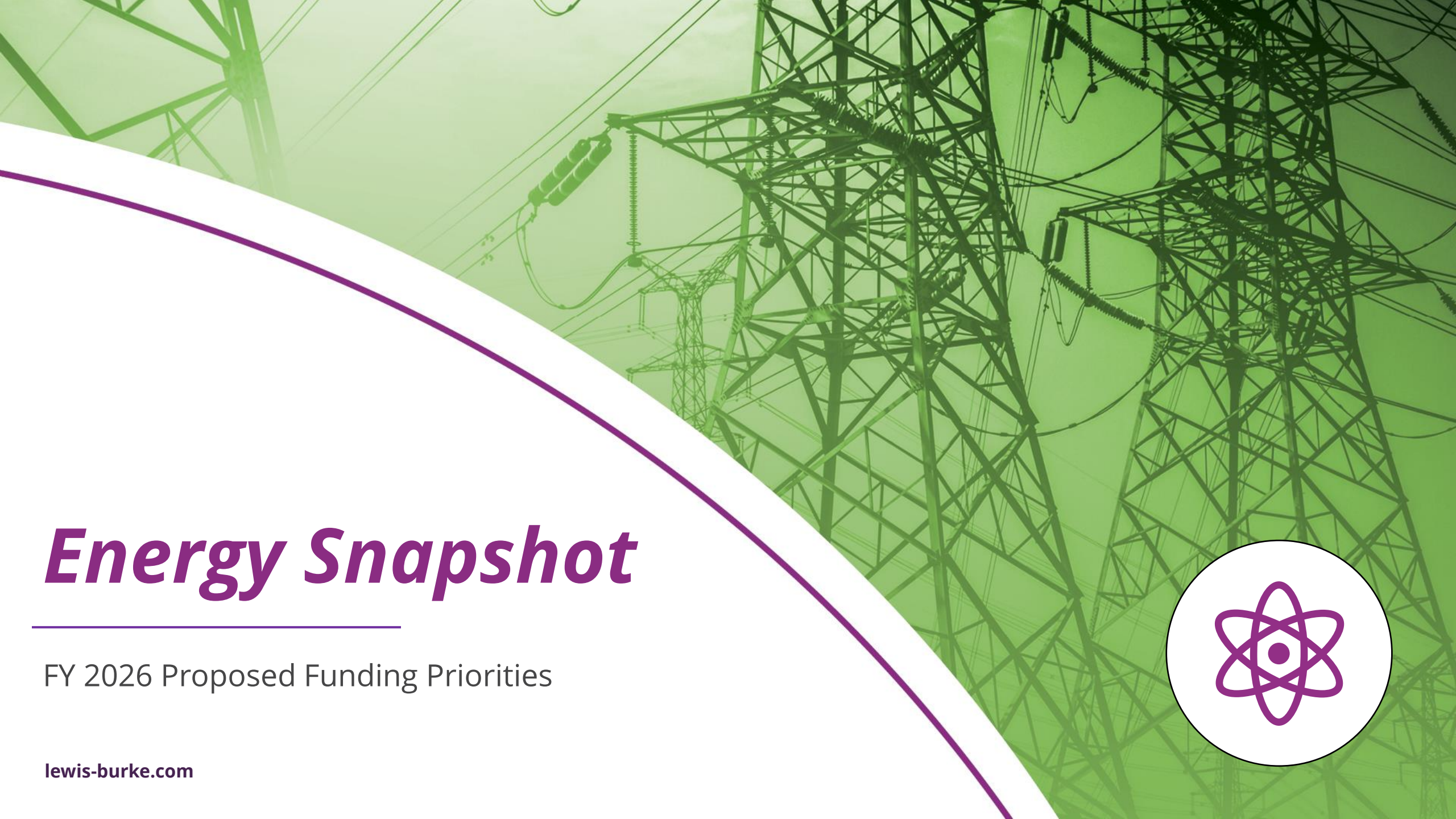

Energy Snapshot

FY 2026 Proposed Funding Priorities

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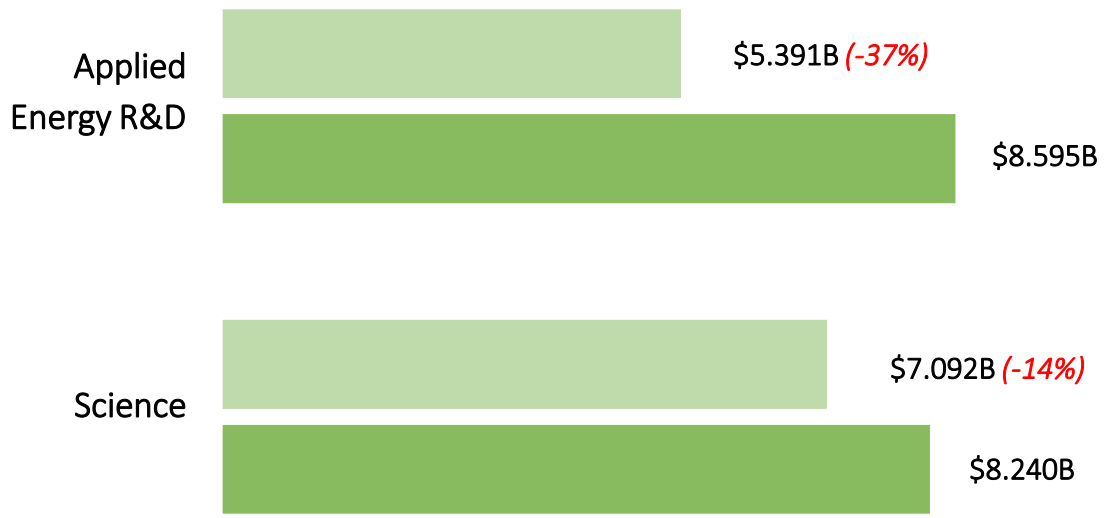
DOE FY 2026 Budget Request

- The week of June 16, DOE released more detailed budget information on future spending priorities.
- Overall, DOE proposes major reductions to science and energy programs, modest increases or flat funding for priorities such as AI, quantum, and geothermal energy, and a major boost in funding for National Nuclear Security Administration nuclear security programs (primarily through reconciliation)
- While it is ultimately up to Congress to decide final spending levels, the budget documents provide initial intel on future DOE priorities.
- This budget analysis focuses on priority areas and future opportunities.

