

**DOCKETED**

<b>Docket Number:</b>	18-IEPR-01
<b>Project Title:</b>	2018 Integrated Energy Policy Report Update
<b>TN #:</b>	225006
<b>Document Title:</b>	Brian Kolodji Comments ZEVs require more natural gas fired power plants GHG stack capture
<b>Description:</b>	N/A
<b>Filer:</b>	System
<b>Organization:</b>	Brian Kolodji
<b>Submitter Role:</b>	Public
<b>Submission Date:</b>	10/17/2018 11:59:52 AM
<b>Docketed Date:</b>	10/17/2018

*Comment Received From: Brian Kolodji*  
*Submitted On: 10/17/2018*  
*Docket Number: 18-IEPR-01*

## **ZEVs require more natural gas fired power plants/ GHG stack capture**

By the Governor's Executive Order B-48-18, 5 million ZEVs will replace almost 1/3 of gasoline driven cars by 2030. California gasoline use is 15 billion gallons of gasoline per year. Having 1/3 of the 15 million gasoline driven cars as ZEVs would save 5 billion gallons of gasoline, equivalent to 183,000 Gigawatt hours (GWH). This is at minimum the amount of electric power needed by the 5 million ZEVs by 2030. In 2017, 75000 GWHs of renewable energy is installed, of which 50,000 GWH of this was installed in the last 15 years and represents over 1/3 of California's total 210,000 GWH electric power procurement. The rate of installation of renewable energy must be more than quadrupled to accommodate the incoming ZEVs over the next 15 years (by 2030) for this power to be supplied by renewable energy. The SB350 goal stated in this docket of "increasing renewable electricity procurement to 50% by 2030", even with "doubling of cumulative energy efficiency savings for both electricity and natural gas by 2030", if cost effective, feasible, and reliable" is inadequate to sustain California's additional power requirements in 2030, let alone that required electric power of the incoming ZEVs. Thus, ZEVs will require more natural gas fired power plants, which currently provide 90,000 GWH (over 40%) of California Energy's needs. It is past time for the IEPR to consider the need for additional natural gas fired power plants, and the need for technology for recovering and using carbon (CO<sub>2</sub>) directly from stacks of natural gas fired power plants, and associated infrastructure. The technology considered most economical and promising and which needs to be added to the IEPR is Crop Carbon Enrichment, as vetted by the California Department of Food and Agriculture, Office of Environmental Farming and Innovation Scientific Advisory Panel. This technology conditions (cools and dilutes) and delivers clean stack gas to crops thus photosynthetically increasing the yield of crops and also biologically reducing water utilization by crops. This technology alone can remove 100 million equivalent metric tons of GHG (CO<sub>2</sub>) by 2020, and can beat the 2045 target of carbon neutrality, stated in the Governor's Executive Order B-55-18, by two decades (2025), and must be implemented urgently.