MAAS ENERGY WORKS

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June 5, 2023

VIA ELECTRONIC FILING

Cheryl Laskowski
California Air Resources Board
1001 I Street
Sacramento, California 95814

Re: Maas Energy Works Public Comments on May 23, 2023 LCFS Workshop on Auto-Acceleration Mechanism and Step Down

Dear Dr. Laskowski:

Maas Energy Works (Maas) is North America's largest developer of dairy digester projects and one of the two major digester companies active in California. These facilities generate renewable natural gas (RNG) and electricity, purposed for use as carbon-negative vehile vehicle fuel. Working with our partner families in the California dairy industry, Maas develops projects that support the California Air Resources Board's (CARB) long-term goal of greenhouse gas (GHG) emission reductions, protect air and water quality, create high wage jobs, and provide a new revenue stream along with other meaningful benefits to the dairy.

Thank you for the opportunity to provide comments to CARB on the latest Low Carbon Fuel Standard (LCFS) public workshop on May 23, 2023, which discussed a proposed auto-acceleration mechanism and step down to the LCFS program, and requested input on four specific questions which we answer below.

Overview:

For the past two years, the LCFS cumulative credit bank has increased geometrically with no sign of stopping. Just as the shortage of LCFS credits in prior years created a generation of new low carbon fuels investments and companies, the oversupply of LCFS credits is now discouraging new investments in California low carbon fuels. Yet, new investments are needed if the state is to achieve its goals. We support the rapid implementation of an accelerator mechanism.

When LCFS markets are healthy, the industry has proven its ability to deliver low carbon fuels in large quantities. This fuel supply potential is larger than most prior estimates. In past rulemakings, the LCFS program's major contributors' supplies of biomass-based diesel, electricity, biomethane, and ethanol were **all underestimated** (see chart). All forecasts are imperfect, and an auto-acceleration or step down mechanism would solve the problem of imperfect forecasting while also sending a message to companies that are considering further investments in California low carbon fuels.

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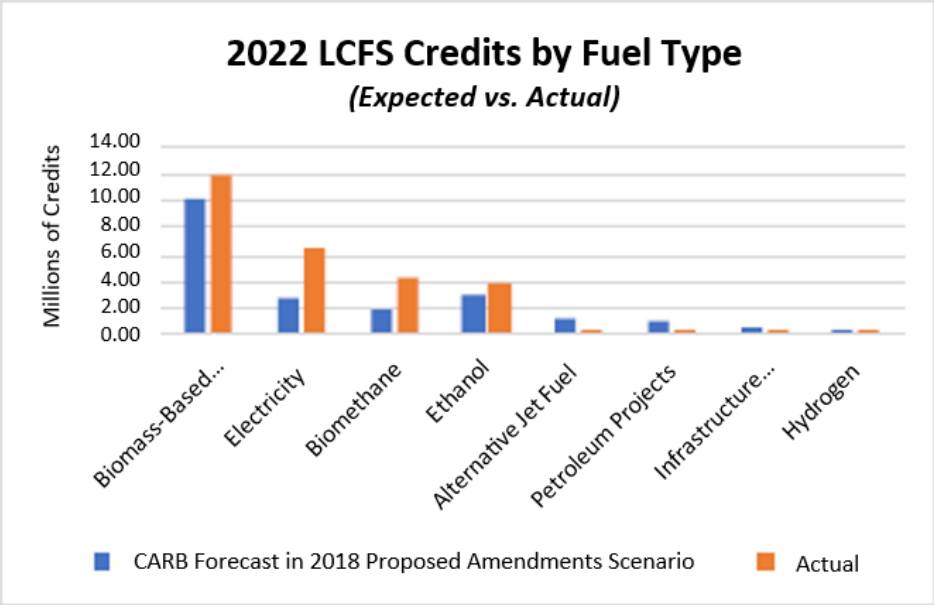

Which trigger(s) are preferable?

CARB presented two types of triggers: those driven by deficit/credit generation, or those driven by price. Credit price can be driven by factors other than the cumulative credit bank or the actual generation and retirement of credits. Due to the potential for multiple factors manipulating credit pricing, Maas is in favor of an auto-acceleration mechanism driven by deficit/credit generation, rather than price.

CARB Staff presented a "Concept B" model for a Credit to Deficit Ratio formula. We are supportive of that approach if that is the one CARB proceeds with—we generally believe that implementing an adjustment mechanism in a timely manner is the most important goal. But to the extent CARB is asking for technical advice, we think an even more effective trigger would be to use the Bank to Deficit Ratio. That is, auto-acceleration should be driven by the ratio of banked credits to annual credit generation.[1] "Bank to Deficits" ratio shows the programs' lifetime accumulated credits relative to current compliance needs. As such, "Bank to Deficits" is more illustrative of the state of the LCFS market than is the simple ratio of credit to deficit generation in a single quarter. See the chart below where the green line represents the total credit bank as a percentage of annual deficits.

[1] AJW's recent workshop presentation proposed a similar trigger using Bank to Deficit Ratio. We support their approach, although we are not certain that AJW's dual trigger adding Credit to Deficit Ratio is necessary. We don't oppose their plan and would support it if implemented. But we do believe the added complexity of the dual trigger may add more complexity than it adds benefits.

