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CARB Letter Regarding AB 3232 GHG Assessment

Letter from CARB Executive Officer Richard W. Corey addressing CEC's GHG Assessment methodologies

Additional submitted attachment is included below.

May 18, 2020

Commissioner Andrew McAllister
California Energy Commission
1516 9th Street, MS 34
Sacramento, California 95814

Dear Commissioner McAllister:

Thank you for the opportunity to provide comments on the Building Decarbonization Assessment that the California Energy Commission (CEC) is developing pursuant to Assembly Bill (AB) 3232. As you know, in order to meet statewide climate and air quality targets, California needs to reduce its dependence on natural gas in buildings. CARB is supportive of advancing building electrification as one of the most cost-effective¹ strategies to meet our targets. As part of the Building Decarbonization Docket Log (19-DECARB-01), several stakeholders recommend that CEC include greenhouse gas (GHG) emissions from upstream natural gas production and distribution infrastructure. Some stakeholders also recommend excluding refrigeration systems and adopting a 2013 baseline for hydrofluorocarbon (HFC) emissions. Lastly, stakeholders suggest that CEC review the feasibility for California's 2045 climate neutrality goals as part of the AB 3232 Building Decarbonization Assessment. As CEC prepares for the next public workshops planned for late May and June, CARB would like to take the opportunity to weigh in on these three key topics.

CARB supports CEC's initial direction for the Assessment to pursue a direct GHG emissions accounting approach. CARB recommends that CEC continue to exclude methane emissions from the upstream natural gas system including production, processing, storage, transmission, distribution, and meters. The scope of the analysis for natural gas-related emissions should be limited to on-site fuel combustion and fugitive emissions from behind-the-meter appliances installed in buildings. Existing efforts are underway to reduce upstream emissions related to natural gas infrastructure. Including upstream emissions in the scope of AB 3232 would dilute the stringency of the Assessment and require that less action be taken to reduce GHG emissions in buildings. Additionally, there is significant uncertainty surrounding upstream emission rates; estimates vary widely in the literature. Unless gas system infrastructure is removed entirely, it is unknown whether incremental reductions in gas

¹ Mahone, et al. (2018). *Deep Decarbonization in a High Renewables Future: Updated Results from the California PATHWAYS Model*. California Energy Commission.

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demand in buildings would appreciably reduce fugitive and vented emissions in the transmission and distribution system. As a result, CARB encourages CEC to continue to exclude methane emissions from the upstream natural gas system.

CARB also supports CEC's approach to include all Heating Ventilation Air Conditioning and Refrigeration (HVACR) sources of HFC emissions in CEC's Building Decarbonization Assessment. HFCs are the fastest growing GHGs in California, nationally and globally. The 2017 Scoping Plan highlighted the need for HFC reductions in order to meet California's goals to reduce GHG emissions in general and short-lived climate pollutants (SLCPs) in particular. Even with current and proposed regulations, additional measures are needed to reduce HFC emissions 40 percent below 2013 levels by 2030 as required by SB 1383.

Currently, air conditioning and refrigeration systems in residential and commercial buildings are the two largest sources of HFC emissions, accounting for over 60 percent of total HFC emissions. By including all HVACR systems in the Assessment, CEC can help to facilitate the transition to lower global warming potential refrigerants and avoid any unintended consequences of increasing HFC emissions due to the uptake of heat pump technologies that rely on HFC refrigerants for space conditioning and water heating. CARB also recommends that CEC adopt a 2013 baseline for HFC emissions in the AB 3232 Assessment consistent with SB 1383 and the 2017 AB 32 Climate Change Scoping Plan Update to ensure consistency between CARB and CEC efforts to tackle HFC emissions.

Lastly, AB 3232 directs CEC (in consultation with CARB, the California Public Utilities Commission, and the California Independent System Operator) to complete the Assessment to reduce building-related GHG emissions by 2030. CARB is currently evaluating options to reduce GHG emissions across all sectors and increase carbon sinks to achieve the 2045 climate neutrality goals. It is critical that energy efficiency and electrification efforts in buildings continue to support achieving California's 2030 GHG reduction target and set the State on a path to achieve carbon neutrality by 2045. The AB 3232 target to reduce GHG emissions by 40 percent is a floor and not a ceiling. CARB therefore requests that CEC continues to consider the potential for AB 3232 efforts to help the State meet its long-term climate goals as part of the AB 3232 Building Decarbonization Assessment.

CARB looks forward to continuing to collaborate with CEC to implement AB 3232. If you have any follow-up questions related to upstream emissions from the natural gas system or the measures needed to achieve the State's 2030 GHG reduction target, your team can contact Rajinder Sahota, Chief of the Industrial Strategies Division at (916) 323-8503 or Rajinder.Sahota@arb.ca.gov.

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For questions related to building decarbonization or other matters related to the implementation of AB 3232, please contact Jennifer Gress at Jennifer.Gress@arb.ca.gov. And, for questions related to HFC emissions, please contact Elizabeth Scheehle, Chief of the Research Division at (916) 322-7630 or Elizabeth.Scheehle@arb.ca.gov.

Sincerely,



Richard W. Corey
Executive Officer

cc: Chair David Hochschild, MS 32
Drew Bohan, Executive Director, MS 39
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bcc: Heriberto Rosales