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Via Electronic Submittal to LCFSWorkshop@arb.ca.gov

Sam Wade and Jim Aguila
California Air Resources Board

RE: RPMG Comments on ARB Pre-Rulemaking Concept Paper and August 7th Staff Presentation

Dear Sam and Jim;

RPMG Inc. (RPMG) would like to thank you for the opportunity to participate in this rulemaking effort. RPMG is a biofuel marketing company representing our owner and marketing partner ethanol facilities located throughout the Midwest. Our combined operations provide both ethanol and distillers oil as essential inputs to the California fuels market. We continue to support clean transportation fuel policy, including California's Low Carbon Fuel Standard (LCFS) while focusing on real-world impacts of these proposals to expand the scope and complexity of the LCFS.

Your staff's availability and length of the comment periods provided to stakeholders is also appreciated. Having designated time to review the concept paper and staff presentation prior to the workshop allows for a more efficient and effective public process. We look forward continued engagement with ARB.

Both the Concept Paper and the Staff PPT presented on August 7th are significant documents covering broad and distinct topic areas. These comments build upon our previous thoughts and discussions, and further touch on remaining broad policy issues. We also focused on implementation and technical considerations important to RPMG and our affiliated producers. Our comments are grouped by discussion topic and included in separate attached schedules as follows:

- [Schedule #1: Target Setting](#)
- [Schedule #2: Fuels and Regulated Parties](#)
- [Schedule #3: Third-Party Verification](#)
- [Schedule #4: LCA Modeling Tools and Pathway Certification](#)
- [Schedule #5: Carbon Capture and Sequestration](#)
- [Schedule #6: Enforcement](#)

Please contact me with any questions or comments at (952) 465-3247 or jwhoffmann@rpmgllc.com.

Sincerely,

Jessica W. Hoffmann
Regulatory and Compliance Manager
RPMG, Inc.

Schedule #1: Target Setting

Establishing Appropriate Average Carbon Intensity Requirements Through 2030

RPMG recommends the compliance scenario proposals be released for stakeholder understanding as soon as practical. ARB has provided stakeholders with a wide array of details surrounding this rulemaking, but one fundamental aspect of the program has not yet been put forward by LCFS staff: the compliance schedule and ultimate reduction target of this next phase of the program. RPMG understands the LCFS is part of a broader climate change framework outlined in the 2030 Target Scoping Plan (Scoping Plan), that the Scoping Plan has been delayed throughout 2017, and that recent legislation will alter some of the Scoping Plan's reduction strategies. For purposes of providing comment on target setting, it is imperative that stakeholders be fully informed of the path for this program before the full impacts and costs of its implementation can be known.

It is our understanding that the Scoping Plan will be presented to the ARB Board for adoption in December. This is almost the exact same timing that has been proposed for the start of this LCFS formal rulemaking. In order for stakeholders to provide useful input to the effectiveness of any envisioned schedule change, sufficient time in advance of a formal proposal is needed.

As CARB prepares the suggested 2030 Target for LCFS, and assuming no target less than 18% will ultimately be proposed, RPMG recommends the remaining schedule to 10% be absorbed and "smoothed" into the new compliance schedule. This will provide for a practicable transition to the new schedule within the market while safeguarding against undue volatility.

RPMG requests clarity and direction from staff as to whether the baseline carbon intensity values for 2010 will remain the same in the next rulemaking. In the past examples of the compliance curve modifications, the 2010 baselines for gasoline and diesel were simultaneously adjusted. To better understand the impacts credit supply and demand resulting from any modification to the annual compliance curve, the baseline values must also be known.

Schedule #2: Fuels and Regulated Parties

Changes to Fuels Subject to the Regulation

Proposed changes such as inclusion of Alternative Jet Fuel, propane, and CNG into the program should be done in a consistent manner with the rest of the program. RPMG has consistently advocated for a level playing field within the LCFS. That is, all low-carbon fuel options should be given equal opportunity to participate in the market. Therefore, we are supportive of the proposed changes to bring some of the current Opt-In fuels in as fully regulated fuels. This issue of a level-playing field extends to any supplemental financing and/or price support mechanisms aimed at any one category of fuels.