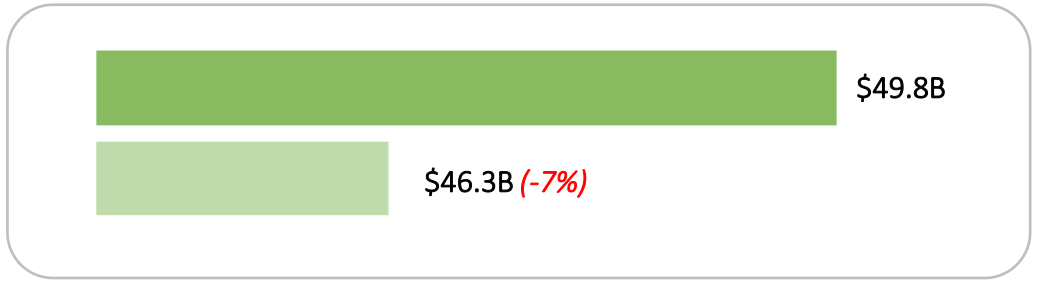
NOTE: DOE has not yet released detailed budget information for the Office of Science and Nuclear Energy.

Department of Energy (DOE) FY 2026 Budget

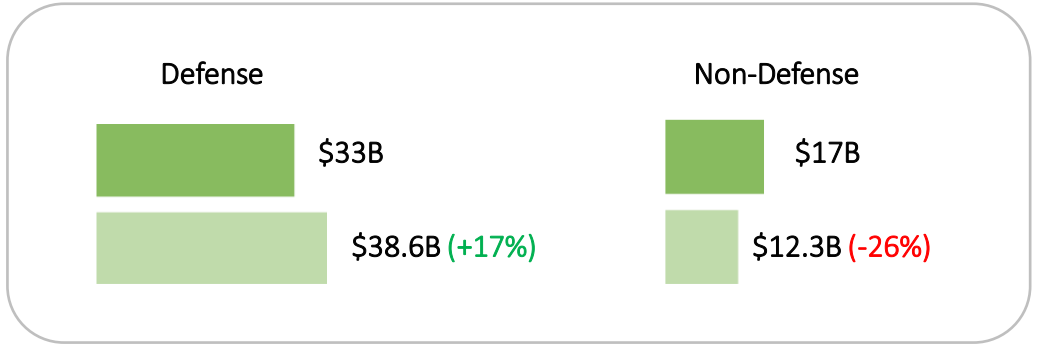
DOE Science and Applied Energy R&D Funding



DOE Funding



DOE Defense and Non-Defense Proposed Spending



FY 2025 Enacted FY 2026 Request

Priority Investments

Artificial Intelligence
Focused on implementing the Foundations for AI in Science, Security, and Technology (FASST) Initiative as well as energy efficient technologies to reduce power needs of AI data centers

Quantum Information Science
Plans to expand programs in quantum computing, quantum networking and communications, and quantum sensing

Fusion
Support primarily for milestone-based development program and other support to private industry

Advanced Nuclear
Primary support for advanced reactor demonstrations, restoring fuel supply, and using loan guarantee authority for commercial deployment

Geothermal
Geothermal power and heat production, including demonstrations of enhanced geothermal technologies

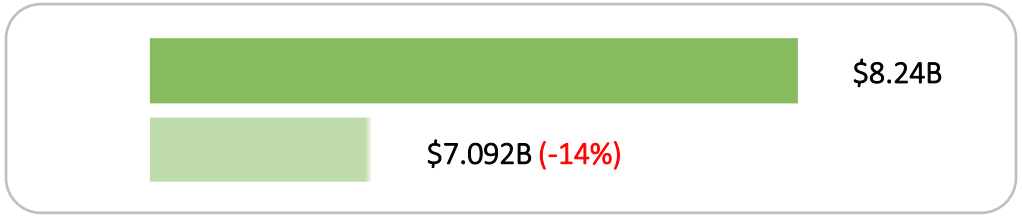
Critical Minerals and Materials
Continue support for cross-cutting program to advance alternatives, recycling, and new mining and processing technologies

