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MRES® Today
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RRHP work resumes upstream as waters recede; Lake Red Rock 50th anniversary celebrated

Work on the intake structure at the Red Rock Hydroelectric Project, pictured lower left, was on hold until recently as high water levels flooded the work platform. Work is nearing completion on the powerhouse, pictured upper right.

Work on the Red Rock Hydroelectric Project has resumed on the upstream side of Red Rock Dam as water levels have receded. Those levels were more than 774 feet above sea level as of June 1, but have since dropped below the level of the upstream work platform.

Work continues on the downstream side of the dam. Final equipment installation, verification, and equipment checks are in full swing and the switchyard, located between the dam and the powerhouse, is nearly complete.

The underground transmission cable from the powerhouse to the overhead transmission line has been installed and final testing started July 8. The transmission line is expected to be energized the first week of August.

Lake Red Rock is a reservoir on the Des Moines River. It was built for flood control 50 years ago. A celebration of this milestone was held during the 2019 Lake Red Rock Balloon Fest July 12-14.

The U.S. Army Corps of Engineers (USACE) monitors, maintains, and determines water flow exiting the Red Rock Dam into the Des Moines River in accordance with its water control manual. Even with the addition of the hydroelectric project, the primary purpose of Lake Red Rock will remain flood control.

When RRHP becomes operational, currently scheduled for 2020 barring additional flood events, the USACE Hydrology Department will continue to be responsible for scheduling water releases from the Dam into the river as it has been for the past

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50 years. Future releases will first be directed through the new hydroelectric facility. Releases still may be made through the existing gates depending on the reservoir elevation and desired flow release. Regardless of where the releases are directed, no additional water will flow into the river below the dam than what has occurred in the past.

RRHP is owned by the Western Minnesota Municipal Power Agency and will be operated by MRES.

The Federal Energy Regulatory Commission license for RRHP allows for the generation of 36.4 megawatts of electricity. The current design model indicates that, to achieve this level of generation, it would take up to 10,000 cubic feet per second (cfs) of water flow. The minimum flow for the hydroelectric facility would be 1,200 cfs. When flows drop below this minimum level, the turbines will not operate efficiently so the facility will be taken out of operation.

Once fully operational, RRHP will be able to generate enough power to satisfy the electrical needs for all the homes in Marion County.

BES Power Team School Program helps 5th graders understand their local utilities

Fifth graders in MRES member communities will again have the opportunity to learn about electricity and the value of having a local municipal utility.

MRES is offering its Bright Energy Solutions® (BES) Power Team School Program to members and fifth-grade students in their communities. This program has received very high marks from teachers, parents, and students who have participated.

The course covers electricity, power supply, renewable energy, and careers in the utility field. It is a hands-on learning experience aimed at bringing interactive, real-world education to students who can then pass that on to their families. A take-home Power Team kit containing high-efficiency equipment and testing devices is provided to students and their families to use and install in their homes.

MRES cost-shares the program 50/50 with members, bringing the cost for participating members down to approximately $20 per student.

If your utility is interested in the program, please contact Jody Peck at 800-678-4042 or email jody.peck@mrenergy.com to learn how easy it is to participate.

MRES announces scholarship recipients

Missouri River Energy Services (MRES) grants up to 10 scholarships to area students annually. These scholarships are intended to help support high school graduates pursuing an education that might result in a career in the electric utility industry.

Up to five $1,000 awards may be granted to high school students who reside in MRES member communities. These awards may be renewed for up to three years. Renewal is contingent upon satisfactory academic performance. Preference is given to students training in fields related to the electric industry.

2019 recipients of this scholarship are: Mitchell Jacobsma, from Sioux Center, Iowa, planning to study Mechanical Engineering at Iowa State University; Natalie Sampson, from Orange City, Iowa, planning to study math at Dordt College; Alyssa Kemp, from Cavalier, N.D., planning to study Engineering at Drexel University; Will Galles from Remsen, Iowa, planning to study computer engineering at Iowa State University; and James Foster from Alexander, Minn., planning to study Engineering at the University of Minnesota: Twin Cities.

Goals and aspirations, academic achievement, leadership, participation in school activities, and work experience, all accounted for the criteria of the scholarship. Applicants were also required to provide a brief narrative about their municipal utility and the benefits of public power.

