

American  
Physical  
Society

One Physics Ellipse  
College Park, MD 20740-3844  
Tel: (301) 209-3269  
Fax: (301) 209-0867  
[www.aps.org](http://www.aps.org)

June 13 2012

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John Holdren  
Director, Office of Science and Technology Policy  
New Executive Office Building  
725 17<sup>th</sup> Street, NW  
Washington DC 20502

The Honorable Dr. Holdren,

I am writing as president of the American Physical Society – representing more than 50,000 physicists in universities, industry and national laboratories – to urge you to fund increases in U.S. commitments to the international ITER program in FY13 and beyond from an independent account within the Department of Energy’s budget. I also urge you to support the House Energy and Water Appropriations Subcommittee’s plan to restore \$45 million for the long-term U.S. domestic plasma science and fusion energy research program, which the president’s FY13 Office of Fusion Energy Science (OFES) budget request removed.

In 2006, the U.S. signed an international agreement to participate in the ITER program, which will explore the science of burning plasmas as a critical step to the first generation of fusion reactors. The U.S. Department of State recognizes ITER as an important component of American relations with the project’s member nations. Those nations, including members of the European Union, Japan, China, Russia, South Korea and India, have made long-term financial commitments to fully support ITER and are counting on our nation to fulfill its obligations. They are also investing heavily in their domestic fusion programs in order to be able to benefit economically from this emerging energy source.

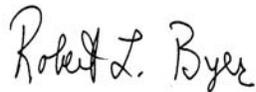
Funding ITER from within the Office of Science budget was feasible under the 2007 America COMPETES Act scenario, which envisioned a doubling of DOE’s research budget. However, under current spending constraints, it is not possible for the federal government to fund ITER in that manner without causing irreparable harm to the DOE’s science programs generally and the domestic fusion and plasma research programs more specifically.

If the U.S. is to maintain a leadership position in fusion energy science and technology it must put in place a development plan that includes (1) a strong domestic program, (2) fulfilling our international commitment to ITER construction and (3) ultimately preparing to power a growing U.S. economy with clean fusion energy from domestically produced plants. Sustaining a strong domestic program requires supporting a world-class cadre of scientists, engineers and students in U.S. universities, national laboratories and industry.

The OFES program supports a broad research program in plasma science that is of fundamental importance and also contributes to other scientific disciplines. The OFES program, which includes the study of high-energy-density laboratory plasmas, is the wellspring of innovations for the nation's energy, security, and commercial enterprises. Sustainably reproducing on Earth the fusion reactions that power the Sun will help provide energy security for future generations.

I urge Congress to work with the Administration to develop a dedicated funding line so that the U.S. can both meet its international commitments AND sustain a strong domestic research program and a well trained, highly capable fusion science workforce.

Sincerely,

A handwritten signature in black ink that reads "Robert L. Byer". The signature is written in a cursive style with a large initial "R".

Robert L. Byer

CC:

Senator Diane Feinstein, Chair, Senate Appropriations Energy & Water Subcommittee

Senator Lamar Alexander, Ranking Member, Senate Appropriations Energy & Water Subcommittee

Jeffrey D. Zients, Director, Office of Management & Budget

Lindsey Berman, Deputy to the Associate Director of Legislative Affairs, Office of Management & Budget

Kevin Carroll, Chief, Energy Branch, Office of Management & Budget

Arti Garg, Program Examiner, Office of Management & Budget

E. William Colglazier, Science and Technology Advisor, Department of State

Andrew Reynolds, Department of State

William Brinkman, Director, Department of Energy Office of Science

Patricia Dehmer, Deputy Director, Department of Energy Office of Science

Edmund J. Synakowski, Associate Director, Department of Energy Fusion Energy Sciences

Philip Rubin, Assistant Director for Social, Behavioral, and Economic Sciences, Office of Science & Technology Policy