# 2013 National Geothermal Student Competition

**Background:**
The 2013 National Geothermal Student Competition, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy, is designed to advance the understanding of geothermal energy as a valued resource by promoting innovation, exploration, and entrepreneurship among the nation's colleges and universities. The Competition seeks to engage students in a collaborative exercise to develop a business plan for developing a geothermal enterprise. Applicants are encouraged to consider a candidate resource in their home state/region, though convincing plans for any domestic target will be considered.

**Summary of Competition**
Students are encouraged to form competitive interdisciplinary teams capable of leveraging each member's academic acumen and competitive spirit toward building an innovative, scientific, and technical business strategy for geothermal production in their home state, local region or other location in which they have particular expertise. Students will prepare a concept paper with the guiding topic: Innovative geothermal project proposal (related to electricity production—not primarily to direct use applications although these may be combined with electricity production) in your selected locale. Students are required to show evidence that existing data, or new data was used to support their approach. The seven most compelling and competitive applications will be selected through a screening process described in the evaluation section of this document. The seven semi-finalists, their sponsor, and their schools will be notified and immediately assigned the task of developing a full business plan based the approved concept.

**Semi-finalists Awards**
Each Semi-finalist will receive a total award of $5,500, where $5000 is expected to be used as planning funds (stipend) and $500 is to be used to startup a geothermal club on your campus.

**Team Requirements**
Student teams should include:

- No more than five members.
- Undergraduate and/or graduate students; but no more than 50% of the team can be graduate students.
- Representatives from at least two academic departments (e.g. geosciences, engineering, economics, business, etc.).
- One or more academic institutions.
- A team sponsor (can be a post-doc, teaching fellow, professor, and/or faculty member).
- A team leader (selected by team members as the group's point of contact).
- *[Optional]* Additional sponsor(s) from non-academic collaborating organizations (e.g. industry, state government).

**Application Due Date (3/29/13):** Student teams are required to submit a brief plan that describes their overall approach to the project, including descriptions of proposed or actual collaborations with other departments, universities, or organizations. The plan will also identify which disciplines the Student teams is competing in and which types of geothermal production themes will be explored.

**Concept Paper Requirements**
*The Concept paper should cover the following topics (not to exceed 5 pages total, excluding charts/graphics/references/cover page):*

**Executive Summary**
*Provides an overview of the business plan including:*

- *A description of the members and management team*
- *A summary of goals*
- *Business value proposition*

**Technical Analysis**
*Provides information of the technical analysis and findings that underpin the business plan*

**Budget Plan**
*Description of how the $5,000 planning stipend would be used.*
*Description of how $500 would be used to fund a geothermal student club on your campus.*

**Policy Analysis**
*An overview of local and regional policy issues as they relate to local permitting, land and water use, and/or other policy issues.*

**Concept Paper Evaluation**
*Items that will be considered: clarity of project approach and objectives; team structure; practicality of achieving objectives within the project timeframe and with the resources available to the team; potential to contribute to future geothermal business models and research activities; uniqueness of technical approach; and degree to which the project will contribute to new knowledge. Each submission will be reviewed by an industry-savvy team drawn from both the public and private sector. Each topic will be rated on a 1 to 5 scale for:*

- ***Completeness/Length requirements met (clarity of project approach and methodology)***
- ***Technical viability (uniqueness and feasibility of technical approach)***
- ***Commercial viability (Marketing potential and other performance metrics)***
- ***Impact***

**Open only to Semi-finalist teams**

**Final Business Plan Requirements**
Business Plans should not exceed TWENTY pages and should be based solely on strategies defined in concept paper submitted. The plan should include following:

**I. Executive Summary**

- *Teams provide an overview of the plan.*
- *Define the business value proposition*
- *Describe goals*

**II. Description of your Strategy**

- *Clearly describe the opportunity for geothermal development in your state or region.*

- *Describe the funding necessary for successful execution of the plan.*

**III. Develop a Marketing Strategy**

*Financial/Market Analysis – plan for making the business financially viable, including financial projections. Also provides an overview of state/regional business/industry/market competitors and relevant factors such as:*

- *Market Definition*
- *Market Research and Analysis*
- *Competitive Advantage for Approach*

**IV. Define Difficulties and Risks**

- *Strategy to anticipate and mitigate problems*
- *Contingency plans.*

**V. Budget description**

- *Define cost structure (cost incurred for executing business plan)*
- *Key resources, key activities and key partnerships*
- *Funding models*
- *What are the startup costs?*

***Mandatory Review Meetings*:** Teams are required to participate in monthly review meetings and submit regular reports documenting their progress. The following review meetings will take place during the period of performance:

- Introduction and orientation teleconference: April 26, 2013.
- Biweekly conference calls: May 10, May 24, June7.

***Geothermal Business Development Plan:*** Semi-finalists are required to electronically submit their final business plan deliverable to the program manager, Desmond Stubbs (desmond.stubbs@orau.org) by **11:59 EST on June 14, 2013**.

***Competition Awards***

- Final three teams will receive travel, lodging, meals & incidental expenses, and registration costs paid to attend a "pitch" session where they will be allowed to present their plans to a panel of judges.
  - Presentations can include but are not limited to Power Point, Video, Interactive Website, etc. Time: 20 minute presentation with an additional 10 minutes for questions
- The Department of Energy will recognize 1st, 2nd, and 3rd place winners during the awards presentation.

***Key Competition Dates****:*

**Thursday February 21** Link opens for applications

**March 29:** Concept papers due

**April 19:** Semi-finalists are notified and invited to submit Full Papers

**June 14:** Final papers due

**June 28**: Top three teams are notified and invited to attend a “pitch” session where the winners will be announced and prizes awarded.

***Media Release Form*:** All team members will need to sign a photo release form.

**Competition Website:**
http://orise.orau.gov/science-education/capabilities/science-education-events/eere-geothermal-student-competition.aspx