



ASSOCIATION OF
PUBLIC &
LAND-GRANT
UNIVERSITIES

FY 2024 Appropriations Priorities

Energy, Water Development, and Related Agencies

Final Request

Agency	Account	APLU FY2024 Request
Department of Energy (DOE)	Office of Science	\$9.5 billion
	Advanced Research Projects Agency – Energy (ARPA-E)	\$570 million

DEPARTMENT OF ENERGY (DOE)

OFFICE OF SCIENCE

APLU FY2024 Request: \$9.5 billion

FY2024 PBR = \$8.8 billion; FY 2023 = \$8.1 billion; FY 2022 = \$7.475 billion

APLU urges Congress to fund the DOE Office of Science with an appropriation of at least \$9.5 billion in FY2024. This funding is needed to enhance groundbreaking scientific discoveries, build and operate world-class scientific facilities, advance energy technologies required for the nation to meet energy efficiency targets, develop industries of the future and emerging technologies, and maintain the highly- skilled science and technology workforce that is essential for the United States to compete globally. In addition, the request level is consistent with FY2024 authorized funding level in the CHIPS and Science Act which passed both chambers with overwhelming bipartisan support.

The Office of Science is our nation’s largest supporter of foundational research in the physical sciences, the steward of 10 national laboratories, and the lead federal agency supporting fundamental research for energy production and security. Office of Science-supported researchers have made critical advances in solar energy, bioenergy, solid-state lighting, and batteries, among many other areas of energy, and continue to press forward with science in the quest to achieve a secure and sustainable energy future. Each year, the Office of Science provides the world’s most extensive scientific user facilities serving more than 33,000 researchers from universities, government laboratories, and industry. The Office of Science further supports 30,000 researchers, including Ph.D. scientists, engineers, graduate students, undergraduates, and technical and support personnel, through competitive awards annually at DOE laboratories and more than 300 institutions of higher education throughout the U.S.

The Office of Science is crucial in preparing our next generation of STEM researchers, inventors, and entrepreneurs. Through its Early Career Research Program, DOE provides funds for outstanding scientists early in their careers, helping to stimulate research careers in the disciplines supported by the DOE Office of Science. Additionally, the Office of Workforce Development for Teachers and Scientists (WDTS) sponsors student internships and other education and training programs at DOE’s 17 national laboratories. The Office of Science also

supports increased engagement with and participation by faculty and students from Minority Serving Institutions (MSI) and individuals from groups historically underrepresented in the STEM fields.

APLU recommends at least \$9.5 billion in funding for the Office of Science to:

- Grow core research at research universities and national laboratories in the physical sciences, biological sciences, advanced materials, geosciences, computing, and engineering to help develop future energy technologies and fully utilize new and updated world-class facilities and cutting-edge instrumentation, especially with ambitious goals to achieve U.S. stated energy efficiency goals;
- Prepare the next generation of American scientific and engineering talent through competitively awarded grants and significantly expand existing workforce and education programs, such as the DOE Office of Science Graduate Fellowship and Computational Sciences Graduate Fellowship, while also creating new programs to address the nation's growing workforce needs in STEM and energy industries as well as meaningfully tackle issues of broadening participation for a more competitive and competent workforce;
- Accelerate the construction and upgrades of world-class scientific user facilities and maximize operations to support the more than 36,000 researchers from academia, industry, and federal agencies that rely on these facilities for advancing energy science;
- Advance new, strategic investments in innovative, high-risk, high-reward research areas, such as quantum science and technology, genomics and engineering biology, microelectronics, next-generation communications, accelerator and laser systems, and artificial intelligence and scientific machine learning; and
- Maintain and grow multi-disciplinary centers focused on addressing scientific grand challenges, such as Energy Frontier Research Centers, Bioenergy Research Centers, Energy Innovation Hubs, and national quantum information science research centers, as well as artificial intelligence co-design and microelectronics research centers.

As more countries continue to invest heavily in research and development, the U.S. must make bold new investments in fundamental research to stay ahead of international competition, maintain U.S. competitiveness, and create American jobs of the future in key energy sectors as well as new technology areas such as high-performance computing, artificial intelligence, biotechnology, and quantum information science.

ADVANCED RESEARCH PROJECTS AGENCY-ENERGY (ARPA-E)

APLU FY2024 Request: \$570 million

FY2024 PBR = \$650.2 million; FY2023 = \$470 million; FY2022 = \$450 million

ARPA-E funds some of our nation's brightest minds to work in cross-disciplinary research teams to radically transform how we generate, store, and use energy. By leveraging talent in all sectors—from universities to private industry to government labs—ARPA-E fosters a robust and cohesive community of energy researchers and technology developers to advance high-potential,

high-impact energy technologies. APLU requests funding for ARPA-E at least \$570 million in FY2024 to create additional opportunities to advance innovative science and increase support for Scale-up and Demonstration projects. The level of funding is consistent with the agency's authorized level for FY23 and with the Senate's FY23 mark.

In 2017, the National Academies of Science noted that "APRA-E has the ability to make significant contributions to energy R&D that likely would not take place absent the agency's activities." Thanks to federal investment in ARPA-E, since its creation in 2009, 131 companies have been formed, 6,257 peer-reviewed journal articles have been published to advance knowledge, and 934 patents have been issued by the U.S. Patent and Trademark Office. Continued funding for this game-changing agency will lead to more groundbreaking technological developments that boost our nation's economy and keep the U.S. at the forefront of energy advancement.

ABOUT THE ASSOCIATION OF PUBLIC AND LAND-GRANT UNIVERSITIES

APLU is a research, policy, and advocacy organization dedicated to strengthening and advancing the work of public universities in the U.S., Canada, and Mexico. With a membership of 251 public research universities, land-grant institutions, state university systems, and affiliated organizations, APLU's agenda is built on the three pillars of increasing degree completion and academic success, advancing scientific research, and expanding engagement. Annually, its 210 U.S. member campuses enroll 4.5 million undergraduates and 1.3 million graduate students, award 1.3 million degrees, employ 1.2 million faculty and staff, and conduct \$48.5 billion in university-based research.