



Ministerie van Economische Zaken
en Klimaat

The hydrogen strategy and policy of the Netherlands

WIC

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Agenda

1. Introduction to h2 policy development
2. Starting position
3. Policy challenges
4. Objectives, resources & instruments
5. Industry
6. National Hydrogen Program





Hydrogen & policy: the foundations

Climate Agreement:
strong ambition
500 MW - 2025
3-4 GW - 2030

EU Hydrogen strategy:
funds & framework
40 GW by 2030

2018

2019

2020

2021

2022

Roadmap Topsector Energie:
first exploration

Hydrogen Strategy Government:

- Clear policy agenda: legal & regulatory framework, infrastructure, safety, financial instruments, link with offshore wind,
- International approach
- All sectors: industry, transport, built environment, power & storage

New coalition agreement:
important element in energy,
climate and industrial policies





Starting position

Need

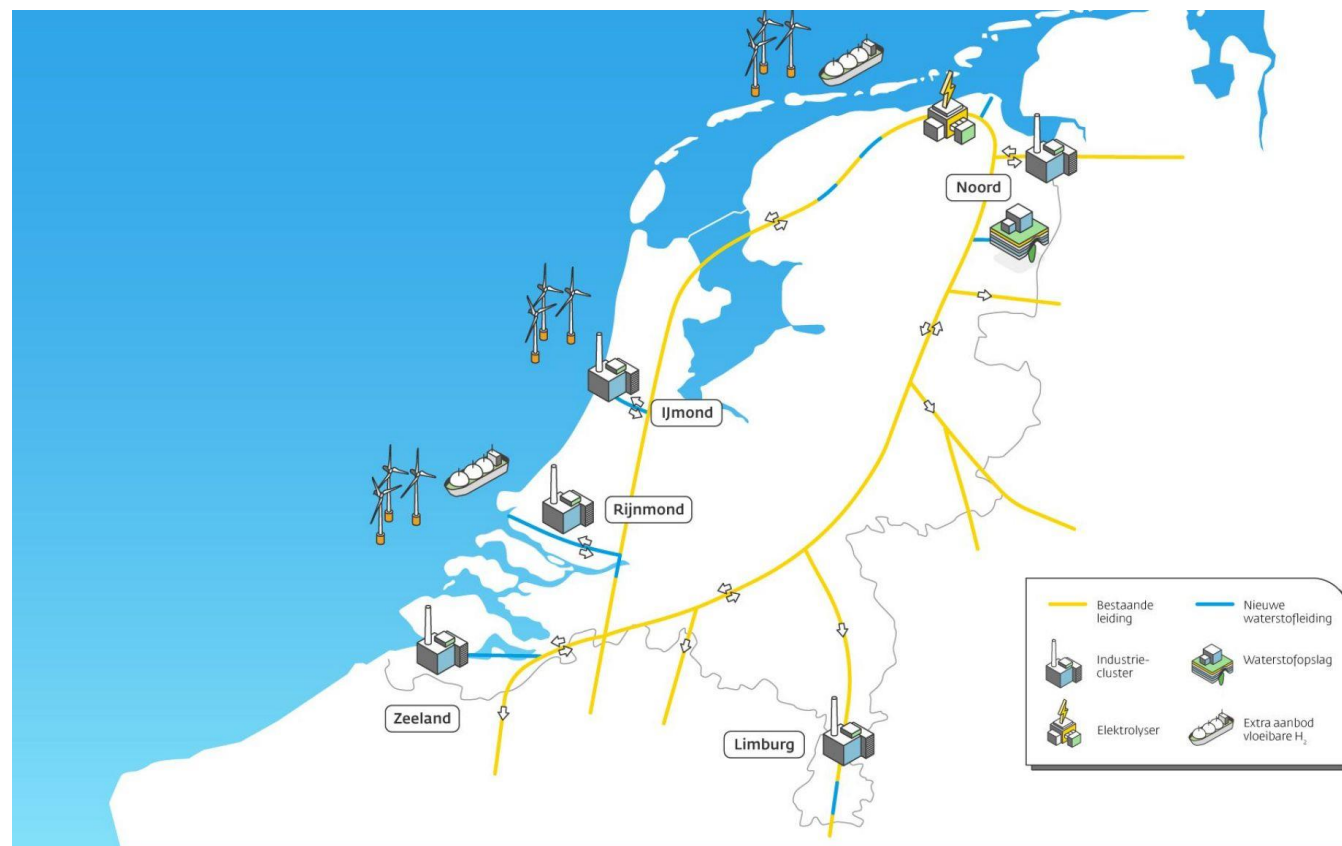
- > Future (heavy) industry and transport
- > Absorbing wind/solar volatility and integrate offshore wind energy (relieve high-voltage grids)
- > making industry more sustainable (energy & hydrogen feedstock)

Opportunities

- > Economic changes for manufacturing industry, ports, H2 hub etc.

