

Official Launching of the First Commercial BioCNG (Biomethane) Plant in Malaysia

On 28th October 2015, the world first commercial BioCNG Plant from Palm Oil Mill Effluent (POME) biogas was officially launched by the Malaysian Minister of Plantation Industries and Commodities, YB Datuk Amar Douglas Uggah Embas. This BioCNG Plant is located at the Felda Palm Oil Mill Sg. Tenggi, Kuala Kubu Bahru, in the state of Selangor, Malaysia. The Plant is about 88 km north of the city of Kuala Lumpur.

The Plant, costing around MYR7 million processes 600 m³/hr of raw biogas, sourced from a covered lagoon, to produce 400 m³/hr of Bio Compressed Natural Gas (BioCNG). The POME raw biogas is upgraded from composition of 60% CH₄, 35% CO₂ and 3000 ppm H₂S to BioCNG or Renewable Natural Gas of > 94% CH₄ content. The BioCNG is then compressed to 250 bar and dispensed into CNG trailers to be sent to factories. The first factory to receive this BioCNG is OMI Alloy (M) Sdn Bhd, located about 45 km away from the Plant. The factory is replacing their LPG fuel with BioCNG, thus enjoying fuel cost savings and reducing carbon footprint of the factory.



Top: Photos of the the BioCNG Plant and launching of the Plant by the Malaysian Minister of Plantation Industries and Commodities

This first of its kind commercial BioCNG Plant in Malaysia is a result of strategic venture between the Malaysian Palm Oil Board (MPOB), Felda Industries Sdn Bhd (a subsidiary of Felda Global Venture, FGV), and Sime Darby Offshore Engineering Sdn Bhd (SDOE). SDOE is the engineering, procurement, construction and commissioning partner in this venture. SDOE and Gas Malaysia Berhad (GMB), the local natural gas distribution company in Malaysia, had also entered into a joint venture to off-take the BioCNG produced from this plant and transporting it by CNG trailers to customers. SDOE sourced the biogas upgrading and CNG compression equipment from SAFE Spa, Italy and the Type 4 CNG cylinders for the trailers from Lincoln Composites, USA. SDOE, SAFE and Lincoln Composites are all members of ANGVA. It is anticipated that more BioCNG plants will be constructed and commissioned in Malaysia through strategic ventures by MPOB, Felda, SDOE and GMB.

Besides supplying the BioCNG to factories, SDOE and GMB are also looking at supplying BioCNG via trailers to NGVs (Natural Gas Vehicles) in Malaysia. Currently there are around 74,100 NGVs and 178 NGV refueling stations in the country. Current retail price of CNG for NGVs in Malaysia is MYR1.05 per litre equivalent of gasoline and retail prices of RON 95 gasoline is MYR2.05 per litre and Diesel is MYR1.90 per litre.