



## DEPARTMENT OF ENERGY

The Department of Energy (DOE) is responsible for supporting the Nation's prosperity by addressing its climate, energy, environmental, and nuclear security challenges through transformative science and technology solutions. The President's 2025 Budget for DOE builds on the Bipartisan Infrastructure Law and the Inflation Reduction Act; invests in innovation for the energy economy; advances basic research and scientific infrastructure; creates jobs building clean energy infrastructure; supports the Nation's energy and environmental justice goals; and modernizes and ensures the safety and security of the nuclear weapons stockpile.

The Budget requests \$51 billion in discretionary budget authority for 2025, a \$3.6 billion or 7.5-percent increase from the 2023 level.

### The President's 2025 Budget:

- **Creates Jobs by Building Clean Energy Infrastructure and Lowers Energy Prices for American Families.** The Budget provides \$1.6 billion for DOE, more than double the 2021 enacted level and 29 percent above the 2023 enacted level, to support clean energy workforce and infrastructure projects across the Nation, including: \$385 million to weatherize and retrofit homes of low-income Americans; \$95 million, \$73 million above the 2021 enacted level, to electrify tribal homes, provide technical assistance to advance tribal energy projects, and transition tribal colleges and universities to renewable energy; \$113 million for the Office of Manufacturing and Energy Supply Chains to strengthen domestic clean energy supply chains; and \$102 million to support utilities and State and local governments in building a grid that is more secure, reliable, resilient, and able to integrate electricity from clean energy sources. These investments, which complement and bolster the historic funding in the Bipartisan Infrastructure Law and Inflation Reduction Act, create good-paying jobs while driving progress toward the Administration's climate goals, including producing carbon pollution-free electricity by 2035. The Budget also provides dedicated funding for the Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization to facilitate a whole-of-Government approach to workforce training, community engagement, and identification of Federal resources to spur economic revitalization in hard-hit energy communities that have powered the Nation for generations. In addition to building clean energy infrastructure, the Budget also assumes enactment of the Administration's request for \$300 million in supplemental funding for 2024 to safeguard the Strategic Petroleum Reserve, which is a critical energy security asset that has historically protected American consumers in times of emergency oil shortages.
- **Advances Critical Climate Goals.** The Budget includes \$10.6 billion in DOE climate and clean energy research, development, demonstration, and deployment programs, an increase of 12 percent above the 2023 enacted level. Notably, these investments include over \$1 billion to

improve technologies to reduce pollution from industrial facilities, nearly \$900 million to commercialize technologies like sustainable aviation fuel and zero-emission trucks to reduce emissions from the transportation sector, and over \$2.4 billion in clean energy research and development to improve carbon-free electricity generation, transmission, distribution, and storage technologies for reliability, resilience, and decarbonization. Specifically, within the Office of Energy Efficiency and Renewable Energy, the Budget includes \$502 million for the Vehicle Technologies Office, \$280 million for the Bioenergy—including Sustainable Aviation Fuel—Technologies Office, \$318 million for the Solar Energy Technologies Office, \$199 million for the Wind Energy Technologies Office, \$179 million for the Hydrogen and Fuel Cell Technologies Office, and over \$500 million for the Advanced Materials and Manufacturing Office and the Industrial Efficiency and Decarbonization Office. In addition, the Budget invests in advancing climate modeling within the Biological and Environmental Research program in the Office of Science. Overall, this funding advances efforts crucial for achieving the goal of a 50- to 52-percent reduction from 2005 levels of economy-wide net greenhouse gas pollution in 2030 and economy-wide net-zero emissions no later than 2050, while also reducing energy bills for American families.

