Application for the Establishment of a New Fuel Pathway under the California Low Carbon Fuel Standard

Instructions

Use the form below to apply for a new or modified fuel pathway under the Method 2A and 2B provisions of the California Low Carbon Fuel Standard (LCFS). Submittal of this form initiates the formal pathway evaluation process. Because that process is subject to strict time constraints, prospective applicants should discuss their proposals with Air Resources Board (ARB) staff prior to submitting a completed application form. Staff will advise potential applicants on the documentation that must be submitted along with this form. A list of LCFS Method 2A/2B staff contacts appears in the final section of this document. Submission of an incomplete application packet will result in delays, which could in turn lead to denial. This application form is to be submitted as a cover sheet to the full Method 2A or 2B application packet. A general list of the types of supporting information that must be submitted with a 2A/2B application appears in Section IV, of the application form

The full method 2A/2B application process is described in detail in a document entitled *Establishing New Fuel Pathways under the California Low Carbon Fuels Standard.* This is available at:

http://www.arb.ca.gov/fuels/lcfs/012010newguideline.pdf)

Lifecycle analysis reports included with Method 2A/2B application packets should be similar in format, content, and scope to those already approved under the LCFS. Examples of approved life cycle analyses can be found at

http://www.arb.ca.gov/fuels/lcfs/workgroups/workgroups.htm#pathways

Applicants may designate portions of their submittals as trade secrets. All information so designated will be treated in accordance with 17 CCR §§ 91000-91022 and the California Public Records Act. In deciding on what information to designate as secret, applicants must consider the public nature of the rulemaking process. New and modified pathways can be approved only if enough information is available publicly to justify that approval.

Method 2A and 2B Application Form

I. Application Submission Date:

II. Company Contact Information

a. Company Name: Bonanza BioEnergy, LLC

b. Mailing Address:

Address Line 1	2810 E US HWY 50
Address Line 2	PO Box 1178
City	Garden City
State/Province	KS
Zip/Postal Code	67846

c. Main Company Phone Number: Tom Willis, CEO
Office 620-626-2021

d. Secondary Company Phone Number: Tom Willis, CEO
Cell 620-655-8228

e. Fax number: 620-624-2919

f. Company Web Site URL: www.conestogaenergy.com

g. Primary Method 2A/2B Contact Person:

Name: Lauren Wittig

Position/Title: Senior Consultant

Affiliation/Firm: Camco

Email Address: lauren.wittig@camcoglobal.com

Office Phone Number: 303-847-4220

Mobile Phone Number: 303-437-6543

Fax Number: 303-410-6644

h. Consultant/Third Party Application Preparer:

Name: Garth Boyd

Position/Title: SVP Agriculture

Affiliation/Firm: Camco

Email Address: garth.boyd@camcoglobal.com

Mobile Phone Number: 910-284-1765

Fax Number: 303-410-6644

Consulting entity's web site URL: http://na.camcoglobal.com

i. LCFS Reporting Tool Organization ID code (if known):

j. U.S. Environmental Protection Agency (U.S. EPA) Company ID (if known): 70117

k. U.S. EPA Facility ID (if known):

III. Pathway Information

a. Pathway application type. Applicants are encouraged to discuss their pathway application types with ARB staff before proceeding. Please check one box only.

☒ Method 2A: Sub-pathway ☐ Method 2B: New Pathway

b. Brief description of proposed pathway. Please emphasize the important innovations and/or distinctive characteristics associated with the proposed pathway or sub-pathway.

The proposed sub-pathway is for ethanol made from locally-sourced, non irrigated milo and locally-sourced corn feedstocks grown using highly efficient, large scale production methods and processed in a Kansas dry-mill, natural gas-fired cogeneration plant Implementation of advanced plant process controls also results in greater efficiency and less energy consumption per unit of output. Ethanol transport to California is unique due to the fact that the product is loaded into railcars at the plant due to a rail spur located on site. The wet distillers grain co-product is sold and transported to nearby feedlots. While Bonanza BioEnergy's fuel is produced from corn and sorghum that are combined at the beginning of the process and undifferentiated from that point forward, two individual CI values were calculated per CARB recommendation for accounting purposes. Each CI represents ethanol produced using either 100% corn or 100% sorghum. Bonanza BioEnergy's corn CI is 76.75 gCO_2e/MJ and sorghum CI is 73.39 gCO_2e/MJ. The 100% corn CI is 13.35 gCO2e less respectively than the most similar pathway currently listed in the CARB lookup table: Midwest; Dry Mill; Wet DGS, NG= 90.1 gCO2e/MJ. The 100% sorghum CI is 10.97 gCO2e less respectively than the most similar pathway currently provided by CARB: Internal Priority Pathway Midwest; Dry Mill; Sorghum; Wet DGS, NG= 84.36 gCO2e/MJ.

