



01/16/2019

California Air Resources Board

1001 I Street

Sacramento, CA 95814

RE: National Biodiesel Board Comment

Introduction

We thank the National Biodiesel Board for their comments. We have provided the following responses to address the comments made regarding Eco Solution's compliance with the requirements of the LCFS.

Finished fuel transportation emissions

NBB Comment:

CARB has made many improvements in CA-GREET 3.0. A significant improvement among those updates is improved accuracy of emissions estimates for ocean vessels. The carbon intensity of ocean freight has a significant impact on the fuel lifecycle when transportation distances are as great as 6,500 miles between South Korea and Long Beach. We note that CA-GREET 2.0 results in a favorable carbon intensity for this pathway that could be 0.7 To 3 g/MJ lower than estimates from CA-0GREET 3.0.

We would urge CARB to ensure that the emissions of long-distance transportation are accurate for each shipment brought into California.

Eco Solutions Response:

Eco Solutions submitted application T2N-1246 on February 20th, 2018. At the time of submission, the only model published by CARB and available for use by all LCFS applicants was the CA-GREET 2.0 model.

Per the 2015 Final Regulation Order for the LCFS, Eco Solutions was evaluated using the CA-GREET 2.0 model. As such, changes that may be present in the CA-GREET 3.0 model are related to the 2019 Final Regulation Order for the LCFS and are not relevant to the approval of this application. This is the same case for all CA-GREET 2.0 pathways approved under the 2015 Final Regulation Order for the LCFS.

Yield at the biodiesel plant

Comment:

We also commend CARB for improvements in the new Tier 1 Simplified Calculator and note that it improves accounting for co-product quality (including moisture), biodiesel pitch combustion, and fluctuations in mass yield. However, it is not clear to us that the yield at the Eco Solutions biodiesel plant has been adjusted appropriately for the loss in mass yield associated with

combusting the biodiesel pitch. The mass yield at the biodiesel facility has an impact on the emissions associated with feedstock rendering.

For example, using the CA- GREET 2.0 if a biodiesel plant would have a mass yield of 0.9 lbs biodiesel per pound UCO the emissions associated with rendering would be 5.69 g CO₂e/MJ. If the mass yield is reduced to 0.75 the emissions from the same rendering process would be 6.82 g CO₂e/MJ. It is possible for a biodiesel plant with FFA removal and biodiesel pitch combustion to have a mass yield as low as 0.75.

It is important to accurately account for yield loss, so that producers compete fairly, and so that the Low Carbon Fuel Standard (LCFS) achieves the goal of optimizing resource potential which striving to reduce net emissions of greenhouse gases. We urge CARB to verify that the Eco Solutions process yields a carbon intensity (CI) less than or equal to the proposed CI of 21.54 g CO₂e/MJ when using the new simplified Tier 1 model.

Response:

The carbon intensity evaluation completed in the CA-GREET 2.0 model took the loss in mass yield associated with combusting the biodiesel pitch into consideration. Eco Solutions provided the data requested by CARB staff to ensure that the biopitch used for process energy was accurately assessed and incorporated into the pathway carbon intensity score. Additionally, the biopitch heat content was tested and posted in the Pathway Summary to ensure transparency.

New rules on mass balancing

Comment:

We also commend CARB for their advancements in rules pertaining to mass balancing. We recognize that mass balancing provides flexibility to producers. However, if compliance audits are lacking, mass balancing also represents risk that progress toward LCFS goals could be diluted. Considering the improved efficacy of the new rules and considering the irreversible risk at stake concerning international pathways; we urge CARB to enforce the most recent regulations with regard to mass balancing and verification.

Response:

Eco Solutions has followed the pathway requirements laid out for the LCFS program in the regulation that went into effect in 2016. Eco Solutions has been responsive to communications from CARB and the requests from CARB staff to verify that its facility and pathway application accurately represents its facility including all mass balance requirements.

At this time, there are no mandatory verification requirements for any LCFS market participants until the first compliance year in 2020. Eco Solutions has a demonstrated history of compliance with US verification programs as a Q-RIN participant under the RFS program and from following all applicable US regulations relevant importing biodiesel into the US.

Eco Solutions will comply with the verification program requirements when they go into effect and ensure that it is compliant with the applicable regulations. There is no basis in the implication that Eco Solutions pathway is a riskier producer than any other producers.

Conclusion

Eco Solutions has worked closely with CARB staff to ensure that the lifecycle analysis conducted includes the appropriate components and was evaluated with the correct methodology. The application submitted meets the standard requirements for an LCFS pathway registration.

Eco Solutions looks forward to participating the LCFS market as a compliant party under current and future provisions of the LCFS. Additionally, Eco Solutions would like to thank the California Air Resources Board staff for its hard work to establish the 2019 LCFS regulation.

Let us know if there are any additional questions or clarifications needed in this matter.

Best Regards,

SIGNATURE



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Managing Director

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