Conestoga – Bonanza – 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). 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

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

Feedstock: Either 100% corn or 100% sorghum
Electricity mix: User defined CMS breakdown

Sheet	Cell	Original value	New input value Bonanza		Data category	Data point
Fuel_Prod_TS	C285		100%		Ethanol production	Share of feedstock (between dry and wet mill)
Fuel_Prod_TS	G285,h291		0% or 100%		Ethanol production	Share of corn or sorghum (of total production)
Fuel_Prod_TS	S271		0%		Ethanol production	Share of coal in processing energy
Fuel_Prod_TS	k271, L271,CU271,CV277				Ethanol production	Total processing energy
Fuel_Prod_TS	c271,d277,CY271,CZ277				Ethanol production	Ethanol yield (Corn/Sorghum)
Inputs	C247,E247				Ethanol production	Share of electricity in processing energy
Inputs	D235				Ethanol production	Ethanol yield (from Sorghum)
Fuel_Prod_TS	BH340,BH345		Default		Electricity generation mix	Share of Residual oil*
Fuel_Prod_TS	BI340,BI345		Default		Electricity generation mix	Share of Natural gas
Fuel_Prod_TS	BJ340,BJ345		Default		Electricity generation mix	Share of Coal**
Fuel_Prod_TS	BK340,BK345		Default		Electricity generation mix	Share of Nuclear
Fuel_Prod_TS	BL340,BL345		Default		Electricity generation mix	Share of Biomass
Fuel_Prod_TS	BM340,BM345		Default		Electricity generation mix	Share of Others (renewables)
Inputs	I191		390		Sorghum growing	Grams of Nitrogen
Inputs	I192		76		Sorghum growing	Grams of P2O5
Inputs	I193		69		Sorghum growing	Grams of K2O
Inputs	I194		0		Sorghum growing	Grams of $CaCO_3$
Inputs	I197		13.69		Sorghum growing	Grams of Herbicide
Inputs	I198		1		Sorghum growing	Grams of Insecticide
Fuel_Prod_TS	DG257,DH263		390		Sorghum growing	Grams of Nitrogen
Fuel_Prod_TS	DK257,DM263		76		Sorghum growing	Grams of P2O5
Fuel_Prod_TS	DO257,DP263		69		Sorghum growing	Grams of K2O
Fuel_Prod_TS	DS257,DT263		0		Sorghum growing	Grams of $CaCO_3$
Fuel_Prod_TS	DW257,DX264		13.69		Sorghum growing	Grams of Herbicide
Fuel_Prod_TS	EA257,EB263		1		Sorghum growing	Grams of Insecticide
Fuel_Prod_TS	DC257,DD263		15.160		Sorghum growing	Sorghum farming energy use
T&D_Flowcharts	M1308				Feedstock transport	Proportion of feedstock transported by rail from stack to plant
T&D_Flowcharts	M1313				Feedstock transport	Distance from Stack to Plant
T&D_	AB7				Feedstock transport	HHDT payload (Plant to California)
T&D_	AB8				Feedstock transport	HHDT payload (Stack to plant)
T&D_Flowcharts	F1446				Fuel transport	Distance from Plant to Bulk terminal by HHDT
T&D_Flowcharts	F1442				Fuel transport	Distance from Plant to Bulk terminal by rail
EtOH	AO197		Changed formula from =(SUM(CY166:DG166)/($E$43*Fuel_Specs!$B$21))*10^6 to =((SUM(CY166:DG166)/($E$43*Fuel_Specs!$B$21))+(DM166/Fuel_Specs!B21))*10^6			To include coproducts