

New US nuclear energy bill could spark SMR boom

The United States Senate has passed the [Accelerating Deployment of Versatile, Advanced Nuclear for Clean Energy Act of 2024](#) (Advance Act) which is a step towards the country's energy independence and its response to climate change. This comprehensive legislation aims to reignite the American nuclear industry, positioning it as a global leader in nuclear energy innovation and export.

 By [Lindsey Schutters](#) 20 Jun 2024



The US could spark a new age of nuclear energy development

The Advance Act prioritises international collaboration by coordinating nuclear export and innovation activities, which will build partnerships with foreign nations to develop competent nuclear regulatory organisations and legal frameworks.

Last month, President Joe Biden signed a new law prohibiting the import of uranium from Russia to stimulate domestic mining for nuclear reactor fuel.

This legislation also releases \$2.7bn in federal funding to support the domestic supply chain, previously approved by Congress contingent on limits to Russian imports.



NUCLEAR POWER

IEEFA report casts more doubt on SMR future

[Lindsey Schutters](#) 11 Jun 2024

Additionally, the bill addresses national security concerns by banning the unlicensed possession or ownership of enriched uranium fabricated outside the US by entities owned or controlled by Russia or China.

As the [10th biggest uranium producer](#), South Africa could stand to gain from these amendments.

Advanced nuclear technologies

To drive innovation and deployment of new nuclear technologies, the Act establishes a fee structure for

advanced nuclear reactor application reviews and introduces a prize system to incentivise the licensing of these reactors.

It also promotes the use of nuclear energy for non-electric applications, such as hydrogen production, water desalination, and industrial processes.

Recognising the importance of preserving existing nuclear energy generation, the bill addresses foreign ownership concerns and seeks to improve the efficiency of the Nuclear Regulatory Commission (NRC) through measures like mission alignment, workforce strengthening, and corporate support funding.

The US lawmakers have also acknowledged the significance of the nuclear fuel cycle, supply chain, infrastructure, and workforce, with the Act mandating reports on advanced manufacturing methods for nuclear energy projects and establishes a nuclear energy traineeship programme to nurture the next generation of nuclear professionals.

Streamlining processes

The bill also includes provisions for improving the NRC's efficiency by streamlining nuclear licensing processes, modernising environmental reviews, and enhancing oversight and inspection programmes.

Overall, the Advance Act moves towards revitalising the American nuclear industry, promoting clean energy solutions, and solidifying the US position as a global leader in nuclear technology.

The bill's passage is expected to have far-reaching implications for the country's energy landscape and could stimulate growth in research and spending dedicated to developing small modular reactors to help the energy transition in addressing climate change.

ABOUT LINDSEY SCHUTTERS

Lindsey is the editor for ICT, Construction&Engineering and Energy&Mining at Bizcommunity
[View my profile and articles...](#)

For more, visit: <https://www.bizcommunity.com>