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The Non-Climate Case for SAF

Air Quality and Non-CO2 Benefits of Sustainable Aviation Fuel

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Step 1: Modeling the Energy Transition

- Third Way partnered with Evolved Energy Research (EER) and Industrial Economics (IEc) to assess the economic and air quality impacts associated with SAF deployment over the coming decades.
- EER conducted energy systems modeling to develop a net-zero trajectory for the aviation sector by 2050 within the context of a broader economy-wide decarbonization transition.
- We assessed the economic and air quality impacts of deploying SAF along a net-zero trajectory, focusing on the total employment impacts associated with the up-front investments in facilities and equipment, the ongoing operations of those facilities, and the air quality impacts based on the distribution of SAF on an airport-by-airport basis across the country.

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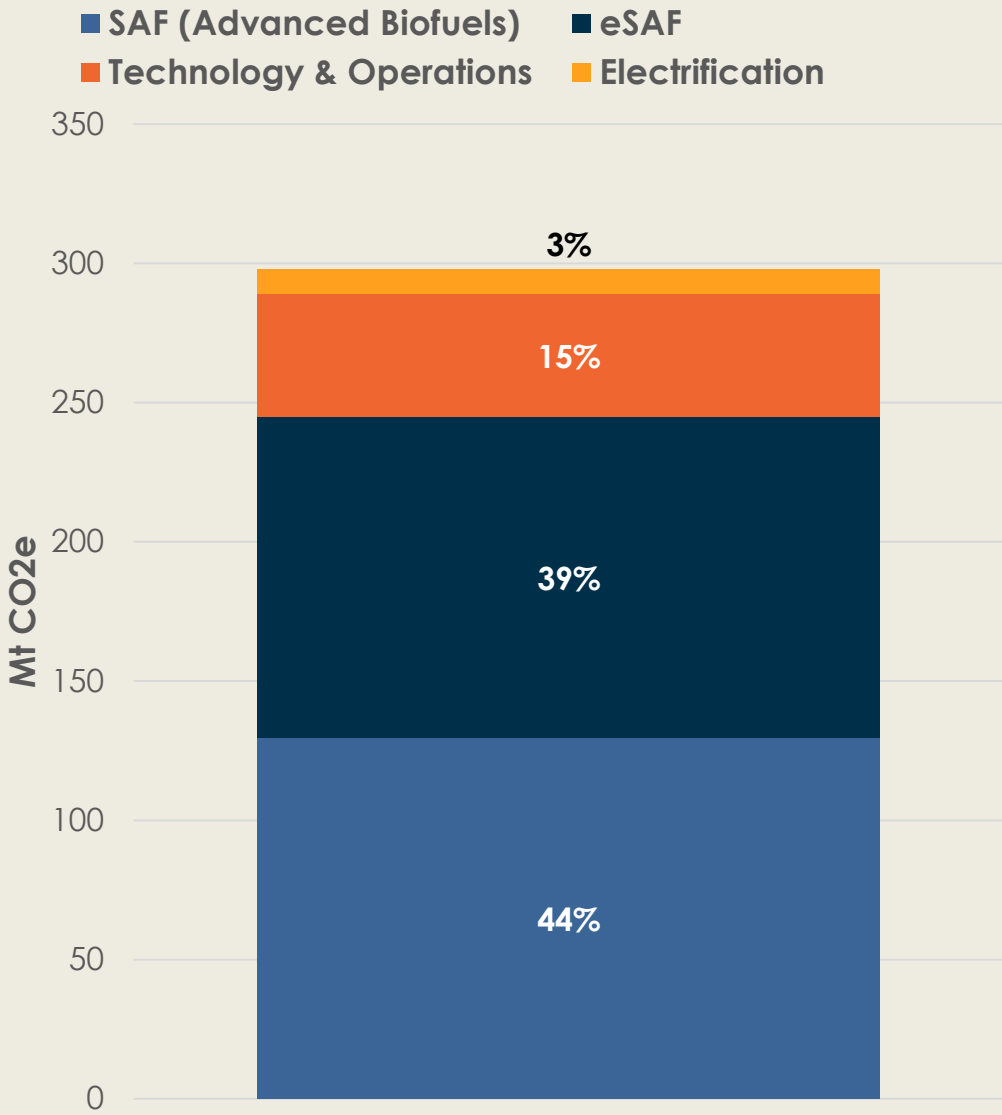
Aircraft Emissions Reduction Contributions in 2050



Source: Evolved Energy Research

Great Plains States Dominate in the SAF Transition

Investments in renewable energy infrastructure account for more than half of the **nearly $1.5 trillion in SAF-related expenditures** between 2025 and 2050.

