



# Update Offshore Grid

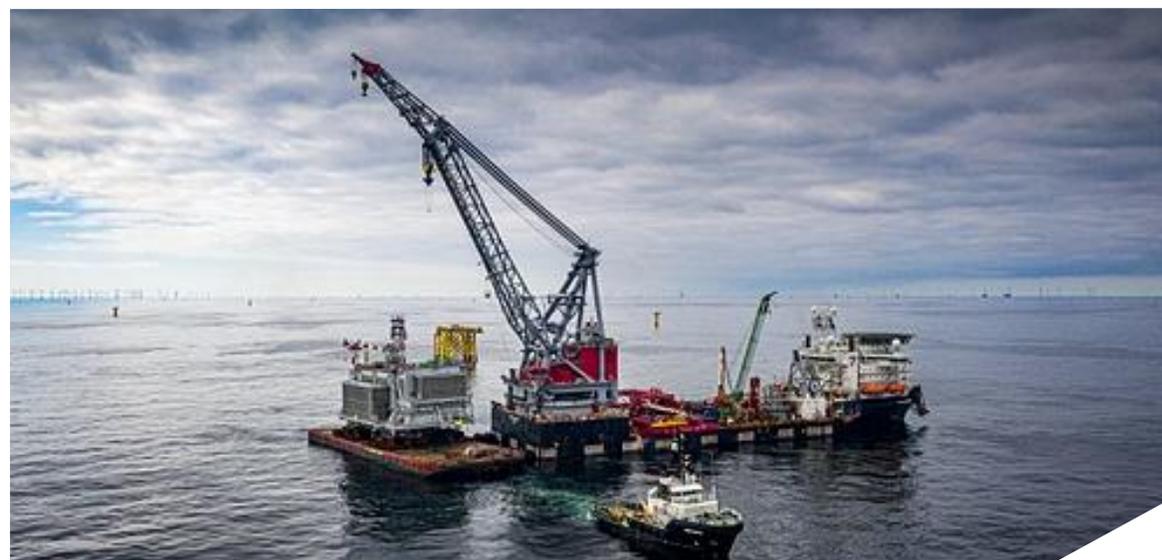
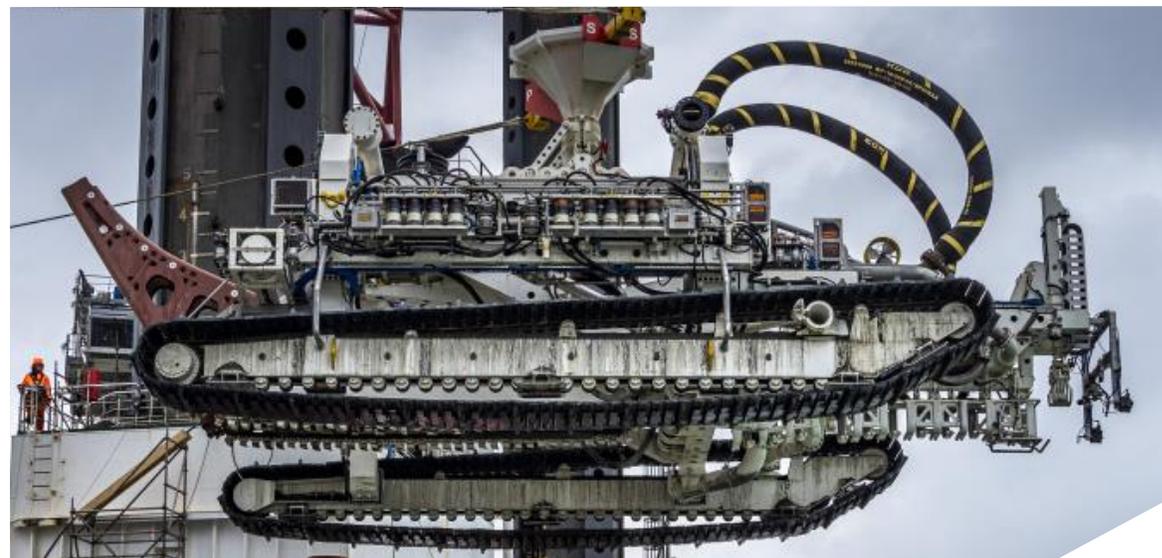
# Update Offshore Grid

## General:

- Development Framework for Offshore Wind Energy updated 20.05.2020
- Investment Plan for the Offshore Grid published 01.07.2020
- <https://www.tennet.eu/nl/bedrijf/publicaties/investeringsplannen/>

## Project updates:

- Borssele
- Hollandse Kust (zuid)
- Hollandse Kust (noord)
- Hollandse Kust (west)



# Borssele

## 2 x 700 MW, AC

### Alpha:

- Grid readiness achieved 23.08.2019;
- Pull in and energisation Orsted ongoing.

