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March 16, 2021

Mr. Richard Corey Executive Officer California Air Resources Board Attn: Mr. Anil Prabhu P.O. Box 2815 Sacramento, CA 95812

Submitted by Email to Anil.Prabhu@arb.ca.gov

RE: Response to Public Comment on Application B0111 Tier 2 Pathway: Low-CI Electricity

Dear Mr. Corey and Mr. Prabhu,

A comment was submitted during the public comment period for CleanFuture's Tier 2 Pathway for Low-CI Electricity sourced from Dairy Manure Biogas for use as transportation fuel in electric vehicles in California. As authorized by §95488.7(d)(5)(A)(2), this letter provides a detailed written response to the Executive Officer explaining why no revisions to the pathway application are necessary.

Pursuant to §95488.7(d)(5)(A): "Only comments related to potential factual or methodological errors will require responses from the fuel pathway applicant."

The text from the comment is quoted, with responses to the various parts of the comment raised provided directly after the text.

Parts of the Comment and CleanFuture Responses

Subject: Tier2 Application Comment, Application B0111

Comment (1):

"The pathway document does not explain how renewable power production in Arizona complies with LCFS $\S95488.8.i(1)A$

"The low-CI electricity must be supplied to the grid within a California Balancing Authority (or local balancing authority for hydrogen produced outside of California). The implication of this section is that hydrogen produced outside of California can be shipped to California but that low CI electricity must be supplied within a California Balancing Authority. The project is outside of the California region as indicated in b0111 greet cell D24, AZNM Mix."



<u>CleanFuture Response (1)</u>: The commenter has incorrectly truncated the sentence that is used as an LCFS regulatory reference. The full sentence reads: "The low-CI electricity must be supplied to the grid within a California Balancing Authority (or local balancing authority for hydrogen produced outside of California) or alternatively, meet the requirements of California Public Utilities Code section 399.16, subdivision (b)(1)." The LCFS regulatory language that the commenter omitted is underlined here for clarity.

Pursuant to §95488.8(i)(1), the low-CI electricity for this pathway is supplied to the grid under the of requirements of California Public Utilities Code section 399.16, subdivision (b)(1). That statute is part of California's Renewable Portfolio Standard ("RPS") and provides:

- "(b) Consistent with the goals of procuring the least-cost and best-fit electricity products from eligible renewable energy resources that meet project viability principles adopted by the commission pursuant to paragraph (5) of subdivision (a) of Section 399.13 and that provide the benefits set forth in Section 399.11, a balanced portfolio of eligible renewable energy resources shall be procured consisting of the following portfolio content categories:
- (1) Eligible renewable energy resource electricity products that meet either of the following criteria:
- (A) Have a first point of interconnection with a California balancing authority, have a first point of interconnection with distribution facilities used to serve end users within a California balancing authority area, or are scheduled from the eligible renewable energy resource into a California balancing authority without substituting electricity from another source. The use of another source to provide real-time ancillary services required to maintain an hourly or subhourly import schedule into a California balancing authority shall be permitted, but only the fraction of the schedule actually generated by the eligible renewable energy resource shall count toward this portfolio content category. (B) Have an agreement to dynamically transfer electricity to a California balancing authority.
- (2) Firmed and shaped eligible renewable energy resource electricity products providing incremental electricity and scheduled into a California balancing authority.
- (3) Eligible renewable energy resource electricity products, or any fraction of the electricity generated, including unbundled renewable energy credits, that do not qualify under the criteria of paragraph (1) or (2)."

As stated in the Tier 2 Pathway LCA Report at page 9:

"Grid Interconnection:

The generator set is directly connected to a utility Arizona Public Service (APS) distribution feeder which connects and conveys electricity to electric vehicles located within California."

Qualifying renewable energy sources generating eTags through the WREGIS reporting system can fulfill the RPS requirements found in California Public Utilities Code section 399.16, subdivision (b)(1), and thereby meet the requirements of LCFS §95488.8(i)(1).



Comment (2):

"Does this provision of the LCFS regulation mean that renewable power anywhere in the grid connected to the U.S. can "be supplied" or is the relatively close proximity to California a determining factor?"

<u>CleanFuture Response (2)</u>: This part of the comment does not identify any potential factual or methodological error in the pathway application that require a response from CleanFuture. The commenter seems to be requesting regulatory interpretation. As discussed in detail and with reference to LCFS and RPS regulatory support in the response to Comment (1), there are specific criteria that must be met to qualify renewable power outside of California. Renewable power sources outside of California must be evaluated for eligibility using these criteria.

CleanFuture demonstrated deliverability of electricity from this facility into a California Balancing Authority within its pathway application.

Comment (3):

"Also, the pathway document does not identify how ARB guidance 19-06 has been implemented in regard to applying CARB staff's suggestion that 50% is a reasonable efficiency benchmark based on the average efficiency of NG-derived electricity at California power plants and best available technologies."

<u>CleanFuture Response (3)</u>- A complete life-cycle assessment report (LCA Report) was completed following the requirements of LCFS Regulation as identified in section 95488.7(a) with a Life Cycle Analysis Report that used the approved CA-GREET3.0 model for the Stotz Dairy Southern project. Additionally, an adjustment as per LCFS Guidance 19-06 ("Adjusted CI Score") for generator set efficiency was applied to the CI calculation per staff instructions.

Conclusion

This concludes CleanFuture's detailed responses to all comments pertaining to factual or methodological errors in the pathway application. CleanFuture requests that the Executive Officer certify the pathway pursuant to §95488.7(d)(5)(B). If the Executive Officer would like any further input or supporting information regarding these issues, please so advise and CleanFuture will promptly supplement this response. Thank you for the opportunity to comment on these issues.

Sincerely, Thorse

John A. Thornton, President

CleanFuture, Inc.