UAMPS
Utah Associated Municipal Power Systems
SMARTENERGY
Clean Energy News
Keeping you informed about UAMPS' clean energy initiatives.
Send tips/feedback to jackie@uamps.com.

18th Edition, October 28, 2021

October CFPP Project Update

Site work at the Idaho National Laboratory is keeping the Carbon Free Power Project on schedule. Much of the current work on the nation's first small modular reactor nuclear plant consists of studies to gather data and information to include in the application to the Nuclear Regulatory Commission to construct the operate the plant. The CFPP will provide firm, dispatchable, carbon-free energy to participants and help usher in a new generation of nuclear energy.

Project Director Dr. Shawn Hughes reported the following activities to the CFPP Project Management Committee on October 18:

- A highlight of October site activities was a site tour on October 4 by executive members of the Nuclear Regulatory Commission. Participants included NRC representatives, along with personnel from DOE-Idaho, INL, Fluor, NuScale, Rizzo, S&ME, and Burns & McDonnell.

NRC site visit participants

- Another monthly highlight was re-engagement and discussions on October 12 with the Shoshone-Bannock Tribes, hosted by DOE-Idaho.

- Work on the NuScale Standard Plant Design is on-going and on schedule. It incorporates the 6-module plant configuration, air cooled condensers (which reduce water use by 95%), and other changes.

Rendering of UAMPS' CFPP Standard Plant Design

- Development work is moving forward. This includes producing a Class 3 cost estimate, geotechnical investigations, basic engineering design inputs, and site-specific engineering. These activities feed into the COLA development and execution plan. Geotechnical site investigations are on schedule, including drilling core borings and monitoring wells.

Core boring drill rig

- Some 40-50 workers are on the site and CFPP site safety and COVID protocols are being followed.

October Government Relations Report

Mike Squires, UAMPS Government Affairs Director, reported concerns to the board regarding the Clean Electricity Performance Program (CEPP) introduced in Congress in September. CEPP is a form of federal clean energy standard to be included as part of the Build Back Better legislation pushed by President Biden.

CEPP would require UAMPS members to procure an additional 4% of "clean energy" (0.1 tons carbon dioxide equivalent per MWh) each year starting in 2023 through 2030; utilities meeting the required target would receive a grant, and those who do not would need to make a payment. Since CEPP's introduction, UAMPS has issued a letter explaining CEPP's unintended consequences to UAMPS members and other utilities, as well as met with congressional staff, APPA, and UAMPS' D.C. lobbyist to ensure that UAMPS' perspective is heard and understood. UAMPS continues to monitor CEPP and will continue to advocate for UAMPS' members.

Industry Information & Developments

Couldsmallnuclearreactorsbethefutureofenergy? (C/Net, by Marta Franco) Small modular reactors could make nuclear power much more common than it is today. NuScale Power is the first company to have its SMR design approved by the US government. Small modular reactors could be the answer to years of decline in the nuclear power industry.

Right now there are around 50 designs and concepts for SMR technology globally, including several in the US. NuScale Power is the first company to receive design approval from the US Nuclear Regulatory Commission. NuScale is looking at 2029 to see its first SMR power plant in operation, in Idaho Falls, Idaho, as part of the CarbonFreePowerProject, which is led by the Utah Associated Municipal Power Systems.

Medium:ANuclearRenaissanceCouldSoonBegin . (By Ella Alderson) The irony of nuclear power is that despite it being one of the safest forms of energy available, its use has declined over the years in no small part due to public concern. Very few accidents have ever taken place at nuclear power plants . . . in comparison to coal it produces 330 times fewer deaths. Compared to oil the number is 263 times fewer and compared to gas it's 38 times fewer. Overall nuclear power is over 97% safer than coal, oil, or gas.

One example of innovative SMR designs come from a company called NuScale whose modules could save $4 billion over traditional plants and could produce 720 MW in an area of just 35 acres. This same energy production from a traditional plant would require nearly 18 times that amount of land. As compared to renewables like solar and wind, SMRs could generate the same amount of power in just 1% of the space.

Gazette:Nuclearpowercouldsavetheplanet—andPueblo . The Colorado Springs Gazette reported the County Commission is interested in the SMR technology of a company like Oregon-based NuScale Power. It would enable the plant to support the county with more than $15 million annually in tax revenues and more than 100 high-paying jobs.

The Pueblo commission likes the NuScale prospect for several good reasons. In addition to saving and repurposing Commanche (a coal-fired generating station), it should quell the top concern raised by anti-nuclear activists: safety. NuScale's patented technology, approved by the U.S. Nuclear Regulatory Commission, has not been used. If and when it is, expect none of the disaster scenarios predicted by nuclear opponents.

