



**Energy Department Announces
New Nuclear Energy Innovation Investments**
*Sixteen Awards to Advance Cross-cutting R&D,
Train Next Generation of Industry Leaders*

WASHINGTON - Underscoring the Obama Administration's commitments to restarting the nation's nuclear industry and promoting education in science, technology, engineering and math, the Energy Department announced today nearly \$13 million in new nuclear energy innovation investments.

"Today's awards will help train and educate our future nuclear energy scientists and engineers, while advancing the technological innovations we need to make sure America's nuclear industry stays competitive in the 21st century," said Energy Secretary Steven Chu. "These investments in U.S. universities, national labs and industry advance the Obama Administration's efforts to restart our nation's nuclear industry as part of an all-of-the-above energy strategy."

Reducing Costs, Improving Performance of Nuclear Reactor Technologies

Today, the Energy Department is announcing a \$10.9 million investment across 13 projects to help solve common challenges across the nuclear industry and improve reactor safety, performance and cost competitiveness. These projects fall under two categories:

- Advanced Methods for Manufacturing (total \$3 million, 4 projects) to improve the production and design efficiency of nuclear plant components including advanced concrete construction methods, near-net shape fabrication methods and joining processes that can be used in small modular reactor manufacturing.
- Reactor Materials (total \$7.9 million, 9 projects) to conduct research into advanced reactor materials for piping, wiring cladding and other related structures in nuclear reactors and across the nuclear fuel cycle.

Find additional detail and project descriptions

http://www.nuclear.energy.gov/nuenentech/pdfs/NEET%20Award%20Tables_Final.pdf.

Training the Next Generation of Nuclear Leaders

Additionally, the Energy Department announced today a \$1.6 million investment in three university-led projects, helping to train and educate the next generation of nuclear energy scientists and engineers. Through the Advanced Test Reactor National Scientific User Facility Program (ATR NSUF) and the Nuclear Energy University Programs (NEUP), these projects will connect university teams with a national network of ATR NSUF partner research reactors and other unique research facilities. Today's awards, subject to final negotiations, include:

- Pennsylvania State University, along with scientists from the Pacific Northwest National Laboratory, will lead an experiment at the Massachusetts Institute of Technology research reactor. The project will assess instruments that allow operators to better monitor changes in nuclear reactor material properties when the reactor is producing power. (DOE Award: \$600,000)
- University of Illinois will perform their experiment at the Illinois Institute of Technology's beamline at Argonne National Laboratory's Advanced Photon Source accelerator. The project will evaluate the changes that steel experiences under radiation. Ensuring that steel can withstand radiation at high temperatures is critical to moving forward with advanced reactors. (DOE Award: \$100,000)
- University of Michigan, along with scientists from Oak Ridge National Laboratory, will conduct research at the university as well as at Idaho National Laboratory. The project will examine whether post-irradiation heating can reduce or eliminate cracks in steel that can occur in light water reactors materials after years of operation. The research will help to understand why these cracks occur and how they might be reduced without costly component replacements. (DOE Award: \$907,000)

Since 2007, the ATR NSUF Program has invested over \$57 million in more than 40 experiments at the program's research reactor facilities. Over the past four years, the Department's Nuclear Energy University Programs have invested \$219 million in 220 research projects at 79 U.S. universities and colleges, demonstrating its strong commitment to training and educating the next generation of leaders in America's nuclear industry.

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