

December 4, 2020  
The Woodlands, TX

Arpit Soni  
Manager, Alternative Fuels Section  
California Air Resources Board  
1001 Ninth Street  
Sacramento, CA 95814

Dear Mr. Soni,

Thank you for the last communication with your team regarding the potential inclusion of H<sub>2</sub> as eligible for book and claim under section 95488.8(i) of LCFS regulation.

As discussed, there are some aspects to consider when evaluating this option. Linde owns and operates a private pipeline system which we control and manage, consisting of H<sub>2</sub> production facilities, compression, pipelines and customers. H<sub>2</sub> storage in caverns is also available in some of Linde's H<sub>2</sub> networks.

The normal operational mode for such a H<sub>2</sub> network system includes H<sub>2</sub> mass balancing:

- It is standard procedure to do mass balancing in a privately owned and operated H<sub>2</sub> network
- We are able to track and allocate H<sub>2</sub> generated by our production facilities to our customers through this network with an advanced accounting system and a series of metering devices
- Renewable diesel facilities and other customers are connected into this network by a dedicated connection, allowing us to mass balance H<sub>2</sub> into their production process

The implemented accounting system allows for better data traceability and availability:

- H<sub>2</sub> network accounting system used for billing purposes guarantees physical traceability of produced and delivered H<sub>2</sub> molecules in the pipeline network
- Continuous monitoring for H<sub>2</sub> mass balancing in the network improves data availability
- Metering devices onsite provide the required online monitoring data

For reference, see below a graphic description of a H<sub>2</sub> pipeline network:

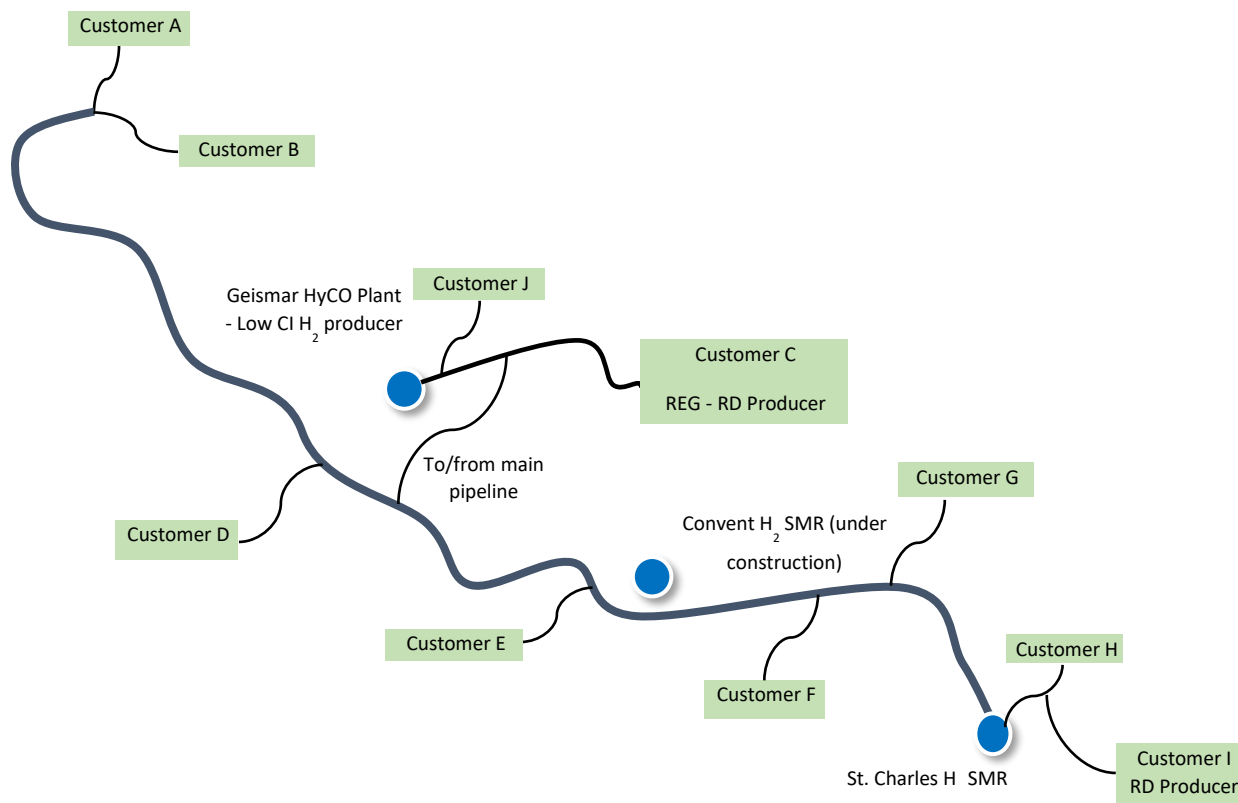


Figure 1: Overview of Linde's South East Louisiana H2 Pipeline Network

We believe it is technically possible to secure the environmental integrity of allowing H<sub>2</sub> to eligible under the book and claim provisions of the LCFS regulation, while avoiding double counting with a strong accounting system. The accounting system will provide the required information for the Verification step in CARB's LCFS procedures.

We would like to kindly ask CARB staff to take into consideration the above information for evaluation and request to include H<sub>2</sub> as eligible under book and claim LCFS regulation. Should you wish to discuss our comments in more detail, please contact me at [carlos.ospina@linde-gas.com](mailto:carlos.ospina@linde-gas.com) and Mikhael Skvarla, Linde's governmental relations representative at The Gualco Group, Inc. at [Mikhael\\_Skvarla@gualcogroup.com](mailto:Mikhael_Skvarla@gualcogroup.com).

Thanks for your attention and support during this process.

Best regards,

/s/

Carlos Ospina  
Business Development Manager  
Hydrogen and Syngas