The requirement for affordable and accessible renewable energy leads much of this investment to states in the wind belt, where biomass resources and high-quality renewables have significant overlap.

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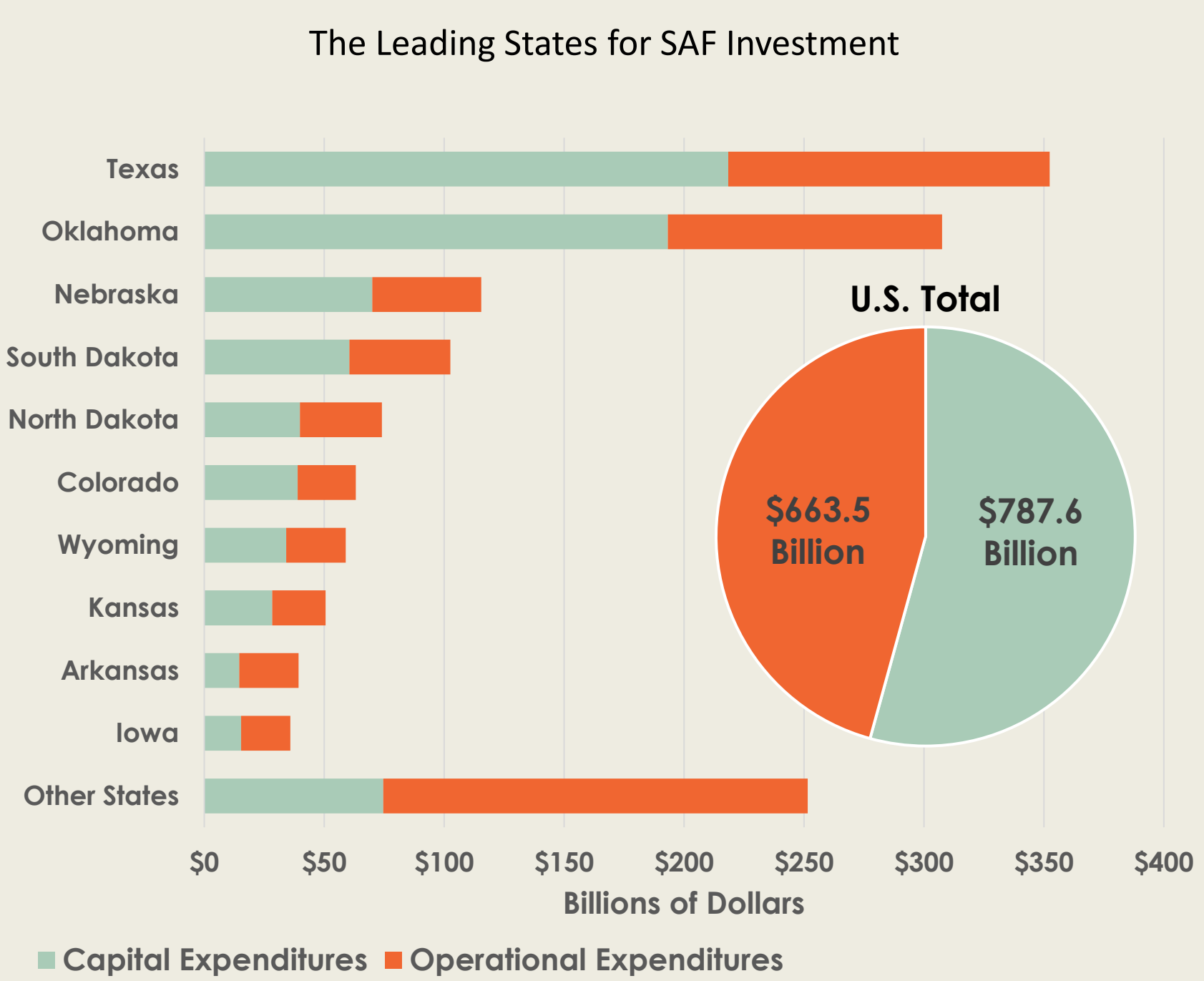
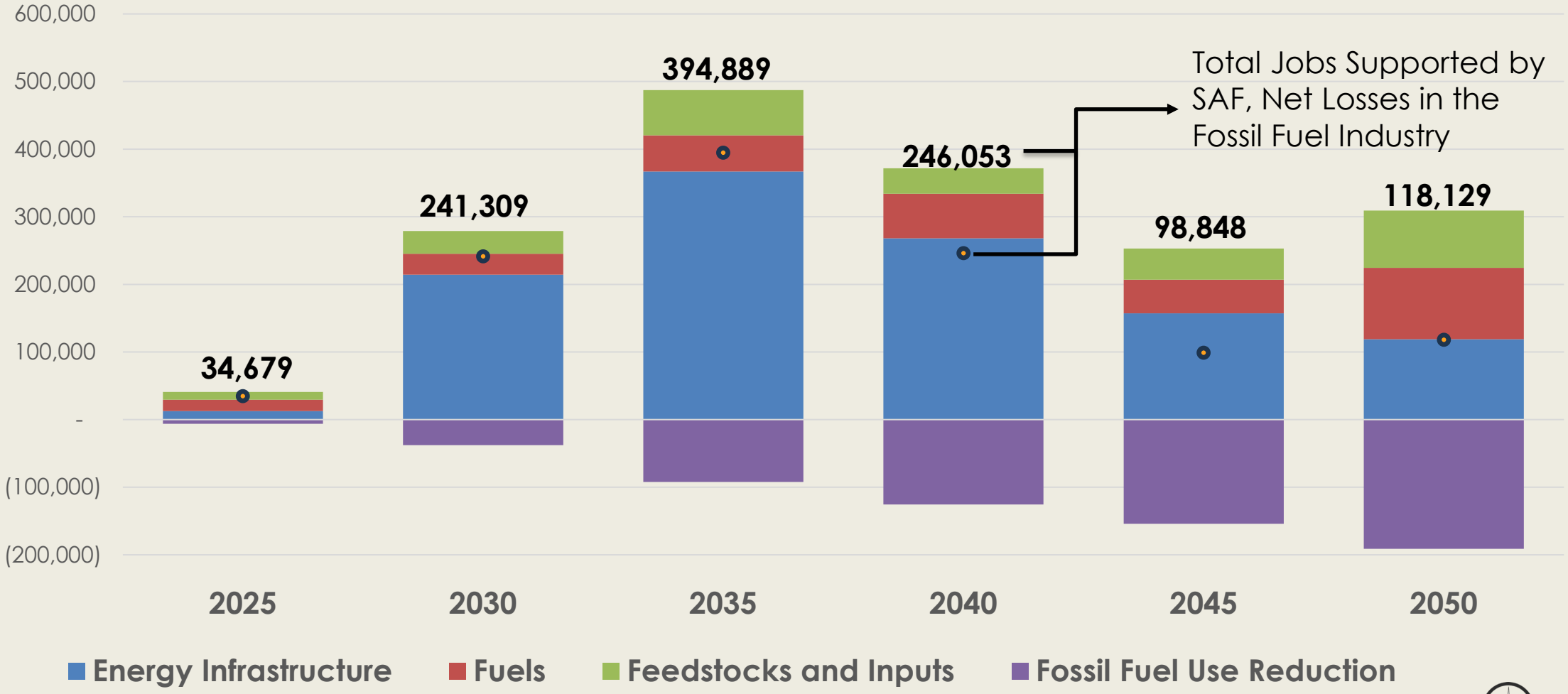


