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MMUA
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MISO's 2022 seasonal assessment projects summer supply challenges

The readiness plan developed by the Midcontinent Independent System Operator (MISO) for the summer of 2022 assumes there will be continued supply issues and high electrical demand this season. The period is forecast to be the ninth hottest summer on record for MISO's service area.

MISO's seasonal assessment considers that a warmer than normal summer is in the cards for most of MISO's footprint. Above-normal temperatures are expected for MISO North, with above to well-above normal temperatures expected in the mountain west.

Seasonal precipitation across much of the north and mountain west is expected to be below average as well, raising the possibility of wildfires again this year. Most of the mountain west, west coast, and Texas will remain in a persistent drought into the summer months.

If the drought spreads into MISO Central or North, the heat

risk will expand into Minnesota along with the increased risk of strong storms. As it is, an active thunderstorm season is expected in the north, as well as an active hurricane season along the Gulf and Atlantic coasts.

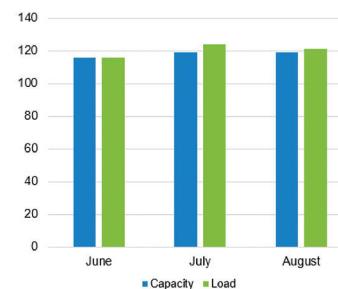
With these above-average temperatures, storm risk, and continuing drought adjacent to our region, generation is projected to face challenges in matching demand during the summer of 2022. At this time, MISO is estimating there will likely be insufficient generation capacity to cover summer peak forecasts.

Load is projected to surpass capacity in July and August of 2022, taking into account typical demand and outage scenarios. MISO projects that emergency resources and non-firm imports will be needed to meet this peak demand.

Continued problems with coal supply complicate generation scenarios. Low coal inventories plus decreasing use of coal in generation saw 2021 coal stockpiles reach their lowest levels

Under typical demand and outage scenarios, firm resources are projected to be insufficient to cover peak load of summer months

MISO 2022 Base Summer Forecast	
June Probable Peak Load Forecast	116 GW
June Projected Available Capacity*	116 GW
July Probable Peak Load Forecast	124 GW
July Projected Available Capacity*	119 GW
August Probable Peak Load Forecast	121 GW
August Projected Available Capacity*	119 GW



This graphic illustrates MISO's projected load and capacity figures for the summer of 2022 - with peak load hitting capacity in June and surpassing it in July and August (courtesy of MISO)

since March of 1978. The Energy Information Administration (EIA) estimates that it will take the rest of 2022 or longer for coal inventories to be restored to desirable levels.

MISO also studied the grid and its possible performance this summer. At this time, transmission system performance is expected to be within necessary parameters for the season's needs.

To help operators deal with these challenges in a forward-

thinking way, MISO provides the Multiday Operating Margin forecast report (MOM) daily on the MISO website. This gives interested parties a system-wide week ahead examination of resources that will be available, loads, and reserves.

With the growing importance of wind to the generation mix, MISO is also providing a new 7-day hourly wind forecast so

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Legislative session ends with little for utilities

Municipal Utilities' priorities are well-positioned for next session outcomes

by Kent Sulem

Throughout the 2022 legislative session, there never seemed to be a sense of urgency.

As the final week approached, by mutual agreement, no conference committee hearings were scheduled so Republicans could attend their nominating conference in Rochester. And no hearings would have likely been held during parts of the final weekend if DFL leadership had not asked members to skip their own nominating convention. So, when midnight finally struck on May 22, there was no flurry of bills being sent between chambers. There were no theatrical shouting matches on the floor of either chamber. Perhaps most disappointingly, there was no surprise that so little was happening.

Part of the problem was the legislature wasn't mandated to do anything this year. The state's biennial budget was

set last year. The \$9.25 billion surplus meant they didn't need a supplemental budget to address a shortfall. In fact, the surplus made things harder. When a shortfall is predicted, the legislature eventually comes around to core needs and passes the necessary budget changes. With a small surplus it is easy to just put the money in the rainy-day account. But with a large surplus, there are as many ideas on what to do with it as there are dollars, and nobody feels they need to compromise. Throw in an election where control over each chamber plus the Governor's office is on the ballot, and each party can't help but wonder how it would be to have complete control with \$9.25 billion extra to spend. Under these conditions it is easy to see why there were nearly as many retirement speeches given as bills passed.

Out of the more than 2,000

bills introduced in each chamber, plus an additional 2,000 bills each chamber carried over from the 2021 session, a grand total of sixty-seven pieces of legislation made their way to, and were signed by, Gov. Walz. Progress was made on several bills of interest to MMUA that will either bode well in a special session, or in the 2023 regular session.

The three major accomplishments from the 2022 regular season were: payment of unemployment insurance debt owed to the federal government; securing five years of needed health insurance pool funding; and bonus payments to front-line workers during the pandemic. Unfortunately, utility workers did not make the cut of front-line employees who will receive this pay.

The legislature also approved passage for the appropriations of the Outdoor Heritage funds (2022 Session Laws Chapter

77), and the Environment and Natural Resources Trust funds (2022 Session Laws Chapter 94). While not the polyfluoroalkyl substances (PFAS) appropriations sought by MMUA, the latter bill provides \$200,000 to the University of Minnesota to examine methods to destroy PFAS in landfill leachate, and \$446,000 to the DNR to work in agreement with St. Louis County to design, implement, and study an innovative method to prevent PFAS in landfill leachate from entering water resources using engineered wetland treatment systems.

The Omnibus Agriculture Bill, 2022 Session Laws Chapter 95, provides \$210 million for border-to-border broadband efforts. Of this funding, \$160 million is from federal funds, and \$25 million in each of the next two years is from the general fund.

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Safety Team meets in Plymouth

MMUA's Safety Team met in Plymouth in early May to learn, share tips from out in the field, and have a little fun. The multi-day meeting included many informative presentations and sessions. An all-staff meeting was also held on May 4.



Clockwise from upper left:
Bruce Westergaard shows off his retirement cake.
Jay Reading presents at the meeting.
Safety team put on a fun skit with all the requisite (or forgotten) safety equipment to show the importance of safety.

Broadband assistance passed by Minnesota legislature

A combination of federal and state funds will assist in broadband infrastructure deployment after being passed by the Minnesota legislature.

The new law provides \$50 million in general fund spending to support matching funds for broadband development in unserved and underserved areas of the state.

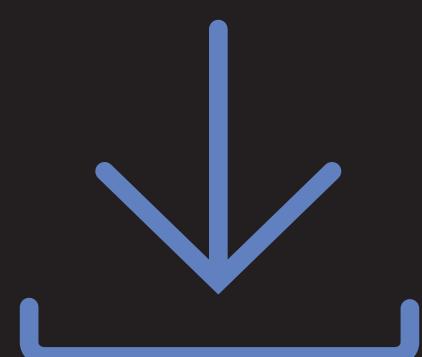
The bill also provides \$60 million from American Rescue Plan funds to be used for broadband grants.

