

# Micro-Modular Nuclear Reactor Project Tabled Indefinitely

Since 2021, Copper Valley Electric Association (CVEA) has been collaborating with Ultra Safe Nuclear Corporation (USNC), headquartered in Seattle, to determine the feasibility of building the first commercial installation of a Micro-Modular<sup>™</sup> Reactor (MMR<sup>®</sup>) Energy System in Alaska.

A feasibility study was completed to determine the technical feasibility, social acceptance, location, cost, and operating specifics of what was projected to be a 10-megawatt electric micro facility utilizing innovative advanced nuclear technology.

After the feasibility study was completed in the fall of 2022, an economic analysis was performed by CVEA. On review, the CVEA Board determined that, while the project was technically feasible, there was too much economic risk for the members to own and operate the project, so a Power Purchase Agreement (PPA) with USNC as the owner and operator was pursued.

After thorough research, USNC determined a PPA to meet CVEA needs would require additional year-round heat and/or power customer agreements to be economically feasible.

On August 9, 2023, CVEA announced to members and local media that without a PPA in place, CVEA can no longer pursue the potential MMR project at this time. The co-op will continue

to monitor this technology and may reassess if economic conditions improve.

Reducing or eliminating the cooperative's dependence on fossil fuel remains a strategic priority of Copper Valley Electric. The team at CVEA continues to look for alternative sources for winter generation.

According to exiting CEO Travis Million, "CVEA was hopeful that the project with USNC was going to help reduce and stabilize wintertime energy prices. The MMR technology may not be the solution today but could still be in the future.

CVEA continues to work hard for our members to find a solution for wintertime energy and are hopeful that the Intertie with the Alyeska VMT will help with that. In addition, CVEA will continue to evaluate the potential of raising the spillway at Solomon Gulch hydroelectric project; allowing for the storage of additional water, increasing the amount of clean lower cost hydro power."

CVEA hosted a virtual meeting to discuss this topic and take questions on Wednesday, August 30.

A timeline of the project is included on the opposite page. For project details, visit cvea.org.

## **Project Timeline & Summary**

### 2020

- Spring The CVEA Board unanimously supported looking into advanced reactor technology for a potential solution to CVEA's high cost, variable winter-time energy
- Summer CVEA partners with UAF Alaska Center for Energy & Power (ACEP) working with a virtual intern to collect data regarding the utility; the data was used for updating a 2011 study performed by ACEP evaluating "Small Scale Modular Nuclear Power an option for Alaska"

### 2021

- July CVEA was approached by Ultra Safe Nuclear Corporation (USNC) during a tour through Alaska they were conducting to meet with utilities and other industries
- October CVEA/USNC agree to conduct a feasibility study for the MMR technology in the CVEA service territory
- November CVEA & USNC meet with the Alaska delegation in Washington, D.C. to inform them of the feasibility study efforts

### 2022

- January CVEA & USNC meet with Legislators in Juneau to inform them of the feasibility study efforts
- February 1 Governor Dunleavy releases SB177 (Micro Reactors), CVEA quoted in news release
- February 2 CVEA issues news release Copper Valley Electric Partners with Ultra Safe Nuclear Corporation to Perform Feasibility Study of a Micro Modular Reactor (MMR\*) Energy System in Alaska
- February Project information added to cvea.org
- February May CVEA testifies multiple times on SB177
- October 5 SB177 signed into law
- February November CVEA meets with various stakeholders discussing the feasibility study and the potential project Public meetings held in Glennallen and Valdez
- Information regarding the feasibility study was shared at the CVEA Annual Membership Meeting in Glennallen and Valdez
- Met with Valdez City Council, Alaska Native organizations, Copper Basin Chamber of Commerce, conducted interviews on local radio, national podcasts and publications
- October Draft feasibility study delivered to CVEA
- December Internal economic analysis performed by CVEA
- October 2022/January 2023 CVEA Board reviewed feasibility study and determined that there was too much economic risk for members to own and operate the project; Power Purchase Agreement (PPA) being pursued with USNC

### 2023

- February Public meetings were held in Valdez and Glennallen to share the results of the feasibility study
- May A summary of the feasibility study results were shared at the CVEA Annual Membership Meeting in Glennallen and Valdez
- July After thorough research, USNC determined a PPA to meet CVEA needs would require additional year-round heat and/or power customer agreements to be economically feasible
- August 9 CVEA issued news release Micro-Modular Nuclear Reactor Project Tabled Indefinitely by CVEA
- August 30 CVEA held a virtual meeting to communicate the final results of the project, answer questions, and receive comments

### Notes

Although CVEA conducted a feasibility study with USNC, there were many other MMR manufactures that CVEA was in conversations with. Those included Westinghouse, OKLO, NuScale, & Radiant Technologies. USNC was selected to further explore due to the potential opportunity to partner on a project and the size of the unit best matched the CVEA system.



