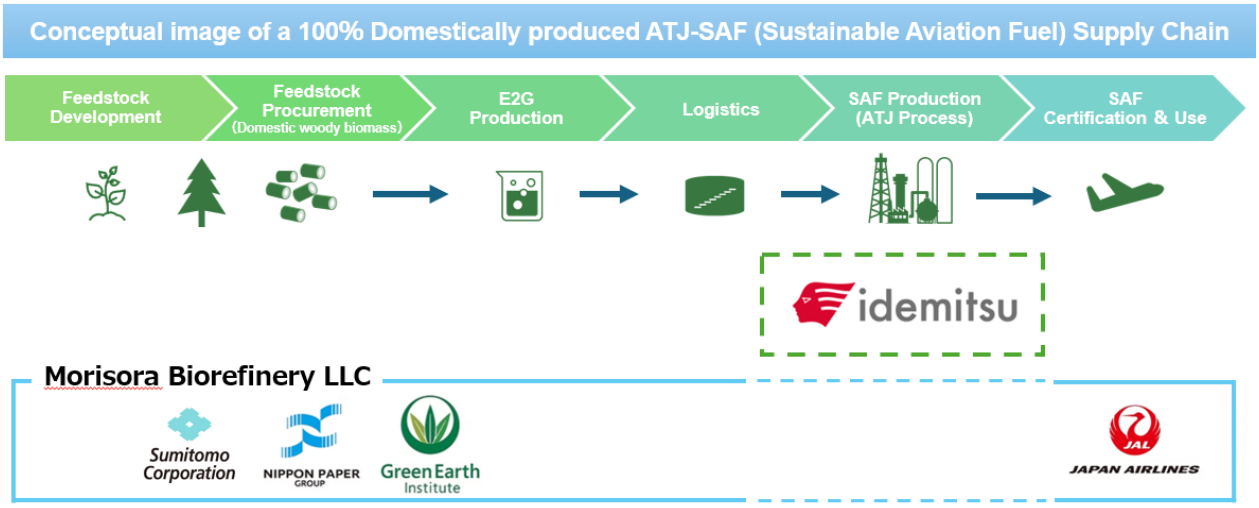
May 27, 2026
Idemitsu Kosan Co.,Ltd.
Morisora Biorefinery LLC

Idemitsu Kosan and Morisora Biorefinery Collaborate to Establish a 100% Domestically Produced ATJ-SAF (Sustainable Aviation Fuel) Supply Chain

Idemitsu Kosan Co.,Ltd. (Headquarters: Chiyoda-ku, Tokyo; hereinafter referred to as "Idemitsu Kosan") and Morisora Biorefinery LLC (Headquarters: Chiyoda-ku, Tokyo; hereinafter referred to as "Morisora BR") have signed a memorandum of understanding with the aim of establishing a supply chain for 100% domestically produced ATJ[*1]-SAF (Sustainable Aviation Fuel) derived from bioethanol made from domestic wood resources. By integrating domestically produced second-generation bioethanol derived from woody biomass (hereinafter referred to as "E2G")[*2] with the ATJ technology currently undergoing verification and evaluation by Idemitsu Kosan, the two companies will jointly explore the feasibility of establishing a supply chain that covers the entire process – from feedstock development to SAF use – within Japan.

*1 ATJ (Alcohol to Jet): A technology and process for producing SAF from alcohol represented by ethanol. Certified as "ASTM D7566 Annex 5," the international standard for SAF.
*2 Second-generation bioethanol (Ethanol 2nd Generation): Ethanol produced from non-edible biomass that does not compete with food resources. In contrast, bioethanol produced from edible parts of biomass such as sugar and starch is called first-generation ethanol.



Conceptual image of the supply chain for 100% domestically produced ATJ-SAF, featuring companies participating in Morisora BR

Morisora BR aims to produce E2G from domestic timber for use as a feedstock for SAF and other applications. The two companies will integrate the domestically produced E2G planned by Morisora BR with the ATJ-SAF production that Idemitsu Kosan is exploring for verification purposes, and will conduct a comprehensive study covering the entire process from feedstock development to SAF use.

Specifically, we will proceed with planning the logistics connecting the E2G production facility and the ATJ-SAF production plant in Japan, while also exploring ways to disseminate information about domestically produced ATJ-SAF and examining the institutional frameworks and enabling environment necessary for its social implementation. Through this initiative, we will work to identify and resolve challenges related to establishing a supply chain for domestically produced ATJ-SAF.

In the aviation industry, the societal implementation of SAF is seen as an effective means of achieving decarbonization. There are several types of feedstocks and production methods for SAF, and currently, SAF production using HEFA[*3] technology is leading the way globally. However, securing feedstocks is a challenge for the widespread adoption of SAF, and diversifying these feedstocks is also required from the perspective of energy security. ATJ is a technology that can contribute to the stable procurement and diversification of feedstocks by using alcohol produced from various biomass as a raw material for SAF, and Idemitsu Kosan is undertaking a pilot production project to verify its feasibility. If a supply chain for ATJ-SAF using domestically produced E2G derived from non-edible resources represented by woody biomass as a feedstock is established, it will be possible to complete the entire process, from feedstock production to product manufacturing, domestically while avoiding competition with food crops.

(From left to right) Wood chips, pulp, fermentation culture solution, E2G

Going forward, the two companies aim to enhance the feasibility of establishing a 100% domestically produced ATJ-SAF supply chain and contribute to decarbonization and energy security in Japan's aviation sector.

*3 HEFA (Hydroprocessed Esters and Fatty Acids): A technology and process for producing SAF from hydroprocessed esters and fatty acids obtained by hydrogenating vegetable oils and other materials. Certified as "ASTM D7566 Annex 2," the international standard for SAF.

■About Morisora BR and the Project MORISORA®

In February 2023, Nippon Paper Industries Co., Ltd., Sumitomo Corporation, and Green Earth Institute Co., Ltd. launched the "Project MORISORA®" under the slogan "Transforming the Power of Forests into the Power of Flight." In March 2025, Japan Airlines Co., Ltd. and Airbus S.A.S. joined the Project MORISORA®, followed by Sumitomo Forestry Co., Ltd. in September 2025, strengthening the framework for promoting the production and dissemination of bioethanol as a

feedstock for SAF. In July 2025, Nippon Paper Industries, Sumitomo Corporation, and the Green Earth Institute jointly established Morisora Biorefinery LLC, a company dedicated to the production of bioethanol, followed by Japan Airlines' investment in Morisora BR in October 2025.Through the promotion of bioethanol derived from domestically sourced timber, used as a feedstock for SAF and other fuels, we are contributing to the creation of new ways to utilize wood, and we are also working to build a decarbonized society through resource circulation, revitalize local communities, and realize a sustainable future.

[Reference] Company Profiles

Idemitsu Kosan Co.,Ltd.

Head Office:	1-2-1 Otemachi, Chiyoda-ku, Tokyo
Representative:	Representative Director and President: Noriaki Sakai
Main Lines of Business:	Fuel Oil Business, Basic Chemicals Business, High-Performance Materials Business, Power and Renewable Energy Business, Resources Business

https://www.idemitsu.com/en/index.html

Morisora Biorefinery LLC

Head Office:	4-6 Kanda Surugadai, Chiyoda-ku, Tokyo
Representative Partner:	Nippon Paper Industries Co., Ltd. (Executive Officer Representative: Shisei Goto)
Main Lines of Business:	Production and sale of bioethanol and biochemicals derived from woody biomass

https://www.morisorabr.com/