In addition, up to \$100 million in federal funds will go to broadband infrastructure deployment.

The bill also provides funding to connect extremely underserved communities to broadband, as well as extending the system to reach isolated communities or small areas

that are still "off the grid" as far as broadband is concerned.

More than 240,000 households currently lack access to a connection that meets state standards. The governor's office estimates meeting the state's 2026 goal for adequate broadband will cost \$1.3 billion, with most of that money coming from the state.



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Graduation remarks describe the making of heroes in the Navy – and the utility

This time of year, families and friends gather in gymnasiums around the country for graduation ceremonies. The only thing more ubiquitous at these events than “Pomp and Circumstance” is the commencement address.

One of the most memorable of these speeches came from former Admiral William H. McRaven during exercises at the University of Texas in 2014. The principles he shared—learned years earlier from his Navy SEAL training—can be useful to those of us in municipal utilities as we seek to navigate through this period of innovation, uncertainty, inflation, shortages, and political posturing.

1. Make your bed. Every day, start off doing some simple task that will give you a sense of having accomplished something. At home it might be making the bed. On the job you might make it a point to say something positive to every co-worker when you arrive. Whatever it is, complete something that can't be ruined no matter what the rest of the day brings.

2. Find someone to help you paddle. No matter how swimmingly things are going in your community, there's always something – a project or impediment that you have to get through. Admiral McRaven points out that trying to do these things alone is exhausting and a set-up for failure. We all need a support

team, people to cheer us up, keep us safe, and help us change the world.

3. Measure a person by the size of their heart, not the size of their flippers.

When McRaven was training as a SEAL, the “little guys” often outshone those physically larger by finishing exercises well ahead of them. From this McRaven learned the pitfalls of drawing conclusions based on size as well as the value of gumption. Municipal utilities are often the “little guys.” We, too, can finish first if we play to our strengths. I was reminded of this at the end of May, when there were storms in Minnesota. Outages happened all over the state. But after 18 hours, almost none of the Minnesotans who still didn't have power were municipal ratepayers. Our size and mutual aid structure allow us to excel where bigger entities might struggle.

4. Get over being a sugar cookie and keep moving forward.

McRaven points out that sometimes the universe just doesn't recognize our efforts no matter how much energy we've put in. At MMUA, we certainly see this in our work with the legislature, when months of labor results in nothing being passed for our members because of partisan bickering. Sometimes it happens locally when a ratepayer seems to be gunning for the utility or its staff. McRaven's point isn't that we need to feel great about these

moments. Instead, he reminds us that unfairness and lack of recognition can be facts of life. The willingness to get over it and keep going is the only way to make progress.

5. Don't be afraid of the circuses. In SEAL training, a circus is two extra hours of calisthenics—something that happens to a candidate who has failed that day. Nobody wants to fail, and nobody wants the extra work and aggravation that comes with it. Yet, the circuses made those candidates stronger. We will all be better off by taking in stride the mistakes, challenges, and required labors that ultimately strengthen our organizations.

6. Sometimes you have to slide down the obstacle headfirst. McRaven talks about an obstacle course—a daunting, yet required, exercise for all candidates. Most people approached the tests the same way. The fellow who did it differently saved a lot of time and set a new record. In utilities, we are dealing with public money and inherently dangerous situations. It's natural to be careful. McRaven reminds us that being cautious enough to stay alive should not keep us from being creative enough to raise the bar of excellence.

7. Don't back down from the sharks. When swimming in the ocean, you can get eaten by a shark unless you meet it head on and poke it in the snout. The lesson for utilities?

When obstacles and difficult people show up, don't back down. You don't have to destroy them; just don't get scared or retreat. If you do, they will have you for lunch.

From My Desk to Yours

Karleen Kos
MMUA CEO



When obstacles and difficult people show up, don't back down. You don't have to destroy them; just don't get scared or retreat. If you do, they will have you for lunch.

8. Be your very best in the darkest moment. SEALs often work underwater in the dark. They have to keep their wits when there is little to guide them. With all that is going on in the utilities world right now, few things are certain except change. McRaven points out that doing your job and pressing on even when what lies ahead is unclear is the only way to survive and succeed. After the worst darkness, there can only be light.

9. Start singing when you're up to your neck in mud. In SEAL training there are exercises that require hours in cold muck. Instructors goad candidates to quit. When McRaven went through the course, one candidate, up to his neck in mud, started singing loudly and boldly—to the dismay of the instructors and the

encouragement of his similarly-situated peers. McRaven observes that you can change the world by leading, giving others hope and encouraging them not to give up.

10. Don't ever ring the bell. For a SEAL, ringing the bell means you take the easy way out; you quit. To succeed as a SEAL or in your municipal utility, it's essential to assume that giving up isn't an option. Only when quitting isn't an option can all your energy be applied to succeeding.

I hope that is what you are able to do every day—and I hope that MMUA is continually improving to provide the support and tools you need to help make you succeed.

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DOE announces battery funding

On May 2, the United States Department of Energy (DOE) announced \$3.1 billion in funding from the Bipartisan Infrastructure law known as the Infrastructure Investment and Jobs Act (IIJA) to manufacture more batteries and battery components in the U.S., as well as to develop increased battery recycling resources.

Funding will also go towards the development of stronger battery supply chains, including the sourcing of key battery materials from domestic sources.

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Mutual Aid comes through

by Bruce Westergaard and Cody Raveling

Regional Safety Team Coordinator and Job Training and Safety Instructor (JT&S) Bruce Westergaard and MMUA Training Center Coordinator and JT&S Instructor Cody Raveling were on hand to help in the aftermath of the strong storms that struck South Dakota and western Minnesota in May.

Both Bruce and Cody had been at underground school, but left to support mutual aid efforts in nearby communities. Traveling around as the storms abated, they saw both the power of the storms and of MMUA's mutual aid coordination.

Bruce says, "I went to Madison, MN, on Friday morning May 13. Missouri River Energy Services (MRES) had sent a crew from Olivia over the night before. It was determined a tornado had hit the town.

The tall light towers at the Madison ball fields were twisted and collapsed. Heavy tree damage occurred, and a lot of roofs were destroyed.

By the time I arrived, much of the storm assessment had already been done by Dave Johnson, the Electrical Superintendent. I spent my time there working as a groundman for the crews. This involved prepping hardware to hang and running a digger derrick to deliver transformers.

I was in town from 8:30 am until 2:00 pm that day. They got nearly all power restored by 11:00 pm. It is rewarding to see the crews taking safety seriously and working with professionalism even during times of high stress. There is nothing like a disaster to show the value of a city owned utility. It is truly an honor to be involved with them.

I also made a lot of calls to the cities in my safety group to see if they needed any assistance. If there was a need, I forwarded the request to Mike Willetts as he oversees disaster assistance.

The city of Brookings, SD where I live was out of power for 30 hours. The longest previous outage I remember in my 48 years as a resident in the city was between three and four hours. I think nearly 80% of the houses, including mine, had roof damage from this year's storms. The main cause of our outage was not with the city's distribution system but with the transmission lines feeding the city.

