



Microreactor Pilot | FAQs | **Last Updated March 2026*

GENERAL PILOT INFORMATION

Q: What is the Department of the Air Force Microreactor Pilot and why was it initiated?

A: Microreactors are compact advanced nuclear energy systems, which typically produce between 1-50 megawatts (MW) of electrical and/or thermal energy. They are factory-fabricated and modular, allowing for increased scalability, rapid off-site production, and faster on-site installation, significantly cutting both cost and construction time. With their small footprint and ability to operate independently from the grid, microreactors are ideal for austere or geographically dispersed locations. For more information, visit [Idaho National Laboratory's website](#).

The DAF Microreactor Pilot was initiated in response to the Fiscal Year 2019 National Defense Authorization Act (Section 327), which requires the Department of War to pilot a licensed microreactor on a DoW installation to enhance energy resilience for critical national security infrastructure. The DAF, in partnership with the Defense Logistics Agency (DLA) Energy Office, plans to execute a 30-year power purchase agreement with a commercial provider to construct, own, operate, maintain, and decommission a microreactor licensed by the Nuclear Regulatory Commission (NRC). The microreactor would deliver electricity and thermal energy to an Air Force installation in exchange for the DAF's long-term purchase of the energy it generates.

Q: Where will the pilot be located?

A: The DAF employs a technology-agnostic, all of the above approach towards energy resilience projects, ensuring that each installation is paired with technology that will best meet its mission requirements and unique needs and limitations. Eielson Air Force Base (AFB) in Alaska is the DAF's preferred location for the pilot due to the existing infrastructure, Arctic conditions and geostrategic location, critical mission resilience needs, and national security importance. The microreactor would augment the base's year-round energy needs for power and heat to increase energy resilience and reliability.

Q: What is the status of the microreactor pilot? When will the reactor be operational?

A: In May 2025, the DAF, in coordination with the DLA Energy Office, reached a critical milestone in piloting advanced nuclear energy technology by issuing a Notice of Intent to Award (NOITA) to Oklo, Inc. (offeror). The NOITA initiates the negotiation process to potentially award the contract to the offeror, pending their successful completion of all NRC licensing requirements.

Teams across the DAF, DLA-Energy Office, NRC, Idaho National Laboratory (INL), and Oklo Inc. have been advancing the microreactor pilot with urgency. Currently, the preliminary siting process is underway, and the teams are aligning timelines and anticipated milestones. While the operational date is by 2030, or earlier, if possible, the pilot aims to serve as a pathfinder and future model for scaling advanced energy solutions across the Department of War and U.S. communities. For more information on Oklo's technology, visit [Oklo's website](#).

Q: When is the pilot deemed a success and if so, what is the plan to scale?

A: The DAF envisions this pilot as a pathfinder to help enable nuclear energy scalability for the DoW, Alaskan communities, and beyond. The DAF will create a playbook of lessons learned and best practices throughout the entirety of the pilot that will help streamline and expedite scaling at other locations in the future.

Q: How does the Advanced Nuclear Power for Installations (ANPI) effort relate to the pilot?

A: The DAF is working with Defense Innovation Unit (DIU) on Advanced Nuclear Power for Installations (ANPI), a DIU-led initiative which seeks to deploy advanced nuclear power to DoW installations. While the ultimate goal to scale advanced nuclear energy for military use remains the same, ANPI differs from the Microreactor Pilot in its approach. As an Other Transaction Authority (OTA), ANPI allows the DoW to work with multiple vendors over multiple defined phases, versus the traditional one-vendor, one-project model that the DAF Microreactor Pilot utilizes. DIU released the Area of Interest (AOI) solicitation in June 2024 and as of November 2025, DIU has awarded initial milestone agreements to eight vendors.

For more information about the Micro-Reactor Pilot and other Department of the Air Force Installation Energy initiatives, visit <https://www.eielson.af.mil/microreactor/> or contact SAF.IEE.MicroreactorPilot@us.af.mil



MICROREACTOR SAFETY

Q: How safe is the microreactor, and is there a risk to installation staff, occupants, or the community?

A: Advanced nuclear energy technologies such as microreactors have inherent safety features like passive cooling systems that can function without human intervention or external power and are designed to withstand extreme conditions. This means the reactor can stop the fission reaction and cool itself down automatically in the rare event of a malfunction.

The NRC licenses and oversees all nuclear energy facilities in the U.S., including microreactors, from the licensing application process through operation and decommissioning. The NRC has developed stringent safety and occupational health standards, including emergency response and transport requirements, which have protected nuclear plant operators and communities in the U.S. for nearly 70 years. The DAF will strictly adhere to these standards and is coordinating closely with the NRC to ensure the microreactor owner and operator comply with all safety requirements. For more details, see [NRC's FAQ](#).

Q: Will there be any environmental impacts?

A: Thorough siting and environmental analyses will be conducted as part of the pilot evaluation process in compliance with National Environmental Policy Act (NEPA) requirements. There will be a two-part NEPA process: 1) DAF-led NEPA analysis of the impacts from preconstruction activities, and 2) NRC-led NEPA analysis of the impacts from safety-related construction activities. Both NEPA documents will be available for the public to review. The DAF is coordinating closely with the NRC, Department of Energy (DOE), Air Force Civil Engineer Center, and the Assistant Secretary of the Air Force for Energy, Installations, and Environment to ensure environmental impacts are evaluated prior to a decision to proceed with the pilot.