Sectoral Breakdown of Total SAF Industry Jobs

Most job growth due to employment in energy infrastructure, which includes upstream production of electricity via subsectors like onshore wind, solar, transmission, and hydrogen electrolysis.



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SAF Investment Leads to Avoided Premature Deaths

Third Way's analysis reveals that replacing all jet fuel with SAF by 2050 could prevent approximately **3,300 premature deaths** and thousands of cases of asthma and cardiovascular disease, resulting in total monetized public health benefits valued at up to **$35 billion.**

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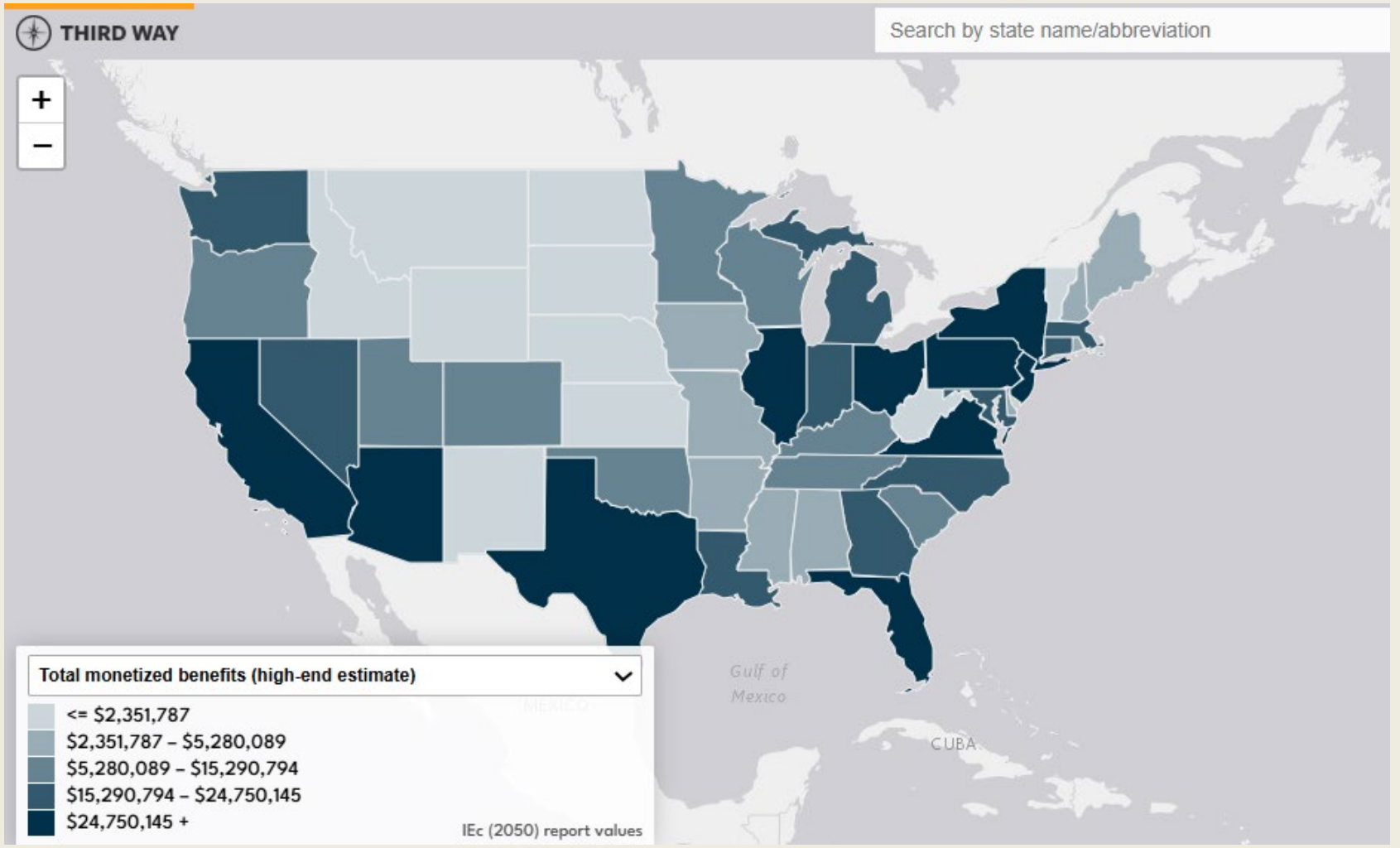
Interactive Map Showing State-by-State Health Impacts of SAF



Transitioning to SAF will improve public health in every state.

Most of these benefits come from the reduction in aircraft emissions, particularly fine particulate matter (PM2.5), as SAF burns cleaner than conventional jet fuel.

Our analysis also finds a cumulative reduction in upstream emissions during fuel production—those resulting from feedstock cultivation, refinement, and transportation.

These **aren't just numbers**: they represent real people, in every region of the country, **whose lives will be improved** by having cleaner air to breathe.

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Airport Name	Total Avoided Deaths (2025-2050)	Total Monetary Value Inc. Non-Fatal Effects (2025-2050)
San Francisco International	86	$810 Million
Los Angeles International	81	$770 Million
Newark Liberty International	52	$500 Million
John Wayne/Orange County	48	$450 Million
Norman Y Mineta San Jose International	36	$340 Million
Metro Oakland International	36	$340 Million
San Diego International	30	$280 Million
John F Kennedy International	25	$240 Million
LaGuardia	23	$220 Million
Ronald Reagan Washington National	23	$210 Million