

Notice of Staff Workshop

Identifying Research Priorities on Flexibility and Other Operational Needs for Existing Geothermal Power Plants: A Pre-Solicitation Workshop

California Energy Commission staff will conduct a workshop to gather input from geothermal power stakeholders in order to identify research priorities that will address current barriers facing geothermal power plant operation. The focus will be on flexibility, cost drivers, and other issues. This workshop will help staff refine an upcoming solicitation to help address flexibility and other research and development (R&D) needs for existing geothermal facilities.

The workshop will be held on:

Thursday, January 28, 2016

1 p.m. - 4 p.m.

CALIFORNIA ENERGY COMMISSION

1516 Ninth Street

1st Floor, Charles Imbrecht Hearing Room

Sacramento, California

Wheelchair Accessible

Remote Access Available by Computer or Phone via WebEx™
(Instructions below)

Workshop Agenda

The workshop will include a panel discussion followed by comments and questions from the public. A panel of experts from a variety of backgrounds including industry, academia, utilities, and state and local agencies may be invited to participate in a moderated discussion aimed at identifying the most pressing research needs. The discussion will allow stakeholders to voice their opinions and suggest research recommendations.

Background

The electricity grid of the future, dominated by variable energy resources (primarily wind and solar), will increase the need for technologies that can be flexible. There have been several demonstrations of flexible delivery of power by geothermal plants including the Puna Geothermal Venture plant in Hawaii. The plant generates 38 megawatts (MW)

which includes 16 MW of contracted flexible capacity, allowing it to help provide stability in the event of a grid disturbance. The Geothermal Energy Association (GEA) conducted an industry survey in 2014 of geothermal power developers and found that the primary reason most geothermal power plants operate in baseload mode rather than as more flexible sources of electricity was a lack of sufficient economic considerations to ensure an acceptable return on investment. The other reason cited by GEA relates to the availability of storage technology appropriate for a geothermal facility that will enable power to be stored during periods of low demand. It's important to note that the flexibility of a geothermal power plant can depend on the power plant type as well as the subsurface resource. Each geothermal resource is unique with wide variations in characteristics that need to be taken into account.¹ As California moves closer to its goal of 50 percent renewable power generation, the need for a diverse portfolio of renewable energy technologies will become increasingly important. Geothermal power has a long track record of reliability but still remains underutilized.

Under Applied Research and Development, the 2015-2017 Triennial EPIC Investment Plan identified Funding Initiative S4.3 to expand the contribution of geothermal energy to the state's energy mix, by developing advanced technologies and strategies for more cost-effective geothermal energy production. Feedback from the workshop will help identify barriers to flexible geothermal power as well as other operational issues. This information will be used to help staff refine an upcoming solicitation which will address R&D needs for existing geothermal facilities.

Public Comment

Oral comments - Staff will accept oral comments during the workshop. Comments may be limited to three minutes per speaker. Any comments may become part of the public record in this proceeding.

Written comments - The Energy Commission also accepts comments by email. Please include your name and any organization name. Comments should be in a downloadable, searchable format such as Microsoft® Word (.doc) or Adobe® Acrobat® (.pdf). Please include the name of the workshop in the subject line and send comments to chuck.gentry@energy.ca.gov by 5:00 p.m. on Thursday, February 4, 2016.

Public Adviser and Other Commission Contacts

The Energy Commission's Public Adviser's Office provides the public assistance in participating in Energy Commission proceedings. If you want information on how to participate in this forum, please contact the Public Adviser, Alana Mathews, at PublicAdviser@energy.ca.gov or (916) 654-4489, or toll free at (800) 822-6228.

¹ Matek, Benjamin, 2015. Flexible Opportunities with Geothermal Technology: Barriers and Opportunities. The Electricity Journal vol. 28, issue 9, 45-51

If you have a disability and require assistance to participate, please contact Lou Quiroz at lquiroz@energy.ca.gov or (916) 654-5146 at least five days in advance.

Media inquiries should be sent to the Media and Public Communications Office at mediaoffice@energy.ca.gov or (916) 654-4989.

If you have questions on the subject matter of this meeting, please contact Chuck Gentry at chuck.gentry@energy.ca.gov or (916) 327-1528.

Remote Attendance

You may participate in this meeting through WebEx, the Energy Commission's online meeting service. Presentations will appear on your computer screen, and you may listen to audio via your computer or telephone. Please be aware that the meeting may be recorded.

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Availability of Documents

Documents and presentations for this meeting will be available online at: <http://www.energy.ca.gov/research/notices/index.html>.