Dairy Cares Comments on August 17, 2021 Workshop on 2022 Scoping Plan Scenario Concepts

September 3, 2021

Dairy Cares appreciates the opportunity to provide the following comments to the California Air Resources Board ("CARB").[1] Dairy Cares represents the California dairy sector, including dairy producer organizations, leading cooperatives, and major dairy processors.[2] The CARB Workshop presentation identified options for modeling the strategies the State could employ to reach the 2045 carbon neutrality target. These comments focus on how dairy biogas should be evaluated in the 2022 Scoping Plan modeling, particularly as a short term hedge against longer term CO2 climate impacts.

California family dairy farms are leading change and making significant progress in reducing GHG emissions. Producing a glass of milk from a California dairy cow generates 45% less GHG emissions today than it did 50 years ago.[3] Significant advancements in farming efficiency, feed crop yields, veterinary care, sustainable food practices, and animal nutrition, have helped reduce the environmental footprint of dairy production. More can and is being done to lower the climate footprint even further. California dairy farm families are working closely with the California Department of Food and Agriculture ("CDFA") and CARB to further reduce the State's methane emission inventory.

The Draft *Analysis of Progress toward Achieving the 2030 Dairy and Livestock Sector Methane Emissions Target* ("the Analysis") recently released by CARB shows that the dairy sector is projected to achieve significant additional reductions toward the SB 1383 target by 2030 through modifications to manure management systems - primarily using anaerobic digesters - and additional reductions through decreases in animal populations.[4] Manure management projects completed or in development are already projected to account for more than 2 MMTCO2e of

[1] Dairy Cares comments focus on the CARB staff presentation provided on August 17th, available at: https://ww2.arb.ca.gov/sites/default/files/2021-08/carb_presentation_sp_scenarioconcepts_august2021_0.pdf

[2] For more information about Dairy Cares, please visit www.dairycares.com.

[3] UC Davis CLEAR Center: *Methane, Cows, and Climate Change: California Dairy's Path to Climate Neutrality*, p. 2, available at: https://clear.ucdavis.edu/sites/g/files/dgvnsk7876/files/inline-files/CLEAR-Center-Methane-Cows-Climate-Change-Sep-2-20_6.pdf

[4] CARB Draft *Analysis…*, p. ES-2, available at: https://ww2.arb.ca.gov/sites/default/files/2021-06/draft-2030-dairy-livestock-ch4-analysis.pdf

reductions annually. The Analysis also shows that herd population reductions are expected to annually account for an additional 2 MMTCO2e of reduction by 2030. Achieving additional reductions will require the dairy and livestock sector to implement additional manure management projects and proven enteric mitigation strategies over the next few years. However, CARB's desired target of 9 MMTC02e reduction cannot, and will not, be met without significant State and/or federal funding and incentives. Ensuring availability of incentives in the near-term is particularly important in light of this fact.

On Slide 10 and 13 of the Staff Presentation, staff discusses alternatives to industrial use of natural gas. The cost of biomethane, synthetic gas and hydrogen are high and to date, have not proven to be an economically feasible way of reducing emissions from the use of conventional natural gas. Dairy Cares encourages CARB to model the continued use of natural gas with carbon capture sequestration in all of the modeling scenarios. The modeling results should be designed to enable a thorough analysis of the cost effectiveness of CCS technology solutions, not just the technical ability of direct carbon capture to reduce GHG emissions.

With respect to the treatment of dairy and other biomethane, all of the scenarios should explore the productive use of fuels from dairies and other biomethane sources. Dairies and other entities will not be able to continue to reduce methane if there are no markets or uses for the fuel. Scenarios that leave out productive uses for the fuel are not realistic and should not be modeled. As noted above, availability of incentives in the near-term will help ensure methane reduction in the near term, which will serve as a hedge against the deeper reductions needed in the longer-term. Thus, the focus of the scenarios should be on the productive use of dairy biogas as a transportation fuel because it is far too expense for industrial use in the foreseeable future. The scenarios should also evaluate how and whether transportation fuel alternatives such as renewable natural gas, hydrogen and electricity are available solutions as the State's needs and the costs of producing these fuels evolve.

In sum, Dairy Cares recommends CARB model the role of Short-Lived Climate Pollutant reductions as a short-term hedge against long-term CO_2 impacts. The 2022 Scoping Plan should consider and address climate benefits of voluntary biogenic dairy methane emissions going forward. Rethinking methane's role in climate policy is important, and the 2022 Scoping Plan is the appropriate venue for such analysis. Appropriate goals, policies, and required incentives should be identified and set for voluntary methane reductions, recognizing its tremendous mitigation potential in the short-term.