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Dear Kate,

Response to consultation on methodology for calculating interest during construction for Offshore Transmission networks and Interconnectors (IDC Review)

GridLink interconnector is developing a new 1400MW interconnector between the United Kingdom and France, in January 2018 the project was awarded a Cap & Floor scheme. As such, interest during construction ("IDC") for the GridLink interconnector will be calculated under the new methodology. We thank you for inviting us to contribute to the consultation on this subject. This response is not confidential.

The specific questions respondents are requested to address are:

1. Do you agree with aligning our approaches to the setting of IDC to ensure consistent application across these network assets?
2. Do you agree with the alternative methodology proposed by CEPA?
3. Do you agree with our minded to position to use the mid-point in the ranges produced by CEPA for OFTO's and ICs?
4. Is there anything else we should consider when making our final decision?

Our response is as follows:

1. Investment Horizon

The duration of the investment horizon is a common theme in the determination of the risk-free rate, Total Market Return ("TMR") and the benchmark cost of debt. In its report CEPA recognise a 3-5 year construction period for offshore infrastructure projects and focus on a 5-year tenure for the associated calculations. Given a typical development period for interconnectors of 3-4 years and a construction period of 3-5 years, the length of the investment period is much closer to the existing 10-year horizon than the 5-year tenor period proposed. As such, the tenor referenced for the risk free rate, TMR and cost of debt should at least reflect the investment horizon.

It should be noted that in determining the IDC for the NEMO project, Ofgem make reference to a 10-year tenure across parameters. In addition to this, Ofgem continue to consider an investment horizon comprising both the development and construction periods stating that "*IDC is accrued on the actual cash flow when payments are made against the contracts for developing and constructing the transmission assets.*"



2. Benchmarking – Cost of Debt

Benchmarks are by definition a proxy and do not reflect realised costs. In its circular entitled *"Enabling a range of financing solutions under the cap and floor regime"*¹, Ofgem recognise this difference and state that in order to provide greater certainty to developers, consideration would be taken to using an actual rather than benchmarked cost of debt.

It is our opinion that the proposed approach is appropriate and should be adopted where a developer is able to demonstrate an actual cost of debt by reference to a competitive process. In instances where such supporting evidence is unavailable, reference to a cost of debt benchmark is better suited.

3. Interest During Construction and Interest During Operation

Construction and Operations are entirely distinct phases with different associated risks and timeframes. Consequently, Ofgem's proposal to treat IDC and interest during operations as separate phases and adopt a different calculation basis for each is considered appropriate.

4. Annual review of interest rates

The proposal to determine IDC for Window 2 projects on an annual basis is considered unsuitable and unduly introduces additional uncertainty for development projects. Development risk associated with interconnector projects is considerable and as such developers seek to reduce risk exposures where possible. In the case of interest rate risk during the construction phase, industry practice is to fix rates at financial close in order to avoid significant cost variations due to rate volatility. The approach to setting IDC should match this.

Under the framework adopted for Window 1 interconnectors, IDC was determined and fixed at the date of the Final Investment Decision ("FID"). We consider this to be an appropriate approach, better allowing developers to manage risks and see no reason for a change in the methodology. It should also be noted that this opinion has been communicated previously to Ofgem by respondents of the previous consultation on IDC for the NEMO project².

5. IDC Calculation Period

Reference to the commercial operations date when determining the IDC calculation period risks undercompensating developers for the full value of construction contracts. In order to accurately reflect construction costs, the date at which IDC should be calculated until should be extended to properly account for payments retained until after commercial operations, as per standard construction contracts.

Construction contracts typically contain a provision which allows for the retention of a portion of the total contract payment until after an asset is available for use. This portion, typically c.10% can be retained for 3-6 months post commercial operations. It is also not uncommon to see a further retention of c.5% for the 2-year warranty period following the commercial operations date. Similarly, if a contractor fails to deliver the contracted transmission capacity, the payment which would otherwise have been made at the commercial operations date is retained until the asset is available for use (or damages paid).

In order to reflect the above in the calculation period, we consider the retention of 10% of the total construction contract value for at least 6-months following commercial operations to be an appropriate approach.

¹ https://www.ofgem.gov.uk/sites/default/files/docs/cap_and_floor_regime_variations_open_letter.pdf

² Proposed interest during construction approach for offshore transmission and Project NEMO dated 18 October 2013.

6. Benchmark Cost of Debt

The principal changes to the current methodology are:

- A reduction in the tenor of the debt benchmarks (currently 10-year corporate A and BBB rated bonds) to align with the construction period of the particular project
- Including construction and engineering companies in the comparator index
- Switching from a two-year trailing average yield to a shorter-term average (one year or spot)

Benchmark tenor

A reduction in the tenor of cost of debt benchmarks is considered inappropriate. As per the Ofgem definition, the investment horizon comprises both the development and construction periods which in practice last c.8-10 years. As such, the tenor of the debt benchmark should at least reflect the investment horizon.

