

SAF Achievements in China

Shizhong Li

szli@tsinghua.edu.cn

SAF is now a top strategic priority in China

- In 2026, "green fuels" appeared in the Government Work Report for the first time, with **SAF** explicitly identified as a new growth driver.
- The outline of the 15th Five-Year Plan also proposes extending the green hydrogen industry chain toward **SAF**.
- The State Council's "15th Five-Year Plan" Carbon Peaking Action Plan also explicitly calls for actively promoting the application of **SAF**.

Specific Support Measures for SAF

- The National Energy Administration (NEA) has launched pilot programs for the industrialization of green liquid fuels, and will prioritize providing medium- and long-term loans to eligible **SAF** projects.
- SAF is now listed in the encouraged categories of the "Guidance Catalog for Industrial Structure Adjustment" and covered by central budgetary investment support.

SAF Standards and Trade Facilitation

- The Civil Aviation Administration of China is currently soliciting feedback on its draft specifications for raw material measurement.
- The China Airline Association has released a group standard on carbon footprint and traceability data management for waste cooking oil.
- In January 2026, dedicated SAF HS codes for customs were introduced, and the annual SAF export quota was increased from 1.2 million tonnes to 1.7 million tonnes.

Current SAF Production in China

- As of June 2026, China's SAF production capacity has exceeded **2 million tons per year**, with planned and under-construction capacity totaling approximately **6 million tons per year**.
- To date, four domestic SAF producers—Sinopec Zhenhai Refining & Chemical Company, Henan Junheng, Shandong Sanju, and Lianyungang Jia'ao—have been granted CTSOA (China Technical Standard Order Authorization) airworthiness approval.
- The market is defined by "export-oriented operations with domestic pilot initiatives." In 2025, SAF production is expected to hit **520,000 tonnes**, with exports of **386,000 tonnes** (80% of the total).
- Starting from 2025, China launched routine pilot programs for blending and refueling at four major airports—Beijing Daxing and Chengdu Shuangliu—utilizing a blending ratio of **1%**.

State-own Enterprises Participate in the Establishment of SAF Industry

- In the initial phase, private enterprises held an 82% share of the SAF market.
- In the first half of 2026, central state-owned enterprises accelerated their entry into the sector, with newly planned projects from Sinopec, PetroChina, Energy China, and State Power Investment Corporation accounting for 46% of the total planned production capacity.

State-own Enterprises Participate in the Establishment of SAF Industry

-SINOPEC



The 100,000-ton SAF production unit of Zhenhai Refining & Chemical



Pilot-scale unit for ethanol dehydration, oligomerization, and hydrogenation to produce SAF

- ✓ In 2022, Zhenhai Refining & Chemical commissioned its 100,000-ton SAF facility and secured Asia's first global RSB Biomass Sustainable Aviation Fuel certification.
- ✓ In 2024, SINOPEC collaborated with Total on a SAF project with an annual production capacity of 230,000 tonnes.
- ✓ In 2025, SINOPEC has signed a supply agreement with Cathay Pacific, and developed accost-effective technology for producing SAF from ethanol.
- ✓ In 2026, SINOPEC merged AVIC Oil, and began deploying SAF projects in Maoming and Cangzhou etc, with an expected annual production capacity of 500,000 tons by 2027.

State-own Enterprises Participate in the Establishment of SAF Industry -Energy China

 **国家能源局**
National Energy Administration

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公开事项名称: 国家能源局综合司关于开展绿色液体燃料技术攻关和产业化试点工作(第一批)的通知	
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国家能源局综合司关于开展绿色液体燃料技术攻关和产业化试点工作(第一批)的通知

(国能综通科技〔2025〕134号)

内蒙古自治区、吉林省能源局, 辽宁省、黑龙江省、江苏省发展改革委, **中国能源建设集团有限公司**:

绿色液体燃料是以**可持续航空燃料(SAF)**、可持续柴油、生物燃料乙醇、**绿色甲醇、绿氨**等为代表的低碳燃料。为落实党中央、国务院有关决策部署, 保障能源安全, 促进绿色转型, 推动绿色液体燃料领域新技术、新模式、新业态发展, 培育能源领域新质生产力, 增强发展新动能, 经组织专家评审、复核和公示, 原则同意国投生物3万吨/年纤维素燃料乙醇等9个项目开展绿色液体燃料技术攻关和产业化试点工作, 现将有关事项通知如下。