It is RPMG's belief that if these fuels could potentially be deficit creators, then they must play by the same rules as all other fuels. To ensure program integrity and maximum environmental benefits, then any potential transportation fuel deficit generator should be brought in as a full regulated entity under the LCFS.

RPMG requests ARB provide any additional expectations of volume estimates regarding the sought changes for current Opt-In fuels. Specifically, what is the expected aggregate activity credit contribution to the program?

Schedule #3: Third-Party Verification

Addition of Third-Party Verification

Third-Party Verification (verification) should not create duplicative or unnecessary mandates on market participants. RPMG understands that Third-Party Verification (verification) is one of the intended pillars of this rulemaking. These new standards should be implemented in a way that provides program assurance of validity at minimum cost.

MRR's Relationship to the LCFS and Its Stakeholders

The kick-off presentation reiterated the scope of ARB's proposed changes including: mandatory third-party validation/verification of fuel pathway carbon intensities (CIs), verification of reported fuel quantities, and selected chain-of-custody information. It is RPMG's position these objectives can be achieved in a way that recognizes many of the existing relationships and audit programs utilized in throughout the industry today.

RPMG would like to again note the larger differences between the Cap and Trade Program and the LCFS. LCFS MVS should not be the mirror image of MRR. Though verification may have a place in both programs, the nuances and complexities of LCFS noted in the presentation make it unique unto itself. The history and uniqueness of the renewable fuels industry, and the existing verification and audit protocols applied in the renewable fuels and transportation industry require a level of flexibility in MVS program design in comparison to other California Climate Change programs.

There were numerous references in the Concept Paper and the staff presentation which pointed stakeholders to the current Cap and Trade Mandatory Reporting Regulation (MRR). Section 95132 is a good example. RPMG has several concerns with these higher-level references, particularly when these new requirements are generically framed as "likely to be consistent" with MRR. Many, if not most, LCFS participants are not subject to the Cap and Trade Regulation and the complexities of the MRR. Having these referrals inserted without providing context to their implication on the LCFS program does the process a disservice. There are some very basic questions that arise, such as:

- What is similar?
- What will be different?
- How will these be incorporated into a very different program?
- Does previous MRR guidance carryover to the LCFS?
- Will the MRR and MVS regulation be kept consistent in the future? This could be an issue for verification bodies.

RPMG suggests ARB present new MVS materials in a manner that is fitting of entities, that for the most part, who have not participated in the MRR verification process. Incorporation by reference implies the expectation that non-regulated Cap and Trade entities must also become competent followers of those programs and regulations. Meaning, despite not having a direct compliance requirement these parties still must build a base understanding and continuous following of both the MRR and Cap and Trade regulations. This is a significant workload and cost of implementation issue as tracking went from 1 regulation to 3. MRR material was presented in a way that affords existing MRR participants an advantage over others by already having an established level of familiarity with the MRR regulations, guidance material and reporting tool. Such experience is key in providing comment regarding the applicability and adequacy of those assumptions when applied to LCFS. LCFS only stakeholders do not know what they do not know.

The Dynamic CI Concept

A significant concept not included in either the Concept Paper nor the Staff Presentation seemed to gain traction in the workshop discussion. RPMG refers to it here as a “Dynamic CI.” The workshop discussion revolved around the following logic:

“That with the addition of validation/verification services, if a facility pathway CI were shown (and verified) to be lower than that of its approved pathway, then ARB could subsequently and administratively recognize this lower number without the facility having to go through a full CI pathway re-application process.”

RPMG could be very supportive of this concept. We see it as an opportunity and a significant incentive for continual CI improvement at the facility level--the ultimate goal of the program.

We strongly encourage ARB to pursue this concept as it could provide other opportunities for administrative efficiencies as well. Under the current “static CI” framework, there is a lot of administrative effort needed from both CARB and the facility to secure recognition these improvements. Such administrative overhead is a disincentive for innovation and improvement.

This Dynamic CI concept has additional implications for other parts of the verification development. A quick example could be illustrated through moral toward validation site visit frequency. The effort and cost it takes to conduct a site visit on the part of a fuel pathway holder becomes more palatable if a facility knows that future annual site visits hold promise in providing recognition of a lower CI achieved through continued efficient operations without a new application or onerous administrative process. This concept has merit and should be discussed further and in more detail with stakeholders.