Viewpoint:Welcomenuclearnewcomercountriestothenuclearfamily . (Milton Caplan, chair of the World Nuclear Association Economics Working Group) Given the urgency of decarbonizing the world, the solution is clear. Countries that rely on fossil fuel for their energy should pursue both hydro and nuclear for their baseload needs and supplement with renewables to fully decarbonize their systems. Unfortunately, hydro is limited by geography but nuclear can be implemented almost anywhere. This means nuclear is an important option and countries planning to decarbonize are taking note. According to the International Atomic Energy Agency (IAEA) there are up to 30 countries looking into nuclear power for the first time. . . . Once those pledged to meet net zero by 2050 start to develop their plans, and with the new nuclear options such as small modular reactors entering the market, we expect to see many more countries taking a hard look at implementing nuclear as part of their future energy systems.

CandidateSupportsCFPPinWashingtonCity,Utah . Making sure Washington City continues to have reliable power was another concern for (incumbent council member Roger) Bundy as he noted the forthcoming shutdown of coal plants in parts of Arizona. In order to keep the lights on in Washington City, Bundy expressed support for the CarbonFreeProject being pursued by Utah

Associated Municipal Power Systems. The project focuses on the NuScale nuclear power project taking place in Idaho. "NuScale, small nuclear reactors, is something we're involved with as a city through UAMPS, and we need to pursue that and need to prepare for that; otherwise, my prediction is we're going to see roaming blackouts like they have in California."

NuclearPower:AClimateResponseThatGetsShortShrift . For the last month, the world has been dealing with a power and energy crisis. While the factors that caused this emergency are complex and differ somewhat from country to country, the upshot has been a clamour to reduce dependence on fossil fuels—coal, petrol, natural gas—further and increase production of renewable energy—mainly solar and wind. Solar and wind energy are, by definition, intermittent and unstable. If the sun does not shine or the wind does not blow, you cannot produce the power.

Among EU nations, Germany has been the most aggressive in pursuing a renewable energy future. . . . Meanwhile, Germany's household-sector electricity price is the highest in the EU: $0.37 per kilowatt-hour (KwH). In France, it's $0.19. In 2019, Germany emitted 350 grams of carbon dioxide for every KwH generated. France emitted 56 grams, six times less. Power in France is much cheaper and cleaner. The reason is simple. Nuclear power. In 2020, nuclear power made up 78% of the energy France generated, and renewables 19%. Fossil fuels accounted for only 3%.

Europe'sSelf-InflictedEnergyCrisis. (Forbes) The energy crisis unfolding in Europe has many drivers, but EU green policy hubris, and Russian hard-nosed energy poker are the key. The main lesson is: one cannot will energy transformation into reality without building ample, reliable and economically viable baseline generation capacity. . . . Germany, despite all rationality, will decommission nearly all its nuclear reactors next year, while betting on wind and solar, and may soon be forced to bend knee to Russia, and therefore Lord Putin, by embracing Nord Stream 2, for their energy needs.

NationsGoNuclearAsPricesSpike&RenewablesFail . (By Michael Shellenberger) National leaders around the world are announcing big plans to return to nuclear energy now that the cost of natural gas, coal, and petroleum are spiking, and weather-dependent renewables are failing to deliver.

What explains the change? Rising energy prices and growing popular and political support for nuclear. Public support for nuclear energy rose 17 percentage points in France. "I do not want our country to lose its energy sovereignty under the pretext of an absurd energy transition copied from Germany," said a conservative French presidential candidate.

In Other News . . .

Nate Hardy

Goodbye to Our Associate Nate Hardy. UAMPS lost a great leader and dear friend with the passing of Nathan John Hardy on September 29, 2021, at age 51. Nate endured a battle of more than nine years with appendix cancer, including more than 200 chemotherapy cycles and 16 major surgeries.

Nate began employment at UAMPS in 2005, and worked in several capacities before becoming UAMPS' executive in charge of building new energy projects. Building complex electric generating stations is a massive undertaking, but Nate excelled in all aspects of project management.

Nate was a dedicated, loyal, highly-skilled, hard-working member of the UAMPS' family. We miss him and the great contributions he made to UAMPS over many years. We express condolences to Nate's family and many friends...

Central Valley Water Joins UAMPS. The UAMPS Board of Directors has approved Central Valley Water Reclamation Facility (CFWRF), located in South Salt Lake, as a participant in the UAMPS Pool Project and as a new UAMPS member. CFWRF is a state-of-the-art facility treating 50 to 60 million gallons of wastewater daily, returning clean water to the Jordan River system. UAMPS now has 50 members, in 7 western states.

David Wood Elected to CFPP Board. David Wood, representing the town of Holden, has been elected by the UAMPS Board of Directors to serve on the CFPP Board. David is a member of the Holden Town Council.

If you have questions about UAMPS' plans for a carbon-free future, please email them jackie@uamps.com.