Q: What will happen to the nuclear waste from the microreactor?

A: Nuclear waste in the U.S. (which includes but is not limited to spent fuel, waste byproducts, contaminated equipment, protective clothing, tools, and other supplies) is handled in compliance with strict requirements of the [NRC](#), DOE, and Environmental Protection Agency. As the owner and operator of the microreactor, the offeror will be responsible for developing and executing a comprehensive waste plan, which will be evaluated through the NRC licensing process in advance of construction and operation. It will include strict environmental and safety evaluations. The DOE has programs to support spent fuel storage and ultimate disposal. Additionally, there are organizations, including Oklo, that are interested in recycling fuel from reactors for reuse. Due to the energy density of nuclear fuel, it produces immense amounts of energy with relatively little byproduct or waste. All of the waste created in the U.S. since the 1950s would fill approximately one football field, twelve yards deep. For more information, visit [NRC's website](#).

OPERATIONS AND LOGISTICS

Q: Who will operate the microreactor?

A: Well-trained operators from the microreactor owner and licensed by the Nuclear Regulatory Commission will operate the reactor. Operators will complete extensive training before being certified and continue training throughout the life of their license. Reactor operators will follow detailed written procedures and ensure safe operation of the reactor.

Q: Will the microreactor be connected to the commercial grid?

A: At this time, the reactor will only serve the installation and will not be connected to the grid.

Q: What security measures will be in place to protect the technology (including cybersecurity)?

A: Safety and security plans will be evaluated through the NRC licensing process and will include cybersecurity plans. DoW installations are inherently very secure locations which boost the security of the technology.

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Q: How will the nuclear reactor and the reactor fuel be transported to the site?

A: The NRC and Department of Transportation regulate and oversee the safe transport of radioactive materials. Approximately 3 million packages of radioactive materials are transported safely within the U.S. every year – via highway, rail, air, or water. Packaging of radioactive material is required to be able to withstand physical trauma, fires, and flooding and is specially designed to contain radiation levels, keeping drivers, the public, and the environment safe from exposure. These shipments can also be escorted to provide extra security. The offeror is responsible for planning and executing the transportation of the nuclear reactor and the fuel in compliance with these regulations, as well as the eventual removal, storage, and disposal of the spent fuel and decommissioned reactor.

COMMUNITY ENGAGEMENT AND IMPACTS

Q: Will this pilot impact the local community?

A: The microreactor pilot is not designed to disrupt local industries (including coal) but to augment existing energy generation at Eielson AFB, estimated to produce approximately 5-10 MWe of energy directly to the installation. The pilot has the potential to create construction and technical jobs in Alaska, while positioning the state as an energy innovation leader. If successful, advanced nuclear energy technologies like microreactors could provide a resilient, lower-cost energy option for the state in the future.

Q: Will the microreactor produce excess energy for the community?

A: If the pilot is successful, the energy produced by the microreactor will only be used to supplement Eielson AFB's installation energy needs and there are currently no plans to connect it to the commercial grid. The base's Combined Heat and Power Plant (CHPP) will remain the primary energy source. There may be opportunities to add modules in the future, generating more advanced nuclear energy.

Q: Is microreactor technology cost-effective and what will it cost taxpayers?

A: Taxpayer dollars will not fund the pilot project, and the offeror bears any financial risk. The power purchase agreement is contingent upon the delivery of a functioning and NRC-licensed microreactor. Only then will the DAF purchase the generated energy. Once scaled, advanced nuclear energy could provide lower-cost, stable pricing that is not affected by economic fluctuations, which could offer a potential solution to Alaska's high energy costs.

Q: Will the project have disproportionate negative impacts on Tribal and Indigenous communities?

A: The Nuclear Regulatory Commission will evaluate the impacts to public health, safety, and the environment, as part of their licensing process, including allowing for clear, transparent, and on-going two-way communication on the pilot's progress with the communities and the government. The public and Tribal communities will have several opportunities to voice any concerns, ask questions, and provide feedback throughout the process.

Q: How will the Department of the Air Force communicate pilot updates to the public?

A: The DAF is committed to frequent, clear, and transparent communication with the local community, including local, state, and Tribal governments. The DAF utilizes the following channels to disseminate pilot information:

- [Eielson Microreactor Webpage](#): One-stop-shop for pilot updates and resources
- [Council for the Alaska Microreactor Pilot \(CAMP\) Meetings](#): Meetings held twice yearly between the DAF, federal government stakeholders, and local, state and Tribal leaders, organizations, and communities
- [Town Halls](#): Public meeting held periodically near Eielson Air Force Base, Alaska
- [Newsletter](#): Periodic newsletter posted to the webpage and distributed through Eielson Public Affairs
- [Videos](#): Educational videos posted on the webpage to inform stakeholders
- [Media](#): Proactive engagement and responses to inquiries through Public Affairs
- [Email](#): Updates to subscribers as available and responses to inquiry