### **By Anne Prince**

With severe weather events occurring more frequently, now more than ever, it makes sense to be prepared. During a prolonged power outage or other emergency, this means having enough food, water, and supplies to last.

In honor of National Preparedness Month in September, I want to remind community members about the power of preparation. While you don't have to achieve a "doomsday prepper" level of preparedness, there are several practical steps you can take to keep you and your family safe.

Even at a modest level, preparation can help reduce stress, anxiety, and lessen the impact of an emergency event. We recommend starting with the basics.

Here are general guidelines recommended by the Federal Emergency Management Agency:

- Assemble a grab-and-go disaster kit; include items like nonperishable food, water (one gallon per person, per day), diapers, batteries, flashlights, prescription medications, first-aid kit, battery-powered radio, and phone chargers
- Develop a plan for communicating with family and friends (i.e., via text, social media, third party, etc.)
- Have some extra cash available; during a power outage, electronic card readers and cash machines may not work
- Keep neighbors and coworkers apprised of your emergency plans
- Fill your car with gas
- Organize supplies so they are together in an easily accessible location that family members know about

#### Caring for vulnerable family members

If you have older family members or those with special needs, make sure they have enough medication and supplies for a few days. If they don't live with you, arrange for a neighbor to check in on them. If a severe weather event is expected, consider having your relative stay with you if feasible, otherwise call them daily.

If you have an infant or young children, make certain you have ample formula, diapers, medication and other supplies on hand to weather an outage lasting several days or more.

#### Keeping four-legged family members safe

For families with pets, having a plan in place in the event of a prolonged outage or an emergency will help reduce worry and stress especially if you need to make a decision during an emergency.

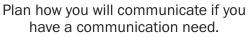
- Bring pets indoors at the first sign of a storm or other emergency; they can become disoriented and frightened during severe weather and may wander off during an emergency
- Microchip your pet and ensure the contact information is up to date
- Store pet medical records on a USB drive or in an easy-to-remember location
- Create an emergency kit for pets (include shelf-safe food, bottled water, medications, and other supplies)

Copper Valley Electric cares about your safety. Planning for an emergency situation today can give you more confidence to deal with severe weather and potential outages in the future. For more tips, visit cvea.org or ready.gov.

## **DISASTER PREPAREDNESS** FOR OLDER AMERICANS AND PEOPLE WITH DISABILITIES









Plan for your transportation if you need help evacuating.



Plan how you will evacuate with any assistive devices.



Plan for food, water, and essentials for you and pets or service animals.



Include medicines, medical supplies, batteries, and chargers.

	INSURANCE POLICY
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Make copies of Medicaid, Medicare, and other insurance cards.

## WHAT TO INCLUDE IN AN EMERGENCY PREPAREDNESS KIT

- Solution Contact information for important people and care providers.
- ✓ A list of medicines you need, dosage instructions, and any allergies.
- ✓ Contact information for your durable medical provider.
- Need-to-know information for first responders and others who might need to help you.





### By Sarah Jorgenson-Owen

It would be easy to mistake the Idaho Consumer-Owned Utilities Association (ICUA) Youth Rally, offered by CVEA through the Community Foundation Scholarship Program, in partnership with the Alaska Power Association, as simply another summer camp for teens, but it is so much more! It is a leadership program, with an emphasis on educating high schoolers on the electric industry and the important role cooperatives play in rural communities.

Over the course of four and a half action-packed days, high school juniors & seniors attend breakout classroom sessions, listen to motivational speakers, hear from state political leaders, hone leadership skills, discover networking tools, and push the limits of their comfort zone. They learn it is ok to be vulnerable and take risks in a safe, welcoming environment.

The most unique and one of the most impactful aspects of the Youth Rally is that the entire agenda is designed and led by 2<sup>nd</sup> year student directors. These teen leaders craft amazing experiences, from the classroom breakout sessions and special speakers, to the team building games and field trips. It is an incredible way for students to develop teaching and leadership skills while under the care of chaperones. These high school juniors and seniors oversee the entire camp, all week long and they love it! They relish in the opportunity to spread their wings and lead. It is also a chance for the incoming students to observe what makes a good communicator, leader, and mentor by watching the student directors take charge of the agenda, teambuilding games, networking activities, dances, and more.

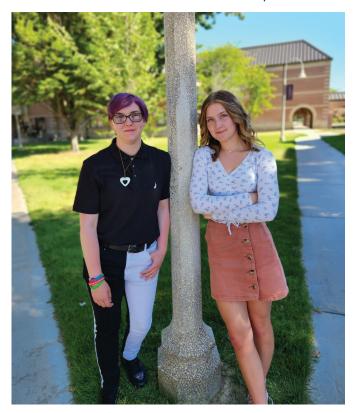
Even the classroom sessions are designed to make learning fun and engaging. Whether spinning the Wheel of Utility Jobs to discover the diverse career options available at utilities or playing a very spirited game of Jeopardy where all answers revolve around co-ops, students are being exposed to the many facets that make their hometown utility co-op special. The laughter filling the classrooms and halls is evidence of the well-developed curriculum and ingenuity that goes into each session.

