

TODAY

A NEWSLETTER OF



RRHP 'watered up' for commissioning tests

Red Rock Hydroelectric Project (RRHP) recently took another step toward completion when wet commissioning of Unit 2 started July 20.

As part of the commissioning process, the hydroelectric plant was "watered up," where water from the Red Rock Reservoir was allowed to flow into and through the facility for testing purposes.

"Everything from the intake gates to the penstock to the turbine is tested to ensure it's watertight and working properly," said Brent Moeller, Missouri River Energy Services (MRES) director of generation resources. "To fill up the

turbine and all the components you're looking at a good eight-hour process."

Moeller said Voith Hydro out of York, Penn., who manufactured the turbines and generators for the project, is responsible for commissioning the units before commercial operation begins.

"Part of the contract with the turbine supplier is they do commissioning and testing of their equipment," Moeller said. "We have people there interfacing with them and the contractor, but they're kind of running the show at this point, with a team of people inspecting the instrumentation and all the components."

During the tests, several small leaks were discovered, so the plant was "dewatered" the first weekend in August to repair some welds.

"We lost one day of commissioning due to this problem, but our guys worked through the weekend and got it turned around," Moeller said. In fact, a few short days later, MRES staff was notified Unit 2 was generating electricity and synchronized with the grid for a short time on Aug. 10 and 11.

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RRHP Video Dedication Ceremony

Join MRES on its social media pages for the RRHP video dedication ceremony Sept. 2 at 2 p.m. CDT.

Website: mrenergy.com

YouTube: [MissouriRiverEnergyServices](https://www.youtube.com/MissouriRiverEnergyServices)

Facebook: [facebook.com/MissouriRiverEnergyServices](https://www.facebook.com/MissouriRiverEnergyServices)

Twitter: [@MRESnews](https://twitter.com/MRESnews)



RRHP ‘watered up’ for commissioning tests *(continued)*

The commissioning of Unit 2 was scheduled to wrap up the week of Aug. 17, and Moeller said a 30-day test run of the unit is the next step of the process.



RRHP started the wet commissioning phase of Unit 2 on July 20. The commissioning process is a detailed check of every aspect of the unit's operation.

“The 30-day run allows them to get all the bugs worked out,” he said. “If nothing shows up during that time period then the manufacturer will turn it over to us.”

Moeller said commissioning of RRHP’s second generating unit, which is actually Unit 1, is slated to start in the next few weeks.

“Commissioning of the second unit is expected to go through Sept. 14, and then it will do its own 30-day run,” he said. “That puts us in the middle of October when we take over and go into full commercial operation mode with both units.”

However, Moeller said lower-than-average flow on the Des Moines River and the Red Rocks Reservoir this summer has the potential to delay any final testing, but the units will be in commercial operation very soon.

“We may not be able to complete the 30-day run test for both units at this time due to water availability,” he said. “We may have to pick this up next spring. This year has been a dry year, and there is simply not enough water flowing through the Des Moines River to get us up to full power testing.”

Construction completed on MRES office remodel

The inside of Missouri River’s office building in Sioux Falls, S.D., recently received a makeover, as a four-month-long remodeling project concluded in mid-April. The remodel was a planned event and wasn’t tied to the tornadoes or high winds that ripped through southern Sioux Falls last September. Its purpose was to gain workstations for future growth and to utilize spaces within the building more efficiently, said Deven Houselog, facilities services coordinator for MRES.

As a result, Houselog said the final tally of additional work areas included six offices, a dozen new workstations and a couple conference rooms. He said this was all accomplished without adding on to the actual building.

Prior to starting the project, MRES conducted an employee survey asking what improvements could be made to the facility, and Houselog said the survey produced a list of needs and wants that were largely incorporated into the remodel.

“From the survey, employees requested more security into the building, so we also added a store front to the main entry and relocated the reception desk,” he continued. “We also needed new carpet throughout the building as it was going on 17 years since it was put in when the building was new. Along with this, we updated the flooring in the main entry

and break room. We also upgraded our building automation control system, added a new redundant AC unit in the server room and installed LED lights throughout the building.”

At this writing, most MRES staff headquartered in Sioux Falls have returned to the office, but due to the evolving coronavirus situation, the office remains closed to the public through the end of September.



The MRES office building’s entrance was remodeled with dual sets of coded-entry doors as an added measure of security.

COVID-19 won't stop BES elementary school program

Despite the current uncertainty surrounding the school year, fifth graders in MRES member communities will again have the opportunity to learn about electricity and the value of having a local municipal utility.

In a commitment to bringing interactive, real-world education to students and their families, MRES will once again offer its Bright Energy Solutions (BES) Power Team® School Program to members and their communities. Now in its eighth year, the program teaches fifth graders about a number of electricity-related topics, including safety, power supply, renewable energy and careers in the utility field.

In addition, take-home kits containing high-efficiency equipment and testing devices are provided to students and their families to use and install at home. The program also includes job profiles describing career opportunities in the power industry and encourages young students to consider these options as they continue their education.