- Combining biomass gasification with wind and solar-powered electrolysis for hydrogen production to synthesize methanol, which is then converted into SAF via MtJ technology.
- Integrating captured CO₂ with wind and solar power for electrolytic water production of hydrogen, employing FT technology to produce SAF.
- SAF projects layout: Jilin – 400,000 tons/year; Heilongjiang – 100,000 tons/year; Liaoning – 600,000 tons/year; Inner Mongolia – 200,000 tons/year; Xinjiang – 200,000 tons/year

Currently, China's SAF production is primarily based on the HEFA pathway



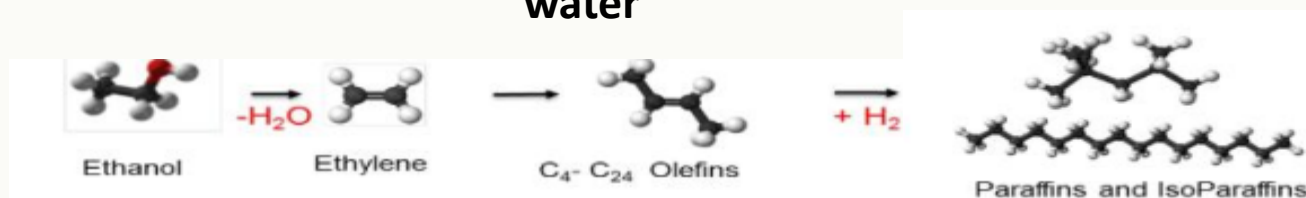
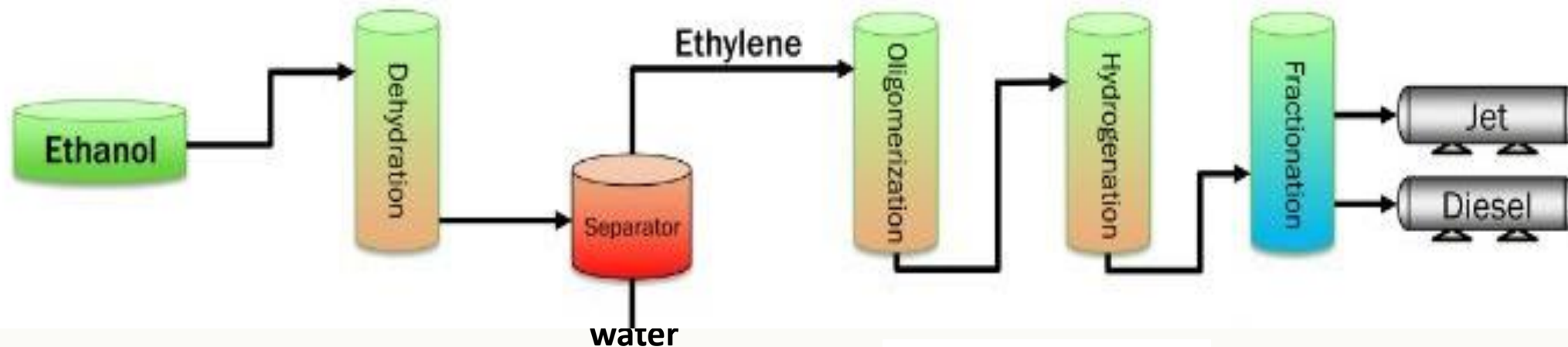


Is there enough McDonald's in the world?



