

**Written Testimony Submitted by
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American Geosciences Institute
to the U.S. House of Representatives
Committee on Appropriations
Subcommittee on Energy and Water Development Appropriations
March 29, 2013**

To the Chairman and Members of the Subcommittee:

Thank you for this opportunity to provide the American Geosciences Institute's perspective on fiscal year (FY) 2014 appropriations for geoscience programs within the Subcommittee's jurisdiction. These important and modest investments in research and development (R&D) at the Department of Energy (DOE) will help develop and sustain energy resources for economic growth of resilient communities. **AGI strongly supports maintaining the pre-sequestration FY 2012 funding level for the Office of Science at \$4.875 billion. AGI requests support for the Office of Energy Efficiency and Renewable Energy and the Office of Fossil Energy. AGI requests additional support for educating the energy workforce of the future, particularly for the Science Graduate Fellowship Program within the Office of Science's Workforce Development for Teachers and Scientists. This important fellowship program should be funded at the FY12 level of \$5 million.**

AGI is concerned about the limited investments in oil and natural gas R&D within the Office of Fossil Energy. Oil and natural gas supply 62% of our nation's energy and will continue to play a major role in the future. The Office of Fossil Energy suffers from an unbalanced portfolio that focuses primarily on coal and carbon capture and sequestration technology. We ask for the Subcommittee's support for oil and gas, unconventional natural gas, methane hydrates, and carbon sequestration R&D so the nation can develop a diverse portfolio of energy resources while enhancing carbon mitigation strategies to secure clean, affordable, and secure energy supplies for now and the future.

We ask for increased investment in training students and workers for our energy and mining industries. We endorse the recommendation in a recent National Research Council report, *Emerging Workforce Trends in the U.S. Energy and Mining Industries: A Call for Action*¹, that federal agencies should provide increased research funding to universities to ensure enough qualified workers to fill jobs in these critical industries.

AGI is a nonprofit federation of 49 geoscientific and professional societies representing more than 250,000 geologists, geophysicists, and other Earth scientists. Founded in 1948, AGI provides information services to geoscientists, serves as a voice for shared interests in our profession, plays a major role in strengthening geoscience education, and strives to increase public awareness of the vital role the geosciences play in society's use of resources, resilience to hazards, and the health of the environment.

¹ http://www.nap.edu/catalog.php?record_id=18250

DOE Office of Science

The DOE Office of Science is the single largest supporter of basic research in the physical sciences in the United States, providing more than 40 percent of total funding for this vital area of national importance. The Office of Science manages fundamental research programs in basic energy sciences, biological and environmental sciences, and computational science. **AGI asks that you support the Office of Science at the pre-sequestration FY 2012 level of \$4.875 billion.**

The National Research Council's 2013 report, *Emerging Workforce Trends in the U.S. Energy and Mining Industries: A Call to Action*², found that while demand for energy and mining jobs will remain strong for the foreseeable future, there are not enough younger workers in the pipeline to replace the large amount of "baby boomers" expected to retire from industry. AGI's own 2011 report, *Status of the Geoscience Workforce*³, reported similar findings. Therefore, we strongly support investments in geoscience education, training, and workforce development within DOE, especially the Science Graduate Fellowship program within the Office of Workforce Development for Teachers and Scientists, to allow students to complete advanced training and to ensure a skilled workforce in energy-related sciences.

DOE Energy Efficiency and Renewable Energy

Within the Office of Energy Efficiency and Renewable Energy, we support important and modest investments for R&D for many renewable energy resources. **AGI supports the pre-sequestration FY 2012 level of \$38.1 million for the Geothermal Technologies program and greatly appreciates previous support from Congress for this key alternative energy resource.** The geothermal research program within the Renewable Energy account, which funds Earth science research in materials, geofluids, geochemistry, geophysics, rock properties, reservoir modeling, and seismic mapping, will provide the nation with the best research to build a successful and competitive geothermal industry. **AGI supports the newly established Critical Materials Institute** and hopes this hub will consider ways to improve exploration, extraction, and processing of necessary raw materials in addition to research on manufacturing and substitution.

DOE Fossil Energy Research and Development

AGI urges the Subcommittee to provide more balanced support for the Fossil Energy Research and Development (R&D) portfolio in the FY 2014 Energy and Water Development Appropriations bill. Many members of Congress have strongly emphasized the need for a responsible, diversified, and comprehensive energy policy for the nation. The growing global competition for fossil fuels has led to repeated and concerted requests by Congress to ensure the nation's energy security. Funding for oil and unconventional fossil energy R&D will greatly improve our ability to achieve energy stability and security.

² http://www.nap.edu/catalog.php?record_id=18250

³ <http://www.agiweb.org/workforce/reports.html>

The research dollars invested in petroleum R&D go primarily to universities, state geological surveys, and research consortia to address critical issues like enhanced recovery from known fields and unconventional sources that are the future of our natural gas supply. This money does not go into corporate coffers, but it helps American businesses remain competitive by giving them a technological edge over foreign companies. All major advances in oil and gas production can be tied to research and technology. AGI strongly encourages the Subcommittee to ensure a balanced and diversified energy research portfolio that does not ignore the nation's primary sources of energy for the near future, fossil fuels.

Thank you for the opportunity to present this testimony to the subcommittee. If you would like any additional information for the record, please contact Maeve Boland at 703-379-2480, ext. 228 voice, 703-379-7563 fax, mboland@agiweb.org, or 4220 King Street, Alexandria VA 22302-1502.