

California Air Resources Board
1001 I Street
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April 22nd, 2019

RE: Cost Containment Mechanism

To Whom it May Concern,

In a recent workshop California Air Resources Board (“CARB”) staff unveiled a plan to introduce new Cost Containment Provisions for Low Carbon Fuel Standard (“LCFS”) credits. Staff sited Board Resolution 18-34 directed that research be done to further “strengthen the cost containment features of the program”.

CARB staff has proposed firm maximum credit prices in future rulemaking and sited five reasons for such a conclusion.

- I. Deter potential market manipulation
- II. Limits Potential adverse impacts on consumers
- III. Reduces potential credit price volatility
- IV. Marginal additional innovation could potentially be lost with weaker market signals
- V. Potentially reduce benefits to carbon fuel producers

All of these concerns will be address explicitly or implicitly in the following statements.

A sizeable credit bank exists peeking in 2017 at nearly 10 million credits, as illustrated in staff presentations. These credits were created throughout the first 6 years of the program and have book values far less than the current market value. The concern of the cost of compliance has been raised because credits have recently reached all time highs. This credit pricing is illustrative of the current perceived supply/demand for credit to meet obligations. The market is signaling that CARB’s current carbon reduction structure will lead to a short fall in the future of credit generations. This perception is not necessarily detrimental to CARB’s goal of reducing GHG emissions from transportation fuels under the LCFS program. In fact, the higher prices represent opportunities for private sector investors to deploy technologies that would be otherwise cost prohibitive in reducing the carbon intensity of fuels produced today. Signals from CARB that the credit market will actively be managing supply and demand on credits creates volatility and uncertainty in the market detrimentally hurting investments into lower carbon technologies.

Staff has proposed inserting provisions that would allow for advance credits to be generated by one sector (electric utilities) to act as a cost containment measure during times in which the Credit Clearance Markets have insufficient credits pledged to meet annual deficit obligations. This advancing of credits by electric utilities unfavorably benefits one obligated party under the LCFS and disadvantaging others. Electric utilities will have the ability to generate up to 10 million advanced credits from future years and receive revenues from them in current years thereby disadvantaging other fuel producers who can not participate in this type of financing opportunity. In essence, CARB is proposing up to \$2 billion in credits be generated from advanced credits that will only be accessible to these utilities. It would be more beneficial if all fuel producers could **generate advanced credits based on a current pro rata share by sector of credit**

generation so that innovative technologies can be deployed in those sectors to further CARB's GHG reduction goals in the future. This would directly impact all participants equally and create immediate investment in lower carbon technologies in their varying sectors.

Carbon price volatility in recent years has brought some but small innovations into fuel production based on shorter return on investment horizons due to the volatility that has existed. Stabilization in the credit markets and forecast/predictability is the only real way to incentivize large scale innovation with meaningful GHG reduction impacts. CARB should consider private sector funding requirements before deploying any cost containment mechanism. Private sector funding requires certainty and predictability to make market decisions. Without private sector funding projects will likely stall because single entities will be unable to finance large scale projects.

An excellent example of projects that have high capital costs to deploy, long lead times and a need for financial structuring would be Carbon Capture technologies. These technologies typically require 2-3 years to develop a project under normal circumstances but would likely take longer given the addition of the recently adopted Carbon Capture Sequestration ("CCS") Protocol in September of 2018. This timing lines up almost perfectly with staff's proposed timeline for advanced credit generation and repayment. Projects like CCS will have significant impact on GHG emission and should be supported. Staff has claimed that CCS could have a 40% reduction to ethanol carbon intensity alone. The ability to advance credits on these types of projects would help insure the project is completed, give financial backers the security of knowing that such projects are supported and alleviate some of the upfront capital cost associated with the projects while simultaneously contributing to reduction technology innovations that will have meaningful impacts.

Another consideration that would add some predictability to credit generation is to borrow a concept from the Renewable Fuel Standard ("RFS"). That concept is "vintage" years. Renewable Identifications Numbers ("RIN")s are generated and have a vintage year attached. These RINs must be retired within 3 years of generation or the RIN expires. Since the LCFS implies the number of obligated credits needed through it's carbon reduction table the market will be able to calculate the number of credits being created in a given year based on fuel supply demand trends and participant carbon intensity scores. A vintage year program would also address credit banking concerns expressed in other workshops and forums in which credit pricing could be manipulated by entities artificially reducing supply in future years by storing credits that will never expire. This means that credit bankers will have to be cognizant of the vintages in their inventory and use or sell them into the market to be used before they lose their value. Since all credits in the bank represent real GHG reductions this should have a cumulative impact on ongoing GHG climate reductions year over year versus an obligated party not having to meet actual reduction targets in the future because they have banked so many credits. Additionally, this would mean that the credits in banks will represent the most accurate GHG modeling from the latest CA-GREET and address any concerns about accuracy of the actual reduction.

Regards,



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