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Sam Wade, Low Carbon Fuel Standard, California Air Resources Board, California Environmental Protection Agency, State of California,

EnergyField appreciates the work done by CARB on the 2018 proposed amendments to the LCFS, as well as the opportunity to publicly comment on the same. We support the goals of the amendments and particularly applaud the changes to opt-in rules regarding crude produced using innovative methods. Allowing the Project Operator to generate credits under the innovative crude section substantially simplifies the implementation of revenue-sharing agreements.

However, we believe that the LCFS regulation should be consistent between calculations for innovative crude and other fuel pathways. Specifically for fuel pathways, there is an enumerated list of criteria defining what it means for renewable electricity to be "directly consumed in the production process." For renewable electricity used to produce innovative crude, the language "consumed for crude oil production" is used but no list of specific requirements is given to determine if the requirement has been met.

In the comment below we have highlighted the inconsistences and propose consistent language for the future regulation. EnergyField submits the following comment for consideration:



For solar or wind electricity projects, the following additional recordkeeping and reporting will be required:

1. Metered data on solar or wind electricity consumed for crude oil production at the oil field during the quarter (kWh);

2. Metered data on total electricity consumed for crude oil production at the oil field during the quarter (kWh); and

3. An attestation letter stating that all solar or wind electricity was supplied directly for crude oil production at the oil field and that the solar or wind electricity reported for generating LCFS credit did not produce renewable energy certificates or other renewable attributes recognized or credited by any other jurisdiction or regulatory program.

In the context of the complete set of proposed amendments, it is unclear what "consumed for crude oil production" or "supplied directly for crude oil production" means and what accounting methods may be used to establish such consumption/supply.



In section §95488.8(h) for renewable or low-CI process energy, the as-proposed regulation clarifies what it means for renewable electricity to be "directly consumed in the production process." Specifically, the as-proposed regulation states:

Renewable electricity must be supplied from generation equipment under the control of the pathway applicant. Such renewable electricity must be able to demonstrate:

(A) Any renewable electricity certificates or other environmental attributes associated with the energy are not produced, or are retired and not claimed under any other program with the exception of the federal RFS.

(B) The generation equipment is directly connected through a dedicated line to a facility such that the generation and the load are both physically located on the customer side of the utility meter. The generation source may be grid - tied, but a dedicated connection must exist between the source and load.

(C) The facility's load is sufficient to match the amount of renewable electricity claimed using a monthly balancing period.



In light of the above, EnergyField proposes that section §95489(c)(4)(D) be re-written to state:

For solar or wind electricity projects, the following additional recordkeeping and reporting will be required:

1. Metered data on solar or wind electricity consumed for crude oil production at the oil field <u>for each month</u> during the quarter (kWh);

2. Metered data on total electricity consumed for crude oil production at the oil field <u>for</u> <u>each month</u> during the quarter (kWh); and

3. An attestation letter stating that all solar or wind electricity was supplied directly for consumed in the production process of crude oil as described in (A), (B), and (C) below production at the oil field and that the solar or wind electricity reported for generating LCFS credit did not produce renewable energy certificates or other renewable attributes recognized or credited by any other jurisdiction or regulatory program.

(A) Any renewable electricity certificates or other environmental attributes associated with the solar or wind electricity are not produced, or are retired and not claimed under any other program.

(B) The generation equipment is directly connected through a dedicated line to a facility such that the generation and the load are both physically located on the customer side of the utility meter. The generation source may be grid - tied, but a dedicated connection must exist between the source and load.

(C) The crude oil production facility's load is sufficient to match the amount of renewable electricity claimed using a monthly balancing period.

We believe that similar and consistant language should be use throughout the entire regulation whenever a specific source of energy or feedstock is required to be "consumed on site" or "consumed in the production process" of a particular pathway or project.

We thank CARB staff for their work and consideration of our comments. Best Regards,

Markleisler

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