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Summary of responses to Ofgem and CREG's joint consultation on a cap and floor regime for regulation of project NEMO and future subsea interconnectors

Summary of responses

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Overview:

The joint consultation by GB energy regulator, Ofgem and Belgian regulator, CREG sought views on the principles and design parameters of a new cap and floor regime for regulation of new interconnector investment. The consultation focused on project NEMO, a proposed interconnector between Great Britain and Belgium, as a pilot project.

The consultation was published on the 28 June 2011 and closed on the 2 September 2011. Ofgem and CREG received 17 responses from interconnector owners, TSOs, and energy companies. The purpose of this paper is to summarise responses under four main areas: 1) high level principles 2) the cap and floor approach 3) design of the cap and floor and 4) process for evaluation of new interconnector investment projects in GB.

Context

The Energy Infrastructure Package¹ identified the need for further interconnection investment in Europe to support the integration of renewable energy, contribute to security of supply and allow the completion of the internal energy market. Also, the North Sea Countries Offshore Grid Initiative to which both the UK and Belgian Governments have committed, aims to develop an integrated offshore energy grid across the North Seas of Europe, with interconnection playing a vital role for the delivery of this vision. For CREG and Ofgem, the proposed cap and floor regime for regulated interconnector investment and the realisation of an interconnector between the two countries (Project NEMO) is a major step in that direction.

In addition, Ofgem envisages that this regime could develop into an enduring regime, co-exist alongside the merchant-exempt route and facilitate further interconnector investment in Great Britain, which currently has limited interconnection capacity with other markets. This work has links with several projects currently being conducted by Ofgem including RIIO, the Offshore Transmission Owner (OFTO) regime, Projects Transmit and Liquidity, as well as regulated Third Party Access (rTPA) for LNG storage.

The joint consultation sought stakeholders' views on the proposed regulated cap and floor regime for project NEMO. From a GB perspective, Ofgem also sought views on the intention to develop this into an enduring regime for interconnector investment and on the process and requirements for evaluation of future projects.

¹[http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=SPLIT_COM:2010:0677\(01\):FIN:EN:PDF](http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=SPLIT_COM:2010:0677(01):FIN:EN:PDF)

Associated documents

Cap and floor regime for regulation of project NEMO and future subsea interconnectors, June 2011:

<http://www.ofgem.gov.uk/Europe/Documents1/Cap%20and%20floor%20regime%20for%20regulation%20of%20new%20subsea%20interconnector%20investment5.pdf>

Electricity Interconnector Policy Consultation, January 2010:

<http://www.ofgem.gov.uk/Europe/Documents1/Interconnector%20policy%20consultation.pdf>

Open Letter on next steps from Ofgem's consultation on electricity interconnector policy, September 2010:

<http://www.ofgem.gov.uk/Europe/Documents1/Ofgem%20next%20steps%20letter.pdf>

Ofgem's summary of responses to the consultation on electricity interconnector policy, September 2010:

<http://www.ofgem.gov.uk/Europe/Documents1/Summary%20of%20Responses%20from%20Electricity%20Interconnector%20policy.pdf>

Energy Infrastructure Package, January 2011:

[http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=SPLIT_COM:2010:0677\(01\):FIN:EN:PDF](http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=SPLIT_COM:2010:0677(01):FIN:EN:PDF)

National Grid, Rte, Elia consultation, Interconnection in North West Europe:

<http://www.nationalgrid.com/uk/Interconnectors/France/consultations/>

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1. Consultation respondents

We received responses from a range of interconnector owners, TSOs and energy and transmission companies. No responses were received from consumer representatives. Below is a full list of those who responded:

- Amprion
- BritNed
- Centrica
- EDF Energy / SPE luminus
- EirGrid
- Elia
- E.ON
- Interconnector (UK)
- National Grid
- NorthConnect
- RTE
- RWE
- SSE
- Statnett
- Tennet
- Transmission Capital
- 50hertz

2. Responses to questions

High level principles

Question 3.1: Do you agree with the principles of the regulated regime we have identified?

Developers should be exposed to the market's valuation of interconnector capacity

1.1. Most respondents agreed with this first principle, suggesting that in general this should support efficiency and minimise the need for financial support from consumers.

1.2. Among those who raised concerns, respondents tended to focus on the importance of recognising and maximising the wider social benefits of interconnectors, which may not be accounted for in the market valuation. Some noted the perverse incentives to build links with capacity below the socially optimal level. Others suggested that factors such as Ten Year Network Development Plans (TYNDPs), the potential for a North Seas Grid, and the need for onshore grid reinforcement should also be considered. It was also noted that increasing levels of interconnection leading to price convergence would necessarily require a reduction in exposure to the market valuation, with movement towards a regulated regime.

