



USVI Stakeholder Workshop: Promoting Green Jobs

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Overview

- Outline EERE's strategy for workforce development and education
- Challenges
- Current and Proposed Activities
- New Opportunities: Learning Technologies

EERE's Education and Workforce Development Subprogram

Goals:

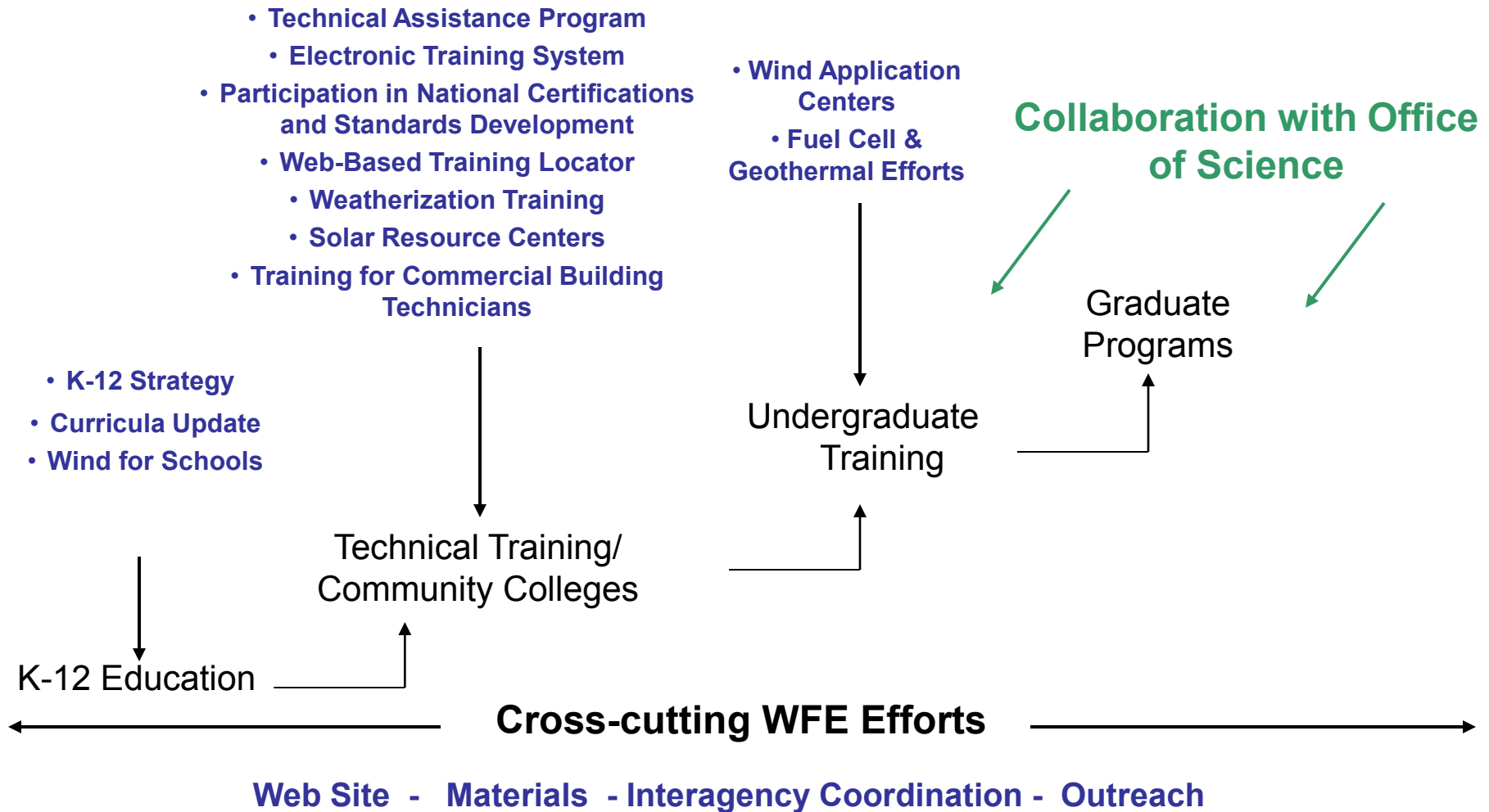
- **Industry:** Ensure development and execution of standardized, high-quality training programs to train workers to meet current EERE needs in all sectors of the economy
- **Education:** Create a pipeline beginning at the K-12 level to ensure ongoing development of a workforce needed to carry out invention and scale-up of EERE technologies and processes over the long-term
- **Advanced Technologies:** Design and deploy IT tools that can support education and training work conducted by EERE grantees and contractors to improve learning outcomes



Drivers

- Climate Change
 - New and existing mandates will drive job growth in energy efficiency and renewable energy sectors for years to come
- Workforce Transformation Needed
 - While numbers of jobs may not change in some sectors (e.g., buildings, vehicles), retraining and new training will be needed to create a workforce capable of maximizing energy efficiency and use of renewable energy.
 - General trends are relatively predictable; more difficult to project needs within each job category and energy sector.