Western Area Power Administration (WAPA), the federal government power provider, had transmission lines down between the Watertown substation and Brookings. Parker, SD had extensive damage and reached out to Beresford, SD for mutual aid. Madison, MN also sent a request for materials. As I travelled to Miller, SD I noticed significant damage as far west as Lake Preston, SD. Going south to

Beresford there were interstate signs bent over. It takes a lot to damage those I-beam structures.

Cities and their employees are amazing. They go day-to-day, providing all the basic services a resident expects in a civilized world with no fanfare or need for special recognition. This is done with pride and passion.

In 44 years of my being involved with utilities, it never ceases to amaze me how cities and departments pull together during an emergency. It has been an unbelievable privilege to share in the experience."

Cody relates: "I received a call Thursday evening, May 12, from Granite Falls Public Utilities for a mutual aid request after damaging winds had occurred in that city. After talking with the team there, I contacted Mike Willetts, who then made a call to Marshall Municipal Utilities (MMU) to see if they could send a 3-man crew Friday morning. We were grateful they were able to do that.

I arrived in Granite Falls at 6:30 am Friday morning and got the details on what needed to be done. MMU arrived at about 7

am with a 3-person crew as well as providing a bucket truck and a digger/derrick truck.

I met them at the first job that needed to be handled. After I got them started on repairs, I continued with a damage assessment in the areas of town that hadn't been covered yet.

Soon, MMU completed the first big task which was replacing a 3-phase corner pole that was taken down by a large evergreen tree. Once that was finished, the MMU crew went to a different part of town and replaced a pole top pin that had snapped off and had a phase floating. This task required one worker to climb the pole to complete the job.

Meanwhile, the Granite Falls crew replaced another 3-phase in-line pole and took care of some other storm-related tasks throughout the day. MMU and I left Granite Falls around 8:30 that evening. Everyone in Granite Falls had power at that time."

In storms like this, mutual aid and teamwork is the difference between getting the lights on safely and efficiently...or customers staying in the dark.



The 115 KV line on the north side of Brookings, SD was just a small portion of the power infrastructure damaged by recent storms that blew across the Dakotas and Minnesota.

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Jeremy Carter joins MMUA's Board of Directors



Jeremy Carter, General Manager of the Hutchinson Utilities Commission (HUC) has joined the MMUA Board of Directors. He will fill the seat vacated by Chris Trembley, General Manager of Madelia Municipal Light and Power, who resigned in April.

Carter has served as the general manager in Hutchinson for the past eight years. Prior to becoming the general manager, he served as the Finance Director and City Administrator for the City of Hutchinson. He has served in the public sector for the past twenty-two years, working for the communities of Hutchinson, St. Louis Park, South St. Paul, and Carver County.

A native of Hutchinson, Minnesota, Carter holds a Bachelor of Science degree from the University of Minnesota, Mankato. He received his master's degree in Business Administration with an emphasis in Public Finance from Metropolitan State University in 2004.

Carter currently serves on the Board of Directors for the Hutchinson Economic Development Authority, the Hutchinson Area Chamber of Commerce and Tourism, and Minnesota Municipal Gas Agency. He is the chair of the sustainability advisory committee for the City of Hutchinson and has previously been on the Board of Directors for the MN Counties Computer Cooperative.

Carter's past volunteer service includes coaching youth sports, acting as President, Vice President, and Treasurer of the Hutchinson Hockey Association, and serving as Commodore of the Hutchinson Water Carnival Festival. In addition, he is a past president of the Hutchinson Jaycees, a GFOA Financial Reporting Reviewer, and he has been a conference presenter on topics such as debt issuance and management, public funds investing, cash management, and financial planning.

Carter will serve until August when his nomination to complete Trembley's term will be submitted to MMUA's membership for a vote.



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Virtual Roundtable unpacks supply chain issues

MMUA members and staff met virtually on May 24 to unpack the supply chain issues that are roiling municipal utilities and many industries in the electrical generation and distribution space.

The goal of the MMUA-hosted event was to connect member utilities with current information, practical solutions, and resources to address their supply chain challenges.

Speakers included Chad Backes, District Manager at Irby Utilities; Alex Hofmann, VP of Technical and Operations Services, American Public Power Association (APPA); and Mike Willetts, Director of Training and Safety, MMUA.

Chad Backes from Irby Utilities spoke first. He said that lean manufacturing and just in time manufacturing have not worked well when unexpected things happen. Like in other industries, manufacturers are dealing with a shortage of employees and higher prices across the board.

Manufacturers have contracts for raw materials and component parts. When one of these material suppliers goes out of business, it puts more pressure on other suppliers in the space. These remaining suppliers then have to acquire more inventory than anticipated to meet the needs of their new customers.

In many cases, manufacturers are trying to expand production, but they can't get the people or

the materials to facilitate their operations.

Current lead times are significantly higher than pre-pandemic norms. Backes cited that the time to acquire primary cable is estimated at 45-48 weeks, secondary wire is at 20-66 weeks, meters are at 38-40 weeks, and breakers are at 72 weeks because of residential demand. He noted that lead times are approximate and not static.

Until the situation can resolve itself, Backes recommended that utilities choose trusted partners, communicate with sources, and plan as far ahead as possible.

Alex Hofmann from APPA spoke next. He said that the roots of the supply chain issues go back years. He predicts the underlying systemic issues will take years to resolve as well because companies have left the manufacturing space and are not returning.

Meanwhile, some remaining manufacturers are redesigning their products to use less steel or other components. This will be good in the long term, but it adds other complications in the short run.

Transformers are still the highest priority for utilities, with the quoted delivery time being four times what it was in 2018.

APPA has met with federal agencies to discuss these issues. APPA has also developed a voltage matching and sharing tool and is making it free to

members.

Hofmann advised utility leaders to "do your best to be creative." Extend secondaries if you can't get a transformer and swap out transformers that are underutilized or sitting idle. He also advised utilities to prioritize existing customers while telling new builds that they might have to wait. Most of all, he stressed, focus on good communication.

Mike Willetts from MMUA spoke about the nuts and bolts of municipal utilities working together and serving each other. "This is a mutual aid event to me," said Willetts.

A list is being compiled of what utilities need and what can be shared with member utilities in a pinch. Things like switches, regulators, metering systems, and other items were mentioned as being important, as many have long lead times on an already tenuous supply chain."

Michael Nolan, MMUA's Washington-based government relations liaison, also spoke briefly. He stated, "There is not a lot of good news on the immediate horizon. People are concerned about the impact of hurricane season on an already tenuous supply chain."

MMUA will devote a session at the Summer Conference in August to review the latest supply chain updates. Stay tuned!

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Solar panel investigation causes large-scale problems for industry



A well-intended investigation into the dumping of solar panel parts by Chinese companies has resulted in supply issues and political rancor on all sides.

The Commerce Department began investigating a petition in March arguing that solar panel companies in Southeast Asia were being used as “fronts” to facilitate the illegal duty-free importation of Chinese solar panels. There are currently tariffs in place on Chinese solar panels.

