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Helen Curry
Offshore Transmission
Ofgem

Via email

15 November 2013

Dear Helen

Re: Proposed interest during construction approach for offshore transmission and project NEMO

Thank you for the opportunity to respond to your consultation. Centrica is responding primarily in its capacity as a potential developer of new GB offshore wind. Our comments relate mostly to interest during construction (IDC) for offshore transmission.

We are extremely disappointed with the proposed 7.00% pre-tax nominal IDC for offshore transmission. This figure is not a credible representation of the risks faced by developers. We have considered each of your proposed CAPM parameters in turn, drawing on evidence from Grant Thornton, CEPA and Ofgem's own cost of capital decisions in RIIO-T1. We conclude that the minimum rate of IDC for offshore transmission should be 9.33%. **Our recommended IDC range for offshore transmission is 9.33% - 13.49%.**

Our views and evidence on your chosen parameters for calculating offshore transmission IDC are set out in Annex 1 below. We would however draw particular attention to the following points:

First, the 7.00% figure is not supported by either of the consultants Ofgem has used on IDC. Grant Thornton have advised a range of 7.9% - 9.8% for offshore transmission. Prior to Grant Thornton's appointment, CEPA proposed IDC of 11.68% for Project NEMO, which shares similar construction risk and a common regulatory regime with offshore transmission. In March 2013, CEPA confirmed in a report shared with Ofgem that IDC for offshore transmission should be materially above 8.5%.

Second, Ofgem is proposing to reject the advice of Grant Thornton (and CEPA) to include uplift for construction risk in offshore transmission IDC. Ofgem asserts that this risk has been "*adequately addressed by a transparent process and a solid track record of rational decision-making*". However it is investor perceptions of this risk that should be captured here, not Ofgem's opinion of its own process. Unless Ofgem can demonstrate that developers share

the same level of confidence in Ofgem's process and decision making, there is no justification for rejecting a construction risk premium.

Third, Ofgem's proposed remuneration of offshore transmission construction is inconsistent with allowed returns in *lower risk* areas of the GB transmission sector. Your proposed cost of equity for offshore transmission construction, 6.74% post tax nominal, is far below the 7% post tax real allowed for National Grid in RIIO-T1[1]. We also note the 10-11% post tax nominal equity returns reported by the National Audit Office[2] for OFTOs in the heavily de-risked operational phase.

In conclusion, we request that Ofgem revisits the evidence provided in the course of this review and revises its proposed IDC for offshore transmission, such that the risks are properly remunerated.

Our views and evidence on your chosen parameters for calculating offshore transmission IDC are set out point by point in Annex 1 below. Please contact me if you would like to discuss our comments further.

Yours sincerely,

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[1] Ofgem "RIIO T1: Final Proposals for NGET and NGG: Finance Supporting Document" December 2012
[2] National Audit Office "Offshore Electricity Transmission: a new model for delivering infrastructure" 22 June 2012

Annex 1: Responses to specific questions, recommendations and supporting evidence

Question 1: Is the use of WACC and CAPM appropriate for calculating IDC here?

Question 2: Is our minded-to approach to accounting for risk bias for offshore transmission and NEMO appropriate?

We have chosen to respond to questions 1 and 2 collectively by setting out detailed views on your approach to IDC for offshore transmission.

We support IDC being calculated by a CAPM based approach. However, the validity of this relies on appropriate parameters being selected.

We have a number of concerns with your chosen CAPM parameters for construction of offshore transmission. Even if Ofgem makes no allowance for construction risk – against the recommendation of your consultant, Grant Thornton[3] - the unadjusted CAPM number you have derived is too low.

Our views on your chosen parameters for calculating IDC for offshore transmission are set out point by point below:

Parameter	Ofgem minded to value	Centrica view
A: Cost of debt (nominal)	4.38%	4.74%

Comments on A: Cost of debt (nominal)

Ofgem's minded to value for the cost of debt subtracts a standard deviation from the observed cost of debt for A- and BBB- rated bonds. There is no justification for subtracting a standard deviation from these observed market rates. The actual average, 4.74%, reflects the cost of debt and should therefore be used.