Office of Science

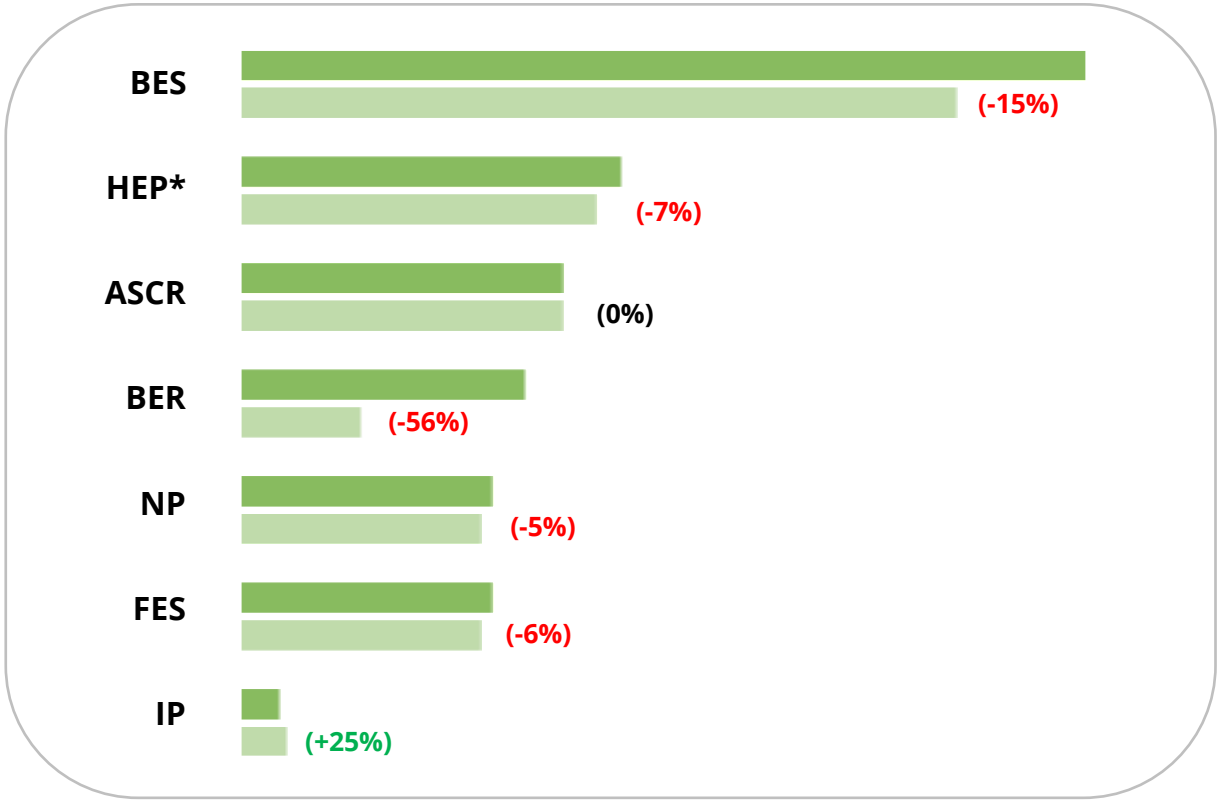
Major Reduction Proposed for DOE Science Programs

- Budget request proposes cuts to all programs except Isotope R&D and production (+25%) and flat funding for ASCR to lead AI and quantum investments
- Climate programs under Biological and Environmental Research (BER) would be mostly terminated

Office of Science



Office of Science Funding by Program

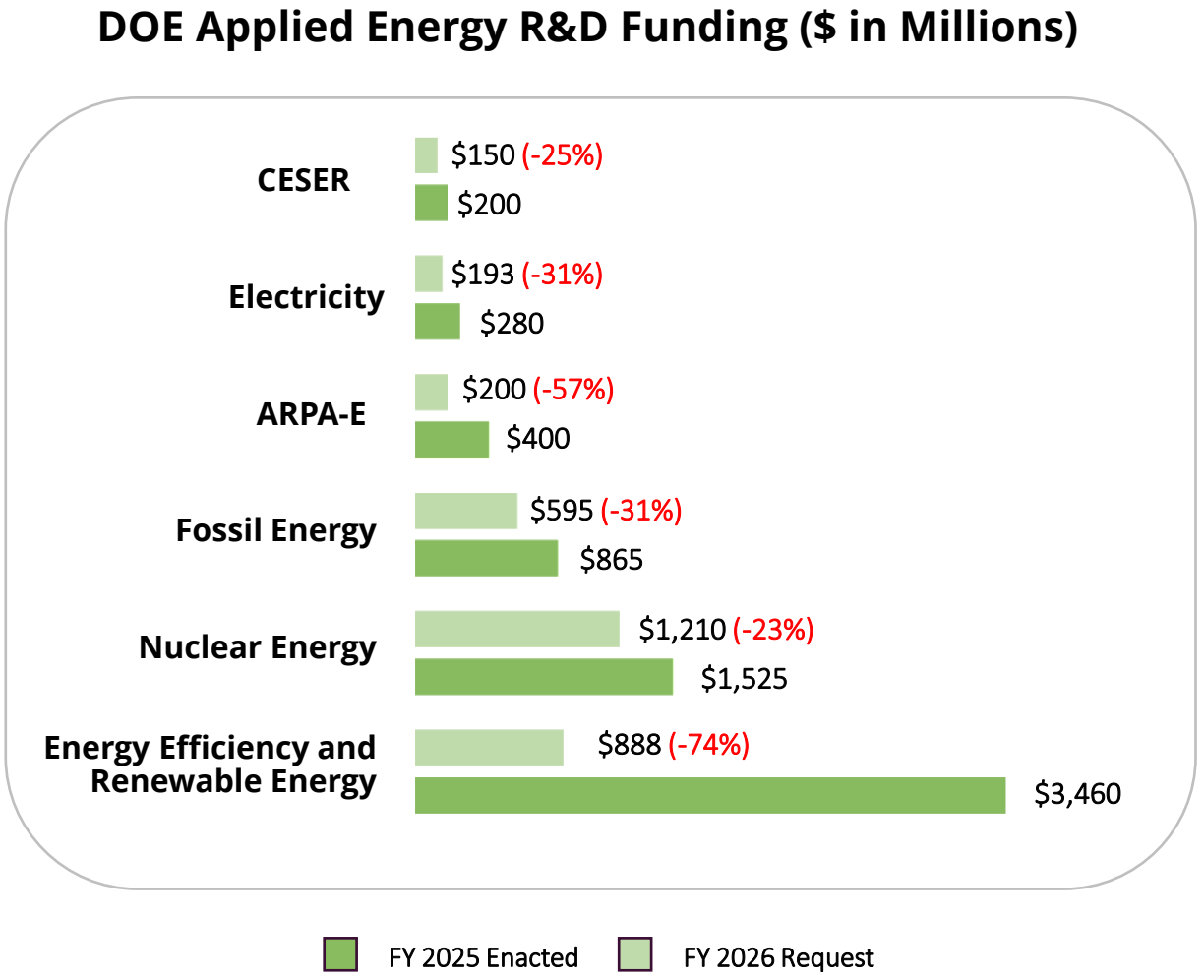


*HEP would see a 10% reduction if all $29 million to support accelerator R&D activities is moved under HEP in FY 2026.

