



NuScale and the Utah Associated Municipal Power Systems (UAMPS) announced costs of a 462-megawatt small modular reactor (SMR) have risen dramatically.

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As recently as mid-2021, the target price for power was pegged at \$58 per megawatt-hour (MWh); it's risen to \$89/MWh, a 53% increase.

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The price would be much higher without \$4 billion federal tax subsidies that include a \$1.4 billion U.S. Department of Energy contribution and a \$30/MWh break from the Inflation Reduction Act.

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The higher target price is due to a 75% increase in the estimated construction cost for the project, from \$5.3 to \$9.3 billion dollars.

Last week, <u>NuScale and the Utah Associated Municipal Power Systems (UAMPS)</u> <u>announced</u> what many have long expected. The construction cost and target price Then, the price was raised to \$58/MWh when the project was downsized from 12 reactor modules to just six (924MW to 462MW). Now, after preparing a new and much more detailed cost estimate, the target price for the power from the proposed SMR has soared to \$89/MWh.



Remarkably, the new \$89/MWh price of power would be much higher if it were not for more than \$4 billion in subsidies NuScale and UAMPS expect to get from U.S. taxpayers through a \$1.4 billion contribution from the Department of Energy and the estimated \$30/MWh subsidy in the Inflation Reduction Act (IRA).

It also is important to remember that the \$89/MWh target price is in 2022 dollars and substantially understates what utilities and their ratepayers actually will pay if the SMR is completed. For example, assuming a modest 2% inflation rate through 2030, utilities and ratepayers would pay \$102 for each MWh of power from the SMR—not the \$89 NuScale and UAMPS want them to believe they will pay.

The 53% increase in the SMR's target power price since 2021 has been driven by a dramatic 75% jump in the project's estimated construction cost, which has risen from \$5.3 billion to \$9.3 billion. The new estimate makes the NuScale SMR about as expensive on a dollars-per-kilowatt basis (\$20,139/kW) as the two-reactor Vogtle nuclear project currently being built in Georgia, undercutting the claim that SMRs will be cheap to build.

NuScale and UAMPS attribute the construction cost increase to inflationary pressure on the energy supply chain, particularly increases in the prices of the commodities that will be used in nuclear power plant construction.

For example, UAMPS says increases in the producer price index in the past two years have raised the cost of:

- Fabricated steel plate by 54%
- Carbon steel piping by 106%
- Electrical equipment by 25%
- Fabricated structural steel by 70%
- Copper wire and cable by 32%

Assuming the commodity price increases cited by NuScale and UAMPS are accurate, the prices of building all the SMRs that NuScale is marketing—and, indeed, of all of the SMR designs currently being marketed by any company—will be much higher than has been acknowledged, and the prices of the power produced by those SMRs will be much more expensive.

Finally, as we've previously said, no one should fool themselves into believing this will be the last cost increase for the NuScale/UAMPS SMR. The project still needs to go through additional design, licensing by the U.S. Nuclear Regulatory Commission, construction and pre-operational testing. The experience of other reactors has repeatedly shown that further significant cost increases and substantial schedule delays should be anticipated at any stages of project development.

The higher costs announced last week make it even more imperative that UAMPS and the utilities and communities participating in the project issue requests for proposal (RFP) to learn if there are other resources that can provide the same power, energy and reliability as the SMR but at lower cost and lower financial risk. History shows that this won't be the last cost increase for the SMR project.

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