



Why Hyoffwind?

1. Fit for 55 = package of 14 regulations and directives, covering the vast majority of our economy

Expected impact:

- → Road transport: Heavy duty, light commercial vehicles
- → Maritime transport
- → Mobility: buses, cars
- → Energy: power, fuels
- → Imported goods: Carbon Border Adjustment Mechanism
- → <u>Waste</u>: waste treatment and garbage trucks

Measures expected to come into force between 2024 and 2026

- 2. Actual ambitions expected to be reviewed with regards to European energy independency
 - → Higher ambitions, faster deadlines
- 3. Port of Zeebrugge = Energy hub and ecosystem as such

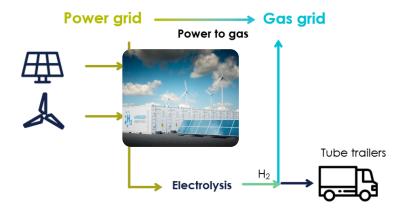


Project description

Hyoffwind

Renewable electricity
Grid balancing
services

Blending in NG infrastructure (TBC) Dedicated H2 backbone



- Production of 4 kton green hydrogen/year for phase 1 (25 MWe scalability to 100 MWe).
- Compression to 90 bar (injection gas grid) and to 500 bar for distribution via tube trailer (supply for industry and/or mobility).
- Possible reduction possible till 1,14 Mt CO2e GHG over 20 years (25 MWe).
- Grid balancing services via flexible hydrogen production.

Location

Facilities will be located in the port of Zeebrugge (Fluxys concession – LPB site)





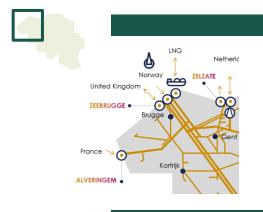


Located in Zeebrugge

An energy hub for gas and electricity - Power to gas can enable integration of new renewables



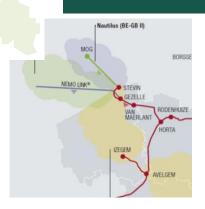
3,1 - 3,5 GW additional offshore capacity to be developed by 2030



Gas

- Zeebrugge represents 12% of the import capacity of Europe (physical interconnection points with Norway, UK and presence LNG terminal)
- Zeebrugge offers the possibility to inject large amounts of green hydrogen in the natural gas grid without exceeding the limit of 2% H2 in the blend

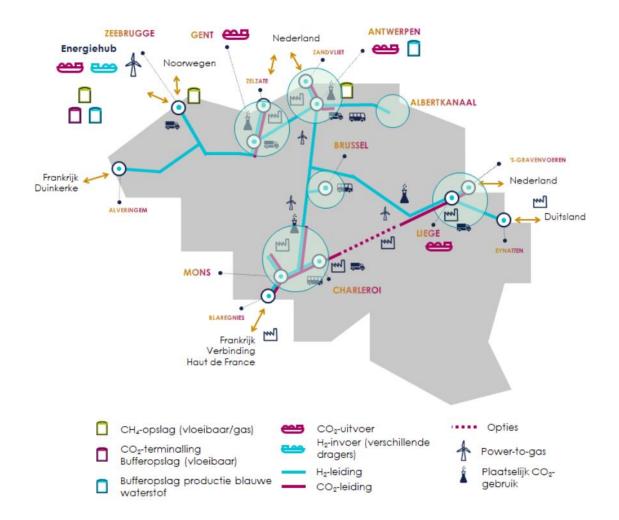
Electricity



- Electrical cables from off-shore wind farms arrive on land in Zeebrugge
- Nemo link to UK, new connection with UK (Nautilus)
- Modular Offshore Grid (MOG)



Fluxys plans a hydrogen backbone





Overview plant





Timeline

Oct '19 Publication feasibility study **Feb '20** Request for proposal to 6 EPC contractors Jul '20 Approval Flemish government of 8 M€ "Strategische Ecologiesteun" Oct '20 Switch to new location LBP (scalability to 100 MWe) **Feb - May '21** Value engineering Connection contract Elia

Jun '21Selection John-Cockerill
– Besix as preferred
supplier

Aug '21 Hyoffwind application for 23 M€ RRF/IPCEI grant **Jul-Oct '21**Basic and permit engineering

Oct '21
Constitution Hyoffwind infrastructure NV and

submission permitting file

Dec '21
Signing conditional EPC
contract and
Capital increase
Hyoffwind
Infrastructure NV



Timeline

- Based on the positive project development until now, Hyoffwind infrastructure NV signed a conditional EPC contract in December and executed a capital increase
- The Conditional EPC contract foresees possibilities to exit before purchase long lead items in case EU IPCEI Grant (23 M€) is not confirmed

Jan'22Further development and engineering

End Q2 '22 Permit expected **Q2/Q3 '22** Notice to proceed FID **Q2/Q3 '24** Start operations