### Beta:

- Trial operation successfully completed;
- Grid Readiness Certification expected prior to the delivery date of 31.08.2020;
- Early cable pull-in for Blauwwind supported and ongoing;
- Multiple mitigation measures regarding COVID19. So far, no impact, no contaminations;
- Nature enhancement under investigation.



# Hollandse Kust (zuid)

## 2 x 700 MW, AC

- Land station: Civil works reaching final stage. Installation of electrical equipment on site almost completed. Finalisation of land station aiming for a gull friendly design.
- Land cable: ducts and cables installed.
- Sea cable Alpha on its way from Greece for installation this summer, using new trencher VOC Deep Dig-it.
- Cable crossings export cables outside wind area will be installed H2 2020 applying both the standard and an ecological advanced design, anticipating future governmental requirements.



# Hollandse Kust (zuid)

## 2 x 700 MW, AC

- Jacket Alpha load out to transportation vessel completed and preparing sail away. Topside Alpha fabrication ongoing.
- Fabrication jacket and topside Beta started.
- Delivery data updated in Development Framework for Offshore Wind by MinEAC to 31.12.2021 (HKZ Alpha) and 31.03.2022 (HKZ Beta, unchanged), aligned with OWF planning.
- COVID19: Impacting delivery of materials and equipment, quarantine of transportation vessels, and staff travel restrictions.



# Hollandse Kust (noord)

## 700 MW, AC

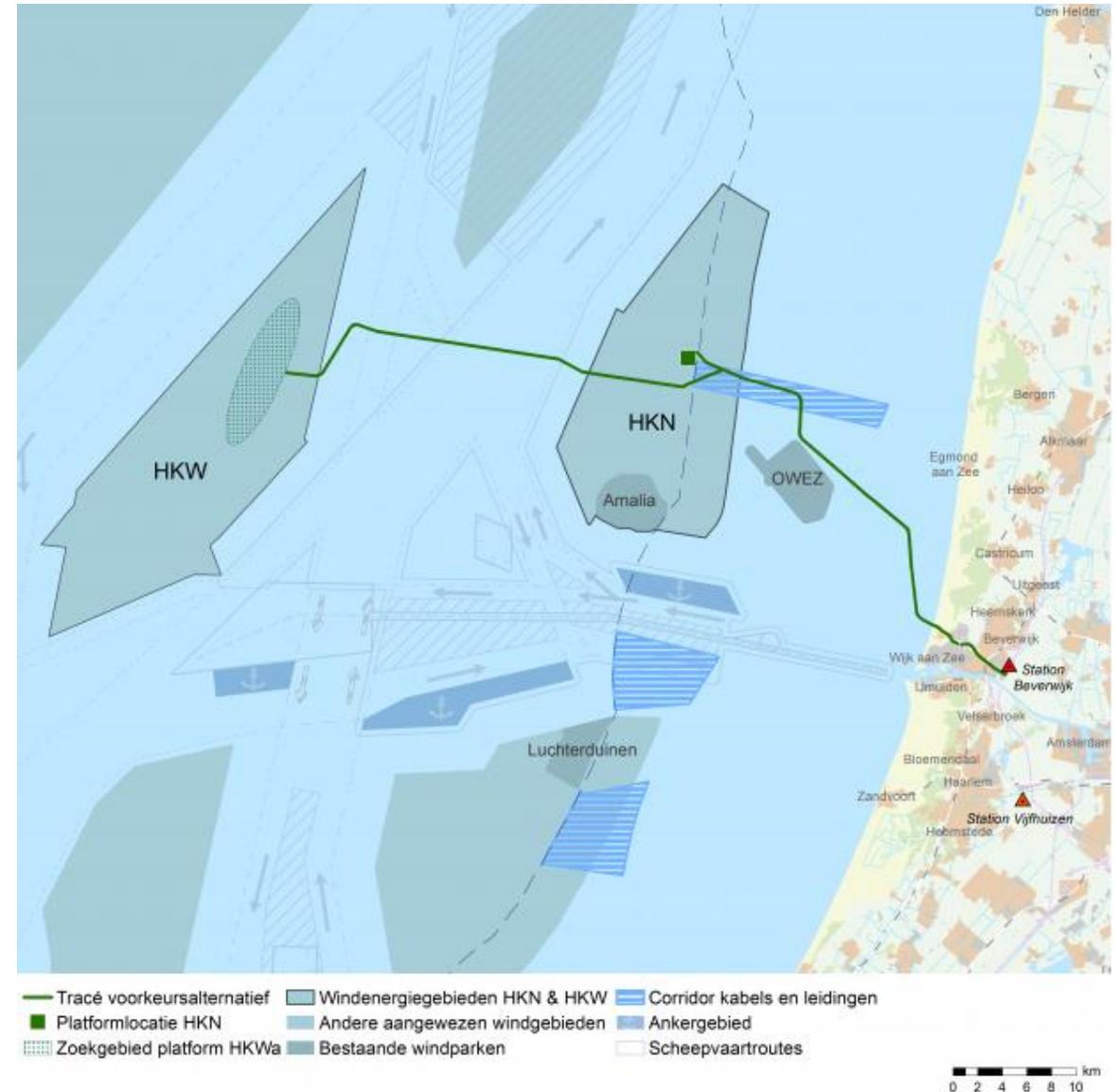
- Irrevocable permits for HKN and HKW Alpha obtained 13.05.2020.
- Local stakeholders remain concerned. Information centre opened.
- Contracts awarded:
  - Platform HKN/HKWa/HKWb: Engie-Fabricom Iemants;
  - Seacable HKN/HKWa: Jan de Nul LS;
  - Landcable HKN/HKWa: NRG and TAIHAN;
  - Landstation engineering: Movares;
  - Landstation preparatory works: KWS.
- COVID19: minimal impact.
- Delivery date: 31.03.2023



