

**Marine Science meets Maritime Industry**  
**30 mei 2017, Oostende**

# **North Seas Energy Forum**

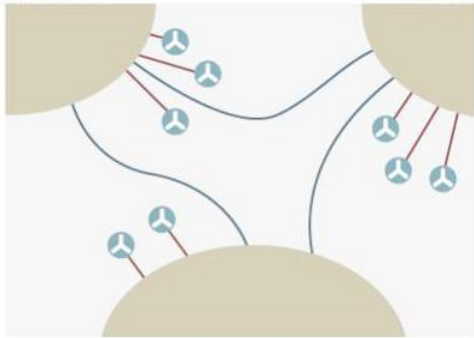
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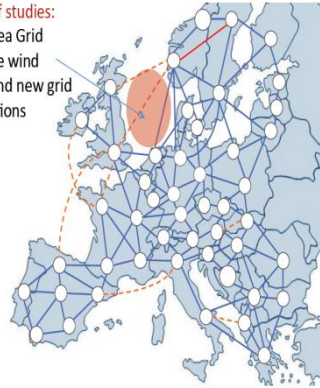
- ❖ NSCOGI was established on 3 December 2010 by the signing of an MoU: 10 countries (BE, D, DK, UK, IRL, FR, LUX, S, N, NL) + European Commission
  
- ❖ The signatories declare that they:
  - Share the common goal of moving to a sustainable low-carbon economy while maintaining security of energy supply most cost-efficiently,
  - Recognise that the renewable energy sources of the North Seas have the potential to make a significant contribution to this goal,
  - Will facilitate a strategic, coordinated development of the offshore and onshore grids to ensure more cost-effective and sustainable investment,
  - Will identify and tackle barriers to grid development at both national, regional and EU-level, in particular regulatory, legal, market, planning, authorisation and technical issues,

# From Radial over Regional to Meshed

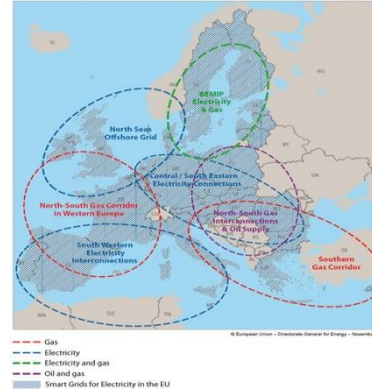
Radial



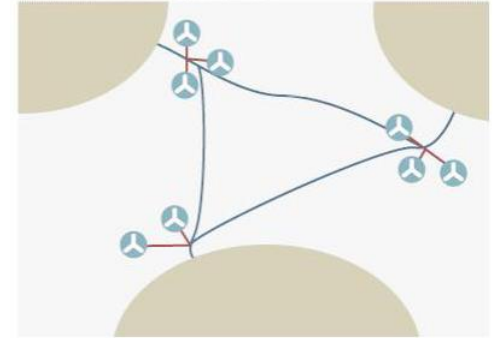
Focus of studies:  
North Sea Grid  
Offshore wind  
farms and new grid  
connections



Priority corridors for electricity, gas and oil



Meshed solution



2010:  
MoU  
NSCOGI

2011: ENERGY  
INFRASTRUCTURE  
PACKAGE


2012:  
NSCOGI  
GRID STUDY

2014-2030:  
BI/TRILATERAL  
COORDINATION

2030-2050:  
10 COUNTRIES  
OFFSHORE GRID

> 2050:  
E-HIGHWAY  
MESHED GRID

# NSCOGI 2012 Report: Status of the Annexes of the MoU

Working Group 1 : Grid configuration & integration	Working Group 2 : Market & Regulatory issues	Working Group 3 : Planning & Autorisation
Deliverable 1 <b><i>Policy considerations (generation &amp; load scenario)</i></b> Completed	Deliverable 1 <b><i>Regulatory benchmark</i></b> Completed	Deliverable 1 <b><i>Permitting benchmark</i></b> Completed
Deliverable 2 <b><i>Grid and technological considerations</i></b> Completed	Deliverable 2 <b><i>Guiding High Level Principles</i></b> Completed	Deliverable 2 <b><i>Procedural guidelines</i></b> Completed
Deliverable 3 <b><i>North Seas Grid Study</i></b> Completed	Deliverable 3 <b><i>Costs and benefits identification and allocation</i></b> Future work	Deliverable 3 <b><i>Tools to reduce length and complexity</i></b> Ongoing work
Deliverable 4 <b><i>Case studies</i></b> Future work	Deliverable 4 <b><i>Anticipatory investments</i></b> Future work	Deliverable 4 <b><i>Best practices</i></b> Ongoing work
Deliverable 5 <b><i>Costs and benefits assessment</i></b> Ongoing work	Deliverable 5 <b><i>Market Arrangements for increased penetration of RES</i></b> Completed	