Parameter	Ofgem minded to value	Centrica view
B: Risk free rate (nominal)	2.89%	3.9% (minimum)

Comments on B: Risk free rate (nominal)

As with A, Ofgem's minded to value for the risk free rate subtracts a standard deviation from the observed values of 10 year UK gilts. There is no justification for subtracting a standard deviation from these observed rates. The actual average is 3.9%.

Whilst we recognise 3.9% is a defensible figure for the risk free rate, we note that Ofgem allowed National Grid a real risk free rate of 2.0% in its recent RIIO-T1 price control decision

[3] Grant Thornton: "A review of interest during construction for generator build offshore transmission and project NEMO" 18 October 2013

(December 2012)[4]. As such, even 3.9% represents a low nominal value for the risk free rate and a significant departure from recent regulatory precedent, to the detriment of offshore transmission developers.

Parameter	Ofgem minded to value	Centrica view
C: Market risk premium	4.4%	4.4% - 5.25%

Comments on C: Market risk premium

We acknowledge 4.4% is a recognisable figure for the market risk premium, based on the Credit Suisse global investment returns yearbook. However, we again note that Ofgem calculated a market risk premium of 5.25% in its recent RIIO-T1 price control decision (December 2012)[5].

A market risk premium of 4.4% represents a departure from recent regulatory precedent. Your proposals will result in offshore transmission developers' equity being significantly under rewarded compared to National Grid's equity.

Parameter	Ofgem minded to value	Centrica view
D: Equity beta	0.88	1.07

Comments on D: Equity beta

We query the difference between your proposed equity beta values for offshore transmission and project NEMO. As IDC in both cases is concerned with discrete projects, with similar construction phase risks and a common regulatory regime[6], the beta values should be the same, reflecting the common risks.

We do not agree with Ofgem that there is less risk in the *ex post* cost assessment for offshore transmission because of the track record established and the provision of high level process guidance on the cost assessment[7]. To the extent that Ofgem's guidance de-risks offshore transmission, the same could be said for interconnectors. The guidance is a high level, principles based document. In so far as the guidance reduces risk, there is no reason why an interconnector developer could not apply it to their project.

As regards the cost assessment track record, we do not observe any systematic reduction in disallowed costs over time. We expect Lincs OFTO to be subject to the largest cost disallowance levied by Ofgem to date, in both £ and percentage terms. We are therefore

[4] Ofgem "RIIO T1: Final Proposals for NGET and NGG: Finance Supporting Document" December 2012
[5] Ofgem "RIIO T1: Final Proposals for NGET and NGG: Finance Supporting Document" December 2012
[6] The *ex post* cost assessment regime applies in both cases. We also note that offshore transmission and subsea interconnector assets are physically similar, entailing similar construction phase risks.
[7] Ofgem "Offshore Transmission: Guidance for Assessment" December 2012

highly sceptical that the presence of a track record on cost assessment has led to reduced risk. Disallowed expenditure is not systematically falling.

Your substantive proposal for the equity beta is to reduce the value for offshore transmission by including transmission companies. Your stated rationale for this is as follows:

"Our minded-to methodology uses only integrated energy utilities as the comparator group for NEMO. This is because interconnector revenues come from the power price differentials between the two interconnected countries. As such, the interconnector bears operational volume and price risk post construction between the cap and the floor (para 2.8, p13)*"*

To the extent there are risks in the operational phase for NEMO that are not relevant to offshore transmission (e.g. price and volume risk), these should be dealt with via Ofgem's remuneration proposals for NEMO's operational phase, not via a downward adjustment in IDC for offshore transmission.

We note your comments on National Grid's equity beta, which you state is 0.31. You say this value is *"arguably the closest parallel to a regulated transmission operator"* (para 2.21, p15). Your inference appears to be that 0.88 is, if anything, a high beta value for construction of offshore transmission. We disagree with this for the following reasons:

- Ofgem's financial proposals for RIIO T-1 selected an equity beta of 0.95 for NGET and 0.91 for NGG. 0.88 is therefore below the value allowed by Ofgem for National Grid in December 2012.

