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Ineos to Acquire 50% Stake in Sinopec's Tianjin Nangang Chinese PC Project

Tianjin—Ineos and Sinopec have signed a joint venture agreement in which Ineos will purchase a 50% interest from Sinopec in the Tianjin Nangang petrochemical complex being built in Tianjin, China (PCN, 24 May 2021, p 4).

The project, scheduled to come on stream at the end of 2023, involves a new 1.2-million-t/y ethylene cracker, as well as 12 other derivative units, including a 300,000-t/y acrylonitrile butadiene styrene (ABS) plant, based on Ineos' Terluran technology, and a 500,000-t/y high-density polyethylene (HDPE) facility.

This is the fourth venture signed between the two companies this year (PCN, 31 Oct 2022, p 1). Two are for petrochemical complexes and two are for product joint ventures.

"Sinopec and Ineos have enjoyed many years of partnership and this agreement is further testament of the cooperation between our companies, which is taken to a new level," said Dr. Ma Yongsheng, chairman of Sinopec.

"The decision is driven by our dual goals of reducing carbon emissions and managing the energy transition within our businesses, from refining all the way through petrochemicals.

"Sinopec will give Ineos a significant local presence and Ineos will contribute its technological and operational expertise, which will create a win-win for the cooperative development of both companies."

The transactions are subject to regulatory approvals and other conditions.

HMC Polymers Opens Fourth PP Line At Map Ta Phut Industrial Estate

Rayong—HMC Polymers said it has officially launched its fourth polypropylene (PP) production plant at its Map Ta Phut Industrial Complex in Rayong Province, Thailand (PCN, 16 Sept 2019, p 1).

The new 250,000-t/y PP line, based on LyondellBasell's Spherizone technology, increases HMC's PP production capacity to 1.6-million t/y. The line was built next to HMC's third PP plant at the site, and will include the production of specialty grade and differentiated grades.

The project included the construction of ground flare towers to decrease pollution from combustion at elevated flares, thereby reducing environmental impacts, good control of black smoke including reducing noise and light, HMC noted.

HMC's next goal is the "Zero Flare Project" to reduce carbon dioxide emissions into the atmosphere.

ExxonMobil Announces Successful Start-Up Of New PP Production Unit on Gulf Coast

Irving—ExxonMobil said it has successfully started up its new polypropylene (PP) production plant in Baton Rouge, La., on the U.S. Gulf Coast (PCN, 2 May 2022, p 1).

The project, which required a total capital investment of over \$500-million, doubles the company's PP production capacity to 450,000 t/y.

"With the start-up of this new production unit, we are well positioned to responsibly meet the growing global demand for these high-performance polymers," said ExxonMobil Product Solutions President Karen McKee.

"The ingenuity of our people and our investments in technology enable us to produce high quality products that are essential to daily life."

ExxonMobil's integrated operations in Baton Rouge include a more than 500,000-b/d refinery, as well as chemical, lubricants, polyolefins and plastics manufacturing.

Axens Achieves Guaranteed Performance Of Its 'First' Atol Plant with Sumitomo

Paris—Axens said it has achieved guaranteed performance of its "first" Atol ethanol-to-ethylene pilot facility with Sumitomo Chemical (PCN, 25 Apr 2022, p 2).

The plant, which verifies Axens' Atol technology, will be used in a waste-to-polyolefins project in Japan. At full rollout, expected in 2025, this project will attain the production of waste-based polyolefins at industrial scale.

"We are honored to work hand in hand with Sumitomo Chemical, in a cooperation that has the potential to be a game changer for the polyolefins industry," said Frederic Balligand, vice president of the renewables product line at Axens.

"This project clearly addresses the waste plastics issue and Axens is committed to support our customers and partners to accelerate the deployment of circular economy [in] the world."

Aramco and Shandong Agree to Collaborate On Refining, Petchem Projects in China

Shanghai—Aramco and Shandong Energy Group announced they have signed a memorandum of understanding (MoU) to collaborate on a variety of integrated refining and petrochemical projects in China.

