

LOW CARBON FUEL STANDARD  
PROPOSED NEW TEMPORARY FUEL PATHWAY

**Alternative Jet Fuel**



~~July 31, 2019~~

July 30, 2021

Pursuant to section 95488.9(b)(4) of the Low Carbon Fuel Standard (LCFS) regulation,<sup>1</sup> 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 carbon intensity (CI) values for a new Temporary pathway of Alternative Jet Fuel and includes the rationale for assigning the CI to this particular Temporary pathway.~~ Carbon intensity (CI) values for a Temporary pathway for Alternative Jet Fuel were approved by CARB under section 95488.9(b)(4) in 2019. This document proposes to update these temporary CIs to clarify that the CIs are applicable to the Alternative Jet Fuel produced by various fuel production technologies approved by the Executive Officer (e.g. hydrotreating, fluid catalytic cracking). This update does not change the CI values of previously certified Temporary pathway nor the original effective date of the previously approved pathway for LRT-CBTS reporting.

Public comments on this document ~~the proposed new Temporary pathway~~ will be accepted through September ~~16~~15, 2021 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

Pursuant to section 95481(a)(6) of the LCFS regulation, alternative jet fuel is defined as a drop-in fuel, made from petroleum or non-petroleum sources, which can be blended and used with conventional petroleum jet fuels without the need to modify aircraft engines and existing fuel distribution infrastructure. The proposed Temporary CIs below are applicable to alternative jet fuel produced from various technologies approved by the Executive Officer. ~~Various technologies can be used to produce alternative jet fuel. The proposed Temporary CIs below are applicable only to alternative jet fuel that is produced from a hydrotreating process.~~ The same feedstocks that are currently used in the production of biomass-based diesel (see Table 8 in section 95488.9(b)(4)) can also be used to produce alternative jet fuel. Staff determined the proposed CI values using the most conservative data from LCFS certified renewable diesel pathways that produce alternative jet fuel as a co-product. The resulting CI was increased by an additional 10 percent due to additional energy and chemical inputs ~~for the hydrocracking process~~, and then an additional 5 percent of conservative margin, and finally rounded to the nearest five CI points when applicable, consistent with the methodology<sup>2</sup> used to determine existing Temporary CI values listed in the LCFS regulation. Staff

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

<sup>2</sup> LCFS ISOR Section 95488.9(b). Table 8: Revisions to the Temporary Pathways Table; page 23 of 50, or III-101

recommends that the Temporary CI values for Alternative Jet Fuel shown in Table 1 below be proposed to be certified by the Executive Officer.

**Table 1. Proposed Temporary CI for Alternative Jet Fuel**

<b><u>Fuel</u></b>	<b>Feedstock</b>	<b>Process Energy</b>	<b>CI (gCO<sub>2e</sub>/MJ)</b>
<b><u>Alternative Jet Fuel</u></b>	Fats/Oils/Grease Residues	Grid electricity, natural gas, and/or renewables	50
	Any feedstock derived from plant oils (excluding palm oil and palm derivatives, as a sole feedstock or blended with other feedstocks)	Grid electricity, natural gas, and/or renewables	70
	Any other feedstock	Grid electricity, natural gas, and/or renewables	Baseline (2010) CI value for USLD