As a result, four southeast Asian countries that are heavy producers of solar panels are being examined. Cambodia, Malaysia, Thailand, and Vietnam are all being investigated to determine whether solar panels allegedly originating from those nations are actually products of China being resold through

those nations to circumvent the tariffs.

A negative finding could result in tariffs also being placed on the possible front companies in these countries.

The market is already responding to this possibility. Uncertainty has caused solar groups to predict that solar installation of small- and large-scale projects could drop by as much as 50% this year.

The issue and the response to it have also split Congress. Free-traders and protectionists in both parties have supported going ahead with the investigation or stopping it immediately, based on their existing trade philosophies.

States and leaders with a strong solar industry have also stepped up to oppose the probe. Nevada, which has the largest

solar economy in the nation, was particularly quick to respond to possible disruptions to their industry. Senator Jacky Rosen and Governor Steve Sisolak argue that the probe should conclude as soon as possible.

On May 16, governors from 19 states, including Minnesota, sent a letter to President Biden requesting that the probe be wrapped up as quickly as possible to avoid any further job losses and market disruptions.

On June 6, President Biden settled the matter by declaring a 24-month tariff exemption for solar panels from the four southeast Asian countries affected. The tariff exemption was called a “safe harbor timeout” that would save projects that have been affected by the investigation.

2022 Tom Bovitz Memorial Scholarships awarded

MMUA has awarded the 2022 Tom Bovitz Memorial Scholarships. All winners were awarded scholarship funds to use for their continuing education.

The theme of this year's essay contest was "Municipal utilities: good for all of us." Judges looked for the relevance of the theme to the writer and his or her city, as well as originality.

The winners are as follows:

First Place:

Ingrid Dolan-Peterson
Austin Utilities

Second Place:

Lance Otremba
Pierz Municipal Electric

Third Place:

Avery Werneburg
Rochester Public Utilities

Fourth Place:

Brock Schmertman
Elk River Municipal Utilities

Thank you to all entrants and to the winners for sharing your wonderful thoughts on the power of public utilities for all of us.

Cloud seeding may help address hydropower dilemma

Droughts and wildfires in the American West have caused hydropower problems of unprecedented scope. Even Lake Mead, Nevada's famous man-made lake, is drying up.

According to a paper published in March 2022 by the Yale School of the Environment, “Cloud seeding, if it’s done at all, is most effective when practiced continually, seeding in wet years and dry years alike to try to keep reservoirs full and soil moist. Along with conserving and using water more efficiently, “it’s just another tool in the toolbox for water supply,” says Mike Eytel, a senior water resource specialist for the Colorado River District.

The solution may lay in cloud seeding, which some regions have used for years to solve their rainfall problems. Clouds are seeded to provide additional precipitation that prevent the worst impacts of drought in local areas. There are additional benefits to employing this tactic including healthier watersheds and more water for animals and recreation.

Experts suggest that strategic cloud seeding can produce rainfall that can be translated, through a series of calculations, directly into hydropower. As lakes and reservoirs fill up, turbines can spin and energy can be produced.

Therefore, there is a point where the costs of cloud seeding are cost effective, and the extra rainfall can be the catalyst for carbon-free power production.



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6/June 2022 The Resource

Direct Air Capture hubs show promise for U.S.



The nongovernmental organization Carbon180 recently put forward a plan for the United States to implement hubs for direct air capture (DAC) across the country.

DAC is a process of capturing carbon dioxide (CO₂) directly from the air. One method of DAC is to push ambient air across a filter with fans.

Liquid solvents, aided by the application of heat, absorb the CO₂ and let the rest of the air escape. CO₂ is then stored geologically (in the earth) or can be stored in small amounts in tanks.

DAC is seen as a way to effectively address rising carbon in the environment as the world passes many of its climate targets.

The United States Congress through the Bipartisan Infra-

structure Bill (also known as the Infrastructure Investment and Jobs Act (IIJA) provided \$3.5 billion in funding for the development of several DAC hubs across the country.

DAC hubs can provide a venue in which multiple decarbonization technologies can be studied at the same time. They also allow infrastructure to be shared by many different parties at one time, and they allow for infrastructure to be designed for expansion over time.

An important aspect of hub development is the necessity of creating geologic storage facilities. Except for cases where CO₂ may be used by industry, most captured CO₂ will need to have a secure underground place where it can be stored so that it does not reenter the atmosphere. Hubs will have to be developed in places where carbon can either be effectively stored or

reused effectively.

Carbon180 has also put forward several recommendations for the siting and implementation of hubs. One is to quickly and effectively permit hubs while doing things the right way. This means stringently complying with environmental regulations as well as building trust with local communities. Carbon180 imagines this process as continuing long after the hubs are built and operating.

The Bipartisan Infrastructure Law also emphasized that hubs, if possible, should be placed in areas that have or had carbon-intensive fuel or industrial operations. To aid this goal, Carbon180 argues that clear zones should be identified that fit the law's goals of placing hubs in these areas, as well as places that are "economically distressed."

Regions that are committed to strong labor standards, prevailing wages, and apprenticeships/job training would also make strong candidates for DAC hubs.

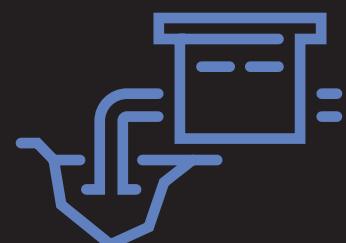
It is assumed that if DAC enters areas with a long history of work in carbon extraction or use, (like West Virginia for example), their workforce can transition quickly and be effective.

MPCA recognizes compliant wastewater treatment plants

The Minnesota Pollution Control Agency (MPCA) has recognized 273 wastewater treatment plants in Minnesota with its award for outstanding permit compliance. Facilities recognized were required to demonstrate continuous compliance with monitoring, operations, and maintenance requirements, to submit reports correctly and on time, and to have employees certified by the MPCA in wastewater operations.

Many municipal utilities were among those awarded this recognition. The full list

of recipients can be viewed at Minnesota Pollution Control's website, <https://www.pca.state.mn.us/water/wastewater-treatment-facility-operations-award>. Congratulations to all MMUA members who achieved this important quality distinction this year.



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Underground school 2022

held in Marshall

MMUA held its annual underground school from May 10-13 at the MMUA Training Center at Marshall.

A total of 75 participants came from all over the Upper Midwest to learn in an excellent outdoor environment.

Even with heavy downpours, flash flooding, and high winds, participants soldiered on and were able to complete the vast majority of their training.

Attendees participated in class sessions that included grounding and use of phasing sticks, 600-amp terminations,

a simulated accident scenario, locating and fault-finding on secondary wires, and troubleshooting and fault-finding primary cable.

They also saw presentations on cave-ins and on regulations pertaining to temporary installations. As with every school, instructors emphasized safety.

Underground school concluded with the underground school rodeo event. There were 7 participants, with Tyler O'Brien of Shakopee Public Utilities taking top honors.

