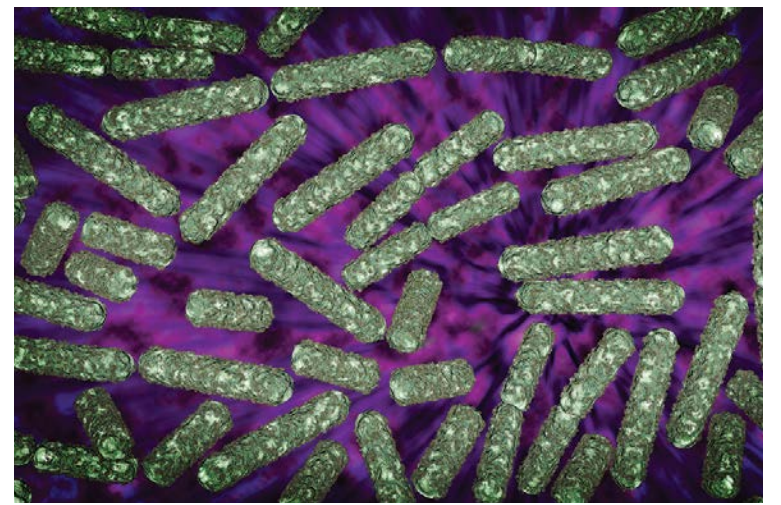
## Swiss scientists create E. Coli that can make electricity from wastewater

Scientists at the Ecole Polytechnique Federale de Lausanne in Switzerland published a paper in the journal *Joule* on September 8 that detailed their efforts to turn wastewater facilities into a net creator of electricity, rather than a consumer of power.

The team accomplished this by modifying the bacteria *E. Coli* with genetic parts from a microbe that can produce electricity. In a wastewater plant, the modified

*E. Coli* worked by breaking down the organic materials in the system and creating electricity as a byproduct. The modified bacteria are able to create electricity from many kinds of organic sources.

The scientists are optimistic that new bacteria will be able to create electricity in a variety of wastewater systems. They plan to study the bacteria's use in different environments so they can see where it works best.



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## Chippewa tribes oppose public loan for Superior, WI gas plant

On September 10, the Little Traverse Bay Bands of Michigan, the Fond du Lac Band of Minnesota, and the Bad River and Red Cliff Bands of Wisconsin submitted a letter to the United States Department of Agriculture opposing a \$350 million public loan to Dairyland Power Cooperative for its share of costs to build the Nemadji Trail Energy Center in Superior, Wisconsin.

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The tribes argued in the letter that with the increasing rate of climate change, the public loan must not be made. Secondary concerns for the tribes included the plant's location near a Fond du Lac tribal mass grave and near Lake Superior.

The proposed natural gas plant is a \$700 million power plant that is a joint project led by Dairyland, Minnesota Power, and Basin Electric Cooperative.

## Hartford, South Dakota breaks ground on new wastewater facility

Hartford, which lies about 15 miles northwest of Sioux Falls, has grown from a population of 1,844 as recently as the year 2000 to an estimated 3,354 residents in 2020.

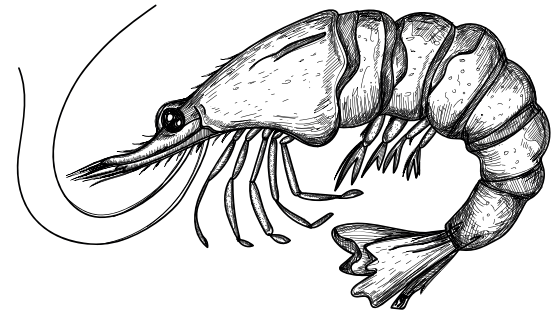
With this growth, a new wastewater facility was needed to accommodate anticipated future needs.

The community broke ground for the facility on September 18. Mayor Arden Jones said the \$22 million facility might be the biggest project the area will embark on for the foreseeable future.

The new plant is projected to process 1.5 million gallons a day and provide capacity for further development of the area. It is expected to be complete by summer 2025.



## New Chinese solar farm site makes solar energy, salt, and farms shrimp




### A new Chinese solar power station opened on July 8.

The Chinese government claims it is the largest single-unit power station in the world (at 1.5 billion kilowatt-hours annually), and the station also has other tricks up its sleeve.

