U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON
SCIENCE, SPACE, & TECHNOLOGY
Opening Statement

Chairman Jamaal Bowman (D-NY)
of the Subcommittee on Energy

Energy Subcommittee Hearing:
Science and Energy Research Infrastructure Needs of the Department of Energy

April 27, 2022

Good morning, and thank you to Under Secretary Richmond for joining us today to discuss the science and energy research infrastructure needs of the Department of Energy.

We're holding this hearing to examine the goals and impacts of the DOE's budget request for 2023, with particular attention to impacts on the construction and upgrade of user facilities and large-scale experiments managed by the DOE Office of Science. That said, questions concerning programs and activities carried out by other DOE offices will of course also be welcome.

I want to start off by emphasizing that we are in a climate emergency, as the most recent IPCC report has reminded us yet again. In response, we need urgent, transformative action from Congress and the Administration. We need a clean energy revolution. I thank the White House and DOE leadership for the important steps they are taking to restructure the agency, think outside the box, and mobilize our resources and expertise to kickstart that revolution. This is evident in several aspects of the FY 2023 budget request, and I would specifically like to note my appreciation for the integrated approach to research, development, demonstration, and deployment that is shaping strong investments at the Office of Energy Efficiency and Renewable Energy, for example. And from solar manufacturing to home electrification, we need to center the communities that have been most harmed and neglected by the fossil fuel economy. I also welcome the continued emphasis on equity and implementing Justice40.

Let's keep going bigger on all of this. And I strongly believe that to achieve our goals and reach our full potential as a society, we need to invest as ambitiously as possible across the entire science, technology, and innovation ecosystem. Unfortunately, the FY 2023 request *under*-invests in one crucial part of that ecosystem: DOE's Office of Science.

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. This agency has two principal thrusts: direct funding for scientific research; and the development and operation of large-scale experiments and scientific user facilities. These assets and activities

collectively serve tens of thousands of investigators across hundreds of different entities, both domestically and internationally. In doing so, they play a pivotal role in driving advancements in transformative new clean energy technologies, while also helping unlock the science behind some of our most fundamental mysteries, including the very nature of matter, energy, space, and time. For example, the Office's light source facilities enable detailed characterization of new materials for next generation batteries. The Office also leads the U.S. contribution to the international ITER (*pronounced "eater"*) project, which could greatly accelerate progress toward the realization of fusion energy generation. In short, the Office of Science provides the bedrock on which DOE develops a broad range of advanced technologies.

The health of the Office of Science is a top priority for the Energy Subcommittee, and the Committee as a whole. We have passed numerous pieces of bipartisan legislation concerning the Office during the 117th Congress, including a comprehensive authorization, that seek to leverage the Office's assets to unleash innovation and tackle the problems of our time. In addition, we have held several hearings examining the Office's portfolio and conducted oversight through other channels, including briefings and meetings with DOE and White House officials to convey the important role the Office will play in achieving the Administration's goals on climate, clean energy, and more.

This is why I am concerned by and disappointed with the Administration's FY 2023 budget request for the Office. Under this proposal, many current major construction projects would not be supported at levels that are needed to maintain their project schedules and minimize their total costs. This problem is pervasive, affecting projects relevant to many scientific fields—from particle physics to fusion energy—and at numerous national labs, including the Electron-Ion Collider and future upgrades to the National Synchrotron Light Source-II at Brookhaven National Laboratory in New York. The resultant delays and increased price tags caused by a lackluster budget 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 commitment to these projects.

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 plays a key role in advancing scientific discovery here and around the world. And it is a major contributor to the workforce pipeline that enables DOE to fulfill its mission and that is needed to address the climate crisis. I also believe these research programs are a powerful tool for broadening participation and increasing equity in STEM, which is an issue I am particularly passionate about.

With that in mind, I would like to see future budget requests from the Administration that 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*. 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. These bills would enable large-scale construction projects to be completed on time and on budget, and would expand the Office's

research enterprise in a way that would encourage more young people to enter scientific fields and diversify the Department's workforce. I'll note that the Administration wholeheartedly endorsed both of these bills, and so I hope that going forward they will match rhetoric with action.

Thank you again, and I look forward to this discussion.