



## TotalEnergies Joins Forces with Air Liquide to Decarbonize its Refineries in Northern Europe with Green Hydrogen

- **45,000 tons per year of green H<sub>2</sub> produced by the *OranjeWind* offshore wind farm developed by TotalEnergies (50%).**
- **450,000 tons per year reduction of CO<sub>2</sub> emissions from TotalEnergies' Anvers and Zeeland refineries.**
- **An electrolyzer jointly developed in the Netherlands with Air Liquide to supply the Zeeland refinery.**
- **A tolling agreement on a second electrolyzer built and operated in partnership with Air Liquide to supply Antwerp platform.**

**Paris, February 18, 2025** – In line with its 2030 ambition to decarbonize the hydrogen used in its European refineries, TotalEnergies has signed agreements with Air Liquide to develop two projects in the Netherlands, for the production and delivery of some **45,000 tons a year** of green hydrogen produced using renewable power, generated mostly by the [OranjeWind](#) offshore wind farm, developed by TotalEnergies (50%) and RWE (50%). These projects will cut CO<sub>2</sub> emissions from TotalEnergies' refineries in Belgium and the Netherlands **by up to 450,000 tons a year** and contribute to the European renewable energy targets in transport.

### Green hydrogen production by TotalEnergies and Air Liquide

The two companies have signed an agreement to set up a joint venture, equally held by TotalEnergies (50%) and Air Liquide (50%), which will build and operate a 250 MW electrolyzer near the Zeeland refinery. This project will enable the production of up to **30,000 tons of green hydrogen a year**, most of which will be delivered to Zeeland's platform. The electrolyzer will be commissioned in 2029 and will cut the site's CO<sub>2</sub> emissions by up to **300,000 tons a year**. This project represents a **global investment of around €600 million** for both partners and has made requests for support under European and national subsidy programs. Project funding will also be sought by the partners.

### Supplying TotalEnergies' Antwerp platform with green hydrogen

In addition, as part of Air Liquide's 200 MW ELYgator electrolyzer project located in Maasvlakte (Netherlands), TotalEnergies has signed a tolling agreement for 130 MW to be dedicated to the production of **15,000 tons per year of green hydrogen** for the TotalEnergies platform in Antwerp. Under this agreement, TotalEnergies will supply the renewable electrons produced by the OranjeWind project to Air Liquide to be transformed into green hydrogen. The project is expected to be operational by the end of 2027 and will reduce CO<sub>2</sub> emissions at the Antwerp site by up to **150,000 tons per year**.

"Following the first partnership agreement with Air Liquide to supply the Normandy refinery with green hydrogen, and the agreements to supply the Grandpuits and La Mède biorefineries with renewable hydrogen, the partnership with Air Liquide takes on a new dimension and marks a new step in TotalEnergies' ambition to decarbonize the hydrogen consumed by its refineries in Europe by 2030", said **Vincent Stoquart, President, Refining & Chemicals at**

**TotalEnergies.** “By supplying these two electrolyzers with renewable electricity from our offshore wind project in the Netherlands, TotalEnergies is leveraging its positioning as an integrated electricity company.”

“Flagship projects such as the ones we are announcing today, will play a key role in reducing emissions, particularly in hard-to-abate sectors such as industry and heavy mobility. We are proud to lead the way on European renewable and low-carbon hydrogen production, and to accompany TotalEnergies in their journey to decarbonizing their industrial assets. These two projects will complete the five Air Liquide low carbon units already in operation or construction in Europe. This illustrates our capacity to offer concrete solutions to our customers, to reach our carbon neutrality ambition by 2050, and to support Europe’s leadership ambition towards decarbonized growth. It also demonstrates the ability of Air Liquide to develop solid business models in the energy field of low carbon hydrogen.” said **Emilie Mouren-Renouard, member of the Air Liquide Executive Committee, in charge of Europe operations.**

### **TotalEnergies and the decarbonization of its European refineries**

TotalEnergies is committed to reducing the carbon footprint of producing, converting and supplying energy to its customers. One of the pathways identified by the Company is using low-carbon hydrogen to decarbonize its European refineries, a move that should help reduce its annual CO<sub>2</sub> emissions by around three million tons by 2030. In order to fully decarbonize the hydrogen used in its European refineries, TotalEnergies has already contracted over **170,000 tons** of green hydrogen annually at: [La Mède](#), [Grandpuits](#) and [Normandy](#) in France, [Leuna](#) in Germany and its refineries in [Belgium and the Netherlands](#).

*[See map on next page](#)*



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**About TotalEnergies**

TotalEnergies est une compagnie multi-énergies mondiale de production et de fourniture d'énergies : pétrole et biocarburants, gaz naturel et gaz verts, renouvelables et électricité. Our more than 100,000 employees are committed to supplying affordable, reliable, clean energy to as many people as possible. TotalEnergies intends to put sustainability, in all its dimensions, at the center of its strategy, projects and operations.

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