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Targeted Charging Review  
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## **Targeted Charging Review: minded to decision and draft impact assessment**

Dear Andrew,

SmartestEnergy welcomes the opportunity to respond to Ofgem's minded to decision and impact assessment on the Targeted Charging Review

SmartestEnergy is an aggregator of embedded generation in the wholesale market, an aggregator of demand and frequency services and a supplier in the electricity retail market, serving large corporate and group organisations.

Please note that our response is not confidential.

### **Overview**

We remain deeply concerned by the application of Ofgem's distinction between "forward looking charges" and "residual charges." The starting point should be that all charging should be cost reflective. The way in which Ofgem intend to recover residual charges does not appear to us to be cost reflective.

The consultation document states that the current arrangements encourage users who can afford to invest in on-site generation, DSR or storage to reduce their exposure to residual charges and implies that this is not desirable. However, this is precisely the kind of behaviour the smart future should be encouraging. Additionally, we would point out that Triad is designed to recover the costs of the network at peak and any party who keeps this peak requirement down should be rewarded.

We believe that the supposed consumer benefits of reduced charges will not transpire as modelled by Ofgem because participant behaviour will change as a result of the changes to

the way in which charges are levied. These changes will lead to less of an incentive to reduce load than modelled. There will, therefore, be more costs to the system than would otherwise have been the case.

We are concerned that there is a lack of understanding of why things are the way they are. Change without understanding this will lead to unintended consequences. Embedded generation obviates the need to use the transmission network. This is an undeniable fact. Whilst we can see that there may be a case for some change embedded generation should not be exposed to the same level of costs as other connections.

Ofgem's proposals do not make a distinction between reliance on the transmission system as back up (e.g. baseload embedded generation), partial reliance on the system (e.g. intermittent generation) and full use of the system (e.g. transmission connected generation.) Clearly, charging should reflect this variety of reliance on the network.

At the very least, network charging needs to be reflective of costs in a more granular manner than is currently being proposed.

We answer the questions below in the order in which they appear in the consultation document.

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

Fundamentally, it cannot be denied that generators do contribute to network costs. As we have stated in previous consultation responses, in a world where all generation is equal and there is perfect competition it would make little difference whether charges are moved from generation to demand because competition would ensure that the costs on the generation side are reduced accordingly. However, we are not in a world where all generation is equal and the costs which they cause the network are not reflected back in a cost reflective manner. For example, on the transmission network large generators create the need for more reserve to be held and each time the size of the single largest genset increases, the cost of reserve increases. These costs are not reflected back to those gensets, even though, in the interests of fairness, they should be.

#### 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.

We are concerned by the argument in 4.22 that the Agreed Capacity option could enable large users to respond to the residual charge by reducing their capacity agreement, the implication being that this is not a good idea and should not be implemented. This sounds wholly unfair. Firstly, there could be genuine reasons that a company may want to reduce its capacity and they should not be locked into higher capacity charges. Secondly, it is fundamentally wrong for charges to be unrelated to capacity. More fundamentally, reducing peak demand should reduce the need for reinforcement.

3. For each user, residual charges are currently based on the costs of the voltage level of the network to which a user is connected and the higher voltage levels of the network, but not from lower voltage levels below the user's connection. At this stage, we are not proposing changes to this aspect of the current arrangements. Are there other approaches that would better meet our TCR principles reducing harmful distortions, fairness and proportionality and practical considerations?

If this is saying that charges should be based on the costs of the voltage level of the network to which a user is connected and all the voltage levels above them on the network, we would agree with this as the customer would then be paying for the levels of network used for the power to get down to their connection. However, looking at the numbers, we suspect this is not the case.

More generally we would say that Ofgem need to be careful not to impose an inordinately high charge on high users for whom there could be the double whammy of high charges and a lack of load management opportunities.

4. As explained in paragraphs 4.41, 4.43, 4.46, 4.49, 4.80, we think we should prioritise equality within charging segments and equity across all segments. Do you agree that it is fair for all users in the same segment to pay the same charge, and the manner in which we have set the segments? If not, do you know of another approach with available data which would address this issue? Please provide evidence to support your answer.

For domestic it is important that there are different segments for 4kVA, 6 kVA and 8 kVA and the costs should be cost reflective i.e. those with 8kVA should be double those with 4kVA. (This principle should extend up the voltages) The reason for this is that those who draw more for usage which requires high capacity (EVs for example) should pay more. However, in order not to discriminate, and for ease of implementation, the charge needs to be applied purely on the basis of capacity rather than any particular usage type. For the non-domestic market we favour something based on capacity agreements as we think this is fairer.

5. Do you agree that similar customers with and without on-site generation should pay the same residual charges? Should both types of users face the same residual charge for their Line Loss Factor Class (LLFC)?

Whilst it is not clear in the document, we are assuming that the use of LLFCs is a practical way for distributors to allocate a voltage level within the industry systems. If LLFCs are of any other relevance, this needs to be explained more clearly.

Clearly there is a difference in reliance on the network between a site with baseload on-site generation and one with very intermittent generation. There should therefore ideally be some differentiation in charging to reflect this. It would also follow that customers with no on-site generation should pay the most.

Ultimately, what we are saying is that Ofgem's proposals do not make a distinction between reliance on the transmission system as back up (e.g. baseload embedded generation), partial reliance on the system (e.g. intermittent generation) and full use of the system (e.g. transmission connected generation.)

Ofgem's proposals are a consequence of the fact that it is not practical to ascertain levels of generation behind the meter. The problem was caused by moving from net to gross charging, which had the effect of moving the boundary from the GSP to the meter. This removed an apparent inequality between transmission-connected and distribution-connected generators but created an even greater one; that between behind the meter generation and "just in front of the meter" generation.