Volunteer instructors came from member utilities all across Minnesota, with members of

MMUA's Safety Team staff on hand to help coordinate the week's events and make sure that everything ran smoothly.

One of the school's instructors, Jessie Lloyd from Fairmont Public Utilities, summed up the value of the training, saying that it goes beyond the benefits of what is covered in the curriculum. "It's been nice to have a lot of good conversations," he said. "People are asking a lot of good questions even after the presentations end."

75
Participants



Group picture of underground school participants



Steve Tiegs from Austin Utilities presents on phase-to-phase and phase-to-ground measurements.



Chad Peterson from Rochester Public Utilities discusses proper cable prep.



Scott Thoreson of Elk River Municipal Utilities presents on the accident scenario: vehicle vs. J-Box



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Continued from page 1

MISO's seasonal assessment

that future drops in generation can be estimated faster and allow operators to respond proactively.

In totality, the summer of 2022 looks like a challenging one for MISO and the operators that depend on the organization. However, increasing experience in an unstable weather and generation environment has helped the MISO team prepare for what lies ahead. According to MISO, the time spent projecting, understanding, and researching generation and transmission problems should provide operators and the grid with the best options available at this point in the energy transition, regardless of what comes our way this summer.



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Legislative session

Continued from page 1



And Chapter 36 of the 2022 Session Laws authorizes the City of Mora to increase their local public utilities commission to five members, up from four.

Other bills of interest to MMUA's members were close to becoming law but were not enacted during the 2022 regular session. These include:

Omnibus Tax Bill (HF3669) contained \$14.7 million of relief funding for customers of municipal utilities who saw increased gas bills due to the February 2021 polar vortex. The relief effort started out as \$35 million of relief for both customers and utilities, but as other priorities of each body got approved, fewer funds were available under the committee's "target" (the percentage of total spending each committee is allowed to

carry in their respective bills.) The top priority of the House was a change to the renter's credit portion of the State's tax code. The Senate's top priority was elimination of taxes on social security benefits. The tax conferees reached an accord on their bill, but the House conferees never signed the conference report and so it was never subject to final approval.

Omnibus Jobs, Energy, and Commerce Bill (SF4091) contained two pieces of interest to MMUA members. The first was an agreement to allow replacement load management devices to be installed without the need for a new permit and inspection, provided certain safety guards were met. The second piece was over \$20 million in total appropriations

for use as matching funds to take advantage of federal Infrastructure and Investment Jobs Act (IIJA) funds. These funds were nearly held up over concerns about the lack of legislative oversight, but a broad coalition of players including MMUA, was able to negotiate an agreement providing legislative oversight.

- Omnibus State Government Finance, Transportation, and Elections Bill

(**HF4293**) contained \$30 million of generic matching funds for IIJA money and over \$360 million of IIJA matching funds tied to transportation related infrastructure including EV charging stations.

- Omnibus Environment and Natural Resources Bill (SF4062)

This bill saw a completed conference committee report, but final passage was tabled by the Senate. The committee's \$10 million, combined with a Senate position against increasing any agency's budget doomed MMUA's effort to obtain \$600,000 in dedicated funds needed to allow the Minnesota Pollution Control Agency (MPCA) to conduct PFAS monitoring at wastewater treatment facilities. The Senate's proposed

prohibition on doing such testing if any portion of the costs are to be charged back to the facility or operating municipality was not included. There is a risk that the MPCA will proceed with the monitoring and charge back the costs. MMUA will continue conversations with the MPCA in hopes of minimizing this risk.

A bonding bill was expected to be part of the end-game negotiations, but no text was ever publicly shared, and so it is not known how programs like the public facilities authority (PFA) and water infrastructure fund (WIF) grant would have fared, but some assurance was given that language which could have meant the ultimate end of these programs would not be in the bill.

So, what happened that even agreed to bills could not become law? Part of the "global agreement" was that the tax bill would move after all other major bills had been wrapped up. The problem was that several major bills were not even close to having been resolved in time to process them and pass them out of each chamber. There was also a concern on the part of the

House that if they passed the tax bill, the Senate would have also passed it fairly quickly and then promptly adjourned sine die without passing any other bill. The Senate responded by tabling final passage of several bills until it received the tax bill from the House. Neither side blinked.

Will there be a special session? Gov. Walz originally stated that he would not call a special session. But then he changed his mind, and he and Speaker-of-the-House Melissa Hortman started pushing for one. The Senate then stated very clearly that while they were open to discussions, they are not eager for a special session. Further complicating an accord on a special session are comments from Republican gubernatorial candidate Dr. Scott Jensen. He is against holding a special session, and this in turn, resulted in many Republican legislators urging their leaders to reject a special session. That said, if the stalled tax bill and its significant tax cuts can be resurrected, and a bonding bill agreed to, it seems likely a deal on a special session could be reached. MMUA will continue encouraging members to support a special session, especially to obtain needed IIJA matching funds.

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Nominations sought for full slate of MMUA awards; board election in August

MMUA's Nominations and Awards Committee is accepting nominations through June 30.

The deadline to submit a nomination is June 30. This is a great way to recognize a municipal utility colleague, a public official, or a municipal utility system for showing leadership, innovation, and providing an example for others to follow. Please consider recognizing the accomplishments of a member of our community by submitting a nomination. Nomination forms can be downloaded at <https://www.mmua.org/about/awards-and-recognition>. All nominations will be considered by MMUA's

Nomination and Awards Committee and the awards will be presented at the MMUA Summer Conference in August. Here is a brief summary of the awards for which we are accepting nominations.

- **System Innovation Award.** This award is given to a utility that has demonstrated leadership and innovation in customer service, energy efficiency or renewables, technology, or other areas.
- **Public Service Award.** This award is given to a state, or federal or elected official who has been a strong supporter of MMUA and its members.
- **Distinguished Service Award.** This award is given to individuals

who perform outstanding service in support of the association and its goals.

- **Rising Star Award.** This award recognizes a future leader who has demonstrated a dedication to the goals and principles of municipal utilities through problem solving, creativity, and job knowledge.
- **Honorary Lifetime Membership Award.** This prestigious award symbolizes a long professional life dedicated not only to the advancement of municipal utilities locally, but also for the betterment of our industry on a statewide basis.

Board of Directors
Serving on MMUA's Board of Directors is an honor, as well as a

great opportunity for professional growth. No seats on the Board are opening this year, but we do have two appointed seats to be voted upon by the membership.

Having left his position at the City of Preston, Joe Hoffman resigned from his director position on the board. The Board of Directors appointed Pete Moulton from Saint Peter Utilities, Electric Utility to fill Hoffman's unexpired term.

In April, Chris Trembley resigned from his board seat due to other obligations.

The Board of Directors appointed Jeremy Carter from the Hutchinson Utilities Commission to fill Chris Trembley's unexpired term. Both he and

Moulton will be up for election at the Summer Conference.

