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4th February 2019

EDP Renewables ("EDPR") is a leading renewable energy company headquartered in Madrid, Spain that develops, manages and operates power plants that generate electricity using renewable energy sources, mainly wind and solar. EDPR was incorporated in 2007 with the clear objective of supplying a growing number of geographies with low carbon and renewable energy, EDPR has quickly grown to become a global company and a leader in the market.

EDPR operates in the most attractive markets and is continuously expanding its business to new areas of the globe. EDPR's business plan aims to increase its production capacity considering the best investment opportunities. This strategy has allowed EDPR to be among world's largest companies in terms of production in the wind sector, with a global portfolio of 11.7 GW of installed capacity[1]. EDPR is currently developing onshore and offshore wind and solar projects in nine European Countries (Spain, Portugal, France, Belgium, Italy, Poland, Romania, Greece and UK), as well as the United States, Brazil, Mexico and Canada.

EDPR entered the UK market in 2010 and is focusing its offshore wind energy development activities from its Edinburgh office. EDPR UK manages all worldwide offshore operations. At present, EDPR has interest in UK offshore wind Zone 1 (Moray Firth) of the Round 3 Crown Estate Tender. The Moray East area within the zone was awarded by the UK's Department for Business, Energy & Industrial Strategy ("BEIS") with a 15-year Contract for Difference (CfD) for the delivery of 950 MW of offshore wind generation in 2017's CfD allocation round. The Moray West area within the zone is in the process of achieving eligibility to bid in a forthcoming CfD auction.

EDPR is pleased to submit a response to Ofgem's "Targeted charging review: minded to decision and draft impact assessment" issued on the 28 November 2018. We set out a brief summary of our response below.

EDPR recognises that there is significant change within UK energy systems as users change the way they interact with the networks. We understand that this leads to inevitable regulatory change as adaptations are made to develop the network to function efficiently and effectively. However, the pace and potential scale of change threatens investment in the UK energy market, particularly in respect to the development of large scale, low cost power generation which requires stability and foreseeability.

EDPR wishes to highlight the following:

- Cost increases may be observed in future CfD auctions due to increased network costs and allowance for perceived regulatory risk being reflected in CfD bid prices.

[1] As of 2018YE: Installed capacity includes EDPR's Equity consolidated 372 MW

renewables

- Ofgem has not evaluated the proposed changes against any decarbonisation criteria despite its overriding objective including a requirement to ensure that consumer interests in the reduction of greenhouse gases is kept.
- There is the potential for Government renewable targets, such as those set out in the Green Growth Plan, to be missed as renewable energy investment declines.
- Consumer benefit from this regulatory change is unlikely to be achieved as the cost of energy delivered by power generation increases to account for both increased network costs and increased regulatory risk faced by developers and operators.
- Investor confidence will be harmed due the level of uncertainty that surrounds the charging regime, leading to lower market investment and increased cost of capital in the UK.

Questions or comments can be directed to:

Dan Finch

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1) Do you agree that residual charges should be levied on final demand only?

EDPR does not have any concern with the approach in itself of levying residual charges on final demand only.

However the impact of this alongside the treatment of the transmission generation residual needs to be fully assessed in the round and EDPR considers that there is a significant risk that reduced cost to consumers will not be achieved through the proposed changes. This is on the basis that:

- Any resulting increase in transmission network use of system (TNUoS) charges will impact on contract for difference (CfD) prices in future allocation rounds.
- Investor confidence will be harmed by increases in TNUoS charges for existing developments and the level of uncertainty that presently surrounds charging. This in turn may increase cost of capital for large power projects, placing upward pressure on ultimate cost to consumer.
- Renewable generation deployment will be reduced due to increased costs and risks undermining recent progress moving towards 'subsidy free' renewable generation.

2) Do you agree with how we have assessed the impacts of the changes we have considered against the principles? If you disagree with our assessment, please provide evidence for your reasoning.

The option assessment was carried out against three principles:

> *"a) Reducing harmful distortions*
>
> *b) Fairness*
>
> *c) Proportionality and practical considerations."*[2]

The principal objective of the assessment was also described as being "to protect the interests of existing and future energy consumers." The impact assessment attempted to demonstrate how the principle objective aligned with the three principles. Whilst it stated "*We have been mindful of our environmental obligations and have formally assessed the carbon impacts of proposed reforms."* it is not clear if and where the proposed changes have been formally assessed against carbon impacts. We note that Ofgem's principal objective in full is *"to protect the interests of existing and future consumers in relation to gas conveyed through pipes and electricity conveyed by distribution or transmission systems. The interests of such consumers are their interests taken as a whole, including their interests in the reduction of greenhouse gases in the security of the supply of gas and electricity to them"*[3]

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2 Targeted Charging Review: Minded to decision and draft impact assessment

3 Powers and Duties of Gas and Electricity Markets Authority (GEMA) the governing body determining the strategy and policy for Ofgem, https://www.ofgem.gov.uk/publications-and-updates/powers-and-duties-gema

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EDPR does not agree with the exclusion of any principles relating to the reduction of greenhouse gases or sustainability in any form. If Ofgem is to fulfil its principles it must take into consideration the environmental impact that these changes may have.

