



TenneT in dialogue

Consultation process for offshore grid development

In the 2013 National Energy Agreement, the Dutch government set an ambitious target: by 2023, renewable energy sources must account for 16 percent of the Netherlands' total energy supply. Developing offshore wind energy is one of the ways in which we seek to achieve this goal. Between 2019 and 2023, 3,500 MW of offshore wind energy capacity will have to be connected to the onshore transmission grid. It is TenneT's statutory duty to develop, construct, operate and maintain the offshore grid. In order to tackle this challenge as efficiently as possible, we have consulted with stakeholders to draw up a new standard for the offshore grid.

Engaged

Developing an offshore grid is a multi-faceted task that TenneT cannot carry out on its own. Early consultations with government authorities, windfarm developers, NGOs and suppliers are essential to ensure a workable concept that makes a maximum contribution to the required cost reduction. From the outset we have therefore engaged in an open dialogue with our stakeholders to address any concerns, and develop a broadly supported concept in mutual consultation.

With an independent meeting chair, we started an intensive consultation process in 2015 with the aim of producing a

preliminary design for the offshore grid. It is unique that the TSO and the various stakeholders (particularly the wind farm developers) have engaged in a joint coordination process of this kind.

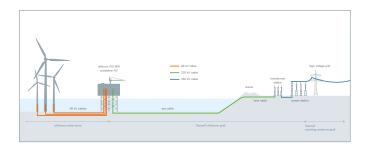
Transparency

The consultation process about technical, legal and planning matters was based on position papers. Representatives of the wind energy industry were given an opportunity to respond to these papers via the Internet and during expert meetings. At these meetings, relevant matters were explained and discussed in accordance with an agenda published in advance. Additional investigations were performed where necessary, for instance to determine the feasibility of opting for a supply voltage of 66 kV for the offshore wind farms. A report was produced of each expert meeting and a two-week period was scheduled for participants and all stakeholders to provide feedback. The final versions of these papers set out the positions reached on each topic, as well as the underlying considerations.

The consultation process was conducted in English to facilitate the participation of non-Dutch parties. To support the process, we set up a special website for online consultation and to provide information to the public. This website provides access to all position papers, meeting minutes and investigation reports, and provides answers to frequently asked questions. We also sent out newsletters to interested parties to keep them up-to-date on our plans and activities. TenneT actively sought alignment with existing bodies in order to inform and involve the relevant stakeholders. We provided regular updates at public meetings on the

development of offshore wind energy in the Netherlands, as organised by the Ministry of Economic Affairs. We also provided updates at informal meetings of the Electricity and Gas Grid Users Platform (GEN), with a view to future changes to the Dutch Codes.





In this way we have collected the necessary information to meet the requirements of wind farm developers or to propose well-considered alternative solutions.

Responsible

The roles and responsibilities in the decision-making process were clearly defined from the outset. The Ministry of Economic Affairs and the Authority for Consumers & Markets (ACM) were invited to attend the expert meetings as observers. As soon as a topic was discussed to the participants' satisfaction, the outcome was submitted to the Ministry for decision-making purposes. Fundamental decisions that affect both TenneT and the wind farm developers have been laid down by the Ministry in two documents entitled 'Development Framework for the Offshore Grid' and the Project and Site Descriptions published by Netherlands Enterprise Agency. More specific conditions have been laid down in the model agreements for parties that will be connected to the offshore grid in the future. The technical conditions will be partially incorporated into codes at a later stage.

Conclusion

The well-substantiated and transparent decision-making procedure has created mutual understanding among all parties during the consultation process. This also applies to decisions

Reactions from the energy sector:

Gordon Pedersen, Senior Wind Power Project Manager at DONG:

"The technical and legal consultation sessions organised by TenneT were very efficiently structured and had a transparent set-up. DONG welcomes this approach and would like to underline the importance of close collaboration between wind farm developers and the TSO. This is the best way to reduce risks and ensure cost-efficient planning and development of offshore wind farms." **Results of the consultation process include:**

Decision to select 66 kV as the supply voltage

Coordinated access to platforms

No helicopter landing platform or permanent diesel generator

Optimisation of electricity connections

De-risking contributes to LCOE reduction

Tenner

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that may not serve the short-term interests of a particular party, but do benefit the sector as a whole in the long run. By reducing the societal costs of offshore wind energy development and assuming a coordinating role in this way, TenneT has assumed its responsibility for realising the offshore wind energy targets set out in the National Energy Agreement.

Reactions from the energy sector:

Laut van Seventer, Investment Manager at RWE: "The way in which the Dutch government and TenneT worked out the tight schedule of the National Energy Agreement gives us confidence for the future."

TenneT is a leading European electricity transmission system operator (TSO) with its main activities in the Netherlands and Germany. With approximately 22,000 kilometres of high-voltage connections we ensure a secure supply of electricity to 41 million end-users. TenneT is one of Europe's major investors in national and cross-border grid connections on land and at sea, bringing together the North West European energy markets and enabling the energy transition. **Taking power further.**

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