

Representative Eric Swalwell  
House Committee on Science, Space, and Technology  
Hearing of the Energy Subcommittee  
*Providing the Tools for Scientific Discovery and Basic Energy Research:  
The Department of Energy Science Mission*  
2318 Rayburn House Office Building  
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Opening Statement

Thank you Chairman Lummis for holding this hearing, and I also want to thank this excellent panel of witnesses for their testimony and for being here today.

The Department of Energy's Office of Science is the nation's largest supporter of research in the physical sciences, so it is impossible to overstate its importance to our energy future and to our innovation enterprise. Our witnesses will be able to speak in much greater detail about the Office, but I want to start by highlighting just a few of the amazing activities and programs that it supports.

The Basic Energy Sciences program builds and operates a number of major user facilities, including several massive light sources and neutron sources that allow us to examine new materials and to watch fundamental chemical and biological processes in almost real-time. About 14,000 researchers use these facilities each year. These users include not only DOE scientists, but university scientists and their students, as well as researchers from roughly 160 private companies including names like Boeing, Dow, Ford, General Electric, IBM, Merck, and Pfizer. I'd be remiss if I didn't also mention that this program supports the Combustion Research Facility at Sandia National Laboratories, which has been working closely with U.S. engine manufacturers for more than 30 years to improve efficiency and reduce harmful emissions from internal combustion engines.

As we touched on in a hearing earlier this year, the Office's advanced computing research program is supporting facilities and developing software tools that address our scientific community's major supercomputing needs today, and it is providing the scaffolding necessary to build the next generation of high-end computing systems tomorrow. This capacity will enable researchers across the scientific arena, from materials science to climate change to astrophysics, to acquire unparalleled accuracy in their simulations and achieve research breakthroughs more rapidly than ever before. This is why I am pleased to be an original co-sponsor of the bipartisan American Super Computing Leadership Act recently introduced by Mr. Hultgren, and I am encouraged to see its language incorporated in various versions of a reauthorization of the Office of Science.

The Fusion Energy Sciences program supports research into plasma physics and the underlying engineering challenges of fusion energy systems. If successful, these efforts would provide us with a practically inexhaustible source of energy with almost zero environmental impact. And the Nuclear and High Energy Physics programs allow us to make discoveries from the atomic all of the way up to the cosmic level, engaging human beings' innate curiosity about the origin and makeup of the universe and our place in it. I could spend my entire opening statement talking about all of the great research supported by the Office of Science, but I will spare you all.

It's important to note that many of these programs and activities would not be possible without the world-class system of national labs supported by the Office of Science and other offices at DOE. These labs are rightfully described as the backbone, or the "crown jewels", of our country's R&D infrastructure. They house facilities and provide capabilities that are impossible for academic or industrial research institutions to support on their own. They employ some of the world's brightest scientists and engineers. And they help train our country's next generation of researchers. I may be a bit partial toward the labs because I happen to have one or two in my district (and a few more nearby, as Dr. Simon may rightfully point out) but, without a doubt, the research and technologies that come out of these labs have produced an immense return on investment to American taxpayers.

Unfortunately, the funding levels in the draft legislation that the Majority is asking us to consider are simply inadequate to allow the Office of Science to continue to support the great research and facilities that it does. At first glance, one might think that the Majority's bill actually increases funding for the Office, but a closer look reveals that they are actually cutting funding – the rate of inflation for research is about 3 percent, but the bill only provides year-to-year increases of 1 to 1.7 percent, in effect cutting the Office's budget. This is simply unacceptable and seems to be a pattern on this Committee. We hear a lot of talk about America being the greatest country in the world, and it certainly is, but if we want to maintain our leadership in technology and innovation - and the jobs that come with it - we can't afford to continue to cut our research budgets without any consideration of the impacts such cuts will have on our nation's competitiveness.

I look forward to discussing these and other issues with this distinguished panel here today, and with that I yield back the balance of my time.