

**Staff Summary
Method 2A Application
Husker Ag, LLC Fuel Pathway Staff Summary
Husker Ag, LLC**

Deemed Complete Date: June 01, 2015
Posted for Comment: August 07, 2015
Certified and Posted Date: August 18, 2015

Plant Summary

Husker Ag, LLC (Husker) produces ethanol from corn at a dry mill plant located in Plainview, Nebraska. Husker has applied for a Method 2A pathway for its Plainview plant under the California Low Carbon Fuel Standard (LCFS). The production capacity of the Husker Plainview plant is 76 million gallons per year of denatured ethanol. The plant is currently operating at close to this production capacity. The plant produces both modified distiller's grains with solubles (MDGS) and dried distiller's grains with solubles (DDGS). For the two year period of 2011 and 2012, Husker produced about three percent DDGS and about 97 percent MDGS, on a dry matter basis, from the Plainview plant. Husker also produced a small amount of corn oil from the plant. The MDGS contains approximately 50 percent water by weight, and the DDGS contains approximately 11 percent water by weight.

Carbon Intensity of Ethanol Produced

As shown in Table 1, the applicant is applying for one pathway CI for the average energy use, average ethanol yield, and average DGS (and corn oil) yield when producing primarily MDGS and a small amount of DDGS. The CI of the ethanol produced by Husker on average is 81.92 gCO₂e/MJ. Because this pathway is a single CI pathway, the proportions of DDGS and MDGS would be permitted to vary so long as the average CI of 81.92 gCO₂e/MJ is not exceeded. Husker supplied sufficient confidential business information, which allowed staff to be confident in the long term CI associated with the Husker 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 Husker's proposed method 2A pathway is the Midwest dry mill, dry DGS, natural gas pathway (ETHC004) with a CI of 98.4 gCO₂e/MJ. This reference value also applies to MDGS and DDGS mixed pathways. Husker's pathway improves upon their reference pathway CI by more than the requisite five grams of CO₂e/MJ.

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

Table 1: Proposed Lookup Table Entries

Fuel	Pathway Identifier	Pathway Description	Carbon Intensity in gCO₂e/MJ (Including Indirect Effects)
Ethanol from Corn	ETHC092	2A Application*: Midwest; Dry Mill; Mixed DGS (Dry and Modified); NG	81.92

*Specific Conditions Apply

Operating Conditions (*Specific Conditions Apply)

Operations at the plant will be subject to the following condition designed to ensure that the CI of the of the Husker Pathway will remain at or below the value appearing in Table 1. The condition must be met for every gallon sold in California.

- The balance of energy use (thermal and electrical), DGS yield² (dry lb DGS/gal EtOH), ethanol yield (200 proof gal EtOH/bu corn (56 lb/bu, wet basis 15% water)), and other LCFS pathway variable input factors such as transportation distances must in-totality result in a fuel CI is less than or equal to the CI in Table 1 of this summary.

Staff Analysis and Recommendation

Staff has reviewed Husker’s Method 2A application, and finds the following:

- Staff calculated a lower CI than the applicant. Staff communicated this discrepancy to the applicant. The applicant decided to use the CI they calculated rather than try to determine the discrepancy. CA-GREET 1.8b was used to verify Husker’s CI, which resulted in 81.49 gCO₂e/MJ using the applicants stated inputs and any changes from default.
- Staff concluded that the plant’s actual energy consumption is not likely to exceed the average energy consumption levels specified in Husker’s Method 2A application.
- Staff concluded that Husker is capable of operating the Plainview plant in a manner such that the ethanol CI value specified in Husker’s Method 2A application, and that compliance with the totality of the operating condition above can be maintained on average excluding intermittent periods of abnormal operation or force majeure events.

On the basis of these findings, staff recommends that Husker's application for a Method 2A pathway be certified.

² The mass yield of DGS under LCFS pathways includes corn oil, syrup, or other DGS associated co-products for crediting purposes.