

**PETROCHEMICALS**

# PTTGC studying biodegradable polyester for line-up

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PTT Global Chemical Plc (PTTGC), Thailand's largest petrochemical maker, is conducting R&D to produce bioplastic polylactic acid (PLA) to add new commercial products to its roster soon.

The company expects the R&D to be concluded this year.

PLA is a 180-day biodegradable and bioactive thermoplastic aliphatic polyester derived from renewable resources such as corn starch (in the US and Canada); cassava roots, chips or starch (mostly in Asia); and sugar cane (the rest of the world).

"PTTGC aims to build a PLA production plant in Thailand using sugar

cane, but the R&D process has been ongoing since 2012, and the company wants to complete it before moving forward," said Patiparn Sukorndhaman, chief operating officer for downstream petrochemical business.

SET-listed Global Green Chemical Plc (GGC), a subsidiary of PTTGC, is assigned as the R&D head, along with US-based Myriant Corporation.

Mr Patiparn said PTTGC and GGC will use the R&D findings to build the PLA production facility next to a sugarcane plantation in Nakhon Sawan

province.

The prototype capacity will produce five tonnes of PLA per production cycle.

The PLA operation is a part of a biochemical complex in Nakhon Sawan, where GGC signed a memorandum of understanding with SET-listed Kaset Thai International Sugar Corporation Plc (KTIS) in February 2018 to invest 7.65 billion

baht in the first phase.

Each firm owns half of the country's first bioeconomic industrial complex, which will be developed after a feasibility study that began in 2016 is completed.

The project has already been granted privileges from the Board of Investment and is scheduled to start construction by 2019 and operations in 2020.

The complex occupies 2,000 rai adjacent to KTIS's milling plant and sugarcane cultivation area in Takhli district, Nakhon Sawan province. The facility has a sugar-cane crushing capacity of 2.4 million tonnes a year, an ethanol production capacity of 600,000 litres a day and a biomass power plant with a capacity of 85 megawatts.

The overall complex will be worth 40 billion baht.

"The PLA production facility will be developed for the second phase of



**Patiparn: Prototype headed to complex**

the complex," Mr Patiparn said. "The complex will be developed along with GGC and KTIS policies to put off single-use plastic production in the next five years, as normal plastic requires roughly 400 years to decay, so we will promote the consumption of biodegradable plastic."

PTTGC is teaming up with Silpakorn University to conduct research into designing paper cups and drinking straws coated with polybutylene succinate acid, a biodegradable plastic.

During the R&D process, PTTGC plans to attract food and drinks companies to use biodegradable plastic for the study.