Interconnectors: Challenges to building a more connected EU energy market

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What is an Electrical Interconnector?

- An Electrical interconnector is a connection between two different electrical systems.
- Where long distances are involved this will require the use of High Voltage Direct Current (HVDC) technology.
Why do we need interconnectors?

- Maximum use of lowest cost power...wherever it’s located
  - *Lower prices and enhanced competitiveness*

- Maximise integration of low-carbon energy
  - *Sustainability*

- Cross-border energy supplies in times of shortage
  - *Security of supply*
How interconnected is Europe?

GB has four interconnectors representing 5% of existing generation capacity in 2014.

EU benchmark for Member States to have electricity interconnection equivalent to at least 10% of production capacity by 2020, and 15% by 2030.
Interconnector development is complex…

Land, Planning & Consents

Partner Alignment & Agreements

Regulatory Settlements

Large Capital Procurement

System Operator Arrangements

Technology & Technical Scope

Financing Approach

Stakeholder Engagement & Support

Business Case
The investment decision

Market driven Business Case + Productive partnership + Regulatory framework = Value for consumers Value for investors

What drives value?
- Energy prices
- Capital costs
- Penetration of Renewables
- Carbon prices
- Capacity Markets
- Demand Side Response

Who are we partnering with?
- Have we got the right balance in the partnership?
- Realise the benefits of partnership beyond the project

The market decides
- A regulatory wrapper not a regulated return
- Capped downside, minimum return guaranteed
- Capped upside, with a premium return
- The market – not the regulator – decides on project value!
What’s next?

North Sea Network?

EU Supergrid?

Illustration: EU Energy Network
Progressive Grid Development

Stage 1
- Individual dedicated grid assets

Stage 2
- Bilateral interconnections

Stage 3a
- Next-generation projects: known partners

Stage 3b
- Next-generation projects: anticipatory investments

Stage 4
- Fully integrated networks

Next-generation projects:
- Anticipatory investments
- Known partners

Individual dedicated grid assets
What do we need from policy makers?

- **Identify priority issues in Energy Union Proposals**
  - Reducing investor uncertainty is key
  - Market design review: price signals, transparency, and cross-border trade
  - Infrastructure and interconnections connect the 5 “dimensions”

- **Measures to accelerate project delivery**
  - New/candidate Projects of Common Interest
  - Connecting Europe Facility call frequency/schedule
  - Targeted funding for anticipatory investment

- **Regional focus for regulatory and MS cooperation**
  - Regulatory framework for stage 3a & 3b (and 4...ultimately!)
  - Market-driven investment framework
  - Balancing investor risk and consumer costs