NeuLink – Planned UK–Germany Offshore Hybrid Interconnector

The transmission system operators Amprion GmbH, TenneT TSO GmbH and 50Hertz Transmission GmbH are collaborating on the NeuLink project, which involves the development of a future hybrid interconnector between Germany and the United Kingdom.

The project is designed as a 3–4 terminal HVDC system that plans to integrate offshore wind farms in German and/or UK waters, creating a new electricity connection between the two countries.

Economic Relevance

- NeuLink is included in the OTC grid map and was submitted in Q2 2025 for consideration in the TYNDP 2026 process (project ID 1247).
- Supported by both the British Department for Energy Security and Net Zero and the German Federal Ministry for Economic Affairs and Energy.
- Socio-economic analyses show an annual potential of more than approx. €100-120 million in congestion rents (after potential compensation mechanisms for offshore wind parks).

Technical Features

- Offshore platform station: 525 kV HVDC, 2 GW standard
- Onshore converter station: DC/AC system
- Subsea cable: bipolar DC system

Key Aspects

As a pioneering first-of-its-kind project in Europe, NeuLink creates important opportunities for innovation and cross-border collaboration. Its successful implementation will require addressing several technical, regulatory, and organisational dimensions:

1. Technical Requirements

- Development and operation of a multi-terminal (3–4) HVDC system at a scale not yet realised in Europe.
- Ensuring stability and interoperability of converter technologies across multiple countries and offshore platforms.
- Providing redundancy and reliability under demanding offshore conditions.

2. Regulatory Frameworks

- National frameworks for hybrid interconnectors are still evolving in both Germany and the UK.
- Harmonisation is needed across regulatory bodies, permitting procedures, and cross-border grid codes.

3. Market Design & Trading Arrangements

- Integration of at least one offshore bidding zone (OBZ) to enable efficient market participation of offshore wind farms.
- Addressing uncertainties regarding explicit vs. implicit market coupling and the future development of EU–UK electricity market arrangements.
- Designing fair and transparent mechanisms for capacity allocation, cost sharing, and congestion rent distribution across jurisdictions.

4. Procurement & Delivery Coordination

- Parallel development of ~ 1–2 radial grid connection systems alongside the hybrid interconnector.
- Procurement and timely delivery of specialised offshore infrastructure and subsea assets.
- Alignment of national supply chains and permitting schedules to ensure coordinated project execution.

To address these challenges, the three TSOs are seeking a strong and experienced UK partner who can help pioneer solutions and play a key role in the success of the NeuLink project.

Expressions of interest from potential UK partners are welcomed in the form of a formal application outlining ambitions and capabilities for implementing and managing the project. Please ensure these are submitted by 03 October 2025.

Should you require further information or wish to submit an application, please contact:

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