# Cloud-connected hybrid power for offshore platform comms in North Sea

## Overview

As leading TSOs TenneT together with 50Hertz, Amprion, Elia, Energinet and Gasunie propose taking a gradual approach for development of an initial offshore grid in the North Sea that starts with identifying first projects for an offshore grid consisting of hybrid . As leading TSOs TenneT together with 50Hertz, Amprion, Elia, Energinet and Gasunie propose taking a gradual approach for development of an initial offshore grid in the North Sea that starts with identifying first projects for an offshore grid consisting of hybrid . DNV has been commissioned by Statnett to conduct a study of different design solutions for offshore high-voltage direct current (HVDC) platforms to enable the realization of hybrid grid connections. This study will be part of Statnett's investigation of potential hybrid grid connections for. Offshore energy connectivity helps operators maintain secure communications, crew welfare, data transmission and business continuity across remote maritime environments. From exploration and drilling to offshore office connectivity, remote monitoring and emergency response, energy operators need. Tampnet has rolled out the world's first fully autonomous private 5G network with Edge Compute offshore for Aker BP's Edvard Grieg platform. This digital backbone provides real-time data processing, robust wireless coverage, and supports advanced offshore operations like autonomous drones. Energy companies, wind and solar farm owners, prime contractors and the offshore service industry that supports them demand the levels of reliability and extended capabilities that connectivity using Cobham Satcom enables for offshore platforms and vessels every day. TenneT is currently planning the first hybrid interconnectors and offshore hubs in both the Netherlands.

## Article Content

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Transforming North Sea power for Europe''s grid

A “transformative way” of integrating North Sea wind into Europe''s grid Florence Jones speaks to Hitachi Energy''s Niklas Persson about long term plans for integrating North Sea offshore

Benefits of an integrated power and hydrogen offshore grid in a net ...

The North Sea Offshore Grid concept has been envisioned as a promising alternative to: 1) ease the integration of offshore wind and onshore energy systems, and 2) increase the cross

North Sea offshore grid development: combined optimisation of grid

The North Sea region offers large amounts of investable offshore wind generation and several interconnection lines are located in the area, with more planned. Optimal transmission and

Offshore Energy

With our enabling technology and global service network, we help offshore energy platforms, FPSOs, jack-up rigs and the thousands of vessels that support them

Key technologies and development trends of VSC-HVDC

It further details the profiles of representative offshore wind power VSC-HVDC transmission and grid connection projects currently operational or under construction, and delves into

Interdisciplinary perspectives on offshore energy system integration in ...

This article conducts a systematic literature review to identify infrastructure components of offshore energy system integration (including alternative cable connections, offshore energy storage,

Entso-e | Explore the TYNDP

ENTSO-E''s analyses show that a first step towards a more integrated offshore network infrastructure – hybrid interconnectors - in the Northern Seas would be economically beneficial.

Press | Company | Siemens

Siemens AG (Berlin and Munich) is a leading technology company focused on industry, infrastructure, mobility, and healthcare. The company''s purpose is to create technology to transform

Full wireless coverage enables offshore digital

A private 5G network can power digitalization across the entire offshore installation, seamlessly connecting devices and sensors while

AST Networks White Paper: Driving Digital Transformation in the ...

With hybrid connectivity, offshore teams can engage in high-quality video conferencing, share data instantly, and access cloud-based applications. AST Networks'' solutions make it possible for

Commission welcomes renewed commitment to power

At today''s North Sea Summit in Hamburg, Leaders and Energy Ministers of the North Sea region committed to cooperate closely to speed up the

Renewable energy systems in offshore platforms for sustainable

Unlike traditional approaches that rely on onshore power grids or single-source renewable systems, the OMPP combines offshore wind and solar power with hybrid energy storage, ensuring a

Offshore Grids

Offshore Grids Transforming the North Sea into Europe''s green power plant Transforming the North Sea into Europe''s green power plant To achieve the EU''s climate targets and to secure

Majors detail platform electrification plans at North Sea ...

In the central UK North Sea, CNOOC International is working on plans to electrify the Buzzard platform, and bp, Shell and TotalEnergies are collectively addressing the potential for their installations in the

Offshore Energy Hubs: Blueprints with Offshore Electrolysis | North Sea ...

Offshore energy hubs designs for platforms and hydrogen wind turbines can effectively be integrated into one practical and modular solution facilitating both options. The paper illustrates the relevance of

Tampnet Launches Autonomous Private 5G Edge

The solution uses containerization to run seamlessly in any cloud — public, private, or hybrid. Features like AI-driven orchestration and automated

Island in the Sea: The prospects and impacts of an offshore wind power ...

Europe''s offshore wind capacity is increasing rapidly, with larger turbines installed further from shore. TenneT proposed an innovative concept, the North Sea Wind Power Hub, in which

Offshore Grids

TenneT is currently planning the first hybrid interconnectors and offshore hubs in both the Netherlands and Germany. Here we are drawing on our extensive knowledge and studies from the

Hybrid projects: How to reduce costs and space of offshore ...

Hybrid projects offer a solution. They combine offshore generation and transmission assets, which conventionally operate as separate entities. This enables them to link projects and

Offshore connectivity | IEC Telecom

Enable reliable connectivity for exploration vessels, drilling rigs and offshore platforms operating beyond terrestrial network coverage. Our solutions support daily coordination, field reporting and

Renewable energy systems in offshore platforms for sustainable

VLFS platforms, with their stability and load-bearing capacity in open waters, are particularly well-suited to host S2S systems, resulting in Platform-to-Ship (P2S) capabilities that offer

DNV supports Statnett with the assessment of HVDC platform

In connection with the announcement of new offshore wind areas in 2025, Statnett was commissioned by The Norwegian Ministry of Energy to investigate potential hybrid grid solutions for

North Sea platform electrification ''key'' to unlock emission cuts from ...

UK''s regulator North Sea Transition Authority (NSTA) has held a workshop on platform electrification with 11 major operators on the UK Continental Shelf (UKCS) and ten technology

Offshore grid connections

Offshore AC solutions connect renewables sites to the grid over near- and mid-shore distances. These include turnkey offshore grid connections complete with

## Contact Us

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