Please return completed award nomination forms, by June 30 to Theresa Neddermeyer via email (tneddermeyer@mmua.org) or fax (763.551.0459).

If you have any questions about the nominations process or what service on the board involves, please contact MMUA's Chief Executive Officer Karleen Kos. She will be happy to discuss the role of the board members and the time commitment involved. kkos@mmua.org or call her at 763.746.0701.

IEA report highlights challenges with clean energy metals and mineral supply

In a report published on May 18, the International Energy Agency (IEA) highlighted emerging supply and price issues with clean energy metals and minerals. The IEA argued that these emerging issues threaten the price declines of many kinds of clean energy standbys such as solar panels, batteries, and wind turbine components.

Because of increased demand and supply chain issues, the prices of many metals and minerals have increased rapidly over the past few years.

The price of lithium increased 100% in 2021 and has gone up 250% so far in 2022. Prices for nickel and aluminum, which went up by 25-40% in 2021, have also continued to rise in 2022. Cobalt and copper are also quickly rising in price.

Demand is increasing quickly for all of these metals as battery factories open by the score, and solar panel and wind turbine manufacturing ratchet up. Supply has also been an issue as the impacts of the war in Ukraine and lingering supply-chain challenges make it harder to move goods around the world.

The IEA is working to mitigate these issues with a series of initiatives. One is monitoring of the markets so that supply stresses can be picked up on early and addressed. They are also creating a global database of policy efforts taken by world governments to address metal and mineral supplies in their own countries.

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Kasson Public Utilities becomes PCB-free certified

Kasson recently became one of 19 Minnesota utilities that have been designated PCB-free by the Minnesota Pollution Control Agency (MPCA).

For the city, it was truly a case of doing the legwork now to save a lot of work later.

Jarrod Nelson, Kasson Electric Department Supervisor, began the process when he realized that in 1994, the city had done a couple of rebuilds, switched off an old substation, and went to a different, standard voltage.

Although it was clear to Nelson that the newer equipment and voltage meant that PCBs were no longer present in the city's transformers, it still took some detective work to get the designation.

"Our recordkeeping had records of purchases, but we weren't seeing receipts. I eventually found them, and together with some old city council minutes, we were able to show how the rebuild went and how everything was changed out," says Nelson.

Nelson found that the City of Kasson started a total system conversion in 1989 from a voltage of 2400/4160 to a voltage of 7200/12470. The work was completed in phases, with the last one being completed in late 1997.

In January 1998, the Kasson Substation was deenergized for the last time, switching the system over to the new voltage out of the NSP (now Xcel Energy) substation. With this, Kasson had gotten PCBs out of their system.

Nelson requested MPCA designation as a PCB-Clean City on November 8, 2021 and received the designation soon after.

Even though it took some work, this effort makes things easier for everyone.

"Minnesota can still test us, but they probably won't now that we are designated. The EPA respects the MPCA a great deal, and as a result their likelihood of doing an inspection on our facilities also drops," says Nelson.

There are other benefits too. City utility staff don't have to test city transformers and don't

have to be concerned about environmental impacts when working with their equipment.

The mineral oil which is now used in the transformers can't contain more than one part per million (ppm) of PCB. When transformers malfunction, it is easier to work on them and easier to send them out for a rebuild elsewhere.

Nelson encouraged any utility that thinks they might be PCB-free to pursue the designation because it is worth it in the end.

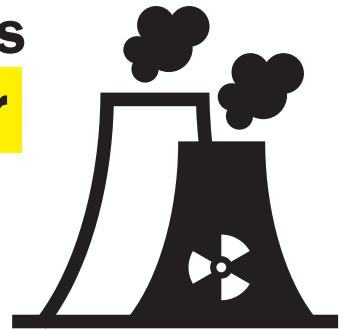
"We've been looking to get this done for years, and we've finally got it done. It's a good feeling," says Nelson.

"PCBs can cause cancer and birth defects. In the past, acceptable limits were insanely low. They are very concerned with it being around."

Now with the hard work of Kasson Public Utilities, they've proved to everyone that PCBs are completely out of the picture at their utility.

Ohio considers nuclear power

In Ohio's HF 434, the "Enact Advanced Nuclear Technology Helping Energize Mankind Act," the Ohio legislature is actively considering reviving the state's nuclear power industry.



These reactors can run on spent nuclear fuel or depleted uranium for extremely long periods of time.

However, opponents are concerned with costs as well as what they view as a lack of transparency in the process. The bill has passed the Ohio House but hearings have not yet been held in the Ohio Senate.

Marshall Municipal Utilities keeps the lights on

Not only did the Marshall area see intense weather in the middle of May, but early May was no picnic either.

The weekend of April 30-May 1 saw wild weather with trees down, power outages, damaged transformers, and damage at the city airport.

Marshall Municipal Utilities

personnel, along with other city departments, were out from 2 am Saturday morning, April 30, fixing damaged equipment and cleaning up debris around town.

City Administrator JD Kehrman profusely thanked city staff for their quick actions on a busy night.

Bob Jagusch retires

Bob Jagusch, Director of Engineering and Policy Analysis, is retiring from MMUA. His last working day was May 25.



Bob has been with MMUA as an employee since 2008 and has assisted our members with issues related to electric generation, distribution systems, transmission systems, environmental compliance, and conservation.

His work in research and policy analysis has been an important aspect of MMUA's contributions to numerous projects at the federal, state, and local levels over the years.

Bob is a retired U.S. Navy Nuclear Engineering Officer with a bachelor's degree in Mechanical Engineering and a master's degree in Nuclear Engineering. Prior to his years on MMUA's staff, Bob's career included time as Director of Public Utilities in Mora and service as President of the Board of Directors at MMUA.

He looks forward to spending time at his land in Washington State and getting his new home built.

Thank you so much for all you have done Bob! We will miss you.



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Public power pays off

For those of us who are lucky enough to work or live in communities that have public power, we already know the great things that public power does for our communities.



Now, a new report from APPA spells all of these things out in black and white, making it easier for members to articulate the value to their ratepayers and commissioners.

Every two years, APPA surveys public power utilities to better track the payments and contributions that they provide to their states and local governments.

More than 190 public power utilities responded to the 2020

survey. Most utilities, 185, made contributions to their state or local governments.

These contributions can be more difficult to track because they consist of many types of payments. These include property-like taxes, payments in lieu of taxes (PILOT), transfers to the general fund, and free or reduced-cost services.

The median amount of revenues that public power utilities paid to their local communities was 6.1%. In comparison, Investor-Owned Utilities (IOUs) paid a median of 5.1% of their operating revenues in taxes and fees in 2020.

In other words, communities with public power received a 20% higher contribution than those served by IOUs.

Public power also supports their communities through charitable giving and providing volunteer opportunities in the

workplace. Approximately 26% of respondents had charitable giving programs, while 18% provided volunteering options.

185

Public Power Utilities made contributions to their state or local governments.

workplace. Approximately 26% of respondents had charitable giving programs, while 18% provided volunteering options.

