

POWERING JENBACHER ENGINES WITH BIOGAS MADE FROM PALM OIL BYPRODUCT IN MALAYSIA

Award-winning plant supports the country's net-zero emissions efforts

Background

The Sustainable Energy Development Authority (SEDA)'s Feed-in Tariff (FIT) mechanism in Malaysia supports a biogas production quota of up to 30 MW of biogas annually.

Relying on INNIO Group's Jenbacher technology, Concord Group is a leader in Malaysia's biogas industry, operating with the Build, Own, Operate, and Transfer (BOOT) business model. Concord Group uses palm oil mill effluent (POME) as the feedstock for the Jenbacher engines running its FIT biogas power plants. With its high organic content, POME is an excellent source of biogas production through a fermentation process.

Jenbacher technology power award-winning plant

With 12 Jenbacher engines, Concord Group has developed and is operating seven POME biogas plants with a total installed capacity of more than 13 MW.

One of those plants is the Adela Biogas Plant, powered by two Jenbacher J412 engines. Capable of exporting 1.5 MW of power to the national grid, the plant won the National Energy Award (NEA) in 2021. The award, spearheaded by the Ministry of Natural Resources, Environment, and Climate Change, recognizes the adoption of sustainable energy concepts and practices for Malaysia's business organizations across all industries and sectors.

» We have chosen Jenbacher technology for all of our palm oil mill effluent biogas projects. Obviously, we are very pleased with the outcome as we help our country meet its goal of 31% renewable energy contribution to the national energy mix by 2025.«

Datuk Khairuddin bin Tan Sri Mohd Hussin, CEO of the Concord Group



Results

Under Malaysia's FIT program, INNIO's Jenbacher engines are fueled by a palm oil byproduct that otherwise would be discharged, significantly helping to achieve Malaysia's environmental targets. With this profitable business model, Concord Group intends to continue to expand in support of Malaysia's aspiration for 31% renewable energy contribution to the national energy mix by 2025.



Customer benefits

Flexible Jenbacher engines can run on a variety of biogases, including biogas derived from POME. Concord Group's POME biogas plants:

- Support Malaysia's goal of becoming net-zero for greenhouse gas emissions by 2050 as pledged at the United Nations Framework Convention on Climate Change's 26th Conference of the Parties (COP26)
- Harness already available organic waste and use it as an alternative energy source, potentially reducing greenhouse gas emissions and avoiding the need to dispose of bio waste.

Key technical data

Installed Engines	2 x J412
Energy Source	Biogas
Electrical Output	1,800 kW
Electrical Efficiency	42.6%
Year of Commissioning	2019



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INNIO is a leading energy solution and service provider that empowers industries and communities to make sustainable energy work today. With our product brands Jenbacher and Waukesha and our digital platform myPlant, we offer innovative solutions for the power generation and compression segments that help industries and communities generate and manage energy sustainably while navigating the fast-changing landscape of traditional and green energy sources. INNIO is individual in scope, but global in scale. With our flexible, scalable, and resilient energy solutions and services, we enable our customers to manage the energy transition along the energy value chain wherever they are in their transition journey.

INNIO is headquartered in Jenbach (Austria), with other primary operations in Waukesha (Wisconsin, U.S.) and Welland (Ontario, Canada). A team of more than 4,000 experts provides life-cycle support to the more than 55,000 delivered engines globally through a service network in more than 100 countries.

INNIO's improved ESG Risk Rating again secures the number one position across more than 500 companies globally in the machinery industry assessed by Sustainalytics.

For more information, visit the INNIO website at www.innio.com

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