EERE Activities Across the Education / Training Pipeline



Major DOE Recovery Act Activities related to Workforce Development & Training

- Office of Electricity Delivery and Energy Reliability (\$100 million)
 - Development and execution of training programs for workers involved in the utility sector
- Solar Market Transformation (\$15 million)
 - Development of solar installer curriculum, certification standards, accreditation programs, as well as hands-on professional development, mentoring and networking opportunities for instructors
- Commercial Buildings (\$7.5 million)
 - Development of training programs, curricula, certification requirements, and accreditation standards for variety of positions involved in the energy efficiency of commercial buildings.
- Weatherization (up to \$1 billion)
 - Development, execution, and standardization of training programs for energy efficiency technicians involved in residential building energy retrofits
- DOE-DOL-Education MOU
 - Enhanced collaboration among the three agencies on a variety of EERE workforce and education efforts
 - Working groups to pilot cross-agency coordination in solar, wind and building retrofits

EERE Focusing on Near and Long-Term Workforce Needs

Today

2020 and beyond

Building Trades

- Weatherization workers
- Commercial buildings and home energy auditors
- Operations & maintenance professionals
- HVAC and other technicians

Renewable Energy

- Solar PV installers
- Windsmiths
- Turbine manufacturers
- Geothermal Heat Pump Installers

Energy Efficiency

- Professionals across variety of disciplines with expertise in energy efficiency in buildings, industry, transportation, utilities for positions in research and industry

Renewable Energy

- Highly trained professionals for biomass, solar, wind, geothermal, hydrogen, hydropower research and industry positions
- Grid operators with expertise in renewables

Other EERE Efforts

- Technical Assistance and Outreach
- K-12 Education Programs
- Virtual Learning & Training Platform

Technical Assistance and Outreach

- Technical Assistance Program
 - Leverage national laboratory expertise in EERE topics
 - Community colleges, universities, training centers
- Web Site
 - EERE Energy Education and Workforce Development Web Site
 - Create web-based training locator and other tools
- Collaboration with Industry and Other Stakeholders
 - Assist industry in expedited development of certifications and standards for priority job categories
 - Get industry input in development of training modules

K-12 Efforts: Feeding the EERE Workforce Pipeline and Creating An Informed Public

- In the process of developing a targeted K-12 strategy
- Likely activities will include:
 - Develop and widely share repository of outstanding EERE-related curricula
 - Design and assist implementation of an articulation agreement with one or more states thru Dept of Education model
 - Partnerships with organizations that can influence curricula in individual schools, counties, states (e.g., NSTA, Association of State Education Department Heads)
 - Additional collaboration with Scholastics, Scouts, 4-H or other education-related organizations

