

The **Accelerating Deployment of Versatile, Advanced Nuclear for Clean Energy Act of 2024** aims to advance the benefits of nuclear energy by enabling efficient, timely and predictable licensing, regulation and deployment of nuclear energy technologies. This bill is an essential step in modernizing the Nuclear Regulatory Commission's (NRC) regulatory processes and supporting the deployment of new nuclear energy.

SUMMARY

The ADVANCE Act of 2024 supports the development and deployment of new reactor technologies by ensuring efficient licensing and regulation, enhancing U.S. leadership in nuclear energy innovation. This bill will establish the groundwork for the timely and efficient deployment of advanced nuclear technology, fostering domestic investment nationwide to support the next generation of clean and reliable nuclear electricity.

HISTORY:

2024 saw many advancements in the advanced nuclear industry. Vogtle unit 4 [entered full commercial operation](#), and Terrapower's Natrium reactor [broke ground in Wyoming](#). While Vogtle was an important milestone for American nuclear, cost and schedule challenges highlighted the importance of streamlined review processes and construction timeline certainty, which will be critical for the success of new projects like the Natrium reactor.

The ADVANCE Act of 2024 is the combination of the Senate's ADVANCE Act of 2023, S. 1111, first introduced by Senators Shelley Moore Capito (R-WV), Tom Carper (D-DE) and Sheldon Whitehouse (D-RI) on March 30, 2023, and the House Atomic Energy Advancement Act, H.R. 6544, introduced by Representatives Jeff Duncan (R-SC) and Diana DeGette (D-CO). The conferenced bill passed as part of the Fire Grants and Safety Act (S. 870) on June 18, 2024, and was signed into law on July 9, 2024.

SPECIFICS:

The ADVANCE Act outlines several strategies and actions for the nuclear sector that promote national security, economic, and environmental benefits while modernizing the existing, inefficient regulatory framework. The bill:

- Authorizes prizes for first-mover reactor companies in order to de-risk first-of-a-kind licensing and construction uncertainty.
- Calls for significant improvement in NRC organization and efficiency, including changes to the fee structure, and process for environmental reviews and licensing.
- Strengthens U.S. global leadership on nuclear energy by directing the NRC to coordinate international nuclear export licensing, establishing the International Nuclear Reactor Export and Innovation Branch of the NRC's International Programs office, and directing the Secretary of Commerce and Secretary of Energy to establish an initiative to modernize civil nuclear outreach to embarking civil nuclear energy nations.
- Streamlines the subsequent combined license process for new nuclear reactors on or adjacent to existing nuclear sites, including a 25-month shot clock for issuing the license.
- Allows the NRC to determine, on a case-specific basis, whether an environmental assessment (as opposed to an environmental impact statement) is appropriate for a particular application.
- Creates a streamlined licensing process for potential traditional and advanced nuclear projects, especially on brownfield sites.

- Directs NRC to establish an initiative to enhance preparedness and coordination to qualify and license advanced nuclear fuel.
- Amends [NEIMA](#) to allocate costs for reviewing and approving early site permits for demonstrating advanced nuclear reactors at Department of Energy sites.

ORIGINAL SPONSORS:

Sen. John Barrasso (R-WY)

COSPONSORS:

Sen. Shelley Moore Capito (R-WV), Sen. Sheldon Whitehouse (D-RI), Sen. Thomas R. Carper (D-DE), Sen. Kevin Cramer (R-ND), Sen. Mike Crapo (R-ID), Sen. Cory Booker (D-NJ), Sen. Lindsey Graham (R-SC), Sen. Joe Manchin (I-WV), Sen. James Risch (R-ID), Sen. Martin Heinrich (D-NM), Sen. Lisa Murkowski (R-AK), Sen. Roger Wicker (R-MS), Sen. Kyrsten Sinema (I-AZ)

CONGRESS.GOV LINK: [S. 870](#), [S. 1111](#), [H.R. 6544](#)