Up to five additional $1,000 awards may be granted to students applying for, or already enrolled in, a powerline/line worker program.

> ***"Our scholarship recipients are outstanding students and they have proven themselves to be assets to their schools and communities"***
>
> — Joni Livingston

Recipients of this scholarship are: Travis Arndt from Henning, Minn., planning to attend Minnesota State Community and Technical College; Benjamin Ernst from Edgewood, Iowa, planning to attend Northwest Iowa Community College; Riley McWherter from Iowa Falls, Iowa, planning to attend Northwest Iowa Community College; Jack Rasche from Lake Park, Iowa, planning to attend Mitchell Technical Institute; and Kyle Schoer, from Muscatine, Iowa, planning to attend Northwest Iowa Community College.

"Our scholarship recipients are outstanding students and they have proven themselves to be assets to their schools and communities," said MRES Member Services and Communications Director Joni Livingston. "MRES is pleased to recognize their achievements and we are confident they will make great contributions in the future."

MRES congratulates these students on their outstanding achievements and commitment to pursuing education that might benefit the electrical industry.

Upper Missouri River basin runoff projected to be second highest on record; main stem hydroelectric production well above normal

The U.S. Army Corps of Engineers (USACE) forecasts that 2019 runoff in the upper Missouri River basin could reach 49.9 million acre-feet (MAF). That would be the second highest runoff in 121 years of record keeping, surpassed only by the 61.0 MAF experienced in 2011.

The six main stem power plants along the Missouri River generated 1,225 million kilowatt-hours of electricity in June. Typical energy generation for the month is 842 million kilowatt-hours. The power plants are projected to generate 12.7 billion kilowatt-hours of electricity this year, compared to the long-term average of 9.4 billion kilowatt-hours.

June runoff in the upper basin was 8.7 million acre feet (MAF), which is 159 percent of the average of 5.4 MAF. Much-above average runoff in the upper Missouri River basin (above Sioux City, Iowa) extended into June following widespread and heavy rainfall in South Dakota and Nebraska. Additionally, widespread and heavy rainfall in the lower basin, particularly in Kansas, has resulted in high tributary and Missouri River flows downstream of the six main stem reservoirs on the Missouri River.

"System releases from Gavins Point Dam are currently 70,000 cubic feet per second, which is more than twice the average release for this time of the year. We will maintain Gavins Point releases at this rate to continue evacuating water from the Missouri River main stem reservoir system," said John Remus, chief of the USACE Missouri River Basin Water Management Division. Gavins Point is the furthest downstream of the six main stem dams and the last of those dams through which water is released.

This photo of Gavins Point Dam was taken June 15, 2011 during the height of the record-setting year for runoff from the Missouri River main stem dams. 2019 is expected to register the system's second-highest annual runoff ever.

Election returns Board members to three-year terms

Four members of the MRES Board of Directors were unanimously re-elected to three-year terms during the organization's annual business meeting May 9.

Those elected are: Steve Lehner, Watertown, S.D.; Rory Weis, Denison, Iowa; Jim Hoye, Rock Rapids, Iowa; and David Schelkoph, Valley City, N.D.

The Western Minnesota Municipal Power Agency (WMMPA) re-elected Guy Swenson, Barnesville, Minn., to a three-year term.

The MRES Board also elected its slate of officers for the next year. They are: Harold Schiebout, Sioux Center, Iowa, chair; Don Johnston, Flandreau, S.D., 1st vice chair; Bill Schwandt, Moorhead, Minn., 2nd vice chair; Hoye, 3rd vice chair; Schelkoph, 4th vice chair; and Brad Roos, Marshall, Minn., secretary-treasurer.

Steve Lehner

Rory Weis

Jim Hoye

David Schelkoph

Guy Swenson

Board member profile – Leon Schochenmaier, Pierre, S.D.

Leon Schochenmaier retired two years ago as city administrator for Pierre, S.D., but he continues to be an active participant with the MRES Board and in public power. His current term on the MRES Board extends until 2021.

In 2017, he was re-elected to a second three-year term on the American Public Power Association's Board of Directors.

Schochenmaier grew up on a farm and ranch near Bonesteel, S.D., just north of Nebraska and just west of the Missouri River.

He earned his bachelor's degree in civil engineering from South Dakota State University and worked 31 years for the State of South Dakota including 13 years at the Department of Environment and Natural Resources and 18 years at the Department of Transportation. From 2001 to 2006, he served as a board member of the American Association of State Highway Transportation Officials.