- Developers of offshore transmission are predominantly integrated utilities, not National Grid. Grant Thornton's beta value for integrated utilities, 1.07, at least reflects the parent companies of the offshore transmission developers.

- IDC is about remunerating a discrete offshore transmission project over its development and construction phase. National Grid has a diverse, built, onshore asset base, so we would expect lower remuneration for National Grid versus IDC for offshore transmission. National Grid's group wide activities are much lower risk than development and construction of offshore transmission.

Parameter	Ofgem minded to value	Centrica view
E: Cost of equity (nominal)	6.74%	8.61% - 9.52%

Comments on E: Cost of equity (nominal)

Our recommended range for the cost of equity (excluding adjustments to reflect unrewarded development and construction risks) is derived from our recommended values for A, B, C and D.

Parameter	Ofgem minded to value	Centrica view
F: Gearing	40.13%	0% - 40.13%

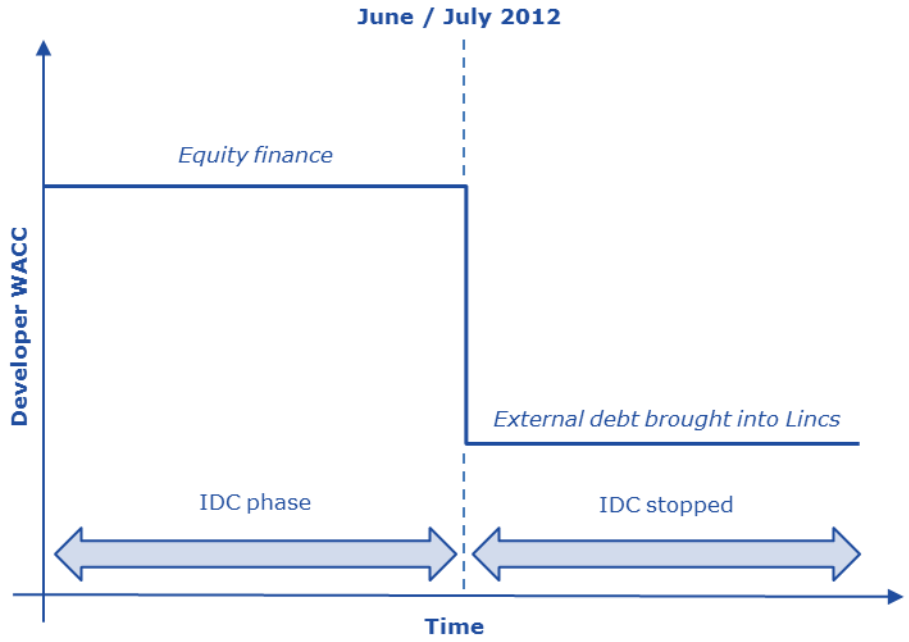
Comments on F: Gearing

We understand Ofgem is assuming an equivalent level of debt for development and construction of an offshore transmission project as is seen in the comparator group of companies overall.

We are highly sceptical that debt finance of up to ~40% would be available throughout the development and construction phase of an offshore transmission project. We believe Ofgem is likely to be overestimating the level of debt available and thus underestimating IDC.

By way of example, Lincs wind farm was able to attract debt finance, but not until late in its construction phase. External debt finance was brought into the project in June 2012[8]. Just one month later, IDC on the offshore transmission assets was stopped, as Ofgem deemed the transmission assets complete. For all but one month of the development and construction period, there was no reduction in financing costs for Lincs OFTO resulting from debt finance being brought in.

Figure 1: External debt financing for Lincs was not available for almost all of the IDC period



[8] See Centrica press release, 7 June 2012

We note Grant Thornton's comments in respect of debt finance from the European Investment Bank (EIB):

"The European Investment Bank (EIB) has provided €1.8bn of debt for the construction of offshore wind farms and transmission assets, typically on more attractive terms than commercial debt. This directly reduces the cost of capital for the projects".

