



## **Request For Information Geothermal Workforce Education Development and Retention DE-PS36-09GO39004**

**Responses Due: January 30, 2009**

**Program Manager / Area:** Edward J. Wall, Program Manager, Geothermal Technology Program (GTP)

### **Description**

This is a Request For Information (RFI). NO FUNDING APPLICATIONS WILL BE ACCEPTED AT THIS TIME. Information from the RFI may be used to develop a funding vehicle or action plan to address challenges in geothermal education, workforce development, and retention.

The U.S. Department of Energy's Geothermal Technology Program (GTP) is working with industry and educators to address important challenges in the geothermal program under authorities such as 42 U.S.C. Section 7381(b) of the Department of Energy Education Enhancement Act, and the Energy Policy Act of 2005, Section 931(a)(2)(C). Glitnir Geothermal Research's 2008 United States Geothermal Energy Market Report asserts that human capital will be a bottleneck to advancing geothermal energy technology and could delay development of Enhanced Geothermal Systems (EGS) technology.

The limited capability for meeting this need is further illustrated by the current lack of formal university degree programs. The Federal government and industry, together, must address the growing inadequacy of workforce competencies due to the small size of the existing geothermal industry and the competition for human resources, as the geothermal industry competes with the oil and gas industry for qualified personnel.

Future GTP funding and administrative efforts may focus on the following goals:

- Institute program activities affiliated with the development and retention of the geothermal-specific competencies
- Develop teaming opportunities with universities and industry to invest in geothermal education programs

- Co-sponsor student design competitions with industry focused on critical technology challenges for EGS

Potential initiatives may include, but are not limited to:

- EGS curriculum - Competitively fund institutions of higher education to develop geothermal educational curricula and degree programs/minors/specializations
- Educational scholarship program – Support student enrollment in programs with geothermal development and curricula for education, research and/or internships. These programs may apply to undergraduates, graduate students, and post-docs
- Vocational training - Develop the next generation of skilled workers for widespread geothermal facility construction and operation
- University cooperative education and professional internship program
- University student competition
  - Allow students to solve real-life problems and implement solutions in the field
  - Co-sponsor with industry student design competitions focused on critical technology challenges
  - Co-sponsor student paper challenges to showcase student research in a public forum and make connections to industry
- K-12 education modules – Provide early exposure to and curricula for geothermal energy and technology. This may include supplementing the Energy Efficiency & Renewable Energy (EERE) Education website
- Pilot education program
- Day programs/workshops at universities
- Innovative education models for post-undergraduate education

### **Request for Information Response Guidelines**

**Disclaimer: DOE will not pay for information provided under this Request for Information (RFI). Content from RFI responses may be used to develop a funding vehicle or a Geothermal Workforce Education Development and Retention Action Plan. There is no guarantee that education and workforce development will be supported as a result of this RFI.**

This RFI presents the general scope for education workforce development and seeks input on a variety of topics. The goal of the RFI is to solicit responses that outline challenges and brainstorm opportunities related to geothermal education and workforce development and retention. All topics, ideas, and suggestions related to geothermal education are welcome. Comments in response to this RFI should consider the:

- Scope, schedule, and budget of the project
- Innovative implementation approach
- Location of activity (if applicable)

In addition, GTP will align its education and workforce development program with the guidelines and metrics of the Department of Education's Academic Competitiveness Council (ACC). Therefore, consider the following list of information needs for an educational program as you prepare your response:

- Is there potential for overlap across programs with similar purposes and goals?
- How can other programs serving related purposes coordinate and be integrated into this program?
- What methods of assessment can be used to determine program effectiveness?

Comments in response to this RFI must be provided to the DOE Golden Field Office as an attachment to an e-mail message to [RFI-09GO39004@go.doe.gov](mailto:RFI-09GO39004@go.doe.gov). Comments must be provided no later than 8 p.m., Eastern Time, on **January 30, 2009**.

All documents providing comments in response to this RFI must be delivered electronically to the indicated e-mail address above, preferably using Microsoft Word (.doc) or Portable Document Format (.pdf). DOE requires that responses to the RFI be under 5 pages in length, no greater than 5MB in file size, with 1 inch margins, single spaced, and a minimum of 11 pt font.

All submissions will be for DOE internal planning purposes only. Do not include any information you deem confidential or proprietary in response to this request.

Questions regarding the content of the RFI must be submitted to the following e-mail address: [RFI-09GO39004@go.doe.gov](mailto:RFI-09GO39004@go.doe.gov).

In summary, please provide comments to aid and inform DOE for the purposes of assessing and possibly pursuing the establishment of an ambitious and wide-reaching education and workforce development program.

### **Information Gathering Workshop**

An information gathering workshop will be held on December 4, 2008 in Sacramento, California at the Center for Energy Efficiency & Renewable Technologies (CEERT) Conference room. The goal of the workshop is to outline challenges and brainstorm opportunities related to geothermal education and workforce development and retention. The facilitated workshop will promote sharing of ideas and discussion in a group setting. If you would like to attend, RSVP to Stacey Young at [syoung@sentech.org](mailto:syoung@sentech.org) or 240-223-5578 no later than November 25, 2008.

*The Department thanks you for your assistance and input.*