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Dear Guy,

Indicative Transfer Value for the Humber Gateway (HG) project

Introduction

1. The Electricity (Competitive Tenders for Offshore Transmission Licences) Regulations 2013 ('the Tender Regulations') provides the legal framework for the process which Ofgem runs for the grant of offshore electricity transmission licences. Regulation 4 of the Tender Regulations sets out the requirement for the Authority to calculate, based on all relevant information available to it, the economic and efficient costs which ought to be, or ought to have been, incurred in connection with the development and construction of the transmission assets. This process for calculating the economic and efficient costs includes a number of stages, starting with our confirmation of the initial transfer value, progressing to the indicative transfer value ('ITV'), and culminating in our determination of the final transfer value ('FTV') for the project.

2. We wrote to you on 13 February 2014, confirming that the £194.7m forecast of costs provided to us on 29 November 2013, for the development and construction (including financing) of the HG project ('the Project'), would be taken as its initial transfer value. This value was included in the enhanced pre-qualification ('EPQ') document and the preliminary information memorandum for the commencement of the EPQ stage for the Project.

3. E.ON Climate & Renewables UK Humber Wind Limited ('the Developer') submitted a revised cost assessment template ('CAT') on 11 June 2014 indicating a project cost of £190.8m. We have now completed the review and analysis of the CAT and ancillary cost information provided by the Developer to calculate the ITV, i.e. an estimate of the economic and efficient costs that ought to be incurred in connection with the development and construction of the transmission assets for the Project. This letter sets out:

- an overview of the work that has been undertaken to inform our calculation of the ITV;
- our conclusion that £173.3m is the ITV for the Project; and
- the next steps in the cost assessment process.

Overview of work to inform the calculation of ITV

4. To inform our calculation of the ITV, we employed independent consultants Grant Thornton (GT), who undertook a forensic accounting investigation to check the accuracy and completeness of the Project's revised CAT; in particular, matching reported CAPEX costs to contract documentation.

5. GT's work to inform the calculation of the ITV is now complete and the findings have been shared and discussed in detail with the Developer. GT's work resulted in increases and decreases in certain cost areas. These have been agreed with the Developer. GT's final position was confirmed to us on 26 November 2014.

6. We have set the ITV based on:

- information contained in the revised CAT;
- the outcome of the GT review;
- additional information provided by the Developer to substantiate costs; and
- our estimate of the allocation and efficiency of relevant cost areas.

7. During the course of our review, we have re-allocated costs from CAPEX to Development costs. This is to bring the Project's cost categories in line with our normal practice. We have not conducted a detailed review of the Project's Development costs and at this stage we have included the Developer's submission for the ITV. We intend to carry out a detailed review for the calculation of the FTV which may involve the use of independent consultants. We will discuss this with you when we commence the assessment of the Project's FTV.

Ofgem's calculation of ITV

8. To calculate the Project's ITV, we have considered the following:

- the findings of the forensic review;
- CAPEX costs: in particular, the offshore substation platform (OSP) costs, onshore substation costs, export cable supply and installation costs, onshore land costs, and crop loss compensation payments;
- the approach to allocating shared costs; and
- the IDC submission for the Project.

9. Our position on each of these issues is set out and discussed below.

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Findings of the forensic review

10. GT's review resulted in a number of increases and decreases of cost figures from the revised CAT. These were discussed with and accepted by the Developer. The net impact of these movements is an increase of £1.7m. The reasons for this increase are set out below:

- GT identified that the Developer had made an error in the calculation of staff costs. This was corrected and resulted in an increase of £2m.

- GT identified that the percentage allocation for the Project's insurance costs was based on an estimate of shared costs between the generation and transmission assets. GT confirmed that the allocation of insurance costs should be based on the actual allocation of costs between the generation and transmission assets. This reduced the allocation from 25% to 23% and resulted in a reduction of £0.1m.

- GT also reviewed the contingencies included in the Project's submission and identified a commercial contingency that was included in error. This resulted in a £0.2m reduction.

