

STAFF SUMMARY
Method 2A Application for Certification of
Corn Ethanol / Dry Mill / with DGS Co-Product Credit LCFS Pathways
Adkins Energy LLC
Lena, IL
(Pathway Codes: ETHC114)

Date Deemed Complete: October 22, 2015
Date Posted: November 20, 2015
Date Certified: December 1, 2015

Pathway Summary

Adkins Energy LLC operates a corn ethanol plant in Lena, Illinois. Adkins has applied for one Method 2A pathways for this plant under the California Low Carbon Fuel Standard (LCFS). The plant is a dry mill, natural-gas-fired facility capable of producing 60 million gallons per year of denatured ethanol. The plant obtains 94 percent of its feedstock from neighboring counties in Illinois and produces about 3% corn oil and both dry (41%) and wet (about 56%) distiller's grains with solubles (DDGS and WGDS) as co-products.

Carbon Intensity (CI) of the Adkins Pathway

The applicant requested one corn ethanol pathway. The applicant provided two years of natural gas and electricity invoices covering the months of January 2013 through December 2014. Using average energy consumption values calculated from these invoices and other facility-specific CA-GREET inputs, the applicant calculated a CI of 86.33 gCO₂e/MJ for the pathway.

Proposed Method 2A pathways must be evaluated against reference pathways from the LCFS Lookup table. Although a Method 2A pathway must be very similar to its reference pathway, it must achieve at least a five gram CO₂e/MJ CI improvement over the reference pathway.¹ The reference pathway for the proposed Adkins method 2A pathway is the Midwest dry mill, dry DGS, natural gas pathway (ETHC004) with a CI of 98.40 gCO₂e/MJ. With the higher ethanol yield, lower energy use and shorter corn transport distance, Adkins pathway improves upon its reference pathway CI by more than the requisite five grams of gCO₂e/MJ for the DDGS pathway submitted here.

¹ In the LCFS regulation, this 5 gCO₂e/MJ threshold is referred to as the "substantiality requirement."

Proposed Lookup Table Entries

Fuel	Pathway Identifier	Pathway Description	Carbon Intensity Values (gCO ₂ e/MJ)		
			Direct Emissions	Land Use and Other Indirect Effects	Total
Ethanol from Corn	ETHC114	2A Application*: Midwest; Dry Mill; 41% Dry DGS, 56% Wet DGS; NG	56.33	30	86.33

*Specific Conditions Apply

Applicable Operating Conditions

Operations at the plant will be subject to the following operating conditions designed to ensure that the CI of the corn ethanol produced at the Adkins plant will remain at or below the values appearing in table above.

- No conditions are placed on the amounts of electricity and natural gas consumed and the ethanol yield at the Adkins plant, so long as the CI reported in the above table is not exceeded. For purposes of determining compliance with this operating condition, the plant's CI will be calculated based on data from the most recent 12 months of operation, excluding periods of abnormal operations, such as planned maintenance or unpredictable, unavoidable, and uncontrollable force majeure events. The plant's thermal and electrical energy use, and ethanol yield values are classified by the applicant as confidential business information.
- As long as the pathway CI (86.33 gCO₂e/MJ) is not exceeded, fuel pathway code (FPC) ETHC114 may be used to report transactions involving volumes from the Adkins plant, regardless of the proportions of DDGS and WDGS the plant produces.

Staff Analysis and Recommendations

Staff has reviewed the Adkins Method 2A application and finds the following:

- Staff has replicated, using the CA-GREET spreadsheet, the carbon intensity value calculated by the applicant;
- Staff has concluded that the plant's actual thermal and electrical energy consumption are not likely to exceed the thermal and electrical energy consumption levels specified in Adkins Method 2A application; and

- Staff has concluded that Adkins is capable of operating its plant in a manner such that the ethanol yield is equal to or greater than the corresponding value specified in Adkins Method 2A application, and that compliance with the operating conditions above can be maintained.

On the basis of these findings, ARB staff recommends that Adkins application for the above Method 2A LCFS pathways be certified.