1.3. It was recognised that there would be a need to strike the right balance between the protection of consumers' interests and the delivery of appropriate incentives to develop new interconnectors.

Consumers should be protected from the cost implications of excessive returns or market power that might accrue to interconnector owners

1.4. All those who commented agreed with this second principle, emphasising that consumers should receive protection if they are in turn providing protection to developers through the floor. However, some respondents reinforced the need to balance this with appropriate risk-reflective returns for developers, the equitable sharing of risk between developers and users, and the need to maintain appropriate incentives for developers.

Developers should be able to earn returns that are commensurate with the levels of risk they are exposed to under the regulatory framework

1.5. All those who commented supported this principle, noting that the National Regulatory Authorities (NRAs) involved must work together to ensure risks are shared appropriately, taking into account factors such as the intrinsic business risk and the strategic importance of the project.

Regulatory treatment of developers should be coordinated between NRAs at either end of the shared asset

1.6. Among those who commented, all were in favour of this principle.

1.7. Among the additional comments made, one respondent asked for the principle to be broadened to require NRAs to coordinate their approach not just for individual projects but also for market interfaces (for example between the Great Britain (GB) and Central Western Europe (CWE) regions). This was felt to be necessary to avoid regulated projects 'crowding out' more market-based initiatives.

(For GB only and new interconnector developments) Regulatory treatment should allow third party developers and should be impartial and unbiased between Transmission System Operators (TSOs) and non-TSO developers, existing and future developers

1.8. All those who commented supported this principle, on the basis that the creation of a level playing field would support competition and efficiency.

1.9. Respondents made a range of comments on potential barriers for TSO/non-TSO developers. Two respondents emphasized the financing constraints faced by TSOs for the development of priority infrastructure projects, suggesting that involvement from non-TSO developers would be particularly important in light of this. Another argued that it would be important to ensure that unbundling provisions do not limit the involvement of wholesale market participants who are able to bring important market knowledge to projects.

1.10. A small number of respondents also commented on the need to create a level playing field with existing interconnectors, by allowing the possibility for them to move to the new regulated cap and floor regime.

Question 3.2: Are there any other principles that should underpin the new regime?

1.11. While some respondents reiterated the importance of the principles proposed in the consultation, the majority of respondents did not propose additional principles. Among those who did, the following were supported:

- Recognition of the value of wider benefits, such as security of supply and facilitation of renewables.
- Development coordinated with the aim of cost optimisation for the global electricity network.
- Explicit objective to increase cross border trade.
- Maximum physical capacity to be made available (or some form of availability incentive).

The cap and floor approach

Question 4.1: Is the cap and floor model the right approach to meet the principles of the new regulated investment regime for sub-sea interconnection? Are there any alternative approaches that we should be considering?

1.12. All respondents answered this question. The majority voiced support for a cap and floor regime. It was highlighted that one of the interesting features of the cap and floor approach is that by suitable selection of the design parameters it is possible to replicate virtually every other approach to interconnector regulation. Others noted that the cap and floor model meets the identified principles, brings the GB regime closer to the other regimes in Europe and Norway, and bridges the need for appropriate incentives with the wish to avoid exemptions.

1.13. A minority qualified their support for the cap and floor regime by suggesting that alternative approaches, such as focusing more on the wider social benefits, may also be appropriate. Some respondents asked that the approach be developed on a project by project basis. Others suggested alternative approaches may appropriate in the future. Further detail on this may be found in the summary of responses to question 6.1.

1.14. Two respondents favoured a fully regulated approach on the basis that it was felt to better meet European requirements. One favoured a fully merchant option, suggesting that this approach has delivered appropriately to date.

Question 4.2: Do you see benefits in introducing a cap and floor regime with profit sharing arrangements? Do you have views on how a profit sharing approach could work?

1.15. Among those who responded, there were mixed views. Around half were against profit sharing within the cap and floor. Reasons given for this included concerns that it would add unnecessary complexity, and transfer risks to the consumer that could better be managed by developers. Some also noted that it would be a step further away from the merchant approach.

1.16. Two respondents were in favour of profit sharing within the cap and floor. Reasons given included reduced volatility of returns for investors, greater alignment of interests between investors and consumers, more targeted allocation of risk and reward, and greater incentives for operational efficiency when the caps are low and the floors are high. Two respondents were in favour of profit sharing above the cap and below the floor. It was felt that in this way, profit sharing could address the lack of incentives when caps and floors are reached. A further two respondents felt that profit sharing above the cap and below the floor might be appropriate, for instance where income frequently reaches the cap.

