

FY 2015 ESC FUNDING STATEMENT

Federal investment in research supported by the U.S. Department of Energy's Office of Science, is critical to solving the fiscal and economic challenges we face and vitally important to ensuring our future national energy security.

The Energy Sciences Coalition therefore urges Congress to provide at least \$5.22 billion in funding for Department of Energy's (DOE) Office of Science in FY 2015. This funding level provides a three-percent increase for the Office of Science over FY 2014, keeping its budget essentially constant after accounting for inflation. Funding at this level will allow the Office of Science to maintain support for its core scientific research programs and keep grant success rates from falling drastically as the Department moves to implement the new forward-funding requirement for grants under \$1 million mandated in the FY 2014 Omnibus Appropriations Act. The increase also will help address cuts proposed in the President's budget to the DOE Fusion and High Energy Physics programs and Science Laboratories Infrastructure account. Finally, it will help increase the available run-time of major DOE scientific facilities, allowing increased access to and use of these facilities by university and industry researchers.

The DOE Office of Science is the nation's primary supporter of basic physical sciences research, providing approximately 47% of total federal support in this area. In addition to the physical sciences, the DOE Office of Science also plays a critical role in U.S. leadership in other fields including the biological sciences, advanced materials, computing and engineering. In subfields such as high energy and nuclear physics, heavy-element chemistry, plasma physics, magnetic fusion, and catalysis, DOE is the primary government sponsor.

The DOE Office of Science supports the operation of the largest collection of major scientific user facilities in the world. These user facilities are the backbone of experimental and computational research in the U.S. and are relied upon by many universities, companies, and federal agencies to support their scientific and engineering research programs. Located at universities and national laboratories around the country, these facilities include large particle accelerators, experimental reactors, high-precision instruments, synchrotrons/light sources, leadership-class supercomputers, and high resolution mass spectrometers. Nearly half of the users are university investigators who, along with other users from the national laboratories and other federal agencies, are researching questions of basic science. Users from industry also rely on these facilities to support the underlying scientific research required to enable the development of new pharmaceuticals, advanced materials for semiconductors and vehicular batteries, telecommunications satellites, and other new consumer goods and industrial products that drive economic growth. If not for DOE, these vital scientific facilities would not exist in the United States.

The DOE Office of Science also supports a diverse portfolio of research at colleges and universities nationwide. The Office sponsors about 50 percent of all university physics research and supports more than 22,000 Ph.D. scientists, graduate students, undergraduates, engineers, and support staff at more than 300 institutions. DOE-funded research and education programs play a key role in strengthening the nation's scientific knowledge base and preparing the next generation of scientists and engineers.

Strong and sustained funding for DOE science programs that at least keeps pace with inflation is needed to maintain U.S. scientific leadership; ensure continued U.S. innovation, competitiveness, and energy security; and help close the nation's innovation deficit.

Funding of at least \$5.22 billion for the DOE Office of Science will allow it to:

- Maintain its existing core research programs, such as the Energy Frontier Research Centers program;
- Reduce the impact of transitioning to forward funding of grants under \$1 million, which would otherwise temporarily reduce success rates and/or the number of grants in certain DOE programs available to DOE researchers; and
- Help restore cuts proposed in the President's budget to the Fusion and High Energy Physics programs and Science Laboratories Infrastructure account.

Now is not the time to reduce federal funding for the basic research and scientific facilities that are so critical to future economic growth. Our economic competitors in China, India, South Korea, the European Union, and elsewhere are copying our approach to innovation and increasing their rate of investment in research and development. These trends do not bode well for continued U.S. leadership in science and technology.

We urge Congress to provide at least \$5.22 billion to the DOE Office of Science in FY 2015. We believe that such funding must be a priority, and is justified.