Ofgem's position for the ITV

11. We have included the increase of £1.7m in the Project's ITV.

CAPEX costs

12. Our letter of 13 February 2014 set out concerns regarding the CAPEX elements of the Project's costs and explained how we would take this forward. We recognise that the costs that were submitted at the initial transfer value stage were best estimates of the costs at that time. As the Project has progressed, these cost estimates have now become more firm, or costs have actually been incurred and the June 2014 revised CAT submission reflects this updated position.

13. Our analysis has been informed by unit cost benchmarking. We have also taken into consideration additional information provided by the Developer. Our views on a number of CAPEX costs are set out and discussed below.

Offshore substation (OSP)

14. Our benchmarking review compared the Project's OSP costs with those of other comparable projects. Including the design costs, the indexed OSP cost of £54.6m equates to a unit cost of £0.25m/MW, compared against the average indexed cost from other comparable projects of £0.19m/MW.

15. The Developer explained its relatively high unit cost levels as follows:

- the Project has adopted a modular designed OSP to minimise heavy lift vessel costs. The Developer explained that based on previous experience heavy lift vessels are in short supply, day rates are high and it can be difficult to secure a suitable vessel when it is required. Because of this, if any delays were encountered it would be costly to cancel a heavy lift vessel. Therefore, the Developer secured the use of a multi-purpose jack up vessel for the jacket, topside and wind turbine installation;

- the OSP is located in hard seabed conditions and additional construction works were required to reinforce the integrity of the topside and jacket, which necessitated a different foundation design; and

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- the OSP jacket design and supply contractor pulled out late in the process requiring the Project to procure an alternative design and supply contractor.

Ofgem's position for the ITV

16. We have considered carefully the justification for the submitted costs. We note that the Developer faced difficulties following the withdrawal of their jacket design contractor and that an alternative contractor was required at short notice. We also note that the Developer adopted an alternative design for the OSP and foundation to enable sections to be transported to site by a jack up vessel. The justification for this approach was to minimise heavy lift vessel costs in the event of any Project delays.

17. Our benchmarking indicates that the Project's OSP costs (including design costs elements) are above the range that would be expected on the basis of similar costs incurred by other projects. In particular, the installation costs are significantly in excess of levels for similar projects. The modular design of the OSP topside and jacket required the installation vessel to make multiple trips to site to complete the OSP installation. The additional work involved significantly increased the OSP's costs beyond what a comparable project would incur.

18. We consider that the additional costs are a direct result of the Developer's design choice. Project risks should sit with those best placed to manage them; in this case, the risks associated with design decisions and an appropriate amount of the associated costs should sit with the Developer. We do not consider that it is appropriate for consumers to bear construction risks that have arisen from a chosen design. Therefore, based on the differential between the Project's unit costs for the OSP and our benchmark data, we have concluded that £12.3m should be removed from the Project's ITV.

Onshore substation costs

19. We carried out a benchmarking review of the onshore substation electrical and civil costs. The Developer explained that the onshore substation required additional civil works as the structures and buildings are situated on a flood plain and had to be raised to withstand flood conditions.

20. Our benchmarking analysis also considered how the Project's onshore substation electrical costs compared with other projects, based on a £m per MW basis. The onshore substation electrical cost of £16.9m is higher when compared against the average cost from other comparable projects.

Ofgem's position for the ITV

21. The Developer's overall onshore substation costs submitted for the ITV are similar to comparable projects, therefore, for the purposes of calculating the ITV, we have not made cost reductions. We intend to revisit this issue, in particular, the electrical costs, to understand the final contract position before we take a view on the economic and efficient cost for the calculation of the FTV. This will involve a review by technical consultants.

Strategic Spares

22. The Developer notes that the Project's transmission assets are expected to transfer with a number of strategic spare parts, for example, spare required for the electrical power systems such as switchgear parts. The Developer submitted a cost of £0.6m for the purchase of transmission related strategic spares. The Developer considers that these will be required by the incoming OFTO.

