

Alternative jet fuel supply chain analysis

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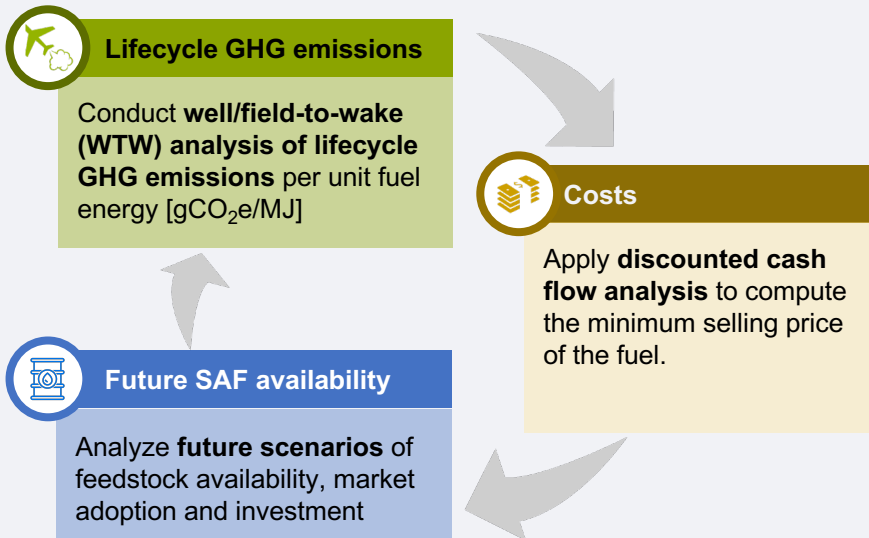
Objective:

Analyze lifecycle GHG emissions, costs, and availability of Sustainable Aviation Fuels, considering a wide range of production pathways and feedstocks. Research is conducted in support of efforts under ICAO CAEP.

Project Benefits:

1. Analysis of future GHG reduction potential from SAF and economic analysis of SAF
2. Detailed analysis of potential SAF uptake scenarios over the coming decades, including regionalized analyses
3. Provide expert support on SAF to the U.S. delegation to ICAO CAEP

Research Approach:



Major Accomplishments (to date):

- Applied LCA to numerous SAF pathways and co-processing
- Developed stochastic methods for assessing lifecycle GHG emissions and economic viability of SAF
- Studied global SAF production scenarios and associated GHG emission reductions out to 2050
- Analyzed US-based SAF production scenarios for the 2030s

Future Work / Schedule:

- LCA for additional SAF pathways
- Detailed PtL fuel potential analysis
- Policy analysis for U.S.-based SAF production