ENERGY SCIENCES COALITION

November 25, 2014

The Honorable Barbara Mikulski Chairman Senate Appropriations Committee S-128 Capitol Building Washington, DC 20510

The Honorable Richard Shelby Ranking Member Senate Appropriations Committee S-146A Capitol Building Washington, DC 20510 The Honorable Hal Rogers Chairman House Appropriations Committee H-305 Capitol Building Washington, DC 20515

The Honorable Nita Lowey Ranking Member House Appropriations Committee 1016 Longworth House Office Building Washington, DC 20515

Dear Chairman Mikulski, Chairman Rogers, Ranking Member Shelby, and Ranking Member Lowey:

The undersigned organizations of the Energy Sciences Coalition representing universities, business and the scientific community, write to urge that you move quickly to complete the FY 2015 appropriation process. As you do, we urge that you assign a high priority to funding for critical scientific research supported by the Department of Energy's Office of Science and the Advanced Research Projects Agency for Energy (ARPA-E).

Federal investment in research – fundamental and high-risk research that won't otherwise be supported by industry – is the proper role of government. This is exactly the type of research that is conducted by DOE's Office of Science and ARPA-E. Providing sustained and predictable funding for these two DOE agencies is vitally important to securing our future national energy security, closing our nation's innovation deficit and maintaining U.S. leadership in key fields of scientific and engineering research.

The DOE Office of Science is the nation's primary supporter of basic physical sciences research (including high energy and nuclear physics), providing over 47% of total federal support in this area and is also critical to ensuring U.S. leadership in other scientific fields including the biological sciences, advanced materials, computing and engineering. The DOE Office of Science also 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 over 25,000 scientists from universities, companies, and Federal agencies to conduct their scientific and engineering research. The DOE Office of Science thus plays a critical role in supporting the nation's scientific and engineering workforce and in advancing the fundamental knowledge underpinning major energy and other technology-related breakthroughs.

The Energy Sciences Coalition (ESC) is a broad based coalition of organizations representing scientists, engineers and mathematicians in universities, industry and national laboratories who are committed to supporting and advancing the scientific research programs of the U.S. Department of Energy (DOE), and in particular, the DOE Office of Science.

Modeled after the highly successful Defense Advanced Research Projects Agency (DARPA), ARPA-E supports high-risk, high-reward research that private industry will not support, but which has the potential to drastically alter how we generate, store, and use energy. ARPA-E focuses on transformational energy technologies that can be meaningfully advanced with a small investment over a defined period of time. Since 2009, ARPA-E has funded more than 350 projects across 38 states. Of these projects, seventeen projects alone have attracted over \$450 million in private sector capital after ARPA-E's initial investment of approximately \$70 million.

While we understand the many complexities involved in reaching final agreement on an FY 2015 appropriations package, we would strongly urge you to move swiftly to complete the process. At the very time that 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 basic and energy-related research, now is not the time to further reduce or further delay providing sustained funding for critical U.S. energy research programs. Short term Continuing Resolutions and further delays in completing the Congressional appropriations process will only harm the U.S. scientific enterprise and give the advantage to our economic competitors. We therefore urge you to act now to complete the FY 2015 appropriations process and to ensure stable and sustained FY 2015 funding levels for both the DOE Office of Science and ARPA-E.

Sincerely,

American Astronomical Society American Chemical Society American Geophysical Union American Geosciences Institute American Institute of Physics American Mathematical Society American Physical Society American Society for Engineering Education American Society of Agronomy American Society of Mechanical Engineers American Society for Microbiology American Society of Plant Biologists Arizona State University Association of American Universities Association of Public and Land-grant Universities Battelle **Binghamton University Boston University** Case Western Reserve University **Clemson University** Coalition for Academic Scientific Computation (CASC) Columbia University **Computing Research Association** Cornell University Cray Inc. Crop Science Society of America

Duke University Federation of American Societies for **Experimental Biology** Florida State University **Fusion Power Associates** Geological Society of America Georgia Institute of Technology Harvard University IBM Iowa State University Jefferson Science Associates, LLC Krell Institute Massachusetts Institute of Technology Materials Research Society Michigan State University Northern Illinois University Oak Ridge Associated Universities (ORAU) Pace University Pennsylvania State University Princeton University Purdue University **Rensselaer** Polytechnic Institute Rutgers, The State University of New Jersey Society for Industrial and Applied **Mathematics** Soil Science Society of America South Dakota School of Mines Southeastern Universities Research Association

Stanford University SUNY at Binghamton Tech-X The Ohio State University University of California System University of Colorado Boulder University of Delaware	University of Michigan University of North Texas University of Southern California University of Texas at Austin University of Wisconsin-Madison Vanderbilt University Washington University in St. Louis
University of Maryland, College Park	West Virginia University
 cc: The Honorable Harry Reid, Senate Majority Leader The Honorable Mitch McConnell, Senate Minority Leader The Honorable Dianne Feinstein, Chairman, Senate Energy and Water Appropriations Subcommittee The Honorable Lamar Alexander, Ranking Member, Senate Energy and Water Appropriations Subcommittee The Honorable Michael Simpson, Chairman, House Energy and Water Appropriations Subcommittee The Honorable Michael Simpson, Chairman, House Energy and Water Appropriations Subcommittee The Honorable Marcy Kaptur, Ranking Member, House Energy and Water Appropriations Subcommittee 	