



LEAD NORTH-WEST EUROPEAN INTEGRATION

North Sea Wind Power Hub

As a company that always needs to prepare for the future, we predict that the CO₂ reduction targets set in the Paris Climate Agreement will demand such a high level of renewable energy production capacity that individual countries will struggle to cope on their own. Our ground-breaking vision, the North Sea Wind Power Hub (NSWPH), announced in 2016, could play an important role in exploiting wind energy in the North Sea in the long term.

Mel Kroon, Chief Executive Officer TenneT:

"It is our firm belief that the energy transition must be a truly international endeavour. It will transform the electricity system, making national borders irrelevant. Closer collaboration will allow the energy transition to be realised faster, more efficiently and at a lower cost."

The North Sea provides optimal conditions for offshore wind power with shallow waters, strong and relatively stable wind speeds, proximity to consumption centres and bridging Scandinavia and the UK to Central Europe. In addition, we are seeing rapidly declining costs in offshore wind and projections now forecast cost-efficient deployment of up to 180 GW of offshore wind power in the North Sea in 2045.

Connecting large-scale offshore wind power to faraway central hubs or joining even-larger amounts to several inter-linked hubs, provides a unique opportunity for economies of scale. By building a hub on an artificial island, effectively creating a near-shore environment far out at sea, capital-

intensive platforms for HVDC converter stations could be avoided. In addition, an island would serve as a permanent base for staff to construct and maintain surrounding wind farms as well as for possible synergy technologies such as Power2Gas.

A project the size of the NSWPH must build on strong international cooperation and coordination. The North Sea countries' political declaration on energy cooperation and the cost-efficient roll-out of offshore wind power is a starting point. The declaration shows the intention for internationally coordinated planning and the roll-out of offshore wind power in the North Sea could become reality. Meanwhile, a North Sea Wind Power Hub consortium has been formed, consisting of TenneT, Energinet, Gasunie and the Port of Rotterdam.

Maroš Šefčovič, Vice President of the European Commission, in charge of the Energy Union:

"I welcome TenneT's ongoing efforts to further remove physical and infrastructural barriers in the European electricity system. The North Sea Wind Power Hub is a typical example of a genuinely European project; no single European country could implement it on its own, but it makes perfect business sense to do it together. This is what the European single market is all about."



North Sea
Wind Power Hub