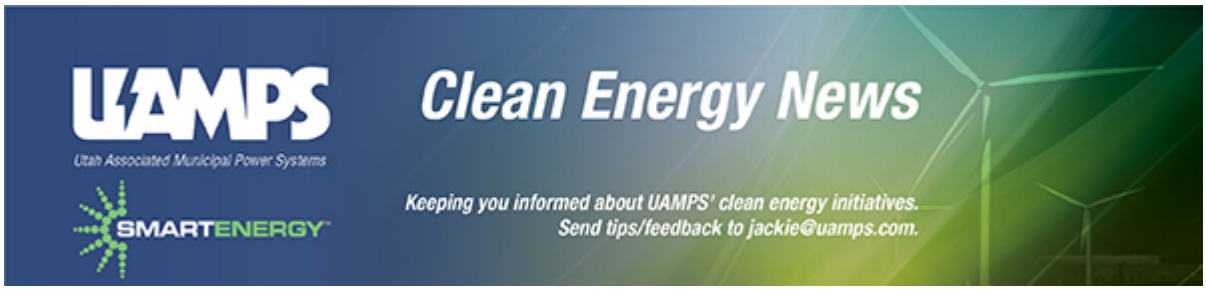

6th Edition September 16, 2020

Whirlwind of activity as CFPP moves forward

Progress on UAMPS' Carbon Free Power Project (CFPP) has occurred at a blistering pace over the last several weeks. Here are some key developments:

- NuScale Power received approval for its Small Modular Reactor (SMR) design, which is a key step forward for the project. The Nuclear Regulatory Commission granted the approval after nearly three years of review and exhaustive scrutiny. Design approval means the NuScale SMRs meet all of the NRC's stringent safety requirements and can now be fabricated and sold. UAMPS will be NuScale's first customer for the nuclear power modules. (See more information below.)

- Numerous CFPP workshops and Project Management Committee meetings have been held over the last several weeks to scrutinize all aspects of the project. A particular focus has been on mitigating financial risk to participants and ensuring the power produced at the plant will be affordable for member customers and will be competitive with other sources of energy.

- Enormous amounts of work have gone into developing and approving key project contracts, including the Development Cost Reimbursement Agreement with NuScale Power, and the Engineering Procurement and

Construction agreement with Fluor. These agreements signify substantial progress on the project and will meaningfully reduce financial risks for participants during project development.

- UAMPS and the U.S. Department of Energy are in the final stages of finalizing an agreement in which DOE will make a multi-year cost-share award to the project in the amount of $1.4 billion. This important award will be weighted to the early years of the project, which reduces the financial risk for member participants.

- Participating members are about to enter a new, important phase of the project, in which a Combined Construction Permit and Operating License Application will be developed for submittal to the Nuclear Regulatory Commission (NRC). Developing this detailed and complex application will take about 29 months. The NRC will then have three years to review and examine the application. Once a construction permit is granted, UAMPS can begin construction of the plant.

- Some national anti-nuclear groups, working through the Utah Taxpayers Association, have continued to try to kill the project by spreading misleading information to member governing bodies. UAMPS encourages member governing bodies to contact UAMPS to obtain accurate and detailed information about the project.

- CFPP has been the subject of myriad local, national and international news stories focused on NuScale receiving its design approval and two participants deciding to withdraw from the project. UAMPS' partners, including NuScale, Idaho National Laboratory, and DOE have assisted greatly in responding to news media questions and providing factual information.

- A new public utility, the Wells Rural Electric Company, will join the association and participate in CFPP as of Oct. 1.

Articles & Updates

Interesting news from far away: Pakistani edition of Technology Times says, "Small modular reactor by NuScale can help save planet."

This marks a pivotal moment in the nuclear industry and human history. The key to abundant clean, safe, and cheap power has been in man's hands for decades, yet here it is once again, more versatile, safer, and cheaper than ever before. With the certification approval of the NuScale SMR by the NRC, mankind has secured a solution for not just the United States, but the entire world, to produce clean and effective power and addressing climate change.

Overview article on the status of the CFPP and NuScale SMR by the American Nuclear Society.

"Most UAMPS members are increasing their renewable resources, but need a steady, dispatchable, carbon-free resource to back up intermittent renewable energy and maintain grid stability."

UAMPS begins a new phase of development on October 1, focusing on developing a COL application for the project. "After submitting the application, the NRC will have more than three years to review and approve. If all goes well, construction on the CFPP could begin at the end of 2025," Webb said. Despite recent increases in estimated costs, UAMPS reports that the CFPP is on track to meet a price target of $55/MWh or less.

NEI blog post: A nuclear solution for climate, energy and water.