The week is not all classrooms and lecture halls. Almost half the week is devoted to team-building activities, networking experiences, and field trips; like visiting the Idaho State Capitol, an afternoon at a local water park, and more than one dance party. Students are out the door early each morning and falling into bed exhausted each night, with never a dull moment. And in the precious minutes they are given for free time, they are bonding with students across the Northwest. Friendships are forged during this week that will often last a lifetime.

Copper Valley Electric Association, along with Homer Electric Association, sent a total of four students to this year's Youth Rally. I had a blast chaperoning our little delegation of Alaskans, and we spent an extra two days together making our way through Anchorage to Boise and onto Caldwell. The teens became fast friends, and the group chat did not end when we parted ways at the airport. It was inspiring to watch their transformation throughout the week; from the timid entrance and first ice breaker game, to their dance moves and revelry at the last night's pizza party.

Part of the CVEA Community Foundation mission is to provide educational and leadership scholarships to students, which includes one Youth Rally scholarship per district to a high school sophomore or junior residing within the CVEA service territory. Through this scholarship, all expenses for the student to attend the Youth Rally – airfare, lodging, meals, travel expenses—are paid by the Foundation, so the student and their family does not need to pay anything out of pocket.

If you know a high school sophomore or junior looking to make a difference in their school or community, or who is



Opposite, Ryker Easton, Meriedi Morrison, Bella Smelcer, and Oliver Parrish, at the airport on their way to this year's Idaho Youth Rally. This two-day trip provided student's time to become fast friends. Above, Ryker and Bella were awarded CVEA Community Foundation Youth Rally Scholarships, which provided them an all-expense paid trip to the Idaho Youth Rally in Caldwell, Idaho.

Top right, Bella, in her role as Student Director, introduced the Alaska delegation to the group of attendees during a series of icebreaker games and activities.

Right, Ryker participating in a team-building game; a fun, yet critical component of the Youth Rally as students learn how to communicate effectively, delegate, and assume leadership roles.

PHOTOS BY SARAH JORGENSON-OWEN

interested in pursuing a career in the electric industry, this Youth Rally is a perfect opportunity.

The 2024 CVEA Community Foundation Scholarship Program will be announced in December 2023. For more information on the ICUA Youth Rally and the CVEA Community Foundation Youth Rally Scholarship, please visit the scholarship section, under Community Support at cvea.org.

If you have questions, please contact Sarah Jorgenson-Owen at 907-835-7004 or email sjorgensonowen@cvea.org. ■

Sarah Jorgenson-Owen is the Marketing and Communications Specialist for Copper Valley Electric Association. She assists with the Community Foundaton Scholarship Program and served as chaperone for CVEA and other Alaskan students representing their cooperative at the 2023 ICUA Idaho Youth Rally.







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### Board of Directors

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### **Important Dates**

### September

**CVEA Offices Closed:** The CVEA offices will be closed Monday, September 4, 2023, for Labor Day

**CVEA Board Meeting:** The September meeting has been cancelled

### October

Co-op Month Pick-Your-Own Pumpkin Patch and Food Drive Event: This family event will be held in Glennallen on Saturday, October 14, and in Valdez on Saturday, October 21. The fun will start at 10 a.m. \*Please be prepared for weather conditions. Watch for details on Facebook, cvea.org, and other local news sources.

**CVEA Board Meeting:** The October meeting of the Board of Directors is 9 a.m. Thursday, October 19, 2023, in Glennallen AK-34

# OCTOBER IS CO-OP MONTH



## Help CVEA Celebrate Co-op Month at the 2023 Pick-Your-Own Pumpkin Patch and Food Drive Event!

- Join CVEA for the 2023 Co-op Month community event on Saturday, October 14, in Glennallen, and Saturday, October 21, in Valdez
- Fun for the whole family starts at 10 a.m. in each district
- Stop by and pick your own pumpkin from the pumpkin patch
- Cost for entry to the pumpkin patch: bring food or a cash donation for the food drive (details below)
- Stay and decorate your pumpkin, participate in activities and games, and pose for a picture at the fun, fall-themed photo booth
- Enjoy drinks, snacks, treats, and dishes from local food vendors (\$)
- Support local nonprofit organizations through a Jazzy Gourmet Popcorn fundraiser, a hot cocoa bar, cotton candy, and more (\$)

### Food Drive at the Pumpkin Patch

- Bring nonperishable food items to the Co-op Month Pick-Your-Own Pumpkin Patch community event in your district (expired items will not be accepted)
- One food item (minimum) per person or a cash donation for the food bank in your district allows you to pick-your-own pumpkin (qty. limits per family)
- BONUS bring extra food or cash donations and be entered to win a \$150 CVEA energy credit (one item = one extra drawing ticket)