May 22, 2024

Liane M. Randolph, Chair
California Air Resource Board
Sacramento, CA 95814

RE: May 23, 2024, Board Meeting - Open Session to Provide an Opportunity for Members of the Public to Address the Board on Subject Matters within the Jurisdiction of the Board – Recarbonizing the Refuse Fleet

Dear Liane Randolph

We are writing on behalf of organic waste collectors and haulers, and as renewable natural gas (RNG) producers, involved with each of the four Scoping Plans since 2008 as well as Advanced Clean Fleet Regulation. The solid waste industry has been decarbonizing since 2000 with compressed natural gas (CNG) vehicles replacing fossil diesel in many communities, and renewable diesel is being utilized to replace fossil diesel. The solid waste industry has been producing our own renewable natural gas (RNG) from organic waste that is utilized in their own captive fleets and had no intention to produce biomethane for other hard to decarbonize industries. The solid waste industry has perfected the local circular economy that complies with SB 1383 by diverting organic waste from landfills, producing RNG from that waste and using the RNG in our own refuse fleets.

When the California Air Resources Board adopted the ACF Regulation, a provision was added to the CARB Resolution that recognizes that multiple reliable uses for non-fossil biomethane will be needed for successful implementation. CARB directed staff to prioritize policy discussions related to SB 1383 and SB 1440 implementation and discussions on how to transition biomethane into hard to decarbonize sectors, or as a feedstock to produce hydrogen for FCEV fuel and to produce electricity to charge BEVs to achieve the SB 1383 target. We are still waiting for this policy discussion. Many of the anerobic digestion facilities producing RNG are not near a PUC pipeline to inject the biomethane since the system was designed to fuel our own refuse fleet and not spend 2 to 3 years and millions of dollars on PUC pipeline injection. CARB has determined that the Heavy Duty fleets emits about 40 million metric tons of carbon dioxide equivalent ($MMTCO_2$) in 2024 and decreases to about 18 $MMTCO_2$ by 2040 with a 45% drop in GHG Emissions as shown in the CARB graph below:

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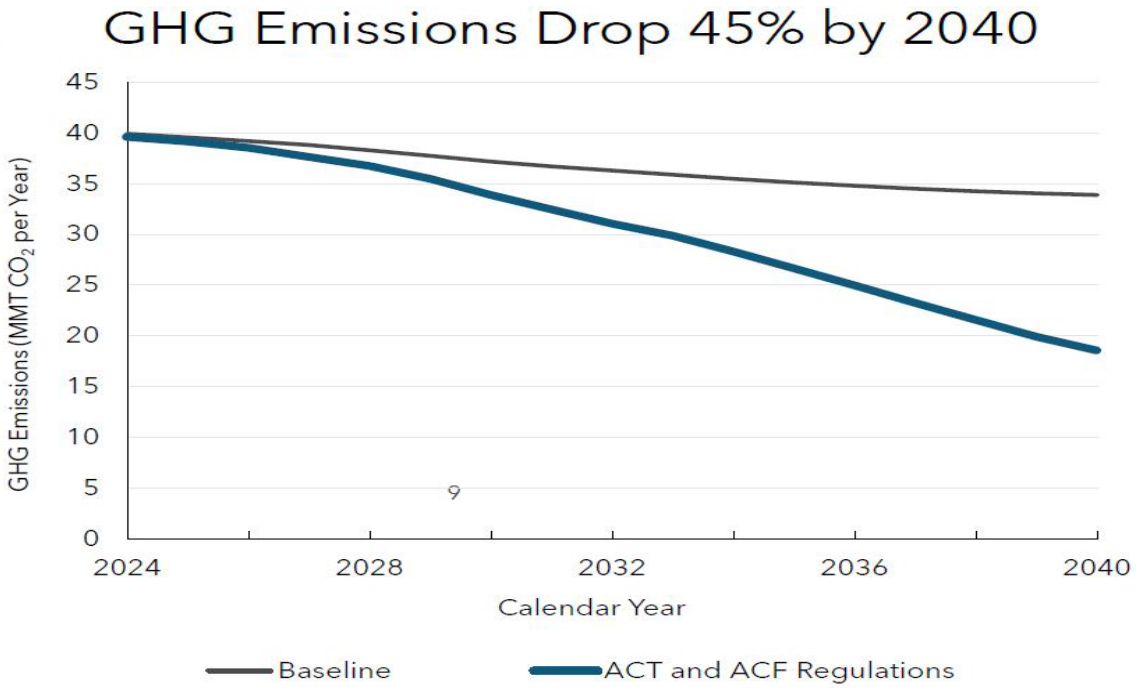
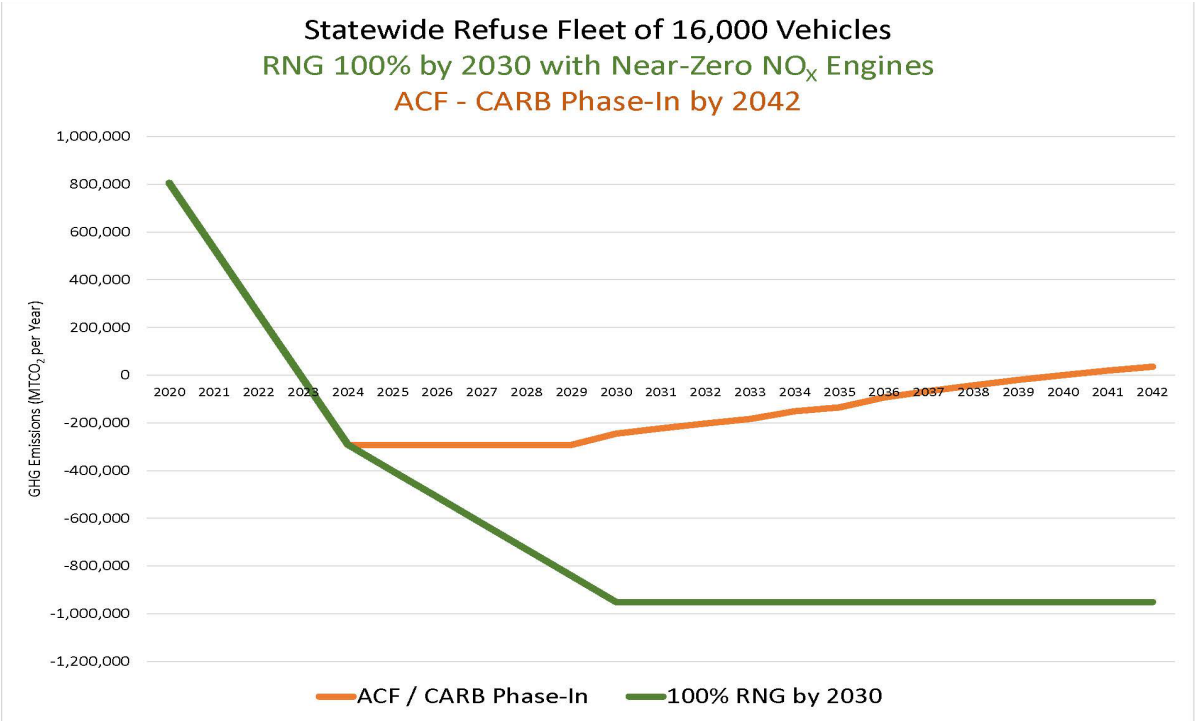


