

The Future of Jet Fuel and Sustainable Aviation Fuel

Post-COVID recovery, long-term outlook to 2050, decarbonization impacts, sustainable aviation fuels, and new technology and players

Multi-Client Study Prospectus



440 COBIA DR • STE 1704
HOUSTON • TEXAS 77494
+1 (281) 506-8234
INFO@ADI-ANALYTICS.COM
WWW.ADI-ANALYTICS.COM

DISCLAIMER

ADI ANALYTICS LLC HAS EXERCISED ITS BEST EFFORTS IN PREPARING THIS REPORT BUT DOES NOT REPRESENT OR WARRANT THAT IT WILL BE FREE FROM ERRORS OR OMISSIONS.

THIS DOCUMENT IS PROVIDED “AS IS”. NEITHER ADI ANALYTICS LLC, THE AUTHORS, NOR THEIR AFFILIATES AND REPRESENTATIVES MAKE ANY WARRANTY, EXPRESSED OR IMPLIED, OR ASSUME ANY LEGAL LIABILITY OR RESPONSIBITLY FOR THE ACCURACY, COMPLETENESS, OR USEFULNESS OF ANY CONTENT OF THIS DOCUMENT.

ADI ANALYTICS LLC AND ITS AFFILIATES AND REPRESENTATIVES ARE NOT RESPONSIBLE FOR ANY DAMAGE, WHETHER PHYSICAL, ELECTRONIC, FINANCIAL, OR OTHERWISE THAT MAY RESULT FROM RELIANCE ON OR THE USE OF THIS DOCUMENT AND ITS CONTENTS.

BY CHOOSING TO USE THE CONTENTS OF THIS DOCUMENT, YOU DO SO AT YOUR OWN RISK. REFERENCE HEREIN TO ANY SPECIFIC COMMERCIAL PRODUCT, PROCESS, OR SERVICE BY TRADE NAME, TRADEMARK, MANUFACTURER, OR OTHERWISE DOES NOT CONSTITUTE OR IMPLY ITS ENDORSEMENT, RECOMMENDATION, OR FAVORING BY ADI ANALYTICS LLC, THE AUTHORS, OR THEIR AFFILIATES AND REPRESENTATIVES.

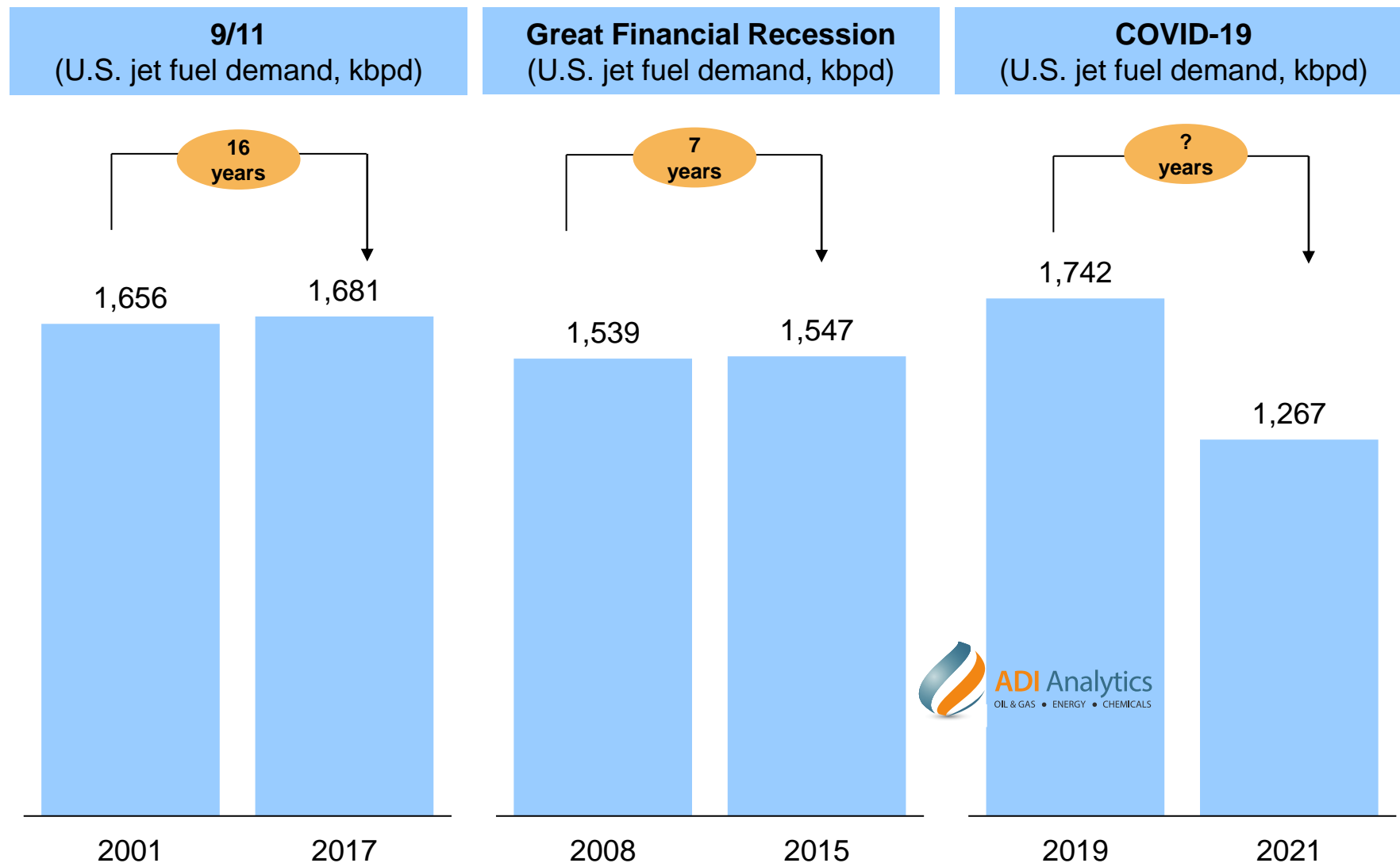
THIS DOCUMENT AND ITS CONTENTS SHOULD NOT BE REPRODUCED, DISCLOSED, OR DISTRIBUTED – IN PART OR ITS ENTIRETY – WITHOUT THE EXPRESS PRIOR WRITTEN CONSENT OF ADI ANALYTICS LLC.

