



American
Physical
Society

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President
Homer A. Neal
University of Michigan

March 8, 2016

President-Elect
Laura H. Greene
Florida State University

The Honorable Mike Simpson
House Appropriations Energy and Water Subcommittee
2312 Rayburn HOB
Washington, DC 20515

Vice President
Roger W. Falcone
*University of California,
Berkeley*

The Honorable Marcy Kaptur
House Appropriations Energy and Water Subcommittee
2186 Rayburn HOB
Washington, DC 20515

Past President
Samuel H. Aronson
*Brookhaven National
Laboratory*

Chief Executive Officer
American Physical Society
Kate P. Kirby

Dear Chairman Simpson and Ranking Member Kaptur:

As president of the American Physical Society, representing more than 53,000 scientists in universities, industries and national laboratories, I want to thank the Subcommittee for providing the Department of Energy (DOE)'s Office of Science with \$5.35 billion for FY16 – a 5.5 percent increase over FY15. APS urges the Subcommittee to continue to increase discretionary funding for the Office of Science because of its critical role in enhancing energy security and building the economy of the future.

APS has strong concerns regarding the recent trend in our nation's commitment to supporting scientific research and its impact on our global competitiveness. Since 2010, federal support for the Office of Science has failed to even keep pace with inflation. This might have been of little concern several years ago when the United States was the undisputed global leader in science, technology and innovation. But we can no longer claim such a title. According to two recent studies, the U.S. ranks either 5th ([Global Innovation Index 2015](#)) or 10th ([ITIF](#)) among global leaders in innovation. Regaining our primacy requires more robust – and sustained – federal support for scientific research and research facilities. As part of this effort, APS urges Congress to provide the DOE Office of Science at least \$5.572 billion in discretionary funding for FY17 – a 4.2 percent increase from FY16 and in line with the authorization levels provided in the Senate's Energy Policy Modernization Act (S.2012).

The DOE Office of Science is the nation's primary supporter of basic physical sciences research. It sponsors approximately half of all university physics research; in physics subdisciplines, such as high-energy physics and nuclear physics, the Office of Science is the primary government sponsor. It also plays an integral role in U.S. leadership in other fields, including advanced materials, computing and engineering.

The Office of Science also plays an integral role in training the next generation of scientists and engineers, who are essential for an innovation-based economy. It uses competitively awarded grants to sponsor more than 24,000 Ph.D. scientists, engineers, graduate students, undergraduates and technical personnel at more than 300 institutions nationwide.

Additionally, the Office of Science supports the operation of the largest collection of major scientific user facilities in the world. State-of-the-art facilities are essential for performing discovery science and leading edge research and are an important component of a balanced research portfolio. To compete globally, we must continue to have world-class facilities at home and access to world-class facilities abroad. In the best-case scenario without domestic state-of-the-art facilities, U.S. scientists and engineers would have to carry out their research elsewhere in the world and by so doing contribute to another country's innovation enterprise. In the worst-case scenario – with the facilities playing field no longer level – U.S. researchers could easily lose access to large-scale facilities abroad. With our counterparts in Europe and Asia increasing their investments in research programs and large facilities, America's scientific leadership and innovation capacity will increasingly be at risk.

To improve America's global position in science, technology and innovation, APS requests Congress provide at least \$5.572 billion in discretionary funding for the DOE Office of Science in FY17.

Sincerely,

A handwritten signature in cursive script that reads "Homer A. Neal". The signature is written in black ink and is positioned below the word "Sincerely,".

Homer A. Neal