



July 7, 2023

Matthew Botill
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Comments on the Joint Cap-and-Trade Program Workshop

Dear Mr. Botill:

On behalf of Amp Americas (“Amp”), we appreciate the opportunity to provide feedback on the June 14, 2023, Joint Cap-and-Trade Program Workshop. Amp strongly supports California’s climate goals and the Cap-and-Trade Program as an important element of the State’s overarching climate change framework. We especially support the California Air Resources Board’s (“CARB”) efforts to focus on fuel switching, including the use of biomethane, as a strategy to decarbonize hard to electrify sectors, in line with the 2022 Scoping Plan. We hope you will pursue opportunities through the Cap-and-Trade Program and upcoming amendments to help achieve these objectives.

About Amp Americas

Founded in 2011, Amp develops and operates renewable natural gas (“RNG”) facilities that convert dairy waste into carbon-negative renewable energy. Over our history, Amp’s projects have prevented over 1.5 million metric tons of carbon equivalent emissions. In 2022 alone, our projects abated approximately 480,000 metric tons of carbon equivalent emissions and we plan to rapidly expand our impact over the next several years.

As a pioneer in the dairy RNG industry, Amp registered the first 5 dairy RNG-to-CNG pathways in California’s Low Carbon Fuel Standard (“LCFS”), and was the RNG supplier for the first 11 dairy RNG-to-hydrogen pathways. Our experience developing, operating, and reporting on these and other assets gives us a unique perspective on the impact CARB policy has on development of projects to reduce greenhouse gas emissions. Our projects and resulting methane and carbon dioxide reductions have been made possible by CARB’s leadership in decarbonizing transportation, and we encourage CARB to continue to support the policy decisions that have made it so successful and build from them to reach new sectors, like cement.

Enabling Biomethane through the Cap-and-Trade Program

In order to support decarbonization of the industrial sector, fuel switching to biomethane or other renewable fuels (including pursuant to SB 596) has been identified by CARB as a medium to long to solution, we suggest that CARB begin from the LCFS pathways process and utilize existing lifecycle accounting pathways and tools to account for site-specific emissions factors for various biomethane and other fuel pathways. This consistent accounting with the LCFS will minimize the implementation burden



for new programs and help support the transition of biomethane from the transportation sector to hard-to-electrify sectors using a consistent set of rules and procedures.

Cement plants or other industrial facilities transitioning to biomethane should be able to reduce their greenhouse gas intensity based on the avoided emissions associated with the fuels they use, just like the transportation sector can today under the LCFS. This will incentivize the development of methane-mitigating projects and may be necessary to balance any remaining emissions associated with cement production and industrial operations to achieve net zero greenhouse gas intensity.

Specifically, as CARB re-evaluates the Cap-and-Trade Program, it should remove restrictions related to utilizing biomethane in the industrial sector and develop incentives supporting the transition to biomethane or other renewable fuels at cement and other industrial sector operations. Currently, the Program treats biomass-derived fuels from outside of California differently than fossil fuels. This is different that treatment under the LCFS and discourages the use of biomethane in the industrial sector or outside of transportation. Given that more than 90% of California’s natural gas comes from out-of-state, it also disadvantages biomethane compared to fossil natural gas use generally in the state. We encourage to make minor amendments to enable biomethane projects from anywhere in North America to support California’s greenhouse gas goals through the Cap-and-Trade Program, in line with rules under the LCFS and operation of the natural gas market today. We also encourage the program to include accounting for avoided methane emissions in biomethane pathways to support the State’s wide array of greenhouse gas reduction goals.

Importantly, as CARB develops other solutions to decarbonize the economy through fuel switching, including through Cap-and-Trade amendments, it should avoid hindering access to biomethane in the transportation sector and LCFS. CARB should approach Cap-and-Trade amendments and fuel switching in industry as additive to the LCFS and fuel switching in transportation, in order to develop as many avenues as possible for switching to clean energy throughout the economy and allow for maximum methane avoidance and decarbonization.