The program is designed to provide a hands-on learning experience, but it is possible for teachers to incorporate it into remote-learning sessions if the need arises. To that end, if the school year is interrupted, MRES is able to offer alternative solutions to still deliver the program, either directly to the teachers or directly to the students.

MRES splits the cost of the program with participating members, and the resulting cost to members is about \$21 per student. Several MRES members have already committed to providing the program this year, and even though the school year

has already started in some member communities, there's still plenty of time to sign up for the program.

For more information or to enroll, contact Jody Peck, MRES member services representative, at 605-330-6954 or jody.peck@mrenergy.com.

MRES distribution maintenance crews answer the call to help Granite Falls



A severe wind storm blew its way through parts of Minnesota on Aug. 8. During the storm, the National Weather Service reported wind gusts of 72 mph at Canby, while 69 mph winds were reported in Granite Falls and Red Wing.

Minnesota Public Radio reported that the Granite Falls area of western Minnesota was particularly hard-hit, with widespread tree damage and downed power lines.

"I received the first call shortly after 6 p.m. that day from the Minnesota Municipal Utilities Association that Granite Falls was going to need assistance, and they asked if our crews could help," said Jeff Bechtold, MRES distribution maintenance (DM) superintendent.

Bechtold said MRES DM crews from Olivia and Benson were quick

to respond, heading to Granite Falls early the next morning.

"Troy Fuoss and Mick McNelly from the Olivia crew, along with Kaleb Cannon and Jacob Hippen from the Benson crew, volunteered to help," he continued.

Bechtold said other MRES member communities from the surrounding area were also there to pitch in, as two crews from Marshall and one from Wilmar answered the call to provide mutual aid.

"Most of the work consisted of secondary wires down, and most of the damage was in back lots. Chain saws, smaller bucket trucks, ladders and climbing gear were needed to complete the work," Bechtold reported. "Crews started to work at 7 a.m. in Granite Falls and completed the work by 6 p.m."

MRES walks the walk with PHEV purchase

Following through on its commitment to a cleaner energy future, MRES recently replaced one of its fleet vehicles with a Mitsubishi Outlander PHEV (plug-in hybrid electric vehicle). The PHEV will primarily be used when visiting member communities, especially to help facilitate ride-and-drive events designed to highlight the benefits of today's electric vehicles (EVs).

“Several MRES members are interested in hosting ride-and-drive events so their customers can learn about EVs and experience what it's like to drive one themselves,” said Joni Livingston, MRES vice president of member services and communications. “Our Outlander will be one of the vehicles available to check out at these events, which we expect to begin next spring.”

PHEVs are similar to conventional hybrid vehicles in that they have both an electric motor and an internal combustion engine. However, PHEV batteries can, as their name implies, be charged between uses by plugging in to an outlet, while a true hybrid's battery can only be charged while the internal-combustion engine is running.

As far as performance goes, the all-wheel-drive Outlander has a battery-powered range of 22 miles, but its hybrid mode offers a driving range of over 300 miles. The Outlander will operate primarily on electric battery power unless the battery is running low or more sudden acceleration is needed, and that's when the 2.0-liter gas engine kicks in. However, the driver can choose to start with gasoline when traveling longer distances so that the battery has a fresh charge when reaching the destination. MRES staff anticipates using this feature when traveling to member communities to participate in ride-and-drive events or other venues where the car will be displayed.

In general, PHEVs and EVs come with charging cords that can be plugged into regular wall outlets, but specialized chargers offer faster, more efficient charging. To that end, MRES

upgraded to a 240-volt (Level 2) charging station at its facility in Sioux Falls, S.D., which can fully charge the vehicle's battery in under four hours.

“Through our members' BES program, EV owners can receive \$500 rebates for installing qualifying Level 2 chargers at their homes,” Livingston said. “MRES wants to encourage the build out of our region's EV charging network, so we are also providing rebates to members who install public charging stations in their communities.”

The car was wrapped with graphics and messaging to promote Missouri River's efforts to “Create a Cleaner Energy Future.” As a result, the vehicle is a mobile banner that promotes EVs and the charging rebates available to EV owners.

For more information on EVs, tax credits and rebates, go to bes.chooseev.com.



MRES becomes anchor sponsor of Low-Carbon Resources Initiative

The Electric Power Research Institute (EPRI) and Gas Technology Institute (GTI) are embarking on a five-year initiative to accelerate the development and demonstration of low-carbon energy technologies. With increasingly ambitious decarbonization goals from private companies and governments alike, existing technology is not enough to achieve those targets.

The Low-Carbon Resources Initiative (LCRI) is a unique, international collaborative spanning the electric and gas sectors that will help advance global, economy-wide decarbonization. With 18 anchor sponsors, including MRES, the LCRI underscores the collaborative research model employed by both EPRI and GTI, bringing industry stakeholders together to conduct clean energy research and development for society's benefit. Seeded with \$10 million from the EPRI collaborative, funding for the initiative is expected to be leveraged many times over its \$100 million target through public and private collaboration.

