

**Statement Submitted for the Record of the Joint Hearing on Energy Tax Policy and Tax Reform, held September 22, 2011 by the Subcommittee on Select Revenue Measures and Subcommittee on Oversight, both of the Committee on Ways and Means**

Statement submitted by and on behalf of Karl Gawell, Executive Director, Geothermal Energy Association, 209 Pennsylvania Ave SE, Washington, D.C. 20003, 202-454-5261, karl@geo-energy.org

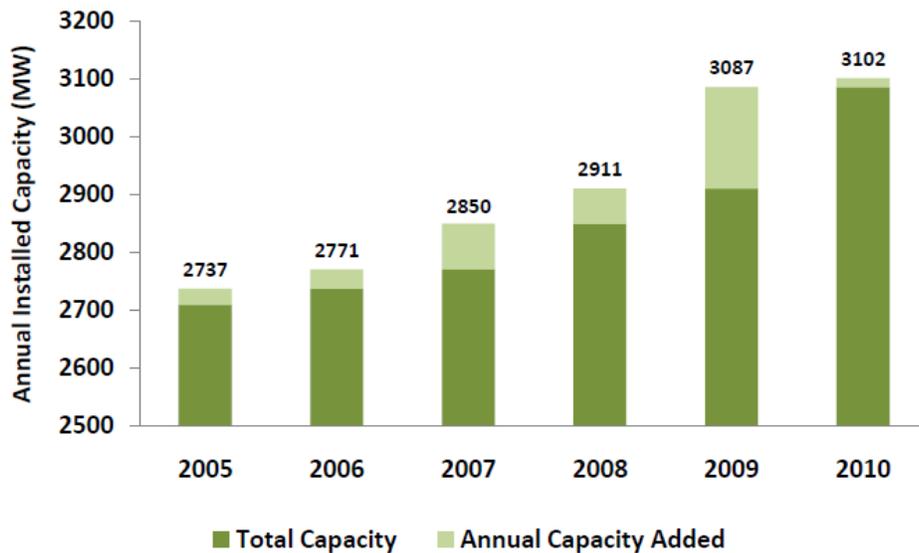
**Statement of the Geothermal Energy Association**

Mr. Chairmen, Members of the Subcommittees, on behalf of the Geothermal Energy Association, which has over 100 US company members across the United States, I submit this statement for the record of your hearing. We thank the Subcommittee for considering our statement as part of its deliberations on Energy Tax Policy and Reform.

The extension of the renewable energy production tax credit (PTC) to geothermal energy in the Energy Policy Act of 2005 has been a principal factor in the recent growth of geothermal energy. Prior to this change the PTC was available only to wind and closed-loop biomass power projects and geothermal energy was disadvantaged in renewable power bidding opportunities. Since 2005, geothermal power has seen steady growth in the United States, as the figure below shows.

Growth in US Geothermal Capacity On-Line<sup>1</sup>

**Figure 8: Total Installed Capacity 2005-2010**



Today, new geothermal power projects continue to be placed in service, and we expect that a significant number of new projects will be completed before the December 31, 2013 PTC deadline.

However this deadline presents a serious obstacle to geothermal energy growth. According to our analysis, geothermal power projects in the US typically require between four and eight years to complete. The time period from initial discovery and exploration to bringing power on-line therefore takes longer than the current tax window allows. Once projects now in later stages of development are completed, there are indications that we will see only limited if any new development as a result of the uncertainty surrounding geothermal tax incentives.<sup>ii</sup>

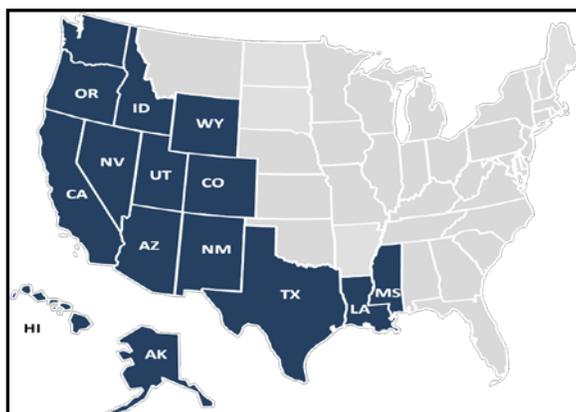
We respectfully urge that geothermal tax credits be extended to provide continued support for new project development and the deployment of new geothermal energy technology. Our nation has among the world's most promising geothermal energy resources, but without the support of long-term tax incentives, we will not see the investment necessary to develop this invaluable domestic source of baseload renewable energy.

It is worth noting that the US Department of Energy has recently approved important research projects in geothermal energy, which are the first significant investments in new geothermal technology by DOE in decades.<sup>iii</sup> A growing market for geothermal energy is important to realizing the full benefits of this investment and extension of the geothermal PTC is essential to growing the U.S. demand for geothermal energy.

