FGV Palm Industries, Sime Darby Energy Solutions and Biotek Dinamik enter tripartite MoU on BioCNG

FGV Palm Industries Sdn Bhd (FGVPI) (*formerly known as Felda Palm Industries Sdn Bhd*), Sime Darby Energy Solutions Sdn Bhd (SDES) and Biotek Dinamik Sdn Bhd (BDSB) are teaming up to produce bio-compressed natural gas (BioCNG) from waste biogas generated from palm oil mill effluent (POME) ponds.

BioCNG is a potential substitute for diesel in vehicles and also in the manufacturing industry. FGV currently generates approximately 170 million cubic meters of biogas a year from 30 mill sites, as a bi-product of the anaerobic digestion of POME. This is equivalent to 1-1.5 million litres of diesel per palm oil mill annually.

“The three parties will leverage each other’s expertise and strengths to ensure that the venture will take off successfully. FGVPI shall provide the mill sites, biogas and/or POME supplies, and coordinate the project to ensure its smooth rollout in a timely manner,” FGV’s Group Chief Executive Officer Dato’ Haris Fadzilah Hassan said. Once this project is fully rolled out, FGV will have the most BioCNG sites in the world, for a plantation company.

FGVPI, an indirect subsidiary of FGV Holdings Berhad, and SDES, a wholly-owned subsidiary of Sime Darby Berhad, signed a tripartite Memorandum of Understanding (MoU) with BDSB to develop BioCNG on a commercial scale. The collaboration involves the potential development of 35 brownfield and greenfield sites owned by FGVPI, over several years.

SDES is primarily involved in the provision of energy solutions for Malaysia-based industries. It has significant experience in all aspects of design, construction and maintenance of co-generation (COGEN), combined heat and power (CHP) and BioCNG projects. SDES will provide design and construction services for the proposed project as well as ongoing maintenance support.

Under the terms of the MoU, BDSB, a renewable energy company, will be the project developer, owner and operator of the BioCNG and/or the biogas plants. The project will be undertaken on a build, operate and own (BOO) basis.

“Capturing and recycling this biogas to produce a green and renewable fuel makes commercial sense, while also contributing to our efforts to reduce emissions from the production of palm oil,” Haris Fadzilah added.

This BioCNG venture is in line with the FGV group’s waste-to-wealth strategy to generate value from downstream by-products. The group is exploring the possibility of replacing some of its existing fossil fuel requirements with BioCNG. This will result in cost savings and allow the Group to reduce its carbon footprint and become a sustainable palm oil producer.

This project is expected to generate substantial value for the group and at the same time help the government meet its renewable energy target of 20% by 2025.

“This is a clear example of a ‘low hanging fruit’ which requires minimal investment from FGV, that could become a sustainable income stream, from renewable sources,” Haris Fadzilah noted. “Additionally, our mill process will be greener as waste will be managed in a more responsible manner.”

Sime Darby Industrial Sdn Bhd’s Managing Director Teoh Cy Kuan said SDES has the expertise and experience in operating and maintaining BioCNG plants, having successfully worked with FGV as project developer in a previous venture.

“SDES has been working with FGVPI since 2014 when we developed the world’s first commercial palm oil-based BioCNG plant located at Sg Tengi, Kuala Kubu Bharu, Selangor. The Sg Tengi BioCNG plant has been successfully commissioned and tested and has been supplying BioCNG to industrial customers since 2017.

“This tripartite venture between SDES, FGVPI and BDSB is a breakthrough for us to expand our business further,” Teoh added.

Meanwhile, BDSB’s Managing Director & CEO, Eddy Yap Wai Hong said his company intends to pioneer the commercialisation of BioCNG in Malaysia and hopes to market the green renewable fuel to the domestic market next year.

Yap said BioCNG has the potential to become the country's next biofuel source following the success of palm oil-based biodiesel. He explained that both biodiesel and BioCNG have similarities as they are produced using feedstock from the palm oil industry and are classified as a green renewable fuel.

He added that BioCNG produced from biogas extracted from the POME ponds is a cleaner and more economical alternative fuel compared to fossil fuels such as LPG and diesel.

"BioCNG is a green renewable fuel which is carbon-neutral and sulphur-free. Globally, BioCNG is widely used in the industrial and transportation sectors as a cleaner replacement to fossil fuels. For a start, we intend to introduce BioCNG to the domestic industrial and transportation sectors, while in the mid to longer term, we are potentially targeting to export some of our production in the form of Bio-LNG (Bio-Liquefied Natural Gas) to markets in Europe, China, Japan and Korea. We hope our initiative will not only help to create a more robust downstream industry for the palm oil sector but will also provide a sustainable waste management alternative and income model for palm oil mills," Yap added.

ENDS

About FGV Holdings Berhad

FGV Holdings Berhad (FGV) is Malaysia's leading agri-business and is among the largest producer of Crude Palm Oil (CPO). FGV's operations stretch across more than 10 countries in Asia, the Middle East, North America and Europe and are focused on three main sectors; Plantation, Sugar and Logistics & Support Businesses. As the Group's core business, the Plantation Sector is enhanced through a fully integrated palm value chain of upstream, processing and downstream activities. FGV is the world's third largest oil palm plantation operator, has the world's largest bulking and storage facilities for vegetable oil and is Malaysia's top refined sugar producer. It also specializes in the production of renewable bio-fuels, oleo chemicals, oils and fats and rubber processing activities. With a workforce of more than 45,000, FGV aspires to be one of the world's leading agri-business companies. For more information please visit www.fgvholdings.com

About Sime Darby Industrial

Sime Darby Industrial, a division of Sime Darby Berhad is a leader in the heavy equipment business, representing Caterpillar and a range of allied brands, offering a comprehensive range of heavy equipment products and services across a network of more than 130 branches across Asia Pacific. Sime Darby Industrial Sdn Bhd (SDISB) is the one of the

leading providers of industrial solutions and is the distributor of heavy equipment brands such as Caterpillar, New Holland agricultural tractors, Terberg terminal tractors and Perkins engines. Sime Darby Energy Solutions (SDES), a unit of SDISB is involved in providing energy solutions for Malaysia-based industries.

About Biotek Dinamik Sdn. Bhd. (BDSB)

Harnessing renewable energy in a sustainable manner is Biotek Dinamik Sdn. Bhd.'s core business. BDSB specializes in the area of biofuel production such as BioCNG, BioLNG and Biodiesel; energy efficiency system such as co-generation; biomass; and other new green technologies. BDSB's waste-to-wealth business approach helps waste producers monetize their waste by recycling it into green renewable energy. Its build, own and operate (BOO) business model helps lessen financial burden of the waste producers. BDSB's principal business activities focus on sustainable and responsible investment (SRI) that can help create sustainable renewable energy businesses which are not merely financially motivated but those that aims to strike a balance between the environment, social and governance (ESG) factors, and help address climate change issues.