NAVIGATING NUCLEAR: WHITE HOUSE LAUNCHES NATIONAL INITIATIVE FOR AMERICAN SPACE NUCLEAR POWER

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US Policy and Regulatory Alert

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On 14 April 2026, the White House issued National Security and Technology Memorandum-3 (NSTM-3)[1] creating the National Initiative for American Space Nuclear Power (the National Initiative). The Office of Science and Technology Policy (OSTP) memorandum implements Executive Order 14369, *Ensuring American Space Superiority*,[2] and represents the federal government's most concrete step to date to deploy nuclear power systems in orbit and on the lunar surface.

A STRATEGIC PATH TO DEPLOYMENT

NSTM-3 sets as its key goal that "the United States will lead the world in developing and deploying space nuclear power for exploration, commerce, and defense." It frames space nuclear power as "essential to unlock[] space exploration" and for meeting capability needs for US civil, commercial, and national security space missions.

To meet this national objective, the memorandum sets multiple strategic goals including:

- A design competition to enable demonstration of low-, mid-, and high-power space reactors;[3]
- Deployment of a mission enabling nuclear reactor in Earth orbit by 2031;
- Delivery of a mid power lunar surface fission reactor by 2030 of at least 20 kilowatts electric during three years in orbit and five years on the lunar surface; and
- Continued development of higher-power systems to support propulsion, lunar infrastructure, and deep space missions.

CENTRALIZED WHITE HOUSE COORDINATION AND AGENCY ROLES

The memorandum directs OSTP to coordinate interagency implementation of these objectives as well as individual directives to the National Aeronautics and Space Administration. (NASA), the Department of War (DOW), and the Department of Energy (DOE).

NASA is directed to lead civil development of space nuclear systems, including lunar surface power reactors and nuclear electric propulsion systems including the deployment of a high-power space reactor in the 2030s.

The DOW is directed to pursue parallel development of defense relevant space nuclear capabilities, encouraging cross-proposals from NASA led program designs and deploying a mid-power in-space reactor by 2031.

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The DOE is directed to support reactor development by assessing the readiness of the US industrial base within 60 days, conducting research, development, and analysis and providing uranium for reactor fuel if commercial sources are insufficient or unavailable.

The memorandum expressly encourages interagency cooperation and coordination through cost sharing, joint use of testing infrastructure, and reuse of reactor designs to reduce duplication and speed deployment with coordination from OSTP.

REGULATORY PATHWAY

In the first (and only) space fission reactor mission ever launched by the United States through the Space Nuclear Auxiliary Power (SNAP) program, which ran from 1955 to the early 1970s, NASA worked in concert with the US Airforce (the Airforce) and the Atomic Energy Commission (AEC).[4] In that program the Airforce was in charge of establishing the mission, and the AEC had project control while NASA worked in a support and contracting position.[5] In other nuclear projects such as Radioisotope Power Systems, the DOE has indemnified NASA for liability for nuclear incidents.[6] For this current mission, it's likely that the federal government will take a similar approach, with NASA working closely with DOE and, perhaps DOW, to receive necessary authorization to possess and use nuclear materials.

COMMERCIAL FIRST PROCUREMENT AND INDUSTRIAL BASE EXPANSION

A defining feature of the National Initiative is its inclusion of the private sector and expansion of flexibility in building private sector contracts. NSTM-3 directs agencies to:

- Leverage and enable private sector innovation;
- Allow fixed price contracts and contractors to propose their own milestone based payments;
- Conduct parallel vendor competitions with agencies developing similar projects rather than single award development pathways; and
- Integrate commercial nuclear, aerospace, and manufacturing supply chains, where feasible.

CONCLUSION

For aerospace, defense, energy, and advanced manufacturing companies, the National Initiative represents a significant opportunity as the United States moves to embed nuclear power at the core of its future space architecture. The firm's Public Policy and Law team can help assess federal funding opportunities that will arise from the Nation Initiative, mitigate potential policy hurdles, and position your organization to participate in this developing industry.

FOOTNOTES

[1] Memorandum from Michael J. Kratsios, Director of the White House Office of Science and Technology Policy to the Heads of Executive Departments and Agencies (Apr. 14, 2026) https://www.whitehouse.gov/wp-

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content/uploads/2026/04/NSTM-3-2026_04_14-corrected.pdf.

[2] Exec. Order No. 14369, 90 Fed. Reg. 60537 (Dec. 23, 2025).

[3] The memorandum does not directly define low-, mid-, and high-power systems but does outline that a low-power reactor should provide "at least 1 kilowatt electric (kWe)," a mid-power reactor should provide "at least 20 kWe," and the high-power reactor should provide "at least 100 kWe."

[4] The AEC later separated into two new agencies: the Nuclear Regulatory Agency and the Energy Research and Development Administration (now DOE).

[5] SUSAN S. VOSS, AIR FORCE WEAPONS LAB., SNAP REACTOR OVERVIEW FINAL REPORT (1984), https://apps.dtic.mil/sti/tr/pdf/ADA146831.pdf.

[6] Memorandum of Understanding between the National Aeronautics and Space Administration and the Department of Energy Concerning Radioisotope Power Systems (2016), https://www.energy.gov/ne/articles/doe-and-nasa-sign-mou-radioisotope-power-systems.

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