



Small Modular Reactors

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Key Messages:

- Small modular reactors (SMR) have the potential to provide baseload, emissions-free power that can be scaled to meet local needs.
- NWPPA supports federal efforts to facilitate the commercial deployment of SMRs through matching grants, loans, and legislation to modify the existing nuclear production tax credit.

Background

SMRs are nuclear generators under 300 MW that can be manufactured and shipped to sites. The smaller size allows the units to be manufactured rather than built on site, while the modular nature accommodates gradual load growth. Finished units will provide emissions-free, baseload power. The first-of-a-kind reactor is to be located at Idaho National Lab and scheduled to connect to the grid in 2025.

Congress has invested in the concept of SMRs on a bipartisan basis. A Department of Energy (DOE) account provided funding through a matching grant program to promote commercialization of SMRs. With the conclusion of that program, future funds will come through advanced reactor accounts. The Senate bill requires clarifying language to ensure the SMR project will qualify for this new source of funds.

Like other nuclear projects, the SMR project has applied for a loan guarantee through DOE. The loan guarantee from the government relieves some of the risk from the project so that it can qualify for private financing. The loan guarantee program has been eliminated in the FY18 Budget and energy and water appropriations bills, but there is an effort to restore the program or grandfather in those projects that have already applied for a guarantee.

A nuclear production tax credit (PTC) will be awarded to the first 6000 MW of advanced nuclear power (including from SMRs). Projects currently in the pipeline were expected to take 4,400 MW of the credit, and the PTC will expire in 2021 before other projects come on line. Recently, those early projects suffered setbacks that mean all advanced nuclear in the pipeline needs the credit extended to take advantage of the program's intent. If the deadline were removed, additional projects would be poised to compete for the credit, including the SMR project. Further, under current law, some of the credit will be lost because of Treasury guidance prohibiting public power and cooperative partners to transfer their share of the credit to partners with a tax burden.

The House has passed legislation to remove the deadline and allow not-for-profit partners to transfer their share of the credit. The Senate must act to ensure these projects have the financial certainty to move forward.