c. For Method 2A Applications only

1. Reference pathway (Existing fuel pathway to which the proposed new sub-pathway is most closely related). The carbon intensity of the reference pathway must be higher by at least 5 gCO_2e/MJ than the carbon intensity of the proposed pathway described in this application. Show all pathway information exactly as it appears in the LCFS Lookup Table:

   Fuel:

   Pathway Description:

   Carbon Intensity Values (gCO_2e/MJ):

   Direct Emissions:

   Land Use or Other Indirect Effect:

   Total:

2. Compositional differences (if any) between the fuel produced by the new sub-pathway and the reference pathway identified in item c, 1, above).

1. Scenario: feedstock (corn:sorghum vs. corn) 2. Ethanol production: fuel usage 3. Ethanol production: power usage 4. Feedstock: transportation 5. Co-product: transportation

d. Final carbon Intensity of the proposed pathway or sub-pathway:
100% corn CI 76.65 gCO_2e/MJ and 100% sorghum CI is 73.39 gCO_2e/MJ.

e. Annual volume of fuel that would be produced using the proposed new sub-pathway (millions of gallons per year [MGY]).
55 MGY

1. This production volume is expected to be achieved within how many years from the start of production?
   From the beginning of production.

2. Does the applicant expect this volume be achieved by a single or by multiple facilities?

   ☒ A single facility ☐ Multiple facilities

3. If the applicant expects this volume to be achieved by multiple facilities, would all facilities be owned by a single firm?

   ☒ Single firm ☐ Multiple firms

f. Lower Heating Value of the fuel to be produced from new sub-pathway (megajoules per gallon):
   19.3 MJ/gal

g. The range of production volumes over which the proposed pathway carbon intensity value is valid. The values reported below must be supported in the documentation accompanying this application.

	Fuel Volume	**Units (gallons; litres; joules,etc.)**
Lower bound of production volume range	0	gal/yr
Upper bound of production volume range	55,000,000	gal/yr

h. Please provide any information that may be helpful in determining the land use change impacts (if any) of the proposed pathway. Although it is ARB's responsibility to perform all land use change impact analyses, the applicant may provide any information that may be useful to the ARB in completing that analysis.

IV. Application Submittal Checklist. Listed below are the documents and files that may be submitted in support of a method 2A/2B application. Check the box to the left of each document or file type included in your submittal. After each submittal category is a check box labeled "includes trade secrets." Check that box if the submittal category contains any information the applicant considers to be a trade secret. In the actual submittal, the specific information falling into the trade secret category must be clearly marked. Additional information regarding the submission of trade secrets can be found in the Instructions above.

- ☒ Life cycle analysis report
  - ☒ *Includes trade secrets*
- ☐ Engineering reports
  - ☐ *Includes trade secrets*
- ☒ Equipment technical specifications
  - ☒ *Includes trade secrets*
- ☒ Production process schematics, technical drawings flow diagrams, maps, or other graphical representations
  - ☒ *Includes trade secrets*
- ☐ Technical papers or journal articles
  - ☐ *Includes trade secrets*
- ☒ Emissions monitoring data or emissions modeling results
  - ☒ *Includes trade secrets*

☒ Spreadsheets, data files, and similar files documenting the calculations behind the fuel life cycle analysis

☒ *Includes trade secrets*

☒ Other: In the space below, describe any additional submittals. Rationales for documents submitted or omitted may also be provided.

☒ *Includes trade secrets*

Additional documentation related to ethanol production plant operations includes:

Bills of lading for feedstock
Purchase agreement for fuel into CA

ARB Method 2A and 2B Application Process Contacts

Name	Phone Number	E-mail Address
John Courtis	916-323-2661	jcourtis@arb.ca.gov
Wes Ingram	916-327-2965	wingram@arb.ca.gov
Chan Pham	916-323-1069	cpham@arb.ca.gov
Kevin Cleary	916-323-1009	kcleary@arb.ca.gov
Alan Glabe	916-323-2416	aglabe@arb.ca.gov