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By email

Dear Megan,

**RE: Offshore Electricity Transmission: Consultation on licence policy for future tenders (159/12)**

Thank you for the opportunity to respond to your consultation. This non-confidential response reflects the views of the Centrica group of companies, excluding Centrica Storage.

Centrica supports change to the OFTO regime that enables investment in the next generation of GB offshore wind. Technical and commercial challenges associated with offshore wind are increasing. Developers have to contend with greater distances from shore, deeper water, unprecedented scale and challenges of integrating new technology. New offshore wind projects need to meet the expectations of non-utility investors if they are to attract the necessary finance.

In short, future offshore wind projects will be higher cost than those that have gone before. This does not of course change the fact that our 2020 renewables target remains. As key uncertainties around support under EMR persist, it is all the more important that Ofgem has a broad perspective on key preconditions in the transmission space for major new offshore wind investment.

We set out our responses to your specific questions in Annex 1. However, we believe that the following key investment enablers, not all of which are specifically consulted on here, also require careful consideration by Ofgem:

**Key investment enablers under Generator Build**

- 1. A “gateways” approach to cost assessment**
  - Developers should be able to get upfront agreement from Ofgem on key design decisions and costs of fixed price contracts.

- Developers should not have to bear the risk of retrospective cost assessment judgements by Ofgem, which are by definition based on information not available to the developer in the “live” project environment.
  - A “gateways” approach to cost assessment has been recognised by Ofgem (albeit incompletely<sup>1</sup>) as an enabler of *anticipatory* investment; in principle it is just as important to have upfront certainty on *any* offshore transmission investment.
  - We strongly believe that the risk of disallowed expenditure and Ofgem’s insistence on making discretionary retrospective judgements discourages investment in the sector.
- 2. Move to a more balanced treatment of risk and reward under Generator Build**
- Developers are only able to recover their costs or have them disallowed. No upside is available for good performance.
  - Developers are not permitted to recover a realistic cost of financing offshore transmission construction (IDC), meaning some economic loss on their OFTO expenditure is unavoidable under the current regime.

## **Key investment enablers under OFTO Build**

- 1. Liquidated Damages** for late delivery of connection assets commensurate with the costs to a developer of any delay to their renewable electricity production.
- 2. The right for the developer to engage the supply chain and specify design** before the OFTO assumes responsibility.
- 3. Developer involvement in the OFTO selection process** and the right to manage the OFTO during construction, as would be the case in a normal commercial arrangement.
- 4. Flexibility around the developer’s ability to act as partner and/or sub-contractor** to the OFTO during the construction phase.

We are encouraged by Ofgem’s comments at the 23 January OFTO stakeholder event that most of the above features are recognised as important to OFTO Build. We would be happy to discuss these and any other issues in this paper in detail at your convenience.

Yours sincerely,

**Tim Collins**

Regulatory Affairs  
Centrica Energy

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<sup>1</sup> Ofgem needs to go further on anticipatory investment and be willing to agree upfront the *costs* of anticipatory investment as well as the *scope* if it is to be seriously contemplated by offshore wind developers.

## **Annex 1 - Responses to specific questions and further comments - Offshore Electricity Transmission: Consultation on licence policy for future tenders (159/12)**

### **Chapter 2: Revenue framework**

#### **Q2.1 Do you agree that the 20 year revenue term is still appropriate for point to point systems?**

We believe 20 years should be retained as the initial OFTO licence period. OFTOs appear to be comfortable with a 20 year timeframe and a longer default licence period may create uncertainty in the OFTO market. We also note that extending the default period beyond 20 years risks locking consumers into paying for redundant OFTO services if the connected offshore wind farm cannot be economically operated over any extended period.

Having said this, we recognise that generators wishing to use pre-existing OFTO assets for phased projects need to have confidence that OFTO services will continue beyond the residual licence period of the oldest OFTO assets their new project phase connects to<sup>2</sup>.

A pragmatic way forward may be for Ofgem to publicly confirm that it will allow OFTO asset lives to be extended beyond 20 years where offshore wind assets are capable of delivering value to consumers beyond the initial OFTO revenue term. However, we think there is some benefit in reserving discretion over *how* a relevant OFTO asset life would be extended, e.g. retender vs roll-over of OFTO licence, basis for approving any revenue adjustments if sub-asset refurbishment / replacement is required.

Any extension or retender of an OFTO licence should be on a case-by-case basis according to the needs of the relevant generator(s). Ofgem would need to take account of the fact that decommissioning costs and the capital value of the original OFTO assets will have already been paid for by the generator over the initial 20 year charging period, i.e. there should be no double payments to OFTOs.