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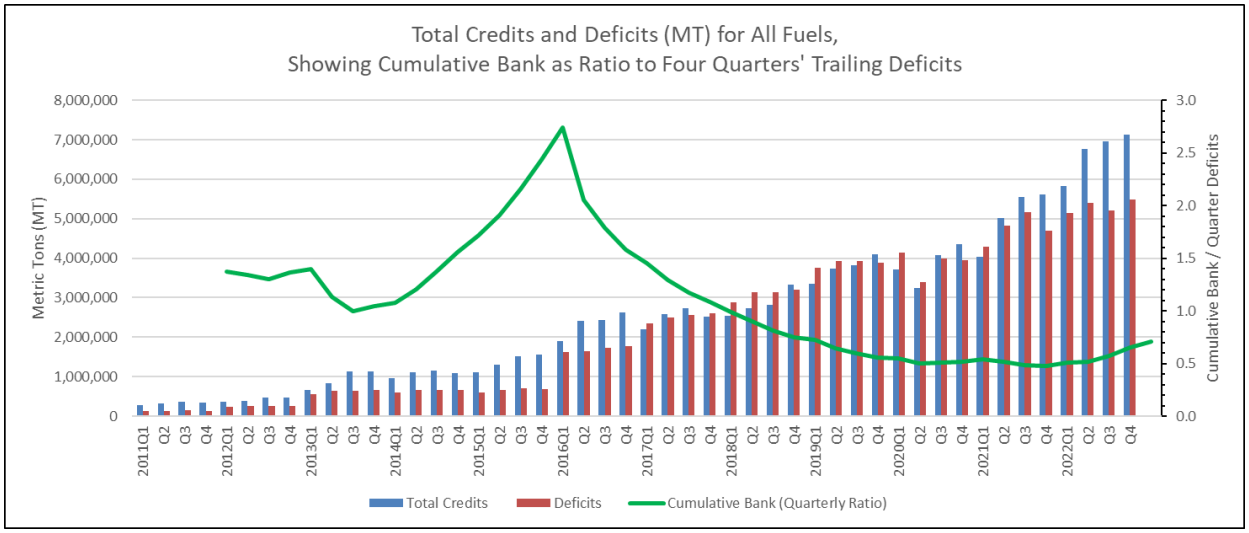

The reason we believe "Bank to Deficits" is superior to a Credit to Deficit model is that the ratio of credits to deficits over a short period is not as important to market liquidity as is the availability of total credits (that is, the bank). And investment decisions are determined by the overall supply and demand of credits, rather than the ration of credit/deficit generation in any one quarter. Rather such decisions are guided by trends in this ratio, and those trends are best expressed by the Bank to Deficit model, which is the cumulative total of those trends.[2]

What Averaging Periods Should Different Triggers Use?

We believe a "Bank to Deficits" model should accelerate the benchmark schedule one year, if during any four quarter period, the average ratio of Bank to Deficits exceeds 0.6 (or some other number determined by CARB).[3] Note that by its very design, the trigger will allow buildup of a much larger total number of credits if deficits are increasing. But if deficits are decreasing (for example through rapid EV penetration) then the trigger will result in fewer banked credits before acceleration commences. This model seems appropriate to allow banking of credits where needed, but prevent oversupply when credits are not needed for future compliance.

Should the Auto-Acceleration Mechanism Only Impact One Year, or All Subsequent Years?

Once an acceleration (of one year, or more) has been triggered, the acceleration should be permanent so long as market conditions remain above a certain threshold. For example, using a "Bank to Deficits" model, if the ratio of Bank to Deficits remains above (for example) 0.5, then the acceleration should remain in effect since the market clearly is still creating sufficient credits to keep the bank at a healthy level relative to deficits. However, if during any four quarter period the Bank to Deficits ratio drops below a lower bound of (for example) 0.4 then the market is becoming illiquid, and participants may not have enough opportunity to bank credits. In that case, the acceleration should be rolled back a year.

[2] As veterans of many typos, we encourage CARB to someday correct the spelling of "cumulative" in its LCFS quarterly reporting charts.

[3] AJW proposed a ratio of 0.7, but we find this level is too high since the market has been oversupplied for long periods where the Bank to Deficits ratio remained below 0.7. See chart above. We believe 0.6 is the level at which oversupply in the LCFS market became obvious.

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Should the cost-containment mechanism be bolstered as well if banking opportunities become limited?

In the Bank to Deficits model above, the system is already adjusted to ensure banking opportunities do not become limited. But we are not opposed to CARB bolstering the cost-containment mechanism in some extreme situation (for example less than 0.3 Bank to Deficits ratio).

Conclusion

Due to the impacts of the ongoing market oversupply, and the delays in implementing any new changes, we encourage CARB to move forward rapidly with a stabilization/auto-acceleration program rapidly. We will be supportive of CARB's Option B, or AJW's proposal, or our own proposal, or any other that achieves the general goals of market balance. We appreciate CARB's hard work devoted to improving the LCFS program.

Daryl Maas, CEO