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Ofgem's position for the ITV

23. We reviewed the list of spares and associated costs and compared these against spares that have transferred to the OFTO on similar sized projects. We have concluded that the cost of the relevant spare parts is economic and efficient and have included the £0.6m increase in the Project's ITV.

Export Cable

24. We reviewed the Project's cable supply and installation costs and we note that the installation created technical challenges due to difficult seabed conditions which included clay huts and unexploded ordnances. The sea conditions encountered at site were also problematic, resulting in delays to the cable installation.

25. The Developer submitted cable supply and installation costs of £32.4m. Our benchmarking analysis indicated that the cable supply unit costs were below the average unit supply cost, but installation unit costs were about 2.5 times the average unit installation cost on similar projects.

26. The Developer's costs submitted for the offshore cable was for the whole cable length, including spare cable. When reviewing this cost, it was noted that there was 10.5km of spare cable included. The Developer ordered the offshore cable before the actual route for the cable was known, so the length was estimated to cover all eventualities.

Ofgem's position for the ITV

27. For the ITV we have included the installation costs as submitted. We note that the seabed conditions and cable route created technical challenges which required additional installation works. To determine the FTV, we intend to conduct a detailed analysis which will be supported by our external consultants. We will share their analysis with the Developer and refer to this analysis to inform our FTV position.

28. We consider that 10.5km of spare cable is excessive; based on our experience with other offshore transmission projects, 2km is a more appropriate amount of spare cable to carry out a repair on each of the offshore export cables. Therefore, we have excluded the cost of the additional 8.5km of spare cable from the ITV as this is not an economic and efficient cost. This results in the removal of £2.9m of the cable supply costs from the ITV.

Cable Storage

29. The Developer's cost submission included a cost of £0.6m for the storage of spare cable. We note that a portion of that cost related to a period after the project's transmission assets were constructed.

Ofgem's position for the ITV

30. The cost assessment process relates only to the development and construction of the transmission assets. The cable storage costs incurred from February 2015 to November 2015 were incurred post construction and are not included in the cost assessment. Therefore, we have removed £0.1m that is attributable to this period from the Project's ITV.

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Onshore land

31. The Project's onshore substation was developed at a site that was close to National Grid's (NGET) local system. The Developer explained that a site at Staithes Road had sufficient space for the OFTO substation, the Developer's control room and NGET's substation. NGET required a 999 year lease with the freeholder. As the landowner was unwilling to sell a small tranche of land, the Developer decided to purchase the whole site of 8.49 acres.

32. The land has been subdivided between NGET, the OFTO and the Developer. The portion required for the transmission assets will transfer to the OFTO, with the Developer retaining the rest of the land. The Project's revised CAT submission includes a cost of £2.6m for the entire land purchase costs (minus the land costs for the Developer's control room).

33. The Developer explained that a section of land was used for laydown and site offices required for construction of the Project's transmission assets and that if the cost of this section of land is not to be included in the FTV, the Developer considers that the transfer value should account for costs attributable to use of this land during the construction period.

Ofgem's position for the ITV

34. We have considered carefully the Developer's rationale for including the land costs and have decided to only include in the ITV the land costs required for the development and construction of the transmission assets. We consider that the Developer's unused land is not required for the transmission assets and therefore should not be included in the Project's costs. The decision to purchase the whole of the site is a commercial decision made by the Developer and is not a cost that consumers should bear.

35. We also note that the land costs include the land to be leased to NGET. We are concerned that this cost has been included in the Developer's ITV submission as this is in excess of the requirements of the Project's transmission assets and is a cost that should not be included in the cost assessment. For the reasons outlined above we have removed from the ITV the costs of both the Developer's unused and land rented to NGET. This has resulted in a reduction of £1.2m from the ITV.