Excellent starting position:

- large existing hydrogen market,
- 5 industrial clusters near the coast (link with offshore energy),
- reuse of natural gas infrastructure,
- large import requirement (Germany)
- Very extensive project portfolio





Resources & instruments

> Resources:

- Cabinet (2020): €250 million scaling up
- Budget 2022: €750 mln backbone, €35 mln storage, €35 mln IPCEI
- Growth Fund: €73 m + €265 m (conditional) "Green Capital".
- New government coalition agreement: €15 billion a.o. for hydrogen

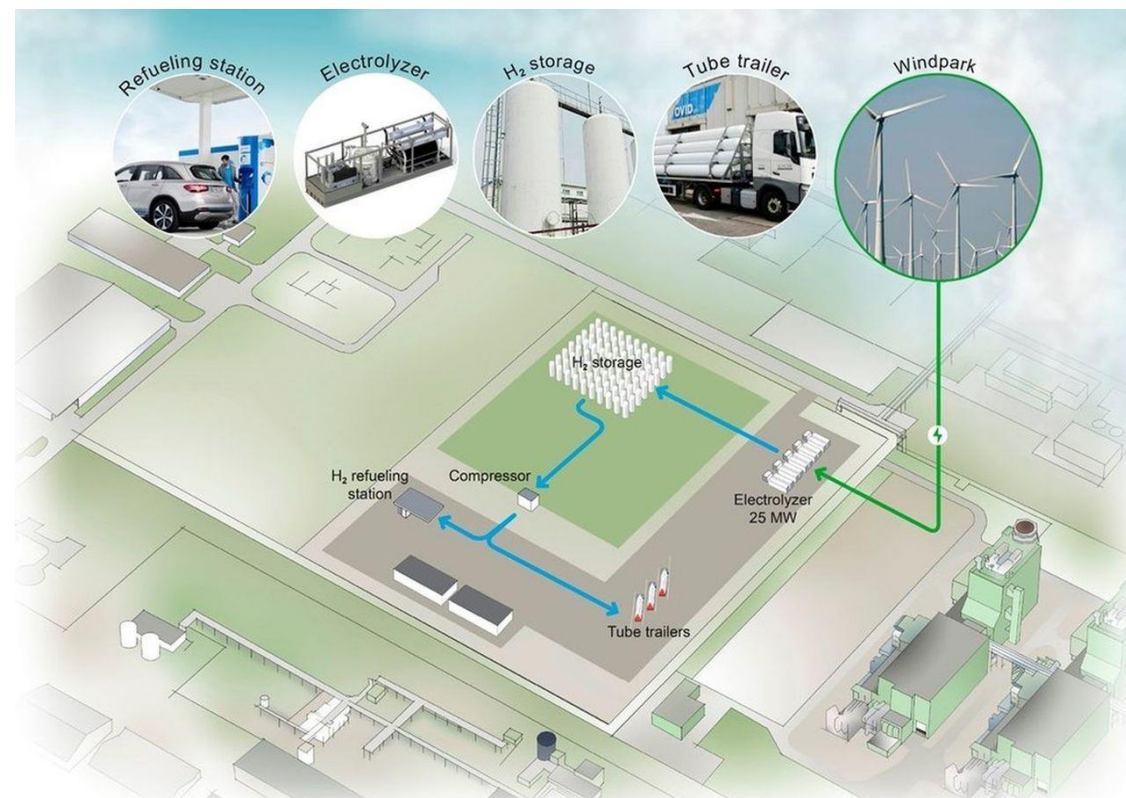
> Instruments:

EU state aid frameworks geared to CO2 reduction. Proposal is to provide CAPEX and OPEX support for the unprofitable top. Limited possibilities to support electrolysis given our electricity mix and the strict rules of the European Commission.



Policy challenges: "starting from scratch"

- > Create a well-working supply chain:
 - Production:
 - sufficient wind areas in the North Sea
 - Electrolysis upscaling; also role for blue hydrogen
 - Aid: scaling-up instruments (€) and innovation funds
 - Import strategy
 - Infrastructure: backbone (HyWay27) and storage facilities
 - First opportunities in transport & industry
- > Clear regulatory framework (mostly EU)
 - State aid framework, REDII revision and Delegated Act, ...





Industry: balanced mix of carrots and sticks

- European policies (including preliminary RED target of 50% RFNBO's in industry in 2030)
- Subsidies to accelerate innovation, pilots and demo's to drive down costs
- CO2 levy – not a tax
- SDE++ subsidies
- Regional and industrial cluster approach

Mission Climate Agreement

59% CO₂ reduction by 2030 while safeguarding competitiveness and preventing leakage effects with the use of a proper mix of instruments.

Towards near zero emissions by 2050.



“By starting now, we give ourselves the time to develop and scale up new technologies (solutions of the future). Make the transition an economic opportunity.”



National Hydrogen Program

The **central task** of the program is to research and stimulate the contribution of hydrogen to realizing the energy transition. This requires a public-private effort. To achieve this, there are two sub-goals:

- 1) The program is a **platform**, functions are to connect, facilitate, accelerate and monitor.
 - › The gaps as mapped out in gap analysis (2021) will be discussed, prioritized and addressed.
 - › An overview will be provided of how hydrogen is included in several programs that examine different energy carriers and applications.
- 2) In addition, the hydrogen sector will work on a **hydrogen roadmap** from the theme groups.
 - › The roll-out of production, infrastructure, import and demand are linked.
 - › The roadmap can help the Energy System Program in determining its autumn 2022 vision on the energy system.