The MoU includes a potential crude oil supply agreement and a chemicals products offtake agreement. It extends to cooperation across technologies related to hydrogen, renewables and carbon capture and storage. No other details were given.

"The announcement strengthens Aramco's efforts to support demand for energy, petrochemicals and non-metals in China as the company seeks to expand its liquids-to-chemicals capacity to up to 4-million b/d by 2030," Aramco noted.

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OCI Breaks Ground On ‘Largest’-of-its-Kind Blue Ammonia Production Plant in Texas

Houston—

OCI NV said it has broken ground on the “largest” blue ammonia production facility of its kind in Beaumont, Texas (PCN, 10 Oct 2022, p 2).

The plant, expected to require an investment of under \$1-billion, will have a capacity of 1.1-million t/y of blue ammonia with infrastructure to double capacity to 2.2-million t/y. Production is on track to begin in 2025.

The project will be located adjacent to the company’s existing 1.4-million-t/y integrated methanol-ammonia production plant and 1.8-million-t/y methanol joint venture, Natgasoline, in which it owns a 50% stake.

KBR technology will provide the process for the ammonia facility, while Maire Tecnimont will be responsible for engineering and procurement.

“OCI will upgrade ‘over-the-fence’ blue hydrogen to produce blue ammonia, where over 95% of carbon emissions will be captured and sequestered,” the company noted.

“This allows OCI to materially reduce the carbon intensity of its products for downstream customers along the value chain, resulting in carbon footprint reductions across a wide range of industries including transportation, power, manufacturing and agriculture.”

Covestro, Hasco Vision Team Up to Build Closed-Loop Recycling Business Model

Shanghai—

Covestro and Chinese automotive lighting supplier Hasco Vision have formed a partnership to build a closed-loop recycling business model that would turn used engineering plastics into high-quality post-industrial recycled polycarbonates.

The closed-loop recycling of post-industrial plastics is an effective sustainability solution as such recycled materials have “virgin-like” quality, are easily traceable and held reduce the carbon footprint of vehicles compared with conventional fossil-based materials, said Covestro.

Covestro will also join hands with other partners in the recycling industry to retrieve used plastics from Hasco’s manufacturing sites before converting them into high-quality post-industrial recycled polycarbonates and polycarbonate blends that Hasco can use to produce new automotive components.

Hanwha, DL’s YNCC JV Being Split Up

Seoul—

Hanwha Group and DL Group have decided to end their partnership and split up Yeochun NCC Co. (YNCC), a 50-50 joint venture of their Hanwha Solutions Corp. and DL Chemical Co. subsidiaries, respectfully, reported the Korea Economic Daily.

YNCC, located in Yeosu, South Korea, operates four naphtha cracking plants for the production of ethylene, propylene, butadiene, and others, which are supplied to Hanwha and DL.

Plant 1 to Plant 3 have a combined capacity of 2.29-million t/y of ethylene, and can produce benzene, toluene and xylene. The fourth plant is capable of producing styrene monomer and methyl tertiary butyl ether.

“We’re considering various ways to promote Yeochun NCC’s continued growth over the long term,” said the report quoting an official at one of the companies.

Borealis & Eneco Ink Second PPA Agreement For Renewable Power Supply in Belgium

Brussels—

Borealis and Eneco, a sustainable energy company, have signed a second 10-year power purchase agreement (PPA) for the supply of renewable electricity to Borealis’ production operations in Belgium (PCN, 19 Oct 2020, p 3).

Beginning in 2024, Eneco will supply around 150 gigawatt hours a year to Borealis over the next 10 years. The renewable energy will come from the SeaMade offshore wind farm, where Eneco has an exclusive offtake agreement for the entire output.

The additional renewable electricity procured through this PPA brings Borealis closer to realizing its aim to use 100% renewable electricity in its polyolefins and hydrocarbons businesses by 2030.

