



Utah Associated Municipal Power Systems



SMARTENERGY

LOS ALAMOS COUNTY
JULY 21, 2021

CFPP UPDATES SINCE OCTOBER OFF-RAMP

- **Key agreements have been signed.**

- Department of Energy (DOE) Multi-Year Cost Share - This agreement has been signed. The DOE will provide \$1.4 Billion towards the project over a period of nine years. This represents almost 25% of the project costs.
- Development Cost Reimbursement Agreement (DCRA) - The DCRA between UAMPS & NuScale has been signed. Mostly deals with the technology side of the project (power modules) and provides reimbursement of 100% of the next phase costs if the energy price target is not met.
- Engineering, Procurement & Construction (EPC) Development Agreement - This agreement has been signed between UAMPS & Fluor. Primarily covers the Balance of Plant design, construction and cost estimates for the project.



CFPP UPDATES SINCE OCTOBER OFF-RAMP (cont.)

- **NuScale has uprated the electrical power output** rating for each Nuclear Power Module (NPM) from 60 MW to 77 MW.
- A full 12 module plant would have an overall output of 924 MW.
 - This level of total output is beyond the current needs of UAMPS and other interested utilities.
- UAMPS has evaluated both an 8-module and 6-module plant configuration. It was determined that a 6-module plant with a total output of 462 MW would be the best approach to move forward with.
 - This lower overall output level will make subscription easier to achieve.
- The overall project schedule remains the same with the first module coming online in 2029 and all 6-modules in 2030.

CFPP UPDATES SINCE OCTOBER OFF-RAMP (cont.)

- The costs from going from 12- or 8-module configuration to a 6-module configuration do not reduce proportionately to the output level.
- Some costs such as NRC COLA review and approval, as well as some of the shared systems (i.e. building crane, reactor vessel assembly/disassembly) do not change or change very little from one configuration to the other.
- The new price target in 2020\$ is \$58/MWh (original target was \$55/MWh).
- This price is still very attractive when compared to other potential carbon-free resources that are dispatchable (available 24/7), such as other advanced reactors, green hydrogen, storage, batteries, etc. (Not all resources have the same capabilities.)
- **The DCRA provides for 100% reimbursement to the project participants if there is a failure of the Economic Competitive Test (ECT) of \$58/MWh through the COLA development phase of the project (January 2024 and Class 2 estimate).**

SUMMARY

- CFPP is a small modular reactor (SMR) project using NuScale technology.
- CFPP will consist of six 77 MW reactors (462 MW total) and will be located at the Idaho National Laboratory (INL) near Idaho Falls.
- LAC currently has a 6,370 kW.
- Target commercial online date is 2029.
- **Project price is \$58/MWh in 2020 dollars.**
- CFPP is a long-term resource starting in 2029 and continue for 40-60+ years after initial COD

DE-RISKING OF THE PROJECT

- **UAMPS has worked very hard to minimize risks to the participants wherever possible.**
- UAMPS has structured the DOE cost share funds so that higher DOE %'s will be used towards the earlier stages of the project (where the risk is highest).
- The UAMPS participants portion of the COLA development costs of \$113M is \$24M (through Class 3 Estimate – September 2022) and \$309M is \$67M (through Class 2 estimate - January 2024) by strategically structuring the DOE and NuScale Cost Share funds.
 - Note the award modification request has been submitted to DOE changing the award from a 12-module facility to 6 while keeping the DOE monetary support the same. If the award modification request is not granted then the DCRA provides protection to the participants.
 - Note the DOE funds are subject to appropriations, however there is strong support from both parties as well as both houses of Congress.
- The DCRA has reimbursement provisions of 100% if the target energy cost of \$58/MWh (in 2020\$) is not met.
- As the project progresses higher levels of cost estimate confidence will be achieved (less risk).
- The Project Management Committee (PMC) directs the project.
 - The budget and status of the project will be reviewed on a monthly basis and there will be multiple ECT runs.
- **No payment from the project participants until the commercial operation of the plant,** unless a participant withdraws or UAMPS cancels the project without a target price test failure.



SUBSCRIPTION STATUS

28* UAMPS Members Signed PSC	103 MW
1 Washington Utility Signed LOI	150 MW
1 Arizona Utility Signed LOI	25 MW
7 Other Utilities Working on LOI's	<u>237 MW</u>
Current TOTAL Interest	515 MW

PSC - Power Sales Contract

LOI - Letter of Intent (used for due diligence process between UAMPS and interested parties)

*Beaver City rejoined the project



CFPP NEXT STEPS

- The next step is to develop the COLA ready to submit to the NRC.
 - Additional site study work and engineering design will be completed, and cost estimates will be refined which will continue to reduce the uncertainties of the project.
 - Critical site seismic work will be done this summer, in conjunction with other seismic work at the INL site that will save the project costs.
 - Information from this work is needed to keep the overall project on track for 2029.
- During this period information will be developed and refined as required for the COLA submittal.
 - ECT Run Fourth Quarter 2021
 - Class 3 estimate – Third Quarter 2022 & ECT Run
 - Class 2 estimate – First Quarter 2024 & ECT Run
- UAMPS will be focused on signing up additional participants into the project to fill the remaining subscription for the project.
 - **As additional participants come in LAC's cost share will be reduced.**

LOS ALAMOS COUNTY

- For LAC to stay within approved budget, LAC's subscription will decrease to 1.8 MW of the 462 MW facility.
- At full subscription LAC's cost share for the COLA development at 8.6 MW subscription would be 1.86% or \$442,719 w/DOE Funding (Class 3 estimate) and \$1,256,219 w/DOE funding (Class 2 estimate).
- **Note these amounts are included in the \$58/MWh and would only require payment if LAC or UAMPS withdraws for convenience.**
- The percentage amount and development phase cost commitment may change based on new participation levels. The numbers may fluctuate based on overall project participation.
- **As additional participants come into the project our cost share will go down.**
- There will be multiple ECT runs during this phase to evaluate the projects status and progress.

CONCLUSION

- UAMPS continues to evaluate all available resource options. An overall balanced resource mix will provide the best stability to power costs.
- It is more risky to do nothing and leave wholesale power costs to chance (August 2020, February 2021 and even the current summer pricing).
- All options have risk due to the uncertain nature of technologies and legislative requirements.
- The current contractual off-ramp is July 23, 2021 after which a new Budget & Plan of Finance goes into effect.

QUESTIONS