These activities have a real impact in local communities. Public power employees volunteered a total of 27,416 hours in 2020 and donated more than \$3 million.

This financial support is in addition to all of the other great

things we all know about including responsiveness during power outages, the power of local control, the ability to be nimble in expanding power systems, and much, much more. It seems like any way you slice it; public power pays off big.

EPA considers new air emissions reporting rules



The Environmental Protection Agency (EPA) has announced that it is considering new air emissions reporting requirements (AERR) that would include an expansion of the number and types of operations that would need to report to the EPA.

Smaller operators that engage in various kind of previously unreported emissions will be affected by the rule.

Public power providers affected may include those that emit hazardous air pollutants and/or operate small electrical generating units such as backup generators that are not currently required to report daily data to the EPA.

The EPA is encouraging affected parties to participate in a Small Business Regulatory Enforcement Fairness Act (SBREFA) panel to discuss likely impacts of the new AERRs as proposed and ways to reduce these impacts.



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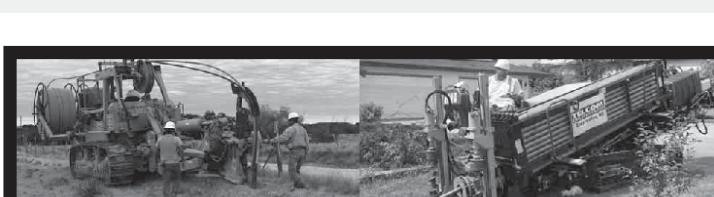
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**Around
the State**

East Grand Forks saw flood warnings put into place in early May, as the Red River crested far beyond flood stage. On May 2, the river was already at 46.5 feet, with "major flooding" stage being 46 feet. By early June the river was still more than three feet above flood stage.

Granite Falls experienced rising rivers just below flood stage just after the mid-May storms that hit South Dakota and western Minnesota. Rice Park was flooded by the rising waters, but the river crested 12 feet below 1997 flood levels.

Two public hearings were held in **Kasson** on May 10 regarding a proposal by Dodge County Wind, LLC, to build a 259 MW powered wind farm that will stretch through Dodge, Mower, and Steele counties. The site will be centered south of Claremont, with construction planned to begin in 2023.

Moorhead Public Service is replacing water mains along ten blocks of streets in north Moorhead. This is part of a road reconstruction project that will also include the replacement of gas lines by Xcel Energy.



New Prague Utilities was put to the test in early May when an individual illegally entered the utility building and tampered with controls there. His actions could have led to the overflow of the city's water tower.

Fortunately, alarms sounded and city employees were able to quickly fix the problem.

Willmar Public Utilities had the wind turbines turning this spring. April saw the most wind production on the city's two wind turbines since they were installed in 2009—more than 1.4 million kWh. This was approximately double the output the turbines made during prior Aprils. "We knew it was windy out, we just didn't know how windy," said Kevin Marti, supervisor of facilities and maintenance at Willmar Municipal Utilities.

Willmar Public Utilities surveys conducted in late 2021 and released in spring of 2022 show that customers are highly satisfied with the service they receive from the utility. Particularly high were the positivity rates for outage restoration time (90.5%), reliability of service (93.1%), and ease of paying their bill (93.1%). Willmar Public Utilities' rates were also seen as "affordable," which the poll's market research firm said was a rare notation in a customer survey.

**Member
News**

Waverly

The City of Waverly has joined MMUA as a regular member.

Waverly is a municipal utility that operates water and wastewater collection systems.

City Hall is located at 502 Atlantic Avenue, Waverly MN 55390.

The contact is Maintenance Supervisor Jason Karels. His phone is 612.290.5691.

RDO Equipment

RDO Equipment of Fargo has joined MMUA as an associate member.

RDO sells and services Vermeer tree care and landscaping equipment across Minnesota.

The contact is Mark Rieckhoff, Regional Sales Manager. His phone is 612.499.2147 and email is mrieckhoff@rdoequipment.com

Sentient Energy

Sentient Energy has joined MMUA as an associate member.

Sentient Energy produces intelligent line sensing and control technologies for the distribution grid.

The contact is Kevin Marquardt, Director of Regulatory Affairs. His phone is 612.452.0912 and email is kevin.marquardt@sntient-energy.com

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On April 30, California for the first time ran on 100% clean energy. Two-thirds of the energy came from solar power. The remainder came from wind, hydroelectric and other renewables. California is required to attain 100% of its power from renewable sources by 2045.

On May 2, Great River Energy closed on the sale of its Coal Creek power plant in North Dakota. The \$227 million sale of the plant to Bismarck-based Rainbow Energy Marketing allows Great River to continue purchasing the energy output of the plant through 2023. Under contract with Rainbow, Great River also retained operation rights of the power line that stretches from the plant to the Twin Cities.

On May 4, Interesting Engineering reported that Imperial College, London has developed a new battery design that will allow for long-term, inexpensive energy storage. The battery uses components that are cheap and readily available, with scientists arguing that minor tweaks will make this battery ready for large-scale storage.

American oil production is expected to pick up significantly this year, with many large and independent oil companies forecasting significant increases to their output targets. Much of this increased activity is a result of the war in Ukraine and the resulting energy issues that have affected the global oil market.

The Advanced Clean Energy Storage Project, a first-of-its-kind clean hydrogen production and storage facility, will be built in Delta, Utah. The Department of Energy offered a \$504.4 million loan guarantee to help build the facility, which will be capable of storing hydrogen produced by excess renewable energy.

According to a May 6 report, the State of California is considering the planning of 3 GW of offshore wind in the state by 2030, and between 10 GW and 15 GW of offshore wind by 2045. This move will give increased business confidence to utilities and investors who are considering ventures in offshore wind.

Continued on page 15

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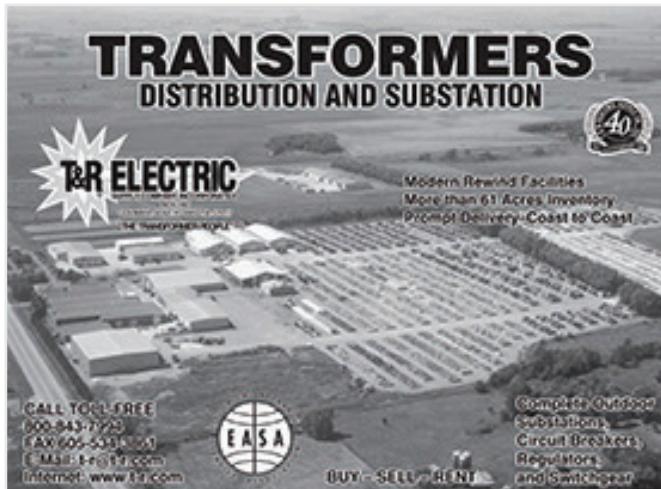
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¹ www.bls.gov/oes/current/oes499051.htm | ² www.bls.gov/oes/2017/may/oes499052.htm
³ www.bls.gov/oes/2017/may/oes472152.htm

On May 6, federal and state utility regulators looked at solutions to reduce the nationwide interconnection queue backlog. A general consensus arose that clustering of interconnection requests would be a successful way to meet the challenge. The issue of cost, however, was left largely unresolved.

