



TNChe Asia 2024 Conference
" Decarbonization, AI and Digital Transformation
for Sustainability in Process Industries "
Presenter's Biodata & Abstract



Full Name : Mr. Pankaj Garg

Company/ Organization : Technip Energies

Current Position : General Manager - Sales & Business Development

Title of Presentation : Sustainable Aviation Fuel (SAF) – Necessity and Path Forward as Clean Energy



Presentation Abstract :

Sustainable Aviation Fuel (SAF) is crucial for reducing the environmental impact of air travel, which contributes around 2-3% of greenhouse gas emissions. As global aviation traffic continues to grow, reliance on conventional fossil jet fuel intensifies climate change and its impact will grow. SAF offers a viable solution by substantially lowering carbon emissions, often by up to 80% compared to traditional fossil based jet fuel, depending on the feedstock and production process. Additionally, SAF can improve energy security by diversifying fuel sources and reducing dependence on fossil fuels.

Path Forward:

1. **Feedstock Diversification:** Developing and utilizing various sustainable feedstocks, enhance the scalability and sustainability of SAF.
2. **Technological Innovation:** Advancing production technologies is essential to improve efficiency and reduce costs.
3. **Policy Support:** Government policies, incentives, and regulatory frameworks play a critical role in fostering SAF adoption to stimulate investment and market growth.
4. **Industry Collaboration:** Collaboration among airlines, fuel producers, and stakeholders is vital to create a cohesive supply chain and accelerate SAF deployment.
5. **Research and Development:** Continued R&D is necessary to enhance feedstock yield, improve conversion technologies, and reduce production costs, making SAF competitive with traditional fuels.

Embracing SAF is integral to achieving aviation's climate goals, supporting sustainable growth, and ensuring the long-term viability of the aviation industry.



TNChE Asia 2024 Conference
" Decarbonization, AI and Digital Transformation
for Sustainability in Process Industries "
Presenter's Biodata & Abstract



Technip Energies (T.EN) is playing a significant role in advancing SAF technologies through strategic partnerships and innovative projects.

One of T.EN's notable collaborations is with LanzaJet, a leading sustainable fuels technology company for Alcohol-to-Jet (ATJ) process. It converts ethanol into jet fuel. This collaboration leverages T.EN's proprietary Hummingbird® technology, which efficiently converts ethanol to ethylene, a crucial step in the ATJ process. This partnership aims to scale up SAF production to meet growing demand and support decarbonization efforts in the aviation industry. The world's first commercial AtJ plant is due to start-up in Q2 this year based at LanzaJet's Freedom Pines Bio-refinery, located in Georgia, USA.

Additionally, T.EN is involved in multiple SAF Projects in various stages of development with our partner LanzaJet, encompassing over 2 million tonnes of SAF. One of these projects is Project DRAGON, a SAF project in the UK, which is set to be one of the first commercial SAF facilities.

These efforts by T.EN are crucial in accelerating the deployment of sustainable aviation fuels, contributing to the aviation industry's goal of reducing greenhouse gas emissions and achieving net-zero targets by 2050.