theWonderful company™

July 5th, 2018

Mr. Sam Wade
Chief, Transportations Fuels Branch
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Submitted electronically to:
https://www.arb.ca.gov/lispub/comm/bcsubform.php?listname=lcfs18&comm_period=1

RE: Comments in Response to June 11, 2018 LCFS Workshop and Draft Regulation

Mr. Wade:

The Wonderful Company LLC (TWC) appreciates the opportunity to submit our comments in response to the draft regulatory amendment language to the Low Carbon Fuel Standard (LCFS) and updated lifecycle assessment tools for biogas pathways. TWC and its related entities farm and process almonds, pistachios, citrus, pomegranates, nursery stock, and wine grapes throughout California. Every year we grow, harvest, package and ship healthy products to our customers on a global scale. In addition to our farming activities, TWC has also been actively working on innovative methods to utilize our agricultural byproducts to produce renewable energy. We view renewable energy as a key area of opportunity.

This letter summarizes TWC's comments stemming from our review of the proposed modifications to the March 6th draft regulatory language presented by Staff on June 11th, and the draft "Tier 1 Simplified CI Calculator for Biomethane from Food, Green and Other Organic Wastes" released by ARB on June 20th. We respectfully request that you consider these comments in finalizing the final LCFS regulatory changes.

Basis for Landfill Diversion Assumptions

Summary of Specific Concern

The carbon intensity scores for anaerobic digester (AD) based biogas pathways are strongly impacted by the assumed avoided fate of the feedstock. In particular, diversion of waste streams from landfills generate substantial methane reductions that are appropriately credited to the AD project pathway. Because these credits are a significant portion of the total CI for a project, changes to these credits can have a dramatic impact on revenue generation and financial viability of the project. Hence, reasonable and stable assumptions for landfill diversion credits are critical to the development of AD projects for diversion of organics from landfills.

A number of state-level policies, including SB 1383, AB 1826, and the State's Short-Lived Climate Pollutant Reduction Strategy call for increased diversion of organics from landfills. In particular, AB 1826 calls for 50% diversion of organic wastes by 2020 and SB 1383 calls for 75% diversion by 2025. Anaerobic digester projects are an important approach to achieving these goals. Consequently, the implementation of organics diversion requirements should not be counted against such projects when assessing landfill diversion credits. Indeed, doing so would undermine the ability of the state to achieve its diversion goals and would leave organics in landfills.

TWC also notes that AD projects are currently being considered for waste streams that are not being landfilled today, but will be landfilled in the near-term, if AD projects are not constructed to accept the waste. This is of particular concern for food and agricultural waste streams where the current end use is for animal feed. This market is changing rapidly and quickly becoming saturated with available feedstocks. Consequently, many food and agricultural waste producers will no longer be able to send feedstocks to animal feed end uses and could begin landfilling the material. AD projects represent an alternative strategy that avoids landfilling, but these projects are unlikely to be constructed if the LCFS program does not recognize landfilling as the avoided fate of these materials.

Recommendation

ARB should not discount the "% to Landfill" diversion fate assumed for AD pathways based on landfilling diversion policies or regulations as AD projects are one of the few strategies to enable these diversion goals. Additionally, ARB should allow applicants to claim landfill diversion credits for a waste stream where the applicant can demonstrate that the waste stream has little or no monetary value in its traditional end uses.

Carbon Intensity Variations and Verification Risk for Digester-based Biogas Pathways

Summary of Specific Concern

AD-based pathways, whether for food/green waste, or animal waste, face a unique risk under the proposed verification structure. Much of the carbon intensity reductions attributed to these pathways stem from avoided emissions credits (from landfills, wastewater lagoons, etc) and are fixed based on the mass of feedstock input into the facility. However, the amount of biogas produced by these facilities is a function of the efficiency of the facility and it is possible for the facility to produce more biogas than provided for in the avoided emissions credits. Biogas produced in excess of the volumes assumed in the avoided emissions credits will not receive the benefit of these credits and will increase the average carbon intensity of the biogas produced by the facility. Consequently, an AD facility that improves its biogas production efficiency would increase its CI value. During verification, the facility operator could be subject to significant penalties as the operating CI would be higher than the certified CI. It is unreasonable to subject a facility operator to penalties stemming from improved operating efficiencies, particularly under a carbon reduction program such as the LCFS, and is contrary to State goals for renewable fuel production.

In cases where biogas production efficiencies decrease, facility operators are likely to see lower operating CIs and lower biogas output. The facility operator would not be able to claim the additional credits associated with the lower operating CI but would realize reduced credit generation from the lower biogas output. Consequently, the current program structure could penalize biogas facility operators for increases or decreases in production efficiency.

