

Penn State Receives \$5 million for Smart Grid Workforce Development

Penn State has received a \$5 million grant from the U.S. Department of Energy for workforce training and development in smart electrical grids.

The government program is designed to modernize the nation's electrical grid and implement smart grid technologies in communities across the country.

The grant will fund the proposal "Workforce Training for the Electric Power Sector" and create the Smart Grid Training and Application Resource (GridSTAR) Center. The project's principal investigator is David Riley, professor of architectural engineering and director of the Center for Sustainability.

"We need a smarter grid to improve the efficiency and security of our nation's energy networks," Riley explained. "Building and managing the smart grid will create many types of new jobs that will require significant education and training of the workforce."

The GridSTAR Center's mission will be to provide continuing education and train-the-trainer programs in advanced power systems design, energy economics, cyber security, distributed energy systems and building-vehicle-grid systems. The center will also complement the new Clean Energy Application Center and Solar Education and Training Centers initiated by Penn State in 2009.

"A smarter grid is needed to take advantage of alternative sources of energy," Riley said. "Together these three programs will help expand the adoption of clean energy in our region including biomass, solar and wind energy generation."

Penn State Outreach will play an ongoing role in the effort by providing project management, economic analysis, tracking, reporting and instructional design of workforce development curriculum. Tim Franklin, who oversees the Office of Economic and Workforce Development at Penn State, and his team helped shape the design of the program.

GridSTAR will be operated jointly by the College of Engineering and Penn State Outreach. Plans call for the establishment of two satellite locations: one at the Philadelphia Navy Yard and another at the Pittsburgh Green Innovators facility. The Pennsylvania Commonwealth Finance Authority has also pledged support for the research and education facilities at both of these locations in support of the GridSTAR Center.

Funding for Penn State's three-year grant comes from the Smart Grid Workforce Training and Development Recovery Act, which is providing \$100 million to provide smart grid training for 30,000 Americans. The Penn State grant is one of 54 smart grid workforce training program grants announced by U.S. Secretary of Energy Steven Chu on April 8.

According to a press release by the Department of Energy, the program will focus on training activities that support electricians, line workers, technicians, system operators, power system engineers, cyber security specialists and transmission planners. Training topics will include transmission and distributed systems, as well as new intelligent grid systems such as smart meters, phasor measurement sensors and advanced communication networks.

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