SENATE SELECT COMMITTEE ON CALIFORNIA'S ENERGY INDEPENDENCE

Senator Ben Hueso, Chair

ASSEMBLY SELECT COMMITTEE ON THE RENEWABLE ENERGY ECONOMY IN RURAL CALIFORNIA

Assemblymember V. Manuel Perez, Chair

Thursday, April 3, 2014
11:00a.m. or Upon Adjournment of Budget Sub Committees
State Capitol, Room 113

CALIFORNIA GEOTHERMAL ENERGY DEVELOPMENT: OPPORTUNITIES AND CHALLENGES

Background

Historically, geothermal power has played a significant role in reducing fossil fuel dependence, protecting the environment and meeting California's renewable portfolio standard (RPS). , With the increase reliance on wind and solar, the state's geothermal contributions to the grid have been steadily decreasing, with only 139 MW of new geothermal projects added to California's grid since 2001 (50 MW for delivery to Arizona).
If this trend continues, our RPS renewable energy mix will become less balanced, threatening grid stability and reliability.

Simultaneously, California's progress in substantially reducing statewide greenhouse gas emissions from the electric sector must be accelerated to meet the state's goal of near zero emissions by 2050. While California will achieve its 2020, AB 32 emission reduction requirements, a 2030 interim goal for the grid will be more difficult to attain if the state does not take action to increase geothermal power and other baseload resources.

Roughly 50 percent of California's identified geothermal resources are not being utilized. The Salton Sea Known Geothermal Resource Area (SSKGRA) provides one of the greatest opportunities for new geothermal energy development in the United States. With less than 500 MW currently operating within the Salton Sea, the remaining generation capacity is an additional 1,400 MW.

Additionally, development of Salton Sea geothermal resources will create thousands of construction jobs and hundreds of permanent jobs along with other important benefits. For example, over its thirty year project life, a 100 MW geothermal project typically generates: $150,000,000 in local property tax revenues; 300 construction jobs; 30 permanent operation jobs; and $2 to $2.5 million annually for lease payments to landowners (Imperial Irrigation District,

State of California, and private owners).

The recent closure of the San Onofre Generating Station (SONGS), and other older inland gas plants, creates added pressure on the grid and increases energy vulnerability in Southern California. Geothermal, and other baseload renewable resources, provide important grid reliability benefits, including inertia and system balancing with low integration cost.

Expanding geothermal power generation throughout California will support and facilitate higher levels of renewable energy production needed for the state to reach Renewable Portfolio Standards (RPS) goals. In addition, geothermal power provides long-term electric price stability through renewable baseload fuel supply that does not fluctuate, further helping the state achieve emission reduction standards. The California Energy Commission (CEC) and the California Public Utilities Commission (CPUC) should consider geothermal power as a viable, cost effective and plentiful renewable energy option to meet RPS goals.

Today's hearing will focus on the status of geothermal power in California and, based on discussion, will seek to establish a public policy to expand the use of geothermal power in the state. In particular, the committee will be discussing initiatives to build out geothermal resources, address transmission infrastructure challenges and review viability of the Least Cost-Best Fit (LCBF) policy.