Applied Energy R&D

Major Reduction Proposed for DOE Applied Energy Programs

- Budget request proposes cuts to all applied energy programs
- Biggest cuts proposed to renewable energy and energy efficiency programs with no new funding requested for solar, wind, and hydrogen R&D
- Geothermal energy R&D sees the only funding increase

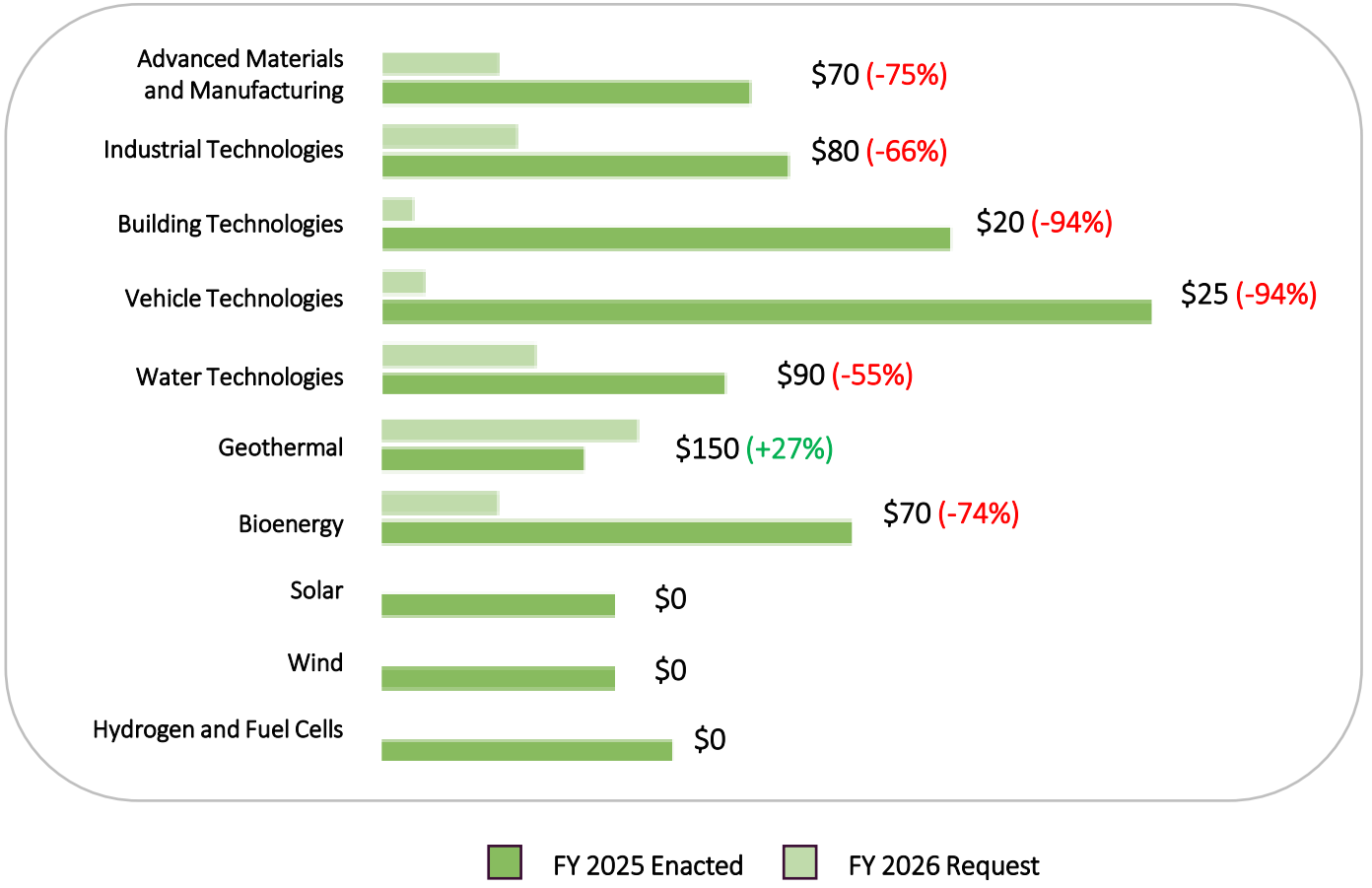


DOE Renewable Energy Programs

Major Reduction Proposed for DOE Renewable Energy Programs

- For DOE applied energy programs, biggest cuts proposed to renewable energy and energy efficiency programs with no new funding requested for solar, wind, and hydrogen R&D
- Geothermal energy R&D sees the only funding increase

DOE Renewable Energy Funding
($ in Millions)



Vehicle Technologies

Priority Areas

Electrification

Innovative battery chemistries that reduce need for critical minerals and battery mineral recycling

Off-Road, Rail, Marine, and Aviation Technologies

Engine and emission control R&D for improved engine and hybrid applications (e.g., construction, agriculture, rail, mining) that reduce costs for businesses and farmers and support a wider range of alternative fuels

Geothermal Technologies

Priority Areas

Enhanced Geothermal Systems

Increase R&D through the GEODE consortium. Increase funding to improve sustainability and reduce costs of well construction, and continue accessibility reviews of EGS Greenfield Demonstrations

Hydrothermal Resources

Priority is on a new geothermal Exploration and Characterization program to reduce drilling risks for private sector developers

Low Temperature and Coproduced Resources

New funding solicitation proposed for hybrid geothermal demonstrations, including RD&D activities addressing thermal and electric loads of data centers and a new workforce development initiative for shallow drilling talent

Geothermal Technologies
Funding ($K)

	FY 2024 Enacted	FY 2026 Request
Enhanced Geothermal Systems	57,500	78,000
Hydrothermal Resources	24,000	31,000
Low Temperature and Coproduced Resources	24,000	25,500
Data, Modeling, and Analysis	12,500	15,500
Total, Geothermal Technologies	**118,000**	**150,000**

Industrial Technologies (formerly Industrial Efficiency and Decarbonization)

Priority Area

Energy Intensive Industries

Priority is supporting power availability for data centers, including utility-focused technical assistance and expanded National Lab capabilities for testing novel thermal management technologies.

