



Request for Information
DE-FOA-EE0000392
“Solutions for Wind Industry Workforce Development”

Date: 6/29/2010

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Information Requested: Input is requested from the public on a draft Wind Industry Workforce Development roadmap. The current draft of the roadmap document can be obtained here:

http://www.windpoweringamerica.gov/pdfs/wpa/2010/workforce_roadmap.pdf.

This is a Request For Information (RFI) only and not a Funding Opportunity Announcement (FOA). No funding is available with this RFI.

Background and Rationale: The Wind and Water Power Program (WWPP) within the Department of Energy's Office of Energy Efficiency and Renewable Energy (DOE-EERE) is leading the nation's efforts to improve the performance and operability of wind energy technologies and lower the cost of wind energy. The WWPP also investigates emerging water power technologies and seeks to enhance the environmental performance and efficiencies of conventional hydropower technologies. To find more information about the WWPP, please visit <http://www1.eere.energy.gov/windandhydro/>.

The Department of Energy (DOE) is seeking input from the public to identify the most significant barriers to the development of the future wind energy workforce, and to identify innovative solutions for developing that workforce by providing future workers with the education and skills necessary to join the wind energy industry. This input will be considered during the development of the next version of the Wind Industry Workforce Development roadmap. The final version of the roadmap will be posted on the WWPP website.

The information collected by this RFI also will be used for internal DOE planning and decision-making to align future program activities with the Administration's goals for increased use of renewable energy and the creation of domestic jobs. Interested parties to this RFI might include, but are not limited to: wind energy developers, service

companies, investors, manufacturers, Native American Tribes, renewable energy equipment suppliers, electric utilities, independent power producers, environmentalists, academics, and other public, private, or non-profit entities. DOE seeks to expand its wind energy education and workforce development activities in collaboration with industry, academia, other programs within DOE-EERE and other Federal workforce and green jobs programs, and with the states. The impetus for this focus is based on the projected number of jobs necessary to support a 20% wind scenario as outlined in the DOE report: [20% Wind Energy by 2030: Increasing Wind Energy's Contribution to U.S. Electricity Supply](#).

The report, which was released in May 2008, illustrates the feasibility of integrating 20% wind energy into the U.S. electrical grid. The report outlines a scenario in which the United States could reach over 300 gigawatts (GW) of installed wind power by 2030. The scenario presented in the report is not suggested national policy; rather it depicts what a vibrant wind industry could mean for the nation and lays out a potential growth path, while identifying challenges that may limit that potential. In order to meet the 20% target, the report estimates the wind power industry will require approximately 500,000 workers by the year 2021. Based on the report's assumptions, approximately 16 GW of installed capacity will be added per year by the end of this decade with an annual average employment need of:

- 47,000 construction-related jobs
- 22,300 manufacturing-related jobs
- 3,600 other sector jobs related to construction
- 66,000 jobs related to project development; e.g., bankers, attorneys, engineers
- An undetermined number of additional industry participants including researchers, educators, scientists and others not directly related to the installation of specific wind installations (See 20% Wind Energy by 2030 report, appendix C)

In 2008, the U.S. wind industry installed approximately 8.4 GW and employed an estimated 85,000 people (American Wind Energy Association). The U.S. wind industry installed nearly 10 GW in 2009, maintaining a workforce of about 85,000. Using these initial figures, two potential estimates for expanded industry growth range from the need for an additional 85,000 people to allow a doubling of the current installed capacity, to approximately 54,000 new people to support the difference between the current workforce and that identified in the *20% Wind Energy by 2030* report. To maintain the schedule described in the report, these workforce additions are required over the next 5 years.

While other U.S. energy industries have extensive training infrastructures in place, minimal infrastructure currently exists for the wind industry. For example, DOE provides funds through the Nuclear Energy University Programs to support scholarships,

fellowships, infrastructure development, paid research, and supporting events to ensure a steady stream of engineers and scientists entering the nuclear field. Additionally, the Schools of Mines in Colorado, South Dakota, Nevada, Montana and other states all support training of engineers and other professionals for the oil, natural gas, and coal industries. A small number of universities and community colleges are beginning to develop education and/or training programs for wind energy careers. There is a short-term need for wind technical experts and individuals who can deploy and maintain wind projects, as well as a long-term need to develop educational pathways to support the growth of the industry. This includes the development of continuity between all levels of the educational sector, the training of teachers and professors to expand the knowledge base, and the development of pathways to allow individuals currently in related fields to obtain the expertise they will need to transition to professions in the wind energy industry.

