A Meshed Offshore Grid in the North Sea
Legal and Regulatory Perspectives

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Presentation overview

- Introduction PROMOTioN
- Regulatory aspects: legal / economic / financial
- Zoom in: legal aspects
- International Law
- European Law
- Compatibility of country-specific legal systems
- Conclusion
Political Declaration on energy cooperation between the North Seas Countries

• Aim: Create good conditions for offshore wind energy to ensure sustainable, secure and affordable energy supply in the North Seas Countries
• Facilitate the building of energy links and allow more trading of energy and further integration of energy markets
• Reinforcing regional cooperation will help reduce greenhouse gas emissions and enhance security of supply in the region
• Declaration’s action plan focuses on four main areas:
  • Maritime spatial planning
  • Development and regulation of offshore grids and other offshore infrastructure
  • Support framework and finance for offshore wind projects
  • Standards, technical rules and regulations in the offshore wind sector
• Signed by energy ministers from BE, DK, FR, DE, IE, LU, NL, NO, SE,
Regional cooperation in the energy Union – MEP manifesto

- Increase of regional cooperation as a way to realize the full potential of the Northern Seas energy system
- Use and build upon existing cooperation structures (e.g. NSCOGI)
- Large scale deployment of offshore wind farms and completion of a meshed electricity grid
- Proposal of a 7-step action plan, to call for strong political support and endorsement of the North Seas Offshore Grid as a key step to build an effective energy union
- Signed by MEP from BE, DK, FR, DE, IE, LU, NL, SE, GB
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Political Context

National Wind Associations Statement

- EU’s Energy ministers strive for a renewed regional cooperation in the North Sea, supported by major wind industry associations in Europe
- Close collaboration between government authorities, industry stakeholders and national associations as a success factor
- Coordinated political processes in combination with aligned technical requirements lead to reduced costs and increased framework stability
- Estimate by European Commission: offshore wind from the North Seas can cover up to 12 percent of the EU’s power demand
- Singed my national wind associations from DK, ES, IE, NL, NO, UK, DE
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Objectives

• Identify **technical requirements** and investigate possible **topologies** for **meshed** HVAC/DC offshore grids

• Develop **protection components** and **schemes for offshore grids**

• Establish components **interoperability** and initiate standardisation

• Develop recommendations for a coherent EU and **national regulatory framework** for DC offshore grids

• Develop **recommendations for financing mechanism** of offshore grid infrastructure deployment

• **Demonstrate cost-effective** Offshore HVDC equipment

• Develop a **deployment plan** for HVDC grid implementation
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European Partners
34 leading experts in HVDC grids

DENMARK
- DTU
- Dong Energy
- MVOW
- Energinet

UNITED KINGDOM
- GE
- UniAbdn
- Carbon Trust
- USTRAT
- SHE Transmission

IRELAND
- Eirgrid

NETHERLANDS
- DNV GL
- MEU
- TU Delft
- TenneT
- RUG

BELGIUM
- KU Leuven
- Tractebel
- T&D Europe

FRANCE
- SGI
- RTE

SPAIN
- UPV
- Iberdrola
- Adwen

GERMANY
- DWG
- SOW
- Siemens
- RWTH
- FGH

ITALY
- EUI
- Prysmian

NORWAY
- Statoil

SWEDEN
- ABB
- KTH
- SvK
APPENDIX

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Legal Aspects

- Hierarchy of norms
- International Law: e.g.
  - Treaties / customary law
- European Law: e.g.
  - TEU and TFEU
  - Directives and Regulations
  - Case law
- National Law
International Law

› Law of the sea: customary law and UNCLOS
› Different zones – different legal regimes

Figure 1 Maritime Zones
(Schofield, 2003: 18)
Different zones / functions

› Territorial zone
› Exclusive Economic Zone
› Continental shelf

› Freedom to navigate
› Freedom to lay cables
Different legal scenarios
European Law (1)

> Is EU-Law applicable at sea?
  - Treaties: territory
  - Case law:
    - EU-law bound by international law
    - EU-law follows national jurisdiction
    - State has jurisdiction -> EU-law applies
    - State has no jurisdiction -> EU-law doesn’t apply

- Case example: *Aktiebolaget NN (C-111/05)*
European Law (2)

> Conferral of competences

> Legal basis in the TFEU:
  - Internal market (114 TFEU)
  - Trans-European Networks (170-171 TFEU)
  - Environmental Issues (191-193 TFEU)
  - Energy (194 TFEU)
Country-specific legal systems

- Different legal systems:
  - Civil law / common law
- National differences:
  - BE/DK/FR/GE/NL/NO/UK
- Incompatibilities between legal systems
  - Specific topics
  - Case studies
Possible problems: case 1

> The connection – where does it take place?
> Multiple possibilities:

Onshore  –  Offshore  –  OFTO
(Belgium)  (Germany, NL)  (UK)
OWF builds  TSO builds  **

Significant consequences for: risk, liability, financing, grid planning and coordination
Case 2: Support schemes

> Variety of possibilities:
  - FiT / FiP / Green Certificates / CfD / combi
  - Technology-specific / technology neutral
  - Coupled with planning and permitting or not

> Case: OWF is located in country A’s EEZ, but connected with a hub in country B (and subsequently to B’s onshore grid). Who provides support?
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