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Deputy Secretary Poneman Announces Team led by Oak Ridge National Lab Selected to Receive up to $122 Million for Nuclear Energy Innovation Hub

WASHINGTON, D.C. – As part of a broad effort to spur innovation and achieve clean energy breakthroughs, U.S. Deputy Secretary of Energy Daniel Poneman today announced the selection of a team led by Oak Ridge National Laboratory (ORNL) for an award of up to $122 million over five years to establish and operate a new Nuclear Energy Modeling and Simulation Energy Innovation Hub. The Hub, which includes partners from universities, industry and other national labs, will use advanced capabilities of the world's most powerful computers to make significant leaps forward in nuclear reactor design and engineering.

"The Nuclear Energy Innovation Hub is a critical element in our efforts to re-establish American leadership in nuclear energy research and development," said Deputy Secretary Poneman. "We need to rev up the great American innovation machine to find solutions to our energy challenges and promote American competitiveness. With the Hubs, we are taking a page from America's great industrial laboratories in their heyday and building creative, highly-integrated research teams that can accomplish more, faster, than researchers working separately."

The Nuclear Energy Innovation Hub is one of three Hubs that will receive funding in FY10. The Hubs are large, multidisciplinary, highly-collaborative teams of scientists and engineers working over a longer time frame to achieve a specific high-priority goal, like developing fuels from sunlight in an economical way and making buildings more energy efficient. They will be managed by top teams of scientists and engineers with enough resources and authority to move quickly in response to new developments. Selections for the other Hubs will be announced over the coming months.

Specifically, the Nuclear Energy Innovation Hub will allow engineers to create a simulation of a currently operating reactor that will act as a "virtual model" of that reactor. They will then use the "virtual model" to address important questions about reactor operations and safety. This will be used to address issues such as reactor power production increases and reactor life and license extensions. The combination of data gained from the "virtual model" and the physical reactor will be used to resolve technology issues confronting nuclear energy development in the near, mid, and long terms.

The Nuclear Energy Innovation Hub will be located at the ORNL site near Oak Ridge, Tennessee. In addition to ORNL, the members of the team are:

- Electric Power Research Institute (EPRI), Palo Alto, California
- Idaho National Laboratory, Idaho Falls, Idaho
- Los Alamos National Laboratory, Los Alamos, New Mexico
- Massachusetts Institute of Technology, Cambridge Massachusetts
- North Carolina State University, Raleigh, North Carolina
- Sandia National Laboratories, Albuquerque, New Mexico
- Tennessee Valley Authority, Knoxville, Tennessee
- University of Michigan, Ann Arbor, Michigan
- Westinghouse Electric Company, Pittsburgh, Pennsylvania

The Hub will be funded at up to $22 million this fiscal year. The Hub will then be funded at an estimated $25 million per year for the next four years, subject to Congressional appropriations. More information on the Hubs can be found at: http://www.energy.gov/hubs/

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By Brad Bugger