

GREET.net: A Platform for Life-Cycle Analysis

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The GREET.net Team



In the picture (Left to right): Michael Wang, Raja Sabbisetti, Amgad Elgowainy, David Dieffenthaler, Azeam Anjum, and Vadim Sokolov

Not in the picture: Jeongwoo Han, Cory Cooney, Qizhi Zang, and Michael Vilim



Our Vision for New GREET Platform

- ❑ To build a common platform for LCA that is
 - ✓ adaptable to a broad range of applications
 - ✓ expandable to include new pathways and expanded boundaries
 - ✓ transparent to enhance usability and build credibility



Main Design Features

- ❑ Modular design → expandability
- ❑ Layered structure → systematic navigation, adaptability
- ❑ User-friendly GUI → visualization, drag and drop, data manipulation, customized units, definition of functional unit, tracking of variables, color coding, ease of search/navigation
- ❑ LCI database
 - ✓ Data structure and handling
- ❑ Generic calculation algorithm
- ❑ Interaction and data exchange
- ❑ Data comparison and display
 - ✓ intermediate results, levels of aggregation, tables, graphs
- ❑ Online wiki help and reporting tool



REET LCA Without Excel

Transportation Production

[LDV fuels](#) Feedstock [Others](#)

Pathways	Share
+ Com Stover	
- Crude Oil	
+ Conventional Crude	
+ Crude fom Bituminous Oil i...	
+ Crude fom Bituminous Oil s...	
+ Mix for use in CA Refineries	
- Mix for use in U.S. Refineries	

Technology Results for 1.000 mmbtu Properties

Switch to Pathway

Emissions

Emissions OnSite without ...

Emissions	...
VOC	369.689 µg
CO	6.425 mg
NOx	50.949 mg
PM10	24.456 mg
PM2.5	15.896 mg
SOx	82.571 mg
CH4	626.881 µg
N2O	145.512 µg
CO2	34.666 g

Groups ...

Energy

Technology Amount Us 407.595 btu

Share : 90.600 % - Conventional Crude for Use in U.S. Refineries from Conventional Crude Oil

Share : 4.700 % - Crude from Oil Sands by S