# Hollandse Kust (west)

## Alpha: 700 MW, AC

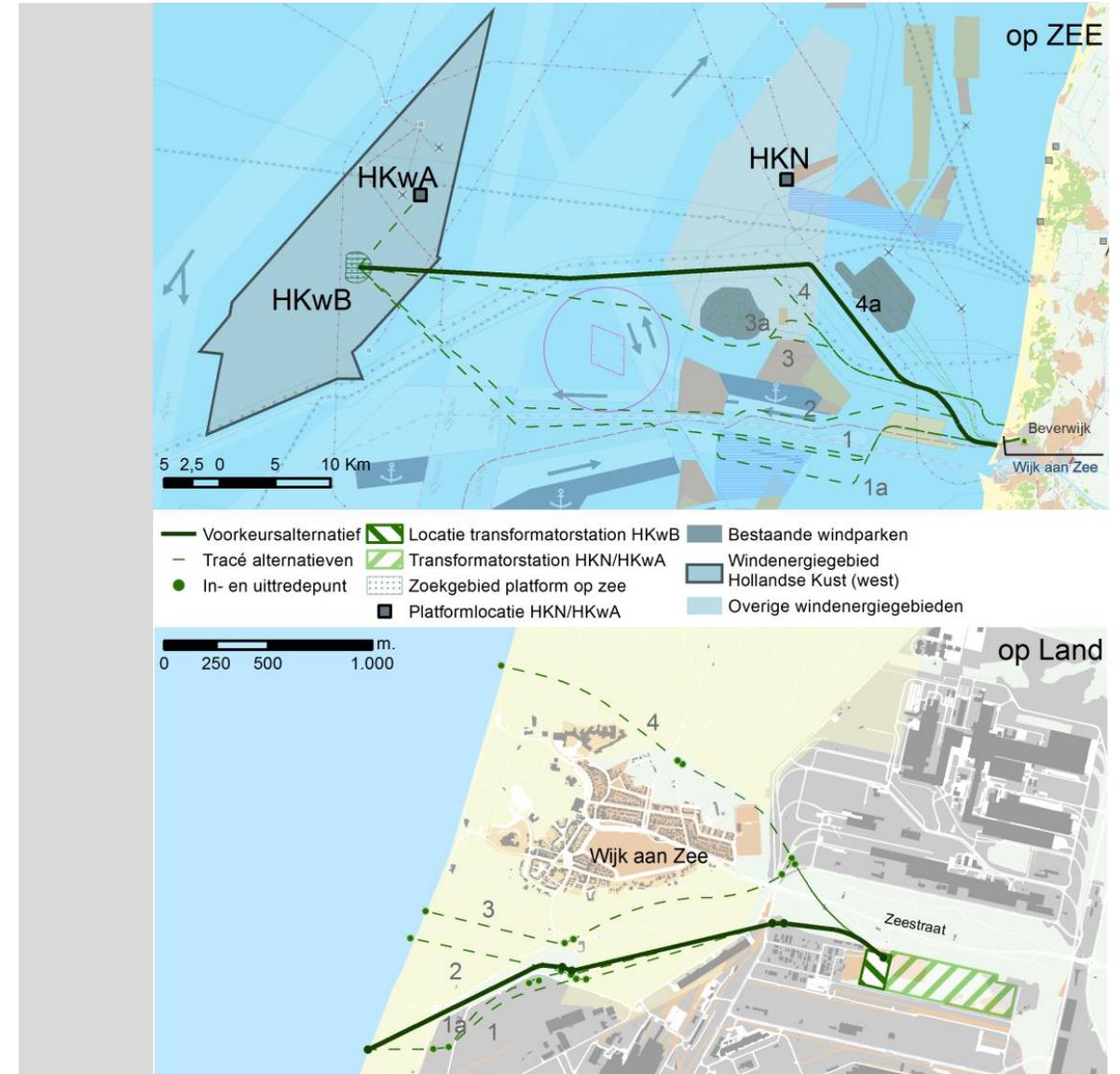
- Project HKN and HKWa are being overseen by one team.
- Permits irrevocable, contracts in place.
- Platform HKW Alpha will be called off Q4 2020, according to schedule, with the delivery date of 31 March 2024.
- Delivery date Q1 2024.



