

Congress of the United States

House of Representatives

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

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August 11, 2022

The Honorable Jennifer M. Granholm
Secretary of the Department of Energy
1000 Independence Ave. SW
Washington, DC 20585

The Honorable Shalanda Young
Director
White House Office of Management and Budget
1600 Pennsylvania Ave NW
Washington, DC 20500

The Honorable Alondra Nelson
Director
White House Office of Science and Technology Policy
1600 Pennsylvania Ave NW
Washington, DC 20500

Dear Secretary Granholm, Director Young, and Director Nelson:

As you begin formulating the Administration's request for Fiscal Year (FY) 2024, we urge you to develop a robust budget proposal for the U.S. Department of Energy's (DOE) Office of Science. The bipartisan Department of Energy Science for the Future legislation, developed by the Committee on Science, Space, and Technology (the Committee) and passed by the House, articulates for the first time a comprehensive authorization for DOE's Office of Science – and we were pleased to see bicameral support for its inclusion in the landmark *CHIPS and Science Act* that President Biden just signed into law. We urge that the Administration's FY2024 budget request for the Office of Science reflect the robust scale and scope of investment outlined in the enacted *CHIPS and Science Act*. It is imperative that we meet this historical moment with transformative investments in science and innovation, and that process begins with the President's Budget Request.

In his [first press conference](#), President Biden said that “we used to invest a little over 2 percent of our entire GDP in pure research and investment in science. Today, it's 0.7 percent...And so what

I'm going to do is make sure we invest closer to 2 percent." Yet the FY 2023 administration budgetary proposal for the DOE Office of Science fell short of that goal. Instead, it proposed shrinking the Office's budget both in real (inflation-adjusted) terms, and as a fraction of GDP.

As we have stated previously in numerous hearings, including one on [April 27](#) with Under Secretary Richmond, the climate emergency before us demands ambitious proposals that leverage every tool at the Federal government's disposal to accelerate our transition to a clean energy future. To that end, we greatly appreciate the increased level of support the Administration has pursued for other DOE programs that are focused on advancing clean energy technologies. To be clear: we do not wish to see those other programs reduced or pitted against the Office of Science. On the contrary, we hope to see further increases in ambition – and ask the Administration to recognize the equally vital importance of the Office of Science to the project of kickstarting a clean energy revolution, and to bolstering the health, well-being, and creative capacities of the American people.

The Office of Science is the lead federal agency supporting scientific research for energy applications and is the nation's largest supporter of research in the physical sciences. It is also by far the largest research agency within DOE. The Office supports tens of thousands of investigators across hundreds of different entities through direct research funding as well as the development and operation of large-scale experiments and unique scientific user facilities, both domestically and internationally. In doing so, it plays a pivotal role in driving advancements in transformative new clean energy technologies while also helping to unlock the science behind some of our most fundamental mysteries, including the very nature of matter, energy, space, and time. These activities are vital to improving our competitiveness and decarbonizing our country.

More specifically, the Office of Science:

- stewards research across a broad array of scientific areas, including chemical and materials science, geosciences, high-performance computing, mathematical and computational sciences, biological and environmental sciences, fusion energy, particle and nuclear physics, accelerator technology, and isotope production;
- leverages its research portfolio and user facilities to play a unique role in driving progress in crosscutting areas of geostrategic importance, such as quantum information science, artificial intelligence, microelectronics, the bioeconomy, and critical materials;
- supports experimental and observational research that informs leading climate models used by the worldwide research community;
- supplies the nation with critical isotopes that are essential for energy, medical, and national security research and applications;
- builds and manages several light source and neutron source facilities that enable transformative advancements in biology, chemistry, and materials sciences, such as detailed characterization of new materials that could lay the foundation for next-generation batteries;

- leads the U.S. contribution to the international ITER project as well the development of innovative new fusion energy technologies and systems, which could greatly accelerate progress toward the realization of fusion energy generation;
- is in the process of deploying two exascale computing systems, which will significantly expand its high-performance computing capacity and thus the nation's ability to produce high-fidelity models for the analysis of complex systems and phenomena, such as climatic and other Earth systems; and
- supports the construction of large-scale experiments like the Long Baseline Neutrino Facility/Deep Underground Neutrino Experiment and the Electron-Ion Collider, which will both lead global efforts to understand the frontiers of modern physics and constitute a major draw for international talent.

