

# NUCLEAR ENERGY UNIVERSITY PROGRAMS

The U.S. Department of Energy's Office of Nuclear Energy

*DOE is committed to strengthening the Nation's nuclear education infrastructure.*

**T**he Office of Nuclear Energy (NE) supports the Department of Energy's (DOE) development of advanced nuclear science and technology through its Nuclear Energy University Programs (NEUP). NEUP funds nuclear energy research, and helps train the next generation of the nuclear energy workforce through equipment purchases and infrastructure upgrades at U.S. colleges and universities. Additional student education support is provided by undergraduate scholarships and graduate-level fellowships through the Integrated University Program (IUP) when funds are provided.

NEUP's goal is to support outstanding and innovative nuclear energy research at U.S. universities. The program aims to:

- Fund creative research that can potentially produce breakthroughs in nuclear energy related technologies;
- Integrate research and development (R&D) at universities with national laboratories and industry to revitalize nuclear education;
- Improve university and college infrastructure for conducting R&D and educating students; and
- Facilitate the transfer of knowledge from an aging nuclear workforce to the next generation of workers.

To accomplish these goals, NE will support:

- Nuclear energy R&D related to the program and mission;
- Program-directed integrated research projects;
- Infrastructure and equipment upgrades; and
- Student scholarships and fellowships when funds are provided.



## NUCLEAR ENERGY R&D RELATED TO THE PROGRAM AND MISSION

NEUP seeks to conduct nuclear energy research at U.S. colleges and universities to further NE's programmatic needs and DOE's mission and goals. The program supports R&D projects focused on the research needs and priorities of the Reactor Concepts Research, Development and Demonstration (RCRD&D), NE Fuel Cycle R&D (FCR&D), and Nuclear Energy Advanced Modeling and Simulation programs.



*Center for Advanced Energy Studies at Idaho National Laboratory — a public/private partnership that integrates resources, capabilities and expertise to create new research capabilities.*

## PROGRAM DIRECTED INTEGRATED RESEARCH PROJECTS

NEUP seeks to support program-directed research at U.S. universities through focusing on specific NE programmatic areas of investigation through large research projects. These projects benefit from the involvement of multiple universities (including minority-serving institutions), as well as industry, international, and national laboratory partners.

## INFRASTRUCTURE AND EQUIPMENT

NE recognizes that U.S. universities require proper support to conduct cutting-edge research and educate the next generation of nuclear science and engineering students. Infrastructure grants will be available for equipment and instrumentation for research reactors, other specialized facilities, classrooms and laboratories, and non-reactor nuclear science and engineering research required to advance nuclear energy education and to support the university departmental missions.

## AWARD PROCESS

In FY 2013, NE will continue to designate up to 20 percent of funds appropriated to its R&D programs for nuclear energy research to be performed at university research institutions. These competitively awarded funds will support NE program needs.