For energy intensive industries, priority is to support chemical manufacturing, especially work in thermal reactor development.

Lower funding proposed for other industries such as iron and steel, cement and concrete, food and beverage, and forest products.

Advanced Materials and Manufacturing Technologies

Priority Areas

Next Generation Materials and Processes

Priorities are AI-enabled manufacturing equipment and advanced materials for energy applications

NOTE: Ther request would phase out support for the USA Manufacturing USA Institutes and the Lab-Embedded Entrepreneurship Program

Secure Material Supply Chains

Priority is mid-stream processing technologies for critical materials for energy

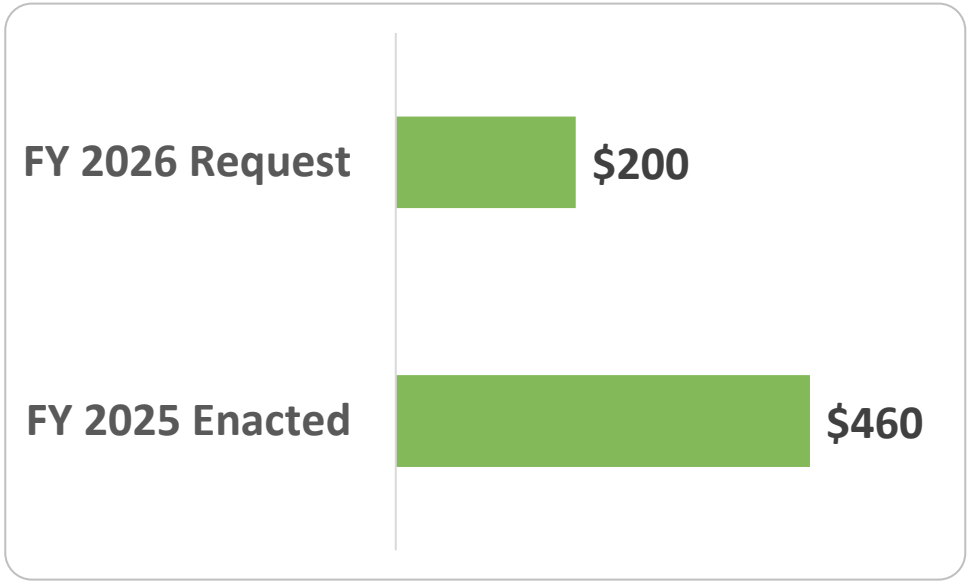
NOTE: Ther request would cut funding for R&D on critical material recovery, recycling, and reuse technologies

ARPA-E

Four New Technology Programs Planned

- Even with funding reduction, ARPA-E plans at least four new program solicitations in FY 2026.
- ARPA-E still identifying future priority areas using the following criteria:
  - outlier energy technologies to increase production of reliable, American-made energy
  - firm, baseload power

ARPA-E Funding
($ in Millions)

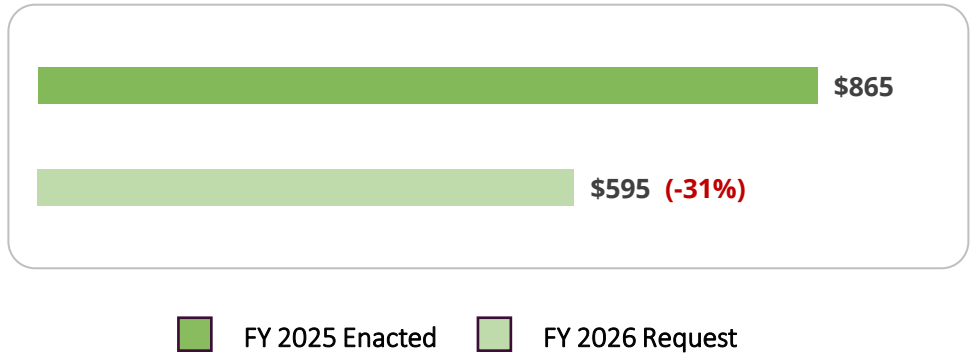


Fossil Energy

Increases Proposed in 6 Priority Areas

- CCUS and, in particular, carbon dioxide removal programs would see the biggest proposed cuts
- Remaining and new funding is targeted for 6 priority areas

Fossil Energy R&D
($ in Millions)



Critical Minerals
New mineral production and processing technologies

Value-Added Products
Oil, natural gas, and coal conversion into value-added products

CCUS for EOR
Carbon capture, transport, and storage to support enhanced oil and gas recovery

Blue Hydrogen Using Natural Gas

Advanced Oil and Gas Production Technologies

Critical Mineral Production and Processing Technologies

New Programs and Funding Priorities

Advanced Critical Material Recovery Technologies Program

New $40 million program for innovative technologies that can reduce costs, waste, and resource use from new mining. Target of tenfold reduction in amount of waste material produced on the surface of a mine site.

Critical Minerals Processing

Expand R&D for recovery, purification, and reduction to metal of critical minerals sourced from abundant domestic feedstocks, including domestic ores, mine tailings, impounded energy waste, industrial process streams, and other metal and mineral production streams.

