

Department of Energy – Experimental Program to Stimulate Competitive Research (EPSCoR)

The Department of Energy EPSCoR program consists of two grant programs: Implementation Grants and Laboratory Partnership Grants. It was created to assist research universities with developing their infrastructure, which would lead to additional contributions in the DOE research enterprise.

Implementation Grants

Grants consist of three-year awards of up to \$2.5 million, with possible extension for another three years. They are designed to build capacity in areas of interest to DOE. Idaho does not have any current DOE EPSCoR Implementation Grants.

The most recent response to a DOE EPSCoR request for proposals submitted in April 2014 and coordinated by the Center for Advanced Energy Studies, titled “Simulating the Performance of Cellular Material in Energy Systems: Multiscale Modeling, Visualization, and Experimental Imaging of Microstructural Evolution in Extreme Environments,” was not funded. Idaho’s previous award, Incorporation of Novel Nanostructured Materials into Solar Cells and Nanoelectronic Devices (2007-2011), involved partners at all three of Idaho’s public universities. It resulted in accomplishments toward the production of semiconductor nanoparticles, particles, and thin films and attempts to incorporate these materials into photovoltaics or sensors to use them for improving fluorescence diagnostics, or to employ them as cancer-fighting agents. A total of 20 graduate students, 33 undergraduate students, and five postdoctoral fellows received research training through the award.

Laboratory Partnership Grants

Grants provide \$200,000 per year for up to three years to allow EPSCoR researchers to work closely with the DOE national laboratories. Idaho has only one current Laboratory Partnership Grant – Fundamental Fluid Physics Studies for Energy Efficiency and Sustainability – for \$584,961 over three years. It is led by the University of Idaho, in partnership with Boise State University and the Idaho National Laboratory. This fundamental research in experimental and computational fluid physics is helping to increase energy efficiency and sustainability. Applications include increased efficiency in nuclear and fossil power plants, turbine blade aerodynamics, heat exchangers, wind turbines, urban aerodynamics, fusion energy, and underwater bodies. It also contributes new knowledge to DOE programs in nuclear energy and energy efficiency.

Idaho offers significant energy research potential, and additional funding would invest in basic research that will attract the best minds and top researchers to Idaho, develop far-reaching technological innovations at institutions of higher education, and spin off new industries in states that have traditionally received less competitive federal R&D funding. DOE EPSCoR investments stand to improve the research capacity of the University of Idaho, Boise State University, Idaho State University, the Center for Advanced Energy Studies, the Idaho National Laboratory, and others, to the benefit of Idaho and the nation.

Increased participation in the DOE EPSCoR program is difficult due to the program consistently being underfunded at about \$8.5 million to be competed for among universities from 28 eligible jurisdictions.

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For more information, please contact:

John K. “Jack” McIver, Vice President for Research and Economic Development
vpresearch@uidaho.edu | 208.885.6689 | www.uidaho.edu/research/federal-relations