Outline

- ▶ **Study Prospectus**

- ▶ About ADI

Jet fuel markets have taken a very long time to recover from past demand disruptions



Jet fuel markets face a very slow recovery post-COVID in the short term and critical disruptive challenges in the long term

Background and strategic questions

- Jet fuel markets are in a deep slump today due to COVID-19 and expectations for a quick recovery from pent-up economic and consumer demand have been stunted by new infection waves
- Historical analysis shows that prior demand disruptions, e.g., following 9/11 and the Great Financial Recession, took much longer to recover from
- Simultaneously, Energy Transition and decarbonization momentum is gaining pace very quickly posing a number of long-term challenges to the outlook for jet and aviation fuel markets

A

Demand / supply

- What will post-COVID jet fuel demand look like? Will it recover to 2019 levels?
- What do post-COVID demand drivers for jet fuel look like by region and why?
- What is jet fuel supply outlook including sustainability aviation fuels?

B

Regulations and innovation

- How are policies and regulations shaping aviation and jet fuel markets? Why?
- What innovation and technologies will allow decarbonization in aviation fuels?
- Which technologies are likely to achieve commercial status and scale?

C

Value chain participants and strategic implications

- How are jet fuel customers and suppliers adjusting strategies? Why?
- Who is likely to succeed and where? Implications for supply and demand?
- What should jet fuel value chain participants do and prepare for the future?

A handful of countries in Europe along with the U.S. are driving SAF adoption policies

Countries Promoting SAF Adoption

- Clean Fuel Regulations will mandate a gradual reduction in the carbon intensity of liquid fossil fuels by producers and importers beginning in December 2023

- SAF share to 10% by 2030
- Green Fuels, Green Skies to grant \$18 million towards 8 SAF plants
- Advanced Fuels Fund with \$193 million with at least 5 commercial SAF plants to be under construction by 2025
- 2030 SAF demand: 0.4 Bn GPY (2% European jet fuel demand)

- RED II to set renewable share in transport to 14%
- Fit for 55 to increase share of renewable share in transport to 24%
- 2030 SAF demand: 1.5 Bn GPY (7% European jet fuel demand)

- China Civil Aviation Green Development Policy and Action target 17 million gallons of SAF usage by 2025. This target will be supported by SAF performance testing, airworthiness certification, and the exploration of new avenues for SAF development.

