



Offshore grid TenneT

Ten noorden van de Waddeneilanden 700 MW (AC) 2026

de Waddeneilanden

IJmuiden Ver

Hollandse Kust (zuid)

IJmuiden Ver Beta 2,000 MW (DC) 2027

IJmuiden Ver Alpha 2,000 MW (DC) 2029

Hollandse Kust (west) Alpha 700 MW (AC) 2024

Hollandse Kust (west) Beta 700 MW (AC) 2026

Hollandse Kust (noord)

Hollandse Kust (noord) 700 MW (AC) 2023

Hollandse Kust (zuid) Alpha 700 MW (AC) 2021

Hollandse Kust (zuid) Beta 700 MW (AC) 2022

Borssele Beta 700 MW (AC) 2020

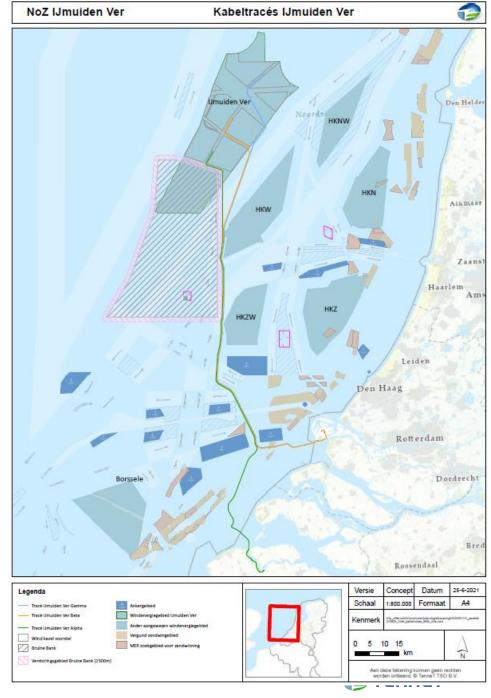
Borssele Alpha 700 MW (AC) 2019

TenneT Offshore

AC DC

IJmuiden Ver Alpha, Beta, and Gamma 2GW HVDC

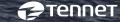
- Choice of preferred alternative by MinEAC end of 2020: Alpha to Borssele via Veerse Meer and Beta to Maasvlakte south
- Planning: Draft permits and draft spatial plan for consultation end 2021/beginning of 2022
- New project Gamma has started Q1 2021.
 - No irreversible steps will be set; Northern part of wind energy area IJmuiden Ver must be reconfirmed in North Sea Program.
 - Draft scoping document (NRD) expected September 2021. Gamma follows the same route as Beta (and offshore partly as Alpha) to the Maasvlakte
 - Synergy and acceleration by combination of routes



2 GW HVDC offshore grid documentation available!

https://offshore-documents.tennet.eu/nl/





HKW – connection to offshore grid

- Relevant documents to be published at https://offshore-documents.tennet.eu/
- Modifications to model agreements for the Realisation Agreement (REA) and Connection and Transmission Agreement (CTA):
 - No consultation foreseen for following interfaces in respect of HKW Alpha (relevant connection for Site VI) – TenneT will design in accordance with the Offshore Development Framework, e.g.:
 - Design of the scour protection of the Jacket
 - Design of the J-tube with bellmouth and cable hang off flange
 - Design of the 66 kV cable deck
 - □ TenneT will not install bellmouths → will be offshore installations by OWF
 - Design of cable route and allocation to the bays
 - The developer will incur any costs related to adaptation of the above to align with a specific windfarm design.



TenneT is a leading European grid operator. We are committed to providing a secure and reliable supply of electricity 24 hours a day, 365 days a year, while helping to drive the energy transition in our pursuit of a brighter energy future – more sustainable, reliable and affordable than ever before. In our role as the first cross-border Transmission System Operator (TSO) we design, build, maintain and operate 23,900 km of high-voltage electricity grid in the Netherlands and large parts of Germany, and facilitate the European energy market through our 16 interconnectors to neighbouring countries. We are one of the largest investors in national and international onshore and offshore electricity grids, with a turnover of EUR 4.5 billion and a total asset value of EUR 27 billion. Every day our 5,700 employees take ownership, show courage and make and maintain connections to ensure that the supply and demand of electricity is balanced for over 42 million people.

Lighting the way ahead together.

Disclaimer

This PowerPoint presentation is offered to you by TenneT TSO B.V. ('TenneT'). The content of the presentation – including all texts, images and audio fragments – is protected by copyright laws. No part of the content of the PowerPoint presentation may be copied, unless TenneT has expressly offered possibilities to do so, and no changes whatsoever may be made to the content. TenneT endeavours to ensure the provision of correct and up-to-date information, but makes no representations regarding correctness, accuracy or completeness.

TenneT declines any and all liability for any (alleged) damage arising from this PowerPoint presentation and for any consequences of activities undertaken on the strength of data or information contained therein.

C1 - Public Information