36. We consider that the economic and efficient costs associated with the laydown activities that supported construction of the transmission assets may be included in the transfer value. However, this is a matter that we will consider for the purposes of calculating the Project's FTV. We expect to receive a detailed methodology from the Developer that supports the revised costs that are to be submitted.

Crop loss

37. The Project included £1.5m for compensation payments that are paid to landowners in respect of loss of crops arising due to the development and construction of the Project's transmission assets. We investigated this matter further and identified that costs to be paid on lease completion included payments for 2015, 2016 and 2017.

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Ofgem's position for the ITV

38. The cost assessment process considers costs related to development and construction only. The crop loss payments applicable to 2015, 2016 and 2017 are post construction costs and are not permissible in the cost assessment. Therefore, we have removed £0.7m from the Developer's cost submission. The recovery of this cost is a matter that the Developer intends to progress during discussions with the Project's preferred bidder.

Allocation of shared costs

39. Offshore projects incur costs on services during development and construction that are shared between transmission and generation. We require developers to submit details of the metrics that are used to split shared costs (including the supporting methodologies). Where no metric is supplied or can be agreed, our default position is to use the direct equipment costs of the transmission assets as a proportion of the direct equipment costs for the project as a whole.

40. The Project has used a number of different rates to allocate shared costs. Many of these were allocated on the basis of direct measurement of resource used for each of generation and transmission. We have reviewed these and agreed that the allocations are appropriate.

41. At the time of the GT review, a number of other shared construction and development costs were allocated to transmission at a rate of 25%. After discussion of this allocation, the Developer suggested that the rate of these costs allocated to transmission should be decreased from 25% to 23%. However, through further analysis the Developer identified that this revised metric only applied to a small proportion of the transmission costs, such as project logistics and survey costs.

Ofgem's position for the ITV

42. The Developer provided analysis that identifies the assets that are affected by the application of the revised allocation rate. Having undertaken a preliminary analysis of the limited information provided, and noting the fact that the allocation rates still require detailed justification or further calculations to reflect the changes in costs, we have decided to include the revised rate of 23%. This has resulted in a reduction of £0.3m. We will undertake a more detailed review of the Project's allocation rates in the process for setting the FTV.

Interest During Construction (IDC)

43. IDC refers to the cost of financing the development and construction of offshore transmission assets. Industry commonly recognises this financing cost as part of the capital expenditure. For the purposes of the cost assessment process, IDC is the rate of interest that ought to be incurred during the development and construction phase.

44. We reviewed the Developer's IDC submission. We discussed the rates applied and noted that the Developer's submission used the correct IDC rates for all of the periods relevant to the financing. The duration over which IDC is being claimed also appears to be appropriate.

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Ofgem's position for the ITV

45. The decisions that we have made with respect to deductions to the project's CAPEX costs for the ITV have resulted in a consequential IDC reduction of £2.3m. The IDC value for the ITV is £18.5m. We will keep this matter under review for the Project's FTV.

Ofgem's decision on indicative transfer value for the Project

The ITV for the Project is set out in Table 1 below, which also sets out the initial transfer value at EPQ for comparison.

Table 1: Comparison of initial transfer value and ITV

Item	Initial Transfer Value at EPQ (£m)	Indicative Transfer Value (£m)
Capital expenditure and development costs	172.4	154.8
IDC	22.3	18.5
Indicative Transfer Value (with IDC)	194.7	173.3

Next steps

46. The cost assessment process for the Project will proceed into the calculation of the FTV, based on further updates on costs to be provided by the Developer as the Project progresses. To inform our FTV assessment we intend to work closely with the Developer. The process will involve the following:

- An ex-post forensic review and closing down the issues identified in this letter; and
- a detailed review of the Project's CAPEX costs. This will be assisted by independent technical consultants.

47. If you have any questions regarding this letter, please contact Roger Morgan on 020 7901 0525 (or roger.morgan@ofgem.gov.uk) in the first instance.

Yours sincerely,

Min Zhu
Associate Partner, Electricity Transmission

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