Foresight group

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Targeted Charging Review: mind to decision and draft impact assessment - Consultation Response

Introduction and Background to Foresight

Foresight is a leading independent infrastructure and private equity investment manager which has been managing investment funds on behalf of institutions and retail clients for more than 30 years. Founded in 1984, Foresight Group is a UK Limited Liability Partnership with approximately £2.8 billion of assets under management.

Our 84 strong Energy Infrastructure team based in the UK, Italy, Spain, Seoul and Australia have completed over 190 Energy Infrastructure transactions since 2009 and has in-depth experience in originating and acquiring both greenfield and brownfield assets. Foresight is the second largest solar manager in Europe with a total capacity of over 1.1 GW, of which 857MW is located in the UK. In 2018, Foresight's UK solar portfolio generated c. 5.8% of total UK solar generation.

Foresight has mobilised over £1.0 billion of private sector capital into the UK bioenergy and waste sectors and is one of the UKs leading managers of investment into battery storage and flexible generation with capacity's totalling 45MW and 170MW respectively. Recently, Foresight has expanded into onshore wind, managing assets totalling 164MW across the UK and Europe.

This document responds to Ofgem's Targeted Charging Review: minded to decision and draft impact assessment. Our response is limited to questions 11, 12, 13 and 14 (b) on proposed reform to Embedded Benefits. Our comments should be considered from the perspective of both: an owner of existing generating assets and; a fund manager raising capital to invest in new development.

Our response is in no way an exhaustive explanation of the adverse effects expected to result however, it identifies areas for further investigation which should be considered before committing to a final decision. We would welcome the opportunity to meet with you to discuss our concerns. Any queries can be sent to Jack Steven, Senior Operations Manager, 020 3911 1357, jsteven@foresightgroup.eu .

11. Do you agree with our proposed approach to the reform of the remaining non-locational Embedded Benefits?

No.

We feel that section 6 of the consultation gives limited explanation of the approach taken by Ofgem, "Scope of review of remaining Embedded Benefits" states a view that analysis uncovered sufficient cause to include BSUoS reforms as part of the TCR. Section 3 "*Our approach*" identifies three guiding principles of: **(a) Reducing harmful distortions; (b) Fairness; and (c) Proportionality and practical considerations.** It is with these principles in mind that our feedback is given.

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Is a review of network charging and Embedded Benefits needed?

The relative volume of distributed generation has increased and now accounts for c.25% of total installed capacity. We acknowledge how increasing volumes of embedded generation, which are typically intermittent technologies of wind and solar, will impact network costs. Provided costs can be accurately quantified it is logical for new build embedded generation to pay for its net cost on the network, recognising any positive and/or negative effects. In this respect we acknowledge Ofgem's desire to review non-locational Embedded Benefits and the aspiration for cost reflective charging, if possible.

How might network costs be recovered?

Embedded Benefits recognise how the deployment of generation on the distribution network alleviates transmission network costs and it is appropriate for embedded generation to be rewarded for any positive impact. With respect to the approach taken thus far we question what analysis has been done by, or on behalf of Ofgem to establish the extent to which embedded generation alleviates cost on the transmission network or, conversely, is contributing toward balancing costs. Understanding and quantifying the cost created by different network users is a critical first step ahead of any decision on how costs are recovered from an allocation of charging. To illustrate, solar has a distinct generation profile matched to how resource (irradiance) varies over a day. High irradiance during the day and with-it resulting peaks in solar output typically coincide with periods of peak demand, meaning that solar makes a positive contribution to matching supply to demand, in this sense solar helps to reduce balancing costs.

We distinguish between forward looking and residual charges. Our understanding is that residual charges are principally concerned with cost recovery and should not influence behaviour. The half hourly timing on which BSUoS costs are incurred and challenge to accurately forecast BSUoS cost ahead of time make it unlikely that BSUoS charging can influence behaviour. We note that in December 2018 Ofgem launched a Significant Code Review of access and forward-looking charges ("NAR"). We acknowledge the importance of system costs being allocated amongst network users in a way that attempts to reflect the relative cost of each demand and consumption and to the extent required a shift in this balance to prevent overpayment by consumers. For this **it is critical to first determine: (a) the extent of any forward looking charging relative to; (b) residual charging, before deciding on the means to recover residual costs.** How else can we know what the residual component needs to recover?

We are relieved to know that the findings of the ESO Task Force, who's terms of reference include assessment of any behavioural component as well as how cost reflective charging could happen, will be available and considered ahead of any decision on reform to non-locational Embedded Benefits. That said we remain concerned by Ofgem's timeline and welcome more explicit explanation of the controls and checks to ensure any interdependency between overlapping workstreams is managed.

Are the distortions which could arise understood?

The full reform will adversely impact existing distribution capacity. As a zero-marginal cost technology the full reform will directly increase cost and profitability by £4-5[1] MWh, an order of magnitude which would jeopardise the economic viability of some sites. The cost impact for new plant, as highlighted by Frontier is likely to be carried into

[1] This estimate is based on BSUoS being £2.50MWh and incorporates the effect of both charging BSUoS and its removal as an Embedded Benefit. Exact costs will vary by site. Any numbers given in this response are offered to provide a general impression for the quantum of possible effects.