Sponsors of the initiative represent a wide swath of the energy industry, bringing exceptional knowledge and depth to the LCRI. These entities include:

American Electric Power, Con Edison, Dominion Energy, Duke Energy, Exelon Corporation, Lincoln Electric System, Los Angeles Department of Water and Power, Missouri River Energy Services, Mitsubishi Hitachi Power Systems, Americas, Inc., National Fuel, New York Power Authority, PGE, PPL Corporation, Salt River Project, SoCalGas, Southern California Edison, Southern Company, and the Tennessee Valley Authority

“Driving collaboration through the Low-Carbon Resources Initiative is important to reach deep decarbonization goals beyond 2030,” said EPRI President Arshad Mansoor. “Achieving ambitious targets will require technologies and processes beyond those widely available today. This global initiative will advance affordable pathways to economy-wide decarbonization.”

The LCRI is targeting advancements in low-carbon electric generation technologies and low-carbon energy carriers, such as hydrogen, ammonia, synthetic fuels and biofuels. This worldwide collaborative will:

- Identify and accelerate fundamental development of promising technologies
- Demonstrate and assess the performance of key technologies and processes
- Inform key stakeholders and the public about technology options and potential pathways to a low-carbon future

For LCRI's anchor sponsors, the initiative represents a key step toward achieving decarbonization goals over the next 30 years.

“MRES is dedicated to creating a cleaner energy future for our member communities by providing reliable, sustainable, low-carbon energy,” said Tom Heller, president and CEO of MRES. “We believe the LCRI will provide a realistic road map for MRES, and for electric and gas utilities across the United States to achieve this goal using new channels for the generation, delivery and end use of electricity. We are pleased to be an anchor sponsor of the LCRI.”

Changes announced for MRES, WMMPA boards

Several changes to the MRES and Western Minnesota Municipal Power Agency (WMMPA) boards were made during the boards' most recent joint meeting, held Aug. 6 via webinar.

The changes were prompted by the retirement of Brad Roos, general manager of Marshall Municipal Utilities (MMU) in Marshall, Minn. Roos had served two separate terms on the MRES Board of Directors, most recently from 2006 until August 2020, a term during which he was also the board's secretary/treasurer. He had also served on the WMMPA Board of Directors, including as vice president, from 2008 until his retirement.

Ted Cash of Alexandria, Minn., was elected to fill Roos' remaining term on the MRES board. Cash is general manager of ALP Utilities, and he also currently serves as treasurer on the WMMPA board.

In subsequent action, Steve Lehner, general manager of Watertown Municipal Utilities in Watertown, S.D., was elected as the MRES board's new secretary/treasurer. Lehner has served on the board for 12 years and fills the role Roos held for over a decade.

On the WMMPA board, David Schelkoph, who was recently hired as MMU's general manager, will automatically assume Roos' seat, as association bylaws require a representative from the four largest members to serve on the board.



Ted Cash



Steve Lehner



David Schelkoph

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Member profile – Fort Pierre, S.D.

Fort Pierre is located in the heart of South Dakota near the confluence of the Bad and Missouri rivers, just below Oahe Dam. Fort Pierre was originally known as Fort Pierre Choteau, and it was established in 1832 to replace Fort Tecumseh, a short-lived trading post found a mile or so down the Mighty Mo on what's known today as LaFramboise Island.

According to the city of Fort Pierre's website, the fur-trading post's location on a major river was a powerful attraction to early explorers, settlers and traders, making it a bustling trade center and steamboat stop. During its active years, Fort Pierre Choteau received, processed and shipped hundreds of thousands of beaver pelts, deer skins and buffalo hides destined for European and eastern markets. In fact, by the mid-1850s it had grown into one of the most important posts of the western frontier, with a trade area that covered thousands of miles of prairie.

In 1855 the U.S. military assumed control of the fort, making it the first American military establishment in the



Fort Pierre Choteau, circa 1854
Image courtesy of Library of Congress



Upper Missouri region. By the time of the Black Hills gold rush in 1874, Fort Pierre and its growing settlement were regarded as the primary transportation and distribution hub in Dakota Territory. Years later, after Dakota Territory was halved into North and South Dakota in November 1889, Fort Pierre was officially recognized as the county seat of Stanley County, a designation it still holds today.

The original site of the fort is considered a National Historic Landmark by the National Park Service. Although no visible remains exist today, the fort's location is marked by a stone monument located about a mile north of present-day Fort Pierre.

The public utility was established in 1911 and joined MRES in 1975. Today, Fort Pierre Municipal Utilities provides electric, water and wastewater services to the area's 2,000 residents and to more than 270 commercial and industrial meters. Rick Hahn, director of public works, is Fort Pierre's representative to MRES, while administrative specialist Kelly Tibbs is the alternate.