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 Fuel Pathway Code: BDU204

**Staff Summary**  
 Tier 2 Method 2B Pathway  
 Crimson Renewable Energy LP, Bakersfield, California  
 Low Energy Rendering for North America Used Cooking Oil (UCO) to  
 Biodiesel Pathway

### Pathway Summary

Crimson Renewable Energy LP (Crimson) operates a biodiesel (BD) plant in Bakersfield, California. This plant uses a Fatty Acid Methyl Ester (FAME) transesterification process to produce biodiesel (BD) from Used Cooking Oil (UCO) sourced from North America. Since the UCO is rendered with low energy consumption, Crimson has applied for a Tier 2 Method 2B BD pathway to account for the low-energy rendered used cooking oil (UCO) feedstock.

### Carbon Intensity of the UCO to BD Pathway

The LCFS Tier 1 CA-GREET 2.0 model does not offer an option to account for the use of low-energy rendered UCO to produce BD. Hence the Tier 2 CA-GREET 2.0 model has been used to estimate the CI for this pathway. Crimson has met the two-year data requirements to support the energy use and feedstock sourcing for this pathway. The following table lists the proposed CI for this pathway.

**Proposed Pathway CI**

Fuel	Pathway FPC	Pathway Description	Carbon Intensity (gCO <sub>2</sub> e/MJ)		
			Direct Emissions	Indirect Land Use	Total
Biodiesel from UCO	BDU204	Tier 2 Method 2B Pathway: Average North American sourced Used Cooking Oil feedstock; Biodiesel produced in Bakersfield, California using grid electricity and natural gas.	13.93	0	13.93

### Operating Conditions

Operations at the plant will be subject to the following conditions designed to ensure that the CI of the BD produced at the Crimson Bakersfield plant will remain at or below the value appearing in the above table for all volumes of BD produced using this feedstock and sold in California:

1. Except for periods of abnormal operations, such as planned maintenance or unpredictable, unavoidable, and uncontrollable force majeure events, the CI value specified in the application shall not be exceeded.
2. The CI calculated in the table above is applicable to raw UCO sourced from within a 50 miles radius and transported by truck to the oil rendering plants. The rendered UCO is transported by rail for average distance 1,400 miles to California. If UCO is sourced from outside the specified areas, then this pathway CI is not eligible to be reported for the purpose of generating LCFS credits.
3. Because the facility produce BD from various feedstock (or same feedstock, but various locations), the facility shall maintain an accounting system to allocate volume of biodiesel produced from each source (or other feedstock if utilized in the future) and provide necessary documentation to support the use of this feedstock if requested by ARB or another entity on behalf of ARB.