### **Chapter 3: Refinancing**

#### **Q3.1 What do you think are the advantages and disadvantages of each refinancing policy option? Please explain why.**

We believe that OFTO Build bids would be untenable if they did not price, at least partially, on the basis of a lifecycle project return. The implication of lifecycle pricing is that consumers would not be locked into a 20 year TRS based only on construction phase returns, i.e. there is an implicit refinancing being priced in.

Research by CEPA for DECC on costs of capital in different phases of an offshore wind project cycle shows that required construction phase returns are materially higher than

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<sup>2</sup> This could be materially less than 20 years, i.e. not long enough to recover the generator's investment in the new offshore wind project phase.

operational phase returns. There are obvious parallels between constructing offshore wind and constructing offshore transmission, so the large spread between required construction and operational phase returns will be similar.

**Figure 1: Extract from CEPA report for DECC: *Note on impacts of the CfD FIT support package on costs and availability of capital and existing discounts in power purchase agreements*<sup>3</sup> June 2011**

### 3. IMPACT OF PROPOSED SUPPORT PACKAGES ON COST OF CAPITAL

In considering the impact of the proposed support package on cost of capital, we begin by looking at how cost of capital is currently determined and how it varies through the project cycle. We then consider the impact of the proposed CfD FIT on intermittent wind and provide a comparison of costs of capital for on-shore and offshore wind under the different support regimes. Finally, we consider the impact of both the CfD FIT and the Premium FIT on nuclear, which is currently outside of the RO.

#### 3.1. Pricing through the project cycle

Our consultations on the cost of finance for larger scale new renewable projects under the current RO support regime have focused on larger scale offshore wind, as that is where many market participants are focused and are able to share views, and highlight the different return expectations across the project cycle, namely:

- *Project development stage risk returns*, which are likely to be 20% - 40%+ in nominal IRR terms to the point at which the project reaches financial close and is 'sold', or 15% - 17% + on a full project basis where the development risk is factored into the whole project ex ante.
- *Full life project returns*, which are of the order of 10% - 12%, including (as a cost) the development costs i.e. development costs are known/ development risk is excluded, although construction risk still needs to be considered and priced in.
- *Post construction returns* – that is project costs for projects which, post construction and once operating, are sold on to institutional investors by the developer of the project at an IRR (post tax WACC) of perhaps even as low as 8%.

In the context of OFTO Build, a refinancing gain share mechanism would therefore pose some risk to the OFTO. Whilst it may *appear* that an OFTO Build TRS is "excessive" (and therefore eligible for "claw back") following a refinancing in the operational phase of the project cycle, it needs to be recognised that some "over-recovery" in the operational phase is needed to compensate the OFTO for the construction risk taken earlier in the project cycle. However, given there are no precedents for OFTO Build tenders, it is difficult to say in practice how OFTO Build bidders will price their TRS and whether competition in the tender process will be rigorous enough to reveal an efficient lifecycle return without a refinancing gain share

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<sup>3</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/48136/2174-cepa-paper.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/48136/2174-cepa-paper.pdf)

mechanism.

For Generator Build, the OFTO benefits from a substantially de-risked income stream throughout its tenure, with 90% of its revenue essentially bankable and costs relatively certain (no risk to the OFTO of construction cost overruns and known asset purchase price). Whilst it is less obvious that Generator Build creates opportunities for major OFTO refinancing gains, any gains that are achieved are more likely to represent genuine windfall gains. Generator Build OFTOs cannot claim to be over-recovering on TRS to compensate for higher risks taken earlier in the project cycle, because the construction risk is taken by the offshore wind developer. We note that EY considered a refinancing gain share mechanism for Generator Build worthwhile, despite the lack of construction risk.

**Q3.2 Are there other refinancing policy options that you think we should also consider?**

No.

**Q3.3 What are the benefits of OFTOs coming under common ownership and what are the associated issues that Ofgem should consider? To what extent should we capture any gains from OFTOs coming under common ownership?**

Only Ofgem is likely to have access to the necessary information to assess whether there are potential benefits to consumers from consolidation of OFTO ownership.

We would expect any windfall gains to the relevant parent company (companies) from consolidation of OFTO ownership to deliver a fair share of benefits to the relevant generator(s) and consumers via reduced TRS, in line with the principle set out in Ofgem's published network merger policy.

**Chapter 4: Indexation**

**Q4.1 What do you think are the advantages and disadvantages of each indexation policy option? Please explain why.**

We recommend the retention of 100% inflation indexed TRS.