In the summer of 2006, he was hired as Pierre's second city administrator, a position he held until his retirement in 2017.

In 2015, he received the Excellence in South Dakota Municipal Government Award, the top prize handed out by the South Dakota Municipal League.

Schochenmaier led the city's effort to set up the state's first consolidated 911/emergency dispatch center that handles calls from several counties and agencies. During a massive flooding event in 2011, he directed the various city departments and coordinated efforts to save property and limit damage throughout the community.

In late 2017, he began a three-year term on the Capital Area Counseling Service, Inc., Board of Directors. The organization provides mental health, addiction treatment, and child welfare services.

He enjoys deer hunting and spending time with his family — Kim, two daughters, one son, and three grandchildren.

MRES rolls out efficient electrification incentives

MRES began offering incentives July 1 for equipment that will help MRES and its members grow electric loads efficiently and cost-effectively, while also reducing overall emissions and energy costs for customers.

Efficient electrification is the process of replacing fossil fuels like propane, natural gas, or gasoline, with electricity in end-use equipment and processes.

When done strategically and in conjunction with energy-efficiency measures, electrification presents opportunities for electric utilities to grow their loads while still controlling peak demand, thereby optimizing the use of the distribution system. The strategy of MRES and its members is shifting from conserving electricity to conserving total energy, while improving the environment and helping customers use energy wisely.

MRES members already have a significant amount of renewable energy and carbon-free resources in their power supply mix, largely due to their allocations of hydroelectric power from dams on the Missouri River, along with wind and solar resources.

Forty-one percent of members' power supply comes from renewable energy, compared to regional averages of 28 percent. And 46 percent comes from carbon-free resources, compared to the regional average of 38 percent. This renewable power supply enhances the ability of efficient electrification to reduce overall energy usage, costs, and air emissions.

MRES Energy Services Manager Shannon Murfield says that without electrification, electric loads will continue to decrease at MRES and nationwide. More stringent building codes and improvements in energy efficiency have contributed to electric usage remaining flat for more than a decade, she added. Tying the objectives of increasing electricity sales with benefitting the environment, and doing it in a cost-effective way for customers, is the goal of MRES and its members.

"Efficient electrification will enable MRES members to optimize the investments they have made in infrastructure in order to provide customers with affordable and reliable energy," Murfield said. "At the same time, electrifying end-use technologies like home heating, transportation, and industrial processes can reduce overall energy usage and migrate usage to renewable resources, which is good for customers and the environment."

The new incentives include a $2,000 rebate for electric forklifts, and a $500 bonus rebate for efficient air-source heat pumps. Additional technologies are being considered for future efficient electrification incentives. For more information about these incentives or the Bright Energy Solutions® energy-efficiency rebates, visit www.brightenergysolutions.com.

MRES considers RCA expansion

Supplying power in an economical, efficient manner has always been a top priority for MRES.

A portion of that effort is to meet the generation capacity requirements of the Midcontinent Independent System Operator (MISO) and the Southwest Power Pool for the MRES member load. MRES has had a capacity deficit in MISO for a number of years.

MRES will be experiencing a need for increased electrical capacity, ranging from 70-100 megawatts over the next 10 years. This number will continue to increase beyond 2030.

MRES is analyzing various options and investigating additional resources to meet this demand. One option would be to extend the current Reserved Capacity Agreement (RCA).

Under the RCA, MRES contracts with members for the use of their locally owned generating capacity. Currently, there are 18 such agreements.

MRES is now actively seeking input from member communities in the MISO region on whether they would be interested in expanding the amounts of capacity they have under contract with MRES. Interested members are asked to respond by Aug. 15.

A diesel generator in Lake Park, Iowa, is one of the plants for which MRES has a Reserved Capacity Agreement.

Participation in the RCA can assist members in adding local backup generation to increase reliability in their communities. The RCA can also aid MRES and the members in meeting capacity requirements in MISO.

This is a preliminary effort, and approval for expansion will be required from multiple entities. If members show sufficient interest in the expansion of the current RCA, MRES will begin to work on development of an updated agreement for member consideration.

