

SeaH2Land

What is SeaH2Land?

- A 1 GW electrolyser to produce renewable hydrogen.
- 2 GW of new offshore wind capacity linked to the electrolyser.
- 45 kilometres of regional hydrogen pipelines between the Netherlands and Belgium to exchange hydrogen between industrial players in the region.
- A vision for gigawatt-scale electrolysis and offshore wind landing points on both sides of the river Scheldt after extension of the 380 kV grid, turning the cluster into a true hydrogen hub.

Who is involved?

- The electrolyser and the offshore wind farm will be developed by Ørsted.
- SeaH2Land is supported by key regional industrial players: Yara, ArcelorMittal, Dow, and Zeeland Refinery.
- North Sea Port and industrial players will work with Smart Delta Resources (SDR) to develop the regional hydrogen network and the 380 kV connection to south of the Western Scheldt.
- The project is supported by the provinces of Zeeland (NL) and Oost-Vlaanderen (BE).

How and when will the electrolyser be built?

- Phase 1: the first 500 MW can be developed as soon as the required regulatory framework is in place and once development of the envisaged regional hydrogen network allows for it.
- Phase 2: the additional 500 MW can be developed when the project will be linked to an (inter)national hydrogen backbone. This is expected before 2030.

Why is SeaH2Land important?

- 580,000 tonnes equal the current fossil hydrogen consumption in the North Sea Port cluster – one of the largest consumption centres in Europe. SeaH2land can replace about 20% with renewable hydrogen.
- This would lead to a substantial carbon emission reduction, which helps both the Netherlands and Belgium to reach their 2030 climate targets.
- Furthermore, the cluster has the potential to grow to a consumption of 1,000,000 tonnes of hydrogen by 2050, equivalent to 10 GW of electrolyser capacity for renewable hydrogen.
- As a result, SeaH2Land and the envisioned renewable hydrogen cluster – linked to an (inter)national hydrogen network – can make an important contribution to the long-term net-zero emission target by 2050.