Ofgem has previously commented that demand for inflation linked longer term investments is strong relative to the available supply. This would imply that inflation indexation will facilitate lower OFTO financing costs through more rigorous competition between providers of OFTO finance.

Ofgem should only contemplate decoupling TRS from inflation if it is confident from its engagement with financial stakeholders that doing so would broaden the available supply of

competitive OFTO finance. There will be no benefit to consumers unless this is the case.

**Q4.2 Are there other indexation policy options that you think we should also consider?**

We recommend that Ofgem considers indexing OFTO TRS to CPI rather than RPI. DECC has proposed that offshore wind generators' FIT CfD income is indexed to CPI inflation. It seems appropriate for OFTO TRS, which manifests as substantial proportion of an offshore wind farm's operating costs (TNUoS), to be associated with the same index as the offshore wind farm's prospective income.

**Chapter 5: Revenue incentives**

**Q5.1 Do you agree with our proposal to introduce the capacity weighting mechanism to the availability incentive mechanism?**

Yes. Sequential circuit outages of a given aggregate MWh ought to be less disruptive to the generator than an absolute outage on all circuits of the same MWh value (because where  $0 < \text{short run load factor} < 1$ , it may be possible to get most or all of the wind farm's power out of  $n-1$  circuits, but the generator would suffer a definite loss of output under a total outage).

We understand that sequential outages may represent current OFTO O&M practice in some cases, i.e. the desired OFTO behaviour may already be happening. The proposed change to the Availability Incentive would however have the benefit of locking in the desired OFTO behaviour.

If Ofgem does modify the Availability Incentive to "lock in" sequential circuit outage behaviour, we recommend that the tapering of penalties is as proportionate to the estimated benefit as possible. We intend to make a detailed recommendation shortly.

**Q5.2 Do you agree with our proposal not to introduce a penalty differential between planned and unplanned outages to the availability incentive mechanism at this time?**

Yes. Whether planned or unplanned, an outage is disruptive to an offshore wind generator – the Availability Incentive should be equally relevant to the OFTO in any outage scenario, so that in all cases, efforts are made to restore availability as quickly as possible. We do not see any justification for watering down the incentive on OFTOs for certain types of outage.

**Q5.3 Are there any further issues that you feel we should consider as part of our enhancements to the availability incentive? If so, why?**

We note the risk asymmetry between the wind farm and OFTO on the Availability Incentive that arises through the regime's 90% revenue protection for the OFTO. Whilst this is of some

concern to generators, we hope and expect that the substantially de-risked nature of the OFTO's income is now more widely recognised in the capital markets. Accordingly, retention of e.g. the 90% revenue collar should begin to deliver benefits in the form of more competitively priced supply of finance and lower TRS.

**Q5.4 Going forward do you think that the use of TEC for the maximum availability will remain appropriate? If not, what project designs might TEC not be appropriate for and what alternative would there be?**

TEC remains an appropriate definition of maximum availability for radial connections. For integrated transmission scenarios, we presume that the relevant agreements between the System Operator and the OFTO stipulating the contracted level of capacity could constitute maximum availability for the purposes of the Availability Incentive.

**Q5.5 Do you agree with our intention to remove the ICUA term and only use the ACA cost assessment term to calculate the remuneration required for providing additional capacity?**

Yes. We agree that a £/KW revenue driver for ICUA is problematic as the value to the OFTO of providing incremental capacity will vary enormously according to residual asset life.

The ACA mechanism allows the Authority to take a view on appropriate remuneration for the OFTO, having regard to the duration of the incremental capacity provided and all other relevant factors. We note that the ACA provisions in Amended Standard Condition E12 – J4 23(b) require the Authority to consult interested parties in the course of its ACA decision making process. We would underscore the importance of affected generators being properly consulted on any proposed investment under ACA / Condition E17, as changes to OFTO remuneration are highly likely to affect generator TNUoS.

**Q5.6 Do you agree with our intention to not introduce greater flexibility in relation to remuneration for incremental capacity at this time?**

In principle, it ought to be possible for ACA to be used if it constitutes the most economic and/or expeditious way of developing the transmission system. If an existing OFTO could connect new offshore wind capacity or provide system benefits for a lower cost and/or more quickly than the best alternative solution (presumably a new OFTO tender), it would be desirable to be able to consider an ACA route even if it cost >20% of original OFTO capex.

