## Sustainable Aviation Activities in Oceania and SE Asia

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# Commitments of Greater Ambition – Japan and U.S.

# Japan – U.S. Joint Leaders' Statement: Strengthening the Free and Open International Order

- → Prime Minister Kishida and President Biden welcomed Japan's commitment to take all available measures to double demand for bioethanol, including for sustainable aviation fuel and on-road fuel, by 2030 to reduce dependence on imported petroleum.
- → White House Official Statement issued on May 23, 2022
- → Japan-U.S. Joint Leaders' Statement: Strengthening the Free and Open International Order | The White House

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## **Commitments of Greater Ambition – Japan**

### Japan – Neste Announcement

- → Japan's Government (Ministry of Land, Infrastructure, Transport and Tourism) has set a target of 10% SAF use by 2030
- > Neste and ITOCHU are celebrating the first delivery of Neste MY SAF to Etihad Airways in Japan, as of May 29, 2022
- The delivery of Neste MY SAF to Etihad marks the first time in Japan that SAF will be supplied to an overseas airline at an airport in Japan
- → SAF will be available at the two largest Japanese international airports: Tokyo Haneda and Narita

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## Commitments of Greater Ambition – New Zealand and Singapore

#### New Zealand – Singapore Agreement

- In April 2022, the governments of New Zealand and Singapore signed a bilateral arrangement for cooperation in sustainable aviation, "as both countries move towards low carbon economies".
  - Policy and regulation: Including information exchange on policy positions and regulations that supports SAF uptake and the electrification of fleets and airport infrastructure.
  - → Industry development: Including the coordination of the R&D, testing and trialing of sustainable aviation fuels (including SAF and Hydrogen), to guide the development of the sustainable aviation ecosystem.
  - Future infrastructure planning and provisions: Including information sharing on approaches to decarbonise airport infrastructure and optimise aircrafts and air traffic routes, and a study on the commercial viabilities of developing "green lanes" between New Zealand and Singapore to encourage the consumer uptake of SAF-run flights.
  - $\rightarrow$  Workforce transformation: Including the creation of new jobs in sustainable aviation, and information exchange on redesigning work processes and supporting professional growth in the aviation sector.

### Commitments of Greater Ambition – Australia

Bioenergy Roadmap - Issued by the Australian Renewable Energy Agency (ARENA)

- → In November 2021, ARENA put out the Bioenergy Roadmap for all of Australia
- → Major Goal: Establish a viable Australian-based industry, with production of up to 500 million gallons of SAF production in Australia (18% of their jet fuel consumption) by 2030
  - → Communicate the role and benefits of biojet fuels to the community
  - → Coordinate public-private partnerships across all stakeholder groups to develop the market
  - → Assess opportunities in foundation sub-markets such as the Royal Australian Air Force or regional routes
- → Encourage research, pilots and trials focusing on the demonstration of
  30 June 2022 advanced biojet fuels from non-food resources at commercial scale

### **Commitments of Greater Ambition – Australia**

#### **Bioenergy Australia**

- → Committed to accelerating Australia's bioeconomy.
- → Mission is to foster the bioenergy sector to generate jobs, secure investment, maximize the value of local resources, minimize waste and environmental impact, and develop and promote national bioenergy expertise into international markets.

#### SAF Alliance of Australia and New Zealand (SAFAANZ)

- → Purpose of the Alliance is to create a collaborative environment to advance SAF production, policy, education and marketing in Australia and New Zealand.
- Members across the supply value chain, government, academia, defense, CAAFI
- → As a result of the recent New Zealand & Singapore agreement, Bioenergy Australia will be welcoming in Singapore entities into the Alliance

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## Activity and Potential Commercialization in Australia

- → LanzaTech
- → Gevo
- **→** Mercurius
- **→** Licella
- → Oceania
- → ???????
- → ???????



Qantas flight from LAX to MEL on carinata – Jan 2018

Virgin Australia flights out of Brisbane Airport – 2018-2019

Pilot plant in Mackay, Queensland trialing their REACH technology

Projected to build a pilot plant in the Burdekin Region with Cat-HTR

Construction start in 2023 on a HEFA plant in Gladstone

Well known company exploring the potential for sugar cane bagasse feedstocks and a site for a biorefinery

Well known company exploring ethanol feedstocks and

possible sites for a biorefinery

## **Summary for Australia**

- Sustainable Aviation Fuel commercialization is in sight
- Australia has multiple types of inexpensive feedstocks for advanced biofuels and have huge volumes to feed multiple biorefineries
- → Australia has many hungry off-takers who are anxious for SAF and renewable diesel
  - Qantas, Virgin Australia, Air New Zealand
  - **→** Australian Defence Force
  - → U.S. Navy
  - Australian Post
- → Bioenergy Roadmap will help stimulate multiple initiatives and attract good technology providers to fill the gap between the feedstocks and the end users
- May 21 Federal Election: Labor party secured a majority in Parliament with a third of the country voting for independents and the Greens running on climate platforms



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