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CFD and CM bid prices, meaning an inconsistent impact depending on the status of sites, operational vs. new build, and whether a technology is eligible to participate in specific subsidy schemes. The eligibility of solar and onshore wind to participate in CFD auctions is not within the scope of the TCR but we challenge the assumption that new build sites will absorb this cost and to the extent its relevant Ofgem should revisit resulting growth forecasts. Rather than reducing this is increasing distortions, firstly between operational sites and new build sites and secondly by technology owing to their differing eligibility to participate in CFD auctions. The CFD brings further distortion between operational sites in that the CFD provides for an adjustment to strike price for qualifying changes in law ("QCiL"), it is feasible that the reforms could constitute a QCiL and thereby allow an increase in strike price. Equivalent relief would not be available to ROC projects. Moreover, the strike price for transmission connected sites is already adjusted for annual changes in balancing costs. We recommend that further consideration be made to these distortions.

We question the extent of quantitative analysis informing the minded to decision. If limited to Frontier's analysis, we have significant concern over the starting assumptions and findings which follow. For example, it is assumed that growth rates of low carbon generation will continue without effect. As noted above, being a zero marginal cost technology the BSUoS reform directly impacts cost and profitability, this will carry over into the levelised cost of energy ("LCOE") for new build solar, making new build solar less competitive to alternative forms of generation, under this circumstance rates of deployment will slow. This is before factoring in an increase in the cost of finance from creditors' perception of increasing risk which in turn compounds rising LCOE.

In summary, our principle concern is one of process and the sequence in which analysis should progress, bluntly, reform to residual charging should not happen in isolation and/or ahead of forward-looking charges. The current approach of residual BSUoS reform being considered ahead of a wider system review under the NAR and the resulting adverse effects on existing embedded generators is not fair, proportional or practical. **We recommend reform of the residual BSUoS charge (and benefit where applicable) being delayed until due consideration of total system effect is made. We suggest doing this together with review of locational charges as part of the NAR.**

12. Do you agree with our proposal not to address any other remaining Embedded Benefits at this stage? Which of the Embedded Benefits do you think should be removed as outlined in xx? Please state your reasoning and provide evidence to support your answer?

Yes.

Consistent with the stated principle of *(c) Proportionality and practical consideration*, we agree that Residual Cash flow Reallocation Cash flow ("RCRC") and Assistance for Areas with High Electricity Distribution Charges ("AAHEDC") should not be considered at this stage, we agree with the reasoning given that their lesser value is not creating market distortions.

13. Are there any reasons we have not included that mean that the remaining Embedded Benefits should be maintained?

Yes.

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To reaffirm the feedback given above for 11, analysis is needed to first: (a) quantify the cost imposed by different network users; and (b) establish the feasibility of cost reflective charging. With the findings of such analysis, which we expect to come from the ESO Task Force, an informed discussion can follow on the maintenance of Embedded Benefits, or not. Moreover, due regard should be given to externalities which could result, such as a reduced and slower deployment of renewable generation and the implications this has for security of supply and decarbonisation.

Recent analysis by National Grid, produced for 2018 Future Energy Scenarios ("FES"), shows a 107GW capacity gap between the 53GW of low carbon capacity installed today and the 160GW required in 2050 to achieve UK carbon targets. Of this 107GW, 30GW is needed from new build solar. Given the recent announcement by Hitachi to abandon the 980MW Wylfa nuclear plant, in part due to a lack of certainty on policy, leaving only Sizewell C and Bradwell in planning, it could be argued that an ever-increasing proportion of new capacity will have to come from solar and onshore wind. Disruptive changes such as reform to Embedded Benefits not only have the immediate impact of increasing LCOE and creating uncertainty but force additional capacity to be procured from more expensive technologies, the effect of which is an increase in wholesale power prices, which, ultimately, is a cost to consumers. Please also remember that investors will compare opportunities across asset class and jurisdiction (amongst many others), given the obvious need for new investment every effort should be made to maintain the UK's reputation as a stable and supportive policy environment.

14. Do you agree with our proposed approach to transitional arrangements for reforms to: (a) transmission and distribution residual charges; (b) non-locational Embedded Benefits? Please provided evidence to indicate why different arrangements would be more appropriate.

No.

As noted above, **we are concerned by the sequence in which reforms are being considered and strongly recommend that a holistic approach prevails in which non-locational Embedded Benefits are considered as part of a complete review of network charging**.

To the extent that the timeline for implementation is driven by estimated savings to consumer we question if the effect of externalities on security of supply and decarbonisation, as we describe previously, and the resulting impact on wholesale power prices, the ultimate cost of which is borne by consumers, have been priced in.

No consideration has been given to the disruption caused by a 2020 or 2021 implementation. Project contracts for operational sites lock in revenues and costs for several years, the certainty they bring being essential to access debt financing. The complete exclusion of the practical constraints operational sites are under leaves no opportunity for asset owners to consider how new costs might be hedged or accommodated in other ways to minimise disruption, this falls well short of Ofgem's measure of Fairness.

END

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