Carbon Ore Processing

Expand technologies to produce high-value carbon-based materials from coal, such as graphite electrodes, battery anodes, and supercapacitor materials from carbon ore, as well as graphene, quantum dots, activated carbon, and conductive inks.

Mineral Production and Processing Technologies ($K)

	FY 2024 Enacted	FY 2026 Request	FY 2026 Request vs FY 2024 Enacted	
			$	%
Critical Minerals Processing	17,000	28,000	+11,000	+65%
Carbon Ore Processing	14,000	17,000	+3,000	+21%
Resource Characterization Technologies	39,000	15,000	-24,000	-62%
Advanced Critical Material Recovery Technologies	0	40,000	+40,000	+100%
Total, Mineral Production and Processing Technologies	**70,000**	**100,000**	**+30,000**	**+43%**

Advanced Energy Systems

Funding Priorities

Advanced Energy Materials

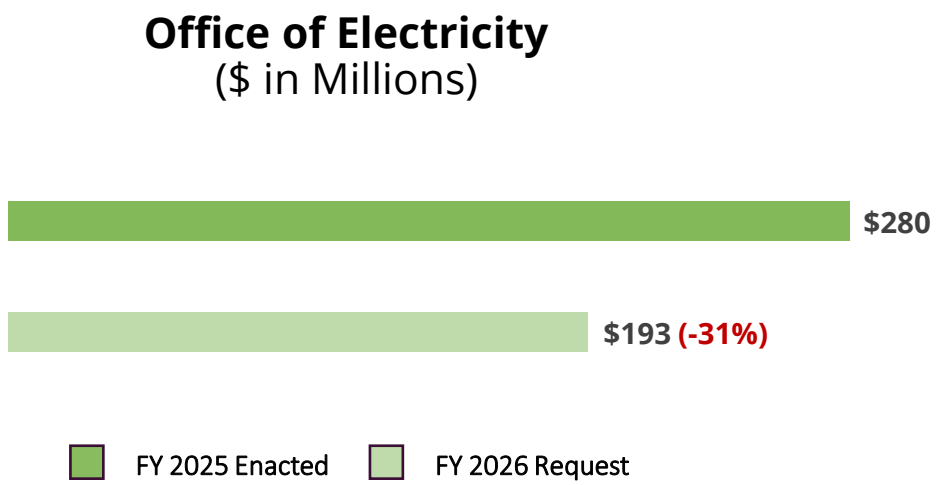
Expand material discovery and manufacturing to support power generation, fuels and chemical processes primarily through the Extreme Environment Materials (XMAT) and Advanced Ultra-Supercritical (AUSC) consortiums. ($10 million)

Advanced Oil and Gas Production Research

Priority on unconventional oil and gas development, offshore safety, and spill prevention, including research and AI/ML tools to increase production of existing unconventional oil and gas resources (e.g., CO2-EOR, optimized hydraulic fracturing design) and to understand the potential to develop new and emerging oil and gas plays (e.g.,residual oil zones). ($30 million)

Office of Electricity

- All grid modernization programs are targeted for cuts
- Funding continues for priority activities including energy storage and resilient distribution systems R&D



Energy Storage

Priority is on batteries and other technologies that support firm, baseload power, microgrids, and emergency response

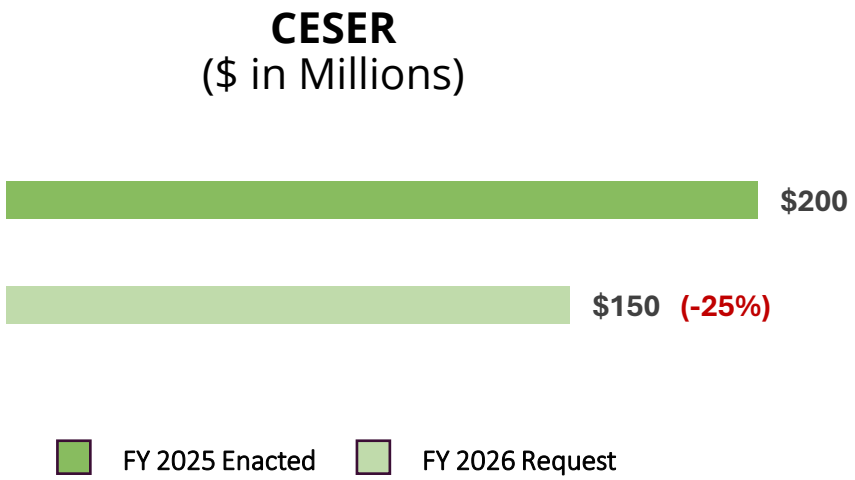
- Shift away from materials innovation and new chemistries to funding of projects that are highly scalable and a single investment could benefit hundreds of thousands of users

Resilient Distribution Systems—Microgrids and Dynamic Controls

R&D priorities include microgrids for airports and distribution centers, power system engineering for small nuclear reactor-integrated microgrids for remote communities and data centers; new tools to visualize the grid for electric power operations and delivery from the grid edge through the distribution system to the transmission system.

Cybersecurity, Energy Security, and Emergency Response (CESER)

- Cuts are proposed across most CESER activities
- New AI Initiative proposed to strengthen the cybersecurity posture of the energy sector by advancing next-generation artificial intelligence solutions



AI-FORST (Artificial Intelligence for Operationally Resilient Technologies and Systems)

R&D priorities include:

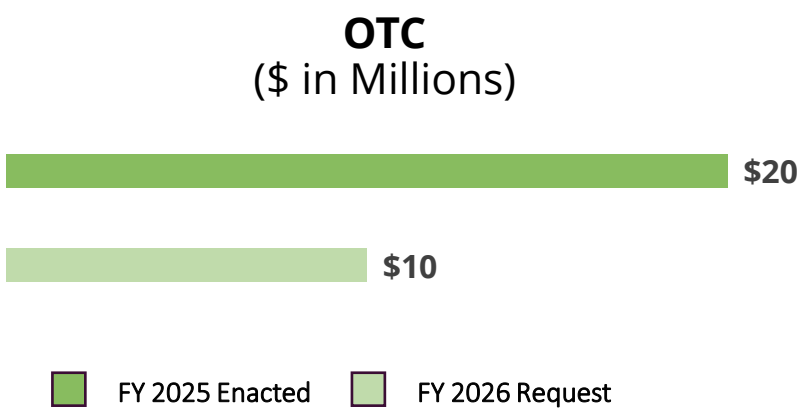
- Developing defensive cyber tools,
- Implementing active defense measures to disrupt, deter, and recover from cyber attacks, and
- characterize and counter AI-enabled offensive cyber capabilities from threat actors.