On May 11, the Biden Administration announced that they will modify the federal review process for environmental permits to speed up permitting for energy infrastructure construction and other projects.

On May 11, the Bureau of Ocean Energy Management ended an offshore wind auction where \$315 million in bids were made. The auction offered lease territories in the Atlantic Ocean off of Wilmington, North Carolina to develop at least 1.3 GW of offshore wind.

On May 13, California Governor Gavin Newsom earmarked \$5.2 billion to fund a "strategic electricity reliability reserve," an up to 5,000 MW resource that California energy providers can access when the grid is particularly stressed.

Reuters reported on May 18 that Germany, Belgium, the Netherlands and Denmark have promised to build at least 150 GW of offshore wind capacity in the North Sea by 2050. 150 GW is enough to power 230 million European homes.

The Minnesota Public Utilities Commission unanimously voted on May 19 that they have existing authority to permit the siting of carbon dioxide pipelines.

Energy News Network reported on May 24 on the impact of Xcel Energy's program to shave electricity use during peak use hours. Pilot program participants paid more for electricity in late afternoon and night but received large discounts overnight. Ideally, this should encourage more discretionary use of electricity for things like dishwashers or electric car charging to take place during the discount hours. The pilot cut energy demand by 2% during the highest demand hour of the day.

Axios reported on May 25 that several new members, including Ford, Alphabet, and Microsoft, have joined the First Movers Coalition, a group of major international corporations that have made purchase commitments from low and no-carbon sources.

Minnesota Drinking Water Annual Report illustrates positive trends

The Minnesota Department of Health released its annual Minnesota Drinking Water Report in May and it had a lot of good things to say about the state of Minnesota's drinking water.

Minnesota has 6,677 public water systems. Of these, 965 are community water systems, which provide water to people year-round, in their homes. 765 of these 965 community water systems are municipal systems that serve towns or cities.

More than 97% of community water systems and more than 98% of the population served by community water systems have water that meets all federally established health-based standards.

Of the 965 monitored Community Public Water Systems, 100% met the EPA standards for pesticides and industrial contaminants. 99% of the same cohort met the EPA's standards for bacteria, nitrates/nitrites, arsenic, other inorganic chemicals, and lead.

The only water contaminants to come in below 99% compliance were radionuclides at 98.5%, and

copper at 97%.

The Minnesota Department of Health (MDH) is taking on several strategic initiatives to ensure that Minnesota's water stays healthy now and into the future.

The first initiative it is working on is contaminants of emerging concern. These are contaminants that are often unregulated or may be regulated at levels that are out-of-date with what we now know about their danger to humans.

Among the projects MDH has initiated in this area are the statewide PFAS (polyfluoroalkyl substance) Monitoring Project, and the Water Reuse project. Contaminants of emerging concern are tricky because they can be human-made or take virus, bacterial, or protozoan form.

Even though PFAS has been found in Minnesota water and is long-lasting, the good news is that PFAS are typically found at levels below health-based guidance limits.

In 2023, MDH is projected to reach its goal of sampling all of Minnesota's community water systems for PFAS.

MDH is also working to sample water systems for cyanazine, a pesticide that was used on corn until it was banned in 2002.

To guide these efforts, MDH is creating the Drinking Water Ambient Monitoring program, a catch-all for various unregulated contaminants programs that used to stand alone.

MDH also continues to track lead and copper in Minnesota's drinking water systems. In December, the EPA released lead and copper rule revisions, which are the first large-scale update to these rules in 30 years.

The highlight of these new rules are the requirement that public water systems identify and disclose the locations of lead service lines in their systems by October 16, 2024. It also implements a new trigger level of 10 parts per billion (ppb).

MDH says that there are more than 100,000 lead service lines in the state. To address these new requirements, dollars from the Infrastructure Investment and Jobs Act will be held in the Drinking Water Revolving Fund (DWRF).

MDH is also continuing its

efforts to test for lead in schools and other childcare settings.

Another initiative that MDH is taking on is Health Equity. Many small water systems with a lower tax base struggle with compliance. Through its Drinking Water Program, MDH is working to promote safe water everywhere in the state. It is doing this through restructuring funding requirements for small systems, prioritizing lead line service replacement in low-income areas, and providing training and scholarships so that more people can work on Minnesota's water systems.

MDH is also concerned about the affects of climate change on Minnesota's water supplies. Flooding and droughts can in their own ways hurt our water supply. MDH is learning more about surface water and how safe it is after flooding events.

On the same note, MDH is attempting to determine how safe stormwater runoff may be for specific tasks such as irrigation or washing vehicles. This may be needed as demand grows on the water system.

MDH had great things to say

about the public water operators who achieved 97% compliance with all federal water standards. As impressive was the steady presence of Minnesota's water supplies during the worst of the COVID-19 epidemic in 2020 and 2021.

Minnesota water systems kept the taps open even during difficult operational situations. MDH staff and Minnesota's public water operators were able to safely work together to conduct monitoring and to make sure Minnesota's water supplies remained first-rate.

Like all industries, water system operators have been hit with supply chain issues that have or may impact water supplies and treatment chemicals. MDH will work with water systems to make sure that they are ahead of the curve as these issues arise.

Minnesota has a lot to be proud of. By being proactive about emerging threats and long-present contaminants, Minnesota will continue to enjoy the clean, refreshing water that we are famous for.

European Union reveals plans to transition from Russian oil and gas

European Union (EU) leaders are adopting a multi-pronged approach to rid the EU of Russian oil and gas by 2030.

The first step in the plan is to pursue energy saving. By letting consumers know about the value of saving energy, and by seeking greater efficiencies in a variety of ways,

energy savings are expected to help manage demand.

The second step is increasing the EU's reliance on green energy sources. Laws are being changed to speed up the development of solar and wind resources throughout Europe.

The third part of the plan is sourcing oil and gas from parts of the world other than

Russia. To achieve this, the EU is investing in new liquified natural gas (LNG) terminals and pipelines.

The EU's plans will actually accelerate the region's transition to green energy when compared to their plans before the war in Ukraine.



Upcoming Events

Summer Conference

August 22-24,
Madden's Resort,
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This year's conference features numerous expert speakers who will help guests assess where we are at within the industry as well as where we are going. Reserve your room and get registered today! Visit <https://www.mmua.org/event/summer-2022> to register.

Register and reserve your room now!

Minnesota Lineworkers Rodeo

September 13,
MMUA Training Center,
Marshall

Display your skills and learn from others at this competitive and fun event. Free registration for MMUA members: register by August 15.

Mark your calendars now!

Overhead School

September 13-16
MMUA Training Center,
Marshall

Register by August 5 for the best rate. Go to <https://www.mmua.org/event/overhead-2022> to register.

Cross Training School

October 11-13
MMUA Training Center,
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Tree Trimming Workshop

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Save the date.

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