

Dr. Manisha Singh and Dr. Veronika Pesinova
California Air Resources Board
1001 "I" Street
Sacramento, CA 95814

March 18, 2016

Submitted via email
LCFS

Dear Dr. Singh and Dr. Pesinova,

GHI Energy is responding today to Low Carbon Fuel Standard (LCFS) Regulatory Guidance 16-02 dated March 2016, wherein ARB discusses the energy and mass density values for reporting natural gas transactions under the Low Carbon Fuel Standard (LCFS).

Please note that these comments relate only to compressed natural gas (CNG) consumed directly off of a utility distribution system or common carrier pipeline. Liquefied natural gas (LNG) is sold and transacted in volumetric units (gallons) and therefore these comments are not applicable to LNG.

GHI would like to take this opportunity to urge ARB to reconsider its approach to reporting CNG transactions under the LCFS using mass or volumetric units (i.e. pounds or cubic feet) and instead consider measuring natural gas strictly in terms of total energy (i.e. MMBTU), which is consistent with existing industry practices. Following an energy based approach will: simplify reporting, enable more effective oversight, reduce the number of calculation mistakes, and reduce transaction costs.

The specific reasons that an energy based approach will improve the LCFS program structure are as follows:

- 1.) Based on our experience, all producers, pipelines, utilities, and end-users both contract for natural gas and settle transactions on an energy basis, whether in millions of British thermal units (wholesale) or in therms or gasoline gallon equivalents (retail). Accordingly, all contracts, invoices, transaction data, and product transfer documents for natural gas activities are reported between counterparties based on total energy. Under the current system and that proposed by the draft Regulatory Guidance, this energy based data must be converted to volumetric units (scf) in order to be reported to the LCFS. If ARB were to accept energy-based data instead, it would be possible for ARB personnel to trace and audit CNG transactions more easily and accurately because the reported volumes would correspond to the units contained in pipeline and utility statements.
- 2.) In addition, the calculations of LCFS credits from CNG would be more precise due to the fact that carbon intensities are denominated in units of energy (i.e. megajoules). Under the current system, a CNG regulated party must take the total amount of natural gas energy



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consumed and convert that energy (in MMBTU's, therms, or GGE's) to a volume of cubic feet to be reported in the LCFS reporting tool. The reporting tool then converts that volume *back* to energy (megajoules) in order to calculate the number of LCFS credits created. By reporting energy volumes directly, the conversion step would be skipped and the total number of LCFS credits created would be more precise. Such an approach would obviate the need for mass or energy density assumptions such as those discussed in the guidance document. An energy based approach would give ARB more confidence in the number of credits created and provide value to regulated parties who currently lose a small percentage of total credits created due to rounding issues encountered during conversion calculation.

We appreciate the opportunity to provide this feedback to ARB and would welcome any further questions or opportunities to provide insight on this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "John M. Greene", with a long horizontal flourish extending to the right.

John M. Greene

President
GHI Energy, LLC