The use of a 5-year benchmark tenor also implies that construction financing is utilised during the construction phase only (5 years according to CEPA) and refinanced on improved terms once commercial operations are reached. In practice, construction financing will likely incorporate a 2-3 year amortization tail following commercial operations. Any subsequent refinancing will also be based upon adequate historic financial and operating metrics, both of which will not be available at the date of commercial operations. As such, maintaining the 10-year tenor for the benchmark cost of debt better reflects the commercial environment interconnector developers operate within.

Credit Rating

In assigning a cost of debt, the CEPA proposed methodology places more weight on BBB rated debt to reflect risks during construction. Whilst this approach recognises some of the risks during construction it is not sufficient in compensating developers in line with the commercial terms likely offered by lenders during the construction phase.

In their review, CEPA state that the *'qualitative features of each regulatory regime would provide a reasonable basis for assuming a cost of debt equivalent with an investment grade rating during the construction period'*. In practice however, development projects during the construction phase and the initial years following commercial operations will likely fall short of business and financial risk metrics that ratings agencies will use to assign an investment grade rating. As a result, Ofgem should consider reference to a lower credit rating.

Comparator Index

The introduction of an infrastructure index calculation comprised of construction and engineering companies is considered a suitable change to the current methodology. This approach better aligns cost of debt expectations to the commercial terms witnessed specifically by infrastructure developers vs. a pool of integrated utilities.

Calculation Methodology

The proposed switch from a two-year trailing average cost of debt calculation to a shorter-term average may place too great an emphasis on short-term market rate volatility. As a result, this approach may fail to accurately capture the prevailing market conditions when determining the cost of debt for developers. A two-year trailing average however has the benefit of smoothing out short term fluctuations in interest rates.

7. Risk Free Rate

The current methodology determines the risk-free rate based on UK government bonds (gilts) using a ten-year trailing average. For the same reasons cited above in respect of changing the methodology for calculating the Benchmark Cost of Debt Ofgem propose to:

- Reduce the tenor of the bonds to align with the construction period of the particular project; and
- Switch from a two-year trailing average yield to a shorter-term average (one year or spot)

Risk Free Rate Tenor

As mentioned above, Ofgem state that “*IDC is accrued on the actual cash flow when payments are made against the contracts for developing and constructing the transmission assets*”. As such, we would recommend setting the tenor to closely match the length of both the construction and development period and suggest a tenor of 10 years to be more appropriate.

Calculation Methodology

In line with the argument presented regarding the cost of debt calculation, a one-year spot rate may place excess weight on the short-term risk horizon or volatility within the market. The adoption of a two-year trailing average smooths out short-term market fluctuations at the time of determining the risk-free rate.

8. Total Market Return

Under the current methodology, Total Market Return (“**TMR**”) is determined by taking an average of historic values as published in the annual Credit Suisse Global Investment Returns Yearbook authored by Dimson, Marsh and Staunton (“**DMS**”). This yearbook reports historic returns over 23 global stock and bond markets dating back to 1900. In the context of other measures lacking subjectivity, the generally accepted approach of UK regulators (as therefore the reasonable expectation of investors) has been for the use of arithmetic measures of TMR derived from historical values.

In its report CEPA points out that the current DMS approach utilises historic returns and contends that these may not reflect future performance. CEPA points to alternate models such as the Dividend Growth Model (“**DGM**”) which it suggests is forward looking. Several organisations have sought to produce estimates of the total market return using the DGM and, as evident from Table 3.1 and Figure 6.2 of the CEPA report, each produce significantly different results reflecting the subjectivity involved in such estimates.

CEPA argue that historic returns (using the DMS system) are better at forecasting long term returns and that the DGM system is a better predictor of short term market performance. Hence, given a construction period of up to 5 years, the DGM system should be a better indicator for developers.

DGM's failures as a reliable statistical model are well documented. For example, Europe Economics advising Ofwat in the context of PR09 commented on “*a number of problems with the [DGM] which mean that estimates derived from this approach need to be treated with caution, even as crosschecks*” and then went on to quote Ben McClure's article “*Digging into the [DGM]*” who outlined that the DGM “*requires an enormous amount of speculation in trying to forecast future dividends ... The model is subject to the axiom 'garbage in, garbage out', meaning that a model is only as good as the assumptions it is based upon. Furthermore, the inputs that produce valuations are always changing and susceptible to error.*”

Observations that are then made from DGM derived data are not conclusive, and quite differing views are just as easily reached. Further, as Wright and Smithers remarked in advice to Ofgem in 2014, “*... it is impossible to make any clear-cut inference about the cost of equity based on just a few years' returns*”. This would suggest that CEPA's contentions in relation to short term returns along with their applicability to developers is flawed.