Question 4.3: Do you agree with the potential risks of the new regime identified? Are there any other risks or issues we should be taking into account? Are there other risks or issues we should be taking into account?

1.17. A majority of respondents agreed with the potential risks.

1.18. Respondents generally agreed with the observation that risks arise when the cap or the floor is activated, or is close to activation. Suggested solutions to this included allowing a wide cap and floor and introducing profit sharing within the cap and floor. Two respondents suggested that a fully regulated regime could remove these risks.

1.19. Another respondent was more optimistic that risks would be less severe where the floor is activated or is close to being activated, due to the anticipation of reputational damage where the interconnector operator is engaging in undesirable behaviours. This was felt to be of increasing relevance as more interconnectors come into commercial operation, affording users greater choice.

Lack of incentives to keep availability at a high level

1.20. Respondents considered this to be a significant risk. One respondent considered it to be a particularly significant risk above the cap, since capacity is by definition more valuable when the cap is reached. Another noted that the risk of the operator offering a capacity that is lower than technically available also exists within the cap and floor: in some cases, capacity retention could lead to an increase in price spreads and therefore higher revenues.

1.21. Among the suggestions for how this risk could be addressed, both explicit incentives on availability, and profit sharing arrangements above the cap were frequently mentioned.

Incentives to allocate costs inconsistently

1.22. There were mixed views on the risks of inconsistent cost allocation, although comments tended to focus on the inconsistent allocation of costs across onshore and offshore assets.

1.23. Some respondents felt that these risks could be mitigated through appropriate design, for instance using revenues to define the cap and floor rather than some measure of profitability. Another felt that consistent cost allocation could be ensured through the creation of a separate legal entity for the interconnector with transparent and auditable cost and revenue allocation.

1.24. One respondent felt the severity of the risk to be reduced in those cases where the parties involved in the development have interests focused on one side of the link. In these cases it was suggested that each investor would tend to scrutinise and self-police cost allocations by their partners in order to avoid unfavourable cost sharing.

Additional risks

1.25. A small number of additional risks were raised by respondents. These included, among others, the concern that the International Financial Reporting Standards (IFRS) currently do not prescribe a defined way of treating regulated assets and liabilities. On this basis it was felt that regulators would need to pay special attention to the accounting treatment of interconnectors.

Design of the cap and floor

Question 5.1: Do you agree with the proposed design parameters of the cap and floor mechanism? Are there any other parameters we should be taking into account when designing the cap and floor mechanism?

1.26. Around half of respondents answered this question, and among these all were in support of the proposed design parameters. Respondents generally felt the proposed parameters to be comprehensive.

1.27. A range of suggestions were made for additional parameters but these have been incorporated elsewhere in this document, on the basis that they were not felt to be cap and floor design parameters. Alternatively some were considered to be subsets of parameters already suggested.

Question 5.2: Do you have a preference for the options presented under each parameter? Do you have a preferred combination or straw man proposal for a cap and floor design?

How long does the cap and floor regime persist for?

1.28. Just over half of respondents offered a view on this question. Among these, some supported a duration based on the lifetime of the interconnector asset. Reasons given for this included the greater investment certainty provided, particularly in the face of risks that continue after financing finishes, e.g. auction revenues, and compliance with European Union (EU) electricity regulation requirements.

1.29. There was little support for the lifetime of financing approach. A range of concerns were identified, with some respondents arguing that some of the key uncertainties and risks continue beyond the lifetime of financing. Another did not feel it would be a good approach since the lifetime of financing depends on the choice of financing options and the behaviour of the financial markets. Only one respondent supported it on the basis that it would maintain simplicity through a short duration, avoiding complex provisions for unforeseen circumstances. One respondent supported a hybrid model whereby the cap and floor is aligned with the duration of the financing period (i.e. the period over which the debt is expected to be repaid, plus an additional period to allow for debts to be rescheduled).

1.30. There was some support for the project commercial lifetime, understood as the life of the asset prior to refurbishment. Reasons given for supporting this included the wish to ensure arrangements would be consistent with project financing timetables, and to avoid making assumptions about conditions that are too long-term and uncertain to incorporate in the business plan.

1.31. Under a project lifetime (or lifetime of financing) approach, the key question is what arrangements should be put in place after the regime. Some respondents suggested the asset be returned to the regulated asset base of the TSO. Another felt that any further asset-life should be addressed by subsequent regulatory regimes when better information is known.

