

## DOCKETED

|                         |  |
|-------------------------|--|
| <b>Docket Number:</b>   | 15-MISC-02   |
| <b>Project Title:</b>   | 2013 Building Energy Efficiency Standards  |
| <b>TN #:</b>            | 204086   |
| <b>Document Title:</b>  | Douglas Dougherty Comments: 2013 Title 24 Updates Needed for Widespread Use of Geothermal Heat Pumps |
| <b>Description:</b>     | N/A  |
| <b>Filer:</b>           | System   |
| <b>Organization:</b>    | Geothermal Exchange Organization   |
| <b>Submitter Role:</b>  | Public   |
| <b>Submission Date:</b> | 4/8/2015 7:44:11 AM  |
| <b>Docketed Date:</b>   | 4/8/2015   |

*Comment Received From: Douglas Dougherty*

*Submitted On: 4/8/2015*

*Docket Number: 15-MISC-02*

**GEO Comments California Title 24 Docket #15-MISC-02**

*Additional submitted attachment is included below.*



## Geothermal Exchange Organization

312 South 4<sup>th</sup> Street • Springfield, IL 62701

*Douglas A. Dougherty* • President and Chief Executive Officer

---

April 8, 2015

### Industry Comments

#### California Energy Commission Docket #15-MISC-02

#### Issue - 2013 T-24 Updates Needed for Widespread Use of Geothermal Heat Pumps

California is a state of diversity—in its geography, its population, and its industries. The Geothermal Exchange Organization (GEO) believes that the same must hold true for energy sources if the state is to achieve its energy efficiency, carbon reduction, water conservation and net zero building goals for the future.

Yet the current Title 24 energy code does not recognize the efficiency of Geothermal heat pumps and the contribution they could make to California's energy goals. This is in spite of the fact that over a million GHP systems are in place across North America and the US EPA has recognized for years that GHPs provide the most cost effective carbon reducing strategy for space conditioning and water heating, period.

Under the current Title 24 process, building designers and owners must struggle to get GHP's into their projects. The Title 24 compliance process requires using "work around" approaches to get GHPs through the State's energy compliance software. Worse, the California Energy Commission (CEC) is close to adopting its 2016 Building (energy) Code, which as currently written would simply exclude super-efficient GHP heating and cooling technology from use in California. In fact, the CEC is on a path to intentionally or unintentionally mandate polluting natural gas heating and water heating in all new construction starting in 2016.

California is a laggard in the adoption of GHP's due to the compliance barriers imbedded in the current Title-24 Standards. This needs to be addressed before the 2016 standards are adopted (Sec. 150.1[c][8]C) for building permits. If not corrected in the existing standards the future standards will shut out GHPs in new construction across the state. While the existing code offers a cumbersome path to implementing GHPs the proposed code offers no mechanism for the inclusion of GHPs in the default construction path—and no mechanism to work around the exclusion.

The CEC has previously stated that it is the GHP industry's responsibility to design its own computer-based compliance tools and seek approval for them—even though the CEC has previously built all such computer-based tools! Meanwhile the CEC is turning a blind eye to industry approved GHP design software and proven performance across the rest of the U.S. At a minimum the CEC should provide a blanket approval of GHP's that replace the use of fossil fuels for heating and water heating.

GHPs will be of paramount importance in achieving a True Net Zero energy future for the U.S. and California. Buildings must have the super-efficient renewable heating and cooling offered by GHPs in order to optimize the energy production of on-site rooftop solar and other renewable generation systems.

Governor Brown's ambitious plans to slash carbon emissions and set a precedent for the world on stemming global climate change must employ every renewable energy technology available. And that means inclusion of GHPs in California's energy future and the current and future title 24 energy compliance codes.

With other geothermal heat pump industry stakeholders, GEO asks for a blanket approval of GHPs in the current and future versions of Title 24 code until the CEC can develop an alternative compliance method for the technology. Simply defaulting to a fossil fuel—natural gas produced primarily by fracking with its high release of "leaked" methane is unacceptable both in terms of its own contribution to greenhouse gases and its future cost to the citizens of California.

Thanks for the opportunity to provide comments on Title 24 2013 rules. If you have any questions, please contact me.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'Doug Dougherty', written over a light blue horizontal line.

Douglas A. Dougherty  
President and CEO  
GEO – The Geothermal Exchange Organization