It is our opinion that Ofgem has set out insufficient detail of the DGM model, the parameters to be used and has not considered the substantial issues with the DGM's highly subjective approach (including in regard to regulatory consistency). We therefore recommend that Ofgem holds a consultation specifically on whether any change to its established TMR approach is warranted. In the absence of a consultation, we would recommend maintaining the existing system as it is tried and tested and predictability is a prime consideration in financing infrastructure projects.

9. Equity Beta

Under current arrangements, an equity beta is assigned following a comparison with select integrated utilities. Under new proposals, an equity beta would be determined by comparison against both engineering and construction companies (listed in the Annex of the consultation

paper). Ofgem also intends to apply an uplift to the equity beta following a risk analysis to identify and account for additional development risks. We believe that these approaches assist in going part of the way to considering the specific risks inherent within the offshore marine construction environment, to which integrated utilities are not exposed. Nevertheless, we would question whether the beta of engineering and construction companies, with broader scopes of activity, would fully capture the specific risks inherent in development of an interconnector.

10. Gearing

Under existing arrangements gearing is based on a comparator to integrated utilities. Under the new arrangements Ofgem propose to include gearing levels evidenced in new interconnectors and offshore transmission lines as they are financed. CEPA note observed values of gearing in the range of 10%-65% or more and propose a mid-point of 37.5%. We have no objection to this proposal.

11. Transaction and Carry Costs

Provisions for transaction and carry costs are not included in IDC as they are provided for elsewhere in the Cap & Floor scheme. We therefore agree with Ofgem's proposal that these costs should not be included in IDC for interconnectors.

It must be noted however that developers are likely to incur transaction costs at least twice within the construction and early operational period as construction financing is raised and subsequently refinanced. As a result, it is necessary that Ofgem consider the inclusion of all transaction costs when determining the Cap and Floor.

12. Mid-point Values for IDC Parameters

Ofgem propose applying the mid-point of ranges estimated by CEPA in determining the IDC. This approach is considered inappropriate and provides no protection for developers in the event that the IDC methodology fails to capture all necessary development risks. In development projects where uncertainty is inherently high this is a distinct risk. In the case of GridLink Interconnector this risk is heightened due to the combined impact of the removal of the IDC uplift and uncertainty surrounding Brexit and the regulatory regime in France. It is therefore appropriate for Ofgem consider the higher end of CEPA estimate ranges when determining IDC parameters. This point is further detailed below.

Regulatory Risk and The Removal of the IDC Uplift

In its IDC review, CEPA notes that the difference between an OFTO and an interconnector is that historically, two additional risk premia have been added to the IDC rate for interconnectors:

- construction risk; and
- development risk

The risk premium for development risk was originally proposed in order to reflect potential "*development phase risk in the context of the regulatory regime*" with reference to the then 'early-stage' Ofgem cap and floor regime. CEPA now note that uncertainty surrounding Ofgem's approach to the cap and floor has been largely removed with six interconnectors having received approval under the regime. As a result, the development risk uplift has been removed from the IDC calculation.

We fundamentally disagree with this approach. We recognise the work completed by Ofgem and the Belgian regulator CREG in formulating a regulatory framework for the NEMO project, however both regulators adopted the same regulatory regime. In other countries, this has not been the case and as a result the risk profile of development projects is significantly increased. In the case of GridLink there is no agreement between France and the UK on a common regulatory regime. In France, the regime is determined on a case-by-case basis and there are fundamental differences which remain unresolved between the approach taken by Ofgem and the approach taken by the French regulator CRE. Further, we note that there are manifold additional risks to the development of an interconnector beyond just the regulatory framework.

Brexit Risk

Brexit poses very substantial development risks for projects between the UK and France, as well as interconnector projects with other European countries. Ofgem will be aware that CRE will no longer consider further interconnectors between France and the UK until the terms of Brexit have been clarified. This results in a delay to projects between France and the UK (as evidenced by the referral of the Aquind project to ACER) and will result in a delay of at least twelve months (assuming clarity is obtained by March 2019) for GridLink. It should also be noted that at the time of development the NEMO project did not face any of the uncertainties surrounding Brexit yet still benefited from an IDC uplift.

Inherent risks

Development risks are not only confined to a regulatory regime or the political landscape. Development risks also encompass planning, permitting and technology risk. The technology which development interconnectors propose to deploy is new and whilst it offers significant advantages in terms of capital, operating and consumer cost savings, it also carries development risk which may be unaccounted for if a general mid-point of the CEPA estimate range is adopted.

With the above uncertainties in mind, it is considered appropriate that Ofgem consider the higher end of the range CEPA estimates rather than a mid-point when determining the IDC for interconnector development projects.

Should you require any further information or clarification of our perspective on this consultation please do not hesitate to contact me.

Yours sincerely



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Director
GridLink Interconnector Limited