What is the cap and floor levied on?

1.32. Among respondents that answered this question, there was support for a revenues model. This was seen by respondents as simpler, capable of mitigating the risks of inconsistent cost allocation and of increasing the incentives to control operating costs, allowing interconnector operators (ICOs) to be financially responsible for risks within their control.

1.33. Some had a preference for the cap and floor to be levied on an internal rate of return (IRR) basis. Reasons for this included ease of comparison with the original investment decision and consistency with the framework for BritNed. One respondent felt that IRR would be appropriate if ICOs are expected to take substantial market risks that are beyond their control, but that generally under IRR there would be reduced incentives to control operating costs.

1.34. A profit approach was not felt to be preferable on the basis that it would be the most complex system, entirely dependent on how different companies choose to record and report accounting information. There was concern that this approach would be less transparent, leading to greater difficulty in monitoring costs.

How often is performance assessed against the cap and floor?

1.35. Among those who responded, there was some support for periodic assessments. Suggestions included a 4-6 year assessment, and early year assessment following a defined trigger event. It was felt that a periodic approach could help balance the needs of developers and consumers. Two respondents made the more general comment that there should be long assessment periods. This was suggested to lead to fewer opportunities for re-openers, increasing regulatory certainty and providing access to cheaper debt.

1.36. Some supported yearly assessments. Reasons given for this included the wish to reduce risks for investors and lenders, in part through ensuring that large

surpluses and deficits have less time to develop, to be consistent with the framework of RIIO-T², and to align with accounts and with the setting of tariffs.

1.37. No respondents supported one-off assessments.

How is the assessment for each period treated?

1.38. Under half of respondents answered this question. Among those who did, there were mixed views on whether assessments should be done on a cumulative or discrete basis. There was some support for cumulative assessments on the basis that this was seen as the best means of relating outturn to the original investment case, reducing the probability of triggering caps and floors.

1.39. Among those who supported a discrete approach, reasons given included project bankability. It was felt that a discrete approach would guarantee a certain level of revenue to service debt.

1.40. One respondent felt that there could be scope for imposing a mixed approach, with discrete assessment taking precedence to ensure it is possible to finance the project, and a cumulative element to allow early excess revenues to be paid back in the event of improved performance.

Are the caps and floors reset?

1.41. Among those who responded to this question, the majority favoured setting the cap and floor on a one-off basis. This was predominantly due to a wish to provide investor certainty, and minimise the negative impact of risk on the cost of capital. A number of respondents felt it would be reasonable to allow resetting in exceptional circumstances.

1.42. A small number of respondents felt that it should be reset periodically. It was suggested that factors such as rising interconnector capacity and changing government policy might necessitate resetting the caps and floors. It was also suggested that under the IRR approach, with changing assumptions over time, there might be a need to periodically adjust parameters.

1.43. Among the small number who noted a preference for whether the cap and floor should be set on an ex-ante or ex-post basis, all were in favour of ex-ante, with the cap and floor set in advance of the investment decision. It was felt that this could provide more regulatory certainty.

² For further information please see:

<http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/Pages/RIIO-T1.aspx>

Does the cap and floor level change over time or remain constant?

1.44. The majority of respondents who answered this question felt that the cap and floor level should remain constant. All of these respondents also favoured setting the cap and floor on a one-off basis. It was felt that a variable cap and floor could increase risks and therefore the cost of capital. It was also suggested that competing and contradictory pressures may make the variable levels complex to set. The only respondent who favoured a variable cap and floor also favoured periodic resetting.

If the IRR approach is used, how is the project value determined?

1.45. Among the small number of respondents who commented on this, there were mixed views. Two felt that the depreciated asset method for calculating project value would be preferable on the basis that it would not require the prediction of future expected cash flows, which might increase uncertainty and risk. One respondent had a preference for the project value to be determined through the expected value of the asset, on the basis that it would be more directly comparable with the original investment decision, supporting transparency and minimising risks of diverging behaviours.

Distance between the cap and floor?

1.46. Among those who commented, the majority felt there should be a wide distance between the cap and floor. Reasons given for this included the wish to allow market conditions to largely determine return, the wish to maximise potential for third party financing, and the desire to maintain incentives for efficiency and innovation. A minority felt it should be narrow. Reasons given were that this would remove the economic incentive to undersize the assets and it would allow the project to be financed at a low cost of capital.

Approach to symmetry for the cap and floor?