Proposed outcomes:

- creation and deployment of AI-powered tools for enhanced protection, continuous monitoring, rapid detection, effective response, robust containment, and swift recovery.
- New tools and protocols that ensure essential energy functions can continue even in the presence of active cyber intrusions, such as containment strategies, forensic capabilities, and resilient architectures that limit adversary impact and enable rapid restoration of normal operations.

Office of Technology Commercialization (OTC)

- Formerly the Office of Technology Transitions
- Budget proposal would significantly scale back activities and only fund national lab projects through the Technology Commercialization Fund



Elimination of Commercialization Programs Proposed

DOE budget proposes eliminating:

- Energy Program for Innovation Clusters
- Energy I-Corps Program
- the Lab Partnering Service
- EnergyTech University Prize

Continue to serve as a liaison to the new non-governmental Foundation for Energy Security and Innovation (FESI), but no funding for administrative or programmatic support proposed

Office of Critical and Emerging Technologies

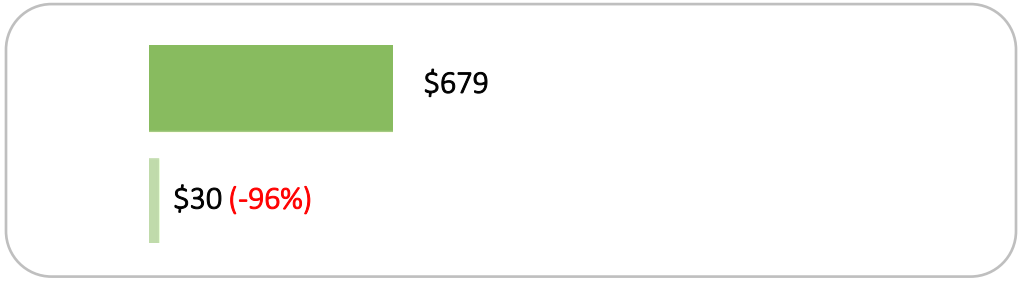
- The DOE budget requests $2 million to fund the Office of Critical and Emerging Technologies.
- The Office was established two years ago but the request would provide dedicated funding to support its activities and support 6 federal staff.
- Main functions include:
  - Coordinating capabilities and expertise across DOE and the 17 national laboratories to extend U.S. leadership in emerging technologies, especially AI and quantum, to advance DOE energy, science, and national security missions,
  - Informing future policymaking in emerging technologies areas, and
  - Developing partnerships with industry and academia to advance breakthroughs and accelerate integration of technologies into the U.S. commercial sector.

Demonstration Programs

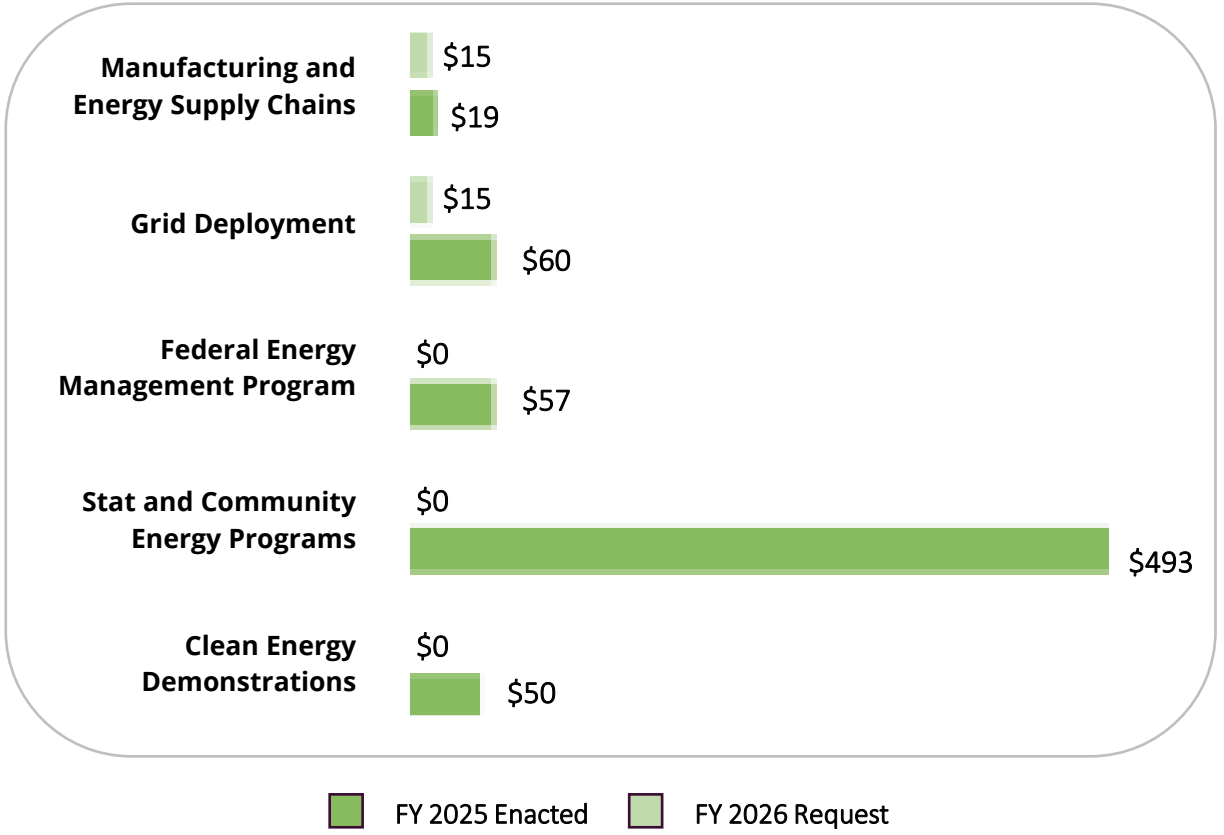
Major Reduction Proposed for DOE Demonstration Programs