Recommendation

TWC recommends ARB clarify that: 1) increases in the operational CI of a facility, owing to higher biogas production efficiencies than were estimated in the facility's pathway application, do not constitute Material Misstatements as defined in the proposed regulation and, 2) fines or other penalties would not be assessed to the pathway holder based on the higher operational CI.

TWC also believes that ARB should continue to move the LCFS program toward a structure that allows for full true ups of credits generated by biogas projects. This structure would address the specific concern of facility efficiency impacts and verification risk discussed above. Further, such a structure would allow biogas projects to

claim all credits actually generated and reduce risk to the project developer, thereby helping to enable development of these projects.

Tier 1 Calculator – Model Structure and Definition of Food Waste, Green Waste, and Other Organic Waste

Summary of Specific Concern

The current Tier 1 calculator implements three categories of organic waste; food waste, green waste, and other organic waste. While some feedstocks clearly fit within the food waste or green waste categories, the proper categorization of other feedstocks is unclear. For example, a food processing facility may generate feedstock streams that are composed primarily of simple sugars and carbohydrates consistent with "food waste", and additionally generate feedstock streams that have high cellulosic content consistent with "green waste." Lacking clear definitions of these terms, applicants may develop projects based on incorrectly classified feedstocks, only to face significant changes to their pathway during the approval process or face significant enforcement risks during the verification process.

Recommendation

ARB can provide a unified input structure for all organic waste streams by using the structure currently implemented for the "Other Organic Waste" feedstock. Under this structure, the user would be required to supply DOC, DOCf, landfill diversion, and composting rates for all feedstock mixes. Reasonable input values for feedstocks that ARB currently terms "food waste" and "green waste" can be provided as part of the calculator's technical documentation, effectively replicating the function of the existing food waste and green waste inputs in the model.

To the extent that ARB continues to classify feedstocks using the terms "food waste," "green waste," and "other organic waste," TWC recommends that ARB provide additional technical guidance to applicants that defines these terms based on feedstock compositions or other unambiguous metrics.

Tier 1 Calculator – DOC and DOC_f Values

Summary of Specific Concern

Under the current calculator framework, ARB estimates the methane generation potential of the feedstocks using DOC and DOCf values. These values are predetermined for the food waste and green waste categories. Along with predetermined values for landfill diversion and composting, the calculator fixes the potential "landfill credit" for avoided methane emissions for these two feedstock categories. For other organic wastes, the process is much more ambiguous. The available technical guidance from ARB does not indicate how an applicant should expect to assess the DOC and DOCf values for their feedstocks. Additionally, it is not clear whether these values would be subject to the third-party verification process.

Because of these ambiguities, potential project developers with feedstock streams that are not classified as "food waste" or "green waste" may be discouraged from using the Tier 1 calculator process and could face additional verification risks. The DOC and DOCf values used by Staff for the food waste and green waste feedstocks are average values for a broad range of waste streams and not subject to subsequent verification. Hence, it is reasonable to assume that DOC and DOCf values approved by ARB for a specific project under the "Other Organic Waste" category would be at least as accurate as the predetermined values assigned to food waste and green waste, and should also be exempt from the verification process.

Recommendation

We recommend that Staff provide additional guidance on the process that applicants should use to assess the DOC and DOCf values for their feedstocks. We also recommend that the values, once approved by ARB, would not be subject to the third-party verification process.

Tier 1 Calculator – Additional Technical Comments

Summary of Specific Concerns and Recommendation for Staff Actions

TWC has noted a few technical errors and opportunities to simplify the Tier 1 calculator.

1. Input 2.8, "Moisture Content of Other Organic Wastes," is no longer used as the throughput, DOC, and DOCf values are all provided on a wet basis. This input should be removed.
2. Tailpipe N_2O emissions for NGVs, calculated in cells 'Reference!B57' and 'Reference!D57' should include a credit for avoided natural gas flaring, as is done with regard to tailpipe methane emissions.
3. Various cells in the calculator have references to external spreadsheets, and should reference the equivalent internal worksheets. For example, 'Reference!B56'.

Conclusions

The Wonderful Company supports the LCFS program and ARB's efforts to improve air quality and reduce climate impacts. We believe that the changes recommended herein will result in a stronger LCFS program and help foster the development of projects needed to support the state's organic waste diversion and SLCP goals. We would like to thank ARB staff for allowing us the opportunity to provide comments and share our concerns and recommendations. We would be happy to discuss these comments at your convenience.

Sincerely,

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