Doug Hunter, UAMPS CEO & General Manager

Around the United States and the world, demand for clean electricity is growing and so are worries about water. As rainfall patterns shift, many places in the world are going to need new sources of water to mitigate climate change. . . .A new nuclear project in Idaho is addressing all these issues at once with a pioneering dry cooling system.

"Water is an incredibly precious resource, especially in the west, so dry cooling is the best option for the Carbon Free Power Project," said Doug Hunter, UAMPS chief executive officer and general manager. "For a nuclear plant, this is a revolutionary feature. The project will be friendly to air quality and climate, with no carbon emissions; friendly to the land, with its very small footprint; and, now, friendly to water resources and local water interests. It will be the most environmentally-friendly nuclear plant in the world."

Utility Dive article discusses the challenge of cooling nuclear plants with water as the climate changes.

The Utah Associated Municipal Power Systems (UAMPS), pursuing what could be the first small modular nuclear reactor project in the U.S., has decided to use a "dry cooling" system in which large fans dissipate heat, reducing the amount of water used by over 90%, but at the cost of cutting electric output by 5% to 7%. The project would use a reactor design by NuScale Power, that recently became the first small modular reactor developer to receive a safety approval from the NRC.

Climate change-driven droughts could drive many nuclear power customers to seek out dry cooling, the Nuclear Energy Institute wrote in a blog post about the technology.

NEI President Maria Korsnick letter to UAMPS members supporting CFPP.

I was very honored to participate in the UAMPS Town Hall Meeting on July 21. I hope I conveyed just how important nuclear energy is in achieving an affordable, reliable, low-carbon electricity system. I appreciate the pioneering spirit and true leadership that UAMPS and its members are demonstrating not only to the country but to the world.

Maria Korsnick, CEO, Nuclear Energy Institute

Popular Mechanics: This tiny nuclear reactor will change energy—and now it's officially safe

Nuclear startup NuScale has received a landmark& final safety evaluation report (FSER) for its modular reactor design, making it the first American modular design to reach this point. NuScale's design uses classic nuclear fission water reactor technology in a much smaller form factor, which contrasts with the escalating sizes of most current nuclear plant construction around the world.

"As the first U.S. small modular reactor design to be issued a FSER, NuScale is pioneering the way for additional innovative advanced nuclear technologies under development," Nuclear Energy Institute (NEI) new reactor director Marc Nichol said in a statement.

Press release: NuScale Power makes history as the first ever small modular reactor to receive U.S. Nuclear Regulatory Commission design approval

NuScale Power announced that the U.S. Nuclear Regulatory Commission (NRC) completed Phase 6 review—the last and final phase—of the Design Certification Application (DCA) for the company's groundbreaking small modular reactor (SMR) with the issuance of the Final Safety Evaluation Report (FSER). The FSER represents completion of the technical review and approval of the NuScale SMR design. With this final phase of NuScale's DCA now complete, customers can proceed with plans to develop NuScale power plants with the understanding that the NRC has approved the safety aspects of the NuScale design.

Mother Jones: Transitioning to renewable energy isn't so simple. Just look at California.

But California's experience also underscores a growing consensus among energy scholars: that variable renewable energy technologies are unlikely to meet the grid's power demand by themselves. They will play an important role, but more firm generating sources, like next-generation nuclear reactors, natural gas plants with carbon capture technologies, enhanced geothermal, and others that can balance out variable renewables, will be required.

Deseret News: How nuclear power may become a reality for cities in Utah, 5 other states.

Nuclear power providing energy for some cities in Utah and five other states in the West is inching closer to reality after federal regulators endorsed the design of a planned small modular reactor plant at Idaho National Laboratory.

Tacoma News Tribune: California blackouts will require policy corrections.

In a normal, sensible world, the utilities would increase supply by ramping up generation, usually through natural gas-fired combustion turbines. But California has been for years on a course of ridding itself of any generating capacity not labeled renewable or "green."

Renewables by themselves are not reliable or dispatchable, and there's limited capacity to store electricity generated by renewables when not needed for times of peak demand.

The Northwest is not to the point of California's predicament, although power planners have sounded warnings that a supply-demand crunch is coming. The arrival date of that crunch will be hastened by the continuing policies of extracting coal and natural gas from the generating mix, as well as hydro projects like the four Snake River dams, and snubbing next-generation small nuclear reactors.

Salt Lake Tribune: Utah's clean energy future should include nuclear (by Erik B. Olson).

HEAL Utah and the Taxpayers Association, blinded by ideology and dogmatism, would continue Utah's heavy dependence on fossil fuels rather than support sensible measures to transition the state toward a diverse portfolio of electricity sources generated by wind, solar and nuclear energy. Should they succeed, our air quality and infamous inversions will only get worse. Our winters will get shorter and our snowpack will decline. Wildfires and drought will become more severe.

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