In 2020, the two companies signed a PPA for the supply of over 1,000 gigawatt hours of wind power over a period of 10 years to Borealis’ Belgium operations. The renewable electricity supply, which began in 2021, is sourced from the offshore wind farm Mermaid.

Aramco Touts \$1.5-Bn Sustainability Fund To Support Its Net-Zero 2050 Ambition

Riyadh—

Aramco recently announced the creation of a \$1.5-billion Sustainability Fund to invest in technology that supports the company’s net-zero 2050 ambition and a stable and inclusive energy transition.

The fund, managed by Aramco Ventures, the venture capital arm of Aramco, is an extension of the company’s efforts to meet the world’s growing energy demand, with lower greenhouse gas (GHG) emissions.

Initial areas of focus will include carbon capture and storage, GHG emissions energy efficiency, nature-based climate solutions, digital sustainability, hydrogen, ammonia and synthetic fuels, globally.

Aramco’s ambition is to achieve net-zero Scope 1 and Scope 2 GHG emissions across its wholly-owned operated assets by 2050.

This past June, it also announced a set of interim targets that it aims to achieve by 2035, which are intended to reduce or mitigate net Scope 1 and Scope 2 GHG emissions across its wholly-owned operated assets by over 50-million t/y of carbon dioxide equivalent, when compared to the “business-as-usual” forecast, the company explained.

People on the Move

International Rubber Study Group—*Joseph Adelegan*, a C-Suite executive and international development expert, has become the new secretary-general.

Nouryon—*Philip Clark* has been appointed senior vice president and chief technology officer. He had been vice president and technical director at 3M for the Automotive and Aerospace Solutions Division.

AkzoNobel—*Ben Noteboom* will be nominated as a member of the supervisory board at the annual general meeting in April 2023. The board also intends to elect him as chair, succeeding *Nils Anderson*, who is retiring as chair and member of the supervisory board at the same time.

Wacker Chemie—The supervisory board has re-elected *Christian Hartel* as president and chief executive for an additional five years.

Japanese Firms at Goi and Soga Complex Ink MoU to Jointly Cut CO2 Emissions

Tokyo—A group of Japanese petrochemical, energy and materials companies have signed a memorandum of understanding for the joint study into activities for the establishment of a carbon neutral industrial complex in the Goi and Soga districts in Japan, hereafter referred to as the “carbon neutral Goi and Soga complex.”

The companies that signed the MoU include Cosmo Oil, Denka, Iwatani, JFE Steel, JNC, KH Neochem, Maruzen Petrochemicals, Ube Elastomer, Ube Material Industries and Yokogawa Electric.

The Goi and Soga districts form part of the Keiyo Rinkai industrial complex, which hosts the country’s largest concentration of materials and energy companies. Achieving carbon neutrality at the complex would enhance the overall competitiveness of the companies that maintain operations there and lead the way forward to a sustainable society, the parties noted.

In February 2021, Yokogawa began a project to examine the feasibility of achieving carbon neutrality through inter-industry collaboration at the Goi complex. The nine other companies with operations there have joined Yokogawa, including Yokogawa’s subsidiaries Yokogawa Solution Service and KBC Advanced Technologies.

The study has confirmed that inter-industry collaboration would be more effective than companies working on their own in reducing carbon dioxide (CO2) emissions.

Under the MoU, Yokogawa and these nine companies will study the feasibility of the commercialization of activities by 2030 that will be required to make the Goi and Soga complex carbon neutral by 2050.

These activities include: introduction of an inter-industry energy management system to minimize CO2 emissions; the recovery and effective utilization of CO2 through inter-industry collaboration; and the reduction in CO2 emissions through inter-industry collaboration in the utilization of hydrogen and other gas by-products from existing processes.

