

Steam network Ecluse goes under the Scheldt from left to right bank

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- **At least 100,000 tons less CO₂ emissions at Evonik by using fewer fossil fuels**
- **Tunnel as necessary connection for a sustainable industrial cluster**

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Antwerp, 02 March 2023. Ecluse, a public-private steam network supplying process steam to companies in the Waasland port, has a concrete plan to expand to the right bank of the Scheldt. Steam from 'Ecluse2' will be transported to Evonik via a tunnel under the Scheldt. The Flemish Government granted 9.58 million euros subsidy to this energy-saving project, a support measure that falls within the 'call green heat' of the Flemish Resilience relaunch plan. The main objective of the project is the transition to sustainable/green energy. It provides –in a socially very cost-effective way– a relevant contribution to the objectives of the National Energy and Climate Plan.

Ecluse is a collaboration between Indaver, SLECO, Maatschappij Linkerscheldeover, Fineg and Water-link. At the waste-to-energy plant in Doel, Indaver & SLECO annually convert around 1 million tons of waste from households and companies into energy and materials. The energy is preferentially supplied in the form of steam via the Ecluse network directly to 5 neighbouring companies. They tap into the steam network as needed. However, the waste-to-energy plant can supply more steam than the current needs in the Waasland Port. Today, the surplus steam is converted into electricity, which is energetically less efficient. For this reason, Ecluse actively sought additional customers for the steam generated.

At least 100,000 tons less CO₂ emissions

Evonik has a large steam requirement at its site in Antwerp at the Tijsmanstunnel, which is currently met on the basis of natural gas. By expanding Ecluse to the right bank of the Scheldt, Evonik can also make useful use of steam from waste processing in its chemical processes. This will avoid at least 100,000 tons of CO₂ emissions by reducing the amount of fossil fuels Evonik required. A considerable amount of natural

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gas can also be saved, comparable to the natural gas consumption of 38,000 households. About 50% of the waste materials processed in Doel are biogenic in origin. As a result, we consider 50% of the steam produced to be 'green heat'.

Tunnel as a necessary connection for a sustainable industrial cluster

The waste-to-energy site on the left bank of the Scheldt wants to make maximum use of steam produced during waste processing for heat applications at Evonik, located on the right bank of the Scheldt. Connecting the two will make the energy supply more sustainable within an industrial symbiosis. To realize the connection, the construction of a Scheldt tunnel is envisaged. In a subsequent phase, other companies on the right bank can also connect. The tunnel forms an essential connecting link that makes it possible to realize sustainable, circular and climate-neutral chemistry in an industrial symbiosis on both banks of the Scheldt.

In addition to the Ecluse2 steam pipeline, the tunnel will accommodate additional pipelines. There is a clear need for additional pipeline passage capacity under the Scheldt River. The Ecluse2 tunnel meets this need and thus facilitates opportunities for growth of the Antwerp industrial cluster. In the future, further cascading of heat can also be explored by connecting the return pipeline to Warmtenetwerk Antwerpen Noord.

Society gains in many ways

The benefits of Ecluse2 for people and society are great:

- **Fewer fossil fuels, more renewable energy**
Companies that connect to Ecluse2 can save substantially on fossil fuels by switching off their own steam-producing installations. The steam they use from Ecluse is 50% 'green' and does not rely on fossil fuels.
- **Fewer CO₂ emissions**
With Evonik's connection, annual savings of at least 100,000 tons of CO₂ emissions will be achieved by switching off the existing gas-fired plants. If the full capacity of Ecluse2 is utilized, the CO₂ savings could reach at least 150,000 tons per year.
- **Fulfilling energy and climate objectives**

Ecluse2 will make an important contribution to meeting the objectives of the National Energy and Climate Plan (NEKP) for the period 2020 and 2030.

- in terms of growth of heat networks: Ecluse2 can meet 10 to 24% of the target
- in terms of growth for green heat production: Ecluse2 can meet 7.5 to 19% of the target.
- **Less energy loss**
Less energy is lost in the thermal treatment of waste. Direct use of steam is more energy efficient than conversion of steam to electricity.

Information about Ecluse

Ecluse is a public-private partnership between Indaver & SLECO and public entities Maatschappij Linkerscheldeover, Fineg and Water-Link.

The network that has its origins in the Waasland Port was named 'Ecluse', French for 'sluice', because it transfers steam from a waste-to-energy plant to the companies in the port. This ambitious, super-strategic project will make the energy supply in the port of Antwerp more sustainable and anchor industry in the region. <https://www.ecluse.be>

Information about Evonik

Evonik is one of the world leaders in specialty chemicals. The company is active in more than 100 countries around the world and generated sales of €15 billion and an operating profit (adjusted EBITDA) of €2.38 billion in 2021. Evonik goes far beyond chemistry to create innovative, profitable and sustainable solutions for customers. About 33,000 employees work together for a common purpose: We want to improve life, day by day. Evonik Antwerpen is with 11 production plants and more than 1,000 employees one of the largest sites of the group. <https://www.evonik.com/antwerpen>

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Neither Evonik Industries AG nor its group companies assume an obligation to update the forecasts, expectations or statements contained in this release.

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