Other Comments on the Workshop

We appreciate the workshop and wide array of issues introduced that will be considered by the jurisdictions in the coming rulemaking process. In addition to supporting amendments to enable biomethane to further advance California’s climate goals, Amp offers the following comments on items raised at the workshop:

- **Climate scenarios and evaluations:** We support the proposed evaluations and allowance budget scenario analysis identified in the workshop. As part of a scenario analysis, we also encourage CARB to evaluate potential changes and impacts on the market. More ambitious targets do not necessarily need to lead to higher costs, especially if CARB at the same time enables strategies to deliver additional greenhouse gas reductions, similar to the proposal related to biomethane above.
- **Incorporating carbon capture and sequestration (“CCS”) and carbon dioxide removal (“CDR”) into the program:** We support incorporating CCS and CDR into the Cap-and-Trade program, in line with the Scoping Plan, Governor’s direction and legislative direction. We encourage CARB to adopt the CCS Protocol into the Cap-and-Trade Program and to develop new protocols through the SB 905 framework, which would be automatically eligible to participate in the Cap-and-Trade program once they are finalized in the CCS Protocol. Creating the greatest number of CCS



Protocols that align with CARB's requirements for additionality, permanence and other standards will provide the greatest opportunities for innovation and to deploy CCS and CDR, including at biomethane facilities, in line with State goals.

- **Create new offset protocols for CDR, including from bioenergy with CCS:** We support development of new offset protocols, in line with legislative limitations, to support cost-containment and support additional greenhouse gas emissions opportunities through the program. Those offset protocols should include CDR strategies, including biogas with CCS and other bioenergy with CCS ("BECCS") strategies, which have been identified in the Lawrence Livermore National Lab Report, *Getting to Neutral*, as necessary strategies to achieve carbon neutrality in California.
- **Maintain consistency and exemptions for biogenic CO₂ emissions:** We encourage CARB to maintain exemptions for biogenic CO₂ emissions, especially from waste resources, and consistency with national and international practice. BECCS is a key strategy for negative carbon emissions and achieving carbon neutrality, as identified in the Scoping Plan, and requires accounting for biogenic CO₂ emissions as net zero.
- **Support industrial decarbonization through allowance allocation:** We are excited to hear CARB will consider mechanisms to further incentivize industrial decarbonization. The Cap-and-Trade Program is the State's primary tool for decarbonizing industry, and we support CARB evaluating additional strategies to accelerate efforts to decarbonize industry, including through the use of biomethane and renewable fuels in industry. One way to do this may be through allowance allocation, and offering additional allowances to industrial entities making the switch to biomethane or other renewable fuels, to help provide a market signal equal to the LCFS to encourage development of biomethane projects not just for transportation applications, but also for stationary sources.
- **Update global warming potential values ("GWP") based on the latest science:** We support Québec's review of GWP values to incorporate the latest consensus scientific understanding, as represented in the 5th Assessment Report ("AR 5") of the Intergovernmental Panel on Climate Change. CARB's programs continue to be based on outdated AR4 numbers, which are more than 15 years old and are widely understood to under-represent the impacts of methane on climate change. We encourage CARB to consider similar changes to its climate programs, including the Cap-and-Trade Program, Mandatory Reporting regulation, LCFS and other related programs, to ensure that the State's climate programs continue to be based on the soundest science and accounting frameworks and ensure alignment with Québec's program.

Conclusion

Thank you again for the opportunity to comment on the Joint Cap-and-Trade Program Workshop. We support CARB in its efforts to maintain a strong Cap-and-Trade program to achieve the State's greenhouse gas goals, including decarbonizing industry and directing biomethane toward stationary sources. We look forward to continuing to work with you through this process and other related efforts to achieve these outcomes.

Sincerely,

Cassandra Farrant
Head of Environmental Credit Compliance
Amp Americas