

## **Diamond Green Diesel (DGD) CA-GREET Model**

The applicant has conducted its analysis of direct effects on carbon intensity for this pathway using CA-GREET, v.1.8b (Dec. 2009) (See [http://www.arb.ca.gov/fuels/lcfs/ca\\_greet1.8b\\_dec09.xls](http://www.arb.ca.gov/fuels/lcfs/ca_greet1.8b_dec09.xls)). The standard inputs and parameters specified in CA-GREET remain unchanged except as noted in the input table below. The input table below specifies the spreadsheet location of the CA-GREET inputs and other parameters that were claimed as confidential business information or trade secret by the applicant, but it does not disclose the actual value of such inputs and parameters because they are claimed to be confidential business information or trade secret.

DGD Input data table (Locations of cells containing Confidential Business Information are shown, but the actual values of such confidential information are not disclosed):

| Proposed DGD Pathway           | Summary of Default Model Changes  | Modified Values  |
|--------------------------------|---|--|
| All Scenarios                  | These modifications apply to all proposed pathways  | T&D!GH93 = 5500<br>T&D!GH108:GH109 – modified to allow ocean tanker use<br>T&D!GJ93 = 1187<br>T&D!GK93 = 140<br>T&D!CO142 = 100%<br>T&D!CN141 or T&D!CN139 = 100%<br>Region set to “US Average” for all feedstock and refining scenarios<br>T&D!CN142 =80% |
| MW UCO to RD, Cooking Required | Refining using “US Average” Region; increased UCO rail transport distance to refiners; modified fuel T&D to increase rail distance, and add transport by oceanic tanker; used lower process energy estimate | T&D!IH93 = 700<br>T&D!IH91 = “Rail”<br>T&D!IG93 =488 miles<br>T&D!IH107:IH132 – modified   |

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| <p>MW UCO to RD,<br/>No Cooking</p>                  | <p>Refining using “SRMV” Region; increased soy oil rail transport distance to refiners; modified fuel T&amp;D to increase rail distance, and add transport by oceanic tanker; used higher process energy estimate</p>        | <p>for rail transport calculation</p> <p>Duplicate RD II pathway added to the UCO BD tab in ‘UCO BD’!B163:D222 and ‘UCO BD’!D228:E254 to model UCO with and without cooking.</p> <p>‘UCO BD’!C167 and ‘UCO BD’!F167 – modified to reference high and low energy inputs</p> <p>‘UCO BD’!C174 and ‘UCO BD’!F174 – modified to reference high and low energy inputs natural gas share</p> <p>‘UCO BD’!C177 and ‘UCO BD’!F177 – modified to reference high and low energy inputs electricity share</p> |
| <p>US Animal Fat to US RD, High Energy Rendering</p> | <p>Refining using “U.S Average” Region; increased soy oil rail transport distance to refiners; modified fuel T&amp;D to increase rail distance, and add transport by oceanic tanker; used higher process energy estimate</p> | <p>T&amp;D!!H93 = 600</p> <p>Duplicate RD II pathway added to the Tallow RD tab in ‘Tallow RD’!B163:D222 and ‘Tallow RD’!D228:E254 to model UCO with and without cooking.</p>  |
| <p>US Animal Fat to US RD, Low Energy Rendering</p>  | <p>Refining using “US Average” Region; increased soy oil rail transport distance to refiners; modified fuel T&amp;D to increase rail distance, and add transport by oceanic tanker; used higher process energy estimate</p>  | <p>‘Tallow RD’!C167 and ‘Tallow RD’!F167 – modified to reference high and low energy inputs</p> <p>‘Tallow RD’!C174 and ‘Tallow RD’!F174 – modified to reference high and low energy inputs natural gas share</p> <p>‘Tallow RD’!C177 and ‘Tallow RD’!F177 – modified to reference high and low energy inputs electricity share</p>  |