Johnson Matthey selected by Phelan Green for landmark e-SAF plant in South Africa

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Phelan Green Hydrogen has announced it has licensed technologies from Johnson Matthey Catalyst Technologies (JM CT) for its planned electro-sustainable aviation fuel (eSAF[1]) facility in the Western Cape, South Africa.

Construction of the facility in Saldanha Bay is expected to begin by the end of 2026 and is part of the wider Phelan Green Hydrogen Project which expects investment of R47 billion (more than £2 billion).

The licence win represents the first phase of the project, which when completed is expected to be one of the world's first commercial-scale eSAF production facilities, able to produce around 35,000 tonnes of eSAF each year, intended for sale into the EU/UK markets. That will be the equivalent of producing up to 6% of the EU and UK's mandated eSAF volumes for 2030.

Once all phases are complete the facility is expected to supply around 140,000 tonnes of eSAF in total each year.

Johnson Matthey's **HyCOgen™** technology uses a catalysed process to convert CO_2 and electrolytic (green) hydrogen into carbon monoxide (CO). This CO is then combined with additional hydrogen to form syngas. **HyCOgen** technology integrates with **FT CANS™** technology, jointly developed and co-owned by JM and bp, which converts syngas into synthetic crude oil, supporting overall process efficiency. This synthetic crude oil will then be upgraded to produce synthetic paraffinic kerosene.

Alberto Giovanzana, CEO of JM CT, said:
"Phelan Green's plans for an eSAF facility in the Western Cape are a landmark project. It will be one of the world's first commercial-scale eSAF facilities and a clear signal that SAF can scale today. It also marks Johnson Matthey's first deployment of HyCOgen and FT CANS in Africa."

Blair Phelan, Managing Director Phelan Green Group, said:
"Securing these licence and engineering agreements with Johnson Matthey completes the technology backbone of our project. Their team's support has been instrumental in getting

[1] Eligibility for eSAF in the UK and EU is subject to compliance with applicable regulatory requirements, including Renewable Fuels of Non-Biological Origin (RFNBO) criteria and relevant third-party verification.

us here. We are now ready to turn renewable energy, CO_2 and water into sustainable aviation fuel, and to prove that eSAF can be produced at commercial scale, here in South Africa."

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About Johnson Matthey

For over 200 years Johnson Matthey has used advanced metals chemistry to tackle the world's biggest challenges.

Many of the world's leading energy, chemicals and automotive companies depend on our technology and expertise to decarbonise, reduce harmful emissions and improve their sustainability.

And now, as the world faces the challenges of climate change, energy supply and resource scarcity, we're actively providing solutions for our customers – metals that matter, for a healthier world.

For more information visit www.matthey.com.

About Phelan Green

Phelan Green is a highly successful developer of clean energy for over 20 years. Its sustainable fuels development platform will advance largescale green hydrogen, eFuels and industrial decarbonization projects. Through its subsidiary Phelan eFuels, the company is developing one of the most significant electro-sustainable aviation fuel projects globally, supporting the global aviation sector transition to a low carbon footprint.

For more information visit www.phelangreen.com.

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