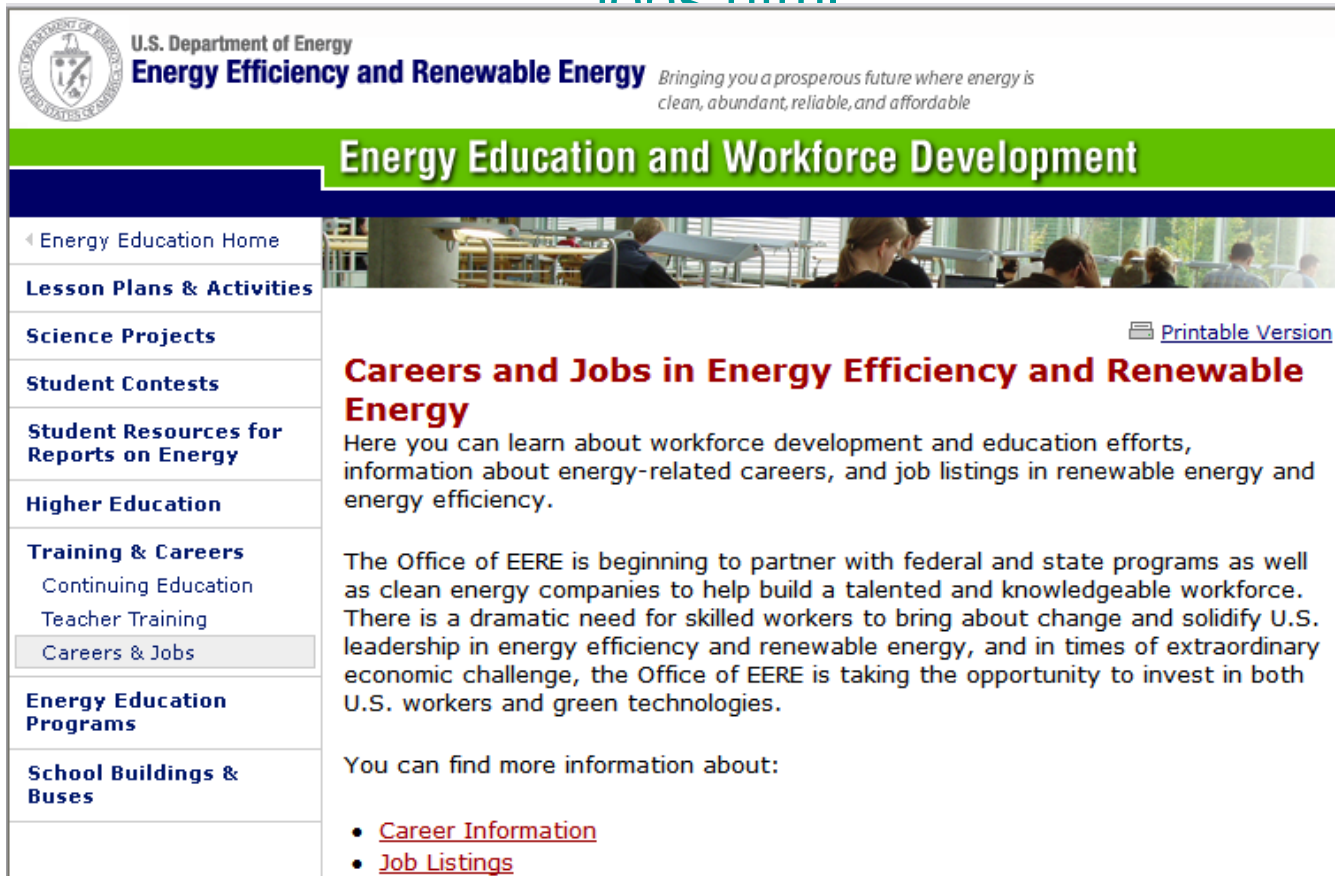
Virtual Learning & Training Platform

- To *increase interoperability* among online learning and training materials and *facilitate the development and use* of advanced learning technologies (e.g. games, simulations, virtual worlds)
- Includes tools for:
 - verifying a user's credentials;
 - enabling collaborative creation, modification and use;
 - peer review;
 - uploading, accessing and storing digital materials, behaviors and metadata;
 - contacting and managing development teams (linking subject matter experts to experts in creating virtual objects);
 - creating and rating learning modules and assessments (e.g. a performance based challenge); and
 - rights management
- Will be launched through EERE's Weatherization Program with targeted training modules
- Welcome discussions to incorporate other educational and training materials


Thank you!

For more information, see our website:

http://www1.eere.energy.gov/education/clean_energy_jobs.html



The screenshot shows the U.S. Department of Energy website page for Energy Education and Workforce Development. The page features a green header with the title "Energy Education and Workforce Development" and a blue navigation sidebar on the left. The main content area includes a section titled "Careers and Jobs in Energy Efficiency and Renewable Energy" with a sub-header "Careers and Jobs" highlighted in the sidebar. The text describes the Office of EERE's partnership with federal and state programs to build a talented workforce. A "Printable Version" link is visible in the top right of the main content area.

 U.S. Department of Energy
Energy Efficiency and Renewable Energy *Bringing you a prosperous future where energy is clean, abundant, reliable, and affordable*

Energy Education and Workforce Development

◀ Energy Education Home

Lesson Plans & Activities

Science Projects

Student Contests

Student Resources for Reports on Energy

Higher Education

Training & Careers

- Continuing Education
- Teacher Training
- Careers & Jobs**

Energy Education Programs

School Buildings & Buses

[Printable Version](#)

Careers and Jobs in Energy Efficiency and Renewable Energy

Here you can learn about workforce development and education efforts, information about energy-related careers, and job listings in renewable energy and energy efficiency.

The Office of EERE is beginning to partner with federal and state programs as well as clean energy companies to help build a talented and knowledgeable workforce. There is a dramatic need for skilled workers to bring about change and solidify U.S. leadership in energy efficiency and renewable energy, and in times of extraordinary economic challenge, the Office of EERE is taking the opportunity to invest in both U.S. workers and green technologies.

You can find more information about:

- [Career Information](#)
- [Job Listings](#)