Grantee: The College of Technology at Idaho State University

Industry Focus: Energy

Key Partners: The Idaho National Laboratory, the Idaho Department of Commerce and Labor, Partners for Prosperity (a community and economic development nonprofit), the Center for Advanced Energy Studies, Nida Corporation, Idaho Power Company, AREVA, Entergy Corporation, Idaho Tech Prep Program, Idaho Migrant Council, Inspiring Girls Now in Technology Evolution (IGNITE), and the Regional Coordinating Council

Grant Amount: $1,996,958

Leveraged Amount: $1,048,825

Location of Grant Activities: Idaho

Challenge: The demand for advanced devices and technologies creates increasing demand for technicians with mechanical, electrical, and instrumentation and control skills, who can build, install, maintain, calibrate, troubleshoot, and repair energy-related components, systems, and facilities. The growing need for mechanical, electrical, and instrumentation and control (I&C) technicians within the energy sector is documented in workforce surveys by the American Public Power Association and Nuclear Energy Institute, revealing that the workforce in these disciplines is shrinking at an alarming rate. Retiring workers are not being replaced as quickly as they are leaving. There is no regional capacity to train the needed workforce to build, operate, or maintain these facilities.

Addressing the Challenge: The College of Technology at Idaho State University will create the Energy Systems Technology and Education Center (ESTEC) for the specific purpose of training in-demand engineering technicians. Graduates of the Center will be trained in industrial applications across all electrical generation sources including fossil, nuclear, renewable, etc. The Center will have both an instructional and industrial focus. The industrial focus will be on applied industrial research and increasing ties to utilities and energy product vendors to develop, demonstrate, test, and innovate their products. Students and faculty will be used to develop testing regimens and to measure and trend subject component performance and functions.

Projected Outcomes:

- Train 265 incumbent workers and degree-seeking students
- Develop Accreditation Board for Engineering & Technology (ABET)-accredited Associate of Applied Science degrees, including workforce training and development in the areas of Energy Systems Mechanical Engineering Technology, Energy Systems Electrical Engineering Technology, and Energy Systems Instrumentation and Control Engineering Technology
- Create and maintain energy technician degree programs and an energy sector competency model
- Develop the K-12 pipeline into ESTEC programs