- Targets 10% SAF share by 2030
- 2030 SAF demand: 1.2 Bn GPY (3% Asia Pacific jet fuel demand)

- SAF mandate blending under consideration

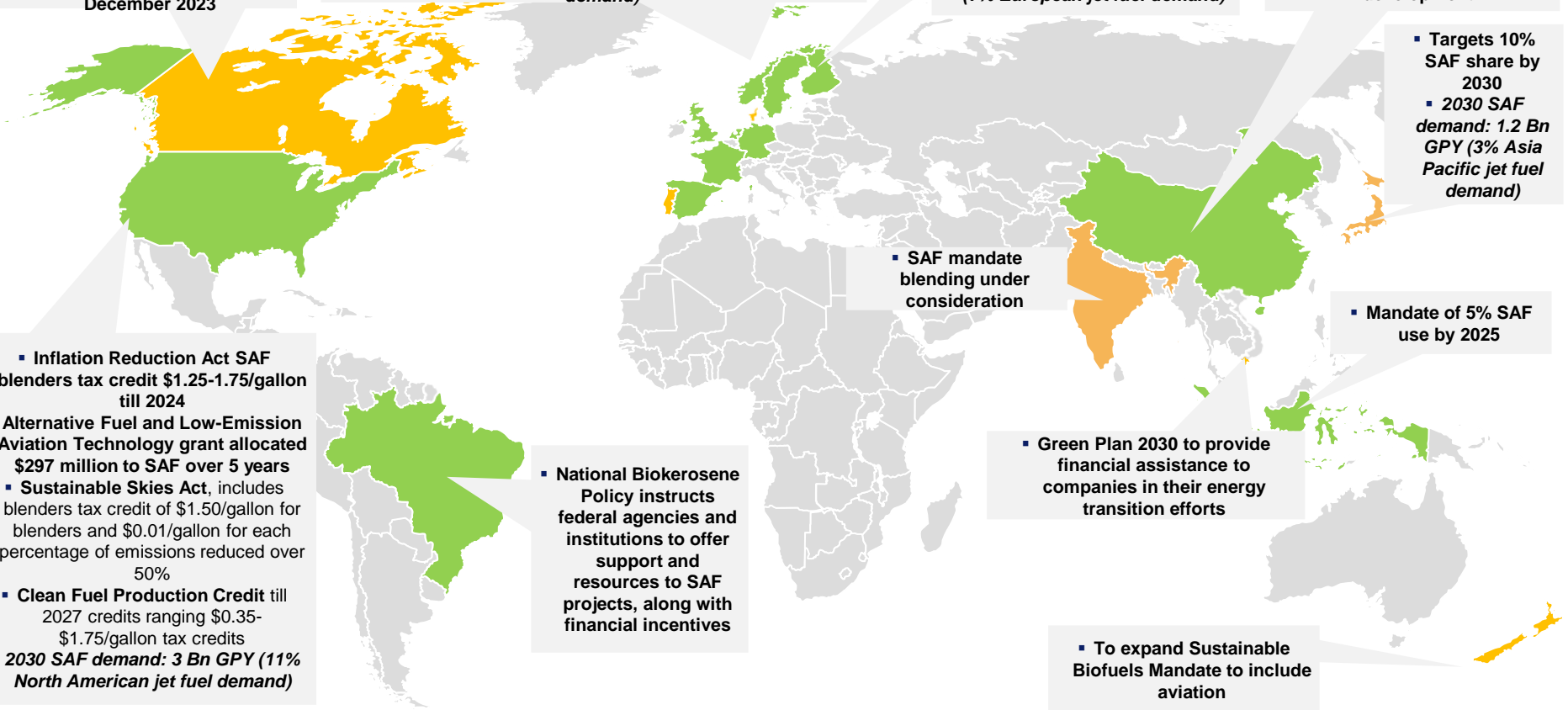
- Mandate of 5% SAF use by 2025

- Inflation Reduction Act SAF blenders tax credit \$1.25-1.75/gallon till 2024
- Alternative Fuel and Low-Emission Aviation Technology grant allocated \$297 million to SAF over 5 years
- Sustainable Skies Act, includes blenders tax credit of \$1.50/gallon for blenders and \$0.01/gallon for each percentage of emissions reduced over 50%
- Clean Fuel Production Credit till 2027 credits ranging \$0.35-\$1.75/gallon tax credits
- 2030 SAF demand: 3 Bn GPY (11% North American jet fuel demand)