- The budget request proposes eliminating or significantly cutting all demonstration programs
- The budget request also proposed rescinding $15.2 billion of unobligated balances from the Infrastructure Investments and Jobs Act allocated for clean energy demonstration projects

DOE Demonstration Programs ($ in Millions)



DOE Clean Energy Demonstration and Deployment Programs ($ in Millions)

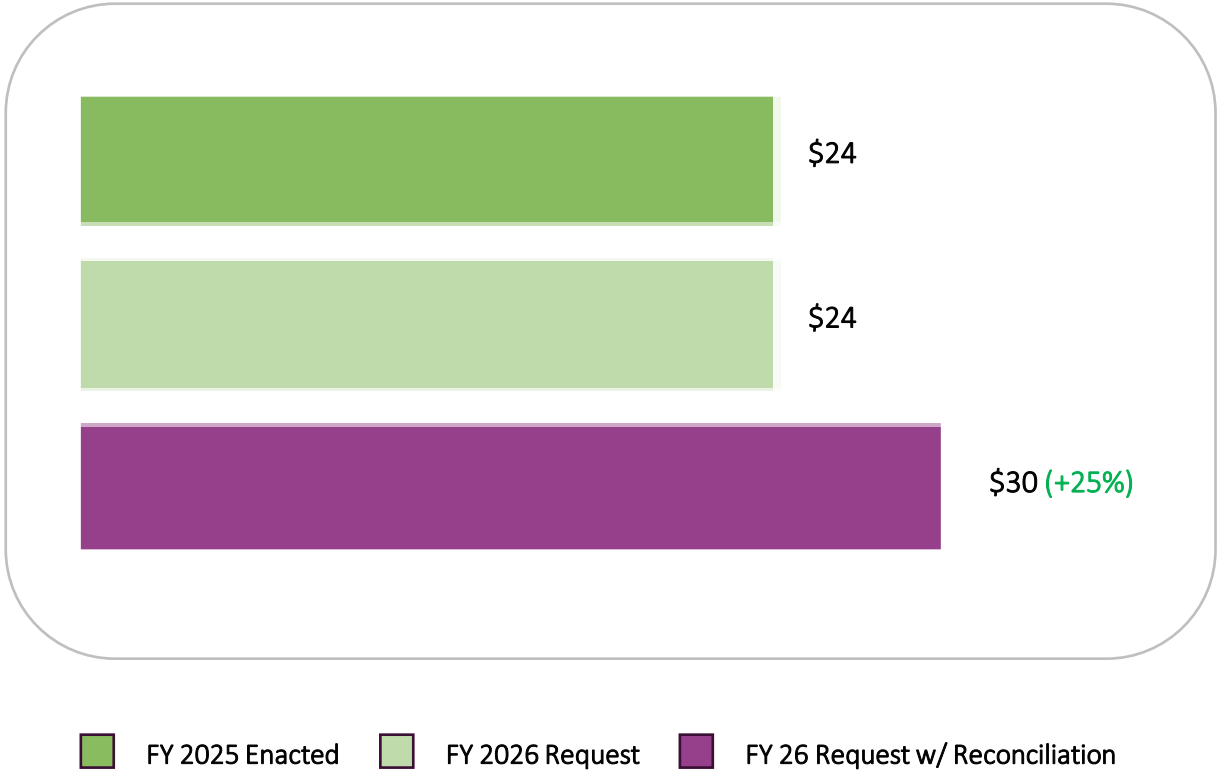


DOE National Security Programs

DOE Proposes Major Boost to Nuclear Security Programs

- The National Nuclear Security Administration would receive a 25% increase in funding but relies on new funding in the Reconciliation package not regular appropriations.
- The biggest proposed increase—$5.6 billion—would be to Weapons Activities to support nuclear modernization, including upgrades to nuclear bombs and warheads and restoring production of nuclear components.
- NNSA would have a leadership role in an AI initiative.
    - $115 million is included in the Senate Reconciliation package for the NNSA labs to lead an AI initiative for national security.
- The Savannah River National Lab would be managed by NNSA and $178 million would be moved out of the Environmental Management account into NNSA.

DOE Clean Energy Demonstration and Deployment Programs
($ in Millions)



New AI for Nuclear Deterrence (AI4ND) Program

New $60 Million AI for National Security Initiative

- The purpose is to develop and deploy AI and machine learning capabilities for stockpile stewardship mission areas
- Includes partnerships with U.S. AI industry to utilize commercial solution where possible as well as tailoring commercial tools for national security use cases
- Priorities include:
  - Secure and trusted AI infrastructure to protect national security information
  - Accelerate design, manufacturing, and certification
  - Support AI-assisted materials discovery for stockpile use cases
  - Deployment of dedicated AI compute hardware for NNSA

NNSA Academic Programs

New $7 Million AI Academic Strategic Alliance Program

- NNSA proposes launching a new programs to increase NNSA's research and workforce pipeline in AI fields and applications
- NNSA has not released specific program details but it would support research and workforce needs highlighted in the NNSA May 2025 AI for Experimental Sciences report