

LOW CARBON FUEL STANDARD
PROPOSED NEW TEMPORARY FUEL PATHWAY

**Biomethane CNG, LNG or L-CNG from
Anaerobic Digestion of Swine Manure**



February 08, 2019

Pursuant to section 95488.9(b)(4) of the Low Carbon Fuel Standard (LCFS) regulation,¹ the Executive Officer may approve a new Temporary pathway for a fuel or feedstock-fuel combination not found in Table 8 of the LCFS regulation. This document proposes a carbon intensity (CI) value for a new Temporary pathway of Biomethane CNG, LNG or L-CNG from Anaerobic Digestion of Swine Manure and includes the rationale for assigning the CI to this particular Temporary pathway.

Public comments on the proposed new Temporary pathway will be accepted for 45 days (February 8 to March 25, 2019) prior to certification. If relevant comments received during this period require significant revisions of the originally published pathway, an updated pathway will be posted for additional public comment. Upon certification, this new Temporary pathway will be available for LRT-CBTS reporting for the quarter in which it is certified.

Rationale

In section 95488.1(c) of the regulation, biomethane (used in vehicles as CNG, LNG or L-CNG) from anaerobic digestion of both dairy and swine manure is classified as a Tier 1 pathway and a Simplified CI Calculator was developed and approved for use in determining CI. The temporary pathways for fuels with indeterminate CIs listed in Table 8 of section 95488.9(b)(4) includes biomethane from dairy manure; but that temporary pathway excludes swine manure biomethane, because staff was not aware of any data to substantiate whether such fuels should be eligible for the same conservative temporary CI value. Several applications recently submitted for LCFS certification have provided substantial information regarding this feedstock-fuel combination. Staff determined the proposed CI value using the most conservative data from these applications and literature. The resulting CI was increased by an additional 5 percent and rounded to the nearest five CI points when applicable, consistent with the methodology used to determine existing Temporary CI values listed in the regulation. Staff recommends that the Temporary CI value for Biomethane CNG, LNG or L-CNG from Anaerobic Digestion of Swine Manure shown in Table 1 below be proposed to be certified by the Executive Officer.

Table 1. Proposed Temporary CI

| Fuel | Feedstock | Process Energy | CI (gCO₂e/MJ) |
|---------------------------------|------------------|---|-------------------------------------|
| Biomethane CNG, LNG or L-CNG | Swine Manure | Grid electricity, natural gas, and/or parasitic load | - 150 |

¹ All citations to the LCFS Regulation are found in Title 17, California Code of Regulations (CCR), sections 95480-95503