The health of the US geothermal industry and its domestic market is also important to the role of US geothermal firms internationally. There is a strong and growing world market for geothermal energy, and US firms are among the leaders in these markets. According to the Department of Commerce, geothermal is one of only two renewable technology areas where US firms are exporting more than the US market is importing, and the benefits of sustaining that leadership are obvious.

Extending the deadlines under the current law would help provide the incentive needed by investors looking at new geothermal power projects. Today, there are projects under development in some 15 states, as shown below, and we hope that advances in technology will support expansion to many more states in the future.

States with Geothermal Projects Under Development in 2011<sup>iv</sup>



In this Congress, legislation has been introduced to address the disparity geothermal faces in the existing tax code. H.R. 2408, sponsored by Reps. Dave Reichert (R-WA) and Earl Blumenauer (D-OR), would extend the IRC Section 48 investment tax credit for geothermal power through December 31, 2016, thus putting geothermal on a par with solar energy. Identical legislation has been introduced in the Senate, S. 1413, by Sens. Ron Wyden (D-OR), Mike Crapo (R-ID) and Dean Heller (R-NV). We understand that a principal reason for providing solar projects the 2016 deadline was the long lead-times expected for concentrated solar power projects. We believe that geothermal projects, with considerably longer lead times than currently faced by solar projects, warrant a comparable time frame.

In addition to extending the underlying tax credits, the production tax credit or investment tax credit, we believe it is important to also provide more flexibility to investors. One approach being discussed would extend access to use of master limited partnerships to geothermal and other renewable projects, or provide greater latitude through transferability or refundability of tax credits. GEA would urge the Subcommittee to include such measures as MLP eligibility along with provisions to extend the current PTC and ITC deadlines. This will ensure a broader investment base for the billions of dollars of new investment which will be needed.

The investment of billions of dollars in new geothermal power projects will help the economy and create jobs. To give some perspective, let's look at one new project under development in California. CalEnergy, a subsidiary of Mid-American Energy, has three 65 megawatt geothermal projects permitted and under development in Southern California.<sup>v</sup> These three projects will represent about \$900 million in new investment in a county with one of the highest unemployment rates in the state -- over 30%. During the roughly four years of construction, CalEnergy will employ a monthly average of 323 workers. When completed, the project will employ 57 full-time employees (operations, engineering, maintenance, administration). For comparison, MidAmerican notes that a 300MW natural gas plant in operation will employ about 18 people.

Tax incentives for new geothermal investment will not only mean economic stimulus and job creation, but will produce highly reliable baseload power. Geothermal power plants operate 24 hours a day, 7 days a week, 365 days a year, regardless of whether the wind blows or the sun shines. They provide much needed reliability to the power grid, an attribute which utilities value and an important reason why they find geothermal power attractive when it is available.

With continued progress in exploration, technology development, and market growth there are substantial new geothermal resources which could be made available. Geothermal resources in the US remain largely untapped, because of the high risk of finding and proving geothermal resources. Recently a meeting of leading researchers and exploration experts called for a national exploration initiative by identifying specific prospects for an additional 50,000 MW of

geothermal power, which could be tapped to establish a Strategic Geothermal Reserve.<sup>vi</sup> With continued incentives for investment in new power projects we will capitalize on new technologies which could make significant new geothermal energy production a reality in the US and sustain US leadership in the world geothermal market.

Thank you for considering our views on energy tax policy.

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<sup>i</sup> Annual U.S. Geothermal Power Production and Development Report

April 2011, Dan Jennejohn, Geothermal Energy Association, available at: <http://geo-energy.org/reports.aspx>

<sup>ii</sup> GEA has underway research examining obstacles to power plant development, and an assessment of the current project lead-time. That project examined the time-frame for new projects coming on-line since 2005 and found that the range of lead times was four to eight years. Dan Jennejohn, Geothermal Energy Association research analyst.

<sup>iii</sup> While Congress has recognized the need for research support in a range of geothermal technologies areas by passing the 2007 Enhanced Geothermal Energy Research and Development Act on a strong bi-partisan basis, until recently the Department of Energy has provided scant funding for geothermal technology. Starting with ARRA 2009, DOE has announced just over \$360 million in competitively awarded research contracts for geothermal technology, which have also attracted an additional \$300 million in recipient cost-share, bringing the total investment to over \$660 million. This represents a more balanced investment in DOE's research priorities.

<sup>iv</sup> Annual U.S. Geothermal Power Production and Development Report

April 2011, Dan Jennejohn, Geothermal Energy Association, available at: <http://geo-energy.org/reports.aspx>

<sup>v</sup> From presentation of Jonathan Weisgall, Vice President, MidAmerican Energy, to Session C-4, RETECH 2011, September 22, 2011. To be available from <http://www.retech2011.com/>

<sup>vi</sup> See Report of Workshop on Exploration and Assessment of Geothermal Resources, prepared by the University of Nevada Reno Great Basin Center for Geothermal Energy, available at: <http://geo-energy.org/reports.aspx>