Grant Thornton provide the Sherringham Shoal project as an example of EIB funding reducing an offshore wind farm's financing costs during the construction phase. The signature date of the EIB loan was 16 December 2011. However, Ofgem's cost assessment report for Sherringham Shoal offshore transmission assets[9] gives an IDC stop date of July 2011, indicating that the EIB loan did not overlap with the IDC period. It is therefore dubious to assume that substantial debt is available during the IDC period. Ofgem should reduce its notional gearing in view of this evidence and assume a higher proportion of equity finance in the IDC period.

Scepticism around substantial debt financing during development and construction was also expressed by economic consultants, CEPA. In work commissioned by Ofgem for Project NEMO, CEPA opined as follows on the issue of gearing:

"During construction even if there is debt available it would normally require some form of parent guarantee which would make the debt similar to equity with respect to developer requirements. As such, it is simpler to assume that 100% equity finance is being employed and to just focus on estimating a cost of equity for construction[10]."

We accept there is uncertainty over whether and to what extent future offshore transmission projects will be able to attract debt during the IDC phase. However, we do not believe ~40% debt for the duration of development and construction is at all realistic, and would strongly recommend a lower value (0% - 40.13%). Even if debt can be brought in, Ofgem needs to recognise that for a substantial proportion of the development and construction period, an offshore transmission project is likely to be 100% equity financed.

Parameter	Ofgem minded to value	Centrica view
G: Tax rate	23.00%	21.00% (from April 2014)

Comments on G: Tax rate

We note that the prospective rate of corporation tax, 21.00%, would be more appropriate than the current rate in calculating IDC for future offshore transmission projects.

Parameter	Ofgem minded to value	Centrica view
H: Pre-tax WACC (nominal)	7.00%	8.43% - 12.05%

[9] See Sherringham Shoal OFTO Cost Assessment report, 27 June 2013
[10] CEPA financeability study for Ofgem, February 2013

Comments on H: Pre-tax WACC (nominal)

Our recommended range for the pre-tax WACC (excluding adjustments to reflect unrewarded development and construction risks) is derived from our range of recommended values for A-G.

Additional Factors – adders for development and construction risk

In their report to Ofgem on IDC for offshore transmission and interconnectors, Grant Thornton considered whether development and construction risk should be explicitly recognised in the respective IDC rates. GT recommended that development risk should not be allowed for offshore transmission, but a *low* value for construction risk *should* be allowed, reflecting the *partial* de-risking of construction offered by the *ex post* cost assessment.

Our views on development and construction risk adders for offshore transmission are as follows:

Parameter	Ofgem minded to value	Centrica view
I: Development risk adder	0%	0% - 0.5%

We note Grant Thornton's view that development risk attaches to the generation component of an offshore wind project. We believe that development risk attaches to an offshore wind project in totality. In principle, a developer could abort an offshore wind project because of consenting barriers or costs associated with the transmission assets, not simply the generation. In such cases, it would be legitimate to attribute development risk to the transmission. We believe Grant Thornton's proposed 0.5% adder for interconnector development risk would be reasonable for offshore transmission.

Parameter	Ofgem minded to value	Centrica view
J: Construction risk adder	0%	0.9%

Construction of offshore transmission entails risk that is not reflected in Ofgem's baseline equity beta value, whether derived from integrated energy companies or a basket of energy and transmission companies. In both cases, the beta values refer to companies with diverse and substantially built asset bases, whose overall business is lower risk than development and construction of discrete offshore transmission projects.

It is therefore necessary to provide an upward adjustment to the baseline pre-tax WACC (Parameter H) to capture the additional risk.

