

California Careers in Energy Week

Innovation Idea Competition

During President Obama’s 2012 State of the Union address, he noted that “to prepare for the jobs of tomorrow, our commitment to skills and education has to start earlier” and an area of this focus is STEM education. Obama connected a world-class STEM workforce to every goal the nation has including economic prosperity, international competitiveness, a clean energy future, and longer, healthier, lives for all Americans.

In growing industries in science and technology, there are twice as many openings as we have workers who can do the job. And an essential reason for the shortage specifically in the energy industry, according to the U.S. Department of Energy, has to do with inadequate science, technology, engineering and math preparation at all educational levels, from K–12 to higher education. We need to help students see the connection between what they learn in the classroom and the wide-range of career opportunities in the energy sector. There is a critical need to promote and brand careers in the energy sector as essential careers that impact the state and nation in positive ways by sustaining the economy, addressing climate change and other environmental problems and creating opportunities to develop innovative technologies to better our everyday lives.

The California energy companies and utilities want to be at the forefront of this issue by 1) developing sustainable solutions to work with educational partners to echo the importance of a STEM-focused education and 2) training, attracting and engaging the next generation of leaders for the energy and utility industry. We want you to help us develop sustainable solutions on how we can work with educational partners (Colleges, high schools, middle schools, etc.) on these efforts while training and engaging the next generation of California energy/utility industry leaders by exploring promising opportunities, developing feasible ideas to explore these areas and giving profound recommendations on the best strategies to attract up and coming talent into these thriving but “hidden” industries.

Objective:

Imagine you are a consulting team trying to bid for an innovation project. You need to convince the California energy companies and utilities that your specific ideas can best engage the educational institutions to enhance efforts focused on STEM education and the next generation of future leaders to join the ranks of the energy/utility industry. Your ideas must be unique and also be realistic with clear plans for execution.

1. Analysis

You are asked to analyze the current educational system in California focused on STEM. You are also asked to focus your analysis on the energy/utility industry’s activities around workforce development in order to help identify opportunities to engage the next generation of energy/utility industry leaders. You can base your analysis on publicly available information, research and review best practices from other companies or industries, conduct interviews with industry experts or academia, or just use your own creativity. Since this is an academic/business exercise with the potential to be actually applied, good analytical rigor is needed to support the recommendations. Proper citations and grammar should also be a component of your submission.

2. Idea Generation

You should brainstorm ideas on how the current California energy companies and utilities could potentially develop and implement these ideas. Out-of-the-box ideas are highly encouraged; the inclusion of personal experiences and/or desires are welcomed. The listed questions below

should provide you some direction and can be used to interview people who are currently in or associated with the energy/utility industry:

- How have existing partnerships between educational institutions and energy companies been successful? If they exist, how are these partnerships sustainable?
- What additional partnerships can energy companies develop and how can you see these working relationships flourish?
- How will STEM play an important role in the energy industry in the future?
- What excites you about STEM? Why did you choose to focus your studies on a STEM-related major?
- How do you see the next generation of leaders changing the energy/utility business?
- What new ideas can the next generation of workers bring to the energy/utility industry?
- How do you think your career and your STEM-related degree will help you succeed in the future?

3. Idea Execution

You are tasked to think of concrete ways that California energy companies and utilities could implement programs by elaborating and describing them in detail in your overall end-to-end solutions. Highlight why your idea is important to help strengthen the relationship between educational partners and the energy industry and how to engage the next generation of California's energy and utility leaders.

Teams

Each team will be comprised of up to four full-time students from the same university or community college.

The Competition

Competition materials and instructions will be available on Monday, October 15, 2012. Students will be notified about the competition through a school representative. **Good Luck!**

Competition Solution Submission Process

Ideas and solutions illustrating how to best engage the next generation of California energy/utility industry leaders should be provided in written products, with a ½ page executive typed summary and a maximum of 10 PowerPoint slides, not including the title page and appendices. Title page should include first and last names of all student participants, school name and contact information including email and phone number. Citations using MLA Format also need to be included in an appendix. Submissions must be provided in one complete electronic file and will be due on **Friday, November 16 by 11:59 PM PST.**

For submission:

1. Log onto <http://www.surveymonkey.com/s/careersinenergyidea> to complete your registration and upload your PDF presentation file (including ½ page summary)
2. Your message size cannot exceed 5 MB
3. **Finalists:** your photos, video and slide deck may be used by the Center for Energy Workforce Development (CEWD) or any sponsoring company

Final Competition and Prize

Finalists will be announced after January 1, 2013. One finalist team per participating utility will receive a **\$1,000** cash prize.

Judging

Criteria to Determine Semi-Finalists

Innovation Idea submissions will be evaluated by representatives from PG&E, SDG&E, and SMUD. Judges will evaluate the Innovation Idea submissions using the following criteria:

Business Solution - viability of overall recommended solution(s) - (20 points)

Implementation of Solution - evaluation of ability to execute recommendation(s) - (30 points)

Overall Quality of Solution/Presentation/Structure - quality of research, presentation and structure (including academic rigor: grammar, citation, etc.) - (30 points)

Creativity, Innovation and/or Discretionary - (20 points)

Team totals = Max points 100

Timeline Recap for the Careers in Energy Week Innovation Idea Competition

October 15: Competition details released and instructions available

November 16: Submissions due via website by 11:59pm PST

Finalists announced after January 1, 2013