Ethanol is currently the most feasible and promising feedstock for SAF

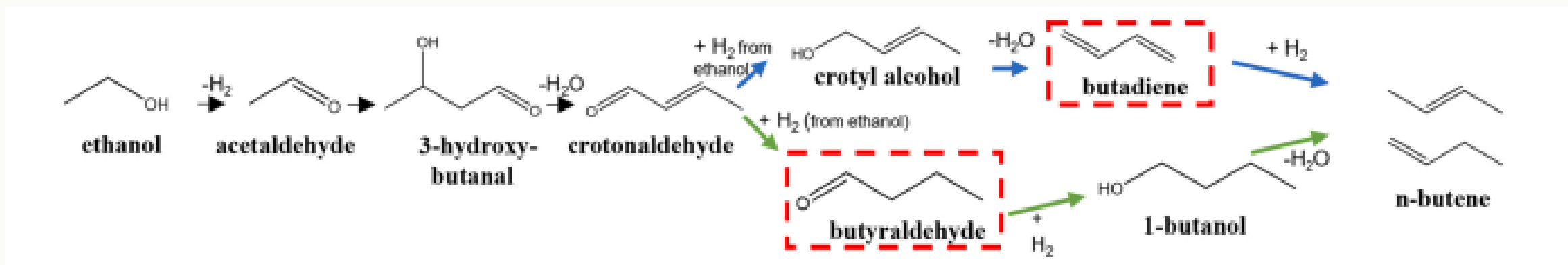
Ethanol-to-SAF via Ethylene Route



- ✓ 1 ton of SAF can be produced using 1.8 tons of ethanol, with a processing cost of approximately US\$200 per ton.
- ✓ BBCCA and Honeywell have signed a strategic cooperation agreement to produce SAF using cellulosic ethanol.
- ✓ The cost of cellulosic ethanol is around \$700 per ton, while the cost of SAF is approximately \$1,400 per ton.

Ethanol is currently the most feasible and promising feedstock for SAF

Ethanol-to-SAF via Butene Route



In June 2026, Xinhangyuan (Hangzhou) Biotechnology Co., Ltd. and China Global Engineering Co., Ltd. formally signed a technical development cooperation agreement to jointly develop the commercial process package for flexfining™ ethanol-to-SAF.

CO₂ –to-SAF

$$(2n+1) \text{H}_2 + n\text{CO} \rightarrow \text{C}_n\text{H}_{(2n+2)} + n\text{H}_2\text{O}$$


- ✓ The challenge for SAF and eSAF is no longer technology alone - it is how to turn proven technologies into predictable, bankable and scalable industrial projects. By combining Axens' process technology with Wison's capabilities in standardized and modularized engineering, global supply-chain integration and project execution, we aim to reduce development complexity, improve cost and schedule certainty, and create solutions that can be efficiently replicated across markets.

Hengwei Liu
CTO of Wison Engineering

- ✓ We are delighted to work alongside Wison Engineering to combine their respective strengths to help address critical project development challenges, including execution complexity, investment risk and schedule uncertainty. By bringing Carboverseo™ and Gasel® (respectively Reverse Water Gas Shift, Fischer Tropsch and Upgrading) technology expertise and Wison's engineering and modular execution capabilities, we aim to provide our customers with a more integrated and efficient pathway, from project definition to commercial operation.

Jacques Rault
Executive Vice President Technology and Technical Support
at Axens

Shanghai, China, 7 September 2026 – Axens and Wison Engineering signed a Memorandum of Understanding (MOU) to explore collaboration opportunities on global SAF and e-SAF projects.

CO₂ –to-SAF pilot plants



Tsinghua University and partners built a 1,000-tonne-scale pilot unit for CO₂-to-SAF technology

- ✓ Using byproduct CO₂ and recovered hydrogen from synthetic ammonia and urea plants as feedstocks.
- ✓ Producing 1 t of Jet-fuel-range component consumes approximately 3.65 t of CO₂ and roughly 5,020 Nm³ of hydrogen.

In June 2026, Carbonology broke ground on 1,000-ton DAC-to-e-SAF pilot plant in Ningdong, China

2026: Complete construction of the kiloton pilot facility to conduct industrial validation

2027: Launch China's first commercial ten-thousand-ton scale e-SAF production plant, extending its global lead in air-to-fuel manufacturing



Conclusions and suggestions

- ✓ China's SAF policy framework has largely taken shape.
- ✓ The industry has entered a phase of rapid capacity expansion, yet the domestic market remains in a pilot and cultivation stage; consequently, the industry currently relies heavily on exports to absorb its excess capacity.
- ✓ The central government should mandate the SAF quota system—such as a 2% SAF blend requirement in aviation kerosene—and expedite the development of an SAF industry roadmap.

Thank you