Johnson Matthey chosen by Liquid Sunshine for new biomethanol fuel plant in China

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- JM's methanol technology selected by Guangdong Liquid Sunshine in the Guangxi Province
- The project is among the first wave of commercial projects in the wider industry designed to support early adopters decarbonising maritime fuel
- This project represents the JM Catalyst Technologies' business second green methanol plant license win in China, as part of a growing portfolio

Guangdong Liquid Sunshine has selected Johnson Matthey (JM) as a technology partner for its first commercial-scale project - a biomethanol plant planned in Tiandong County, Guangxi. The two companies, alongside the East China Engineering Science and Technology Co. (ECEC), have also committed to work on future project opportunities together.

China's latest Five-Year Plan (2026–2030) aims to accelerate the country's 'green transition' with the production of advanced green fuels – like methanol, ammonia and sustainable aviation fuel - identified as strategic, high-growth industries. The country is rapidly growing its methanol production and green fuel capacity, reducing dependence on imported oil and gas. China is quickly establishing itself as a global leader in low-carbon shipping fuel and chemicals.

The Guangxi plant will demonstrate new technologies and innovation in gasification and the integration of renewable power systems. Johnson Matthey provides the methanol technology which converts gasified biomass waste into biomethanol.

When complete, the first phase – with construction expected to begin later this year- will achieve an annual production capacity of 75,000 tonnes of biomethanol.

If approved, a second phase will see an additional plant use the excess carbon dioxide from the first plant. It will be combined with electrolytic hydrogen to produce e-methanol which can be used to help meet e-fuel mandates, including those in Europe. This will increase the capacity for low carbon methanol production at the site without the need to use additional biomass feedstock.

JM's methanol technology converts syngas from different feedstock sources, including waste biomass, into methanol. Already proven at scale, JM's industry-leading technology delivers

enhanced long-term operational performance by combining its proprietary methanol synthesis loop with a high-performance catalyst.

Alberto Giovanzana, CEO of Catalyst Technologies, Johnson Matthey, said:
"Johnson Matthey has worked in China for more than 30 years with the country's largest, most successful energy and chemical producers. We're excited to be a part of Liquid Sunshine's plans and this project represents our second green methanol plant license win in China.

"Our world-leading methanol synthesis technology will play an increasingly vital role as the site eventually integrates biomethanol with e-methanol production. Once operational, this refinery will help meet the growing demand for fuel and energy security in the marine industry."

Xi Jiang, Executive President of Liquid Sunshine, said:
"The renewable energy and chemical industries are entering a critical phase of accelerated growth here in China. We are delighted to have JM's technical expertise on board, as we develop a world-class biomethanol plant.

"For us, this collaboration marks an important starting point for deeper partnerships with global technology leaders, such as JM, enabling both parties to actively explore domestic and international green energy markets and foster innovation."

The project will be led by Guangdong Liquid Sunshine, jointly constructed with the Tiandong County People's Government and China Coal Guangxi New Energy, while ECEC will also act as a key project partner in engineering.

Memorandum of Understanding signed:
Johnson Matthey, Liquid Sunshine and ECEC have also signed a memorandum of understanding to collaborate on future projects together.

By leveraging the combined strengths and resources of all three parties, the collaboration aims to establish a strategic partnership that advances decarbonisation technologies in China.

Liquid Sunshine, as the project developer, is also co-developing the Biomass Dual Fluidized Bed Chemical Chain Gasification Technology with the Qingdao Institute of Bioenergy and Bioprocess Technology at the Chinese Academy of Sciences. This bio-gasification technology will be applied in the project.

ECEC has achieved significant technological breakthroughs in areas such as green hydrogen production and advanced technology integration. It has built core capabilities in delivering comprehensive solutions that span green energy applications, chemical process integration, and ecological governance.

Johnson Matthey will contribute cutting-edge methanol technologies, including industry-leading process design and high-performance catalyst products.

ENDS

About Johnson Matthey:

Johnson Matthey is a world leader in platinum group metals (PGMs). For over 200 years we've 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.

Guangdong Liquid Sunshine Green Energy Co., Ltd.

Headquartered in Guangzhou, China, Guangdong Liquid Sunshine focuses on green new energy technology research and development, equipment manufacturing, low-carbon chemical product research and development and production, and international bulk green energy trading. It is a leading international provider of renewable energy transformation technologies and solutions.

The company's biomass chemical chain gasification technology, jointly developed with the Qingdao Institute of Bioenergy and Bioprocess, Chinese Academy of Sciences, has achieved highly selective and directional conversion of tar, and methane. This provides solid technical support for China's "dual-carbon" strategic goals.

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