However, a number of practical issues would arise out of raising or removing the ACA cap. Allowing an existing OFTO to build out from one of its networks to connect new offshore wind capacity would mean the client generator bearing delivery risk. The same issues that



represent barriers to generators accepting OFTO Build would therefore be relevant here, notably the absence of a clear policy on Liquidated Damages. Please refer to our response to Question 6.1 for further views on OFTO Build.

If the 20% cap was raised or removed under ACA, there may be a need for a greater degree of control for the Authority, in close consultation with the affected developer(s), in approving the investment *per se* as well as setting the appropriate remuneration (and by implication the revised generator TNUoS). This may necessitate the inclusion of some control provisions into Standard Condition E17.

**Q5.7 Do you believe that adding an absolute threshold for incremental capacity would be beneficial? If so, what should the value of the threshold be?**

In principle, it ought to be possible for ACA to be used if it constitutes the most economic and/or expeditious way of developing the transmission system. If an existing OFTO could connect new offshore wind capacity or provide system benefits for a lower cost and/or more quickly than the best alternative solution (presumably a new OFTO tender), it would be desirable to be able to consider an ACA route.

Further restrictions on ACA such as the imposition of an additional £m investment cap (alongside the 20% cap) may preclude the best connection solution being selected.

However, as noted in our response to Question 5.6, allowing an existing OFTO to build out from one of its networks to connect new offshore wind capacity would mean the client generator bearing delivery risk. The same issues that represent barriers to generators accepting OFTO Build would therefore appear to be relevant here and in need of remedy. Please refer to our response to Question 6.1 for further views on OFTO Build.

**Q5.8 What are the benefits, drawbacks, risks and considerations in adapting the incremental capacity mechanism to allow Generator build of subsequent phases?**

In principle, adapting ACA so generators can incrementally build assets under ACA and then allow the existing local OFTO to adopt those assets as part of their system would be desirable. Adapting ACA in this way would enable connection solutions that may represent the lowest risk, quickest and best value option. It would appear that the regulatory arrangements for this solution could borrow from Generator Build, although practical considerations would need to be carefully thought through, as this would be different from a traditional OFTO tender.

**Chapter 6: Next steps and interdependencies**

**Q6.1 What further areas relating to your planned or potential future projects do you think that Ofgem should consider in order to help facilitate the efficient delivery of the**



## OFTO build model?

We believe that OFTO Build needs the following attributes before it can be seriously considered by developers:

1. **Liquidated Damages** for late delivery of connection assets commensurate with the costs to a developer of any delay to their renewable electricity production.
2. **The right for the developer to engage the supply chain and specify design** before the OFTO assumes responsibility.
3. **Developer involvement in the OFTO selection process** and the right to manage the OFTO during construction, as would be the case in a normal commercial arrangement.
4. **Flexibility around the developer's ability to act as partner and/or sub-contractor** to the OFTO during the construction phase.

We were encouraged by Ofgem's comments at the 23 January OFTO stakeholder event that most of the above features are recognised as important to OFTO Build.

We are however concerned that the TNUoS charging regime for offshore wind is such that developers will ultimately bear the risk of LDs (or other de-risking measures) targeted at the OFTO via high TNUoS charges (arising from the higher TRS the OFTO would seek for bearing the risk of LDs). Higher TNUoS will have an adverse impact on the developer's investment case. As noted in our cover letter, the scale of the next generation of offshore wind projects is such that returns need to be sufficient to unlock new sources of finance - increases in TNUoS arising from selection of a "de-risked" OFTO Build will work against this requirement.

In summary, we are concerned that OFTO Build in the context of the current targeted TNUoS charging regime for offshore wind may always be problematic from an investment perspective:

- OFTO Build without significant LD provisions will make the generator's project excessively risky and potentially un-financeable (i.e. the project will rely on a connection from a party who's exposure to connection delays / incentive to mitigate them is minimal compared to the developer).
- OFTO Build with significant LD provisions will either:
  - a) Make the OFTO Build company un-financeable (as the large downside risk to the OFTO for late delivery will be unacceptable to the OFTO Build company's

prospective investors); or

- b) Drive up the OFTO's TRS (as compensation for the downside risk) to such a level that the generator's TNUoS (which is largely driven by TRS) will depress project returns to below levels required by non-utility investors – rendering the developer's project unviable.

We believe Ofgem needs to look closely at the targeted nature of offshore wind generator TNUoS, in particular whether it is viable, appropriate and consistent, as part of its thinking on both Generator Build and OFTO Build.

**Q6.2 Do you have any comments on the relevance of changes to the RIIO licence on the OFTO licence?**

No.