



Project: Emissions Reduction Technologies for Green Plains Biorefineries

Applicant: Green Plains Inc.

Principal Investigator: Ken Koers (Kenneth.koers@gpreinc.com)

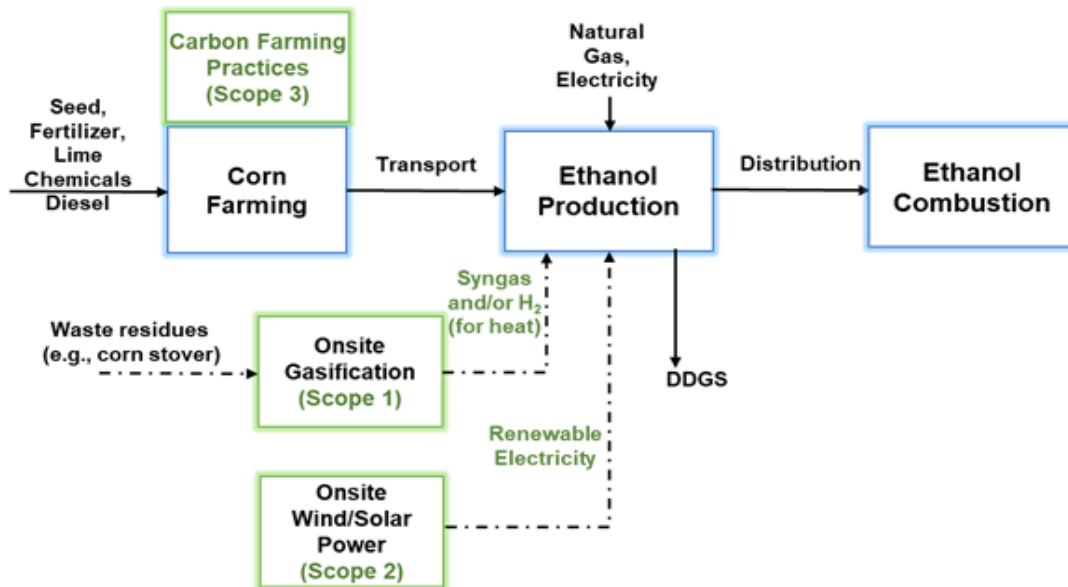
Team Member Organizations:

- Green Plains Inc.
- Pacific Northwest National Laboratory
- TruTerra
- 127 Energy
- Sierra Energy
- Washington State University



Project Objectives: This project will support the current Administration’s goal of net-zero GHG emissions by 2050. This project will validate three different technology platforms at their facilities, in a means to reduce their life cycle GHG emissions from Scope 1, Scope 2, and Scope 3 emissions. The technologies include on site renewable synthesis gas production (Scope 1), wind and solar generation/utilization (Scope 2), and reduction of farm-level emissions utilizing advanced crop management practices and reduced fertilizer use (Scope 3).

Primary stages of the ethanol life cycle and Scope 1,2, and 3 technologies for evaluation.



Potential Impact: Achieving this project’s objectives will demonstrate the scalability of the proposed technology by testing in a realistic environment. Following a favorable demonstration, Green Plains Inc intends to pilot and then deploy this technology across their platform and help other companies transition to a more sustainable model. This transformation will support the Department of Energy’s BETO 2030 goals to reduce GHG emissions by 70% compared to petroleum fuels and demonstrate the ability to produce low-carbon, cost-effective biofuels and co-products.