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15 November 2013  
Our Reference NG/LAD

Dear Helen,

**Response to “Proposed interest during construction approach for offshore transmission and Project Nemo”**

Please find attached a joint response from National Grid and Elia, the Project Nemo developers, to the above consultation.

Yours sincerely

A handwritten signature in black ink, appearing to read 'LAD', with a stylized flourish at the end.

Lewis Dale

Cc: Paul Johnson  
Mark Pearce  
Paul Whittaker

## **Response to “Proposed interest during construction approach for offshore transmission and Project Nemo”**

This response is from the Project NEMO developers Elia and National Grid Business Development:

- Elia is Belgium's Transmission System Operator. The Elia Group owns all of Belgium's 150 to 380 kV grid infrastructure and 94% of the 30 to 70 kV network. Elia's transmission grid infrastructure forms a key connection between France and the markets of Northern Europe. It includes the Belgian end of interconnections between countries and extends to future transmission infrastructure in marine areas under Belgian jurisdiction. The Belgian activity is separately regulated from Elia's interests in the German transmission system.
- National Grid Business Development is responsible for existing electricity interconnectors owned by National Grid plc and the development of new interconnection projects. As well as Project Nemo, National Grid's interconnector interests include the British part of the England France Interconnector (IFA) and a 50% share of the BritNed link jointly owned with Tennet in the Netherlands. National Grid's interconnector activities are ring-fenced from National Grid Electricity Transmission (NGET) and Project Nemo has acquired connection agreements with NGET through the same connection process as other users.

### **Project Nemo**

Project Nemo is a proposed link between Belgium and Great Britain of about 1000MW which has been designed (comprising the selection of technologies, cable route and connection arrangements) such that its expected sales revenues justify the link costs and when taken together with the wider benefits to consumers and the market will make this project strongly beneficial. Given our confidence in our design and ability to successfully deliver a valuable service, we are willing to take exposure to the costs we can control and also to the revenues that will result from providing services to link customers under current market arrangements. In this way, consumers in Belgium and GB would be protected from many of the cost and risks associated with this project but still benefit substantially from the net improvement in social welfare, enhancements to energy market competition and strengthened security and quality of supply.

### **General Approach**

To protect consumers and the project developers from potential policy related impacts, the cap and floor approach to regulating interconnectors shares any unexpectedly high sales revenues with transmission charge-payers in return for an underwriting of the project in the case of unexpected low revenues. Ofgem and CREG have proposed that the cap and floor revenue levels are determined with reference to the efficient investment and operating costs for the link. The financing costs for the investment are calculated using a project specific regulatory asset value (RAV) which will reflect the total investment including the time value of money given that development costs are incurred before operation.

Given the impacts of both cap and floor, it is important that the project RAV should fully reflect the efficient capital cost of establishing the interconnector capacity, including the financing costs during construction, otherwise there would be systematic ex-ante bias against interconnection investments despite important net social welfare benefits. We are pleased that Ofgem and their consultants have recognised and distinguished between the different risk aspects of Project Nemo and offshore transmission projects.

**Q1: Is the use of WACC and CAPM appropriate for calculating IDC here?**

The Nemo project developers continue to support the use of CAPM as the methodology for assessing the returns required by investors and we appreciate the transparency this approach brings to determining proposed IDC values.

We have some comments on certain details of the proposed approach, as follows:

