

November 7, 2022 8:30 a.m.—5 p.m. CT Building 240, TCS Conference Center

8:30 a.m. Registration 1:30 p.m. **Petroleum and Natural Gas**

9:00 a.m. **GREET Introduction**

and Modeling Approach

Michael Wang

Interim Director of Energy Systems and Infrastructure Analysis Director, Systems Assessment Center— Environmental Assessment Leader

9:30 a.m. **GREET 1 Model: Fuel Cycle Analysis**

Uisung Lee

Energy Systems Analyst, Energy Systems and Infrastructure Analysis

10:00 a.m. **GREET 2 Model: Vehicle/**

Material Cycle Analysis

Jarod Kelly

Principal Energy Systems Analyst, Energy Systems and Infrastructure Analysis

10:30 a.m. **Break**

11:00 a.m. **Biofuels**

> **Troy Hawkins** Fuels and Products Group of the Systems Assessment Center, Energy Systems and

Infrastructure Analysis

Hao Cai

Group Leader, Materials Life Cycle Analysis, Energy Systems and Infrastructure Analysis

11:30 a.m. Hydrogen and Its End Uses

Amgad Elgowainy

Senior Scientist and Group Manager, Electrification and Infrastructure, Energy Systems and Infrastructure Analysis

Noon **Lunch Break**

1:00 p.m. **Electricity and Battery**

Electric Vehicles

Zifena Lu

Principal Energy Systems Scientist, Energy Systems and Infrastructure Analysis

Jarod Kelly

Principal Energy Systems Analyst, Energy Systems and Infrastructure Analysis

Hao Cai

Group Leader, Materials Life Cycle Analysis, Energy Systems and Infrastructure Analysis

Andy Burnham

Principal Environmental Scientist, Energy Systems and Infrastructure Analysis

2:00 p.m. Sustainable Aviation Fuels

Uisung Lee

Energy Systems Analyst, Energy Systems and Infrastructure Analysis

2:30 p.m. **Marine** and Rail

Troy Hawkins

Fuels and Products Group of the Systems Assessment Center, Energy Systems and

Infrastructure Analysis Nazib Siddique

Computational Simulation Analysis, Energy Systems and Infrastructure Analysis

3:00 p.m. **Materials and Chemicals** Hao Cai

> Group Leader, Materials Life Cycle Analysis, Energy Systems and Infrastructure Analysis

Thathiana Benavides Gallego

Energy Systems Analyst, Energy Systems

and Infrastructure Analysis

3:30 p.m. **Break**

4:00 p.m. **Carbon Capture Utilization**

and Sequestration (CCUS)

Pingping Sun

Principal Energy Systems Analyst, Energy Systems and Infrastructure Analysis

Uisung Lee

Energy Systems Analyst, Energy Systems

and Infrastructure Analysis

GREET Applications; General 4:30 p.m.

> Questions and Inputs from **Workshop Participants**

5:00 p.m. **Adjourn**





November 8, 2022 8:20 a.m.-3:30 p.m. CT Building 240, TCS Conference Center

8:20 a.m. **Welcome Remarks**

Michael Wang

Interim Director of Energy Systems and Infrastructure Analysis Director,

Systems Assessment Center—Environmental Assessment Leader

8:30 a.m. **GREET 1 (Fuel Cycle) Demonstration**

by Modeling Blocks

Uisung Lee and others

Energy Systems Analyst, Energy Systems and Infrastructure Analysis

□ Overview (Inputs/Results)

□ Biofuels

□ *Electricity*

□ Petroleum and Natural Gas

□ Hydrogen

□ Chemicals and Plastics

□ Vehicle Operations

10:00 a.m. **Break**

10:30 a.m. **GREET 2 (Vehicle/Material Cycle)**

Demonstration

Jarod Kelly and others

Principal Energy Systems Analyst, Energy Systems and Infrastructure Analysis

□ Materials

□ Batteries

□ Chemicals

11:30 a.m. **GREET.net Demonstration**

Zifeng Lu

Principal Energy Systems Scientist, Energy Systems and Infrastructure Analysis

Noon Case Simulations

by GREET Users; Q&A

12:30 p.m. **Lunch Break**

1:30 p.m. **Breakout Sessions for Deep Dives**

into Specific GREET Modules

□ Battery and electric vehicles

□ Hydrogen and its uses

□ Aviation and sustainable aviation fuels

□ FDCIC and CCLUB for biofuel feedstocks

3:30 p.m. **Adjourn**