We disagree with Ofgem's view that there is no additional construction risk because of the

track record of the *ex post* cost assessment. We acknowledge that Ofgem's *ex post* cost assessment has allowed some unexpected construction phase costs to be recovered by offshore transmission developers. However, significant sums have nonetheless been disallowed by Ofgem, despite the natural commercial incentives and best efforts of developers to control costs. Figure 2 below illustrates the scale of disallowances on two early OFTO projects, Walney 1 and Walney 2, which experienced unforeseeable cable burial difficulties:

Figure 2: Disallowed "inefficient expenditure on Walney 1 and Walney 2 OFTO[11]

Project	Disallowed "inefficient" expenditure	Disallowed, % developer proposed RAV
Walney 1	£6.4m	5.7%
Walney 2	£6.0m	5.2%

It is important to recognise that the next generation of offshore wind projects will be *more,* not less, technically challenging than those constructed to date. Future offshore transmission projects will generally be much larger, in deeper water and further from shore than their predecessors. The expectation must be that construction risk will increase commensurately with these additional challenges.

It is disappointing that capex complexity was explicitly cited by Ofgem as a reason for reviewing IDC in its May 2013 open letter[12], but no account has been taken of this increased complexity and risk in your minded to. We also note that proposing not to remunerate construction risk is contrary to the recommendation of your consultant, Grant Thornton, who advised that a 0.9% adder for construction risk is appropriate.

To illustrate the potential scale of disallowances we could see on more challenging OFTO projects, we note the expected disallowances proposed for Lincs OFTO, as an example of a challenging offshore transmission project. We reject the view that there is no material construction risk under the *ex post* cost assessment regime, given the scale of the below disallowance:

Figure 3: Indicative disallowances for Lincs OFTO, TBC

Project	Disallowed expenditure	Disallowed, % developer proposed RAV
Lincs	£27.4m	8.2%

Parameter	Ofgem minded to value	Centrica view
K: Risk adjusted pre-tax nominal IDC	7.00%	9.33% - 13.49%

[11] Ofgem cost assessment reports for Walney 1 and Walney 2.
[12] Available here

Our recommended range for the pre-tax WACC (excluding adjustments to reflect development and construction risks) is derived from H. This is then adjusted by parameters I and J for development and construction risk, to give a range of **9.33% to 13.49% for IDC for offshore transmission**.

In summary, we believe Ofgem has materially underestimated IDC for the reasons set out in this consultation response. We hope you will take full account of our recommendations prior to taking a final decision on IDC for offshore transmission.

Question 3: Do you agree with our minded-to approach of applying the IDC cap and rate for offshore transmission and NEMO?

We agree there should be one IDC cap for all projects reaching FID in the same financial year, with that rate applying to the projects for the whole of the construction period. We agree that capping IDC at the rate prevailing when a developer takes FID should provide greater predictability and stability.

We acknowledge your proposal to keep IDC as a cap rather than a universal rate for all offshore transmission projects. We are content with this proposal.

We agree that IDC should continue to be reviewed periodically. We note that annual reviews of IDC may amount to a near continuous process, given the time required to go through the consultation. A review every two years, or following a material change in financing conditions, may be more appropriate.

Summary of Centrica recommendations on IDC for offshore transmission

We provide a summary table of our recommended IDC values for clarity. Please refer to the relevant sections of our response for our detailed reasoning on each parameter:

Parameter		Ofgem minded to value	Centrica recommended value
A	Cost of debt (nominal)	4.38%	4.74%
B	Risk free rate (nominal)	2.89%	3.90% (min)
C	Market risk premium (MRP)	4.4%	4.4 – 5.25%

D	Equity beta	0.88	1.07
E = B + (C x D)	Cost of equity (nominal)	6.74%	8.61% – 9.52%
F	Gearing	40.13%	0% - 40.13%
G	Tax	23.00%	21.00% (from April 2014)
H = A x F + E x (1-F) x 1 / (1 – G)	Pre-tax WACC (nominal)	7.00%	8.43% - 12.05%
I	Development risk adder	0%	0% - 0.54%
J	Construction risk adder	0%	0.9%
K = H + I + J	Risk adjusted pre-tax nominal IDC	7.00%	9.33% – 13.49%