



## Summary

# US Dept. of Energy Smart Grid Workforce Training Grant

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This document was prepared by CEWD and is intended as an overview only. Applicants should review the complete Funding Opportunity Announcement found at [FedConnect](#)

**Title:** Recovery Act – Workforce Training for the Electric Power Sector

**Funding Opportunity Number:** DE-FOA-0000152

**Application Due Date:** 11/30/2009 at 3:00 PM EST

**Funding Available:** \$100,000,000

**Overview:** This FOA covers two broad topics. Topic A is Developing and Enhancing Workforce Training Programs for the Electric Power Sector. Topic B is Smart Grid Workforce Training. DOE seeks applications that will support and greatly expand job creation and career advancement opportunities within the utility industry and the electric power system equipment manufacturing sector.

**Job categories included:** technicians and skilled workers, as well as utility energy efficiency program staff, cyber security experts, transmission planners, and system operators.

**Eligible applicants:**

All types of domestic entities are eligible to apply, except other Federal agencies, Federally Funded Research and Development Center Contractors, and nonprofit organizations that engaged in lobbying activities after December 31, 1995. Power Marketing Administrations and Tennessee Valley Authority may apply for a lead or prime role. Other Federal agencies, DOE's national laboratories and all Federally Funded Research and Development Centers are eligible only for supporting roles

### Topic A - Developing and Enhancing Workforce Training Programs for the Electric Power Sector

**Funding available for this topic:**

25 – 35 grants totaling \$35 – 40 M, up to \$750,000 per award

STEPS portion is 8-10 grants totaling \$20M, up to \$2,500,000 per award

**Focus:** **new training strategies and programs** for the electric power sector, with focus on achieving a national, clean-energy smart grid. This includes the entire electricity delivery system, both transmission and distribution, as well as related electrical equipment manufacturing.

Applications shall identify

- Specific job classification(s) that will be targeted for training, and the skills
- Deficiencies that will be addressed through the workforce improvement efforts.
- Long-term workforce challenges may be highlighted, but the emphasis should be on the **next five years**.
- An assessment of the employment demand for that job (and/or improved skills) in the electric power sector and/or the supporting manufacturing base.
- Considerations that were made in determining the geographic location for the training program.

New training programs must address

- Identified gaps in training needs, with respect to any combination of curriculum, capacity and accessibility of current training opportunities.
- A comprehensive overview of training practices in use today for the specified job classification(s), and
- How the new training strategy would enhance the training experience.
- Lack of access to existing training activities

The Applicant must

- Demonstrate familiarity with the electric power system and needed workforce skill sets
  - **CEWD Reference:** Energy Competency Model, job task analysis, job specific skills, Gaps in the Energy Workforce Supply Report
- Explain why skills deficiencies exist and why they are not currently being met
  - **CEWD Reference:** Grant support documentation
- Possess the necessary expertise and resources to support specialized training in smart grid technologies (if applicable), or clearly demonstrate a plan and ability to obtain these resources
- Provide clear pathways for skill development and achieving industry-recognized credentialing, such as registered apprenticeships, degrees, or certificates
  - **CEWD Reference:** Get Into Energy Career Pathways
- Demonstrate ability to or discuss approach/plan to enhance transportability of credentials geographically and within all segments of the industry
- **CEWD Reference:** GIECP and Grant support documentation
- Demonstrate ability to or discuss approach/plan to expand the training capacity to rapidly meet the demand for skilled smart grid workers
  - **CEWD Reference:** GIECP and Grant support documentation
- Demonstrate ability to or discuss approach/plan to build awareness about the training programs and smart grid careers
  - **CEWD Reference:** Get Into Energy website and branding material
- Demonstrate ability to or discuss approach/plan to establish and maintain strong partnerships with electric power companies and/or smart grid technology manufacturers and demonstrate how these partnerships will enhance national training efforts
  - **CEWD Reference:** State Energy Workforce Consortia
- Demonstrate ability to or discuss approach/plan to maintain effective relationships with State agencies, local communities, and other stakeholders to help shape future training partnerships and opportunities
  - **CEWD Reference:** State Energy Workforce Consortia

## **Strategic Training and Education in Power Systems (STEPS)**

[NOTE: STEPS is a subtopic within Topic A, however, applications to STEPS will be **separately evaluated** from the other applications in Topic A. Applicants choosing to apply to this focused subtopic shall address the items listed above **and** the criteria in Section V.A.]

**Focus:** to support educators at universities and colleges (including community colleges) in developing new curricula and training activities in areas most relevant to the achievement of a

next-generation electric power workforce with solid technical understanding and innovativeness to address our energy challenges and to ensure U.S. global leadership.

Applications are sought that:

- develop cross-disciplinary electric power systems training programs at the university and college-level, that lead to degrees or certificates that span the breadth of science, engineering, social science, economics, and other topics needed by scientists, engineers, innovators, entrepreneurs, and industry leaders as the traditional power system transforms into a national, clean-energy smart grid.
- May also include development of certificate programs for training technicians and teachers in science, technology, engineering and math (STEM) subjects, with a focus on electric power systems.

## **Topic B. Smart Grid Workforce Training**

**Funding available for this topic: 15 – 20 awards totaling \$60 to \$65 M, up to \$5,000,000 per award**

**Focus: provide training for electric power sector personnel**, necessary for successful achievement of a national, clean-energy smart grid. This includes the entire electricity delivery system, both transmission and distribution, as well as related electrical equipment manufacturing. Training assistance is NOT limited to the training programs identified in Topic A; for instance, funding **can support activities within existing training programs or alternative approaches**.

Individuals eligible for training include workers that:

- 1) Increase the workforce capacity and capability of electric power companies and smart grid technology manufacturers to implement ARRA electricity-related activities;
- 2) Address skills shortages in the power sector, especially in the area of transmission planners, system operators, utility energy efficiency staff, lineworkers, electricians, technicians, and other skilled trades; and/or
- 3) Need updated training to support a national, clean-energy smart grid.

Applications must identify and quantify, where appropriate,

- The workforce challenges/gaps that need to be addressed in terms of acquiring/hiring, retaining, and training personnel.
- Job classification(s) that will be targeted for training, and the skills deficiencies that will be addressed through the training.
- A training plan to build the needed capacity and/or capability as funded by this FOA.

In addition, applications must

- Assess the project's economic impact over the life of the project period, and be based on quantitative data (e.g. nature and type of position; duration of employment; salary). This discussion includes:
  - a) number of trained personnel hired by the electric power companies and/or smart grid technology manufacturers attributable to the performance of the project;

- b) number of individuals trained in smart grid-related topical areas, resulting in increased per capita income and/or enhanced career opportunities attributable to the performance of the project; and
  - c) any other direct economic recovery impacts attributable to the performance of the project.
- Describe how it intends to disseminate lessons learned.