Contrary to recent statements by the Administration, neither the FY 2022 nor the FY 2023 budget requests would adequately support all the activities mentioned above. We know this thanks to contradictory information provided to the Committee by stakeholders as well as the Department itself. Instead, these requests would prevent numerous major construction projects from maintaining their project schedules (as provided to the Committee by the Department itself), which in turn would cause their total costs to grow. In addition, it is our understanding that the FY 2023 budget request does not account for the supply chain delays and other impacts these projects are facing due to the COVID-19 pandemic. We are also troubled by the fact that the Department has indicated that it is considering significantly decreasing the scientific scope of some of these projects because of budget constraints. Finally, many existing facilities would lack the resources necessary to maintain full operations or support the technical staff that sustain them.

These problems are pervasive, affecting projects and facilities relevant to many scientific fields—from solar power to particle physics to fusion energy—and at numerous national laboratories. The resultant delays and increased price tags caused by lackluster budgets impede scientific progress and deny DOE's internal and external research communities access to the most up-to-date instrumentation. Furthermore, they raise alarm among the Department's contractors and collaborators—both domestic and international—about its reliability as a partner. Budget requests that propose cuts, stagnation, or slow growth to the Office's topline also cause downward pressure on the research programs, which is leading to adverse long-term effects. The Office of Science's research portfolio plays a key role in advancing scientific discovery here and around the world and is a major contributor to the workforce pipeline that enables DOE to fulfill its mission. In addition, these research programs are a powerful tool for broadening participation and increasing equity in STEM, which are essential for maintaining U.S. scientific leadership.

When questioned about the lack of support for the Office of Science, Administration officials have responded that they were operating under presumed funding constraints when crafting these requests. This is an unconvincing argument, especially when considering the sizeable gains being proposed for other DOE offices and other research agencies. We also expect the

Administration's request to be an ambitious statement of priorities that seeks to boldly meet pressing challenges, not a rigid balance sheet.

In FY 2024, we urge the Administration to employ the same approach taken by the Committee in the [Department of Energy Science for the Future Act](#), which formed one of the cornerstones of the [America COMPETES Act of 2022](#) and the [CHIPS and Science Act](#). Our top priority, executed in a bipartisan manner, was to provide policy direction and authorize funding levels that would empower the Office of Science to adequately meet the financial requirements inherent to both its research and construction portfolios that the nation has tasked it to undertake. We note with appreciation that the Administration wholeheartedly endorsed these bills and held a White House summit in March 2022 focused on the recent progress and potential benefits of improved support for fusion research and development. We call on the Administration to follow through on this support with a budget request that honors our shared commitment and the priorities authorized by Congress. The stakes are too high for incrementalism or austerity.

We welcome the opportunity to work with you to ensure that the FY2024 Budget Request does markedly better by the Department of Energy's Office of Science and the American people.

Sincerely,



Jamaal Bowman
Chairman
Subcommittee on Energy



Bill Foster
Chairman
Subcommittee on Investigations &
Oversight



Sean Casten
Member of Congress



Paul Tonko
Member of Congress



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Donald Norcross
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Brad Sherman
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Lizzie Fletcher
Member of Congress

cc: Rep. Frank Lucas, Ranking Member, Committee on Science, Space, and Technology
Rep. Randy Weber, Ranking Member, Subcommittee on Energy
Rep. Jay Obernolte, Ranking Member, Subcommittee on Investigations & Oversight