LOTSIXTEEN

Committee: Senate Energy & Natural Resources Committee
Event: Full Committee Hearing to Examine the Department of Energy's Implementation of President Trump's May 2025 Nuclear Energy Executive Orders
Date: March 19, 2026

Executive Summary:

This Senate Energy & Natural Resources Committee hearing focused on how the federal government can accelerate the deployment of advanced nuclear energy in the U.S. Both sides of the aisle expressed strong support for expanding the U.S.' nuclear capacity to meet rising electricity demand. Republican members emphasized streamlining deployment, strengthening domestic fuel supply chains, and competition with Russia and China, while Democrats raised concerns around cost overruns, regulatory clarity, fuel availability, and long-term waste management.

Member Toplines:

Chair Mike Lee (R-UT)[1]*:* Lee stressed the need to accelerate U.S. nuclear energy deployment in response to rising energy demand and strengthening global competition. He highlighted four executive orders (EOs) issued by President Donald Trump aimed at advancing nuclear reactor deployment including: "Deploying Advanced Nuclear Reactor Technologies for National Security" (EO 14299), "Ordering the Reform of the Nuclear Regulatory Commission" (EO14300), "Reforming Nuclear Testing at the Department of Energy" (EO14301), and "Reinvigorating the Nuclear Industrial Base" (EO 14302). Lee explained that reliable, large-scale energy such as nuclear is essential to support data centers, advanced manufacturing, and national security. He warned that any delays in nuclear reactor deployment could cede leadership to competitors like Russia and China.

Ranking Member Martin Heinrich (D-NM): Heinrich emphasized Congress' longstanding bipartisan support for expanding U.S. nuclear energy as a reliable and affordable energy source. He highlighted the need to rapidly deploy innovative nuclear reactor designs and fuel cycle technologies to meet rising energy demands. Heinrich raised concerns with "inconsistent" support from the Trump Administration, pointing to proposed budget cuts to the Office of Nuclear Energy. He also referenced his bill, the Advancing Research in Nuclear Fuel Recycling Act (S. 3016) as providing a solution for harnessing the used fuel that is currently stored at 121 sites across the U.S.

Witness Toplines:

Theodore Garrish, Assistant Secretary for Nuclear Energy, U.S. Department of Energy: Garrish emphasized that nuclear energy is a cornerstone of the U.S. energy system, highlighting its

[1] Opening statement was not available online at the time of this memo's distribution.

reliability and role in providing nearly 20 percent of U.S. electricity with a high capacity factor. He outlined the Department of Energy's (DOE) key priorities, including strengthening domestic uranium enrichment, advancing new reactor deployment through programs such as the Advanced Reactor Demonstration Program (ARDP), and accelerating innovation through public-private partnerships. Garrish stressed that the Trump Administration, through its nuclear EOs, can leverage the *Defense Production Act* (DPA) to accelerate the development of a viable domestic uranium enrichment industry. He also underscored the Administration's goal of expanding U.S. nuclear capacity to 400 gigawatts by 2050

John Wagner, Director, Idaho National Laboratory: Wagner highlighted the Idaho National Laboratory's role in advancing new reactor demonstrations and strengthening the domestic nuclear fuel cycle, including the production of high-assay low enriched uranium (HALEU). He asked Congress to improve regulatory efficiency and help address fuel supply and waste policy gaps to sustain long-term nuclear growth.

Mike Laufler, Co-Founder and CEO, Kairos Power: Laufler pointed out Kairos Power's progress in developing advanced molten salt coolant reactors and the importance of scaling up the U.S nuclear industry. He described the importance of DOE's ARDP and milestone-based funding model, arguing that expanding these strategic investments will be critical to accelerating nuclear innovation.

Major Takeaways:

Nuclear Expansion and Demand Growth

- Sen. **John Barrasso** (R-WY) emphasized that surging electricity demand from data centers and advanced computing makes nuclear energy essential to maintaining U.S. energy security and global competitiveness.
- Sens. **Jim Risch** (R-ID) and **Steve Daines** (R-MT) highlighted a coming "nuclear renaissance," driven by rising global demand, geopolitical shifts away from Russian energy, and the need for firm baseload power.
- Sen. **Ruben Gallego** (D-AZ) noted growing bipartisan momentum for expanding nuclear deployment, including both traditional reactors and advanced technologies like small modular reactors.

Executive Authorities

- Lee questioned whether DOE's current authorities are sufficient to meet ambitious reactor deployment goals, arguing that Congress may need to expand and clarify DOE's role.
    - Garrish responded that DOE is already leveraging existing authorities under the nuclear EOs, including developing pilot programs and accelerated timelines, to push toward near-term reactor criticality targets.

Domestic Fuel Supply

- Heinrich stressed that establishing a reliable domestic HALEU supply is critical for scaling a domestic advanced nuclear reactor sector.
- Barrasso pointed to previously passed legislation, like the *Nuclear Fuel Security Act* and the *Prohibiting Russian Uranium Imports Act*, as key steps toward rebuilding U.S. fuel independence.

    - Garrish highlighted DOE's $2.7 billion investment in domestic enrichment capacity to replace Russian supply and ensure long-term fuel security.
- Sen. **Catherine Cortez Masto** (D-NM) raised concerns that outdated nuclear waste policy remains unresolved and must be addressed alongside advanced reactor deployment.

Project Deployment, Costs, and Financing

- Sen. **Cindy Hyde-Smith** (R-MS) raised concerns about persistent cost overruns and supply chain constraints that deter new nuclear construction.
- Risch and Gallego expressed support for the ARC Act of 2026 (S. 3814) as a means to reduce cost uncertainty and accelerate nuclear reactor deployment.
- Heinrich highlighted milestone-based public-private funding models as a way to manage financial risk and improve accountability in nuclear projects.
- Lee underscored DOE's goal of achieving criticality in at least three test reactors by the U.S.' 250th anniversary as a key near-term benchmark.

Regulation and State Partnerships

- Cortez Masto focused on how DOE will implement Nuclear Lifecycle Innovation Campuses and coordinate with states to advance siting and development.
- Daines highlighted state-level reforms, such as Montana lifting its nuclear ban in 2021, as necessary to enable future deployment.

Global Competition

- Barrasso and Daines emphasized that the U.S. is competing with Russia and China, which dominate global reactor construction and fuel supply chains.
- Daines highlighted the importance of strengthening partnerships with allied uranium producers, such as Kazakhstan, to help secure domestic supply chains.