Material Misstatement

RPMG would appreciate additional clarity and/or examples of how the definition of Material Misstatement will be used in the context of LCFS MVS. The Concept Paper notes that: “Material misstatement is the sum of errors that may cause a verifier to believe that the key reported value(s) contain errors greater than 5 percent. Material misstatement would be defined for each type of reported data.” Will these material misstatement definitions be within the LCFS regulation, or provided in MVS guidance? What are the “key reported values”, and how specific or broadly will they be defined?

Correctable Errors

RPMG requests more context concerning concepts presented on slide #40 of the Staff Presentation related to correctable errors. Without the current ability to see the MRR portal, the idea of a “verifier’s issue log” is unclear. What exactly is it? Who has access to it at ARB—program staff only or also enforcement staff? Does the entity being verified have access to the log? What does the log look like when it is finished? Are the correctable errors removed, or just flagged as “corrected”?

Because verification statements must attest to the CI data containing correctable errors or not, what happens if correctable errors are not posted to the log but are cited in the verification report, or vice versa? Who is ultimately responsible for a conflict between the determination mediums?

It is also unclear what the purpose of this log is in the verification process. Why does ARB need to see the log? How is the information used? Is it public or protected? “Modeled after the MRR” still leaves much uncertainty

for details being proposed. RPMG would request a more complete explanation of this part of the verification process.

Verification Outcomes

RPMG supports CARB's intent for the agency to have sole responsibility in determining conformance with certified CIs. This determination is appropriate for CARB's evaluation separate from verifiers evaluation of Simplified CI Calculator input data. Further, this process ensures that only the regulatory agency has the authority to determine whether the calculated CI is in compliance. A determination of conformance by any other party would not be appropriate for the LCFS program.

Verification Frequency and Credit Generation

RPMG would like to highlight and support staff's proposal to retain quarterly credit generation. Credit issuance is a critical and fundamental element of the program. Retaining the ability to generate credits on a quarterly basis is paramount to biofuel facilities.

In the limited context of just LCFS deadlines presented for annual verification report submittals, the suggested timeline seems reasonable. This timeframe should not represent a conflict for RFS attestation reporting which is due annually by June 1st. However, RPMG would caution ARB to consider the full implications of having the LCFS and MRR verification deadlines in mid-August so close together. RPMG believes the availability of verification bodies will be limited. Any additional stress or burden applied to the available pool of auditor's time and resources in having significantly close deadlines will incur a higher associated expense to complying with the program.

Verifier Accreditation and Oversight

RPMG notes that in addition to initial facility efforts, initial validation, and annual verification, that facilities are also subject to additional random ARB oversight audits and site visits. These additional efforts by ARB should be limited to risk-based criteria for facilities.

RPMG supports staff's proposal to accredit verifiers under ISO 14065 and 14064-3 rather than the earlier option of ISO 17064. ISO 14065 is a historic "GHG accreditation" standard and is a better fit.

CARB staff indicates the expectation of Quality Assurance Plan (QAP) providers and accounting firms providing attestation engagement services under U.S. EPA's Renewable Fuel Standard (RFS) program, international Certification Systems (i.e. ISCC and Bonsucro), as well as MRR and offset verifiers would apply for accreditation to perform LCFS validation/verification services. Our research indicates this remains a very limited potential pool of verifiers, especially after considering Conflict of Interest requirements as described. RPMG notes there are 32 [MRR accredited verifiers](#) today, but we are not able to discern how many of these entities remain active in the MRR space or that have an interest in pursuing the MVS program. There are 4 EPA approved QAP verifiers today, although RPMG largely anticipates not all of these verifiers will have an appetite to participate as MVS verifiers. Consideration of ISCC and Bonsucro rounds out this list of identified potential verification bodies applicable to US and foreign LCFS program participants. RPMG is alarmed by the narrow breadth of this list.

As MVS is envisioned as a mandatory action for stakeholders, RPMG recommends CARB consider verification cost containment provisions to ensure MVS costs are not exorbitant to stakeholders.