DOE is working strategically to develop a workforce for the wind industry along with a populace that understands wind energy applications and issues. DOE conducts workforce development activities in collaboration with industry, educators, government entities and other workforce development stakeholders. Activities include workshops, state and regional planning meetings, support for wind application centers under the Wind for Schools project and other education initiatives (see http://www.windpoweringamerica.gov/schools_wfs_project.asp).

Request for Information Guidelines: The sole purpose of this Request for Information (RFI) is to gain input from the public regarding potential wind energy workforce development activities. This does not constitute a request for specific project proposals.

DOE will not pay for information provided under this RFI, and there is no guarantee that future funding opportunities or other activities will be undertaken as a result of this RFI.

Please send your response (one attachment only) via email, with the title, "RFI Response" to WindRFI@go.doe.gov. Your response should be **limited to 3 pages**, submitted in Microsoft Word or Adobe PDF as an email attachment to the address above and received **no later than 8:00 PM Eastern Daylight Time on 7/30/2010**. **Please note that this mailbox will accept RFI responses only. Any questions regarding the RFI must be posted on FedConnect, as instructed below.**

Please include as part of your response contact name(s), phone number(s), email addresses, organization name, address, and type of business or institution.
RESPONSES WILL NOT BE CONSIDERED CONFIDENTIAL. DO NOT INCLUDE ANY CONFIDENTIAL OR PROPRIETARY INFORMATION IN YOUR RESPONSE.

DOE reserves the right not to reply to any or all comments or questions submitted under this RFI.

Any questions regarding the RFI must be posted on FedConnect. You must register with FedConnect to submit questions and to receive responses to questions. It is recommended that you register as soon after release of the RFI as possible to have the benefit of all responses. More information is available at https://www.fedconnect.net/FedConnect/PublicPages/FedConnect_Ready_Set_Go.pdf.

DOE will try to respond to a question within 3 business days, unless a similar question and answer have already been distributed.

Questions pertaining to the submission of information through FedConnect or the FedConnect system should be directed by e-mail to support@FedConnect.net or by phone to FedConnect Support at 1-800-899-6665. Questions should not be sent to DOE through any other means beyond what is described here.

Rationale or Justification: The information being sought under this RFI is intended to assist DOE and the wind industry in further developing wind energy workforce development activities.

Requested Information: Input is requested from the public on a draft Wind Industry Workforce Development roadmap. The current draft of the roadmap document can be obtained here: http://www.windpoweringamerica.gov/pdfs/wpa/2010/workforce_roadmap.pdf.

DOE-EERE WWPP invites comments and suggestions on all aspects of workforce development in the wind energy industry including but not limited to:

- What desired outcomes should be expected from a successful workforce development program? (See page 7 of the draft Wind Industry Workforce Development roadmap document for examples of current outcomes.)
- What should be the priorities of a WWPP wind workforce development strategy and why? (e.g., curriculum development, funding support, infrastructure development, capacity building)
- What specific roles should the WWPP play to support and not conflict with private or other public training programs? (e.g., standards development, certification support, convener, curricula review, technical support)
- What mechanisms should be used (beyond funding specific programs or organizations) to tackle these problems? (e.g., instituting social networks, offering competitions, developing publications, supporting informal education)
- What organizations should WWPP develop strategic partnerships with and why? (e.g., industry, trade organizations and various levels of government, including Federal agencies such as Department of Labor, Education, traditional educational institutions and less traditional educational institutions like museums)

- What programs currently exist that can be emulated? (e.g., European Academy of Wind)
- Describe any specific stages in wind education and workforce development not currently being served which WWPP could address. (Include specific technical skills or un-served groups.)

Thank you. The Department of Energy appreciates the time and effort you put forth in responding to this Request for Information.