# Renewable energy projects in the Netherlands: urgency and the role of Impact Assessment



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### The Netherlands: outline and goals

- Energy consumption is increasing and gas reserves are running out
- National gas production will be stopped
- Switching to alternative energy sources for transport and heating (households, greenhouses)
- Goal: zero carbon (CO<sub>2</sub>) emissions by 2050
- Sustainable energy production and energy saving major boost





### Large renewable energy projects

- Investment of 35 billion euros for the coming 10 years
- Projects:
  - Offshore windfarms and power lines to land
  - Onshore energy infrastructure transport network (power lines)
  - Hydrogen production and transport network (backbone)
  - CO<sub>2</sub> capture and storage



# Overview (MIEK, 2022)





### National power line network (current state)





### IA related issues

- National plans/programs are late
- SEA not always applied
- Level of detail insufficient for subsequent projects
- Strategic and complex decisionmaking in the project phase
- Interlinkage between projects
- New Environment and Planning Act
- Request and political pressure for faster and simplified procedures!
- Repower EU proposal





### Approach

 Complex projects/plan offshore: program incl. SEA, subsequent (one phase) project-decision with EIA

### Onshore:

- Complex projects: SEA and EIA (two phase project-decision)
- 'Simple' projects: EIA (one phase projectdecision)
- Local projects: spatial planning by municipalities, EIA screening
- New Environment and Planning Act requires extensive public participation





### Procedure complex projects/plan offshore

• Notification of intent + proposal participation Reactions Scoping • Scoping report + reactions + advice NCEA • Concept-Program SEA report Report • Integrated Assessment Formal reactions + advice NCEA Program (with chosen routes) Program • Notification of intent + proposal participation Reactions Scoping report + reactions + advice NCEA • Concept Project-Decision (+ permits) EIA report Report Formal reactions + advice NCEA

Project-decision (+ permits)

Decision

Intern gebruik



## Procedure projects (onshore): complex and 'simple'

Scoping

- Notification of intent + proposal participation
- Reactions
- Scoping report + reactions + advice NCEA

Report

- Concept-Preferential Decision
- SEA report
- Integrated Assessment

Decision

- Formal reactions + advice NCEA
- Preferential Decision (with chosen route)

Report

- Concept Project-Decision (+ permits)
- EIA report

Decision

- Formal reactions + advice NCEA
- Project-decision (+ permits)

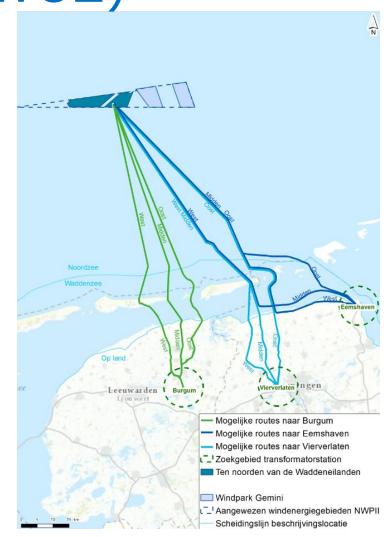
Scoping
Report
Decision

- Notification of intent + proposal participation
- Reactions
- Scoping Scoping report + reactions + advice NCEA
  - Concept Project-Decision (+ permits)
  - EIA report
  - Formal reactions + advice NCEA
  - Project-decision (+ permits)



# Example 1: Program offshore windparks connection to Eemshaven (PAWOZ)

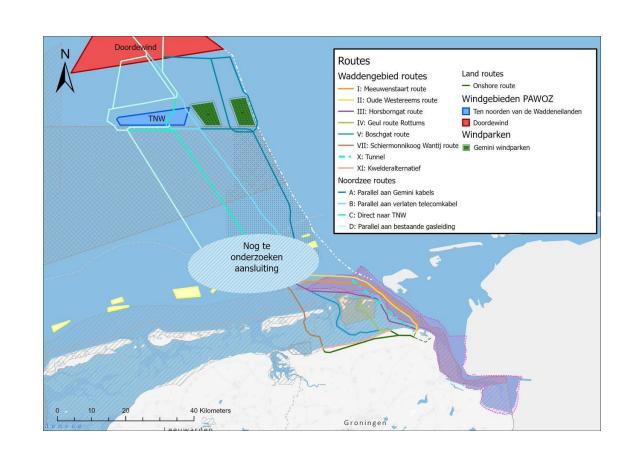
- Project started as project decision (two phases) in 2019
- December 2021: Minister decided to end the project and start a new program
- Reasons:
  - Need for regional/national view of the project/program
  - Considering long-term developments
- Chosen route in the project was not accepted by the stakeholders who asked for a broader view





### Example 1: PAWOZ

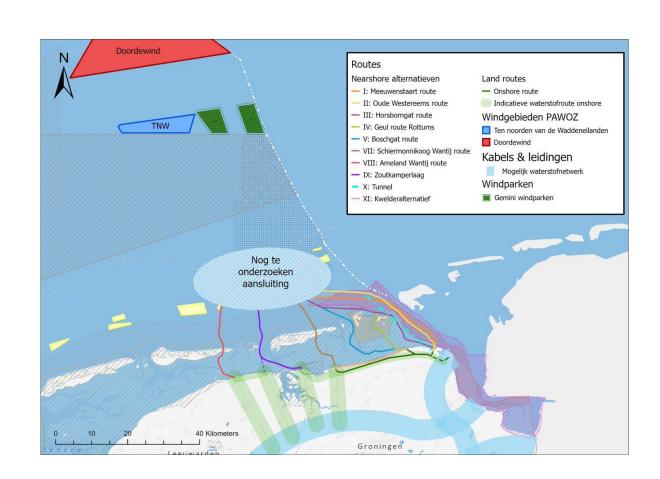
- Program has broader scope than initial project
- Short-term (till 2031):
  - (NEW) Hydrogen pipeline from Windpark TNW (0,7 GW)
  - Electricity Cables to land from Windpark Doordewind (4,0 GW)
  - Destination: Eemshaven
- Leading to route choices for subsequent project decisions





