



August 2, 2012

Re: Method 2A Application- **Excluding Confidential Business Information**

California Air Resources Board  
Stationary Source Division  
Criteria Pollutants Branch - 6th Floor  
1001 I Street  
P.O. BOX 2815  
Sacramento, CA 95812

To: The Executive Officer

Herewith, please find our application and supporting documents for a fuel lifecycle GHG emissions pathway using the Method 2A application process described in “Establishing New Fuel Pathways under the California Low Carbon Fuel Standard Procedures and Guidelines for Regulated Parties” report by ARB (California Air Resources Board) issued on March 25, 2010.

We seek a pathway for our Hereford Renewable Energy, LLC (“Hereford”) ethanol plant located near Hereford, Texas. At our facility, we produce ethanol from U.S. corn and grain sorghum ethanol (milo). Our facility uses natural gas for its process energy and electricity from the local grid. We produce wet distillers grains solubles (WDGS) as a co-product.

The CARB LCFS regulations stipulate that only pathways lower in carbon intensity value than the main pathway they deviate from can use the Method 2A application. Our pathway is a sub-pathway of the Corn Ethanol (Midwest; Dry Mill; Wet DGS, NG) Pathway because, except for the points of deviation summarized below, our pathway is identical to the Corn Ethanol (Midwest; Dry Mill; Dry/Wet DGS, NG) Pathway described in the Detailed California-Modified GREET Pathway for Corn Ethanol Well-to-Wheel (WTW) lifecycle analysis.<sup>1</sup>

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<sup>1</sup> Detailed California-Modified GREET Pathway for Corn Ethanol Well-to-Wheel (WTW) lifecycle analysis, Version 2.1, published February 27, 2009.

We have used the CA-GREET Model 1.8b to calculate the lifecycle greenhouse gas emissions from this sub-pathway. Based on the input changes to the model described in the attachments, the carbon intensity value of this new pathway is **78.90 gCO<sub>2</sub>e/MJ**. This CI intensity value and our production volumes more than meet the “5-10” substantiality rule and other new pathway requirements.

The following sections to this application provide the details and documentation of our application for a new pathway under Method 2A. Portions of the following information that we consider Confidential Business Information have been clearly marked as such, *but are not included in this non-confidential version of the application. In this version of the application, the points where elements of Confidential Business Information have been removed from the text or accompanying tables are indicated so as to inform the public that the complete application to the ARB contained additional information to support this application, but that such information is considered by us to be Confidential Business Information.*

During the 12 month production period used for this pathway, 98.8% of the feedstock was corn and 1.2% was milo. The highest monthly percentage of milo feedstock was in August 2011, when it was 6.7%. Given the small fraction of milo in the feedstock during the production period, and essentially the same yield and energy use of milo and corn in the production process<sup>2</sup>, this application has treated the feedstock during the production period as all corn.

We request your approval and would be glad to answer any questions you may have about our application. Following please find the names and contact information of the persons who are available to answer any questions about our application. Please note that Houston BioFuels Consultants, LLC are assisting us with the application and may be contacted if you have questions about our application.

Affiliation:	Hereford Renewable Energy	Houston BioFuels Consultants, LLC
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Regards,

  
Trey Stutts  
Director, Renewable Energy

Attachments

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<sup>2</sup> The EPA proposed pathway for grain sorghum ethanol estimates that the ethanol production process using milo as feedstock uses 3.7% less thermal process energy and 0.7% less electrical energy than a corn ethanol plant. With only 1.2% milo, this would amount to 0.04% less thermal energy and 0.008% less electrical energy than a corn ethanol plant. Source: EPA Notice of Data Availability (NODA) Concerning Renewable Fuels Produced from Grain Sorghum under the RFS Program, published in the Federal Register, 12 June 2012

## **Attachments**

### **Section Number and Contents**

- I. WTW Diagram of Hereford Sub-Pathway of the Corn Ethanol (Midwest; Dry Mill; Wet DGS, NG) Pathway
- II. Hereford Plant Information
- III. Table of CA-GREET Model Inputs for Hereford Pathway
- IV. Basis for the Input Values
- V. CA-GREET Model Output and Analysis of Results
- VI. Production Range of Hereford Pathway
- VII. Sustainability of Hereford Pathway
- VIII. Impact on Land Use
- IX. Documents supporting Annual Quantities of Corn, DGS, Ethanol, Natural Gas and Power