- a) The proposals state that Nemo's allowed IDC return will be determined on a real vanilla (i.e. post-tax) basis. We would appreciate some details on how inflation will be measured and applied to determine the RAV value from the actual incidence of capital expenditure.
- b) In para 2.2 the proposals state the cost of debt for Nemo will be determined from BBB rated bonds (as per the earlier consultation). However, in para 3.9 footnote 8 there is reference to using BBB and A rated bonds. We agree with the proposal in para 2.2 (to use only BBB rated bonds) rather than that in para 3.9, and this appears to be the approach adopted for the illustrative values in Table 2.
- c) Table 2 in the consultation appears to suggest use of a geometric mean value of ERP (see the notes for item F in the table). This is contrary to the earlier Nemo cap and floor consultation (see para 3.42 of the March 2013 consultation) which noted that the arithmetic mean is generally used when evaluating cash flows and so appears appropriate and gives a higher numerical value than a geometric mean. Unless there is a good methodological reason for this change we would prefer the arithmetic mean. However, page 23 of the Grant Thornton report suggests that the 4.4% figure which appears in the Ofgem consultation at Table 2 may in fact be an arithmetic mean rather than a geometric mean, so the use of the word "geometric" in the table may be a typographical error.
- d) More fundamentally, there is evidence that Total Equity Market Return (TMR) is more stable over time than its components, the risk free rate (RFR) and equity risk premium (ERP). Consequently, and as previously recognised by Ofgem and others, in applying CAPM it is more reliable to calculate ERP from TMR and RFR, rather than to use values of ERP and RFR that are derived from different data sources or covering different timescales<sup>1</sup>. It would be preferable for the value of ERP that is used for these IDC calculations to be obtained by subtracting the chosen estimate of RFR from the more stable value of TMR (around 7% for World Index in the Credit Suisse Global Investment Returns Sourcebook 2012).
- e) We think it would also be good methodological practice to deflate the observed nominal bond yields in the 20 day period near FID (item B in Table 2) with an appropriate inflation index specific to that period, i.e. the average 10 year break-even inflation during those 20 days, rather than use the 10 year average referenced in Table 2 footnote 11.
- f) If the real RFR is to be calculated from a nominal value of risk free rate (item D in Table 2) by adjusting for inflation, the inflation figure used for this calculation also needs to be an appropriate average, which in this case would be the average over the past 10 years of the monthly values of break-even inflation for 10 year gilts.

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<sup>1</sup> The total market return of around 5% implied by the values of RFR and ERP in Table 2 of the consultation (0.58% and 4.40% respectively) is anomalously low.

- g) We have been unable to reproduce the 3.3% value of “expected” inflation in Table 2 (Parameter A), although we understand it is only illustrative and will be updated close to FID.

For the avoidance of doubt, the Nemo developers accept the proposed use of short-term average cost of debt values consistent with those accessible in the financial markets at the time of FID (although we suggest there may need to be a safeguard so that any atypical market conditions that might affect a major proportion of a 20 day period can be avoided). Our points above mainly refer to the need to keep to best practice CAPM methodology and thereby avoid any suspicion that methodological choices have been selected purely to obtain low IDC rates.

**Q2: Is our minded-to approach to accounting for risk bias for offshore transmission and Nemo appropriate?**

The proposed treatment of construction risks by means of uplifting the IDC rate for Project Nemo appears a reasonable and pragmatic approach.

Although we appreciate the objective data driven approach followed by Grant Thornton, there is a risk that use of the available data on PFI projects, which may be expected to be less risky/more proven than a new technology interconnector, may have resulted in an underestimate of the appropriate IDC uplifts. Similarly, Grant Thornton’s dismissal of hurdle rate information on the basis of its inconsistency with CAPM derived required returns, while consistent with keeping to objective data, may also have contributed to a downward bias on IDC rates.

**Q3: Do you agree with our minded-to approach of applying the IDC cap and rate for offshore transmission and Nemo?**

Subject to the methodological improvements noted above, the Nemo developers agree with the minded-to approach for applying the IDC rate to Project Nemo. Although we think there is a risk that the resulting IDC rate may be biased to the low side (potentially discouraging discretionary investment in beneficial infrastructure) we recognise that the materiality of such a bias is likely to be low compared to other issues especially the choice of parameters determining the range of permitted overall project returns (for example, the specific generator comparator setting the maximum project return, the manner in which the average return for that comparator is translated into a restriction on achievable project returns for Nemo, and the parameters of the proposed availability adjustment). Subject to satisfactory values which determine the achievable average project return and the methodological improvements identified above, we can accept the proposed IDC methodology as part of the Nemo regulatory package.

NG/LAD + Elia/BG 15 November 2013.