Verification Body Rotation Requirement

RPMG again urges CARB to consider verifier managing partner or individual verifier rotation as a viable alternative, especially in light of the anticipated limited pool of accredited verifiers. This alternative was not explicitly presented as having been considered by CARB staff. RPMG still believes it is important for ARB to allow the continuation of existing relationships between audit firms and producers or marketers. This is a key relationship.

RPMG would like to underscore that there is real value for reporting entities in the existing relationships that have been built with existing auditors and business partners. These relationships are relied upon in the course of everyday business and for multiple tasks associated with multiple jurisdictions. Staff's proposal on these issues will have significant impacts on regulated entities and should be finalized in a manner that is not unduly burdensome. Industry is subject to rigorous accounting standards through Generally Accepted Accounting Principles (GAAP) and Security and Exchange Commission (SEC) compliance and oversight. Accounting firms also are governed by American Institute of Certified Public Accountants (AICPA) and Public Company Accounting Oversight Board (PCAOB) auditing and engagement standards and standards of independence. Such built in safeguards should allow for individual verifier or responsible partner rotation, rather than a wholesale firm rotation requirement. Requiring a rotation of individual verifiers, or their managing partners, is preferable to requiring whole firms be rotated off engagements.

Conflict of Interest Provisions

RPMG notes from the provided concept paper, staff is considering a list of prohibited LCFS validation/verification client services for MVS. RPMG encourages staff to complete and publish this conceived list. Such clarity is highly prized by stakeholders and will go a long way in strengthening program entity.

RPMG is concerned with the look back period proposed for Section 95501, Conflict of Interest Requirements for Verification Bodies and Verifiers. The approach outlined in the concept paper includes a three-year look-back period during 2019 and 2020 and a five-year look-back period beginning in 2021. RPMG recommends differentiating between a conflict of interest that existed prior to December 31, 2018 and those that exist on or after January 1, 2019. A conflict of interest that occurred during the look back periods but did not exist on or after January 1, 2019, should be treated as a low conflict of interest as long as it is fully disclosed.

One possible solution is to define a conflict of interest that existed prior to December 31, 2018 and not on or after January 1, 2019 as a "Prior Conflict of Interest." Also, the following language could be added to Section [95501](#) (CARB June 2, 2016 presentation slide #44):

- (1) A Prior Conflict of Interest that has been fully disclosed shall be considered a low-level conflict of interest.
 - (a) In order to fully disclose a Prior Conflict of interest, the following information shall be submitted to CARB in writing:
 - I. Name of the relevant organizations with a conflict of interest,
 - II. Relevant dates including initial date of relationship or service and final date of relationship or service,
 - III. Description of the type of relationship or services that resulted in the conflict of interest,

IV. Description of any communication that occurred on or after January 1, 2019,

V. Description of the relationship or services that occurred on or after January 1, 2019.

(b) In addition to the information described above, reporting parties are encouraged to provide any additional information they believe is relevant. After CARB has had an opportunity to review the information provided, CARB may submit questions in writing to the reporting party. The reporting party shall respond to CARB's questions in writing within 30 days.

(c) The information outlined in section (a) and a transcript of the question and answer outlined in section (b) shall be retained and may be considered when evaluating any potential future allegations of impartiality or fraud.

Schedule #4: LCA Modeling Tools and Pathway Certification

Pathway Application and CI Determination

Initial Validation

RPMG supports the shift to independent verifiers' review of pathway supporting documentation as part of the new validation process. RPMG further strongly recommends the validation process allow for direct comparison of Simplified CI Calculator input data to a sample selection of the underlying identified supporting documents. This sample selection could be informed by verification plan risk assessment categories or criteria. In low or moderate risk scenarios, there is little justification for a verifier to spend large sums of billable time sifting through ALL documentation.

Addition of a Monitoring Plan

CARB Staff indicates in the provided concept paper plans to draft monitoring plan guidance for stakeholder feedback that would include general and fuel-specific elements. RPMG requests this guidance be provided to stakeholders as soon as practicable. Such guidance will, as intended, prompt stakeholder feedback and further insight to pathway application modifications.

Fuel Pathway Classifications and Process

RPMG is supportive of the modified/simplified classification system being proposed. Knowing that the vast majority of pathways will be Tier 1 and able to use the Simplified Calculator is a positive. Retaining the ability to move into a Tier 2 pathway if needed allows for the continued innovation that ethanol facilities across the country have been demonstrating for years.

