September 9, 2020

Mr. Richard Corey
Executive Officer, California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Comments Addressing E3 Report Titled "Achieving Carbon Neutrality in California"

Dear Mr. Corey:

Thank you for the opportunity to submit the following comments concerning the report from E3 titled "*Achieving Carbon Neutrality in California*." Our industry supports the goal of carbon neutrality by 2045, and we can play a substantial role, especially in the near-term, by displacing dirty diesel heavy-duty trucks with low NOx trucks fueled with renewable natural gas (RNG).

We support policies which promote the development of projects that increase the supply of RNG, notably from in-state sources. An engine which meets a 0.02 g/bhp-hr NOx standard or better and uses RNG emits 90% less NOx relative to new diesel engines while delivering ultra low to carbon negative emissions. RNG is a low to carbon negative fuel, so with the transportation sector the largest emitter of greenhouse gas emissions, the increased use of this fuel will help meet California's climate and clean air goals.

To reach federally-mandated ozone attainment goals by 2023, and even more ambitious federal ozone targets by 2031, California must pursue and utilize its broad, performance-based air-quality strategy. The state's 2016 *Mobile Source Strategy* estimates a reduction from mobile sources of 80 percent in smog-forming NOX emissions and 45 percent in GHG emissions in the South Coast AQMD alone, and a 50 percent reduction in the consumption of petroleum-based fuels statewide. It calls for the deployment of 900,000 low NOx vehicles by 2031 to achieve these goals.

We appreciate most of the conclusions in the E3 Report, but would like to express our deep concern that it relies heavily on the use of diesel vehicles after 2030 while low NOx trucks are commercially available now as a replacement.

California's regulatory policy continues to focus on long-term emissions reductions and does not address the continued, uninterrupted near-term adoption of dirty diesel heavy-duty trucks. In addition, the goal of significant emissions reductions and a more comprehensive transformation toward advanced clean truck technologies should include significant flexibility in the event the bold and unproven assumptions for the availability of heavy-duty zero-emission vehicles (ZEVs) fail to materialize at the speed that regulators predict. Policies which include a combination of zero and low NOx heavy-duty trucks is needed and it would provide manufacturers with greater flexibility to meet CARB's desire to reduce the emissions inventory from this most polluting category within our transportation system.

The E3 Report assumes that biomethane and natural gas use in vehicles will be phased out by 2035,[1] it assumes that Californians will continue to purchase medium- and heavy-duty vehicles powered by internal combustion engines until 2035, and the state will continue to have some diesel powered vehicles in 2045 and beyond. This assumption runs counter to the requirements in the recently adopted Advanced Clean Trucks regulation in which only 40% of the vehicles manufactured must be ZEVs by 2035, thereby allowing for up to 60% of vehicles remaining to be internal-combustion. It also runs counter to Governor Newsom call to eliminate diesel fuel use by 2030.

Even under the E3 assumption, we strongly recommend expanding regulatory policy by including low NOx trucks that meet a 0.02 g/bhp-hr NOx certification standard or better especially for the next decade since heavy-duty ZEV's are not expected to be commercially available in that time. If this does not happen, much less expensive diesel trucks will be the vehicle of choice for fleets.

Eliminating the use of heavy-duty diesel trucks should be one of California's top priorities for both climate change and air quality since diesel emissions contain black carbon and toxic air contaminants and are a major source of smog-forming pollution. However, CARB continues to adopt policies which do not disincentivize near-term adoption of diesel trucks and do not incentivize near-term adoption of low NOx trucks.

We strongly urge CARB and E3 to prioritize the near-term elimination of diesel trucks and certainly by 2030 per Governor Newsom's goal. Low NOx trucks operated on renewable natural gas will provide the greatest reductions in lifecycle carbon emissions and air pollution.

We also support the review of the Report by the Bioenergy Association of California, which provided in-depth comments expressing concerns that:

[1] Draft Report at page 40.

- E3 continues to rely on an unscientific, “population weighted share” of national biomass potential to calculate California’s organic waste supply when far more accurate, actual assessments of California’s organic waste exist;
- The Report largely ignores climate emissions from wildfire, including the emissions caused by electricity generation and infrastructure;
- The Report largely ignores black carbon emissions even though SB 1383 requires a 50 percent reduction in anthropogenic black carbon by 2030;
- Several assumptions and conclusions are unsupported by the data in the Report or contradict state law.

Thank you for considering our views.

Sincerely,

Ryan Kenny, Clean Energy
Thomas Lawson, President, California Natural Gas Vehicle Coalition
Mike Bolin, US Gain
Sean Edgar, Director, Clean Fleets.net
Ashely Remillard, Vice President-Legal, Agility Fuel Solutions