INDEPENDENT ENERGY PRODUCERS ASSOCIATION

November 4, 2016

The Independent Energy Producers Association's

Comments on CARB's Cap-and-Trade Workshop

Convened October 21, 2016

The Independent Energy Producers Association (IEP) submits these comments on the CARB's cap-and-trade program workshop, convened October 21, 2016. In these comments IEP recommends that CARB conclude that the current rules and regulations affecting electric sector emissions are sufficient to satisfy the requirements of Health and Safety Code Section 38562.5(a) as prescribed by AB 197 (Garcia, Chapter 250, statutes of 2016). In addition, IEP recommends that the electric sector be permanently disaggregated from other "energy" related sectors when accounting for GHG emission reductions and contributions. Specifically, CARB should continue to separate out the electricity sector from the industrial (i.e. refineries) and the transportation sectors now and in the future.

AB 197 Does Not Replace the Cap-and-Trade Program. The Environmental Justice Advisory Committee (EJAC) seeks "prescriptive regulations in lieu of post-2020 cap-and-trade program".[1] Meanwhile, CARB staff acknowledges that the intent of AB 197 is not to prohibit a cap-and-trade program.[2] IEP supports CARB's recognition that AB 197 does not prohibit a cap-and-trade

[1] CARB Mandatory GHG Reporting and Cap-and-Trade Program Workshop Presentation, October 21, 2016, slide 13.
[2] CARB Mandatory GHG Reporting and Cap-and-Trade Program Workshop Presentation, October 21, 2016, slide 13.

program as AB 197 is silent on this matter. Moreover, the legislation enabling CARB to create a market-based program to achieve GHG emission reductions remains in statute.

Existing Electric Sector Regulations Satisfy the Requirements of AB 197. Under AB 197, new Health and Safety Code Section 38562.5(a) directs CARB to prioritize, "Emission reduction rules and regulations that result in direct emission reductions at large stationary sources of greenhouse gas emissions sources and direct emission reductions from mobile sources."[3] With regards to this provision and in the context of greenhouse gas emissions from electric generators, IEP recommends that CARB take note of the myriad of regulations already imposed on electric generation sources (both within the context of the Health and Safety Code section 38562 and outside that code as addressed more fully below). Moreover, we urge the CARB to conclude that additional direct emission reduction rules and regulations that potentially could be imposed on electric generators would result in de minimus emission reductions and, thus, are unwarranted. Furthermore, the imposition of such measures would impose an unnecessary and unreasonable burden on electric generators already operating consistent with federal, state, and local air quality requirements.

The electric sector is already subject to a significant regulatory regime for greenhouse gas emissions and criteria air pollutants. For example, California's Emission Performance Standard (EPS) restricts long-term investments in baseload resources that emit more than 1,100 pounds of CO2 per megawatt-hour.[4] In addition, electric generators are regulated by local air quality laws and are currently subject to Best Available Control Technologies (BACT) to limit criteria air pollutants.

[3] AB 197 (Garcia, Chapter 250, Statutes of 2016)

[4]Regulations Establishing and Implementing a Greenhouse Gases Emission Performance Standard for Local Publicly Owned Electric Utilities - Chapter 11. Greenhouse Gases Emission Performance Standard, Article 1, Section 2900 et. seq; Senate Bill 1368 (Perata, Chapter 598, Statutes of 2006).

Importantly, the existing regulatory regime is producing significant results with regards to reducing greenhouse gas emissions and criteria air pollutants. For example, electricity production by natural gas is projected in 2020 to represent approximately one percent of the entire California inventory for criteria air pollutants of concern, primarily NOx, SOx, and PM 2.5.[5] Meanwhile, nearly 60% of in-state electricity generation comes from natural gas-fired resources (2015).[6]

Moreover**,** as demonstrated by a recent CEC report on the *Thermal Efficiency of Gas-Fired Generation in California: 2015 Update,* there has been a significant improvement in the efficiency of the gas-fired generation fleet in California. Over the 2001-2014 timeframe (if cogeneration is removed from the mix) the thermal efficiency of California's gas-fired generation fleet improved by 23 percent.[7] "The significant improvement in the thermal efficiency of California's gas-fired generation is due to an increase in generation from combined-cycle (CC) power plants built since 2000 and reduced dependency on generation from aging power plants."[8] These figures are indicative of the fact that California's electric generation fleet is relatively clean and measures are already in place to limit emissions in this sector. Furthermore, the cap-and-trade program, which is based on emissions reported directly out of the stack, creates an incentive for generators to be cleaner and more efficient in order to lower the costs associated with operation and move higher up in the dispatch order.

