

Sustainable Aviation Fuel: Taking Iowa to New Heights

Background: With corn production rising faster than demand and corn prices taking their largest drop in a decade, a large potential new market is emerging: sustainable aviation fuel (SAF). SAF holds the promise for the largest rural transformation since the introduction of corn hybrids. However, to unlock the full potential of SAF, there needs to be long-term, stable public policy, proper carbon accounting metrics, and carbon capture and sequestration opportunities for ethanol producers. Decision Innovation Solutions (DIS) conducted a study of the economic impact on Iowa if the SAF Grand Challenge goal of 35 billion gallons by 2050 was met.

Top Line Results: The study determined that SAF from fats, oils, and greases (HEFA-SAF) and ethanol-to-jet (ETJ-SAF) will require building in Iowa the following:

- 11 new 200-million-gallon-per-year ethanol plants
- 5 new ETJ-SAF production facilities
- 3 new HEFA-SAF production facilities

Building and operating these facilities will generate an unprecedented boost to the Iowa economy over the next 25 years. The figures don't include the long-term potential of power-to-fuel (PTF) benefits which mean potentially another 8 PTF facilities for light-vehicle fuel market.

Iowa Construction Impact Summary				
Event	Employment	Labor Income (\$M)	Value Added (\$M)	Output (\$M)
New Ethanol Production	20,432	\$ 1,286.6	\$ 1,744.4	\$ 3,333.1
SAF from ETJ	9,175	\$ 587.9	\$ 806.1	\$ 1,532.5
SAF from HEFA	6,069	\$ 389.6	\$ 535.3	\$ 1,016.8
Total	35,676	\$ 2,264.1	\$ 3,085.9	\$ 5,882.4

Iowa Operations Impact Summary (Direct, Indirect, and Induced Impacts)				
Event	Employment	Labor Income (\$M)	Value Added (\$M)	Output (\$M)
New Ethanol Production	18,018	\$ 709.1	\$ 1,738.7	\$ 7,897.9
SAF from ETJ	2,574	\$ 128.9	\$ 4.3	\$ 492.7
SAF from HEFA	1,577	\$ 115.5	\$ 977.9	\$ 3,508.7
Total	22,169	\$ 953.6	\$ 2,721.0	\$ 11,899.3

Key State Economic Findings (not including PFT potential benefits):

- **35,676** construction jobs adding over **\$3 billion** to Iowa's GDP and **\$2.2 billion** in income
- **22,169** permanent new jobs
- **\$954 million** in new household income
- **\$2.7 billion** added to Iowa's GDP
- **770 million bushels** of new corn grind per year in Iowa
- **\$13,000** additional farm income per year
 - Typical 1,000-acre Iowa farm at 50/50 split between corn and soybeans