## Results and lessons learnt (NSCOGI studies)

- Meshed offshore grid raises complex issues → regional cooperation is needed
- Possible benefits of meshed grid are of different nature (cost savings, security of supply, environmental impact,...)
- Further improvement of long term network planning through a structural dialogue between governments and TSOs, adequacy of the scenarios, expected policy developments
- A case-by-case approach to cost allocation is needed
- Incremental approach

## Challenges

- International cooperation is resource intensive (for further work still needed on anticipatory investments, interaction of support schemes, asset classification, ...)
- Regulatory and trading arrangements closely intertwined with network codes
- Go from research cases to test cases

## Conference 23<sup>rd</sup> October 2015

- The benefits for competitiveness and speeding up the internal energy market remain. Clear link to electricity market reform and great potential for further North Seas cooperation.

- But:

-> the sole focus on offshore grid planning is not sustainable if not complemented by a focus on *offshore generation* perspectives;

-> to reap all potential benefits in terms of cost reduction, closer cooperation is needed with *project promoters, investors and the industry*;

-> the conceptual work performed by NSCOGI is ready but urgently needs a *reality check*;

-> this could ideally be done on the basis of some predefined *pilot (investment) projects*;

## Political declaration on energy cooperation between the North Seas Countries (6th June 2016)

- HLG & Coordinators Committee
- Support Groups:
  1. Maritime spatial planning
  2. Development & regulation of offshore grids and other offshore infrastructure
  3. Support framework and finance for offshore wind projects
  4. Standards, technical rules and regulations in the offshore wind sector
- Secretariat
- Co-work Governments/European Commission



## Support Group 1 Maritime spatial planning

- Coordinating the planning and development of offshore wind and grid projects beyond national borders including area mapping
- Developing a common environmental assessment framework for MSP
- Increasing the availability and interoperability of marine data for planning, impact assessment, licensing and operations
- Exchanging best practices on site preparation
- Exchanging best practices on permitting procedures and work on the modalities of a coordinated permitting process for concrete regional or sub-regional joint offshore projects

## Support Group 2 Development & regulation of offshore grids and other offshore infrastructure

- To remove regulatory barriers to the development of interconnectors and hybrid assets
- Development of project plans for concrete hybrid projects
- To enable a regionally optimised North Seas offshore grid and to reduce the risk of stranded or redundant grid assets
- To optimise useful linkages with the oil/gas industry

## Support Group 3 Support framework and finance for offshore wind projects

- Coordination and step-wise alignment of national support schemes for offshore wind
- Cooperation on the timing of tendering as well as increased coordination of wind offshore planning across North Seas countries
- Development of concepts for concrete joint (pilot) projects, and exploring opportunities for the opening of support schemes and joint tenders
- Mobilisation of investment capital for joint (pilot) projects, for instance through EU funds such as EFSI and CEF, and institutional investors.

## Support Group 4 Standards, technical rules and regulations in the offshore wind sector

- The harmonisation of rules concerning aviation markings and lights;
- The harmonisation of health and safety requirements;
- The alignment of crew and vessel requirements;
- The mutual recognition and harmonisation of certification standards for components in offshore wind projects;
- Exchanging best practices on park layout constraints including line of sight requirements;
- The establishment of a common approach, for example by establishing facilities for innovation, testing and demonstration of new technology;
- Investigating a common approach to rules applicable to offshore turbines in territorial waters and exclusive zones.

## North Seas Energy Forum 23<sup>rd</sup> March 2017

The North Seas Energy Forum brings together representatives of the public, private and non-governmental sectors in the Northern Seas region to discuss challenges and opportunities and the role of stakeholders in realising the region's full energy potential.

## High Level Group – Directors general (17 May 2017)

- Guidance for Support Groups
- Debriefing of the Stakeholder conference
- North Seas energy cooperation as flagship for regional cooperation/ cluster approach