ExxonMobil, Mitsubishi Heavy Industries Partner in Carbon Capture Technology

Irving—ExxonMobil and Mitsubishi Heavy Industries (MHI) have formed an alliance to deploy MHI’s carbon dioxide (CO2) capture technology as part of ExxonMobil’s end-to-end carbon capture and storage solution.

The partners have agreed to leverage their combined operating and engineering experience and core science capabilities with the support of Kansai Electric Power Co. (KEPCO) to advance carbon capture technologies that could lower the cost of CO2 capture for heavy-emitting industrial clients.

The alliance will build upon the KM CDR Process and the Advanced KM CRD Process, developed by MHI and KEPCO, the “only” liquid amine carbon capture technology commercially demonstrated at more than 1-million t/y, ExxonMobil and MHI noted.

“We are excited to offer our large industrial customers the only complete carbon capture, transportation and storage solutions in the market,” said Dan Ammann, president of ExxonMobil Low Carbon Solutions.

“Adding Mitsubishi Heavy Industries’ leading carbon capture technology to ExxonMobil’s transportation and storage capabilities enables this compelling offering.”

Port of Rotterdam Leads Initiative to Study Potential Large-Scale Ammonia Cracker

Rotterdam—An initiative of 18 companies, led by the Port of Rotterdam Authority, has begun a pre-feasibility study into the establishment of a large-scale ammonia cracker for hydrogen import at the Port of Rotterdam in the Netherlands.

Fluor, which was commissioned to perform the study, will look into the possibility of a large central cracking facility to convert imported ammonia back into 1-million t/y of hydrogen. Final results of the study are expected in early 2023.

The hydrogen can be used in the port of transported onwards via pipeline to facilitate decarbonization of other industrial clusters in North West Europe.

In addition to the Port of Rotterdam Authority, the initiative includes ExxonMobil, Shell, Sasol, Air Liquide, Aramco, BP, Linde, Vopak, Essent/E.ON, OCI, Gasunie, GES, HES International, Koole Terminals, RWE, Uniper and VTTI.

Azelis Expanding Asia-Pacific Footprint With Purchase of Chemiplas Agencies

Auckland—Azelis said it has signed a deal to acquire 100% of the shares of Chemiplas Agencies, a distributor of specialty chemicals, plastic raw materials and ingredients, which would expand Azelis’ footprint and accelerate its growth in Asia-Pacific.

Headquartered in Auckland, New Zealand, Chemiplas has several offices in Australia and New Zealand. Subject to fulfillment of customary closing conditions, the transaction, for which a value was not given, is expected to close before the end of the first quarter of next year.

“The acquisition of Chemiplas provides Azelis with a broader, more comprehensive lateral value chain, an experienced team with a shared vision, and a stronger regional presence across key market segments,” said Azelis Chief Executive Dr. Hans Joachim Muller.

“Customers and principals will benefit from the enhanced solutions offered thanks to our collective innovation capabilities and complementary product portfolio.”

RWE & Hyphen Hydrogen Ink MoU For Offtake of Green NH3 in Africa

Namibia—RWE and Hyphen Hydrogen Energy announced the signing of a memorandum of understanding (MoU) in which RWE could offtake up to 300,000 t/y of green ammonia from Namibia in Africa.

The government of Namibia selected Hyphen to develop the country’s first green hydrogen export project. Hyphen, in a joint venture with German renewable energy project developer Enertrag, expects to produce 1-million t/y of green ammonia from the hydrogen by 2027.

“Green molecules are the only way for many industries in Germany to achieve their climate targets,” said Ulf Kerstin, chief commercial officer of RWE Supply & Trading.

“In the long term, Germany’s demand for them will have to be met mainly through imports. That’s why we are looking forward to progressing the offtake discussions with Hyphen – to bring green ammonia from Namibia to Germany.”

Air Products and AES to Build ‘Mega-Scale’ Green Hydrogen Production Plant in U.S.

Austin—

Air Products and The AES Corp. (AES) announced plans to build, own and operate a “mega-scale” green hydrogen production facility in Wilbarger County, Texas.