The refuse fleet of 16,000 Heavy Duty vehicles in California is a subset of the ACF Regulations and has been decarbonizing since 2000. The graphic below shows that since 2020, the GHG emissions have been cut 100% following the green line into carbon negativity. With the ACF Regulations, CARB will be re-carbonizing the refuse fleet following the orange line.



Since 2020, the refuse fleet of 16,000 heavy duty vehicles has decreased their GHG emissions from 806,000 metric tons of carbon dioxide equivalent (MTCOe2) to a carbon negative 292,000 MTCOe2 in 2024 using RNG and renewable diesel. The solid waste industry was poised to be 100% RNG by 2030 where the GHG emissions would have decreased to a carbon negative 950,000 MTCOe2 amounting to 1,756,000 MTCOe2 in GHG emission reductions as shown on the green line in the above graphic.

Forcing electrification with the ACF Regulation, the solid waste industry will be re-carbonized where by 2042, the refuse fleet will be a positive 35,000 MTCOe2 of GHG emissions instead of being carbon negative at 950,000 MTCOe2 by 2030. The carbon intensity of California average grid electricity used as a transportation fuel in California for 2023 is **81.0 gCO2e/MJ** with the EER being 5.0 for heavy duty vehicles. The carbon intensity will decrease to **0.0 gCO2e/MJ** by 2045. With the ACF phase in and the California grid carbon intensity, the refuse fleet recarbonization is shown on the orange line. Attached is a copy of the assumptions used to produce this graphic.

California is unlikely to meet the 2030 climate goals at the current emission reduction rate while the Legislative Analysist Office that the 2022 Scoping Plan lacked clear strategy for meeting the 2030 emission goal. By adopting the ACF Regulations and phasing out near-zero engine options using RNG, diesel vehicles sales rise and renewable diesel supply continues to surge. CARB has dismissed the carbon negative refuse fleet solution that could have delivered as much as 950,000 MTCOe2 by 2030, but instead will push the refuse fleet into recarbonizing.

I look forward to discussing this with your staff. Please contact me at 916-444-5345.

Sincerely,

Evan WR Edgar
Regulatory Affairs Engineer