The power station is situated on five square miles over the Changlu salt fields. Spacing of the solar panels allows for sun-

light to both reach the salt field and also be reflected. This allows salt to be collected as the water evaporates.

The salt fields are also doing double-duty, as they are used to breed shrimp. The entire project is expected to save 500,000 tons of coal each year and reduce carbon dioxide emissions by 1.25 million tons when operating at full capacity.



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1 www.bls.gov/oes/current/oes499051.htm | 2 www.bls.gov/oes/2017/may/oes499052.htm  
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## Natural gas generation continues to add American capacity

On September 6, 2023, the United States Energy Information Administration (EIA) issued its corrected capacity update for new natural gas generation.

As of mid to late 2023, 10 new natural gas power plants have come online with a capacity of 6.8 gigawatts (GW). By the end of 2023, another six gas-fueled generating plants totaling 1.8 GW of capacity will be added.

The United States added 11 natural gas-fired power plants in 2022 that had a capacity of 5.5 GW. These increases come on the heels of capacity declines in the years 2019, 2020, and 2021.

The report projects that 2024 and 2025 will see 20 new natural gas plants open, with a collective capacity of 7.7 GW.

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**Blue Earth's** famous Jolly Green Giant statue is temporarily wearing a bandana (although much larger!) similar to those worn by contestants on the CBS reality show "Survivor." The program is celebrating its 45th season by promoting the show near iconic tourist sites nationwide, including Faribault County's own Jolly Green Giant.



On September 16, more than 30 residents of **Brownnton** joined together to help repair the fire-damaged home of former Brownnton mayor Jay Werner. Werner has struggled with health challenges and his home was affected by fire in January of 2022.

**East Grand Forks Water and Light** had a planned electrical outage on the morning of September 13 in order to perform system maintenance.

**Grand Marais** has been named "America's Best Small Lake Town" by *Travel + Leisure* magazine. The magazine praised the city's location on Lake Superior as well as the town's artist community.

On September 18, the **Litchfield** City Council discussed the planned Litchfield Area Recreation Center. A resolution was approved to hire ICS to start the design process for the facility. Litchfield also plans to have the recreation center enter into an agreement with the school district to meet the 2020 bond requirements for the projects as put forward by the legislature.

**Moorhead** celebrated "Greater Moorhead Days" September 7-16. Some of the events included the medallion hunt, a parade, a concert, a kids' fest, a visit from an author, and an art market.

**Olivia** is moving forward on plans to build a wellness center on the Olivia Hospital and Clinic campus. The center will contain a gymnasium, walking track, workout room, education and community rooms, and locker room. Renville County will be asking the Minnesota Legislature to award bond funds in the amount of \$9 million to partially fund the project. The total cost will be no more than \$24 million.

**Seven MMUA member utility cities** will be receiving funds from the Small Cities Development Program through the Minnesota Department of Employment and Economic Development. The grants are awarded to cities with a population of under 50,000 people and townships and counties with populations under 200,000. The grants will be used for residential and commercial property rehabilitation, upgrading public facilities, and other projects. Grantees include:



**Bagley:** \$345,000 for owner-occupied housing rehab

**Baudette:** \$1,200,000 for rental housing rehab and public facility improvements

**Brainerd:** \$575,000 for owner-occupied housing rehab and rental housing rehab

**Fosston:** \$597,713 for owner-occupied housing rehab.

**Pequot Lakes:** \$600,000 for public facility improvements

**Randall:** \$600,000 for public facility improvements

**Staples:** \$948,750 for owner-occupied housing rehab, rental housing rehab, and commercial rehab.

Extreme drought conditions persisted in Minnesota in early October. All of Mower County and large portions of Fillmore, Houston, Freeborn, Rock, Waseca, Rice, Le Sueur, McLeod, Wright, Sterns, Morrison, Benton, and Cass counties are listed as suffering extreme drought by the National Oceanic and Atmospheric Administration (NOAA) as of October 3. The balance of the state is listed as experiencing severe or moderate drought, or as "abnormally dry." NOAA does not list any of Minnesota's 87 counties as normally saturated.

