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June 13, 2012

California Energy Commission
Dockets Office, MS-4
Re: Dockets No. 12-IEP-1D
1516 Ninth Street
Sacramento, CA 95814-5512

Dear Commissioner Peterman:

We are writing in response to panel discussions held at the IEPR Lead Commissioner Workshop, "Transition to a Clean Economy: Renewable Research and Development, American Recovery and Reinvestment Act, and Financing Act" on June 6, 2012.

During the presentation on Geothermal, it went on record that the cost is the main barrier to the geothermal heat pump technology. While cost is typically a factor for all these renewable technologies, it is important to understand the contributors to this cost. It is our position that these contributors to the higher costs are the real barriers to wider acceptance of the technology. In summary, these barriers are:

1. Fair treatment of the technology in the CA Energy Efficiency Standards. The compliance software does not properly model the technology, mainly due to the ground-coupling element; therefore the true energy savings cannot be realized by building owners for comparison of similar systems or by architects and engineers for offering the technology as an alternative to more conventional systems.
2. A State standard for the geothermal borehole construction so that all regulatory agencies within the state are referencing a common baseline requirement for permitting. Currently there is a 'Draft Well Standard' which was sent to DWR for approval in 1999. That document was never adopted and so there currently exists no 'official' guidance document for the ground-coupling portion of this technology.
3. Education of architects, engineers, contractors, government and the general public is required. There are many misconceptions about the technology. Comments like, 'It doesn't work in California' or 'the technology doesn't work' are indicators that good information (not marketing data) on energy savings, costs, and correct application of the technology is needed.

4. The tiered rate structure by the IOUs penalizes all-electric mechanical systems, including geothermal heat pumps. The benefit to the utilities of the geothermal heat pumps is that they operate 0.5 kW/ton less than more conventional systems during cooling seasons which helps reduce the overall demand during peak cooling days. They also operating during the winter when the load on the electrical utilizes are lower. It seems that a more consistent load year-round would be more efficient for utility operations. In some states there is a preferential rate structure for building owners who install geothermal heat pumps.

Please contact us regarding this information or with additional questions about the geothermal heat pump technology.

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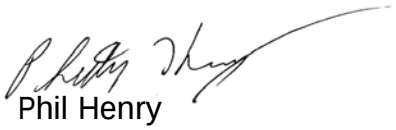

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cc: Assemblymember Das Williams
Assemblymember V. Manuel Pérez