### Example 1: PAWOZ

- After 2031: also considering connection of future wind parks
- Through electricity cables and/or hydrogen pipelines
- Considering hydrogen production facilities at sea
- Leading to route choices for subsequent project decisions





### Example 2: New power line

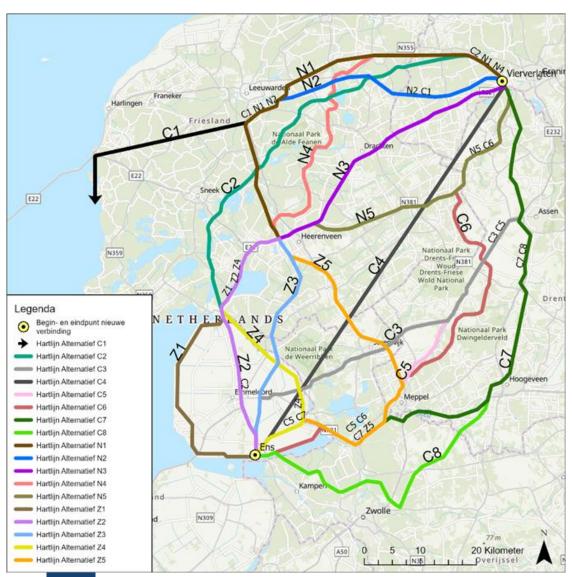
- New power line(380 kV) between Vierverlaten and Ens
- 120 km in total
- Large area, comprising 5
   provinces, 24 municipalities and 5
   water boards
- Many alternatives, challenging SEA scoping phase
- First experience with preferential decision: (formal) route choice





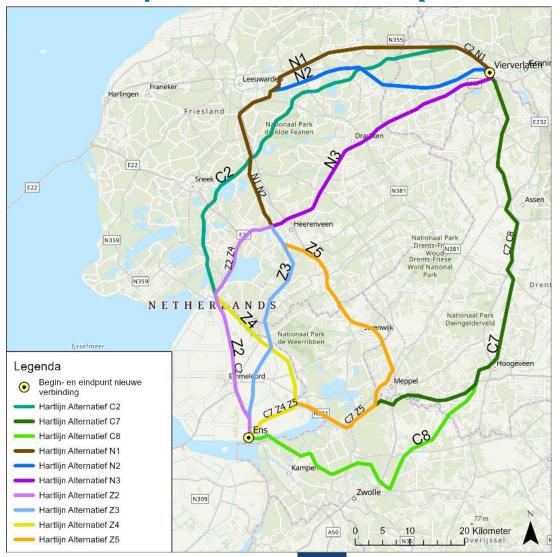
### Example 2: New power line

- Scoping phase (SEA): two sieves
- Sieve 1: based on the starting points:
  - New connection between Vierverlaten and Ens
  - Above ground
  - Combination with other power lines of other infrastructure
  - Within the study area
- Leading to 10 alternatives (see next slide)





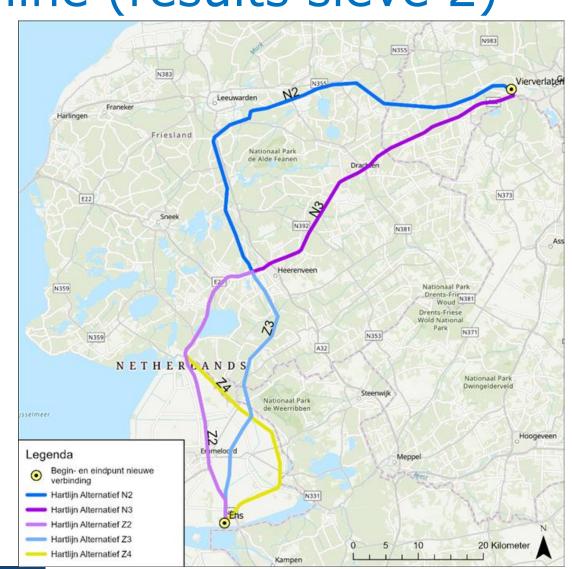
Example 2: New power line (results sieve 1)





### Example 2: New power line (results sieve 2)

- Sieve 2: based on showstoppers/criteria:
  - Technical aspects and future proof
  - Sensitive areas and buildings
  - Ecology (eg Natura 2000)
  - Landscape
  - Cultural heritage
  - Costs
- Corridor width of 5 km
- Leading to 5 remaining alternatives for the SEA





### Dilemmas

- Urgency versus good process: sometimes a step back is necessary
- Level of detail required at SEA program level in order to speed up subsequent projects
- Involvement of stakeholders at an early stage (also to avoid delays later)
- Best technical route versus optimal route based on participation
- Scoping challenges: criteria for scoping, manageable SEA process
- Small projects: needed property has been bought, how to deal with alternatives





### Discussion

- Is impact assessment agile enough for urgent projects? Or do we need another approach?
- Which elements of impact assessment are the most valuable and should we focus on?
- What is the added value of EIA for small projects? Are there other options?



### Let's continue the conversation!

Post questions and comments in the IAIA23 app.

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