The Energy Sciences Coalition (ESC) thanks Congress for continuing its strong, bipartisan support of the U.S. Department of Energy (DOE) Office of Science.

To build on this support, ESC continues to urge Congress to appropriate $8.8 billion in FY 2023 for the DOE Office of Science, an increase of 18 percent above FY 2022 and consistent with the bipartisan House and Senate DOE Science for the Future Act. ESC is concerned that the FY 2023 President’s budget request for the Office of Science of $7.8 billion is not sufficient to maintain U.S. competitiveness.

While we appreciate that the budget request proposes targeted increases for certain climate and clean energy research, the proposed funding level is not sufficient to support growth to core research in the physical sciences needed for groundbreaking scientific discoveries or meaningfully advance key Administration priorities, such as in fusion energy and emerging technologies such as Artificial Intelligence and quantum information science. To remain a global leader in innovation, the Office of Science must have the resources to make significant new investments in key emerging technologies, accelerate construction of world-class scientific facilities, and fully support operations of the 28 Office of Science user facilities used by more than 36,000 researchers to advance critical national missions. The 4.3 percent increase proposed in the budget request would not even keep up with the current inflation rate of 8.3 percent, which drives up costs to conduct research and to make the necessary procurements to build state-of-the-art research facilities on time and on budget.

Groundbreaking research requires complementary investments in research infrastructure. Unfortunately, the budget request falls short in this area and would not support construction of world-leading facilities to maintain current project schedules, let alone accelerate their construction to stay ahead of international competition and minimize total costs. The Office of Science is conducting international benchmarking studies and have generally found that the “era of unquestioned American scientific dominance is drawing to a close” and “there is world-wide competition for access to the latest, most powerful facilities.” However, it is not too late for U.S. to reclaim leadership. Accelerating construction of state-of-the-art facilities would help maintain and attract the best scientific talent and drive future discoveries and technological innovation. Further, more general DOE national lab infrastructure, such as office space and critical utilities, is the backbone of the DOE enterprise, but is aging and needs to be modernized. Modern, reliable infrastructure at the national labs is critical to support world class science facilities, attract top talent, and address science and technology challenges of the future. ESC is concerned about the impact of the proposes cuts to Science Laboratory Infrastructure, including pausing design and construction of three ongoing projects.
Additionally, ESC is concerned about the proposed cut to the operations of existing user facilities. Demand for access to these unique facilities far exceeds current capacity. Proposed cuts to those user facilities will reduce access to thousands of researchers from academia, industry, and other federal agencies engaged in critical science and engineering pursuits. More resources are needed to increase access to drive innovation in diverse DOE missions including clean energy technologies, industries of the future, and the origins of the universe.

To ensure the DOE Office of Science can meet growing demands and advance critical areas of science and technology, ESC continues to recommend $8.8 billion in FY 2023 to address gaps in the budget request including:

- growing core research at national laboratories and research universities in the physical sciences, biological sciences, advanced materials, geosciences, computing and engineering to help develop not just future energy technologies and climate solutions but also general discovery science that serves as the seed corn of future technologies.
- fully funding and accelerating the construction and upgrades of world-class scientific user facilities and support infrastructure to stay ahead of international competition and attract the best talent;
- maximizing operations to fully utilize state-of-the-art facilities and cutting-edge instrumentation to support the more than 36,000 researchers from academia, industry and federal agencies that rely DOE user facilities; and
- making significant new, strategic investments in innovative high-risk, high-reward research areas, such as quantum science and technology; artificial intelligence and scientific machine learning; genomics, biotechnology, and other convergence science; microelectronics; next-generation communications; accelerator and laser systems; and optical detectors.

The United States must maintain its leadership in science, technology and innovation, and the DOE Office of Science plays a pivotal and leading role in addressing this country’s energy, national security, and environmental challenges. We look forward to working with you in advancing the critical missions of this invaluable agency.

Sincerely,

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# ESC Membership

- American Association for the Advancement of Science
- American Association of Physicists in Medicine
- American Association of Physics Teachers
- American Astronomical Society
- American Chemical Society
- American Crystallographic Association
- American Geophysical Union
- American Geosciences Institute
- American Institute of Physics
- American Mathematical Society
- American Nuclear Society
- American Physical Society
- American Society for Engineering Education
- American Society of Agronomy
- Acoustical Society of America (ASA)
- American Society of Mechanical Engineers
- American Society for Microbiology
- American Society for the Advancement of Science
- American Society of Plant Biologists
- American Vacuum Society
- Arizona State University
- Association of American Universities
- Association of Public and Land-grant Universities
- AVS – The Society for Science and Technology of Materials, Interfaces, and Processing
- Battelle
- Binghamton University
- Biophysical Society
- Boston University
- Case Western Reserve University
- City College of CUNY
- Clemson University
- Coalition for Academic Scientific Computation (CASC)
- Consortium for Ocean Leadership
- Columbia University
- Computing Research Association
- Council of Graduate Schools
- Council of Scientific Society Presidents
- Cornell University
- Cray Inc.
- Crop Science Society of America
- Duke University
- The Ecological Society of America
- Federation of American Societies for Experimental Biology
- Florida State University
- Fusion Power Associates
- General Atomics
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- Lehigh University
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- Massachusetts Institute of Technology
- Materials Research Society
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- Michigan State University
- Michigan Technological University
- New York University
- Northeastern University
- Northern Illinois University
- Northwestern University
- Oak Ridge Associated Universities (ORAU)
- Optica (formerly OSA)
- Pace University
- Penn State University
- Princeton University
- Purdue University
- Rensselaer Polytechnic Institute
- Rutgers, The State University of New Jersey
- Society for Industrial and Applied Mathematics
- Soil Science Society of America
- South Dakota School of Mines
- Southeastern Universities Research Association
- SPIE
- Stanford University
- Stony Brook University
- Tech-X Corporation
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