Petition to Next President regarding Energy Basic Research

SPIE, as a member of ASTRA, is among more than 70 scientific, academic, and industry organizations signing a petition being delivered on 24 September 2008 to both Presidential campaigns urging strong, stable, and multidisciplinary funding for basic research to address energy needs. Following is the text of the petition.

WE NEED BASIC ENERGY RESEARCH TO MEET AMERICA'S ENERGY GOALS

Strong and Stable Funding and Multi-Agency, Multi-Disciplinary Approach Required

Representing America's business, higher education and scientific communities, we call on the next President to work with Congress to develop, fund and implement a comprehensive, multi-agency, basic research strategy to address our nation's energy crisis and future energy security.

Both Presidential campaigns and the media have focused their attention on immediate steps to address rising prices at the pump. However, increased domestic oil drilling, the renewal of clean energy incentives, and increased development of existing energy technologies represent only a partial solution to our nation's long-term energy and environmental challenges.

The need for abundant sources of environmentally friendly and affordable energy far exceeds the capacity of currently available technologies. Our energy security and our economic and national security depend on overcoming this gap.

Successfully developing and deploying a diverse and sustainable portfolio of new cutting-edge energy solutions will require basic research that produces scientific advances that leapfrog current technologies. Additionally, America must work to ensure a robust pool of home-grown human talent in energy-related disciplines.
Our country needs a comprehensive basic research initiative that:

1. Provides Strong and Stable Federal Funding For Energy Research and Education.
- Increase federal research support across federal agencies, including full funding of the America COMPETES Act, to strengthen and expand existing basic energy research and education efforts at universities and national laboratories;
- Support transformational energy research in which risk may be high, but success would provide dramatic benefits for the nation; and
- Develop new educational resources to support the infrastructure and talent base required to create a clean energy future with dramatically less foreign dependence.

2. Ensures Coordination Across Agencies and Disciplines.
- Develop a multi-agency strategy to coordinate basic energy research, including, principally, the U.S. Department of Energy, working with the Departments of Defense, Agriculture, and Transportation, National Science Foundation, National Institute of Standards and Technology, Environmental Protection Agency, and others;
- Invest in research not only in the physical sciences and engineering but also in the social and behavioral sciences, economics, and complex systems needed to understand which energy systems and technologies will be most effective and able to compete in the market; and
- Better connect basic energy research to applied research and development efforts to ensure that new basic research discoveries can be transferred quickly from academic and national laboratories to commercial markets to build new industries, create high-paying jobs, and address energy and environmental challenges.

We call on our national leaders to help create a brighter energy future for our nation and our children. No nation is better equipped than the United States to lead the development of the energy advances that will meet not only our future energy needs but those of the entire world, and in so doing create new U.S. jobs and businesses.

We stand ready to do our part.

ENDORSED BY

25x'25 Alliance
AeA
American Chemical Society
American Geological Institute
American Institute of Physics
American Mathematical Society
American Physical Society
American Society for Engineering Education (ASEE)
American Society of Heating, Refrigerating,
and Air-conditioning Engineers
American Society of Mechanical Engineers (ASME)
Association of American Universities
ASTRA, The Alliance for Science & Technology Research in America
Battelle
Biophysical Society
California Institute of Technology
Coalition for Academic Scientific Computation (CASC)
Columbia University
Computing Research Association
Consortium of Social Science Associations (COSSA)
Cornell University
Council of Energy Research and Education Leaders (CEREL)
Duke University
Energy Future Coalition
Energy Sciences Coalition
Fusion Power Associates
Indiana University

Intel
Iowa State University
Lawrence Livermore National Laboratory
Massachusetts Institute of Technology
Materials Research Society
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Microsoft Corporation
NASULGC, A Public University Association
National Council for Science and the Environment (NCSE)
The National User Facility Organization
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The Science Coalition Semiconductor Industry Association
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