

September 18, 2013

California Energy Commission  
Dockets Office, MS-4  
**Re: Docket No.11-RPS-01**  
RPS Proceeding  
1516 Ninth Street  
Sacramento, CA 95814-5512



**RE: Definition of Fuel and Station Service Load at Eligible Renewable Energy Facilities**

We would like to submit the following comments on the definition of “station service”, as it relates to the use of geothermal energy for power production. These comments are based on consideration of the commonalities and differences inherent in electricity generation from diverse resources, in that there exist fundamental technological idiosyncrasies.

Electricity is generated by converting energy in various forms (e.g., photons of light from the sun; kinetic energy in wind; thermal energy in the Earth; chemical energy in oil, gas and coal; nuclear energy in radioactive elements) into electrical energy. Wind and solar technologies directly convert the energy to electricity while the other technologies require an intermediate step. In the case of oil, gas and coal, that intermediate step is the production and transport of a suitable material for combustion at the generating facility. In the case of nuclear energy, it is the concentration and manufacture of ceramic pellets and their transport to the generating facility. In the case of geothermal energy, it is the transfer of heat from the subsurface to the generating facility. This intermediate step, in all cases, is a fuel cycle that is required to feed energy to the electrical generating equipment. Hence geothermal fluids should be considered a fuel. ***In the absence of this intermediate step, there can be no electrical power production.***

With respect to geothermal power production, station service should not include pumping power requirements because that power is how energy is transferred to the generating facility. In the absence of that pumping power, electricity cannot be generated. In other words, treating pumping power at geothermal facilities as station service places a unique demand on geothermal power production, i.e., it is not allowed to utilize an intermediate step that deliveries fuel (energy) to the generating facility. We comment that this is inconsistent with the treatment of fuel cycle for other technologies.

On this basis, we encourage the Energy Commission to exclude the power used to pump geothermal fluid to generating facilities from “station service” or “station usage”, and to treat geothermal fluid as fuel in a fuel cycle.

Sincerely,

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