The renewable power-to-hydrogen project, estimated to cost around \$4-billion, includes about 1.4-gigawatts of wind and solar power generation, along with electrolyzer capacity capable of producing over 200 t/d of green hydrogen. It will be the “largest” green hydrogen plant in the U.S., the partners noted. Commercial operations are planned to begin in 2027.

Air Products and AES will jointly and equally own the renewable energy and electrolyzer assets, with Air Products serving as the exclusive off-taker and marketer of the green hydrogen under a 30-year contract.

“The new facility in Texas will be, by far, the largest mega-scale clean hydrogen production facility in the U.S. to use wind and sun as energy sources,” said Air Products Chairman, President and Chief Executive Seifi Ghasemi.

“We have been working on the development of this project with AES for many years and it will be competitive on a world-scale while bringing significant tax, job and energy security benefits to Texas. We are excited to move forward and make clean green hydrogen available to the U.S. customers in the near future.”

BP Enters MoU With Egypt to Explore Green Hydrogen Production in Egypt

*Cairo—*BP has

signed a memorandum of understanding (MoU) with the Egyptian government to explore the possibility of establishing a new large-scale green hydrogen production facility in Egypt.

Under the MoU, BP will carry out several studies to evaluate the technical and commercial feasibility of the multi-phase export project. Several high potential locations across Egypt will be considered as part of the feasibility study.

“We are proud of the MoU with BP, demonstrating our role as a catalyst for that transition, providing investors with a wealth of renewable energy sources, an optimal location for exporting and an investor-friendly ecosystem,” noted Ayman Soliman, chief executive of the Sovereign Fund of Egypt for Investment and Development (TSFE).

“It builds on TSFE’s green hydrogen portfolio and complements our strategy and mandate to transform Egypt into a regional hub for green energy.”

Massy Gas Products to Buy Air Liquide’s Industrial Gases Business in Point Lisas

*Paris—*Air

Liquide announced the signing of an agreement to divest its industrial gases business in the Point Lisas Industrial Estate, Trinidad and Tobago, to Massy Gas Products Holding Ltd. (MGPHL).

The transaction, for which a value was not disclosed, is part of Air Liquide’s strategy to regularly review its asset portfolio and focus on selected fast developing areas and activities.

According to Air Liquide’s website, Air Liquide Trinidad & Tobago owns two air separation units that supply oxygen and nitrogen via an extensive pipeline network to local customers in the Point Lisas Industrial Estate.

Nouryon Expands Alkoxylation Network With Purchase of Singapore Facility

Singapore—

Nouryon said it has expanded its alkoxylation footprint in Southeast Asia through the acquisition of a plant on Jurong Island, Singapore.

“This acquisition of a specialty alkoxylation plant in Singapore will enhance our ability to serve the fast-growing end-markets in Asia Pacific and adds to our existing alkoxylation network of manufacturing facilities in China, Sweden, and the United States,” noted Larry Ryan, executive vice president of the company and president, performance formulations and the Americas.

“We will continue to look at strategic opportunities to expand our manufacturing footprint and product offering to serve customers and support company growth.”

Covestro Producing NDI in Thailand

Bangkok—

Covestro recently launched production of naphthylene diisocyanate (NDI) for the Vulkollan raw materials at its newly built plant in Map Ta Phut, Thailand.

“The start-up of our Map Ta Phut plant is the latest step of several investments in our elastomers business to support the Vulkollan brand,” noted Thomas Braig, head of the elastomers business entity.

“We believe in the growth of the cast elastomers market and want to meet the increasing demand,” said Chief Commercial Officer Sucheta Govil.

“With this new production plant, we achieve a significant improvement of our global infrastructure and strengthen our presence for high-performance elastomers in the Asia-Pacific region.

“This investment also allows us to better serve our customers, improve our customer service and it supports the growth of applications and industries with high-end performance requirements.”



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