5th Annual
Advanced Submarine Power Cable and Interconnection Forum

Enabling Technologies, Harnessing Innovation and Enhancing Cable Security to Reduce Costs, Risks and Increase Efficiency

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14th - 16th June 2016
NH Berlin Alexanderplatz, Berlin, Germany
Objective: to provide an overview of the GB regulatory environment for interconnectors, and highlight some challenges and successes to date.

- Overview of GB’s approach to interconnector development
- The cap and floor regulatory regime
- Our assessment of projects to date
- What comes next? Future GB regulatory developments
• Interconnectors can support all 3 areas of the ‘energy trilemma’ – affordability, security of supply and decarbonisation.

• GB currently has 4 interconnectors:
  o IFA (1986)
  o Moyle (2001)
  o Britned (2011)
  o EWIC (2012)

• Challenges to further development: cost, uncertainty in future energy policy, uncertainty in pricing and revenues, and others.

• Ofgem created the cap & floor regime to encourage investment in new electricity interconnectors.
Ofgem’s cap and floor regime was developed jointly with CREG for application to the Nemo project, a planned 1GW HVDC interconnector between GB and Belgium. In 2014 we extended the cap and floor regime to other new electricity interconnectors.

GB now has two clear routes for interconnector investment:

**Non-regulated model: Exemptions from Third Package requirements**

- Third Package came into effect in 2009 and places requirements on interconnector operators.
- Developers can apply for exemptions from certain conditions of European legislation.
- The only route to realise investment until 2014.
- Perceived to be risky → limited investment in IC capacity in GB

**Regulated model: Cap and floor regime**

- Cap and floor regime provides developers with a minimum return (floor) and a limit on the potential upside (cap).
- Open to range of potential developers.
- Potential for split or joint regulatory models – depending on regulatory approaches in connecting countries.
The cap and floor themselves are based on efficient costs, but act on revenues:

Cap and floor building blocks:
- allowed return
- tax
- decommissioning costs
- operations and maintenance costs
- capital costs

Cap:
- Payments to GB system operator
- +/- 2% availability incentive

Floor:
- Payments from GB system operator (subject to being at least 80% available)

5 assessment periods of 5 years (25 years total)
Cap and floor regime (II)

Three-stage regulatory assessment process:

**Initial Project Assessment (IPA)**
- Detailed CBA
- Impacts on GB and consumers
- Initial regulatory approval

**Final Project Assessment (FPA)**
- Assessment of project costs
- Final approval
- Provisional cap and floor levels set

**Post-construction review (PCR)**
- Assessment of opex
- Capex adjustment (if any)
- Final C&F levels set
Our assessment of projects to date

- We expect GB interconnection capacity to **increase from 4GW to 11GW+** by the early 2020s
  - 7.3-7.7GW of new projects, representing £6bn+ of investment, have been granted regulatory approval.
  - Projects estimated to have significant benefits for GB and for consumers.

- **Projects:**
  - Nemo Link (Belgium, 1GW).
  - ElecLink (France, 1GW) – regulatory exemption granted.
  - C+F Window 1 projects (5.3-5.7GW to Norway, France, Denmark and Ireland).
  - Approved projects expected to connect between 2019 and 2022.
What comes next?
Future GB developments

Cap and floor projects

• Second application window: open until 31 October 2016.
  • Application information available on Ofgem’s website.

• Final Project Assessment:
  • assessment of project costs, risk and procurement
  • final regulatory approval
  • provisional cap and floor levels set.

• Further ahead:
  • annual reporting of costs and progress throughout construction
  • post-construction review confirms the final cap and floor levels for each project.

Other regulatory developments

• Exemption route continues to be available to developers.

• Integrated offshore grids and ‘multiple-purpose projects’ (MPPs)?

• Considering non-GB generation links
  • Inter-governmental dialogue on connecting with Iceland.

• Addressing challenges for project delivery:
  • access to broad range of financing options
  • supply chain constraints
  • cross-border consistency and potential barriers to third party developers.
Any questions?

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