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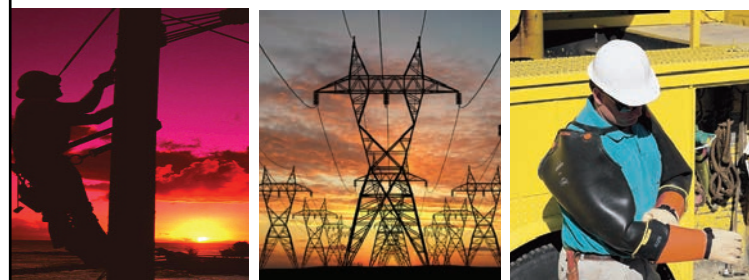


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Several sources say that Senator Joe Manchin, (D) West Virginia, is recommending the Biden Administration choose Federal Energy Regulatory Commission (FERC) staffer David Rosner as a new Commissioner for FERC. Rosner has worked as an energy industry analyst for FERC since 2017. He is an economist who has focused on several energy areas for FERC. Rosner, a Democrat, would give the Commission a 3-2 Democratic majority.



On September 5, a judge agreed to consolidate several lawsuits against Xcel Energy that represent hundreds of plaintiffs. The cases are related to the effects of the 2021 Marshall Fire that occurred in Boulder County, Colorado. The fire resulted in the death of two people and created more than \$2 billion in damage. Xcel infrastructure has been partially blamed for causing the fire.

The Texas electric grid came close to blackout conditions on the evening of September 6 as extreme heat and high electrical demand combined with outages of generation capacity brought about an Energy Emergency Alert. The grid set a new ERCOT peak demand record of 82,705 megawatts. Energy storage kept the grid from experiencing rolling blackouts.



On September 12, Wolverine Power Cooperative signed a power purchase agreement with Holtec, owner of the Palisades Nuclear Power Plant. The agreement will allow the plant to reopen after its closure in May of 2022. Palisades is located in southwestern Michigan.

On September 14, Turkish energy officials reported they plan to finalize a deal with China within the next few months regarding the construction of Turkey's third nuclear power plant.

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"If you cut off our power, deprive us of electricity, deprive us of water, deprive us of gasoline, you need to know we have the right to do it (too)." Those were the words of Ukrainian President Volodymyr Zelensky on the CBS news program "60 Minutes," highlighting the importance of working utilities to the life of his country, and his willingness to reciprocate in kind if Ukrainian utilities continue to be damaged by Russian forces.

New Zealander Hugo Manson, 82, who spent most of his career as a historian and researcher, has begun working as a wastewater treatment professional. He became interested in the field after working as a cleaner at a mill during his retirement. When a wastewater job became open, Manson stepped in as a fill-in and soon found himself taking classes to become a wastewater treatment professional.



Brazilian power company ISA Cteep is planning to invest more than \$3 billion in electricity transmission projects in the country by 2028.

On September 25, Reuters reported that Russia plans to collect additional revenue by raising natural gas prices for domestic natural gas customers and increasing the mineral extraction tax.



Deutsche Lufthansa, Germany's largest airline, estimated that if the airline were to run its current fleet of airplanes on green fuels, it would take half of Germany's electricity production to produce the needed resources.

On September 28, Reuters reported that the German government is looking at all options, including subsidies, to protect and support German solar power manufacturers. Prices continue to fall due to the flood of Chinese-made panels in the German marketplace.

## Break-in, property damage at Winnipeg water treatment plant

On the morning of September 3, the Manitoba Royal Canadian Mounted Police (RCMP) were called to a wastewater plant in the rural municipality of Springfield, east of Winnipeg, after reports that a man had broken into the facility's yard and was using an excavator to damage property on site.

When the RCMP arrived, they found damaged buildings and damaged vehicles in the parking lot. Police climbed on the excavator and ordered the operator to stop, which he did after a second command. The operator resisted arrest and was taken into custody.

The trespasser was an unnamed 39-year-old man. He was charged with multiple counts,

including breaking and entering, theft of a motor vehicle, dangerous operation of a motor vehicle, two counts of resisting arrest, assaulting a police officer, mischief over \$5,000, and failing to comply with a release order.

The plant sustained at least \$1 million in damage. Treatment activity was not affected by the perpetrator.

## Chromium could replace osmium and ruthenium in solar panels

New research by a team at Switzerland's University of Basel published in the journal *Nature Chemistry* on August 14 reported that using the element chromium in solar panel applications worked similarly to the more commonly used elements osmium and ruthenium.