The proposed changes are likely to have a disproportionate impact on renewable generation as any increase in transmission network use of system (TNUoS) charges in £/kW terms will have a greater impact on generation with lower load factors, which renewable generation tends to have. Thus the proposed changes can be expected to have a significant impact on the future deployment of renewable generation.

6) Do you know of any reasons why the expected consumer benefits from our leading options might not materialise?

The focus of the options assessment has been on the immediate/direct cost of network charges to consumers but it is not clearly demonstrated that all potential consequential effects on the cost of energy have been considered. For example:

1. Increased network charges will flow directly through to increased CfD prices in the next auction round.
2. There is currently significant activity in the regulation of network charges with multiple consultations, forums and working groups looking at different areas of the charging regime. This is likely to have the effect of generating investor uncertainty in the UK regulatory system and with this comes increased cost of capital for future generation projects across technologies.
3. Removal of value from existing operational projects will also have a consequence with respect to investor confidence and cost of capital. It may also place upward pressure on wholesale energy prices given that many operational projects are partially or wholly remunerated through sale of power into the wholesale market.

In the case of Moray East, the project secured a CfD in 2017 and the level of change that is presently being proposed, and the potential impact on the investment cases for projects such as Moray East, is beyond what is reasonable if the UK wishes to provide a stable regulatory framework and encourage investment. The proposed changes, depending on final implementation and the outcome of other ongoing processes, may significantly erode the value of the Moray East project as a whole, which will impact negatively on investor confidence across the industry. This will drive the cost of energy up as investors look for a greater return and/or make greater risk provision for future projects, against a backdrop of perceived increased regulatory uncertainty.

In the case of EDPR's second UK project, Moray West, there is currently a very high level of uncertainty in respect to the quantum of network charges that will be faced by projects in the run up to the third CfD auction round. This has two primary potential impacts on the outcome of the auction round:

1. Developers price in anticipated increased network charges against the backdrop of uncertainty, leading to higher bid prices and resultant increased cost of energy.
2. Developers assume that network charges will remain broadly stable following the outcome of the various ongoing reviews and consultations. In the event of subsequent material increases in network charges that projects are exposed to, projects may no longer financially viable. This is explicitly acknowledged in Ofgem's minded-to decision and would appear to undermine the aim of the CfD regime. The CfD was designed to reduce the uncertainty faced by developers and financial investors by stabilising revenues to allow renewable generation to be built at lower cost of energy, benefiting consumers.

If investor confidence in the UK's regulatory framework is to be maintained, with the associated benefits in terms of cost of capital and ultimately cost to consumers, the regulatory framework must consider the ability of users to respond to the signals that are sent through network charges. In the case of TNUoS, there is a risk of locational signals becoming amplified without adequate account being taken of cost reflectivity or the ability of projects to respond to those signals.

10. Do you agree with the conclusions we have drawn from our assessment of the following? a) distributional modelling b) the distributional impacts of the options c) our wider system modelling d) how we have interpreted the wider system modelling? Please be specific which assessment you agree/disagree with.

We do not agree with the assessment that Ofgem has used.

The Frontier Report[4] clearly states that "*renewable build is locked down between scenarios as per the "background" FES scenario.*" EDPR disagrees with this approach. Whilst we understand that there are many areas of uncertainty within any model, limiting one of the key impacts cannot be an effective way to assess the overall impact of the changes.

As stated in the response to question 2, the proposed changes can be expected to have a significant impact on deployment of renewable generation and therefore the assumption used for the assessment in relation to renewable build is unrealistic.

15) Do you agree with our minded to decision set out? If not please state your reasoning and provide evidence to support your answer.

We do not agree with Ofgem's minded to decision.

The proposed changes may have a number of consequences that are either unintended or have not been considered in the impact assessment, the most damaging of which is the harm to the renewable generation market across the UK. There is a risk of excessively amplified location signals instead of providing proportionate, predictable location signals which take into account investment decisions made on the basis of prior signals. In addition investor confidence will be reduced as these proposals

[4] Distributional And Wider System Impacts Of Reform To Residual Charges, Frontier, November 2018

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erode the value of projects already in existence. Further to this the consumer savings that Ofgem so desire for the consumers are unlikely to be achieved as wholesale energy costs are driven up as a result of the uncertainty of UK regulation at a time when investment in the UK should be a priority. Furthermore the success of the CfD as a low cost energy route to market is being undermined as a result of charging uncertainty.

Ofgem's indications on BSUoS deliver yet more uncertainty into the industry. A BSUoS taskforce has already been set up to look specifically at the charging mechanism and results of this should be known prior to Ofgem making partial reform in the meantime. BSUoS changes are seen as further uncertainty and risks further increasing investment costs.

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