

Partners agree on initial funding to kick off waste-to-chemistry project in Rotterdam

Project to be first of its kind to provide a sustainable solution for non-recyclable plastics and other mixed wastes

ROTTERDAM, NL, 16 FEB 2018 – A consortium of companies comprised of Air Liquide, AkzoNobel Specialty Chemicals, Enerkem and the Port of Rotterdam has signed a project development agreement covering initial investments in an advanced waste-to-chemistry facility in Rotterdam. The facility will be the first of its kind in Europe to provide a sustainable alternative solution for non-recyclable wastes converting waste plastics and other mixed wastes into new raw materials.

The initial investments, which cover detailed engineering, the setup of a dedicated joint venture and completing the permitting process, will be worth €9 million. The consortium aims to take the final investment decision (FID) for the estimated €200-million project later in 2018 and has appointed Dutch Rabobank as the lead advisor for the financing process.

Realization of the project is supported by the Dutch Ministry of Economic Affairs & Climate policy, which have agreed to develop mechanisms and regulation that will help bring this new technology to full scale to support the low-carbon transition of the Dutch Economy. The waste-to-chemistry project is also supported by the City of Rotterdam, the Province of Zuid-Holland and InnovationQuarter, the regional development agency.

The facility will convert up to 360,000 tons of waste into 220,000 tons (270 million litres) of 'green' methanol. As an equivalent, this represents the total annual waste of more than 700,000 households and represents a CO₂ emissions saving of about 300,000 tonnes.

"This is an important milestone for the project and a significant step toward implementing a sustainable and circular chemical industry," says Marco Waas, Director RD&I at AkzoNobel Specialty Chemicals, who leads the consortium's Steering Committee. "The agreement comes at a very appropriate time given the current challenges in plastics recycling in Europe: we can convert non-recyclable waste into methanol, an essential raw material for many everyday products, including low carbon transportation fuel. Not only can this be used in the existing supply chains and replace fossil sources, but it also avoids CO₂ emissions otherwise produced by burning waste."

The facility will be built within the Botlek area of the Port of Rotterdam using Enerkem's proprietary technology, and will convert non-recyclable mixed waste, including plastics, into syngas and then into clean methanol for use in the chemical industry and for the transportation sector. Today, methanol is generally produced from natural gas or coal. The plant will have two production lines, or twice the input capacity of Enerkem's commercial-scale plant in Edmonton, Canada. It will benefit from the state-of-the-art infrastructure available within the Port of Rotterdam, as well as synergies with Air Liquide (Large Industries) for supplying the required oxygen and together with AkzoNobel, the raw material hydrogen. AkzoNobel also acts as a customer for the methanol.

Lars Strandberg, Air Liquide Vice-President for North West Europe: 'We are very happy to be able to take the next step in this important project', says Lars Strandberg, Air Liquide Vice-President for North West Europe. "The project shows clearly how Air Liquide's core competencies, like producing oxygen and hydrogen, have an important role to play in the transition to a circular industry"

About Air Liquide

The world leader in gases, technologies and services for Industry and Health, Air Liquide is present in 80 countries with approximately 65,000 employees and serves more than 3.5 million customers and patients. Oxygen, nitrogen and hydrogen are essential small molecules for life, matter and energy. They embody Air Liquide's scientific territory and have been at the core of the company's activities since its creation in 1902.

Air Liquide's ambition is to lead its industry, deliver long term performance and contribute to sustainability. The company's customer-centric transformation strategy aims at profitable growth over the long term. It relies on operational excellence, selective investments, open innovation and a network organization implemented by the Group worldwide. Through the commitment and inventiveness of its people, Air Liquide leverages energy and environment transition, changes in healthcare and digitization, and delivers greater value to all its stakeholders.

Air Liquide's revenue amounted to 20.3 billion euros in 2017 and its solutions that protect life and the environment represented more than 40% of sales. Air Liquide is listed on the Euronext Paris stock exchange (compartment A) and belongs to the CAC 40, EURO STOXX 50 and FTSE4Good indexes.

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