RPMG supports not having to submit invoices and receipts into the Alternative Fuels Portal. It was unclear from the staff materials whether a representative level of invoices/receipts would be acceptable to the verification entity. As stated previously, RPMG encourages the submission/review of a representative sample of invoices/receipts rather than a hardline requirement to have every bit of data produced and verified.

New Draft Simplified CI Calculators for Tier 1 Ethanol Pathways

RPMG understands staff will propose to modify Tier 1 pathway application forms in order to better coordinate with the MVS system and aid in simplifying future pathway evaluations. The envisioned Simplified CI Calculator would replace the CA-GREET 2.0 Tier 1 Calculator required now. RPMG supports the proposed change and the supplied rationale of facilitating an easier pathway CI application and evaluation process.

The expressed purpose is to provide user input fields in a simplified form such that only the inputs provided are subject to verification. RPMG and our affiliated producers have appreciated the time and effort given to this new process, including the individual and group discussions aimed at educating stakeholders and getting in-the-field feedback. The simplified calculator has gone through numerous iterations already, but we still have a number of comments for consideration in aid of the refinement and improvement of this form for starch and corn fiber ethanol.

- Tab suggestions and format organization for verifier print/use: RPMG and our affiliated producers understand it is CARB's desire to achieve verifier ease of efficient use and likely printability of this simplified form. We recommend a multi-tab design to accommodate this goal. These tabs could be arranged as: 1) instructions and legend for use of the form, 2) optional chemical usage inputs, 3) all regular inputs, 4) key input results after conversion and final CI calculation summary.

- Handling of ethanol production and inventory on a denatured or undenatured basis varies by each facility. In terms of needed fields for the Simplified CI Calculator: RPMG suggests including both a section for denatured ethanol production and sales, as well as a second grouping for undenatured ethanol production and sales. There are plants which fall into each of three main categories: total plant production as denatured; total plant production as undenatured with denaturing taking place at the time of load out for final denatured sales; and finally, plants that are able to produce AND sell both denatured fuel ethanol and undenatured alcohol products.
- The simplified calculator is not intuitive as to how to treat 190 proof ethanol and 200 proof ethanol in terms of total production and inventory. RPMG recommends for the purposes of this Simplified form and verification both monthly inventory quantities of 190 proof and 200 proof ethanol be considered for inventory classification. This will ensure the most appropriate volume is compared to monthly corn usage in identifying a bu/gal yield.
- Temperature readings of ethanol volumes are commonly taken at the time of shipment (load out). Meter readings with standard temperature compensation are not universally taken at intermittent production or tank inventory phases. Tank level readings are common practice. These readings are subject to a degree of error. Temperature standardization can be manually performed on these level indications. For this reason, converting to a standard 60 degrees Fahrenheit for all ethanol readings other than metered sales quantities need to be viewed with this same level of expected accuracy. Capturing ethanol shipments as a temperature corrected 60 degrees' net volume will commonly be consistent with corresponding RIN volumes and invoiced shipment quantities. However, for production, beginning, and ending inventory values are subject to regular shrink, gain and true-up adjustments.
- Chemical defaults: Staff has proposed to revert chemical and enzyme inputs to default values for all Tier 1 ethanol producers. While we appreciate staff's explanation that these inputs have a relatively small overall impact to CI values, within our group we do have producers who feel quite strongly they wish to maintain their ability to claim the associated reductions from their responsible and conservative use of these operational necessities. For that reason, RPMG urges an option be allowed for such producers. This could be accomplished by providing a new tab for selecting either default values or entering actual plant data values to then be linked into CI calculations. The producers who wish to continue to use actual usage data are comfortable with the additional work burden this represents to their administrative staff. Still others appreciate the reduction in workload using defaults would represent.
- Denaturant default standards vs. actuals: RPMG supports monthly average inputs of actual denaturant usage for starch ethanol producers. Denaturant usage is routinely tracked for valid RIN generation and verified for attestation and engineering review requirements. Industry adherence to a maximum ethanol denaturant limit of 2.49% by volume is standard practice due to RIN qualifications, terminal leasing agreements and agreed upon contract specifications. Normalizing to a denaturant factor of 2.50% will penalize all ethanol producers two-fold. First, a normalizing co-efficient of 2.50 is higher than the maximum used in practice of 2.49. Second, actual denaturant inclusion rates are uniformly lower than the maximum of 2.49 far more often than they are at the maximum rate.
- RPMG requests CARB clarify the incorporation of Cellulosic Corn Fiber technology into the Tier 1 Simplified CI Calculator is intended to be broad enough to accommodate multiple conceived Corn Fiber technology options, and is not limited to a select few technologies.

