United States Senate

WASHINGTON, DC 20510

[[DATE]]

Senator Dianne Feinstein Chairman Subcommittee on Energy and Water Development Senate Committee on Appropriations 188 Dirksen Senate Office Building Washington, DC 20510

Senator John Kennedy Ranking Member Subcommittee on Energy and Water Development Senate Committee on Appropriations 142 Dirksen Senate Office Building Washington, DC 20510

Dear Chairman Feinstein and Ranking Member Kennedy:

As you begin work on the Fiscal Year 2022 Energy and Water Appropriations bill, we write to express our strong support for robust and sustained funding for the Department of Energy (DOE) Office of Science and request at least \$7.7 billion in funding.

Throughout the COVID-19 pandemic, the DOE Office of Science has served as an essential asset to the United States' response. The DOE Office of Science marshalled the multi-disciplinary expertise of our national labs, industry, and academia to support federal, state, and local efforts to combat the virus. Scientists and researchers at the DOE Office of Science provided key modeling for disease transmission and medical equipment distribution, and they produced invaluable insights into the development of antivirals to better treat COVID-19. This work prevented supply chain bottlenecks for equipment like ventilators and PPE, and likely saved many thousands of lives.

As the nation's largest supporter of basic research in the physical sciences, the DOE Office of Science sets ambitious goals to find innovative solutions to the greatest challenges facing the United States today. Among their many priorities, the world-class scientists at the DOE Office of Science work to fight disease, develop next-generation computing, decarbonize the economy, and secure the United States' position as a global leader in technology and innovation. Every day, the DOE Office of Science tackles the biggest, most complex problems in our world. To ensure we face these challenges with the full strength of our scientific resources, funding for the DOE Office of Science must be a priority.

The DOE Office of Science maintains a first-rate workforce of more than 22,000 research scientists, engineers, and support personnel to mobilize and tackle pressing problems, like COVID-19, at a moment's notice. Their collective work and flexibility has made them leaders in the development of innovative technologies like MRI and PET scans, 3-D models of pathogens for vaccine development, quantum computing, artificial intelligence, advanced communication networks, biotechnology, energy storage and negative emission technologies, advanced nuclear, electric vehicle batteries, and renewable energy technology like wind and solar, to name just a few. Many of these technologies, such as DNA sequencing or more aerodynamic and fuel efficient long-haul trucks, spur economic development and growth. In this way, the DOE Office of Science acts as a pipeline for emerging technologies to reach commercialization.

The DOE Office of Science is the nation's primary source of research in the physical sciences, and maintains a unique collection of 27 large-scale, cutting-edge user facilities relied upon by more than 36,000 researchers annually. Nearly half of these users are university faculty and students from all 50 states, making the DOE Office of Science a unique and critical incubator for the next generation of American scientific talent. Other users come from industry and key federal science agencies, such as the National Institutes of Health (NIH), the National Science Foundation (NSF), and the Department of Defense (DoD). Without these facilities thousands of users would be forced to move their job-creating research activities overseas, or terminate their research altogether. As we have seen with COVID-19, addressing global problems requires high levels of collaboration and knowledge sharing, and the DOE Office of Science provides the ideal forums for this work.

Looking ahead, this office is poised to continue leading our federal agencies in advancing the next generation of technologies. However, to maintain our position as world leaders in innovation, especially amidst rapid investments in science and technology in other countries, we must commit to robust funding for the DOE Office of Science. Funding of this kind will ensure that the United States can respond swiftly and effectively to global disasters like COVID-19, secure our role as world leaders in next-generation technologies like quantum computing and A.I., and enhance our competitive edge in the global economy. Support for these advancements is support for national security and American competitiveness, as well as an investment in good American jobs. For these reasons, we urge you to make strong and sustained funding for the DOE Office of Science one of your highest priorities in fiscal year 2022.

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