Most of the in-state power plants that are in operation today are relatively new, clean and efficient. Additional direct measures will result in a de minimus net emission reduction benefit, yet may well impose significant new costs. It is not clear that CARB would be able to

[5] *SB 350 Environmental Study Preliminary Study Results* (May 24, 2016), Aspen Environmental Group, slide 118.
[6] 2015 Total System Power In Gigawatt Hours Chart, California Energy Commission Website November 2, 2016: http://www.energy.ca.gov/almanac/electricity_data/total_system_power.html
[7] *Thermal Efficiency of Gas-Fired Generation in California: 2015 Update,* Michael Nyberg, California Energy Commission, page 1; CEC-200-2016-002.
[8] *Thermal Efficiency of Gas-Fired Generation in California: 2015 Update,* Michael Nyberg, California Energy Commission, page 2; CEC-200-2016-002.

rationalize expensive retrofits with little net benefit, while also considering cost-effectiveness as required by Health and Safety Code Section 38562. On the other hand, because of the tremendous progress experienced in the electric sector with regards to reducing greenhouse gas emissions and criteria air pollutants, IEP believes there is ample record for CARB to conclude that the prioritization prescribed by AB 197 [i.e. Health and Safety Code Section 38562.5(a)] has been satisfied.

The CARB Should Continue to Distinguish the Electric Sector from Other Sectors of the Economy. Health and Safety Code Section 38562(b)(9) states the Board is to "consider the significance of the contribution of each source or category of sources to statewide emissions of greenhouse gases". AB 197 also references these requirements.

In some forums, the electric sector has been lumped together with the industrial sector in terms of emissions contributions associated with "energy". Nevertheless, the industrial sector and the electricity sector are quite distinct. "California's electricity sector has made great strides to advance the state's GHG reduction goals, with emissions in 2014 about 26% below 1990 levels."[9] Hence, the electric sector has already met and exceeded the 2020 greenhouse gas reduction goals years early. Furthermore, near half of the state's electricity emissions are from out of state power that is consumed in California, while out of state power represents only around a third of California's resource mix.[10] These numbers validate the point that the electric sector has already done its part to prioritize emission reductions as required by AB 197. However, these achievements may not be recognizable if the electric sector is lumped together with differently situated sectors including refineries and/or the transportation sectors. It is

[9] *Draft 2016 Integrated Energy Policy Report Update,* California Energy Commission, page 15; CEC-100-2016-003-CMD.
[10] *Draft 2016 Integrated Energy Policy Report Update,* California Energy Commission, page 15; CEC-100-2016-003-CMD.

important to note that the trends indicate that "GHG emissions from the electricity sector are declining relative to the emissions performance of other sectors."[11] Consequently, combining these other sectors under an "energy" label for purposes of categorizing sources of GHG emissions for the state may be misleading.

Going forward, IEP recommends that the CARB continue to disaggregate the electric sector from other sectors of the economy in order to show the GHG contributions and reductions that are specifically made in the electricity sector. Combining these categories of "energy" to present data may not accurately display each specific sector's contributions/reductions of greenhouse gases as called for by Health and Safety Code Section 38562(b)(9). It is important to understand each specific sector's contribution toward overall emissions in order to understand where emission reductions are also occurring. This will become increasingly important as the program continues.

In Conclusion. The electric sector is subject to a myriad of existing regulations, including the emissions performance standard and local air quality laws. These existing regulations are designed to reduce emissions from carbon and other criteria air pollutants. As a result, in an effort to prioritize direct emission reductions per AB 197, the CARB should conclude that direct emission reductions have already been prioritized in the electric sector and additional prioritization is not necessary. Given that the gas fleet is relatively new, clean, and efficient, any further measures will likely not meet the cost-effectiveness test and will likely result in de minimus benefits.

Furthermore, it is important that the GHG emissions and reductions associated with the electricity sector are accounted for separately from other sectors of the economy in order to

[11] *Draft 2016 Integrated Energy Policy Report Update*, California Energy Commission, page 16; CEC-100-2016-003-CMD.

demonstrate that the electric sector has done its part with respect to emission reductions; and, to ensure that electricity sector data is not clouded by other sector's emissions contributions and/or reductions.

Respectfully Submitted,

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