- National Biokerosene Policy instructs federal agencies and institutions to offer support and resources to SAF projects, along with financial incentives

- Green Plan 2030 to provide financial assistance to companies in their energy transition efforts

- To expand Sustainable Biofuels Mandate to include aviation



■ Clear mandates adopted
 ■ Clear mandates expected by 2030
 ■ No clear guidelines yet

These factors will be addressed by ADI's multi-client study as reflected by its comprehensive table of contents

1	Executive Summary <i>Key conclusions, findings, and strategic implications with a review workshop and data spreadsheet</i>	7	Low-Carbon / Sustainability Aviation and Jet Fuels <i>Inventory and profiles of sustainable aviation and jet fuel supply processes, pathways, and technologies</i>
2	Jet Fuel Demand Outlook to 2050 <i>Forecasts for jet fuel demand by type through 2050 with key drivers and corresponding scenarios by region</i>	8	Sustainable Aviation Fuel Market Drivers <i>Population / economic growth, business / consumer travel, infrastructure investments, regulations / policies</i>
3	Jet Fuel Demand Recovery Post-COVID <i>Analysis of jet fuel demand recovery pathways and drivers including historical recovery analyses</i>	9	Cost and Economic Analysis <i>Regional and technology analyses around costs and economics of various jet fuel supply options</i>
4	Jet Fuel Supply Outlook to 2050 <i>Jet fuel supply outlook by region through 2050 in key scenarios including new, sustainable supply options</i>	10	Corporate Landscape Analysis <i>Lists of key jet fuel users and their initiatives around long-term decarbonization and sustainability improvements</i>
5	Aviation and Jet Fuel Regulatory and Policy Review <i>Review of policies and regulations on decarbonization and sustainability of aviation and jet fuels</i>	11	Suppliers' Competitive Analysis <i>Lists of key jet fuel suppliers including new technology and process developers and competitive landscaping</i>
6	Decarbonization Challenges in Jet Fuel Value Chain <i>Aviation and jet fuel value chain's carbon footprint and challenges with decarbonization</i>	12	Strategic Implications and Opportunity Analysis <i>Findings and conclusions, strategic implications, risks and mitigation strategies, and opportunity analyses for jet fuel suppliers</i>

Key deliverables of ADI's "Future of Jet Fuel and Sustainable Aviation Fuel" study

Outcomes	Deliverables
1 In-depth coverage of jet fuel markets globally and across key regions	~100-page report
2 Jet fuel supply-demand through 2050 and near-term demand recovery analysis	~20-page executive summary deck
3 Decarbonization and sustainability in jet and aviation fuel markets globally	Spreadsheet data package
4 Economics and competitive landscape of jet and aviation fuels	Review workshop and analyst access
5 Global feedstock supply availability and analysis	Quarterly subscription option to stay updated

Contact Uday Turaga, +1.281.506.8234 or info@adi-analytics.com to purchase this study.

Outline

▶ Study Prospectus

▶ **About ADI**

ADI is a consulting firm serving oil & gas, energy, chemicals, and industrial clients with expertise, rigor, and passion



Over 300 clients – Fortune 500 brands, mid-sized firms, start-ups, and investors – engage ADI to shape decisions

Oil & Gas



Chemicals



Industrials & Digital



Oilfield Services



EPC



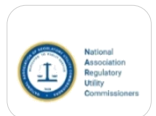
Investors



Early-stage



Public



Clients accelerate priorities with ADI's consulting services, subscription research, data analytics, and conferences

Consulting

Discover and capture opportunities, solve problems, and help businesses thrive amid uncertainty with ADI's market research and management consulting services



Research

Track markets with ADI's subscription research



Analytics

Inform workflows with ADI data, models, and analytics



Forum

Build a strategic view and network at our conference



Stay ahead of the curve with market intelligence, forecasts, and analysis from ADI's subscription research services

ADI subscription research >>



SAF tracker



Downstream market advisory



The future of direct air capture



Natural climate solutions



Sustainable aviation fuel (SAF)