1.47. Around half of respondents offered views on this question. The majority felt that the cap and floor should be symmetrical on the basis that this was considered to be the fairest and most appropriate way of setting it. One respondent commented that a necessary consideration would need to be whether the cap and floor is 'centred' around the expected value of the project or on its breakeven point, in turn influencing returns.

Treatment of revenues within the cap and floor?

1.48. Respondents were generally against profit sharing within the cap and floor. For further detail please see answer to 4.2.

Any additional incentives?

1.49. There were mixed views among respondents. Please see 5.3 below for further detail.

Question 5.3: Do you think additional incentives should be introduced to encourage desirable outcomes under the regime?

1.50. Around half of those who responded supported some form of additional incentive, with particular support for availability incentives. One reason given for this was the need to avoid the cap becoming a revenue target. There was also support for some form of performance incentive, potentially for both under and over performance. One respondent felt that incentives or obligations would be appropriate to support availability and efficient link location. It was felt among some respondents that profit sharing above the cap and below the floor would be sufficient to address the lack of incentives.

1.51. One respondent did not support any form of incentive, suggesting the cap and floor would be sufficient. Another respondent felt that additional incentives may not be appropriate in the first 5-10 years of operation due to increased risk profile and associated higher financing costs.

Process for evaluation of new interconnector investment projects in GB

Question 6.1: Do you agree with Ofgem's intention to use the cap and floor regime for future sub-sea DC interconnection in GB?

1.52. Over half of respondents answered this question. The majority supported developing the cap and floor model into an enduring GB regime that could be applied to future projects. It was felt to be a good model with the potential to minimise regulatory barriers and to share costs and benefits appropriately.

1.53. A number of respondents highlighted that the success of an enduring cap and floor regime would rely on the parameters being set appropriately. Respondents described the need to develop the parameters for the cap and floor on a case-by-case basis to take account of both the economic context and risk profile of each project, as well as the regulatory model at the non-British end of the interconnectors.

1.54. Some respondents felt that in the longer term a cap and floor regime may need to evolve towards a more regulated approach. Reasons for this included increasing levels of interconnection between GB and other markets which may result in price convergence, ambitions for a North Seas grid, and the recognition that future applicability may depend on the extent to which NRAs can reach a common view on regulatory frameworks.

Question 6.2: Are there any key issues Ofgem should be taking into account when developing the process for evaluating new projects?

1.55. Respondents felt it important to build regulatory certainty into the process for evaluating interconnector projects. It was suggested that regulatory evaluation of projects should be undertaken at an early stage, defining any necessary conditions on cost before significant capital investment takes place. It was also suggested that there be a defined means of choosing between projects, such as incentivising those with a greater public benefit by offering a higher floor return. Another suggestion was to allow some capacity to be sold prior to construction for projects where the level of demand may otherwise be difficult to demonstrate to investors.

1.56. Some respondents emphasised that the process for evaluating new projects should maintain equity across different generations of interconnectors. It was suggested that with the development of new projects, attention should be paid to the potential for adverse impacts on existing GB interconnectors.

1.57. In response to questions 3.1 and 3.2, respondents described the importance of taking into account wider social benefits, and development plans. These respondents requested that such considerations be taken into account when evaluating new projects and that the siting of links be co-ordinated with relevant parties.


General comments

1.58. A range of general comments were also made in response to the consultation. Many have been incorporated into the summaries above where appropriate, but the key themes emerging from the remaining comments will be briefly summarised here.

1.59. A number of respondents emphasised the need for coordination at European level. This included the need for coordination both between NRAs at link-ends, particularly where NRAs decide to apply different regulatory arrangements, and in discussing the GB approach with bodies such as the European Commission to reduce regulatory risk.

1.60. There was some discussion of how any changes would affect licensing. One respondent felt that licences should be streamlined such that all transmission activities sit under the same licence with specific conditions turned on or off as appropriate, as this would support efficiency. It was also suggested that the licence should not be geographically limited. Another respondent felt that it would not be appropriate to retrospectively change interconnector licences, and any changes should be forward-looking. Another felt that an important aspect of the regulatory framework would be consistency between the interconnector licence conditions in the connected member states.

1.61. A number of respondents discussed cost allocation. One noted the careful consideration necessary in deciding how payments to and from transmission system users should be split across the countries at either end of the interconnector.



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Another suggested that asymmetric splitting of costs may have an impact on the interactions between the respective NRAs.

1.62. A further respondent commented on the need to identify arrangements for dealing with financial stress and bankruptcy within the proposals for a cap and floor regime.