# Hollandse Kust (west)

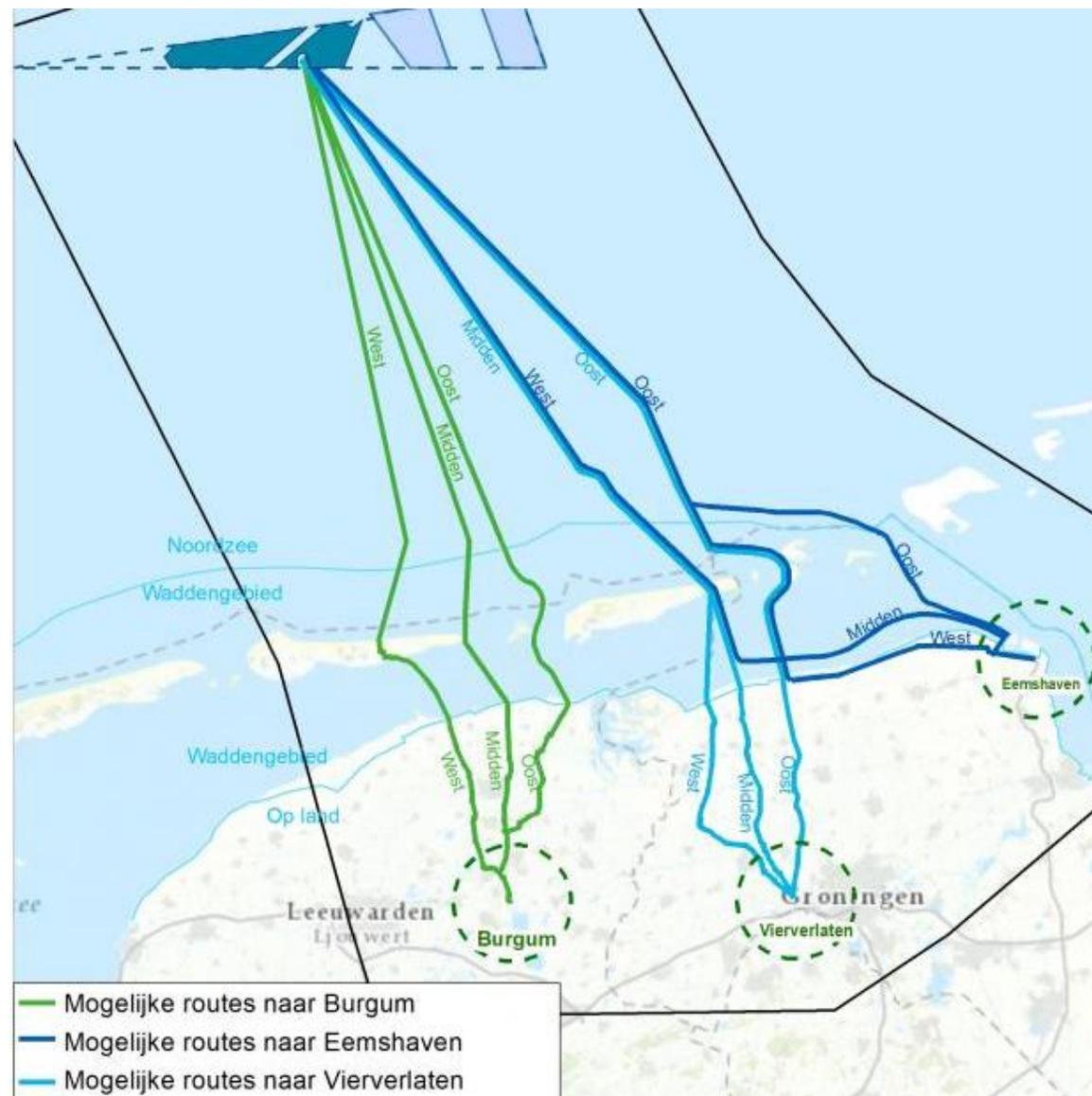
## Beta: 700 MW, AC

- Project HKWb and Ten Noorden van de Waddeneilanden are being overseen by one team.
- Preferred alternative chosen by MinEAC.
- Delivery date Q1 2026.
- Stay informed:  
<https://www.netopzee.eu/hollandsekustwestbeta/>



# Ten Noorden van de Waddeneilanden

- 700 MW, AC
- Preferred alternative expected Q4 2020
- Delivery date Q1 2027.
- Stay informed:  
<https://www.netopzee.eu/tennoordenvandewaddeneilanden/>



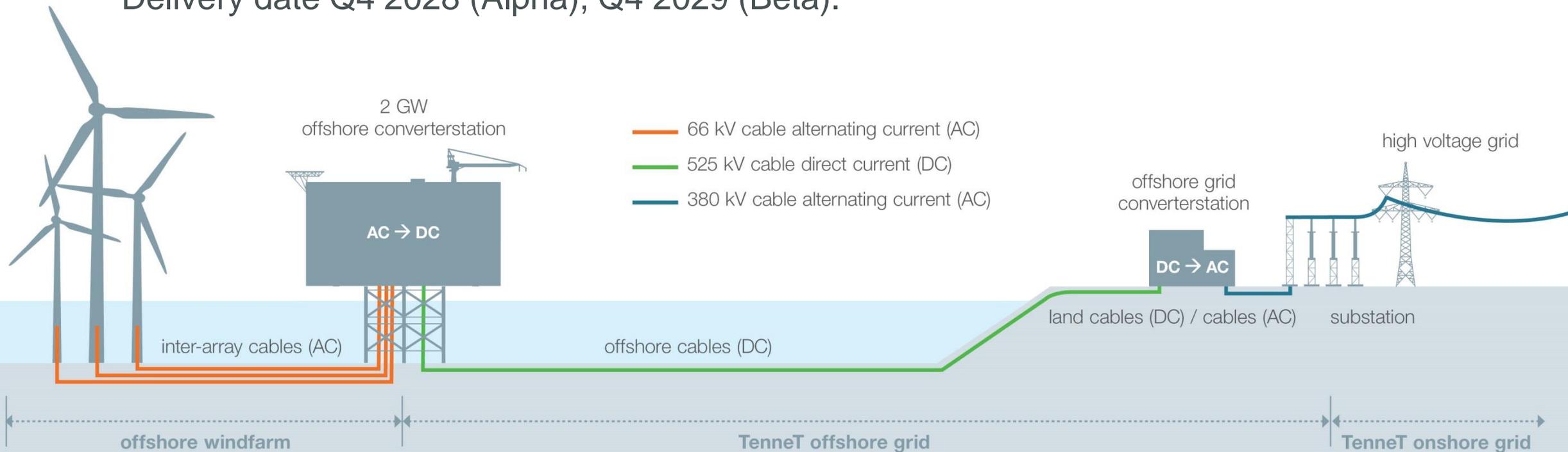
# IJmuiden Ver

## 2 x 2 GW, HVDC

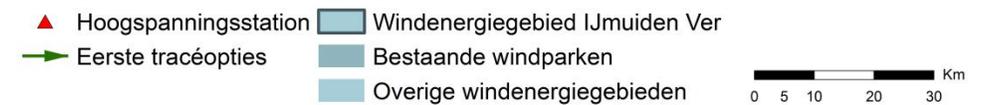
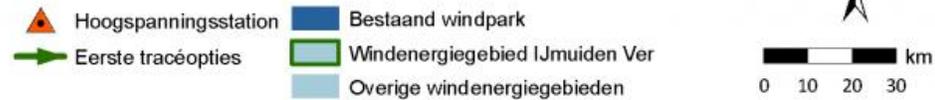
Technical requirements stated in Development Framework for Offshore Wind Energy.

Preparing for platform, cable tender which is scheduled for 2021.

Delivery date Q4 2028 (Alpha), Q4 2029 (Beta).



# IJmuiden Ver



# 2 GW platform compared to Arnhem's soccer stadium





Webinar RVO/MinEAC 09.07.2020

Questions? Please contact: [Netopzee@tennet.eu](mailto:Netopzee@tennet.eu)

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