November 13, 2015

Shelby Livingston
Branch Chief for Climate Investments
California Air Resources Board

Ann Beegan
Program Technician
California Air Resources Board

Filed Electronically

Re: EnergySource comments on Draft Cap-and-Trade Auction Proceeds Second Investment Plan: Fiscal Years 2016-2017 through 2018 - 2019, dated October 27, 2015

Dear Ms. Livingston and Ms. Beegan,

EnergySource provides the following comments on the Draft Cap-and-Trade Auction Proceeds Second Investment Plan, dated October 27, 2015 ("Second Investment Plan"). EnergySource is an independent geothermal company located near the Salton Sea providing near zero[1] GHG emission renewable energy and important reliability benefits to the state's electrical grid. The EnergySource project provides high wage, highly skilled jobs along with significant property tax revenues and royalties to Imperial County, one of the most disadvantaged communities within California.

EnergySource strongly supports Governor Brown's vision to reduce GHG emissions to 40% below 1990 levels by 2030 and 80% below 1990 levels by 2050. The Administration's comprehensive strategy to increase renewable energy by 50%, reduce petroleum use in vehicles by 50%, double energy efficiency in existing buildings, increase carbon sequestration in the land and reduce short lived climate pollutants is unprecedented.

[1] No fossil fuel emissions are part of geothermal electricity production; there is however, a small amount of naturally occurring CO2 that is vented from the geothermal brine.

The draft goals as outlined by the Second Investment Plan to reduce GHGs and other climate pollutants would develop economic opportunities for the state's disadvantaged communities while encouraging co-benefits to public health, the environment, and the economy. The production and processing of lithium hydroxide in the Salton Sea achieves all of these goals.

The Draft Second Investment Plan Should Include Funding For Near- Zero GHG Emission Lithium Hydroxide Recovery & Processing.

There is a transformational opportunity to unlock the value of the Salton Sea's rich mineral and metal resources. This opportunity would create a new near-zero[2] GHG emission industry that will provide lithium hydroxide, metals and potash. This is a cross cutting approach where lithium recovery from geothermal brine serves as a foundation for a new sustainable industry. Capturing the value of minerals and metals from the Salton Sea will lower the cost of geothermal power, and by creating a new source for lithium hydroxide, lower the cost of ZEV deployment and energy storage systems. Substantial GHG emission reductions will result from near zero emission recovery of lithium and other minerals/metals compared to traditional mining and processing activities. Reductions in freight vehicle miles traveled and international shipping requirements will also occur from recovering and processing lithium hydroxide in the Salton Sea. New high wage and highly skilled jobs will be required to process minerals and metals in Imperial County, which has an unemployment rate exceeding 21 percent.

Near zero lithium hydroxide production within California would assist the state in meeting its GHG reduction and ZEV goals in support of transportation electrification through a clean and substantial domestic supply of lithium. Currently lithium supplies are recovered in Nevada and processed in North Carolina; or recovered in South America or China and then shipped to the U.S. for manufacturing batteries for energy storage and electric transportation. Typically lithium is mined and developed with little or no GHG emission controls using conventional energy resources that are both land use and GHG emission intensive. EnergySource's project would use geothermal steam and electricity to unlock a new supply of lithium that can be mined and processed with near zero GHG emissions. This would

[2] No fossil fuel emissions are a part of mineral production; electrical and thermal energy needs will be met with renewable geothermal power and steam.

significantly reduce the "business as usual" GHG emissions that will result from the growing demand for lithium in the ZEV and energy storage markets.

Incorporating near zero GHG lithium development in the Second Investment Plan will allow California to reduce global emissions from a growing lithium market, facilitate ZEV development and assist disadvantaged communities. Near zero GHG lithium hydroxide production is a cross cutting strategy that meets the multiple objectives of the Second Investment Plan.

Energy Source Proposes the Following Amendments to the Second Investment Plan:

"Transportation and Sustainable Communities" section [3] should include language that recognizes the value of near zero lithium hydroxide production within California in terms of reducing GHG emissions; lowering the cost of lithium; creating high wage, highly skilled jobs in one of California's most disadvantaged communities; reducing domestic freight vehicle miles traveled; providing energy security through development of a domestic lithium supply; and avoided or substantially reduced international shipping requirements.

Please insert the following in the "Draft Concepts for Transportation and Sustainable Communities – Alternative Fuels and Infrastructure" [4]:

- *Provide incentives for in-State production of near zero GHG emission lithium hydroxide (LiOH) production and processing for ZEV batteries and energy storage.*
- *Support for in-State production of near zero GHG emission lithium hydroxide production to reduce domestic freight VMT and international shipping requirements.*

"Draft Investment Concepts for Clean Energy and Energy Efficiency" [5]: Please insert the following:

[3] See Cap-an-Trade Auction Proceeds Second Investment Plan" Fiscal Years 2016-17 through 2018-2019 Draft dated October 27; page 32.

[4] See Cap-and-Trade Auction Proceeds Second Investment Plan: Fiscal Years 2016-17 through 2018-2019 Draft, dated October 27; page 33, Figure 12.

- *Support for in-State production of near zero GHG emission lithium hydroxide production and processing for batteries and lower cost geothermal for renewable energy generation.*

In summary, near-zero GHG lithium hydroxide production would significantly reduce GHG emissions, assist in the petroleum reduction goals, and create a substantial economic boost for one of California's most disadvantaged communities. EnergySource appreciates the opportunity to provide these comments on the Draft Second Investment Plan and welcome any questions or comments the ARB staff may have on EnergySource's proposal. If you have any questions, please do not hesitate to contact me at DBenson@energysource.us.com.

Sincerely,

Derek Benson
Vice President, Power Development
EnergySource

[5] See Cap-and-Trade Auction Proceeds Second Investment Plan: Fiscal Years 2016-17 through 2018-2019 Draft, dated October 27, Page 39, Figure 14.