

The Accelerating Deployment of Versatile Advanced Nuclear for Clean Energy (ADVANCE) Act of 2023 provides a variety of procedures and programs to reinforce and revive the U.S. nuclear energy sector and global nuclear leadership.

SUMMARY:

The ADVANCE Act addresses a wide range of issues the nuclear industry currently faces, including fuel sourcing, Nuclear Regulatory Commission (NRC) licensing and regulation, and advanced technology development. The bill aims to position the United States as the global leader in advanced nuclear development which not only gives us an economic advantage but also makes progress towards a net zero domestic energy portfolio.

HISTORY:

In the spring of 2023, [Vogtle Unit 3](#) in Georgia was the only new design of reactor to come online in the U.S. in almost thirty years. Due to cost and schedule challenges related to a lack of domestic nuclear construction experience, the project highlights the need for shortened review and construction timelines. The American nuclear industry also faces supply chain gaps, especially for the fuel many new reactors require: High Assay Low Enriched Uranium (HALEU). Currently, Russia dominates the global nuclear fuel supply chain and is the only commercial producer of HALEU. Within its borders, Russia has [38%](#) of global uranium conversion capacity and [46%](#) of global uranium enrichment capacity. This supply chain bottleneck hinders U.S. advanced nuclear development and U.S. global nuclear leadership. In order for the U.S. to continue to lead in reducing emissions, nuclear energy, including advanced reactors, must quickly become a more prominent, reliable, dispatchable resource in our energy mix.

SPECIFICS:

The ADVANCE Act outlines strategies and actions for the nuclear sector that provide national security, economic, and environmental benefits. The bill:

- Simultaneously cuts American dependence on Russian nuclear fuel imports while bolstering programs dedicated to providing a domestic supply chain.
- Creates a streamlined licensing process for potential traditional and advanced nuclear projects, especially on brownfield sites.
- Authorizes prizes for first mover reactor companies in order to de-risk first of a kind licensing and construction uncertainty.
- Strengthens U.S. global leadership on nuclear energy by directing the NRC to better coordinate its international work, including assisting allied countries and developing international technical standards.
- Calls for significant improvement in NRC organization and efficiency.



ADVANCE ACT (S. 1111)

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