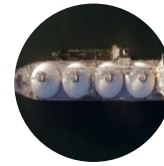
Global CapEx / OpEx outlook



Energy transition advisory



Alternative marine fuels market study



Global / NA small-scale LNG



U.S. gasoline and octane outlook



Refueling North America with LNG



Latin America refined product exports



Assessing opportunities in bio-based chemicals



Benchmarking shale gas monetization options

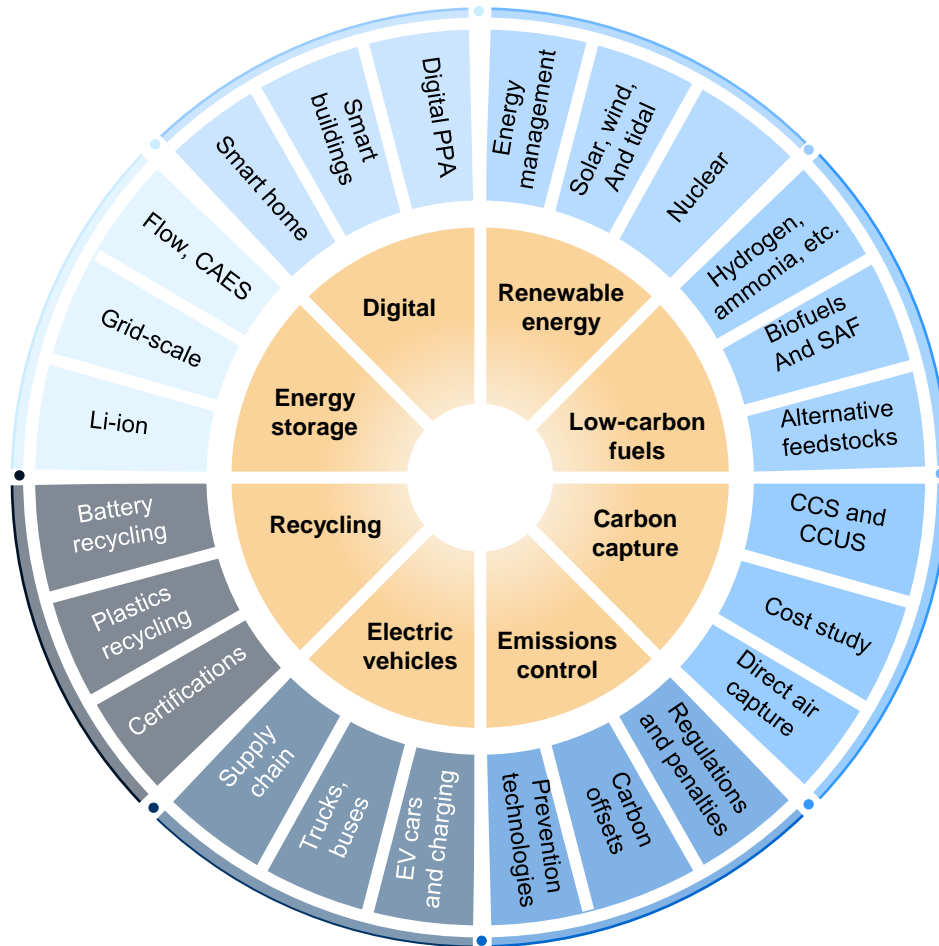


Critical minerals and energy transition

ADI multi-client reports >>

[Access research and reports >>](#)

ADI is increasingly helping clients with their energy transition needs across the board driving sustainability in oil & gas



Build a strategic view of O&G, energy transition and chemical industries informed with executive perspectives at ADI Forum



Oil & Gas

Upstream, midstream, natural gas, LNG, refining, and fuels



Energy Transition

Renewable power, CCUS, biofuels, hydrogen, batteries, and sustainability



Chemicals

ADI Forum now covers chemicals and plastics replacing our FlexPO+ event

February 20-22, 2024 • Houston, TX • www.adi-forum.com



ADI Analytics

OIL & GAS • ENERGY • CHEMICALS

440 COBIA DR • STE 1704 • HOUSTON • TEXAS 77494

+1 (281) 506-8234 • INFO@ADI-ANALYTICS.COM

WWW.ADI-ANALYTICS.COM



CREATING VALUE
SINCE
2009

300+
CLIENTS

600+
PROJECTS

15+
SERVICES

90+
DATABASES

3-day
CONFERENCE