The discovery is notable because osmium and ruthenium

are extremely expensive components of solar panels. *Popular Science* has reported the elements are as rare in the environment as gold and platinum, while chromium is 20,000 times more common in the earth's crust than osmium and ruthenium.

The team used chromium by placing atoms of chromium next to hydrogen, carbon, and nitrogen within a molecular framework.

This made the chromium even more reactive than osmium and ruthenium.

The scientists believe this discovery could help decrease the price of electronic displays or converting solar power into solar fuels. They plan to scale up the size of the new material so they can learn more about its other possible applications.

## World's largest wind turbine sets 24-hour generation record

The Chinese Goldwind GHH252-16MW turbine, which is made by Goldwind of Beijing, is a 16-megawatt (MW) turbine with a rotor diameter of 827 feet.

It is located at the Zhangpu Liuaio Phase 2 offshore wind farm in Fujian Province in southeastern China.

After being online just over five weeks, the turbine set the new record on September 1 when wind speeds of 53 miles per hour allowed it to produce 384.1 megawatt-hours in 24 hours. This is enough power to meet the daily needs of about 170,000 people. The winds received a boost from Typhoon

Haikui, which also left damage in China and Taiwan, among other places.

The record was set not only because of the turbine's size, but because it is a "smart" turbine that is able to respond to high-wind conditions and continue to generate electricity when others have to shut down.

## Enbridge buys natural gas distribution companies from Dominion Energy in \$14 billion deal

On September 5, pipeline operator Enbridge announced that it had purchased three natural gas distribution companies from Dominion Energy in a \$14 billion deal that included the assumption of \$4.6 billion in debt.

According to a press release from Enbridge, the gas distribution companies are as follows:

- The East Ohio Gas Company, also known as Dominion East Ohio, serves more than 1.2 million customers across more than 400 communities and 27 counties in Ohio.
- Questar Gas, which serves about 1.2 million customers across Utah—that's about

97 percent of households in the state—as well as regions in southwestern Wyoming and Idaho, in addition to its related Wexpro companies.

- The Public Service Company of North Carolina, also known as PSNC Energy, serves more than 600,000 customers across 28 counties in North Carolina.

With the purchase, Enbridge will have North America's largest natural gas utility franchise.

The combined concern will deliver nine billion cubic feet a day of natural gas to over seven million customers. The deal is expected to be completed in 2024 after approval by regulators.

## \$2 billion+ electric truck battery factory to be built in US

The joint ventures between vehicle makers and battery makers continue.

On September 6, Daimler Trucks and Buses, commercial truck maker PACCAR, and Accelera, the zero-emissions unit of Cummins, along with Chinese battery cell manufacturer EVE Energy, announced a partnership to build battery cells for commercial electric trucks in a new facility.

The planned \$2 billion+ factory will manufacture lithium-

iron-phosphate (LFP) batteries, which minimize the need for more expensive nickel and cobalt components. The consortium hopes to drive down costs in this market through the large-scale manufacture of the most modern, efficient batteries yet developed.

Accelera, Daimler Truck and Buses, and PACCAR will each control 30 percent of the joint venture, with EVE Energy holding a 10-percent, non-controlling stake. The date of construction for the factory and its location have not yet been determined.

## Upcoming Events

### Technical and Operations Conference

December 5-7  
Holiday Inn & Suites, St. Cloud

#### Trade show

The T&O trade show is one of the best networking opportunities in Minnesota for industry professionals. Learn about new and popular products, interact with vendors, and connect with the people who can help you make your next big project a reality.

### Roundtable sessions

Engage in important conversations with your peers and industry experts at a variety of roundtable sessions. Covering topics ranging from protecting utility assets and substation fence grounding to workforce development and RP3 applications, these discussions are packed with relevant content to move your utility forward.

### Join us at the Holiday Inn & Suites

MMUA is excited to return to the newly renovated Holiday Inn this year. With comfortable lodging, attractive meeting space, and excellent food options nearby, the Holiday Inn will be an ideal setting for the T&O Conference.



For more information, see the Events Calendar at [www.mmua.org](http://www.mmua.org) or call MMUA at 763.551.1230.