- Cellulosic Enzyme: In order to remain consistent with EPA approved cellulosic enzyme tracking, it would be best to have a column that would exclude gallons of ethanol from the corn fiber calculation if insufficient enzyme was included in a particular fermenter dosage.
- RPMG notes within the Simplified CI Calculator there does not appear to be a formula reference between total ethanol production, inventory, or sales to cellulosic production volumes. Staff's intended treatment of these gallons in terms of total inventory tracking and total sales recorded is not yet clear.
- RPMG recommends inserting columns to capture individual user values for monthly moisture tracking of all co-products. DGS yield of dry matter lbs/gal EtOH calculated in column AP is dependent on all stakeholder entries in the preceding columns for co-product production and moisture content %. RPMG notes there is no input field for moisture content of Syrup nor Corn Oil. Is there a default moisture value built into the DGS yield formula? In CARB's opinion is the moisture content of these inputs necessary to accurately arrive at a DGS yield on a dry matter basis?
- RPMG further recommends that for any plant that wishes to use an actual corn transport mileage distance be allowed to do so. Their tracking protocol shall be summarized and documented in their Compliance Monitoring Plan. The ability of all plants to track specific source points of grain is not universal. The default values CARB has suggested for inclusion to the Simplified CI Calculator for starch ethanol seem reasonable. RPMG asserts it is plausible to allow an option of consistently using either a default value or individually tracked transport mileage.
- Corn moisture: Corn bushels need to be universally standardized to 15% moisture. This would agree with the standard corn industry measurements and would alleviate any concerns in industry of potential manipulation.
- Efficient tracking of DCO to BD/RD producers: RPMG appreciates CARB's inclusion of the DCO to BD/RD production starch ethanol pathway credit. This flexibility will not pose any problems to our system of tracking Distillers Corn Oil sales.
- Inventory adjustments are material to grain operations, RPMG recommends these inventory management practices be built into Compliance Monitoring Plans to define how each pathway holder will determine inclusion into ending inventory inputs.
- The Simplified CI calculator does not differentiate between sales of ethanol to California vs. non-California shipments – what is the impact to the verification scope, a pathway holders chosen inventory allocation method, and CARB's determination of CI Compliance for fuel consumed in California as a result?
- Downtime exclusion of data should be defined in Compliance Monitoring Plans. For example, a determined methodology of how the plant will determine which kWh's billed by utility providers during downtimes (and other billed usages) that are not easily discernable from a total monthly aggregate quantity that is not applicable to steady state operations or CI Calculator input criteria.

Schedule #5: Carbon Capture and Sequestration

Carbon Capture and Sequestration Quantification and Permanence Protocol

RPMG is very supportive of the efforts to include Carbon Capture and Storage (CCS) in this rulemaking. CCS has the very real and near-term potential to assist California meet its lower carbon transportation fuel goals. In addition, having a finalized regulatory framework will provide the necessary administrative infrastructure needed to implement this technology.

Schedule #6: Remaining Issues

LCFS Enforcement

RPMG would like to see a greater emphasis be provided for stakeholder understanding of how this program, and its new elements, will be enforced prior to the formal rulemaking notice later this year. The Concept Paper mentioned enforcement of the LCFS program in a few different sections. Mainly it reminds stakeholders that all aspects of the program will be enforceable. RPMG is concerned that the staff presentation did not discuss program enforcement moving forward. There are a significant number of new rules associated with this regulation due to the addition of MVS. This significant change, coupled with recent AB 617 legislation which seeks to increase the maximum penalties possible, provides a rationale for our concern as to how the program will be enforced. Also, in the spirit of the pending update to the ARB Enforcement Policy, RPMG would ask that the per/day nature of the violations be revisited under the existing LCFS.