MRES offering educational opportunities

"FISH! Catch the Energy/Release the Potential" customer service workshop

MRES is excited to remind members of the upcoming FISH! Philosophy workshop being held at the Hilton Garden Inn in Sioux Falls Wednesday, Aug. 14, 2019. The FISH! Philosophy allows businesses to create a cultural framework fueled by positive energy, fun, and creativity that will inspire people to be more engaged and productive at work. This will result in lower turnover, increased profits, advanced customer service, and happier customers, which will ultimately increase the business's bottom line. This workshop will dive into the techniques and practices that fuel passion, commitment, and zeal in the workplace. Every member community is encouraged to have as many employees as possible take advantage of this opportunity to ignite imagination, expand perspectives, and invite powerful communication into the workplace with international speaker and inspirational author, Deena Ebbert. Attendees will unleash the power of fresh ideas and active collaboration, as well as refine soft skills, and discover the synergies among personal and professional accountabilities.

Municipal Power Leadership Academy

MRES will host this year's Municipal Leadership Academy September 10 and 11, 2019 at the ClubHouse Hotel & Suites in Sioux Falls. The Tuesday agenda includes information on the relationship between your utility and MRES, presented by MRES CEO Tom Heller, in addition to information on the purchase of electricity and our power mix, Western Area Power Administration, renewables and distributed generation, cyber security, and much more. Tim Blodgett will be presenting to member communities on Wednesday morning to wrap up the Municipal Leadership Academy. Please make your reservations by calling the hotel directly at (605) 361-8700. The cut-off date is Aug. 9, 2019. Register online at mrenergy.com, under the Events tab.

Technology Days

MRES has lined up some amazing speakers for Technology Days 2019, which will be held Sept. 24 and 25, 2019 at the Hilton Garden Inn in Sioux Falls. The speakers will cover a variety of new and timely topics, including: The Internet of Things (IoT); our new Electric Vehicle (EV) Charging program; Our indoor agriculture research project at South Dakota State University, and other emerging technologies; utility physical security and active shooter training; smart grid technologies; and, innovations in LED lighting. Technology Days will focus on work-life balance with a high-key keynote speech on leadership and influence, by award-winning sports broadcaster, community leader and author, Joe Schmidt. Member utilities will also be recognized for accomplishments in customer care and communications, and innovation. Please call the hotel directly at 605-444-4704 (mention "MRES Group" to receive group rate) by Aug. 30, 2019. Register online at mrenergy.com under the Events tab. The registration fee of $50 includes all meals and breaks. Registered attendees are invited to bring guests to Dinner with Friends for an additional $25 per guest.

MRES Legal Seminar

The MRES Legal Seminar will be held Friday, Oct. 4, 2019, at the MRES Headquarters in Sioux Falls. Online registration will be available soon. The preliminary legal seminar topics include: 5G deployment, the FCC, and pole-top and right-of-way management; ADA-compliant websites; and a regulatory update.

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Member profile – Cavalier, N.D.

Located in the heart of the Rendezvous Region, Cavalier is immersed in history and natural beauty. Cavalier is the largest town in, and county seat of, Pembina County, N.D., located in the northeast corner of North Dakota, an area bordering Canada and Minnesota.

It is located just 20 miles south of the Canadian border and about 397 miles north of Sioux Falls. Cavalier was established in 1878 and became the county seat in 1911.

Cavalier was named by the Territorial Legislature for Charles Cavileer, a well-known fur trader, customs agent, and postmaster.

Today, Cavalier is home to 1,301 people, according to the 2010 Census. The Cavalier Municipal Utilities provides electric, wastewater, water, sewer, and garbage services. Cavalier joined MRES in 1979.

City Auditor/Administrator Kelli Truver serves as the official representative to MRES, while Electric Superintendent Barry Walton is the alternate. The electric utility was established in 1928 and serves 721 residential and 185 commercial customers. Cavalier lies in the Midcontinent Independent System Operator region. The utilities are governed by the city council.

Recreation and tourism play a big role in the community of Cavalier. Year around activities include outdoor photography, hiking, and exploring the great outdoors. During the summer, locals and tourists enjoy boating, fishing, and golf. The colder seasons offer opportunities to ski, snowmobile, and ice fish. Cavalier also hosts the annual Off The Charts Music Festival, a free and family-friendly three-day event.

Attractions include Cavalier Country Club, Icelandic State Park, Rendezvous Region Backway, and Pembina County Historical Museum.