Embedded benefits aside, we would suggest that all network charging needs to be cost reflective on a half hour by half hour basis (or possibly a slightly more simplified Time of Use arrangement), much as BSUoS is at the moment. This will provide the correct signals.

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

We do not believe that the proposed fixed capacity charge could ever possibly efficiently capture the different types of network user and reflect charges in a fair manner.

As stated above removing the residual component from 'forward looking' charges and charging it on a 'fixed capacity' basis, will fail to recognise different types of network utilisation. We think this will affect behaviour on the networks which in turn will result in the need for increased investment in new network assets and increasing costs to the consumer. We are not convinced that this effect has been effectively captured within the analysis performed as part of Ofgem's impact assessment.

We do not believe that investment risk (i.e. the impact on financial decisions) has been modelled and there could be other impacts on generators such as how they would react operationally to the changes. Consumer benefits will also be affected by how these changes interact with other initiatives such as changes to forward looking benefits.

7. Do you agree that our leading options will be more practical to implement than other options?

Whilst we agree with the low, high and medium bands for domestic (i.e. 4kVA, 6 kVA and 8 kVA) we are not sure how this information will be gleaned. There will be arguments presented that this is not practical. It is, however, essential that this data is made available if one of the major rationales for these changes (i.e. that there will be challenges in the future for networks in the form of changing usage patterns) is to be justified. DNOs will therefore have to establish this information (possibly deem it where necessary) and pass it to suppliers in new standard industry information flows. Alternatively, smart metering may enable capacity bands to be established,

8. Do you agree with the approaches set out for banding (either LLFC or deeming for agreed capacity)? If not please provide evidence as why different approaches to banding would better facilitate the TCR principles.

Please see our answer to Q4.

9. Do you agree that LLFCs are a sensible way to segment residual charges? If not, are there other existing classifications that should be considered in more detail?

For higher voltages we can see that this would work. However, for domestic please see our answer to Q7.

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.

No comment.

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

As the document itself says, Ofgem have asked the ESO to launch a task force to provide analysis to support decisions on the future direction of BSUoS charges. In particular, it will examine the potential and feasibility for some elements of BSUoS being made more cost-reflective and hence provide stronger forward-looking signals and is due to report its findings in Spring 2019. It would appear to us to be premature to remove the BSUoS embedded benefit and inflict financial hardship on embedded generators before any mitigating factors have the chance to emerge from the further work on BSUoS charges (which may identify some forward-looking element which is an embedded benefit.)

It is generally recognised that flexibility (especially in the form of batteries alongside intermittent generation) is required on the networks going forwards and implementing changes to BSUoS without considering forward looking benefits of embedded generation will send the wrong message to investors and potentially cause a hiatus (even if, ultimately, forward looking charges do reflect the benefits that flexibility brings.)

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.

We agree that AAHEDC and RCRC are not sufficiently large to be considered distorting. We think it is highly appropriate that Transmission Loss factors should remain as an embedded benefit. It would be absurd for distributed generation not to be given this benefit when compared with transmission connected offshore windfarms with all their additional subsidies and benefits of scale.

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

If the differences between TGR & Partial BSUoS reform and TGR & Full BSUoS reform in terms of practicality and cost appear to be small (and are small in proportion to the benefits available) then the argument about distortion on which Ofgem seem to rely falls away. Partial BSUoS reform would represent a least regrets option.

The document states the following: "TGR & Full BSUoS reform leads to a greater consumer benefit, which is consistent [with] our assessment that it removes more harmful distortions." This would suggest that Ofgem acknowledge that there is no direct relationship between the two and yet this is the justification for the changes to embedded benefits.

It is important to maintain some level of embedded benefits to compensate smaller generation for the disadvantage they face due to economies of scale. We believe that the pendulum has already swung too far in favour of large transmission connected generation, although Ofgem ideally should have some way of measuring this.

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 provide evidence to indicate why different arrangements would be more appropriate.

We agree with the document that 2020 implementation could be quite challenging for some market participants affected by these proposals. The phasing of the removal of the TNUoS embedded benefit has not been difficult to implement and we would suggest the same approach should be applied in the instance of BSUoS, if such a change is to be made.

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

#### **Network Residual Charges**

We agree that for each DNO, the proportion of charge allocated to each LLFC or to the extra high voltage level should be based on that segment's overall contribution to net volumes on that distribution network. This should ensure that there are no random demarcations between segment pots.

We agree that the most appropriate options for implementation are a) full implementation from April 2021, or b) implementation from April 2021 with a phasing period (with changes fully implemented in April 2023). We foresee unnecessary complication with phasing because the plan is to change the structure of the charging too fundamentally.

#### **Remaining non-locational Embedded Benefits**

We are not convinced a case has been made for charging BSUoS to embedded generators, as the exact composition of BSUoS has not been analysed. We are also concerned that storage would end up being double charged.

If such a change were to be made we would urge Ofgem to implement in 2021 rather than 2020 as generators need as much time as possible to prepare for the financial shock by restructuring/refinancing their assets and additionally PPA providers have contracts with embedded generators going well past this date. Phasing in this instance is both feasible and desirable.

16. For our preferred option do you think there are practical consideration or difficulties that we have not taken account of? Please provide evidence to support your answer.

Please see our answer to Q11 and Q15.

Should you require further clarification on this matter, please do not hesitate to contact me.

Yours sincerely,

Colin Prestwich  
Head of Regulatory Affairs