- **Builds the Clean Energy Innovation Pipeline.** The Budget includes \$8.5 billion across DOE to support researchers and entrepreneurs transforming innovations into commercial clean energy products, including in areas such as: offshore wind; industrial heat; sustainable aviation fuel; and grid infrastructure. Across DOE, the Budget provides \$325 million to support the research, development, and demonstration of technologies and processes to increase the domestic supply of sustainable critical minerals and materials essential for several clean energy technologies. The Budget supports \$76 million to advance technologies that can enable earlier detection of methane leaks and integrate across a network of methane monitoring sensors for more reliable measurement and mitigation and \$150 million to make small quantities of high-assay, low-enriched uranium (HALEU) available for ongoing advanced nuclear reactor demonstrations. The Budget also assumes enactment of the Administration's request for \$2.2 billion in 2024 supplemental funding to procure low-enriched uranium (LEU) and HALEU, which—coupled with a long-term ban on imports of LEU and HALEU from Russia—would prompt sufficient private sector investment to reinvigorate U.S. uranium enrichment and reduce America's current dependence on Russian imports for roughly 20 percent of LEU used in civilian nuclear power reactors. The \$8.5 billion also includes \$845 million, an \$81 million increase above the 2023 enacted level, for a Department-wide initiative to accelerate the viability of commercial fusion energy, coordinating academia, national laboratories, and the private sector, which supports the Bold Decadal Vision for Commercial Fusion Energy. The Budget funds eight crosscutting DOE Energy Earthshots initiatives which could substantially reduce the cost of energy for the American consumer through innovations in clean energy generation, energy efficiency, and storage. In addition, the Budget provides \$30 million to accelerate commercial demonstration projects through a new national laboratory effort.
- **Reduces Health and Environmental Hazards for At-Risk Communities.** The Budget provides \$8.2 billion to address legacy waste and contamination in communities used during the Manhattan Project and the Cold War for nuclear weapons production, including \$3.1 billion to continue cleanup progress at the Hanford site in Washington. The Budget also supports \$205 million to ensure cleanup remedies at Cold War sites remain protective of human health and the environment. The Administration would ensure the investments for the cleanup of legacy pollution and long-term stewardship of these sites align with the Justice40 Initiative to benefit disadvantaged communities.

- **Advances Energy Justice and Equity.** The Budget supports several key initiatives to accelerate equity and justice for historically excluded communities to benefit all Americans, including: \$55 million for Community Capacity Building grants to address areas impacted by persistent poverty around DOE sites; \$105 million to plan, design, and demonstrate community-scale energy solutions to mitigate extreme heat in low-income and disadvantaged communities; and \$256 million to build capacity for advancing energy research and developing a new energy workforce through programs at Historically Black Colleges and Universities, Minority Serving Institutions, tribal colleges, community colleges, and emerging research institutions. The Budget also supports systematic implementation of the Justice40 Initiative and the Department's equity action plan strategies.
- **Maintains World Leading Research through the CHIPS and Science Act and Invests in Climate Innovation.** The Budget invests \$8.6 billion for the Office of Science to boost American innovation and sustain American leadership in research and scientific discovery, advancing toward the CHIPS and Science Act full authorization level. These investments support: cutting-edge research at the national laboratories and universities as well as building and operating world-class scientific user facilities; identifying and accelerating novel technologies for clean energy solutions; improving predictability of climate trends and extremes using high performance computing; providing new computing insight through quantum information; and positioning the United States to meet the demand for isotopes. The Budget also assumes enactment of the Administration's request for \$98 million in 2024 supplemental funding for increased domestic operational capacity for development and production of isotopes. This funding would decrease U.S. dependence on a foreign supply chain for isotopes which are critical for the public health, energy, and national security sectors and would increase U.S. competitiveness in the global market for isotopes.
- **Strengthens Artificial Intelligence (AI), Cybersecurity, and Resilience of the Energy Sector.** The Budget provides \$455 million to extend the frontiers of AI for science and technology and to increase AI's safety, security, and resilience. These investments enhance the Department's computing capabilities and support the development of AI testbeds to build foundation models for energy security, national security, and climate resilience as well as tools to evaluate AI capabilities to generate outputs that may represent nuclear, nonproliferation, biological, chemical, critical-infrastructure, and energy security threats or hazards. The funding also invests in continued support for training new researchers from a diverse array of backgrounds capable of meeting the rising demand for AI talent.
- **Protects the Nation from Weapons of Mass Destruction (WMD) Terrorism.** The Budget enhances DOE capabilities to prevent and respond to WMD terrorist attacks by non-state actors at home and abroad. The Budget also supports DOE's long-standing efforts to advance nuclear and radioactive material security, enhancing U.S. national security, health, and economic interests. In addition, the Budget continues investments to develop the next generation of arms control technologies and experts to help mitigate against emerging and evolving national security risks.
- **Strengthens the Nation's Nuclear Deterrent.** The Budget provides \$19.8 billion for Weapons Activities, \$4.5 billion above the 2021 enacted level, to prioritize implementation of the *2022 National Defense Strategy* and Nuclear Posture Review by modernizing the Nation's nuclear deterrent to keep the American people safe. The Budget supports a safe, secure, reliable, and effective nuclear stockpile and a resilient, responsive nuclear security enterprise necessary to protect the U.S. homeland and allies from growing international threats.

- **Powers the Nuclear Navy.** DOE's Naval Nuclear Propulsion Program ensures safe and reliable operation of reactor plants in nuclear-powered submarines and aircraft carriers. The Budget prioritizes infrastructure modernization and investments to develop, refine, and deliver new technologies to the Navy and maintain America's advantage over its adversaries.