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Andrew Self
Head of Electricity Network Charging
Ofgem
10 South Colonnade
Canary Wharf
London
E14 4PU

Dear Andrew

Targeted Charging Review, Energy Systems Transition

Thank you for the opportunity to comment on your “minded to” decision and draft impact assessment. I respond on behalf of PeakGen which operates ultra-peaking generation plant and battery storage in Britain. I attach our responses to your questions in Appendix A.

If you have any queries or would like to discuss any points further, please contact me at the above address.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'N. Sillito'.

Nick Sillito
Commercial Director.

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

Simplistically, we are supportive of the statement “residual charges should be levied on final demand only”. You define “final demand” as demand other than stored energy (footnote 14, page 19) and effectively you define “residual charge” (paraphrasing the first paragraph of the Executive Summary) as the remainder once the forward looking charges are subtracted from the allowed revenue, where the forward looking charges are “*signals* about how much costs will increase (or decrease) with network usage” [emphasis added].

There is a certain logic to allocating residual charges to end users as ultimately if they are allocated to interim users (such as generators) then they will have to be passed on to end users with potentially the interim users having to include a cost for managing the risk of these charges.

However, given that the forward-looking charges are only “signals” and not the absolute cost then the residual charge will over- or under- recover. By smearing the wrong amount over all users, we are concerned that further distortions will be created. We believe that better results could be achieved by making the forward-looking charges more accurately reflect the costs (or savings) imposed on the system, and by properly identifying the full forward looking costs the residual should be driven to lower number reducing the value in avoiding and hence the level of market distortion.

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.

Again, we are broadly supportive of the high-level principles of (a) Reducing harmful distortions, (b) Fairness; and (c) Proportionality and practical considerations.

We would highlight that “fairness” normally results in allocating fixed costs to different users based on the amount that they use the service. The amount of a supermarket’s fixed cost I pay is based on how much I buy from them, not a fixed cost per house. If I choose to grow and eat my own food, a reasonable person would consider it fair that I don’t have to pay as higher proportion of the supermarket’s fixed costs, even though the direct saving to the supermarket may only be the variable of the food I am no longer buying. No supermarket would attempt to impose a fixed cost on people who lived locally regardless or not if they shopped in the supermarket.

If the argument is that power networks are provided for the greater public good (and should not be exposed to competition from demand reduction and physically local generation) then they should be a corresponding argument that networks should be funded from taxation and subject to state aid approval.

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?

This statement is not true. For example, if Dinorwig Power Station (connected at 400 kV) were to take demand over a Triad, it would be charged the transmission system residual which relates to 400 kV, 275 kV and 132 kV (Scotland only) residual charge.

Again, it is not obvious why the residual charges should only be charged to end users for the current and higher voltage levels – if it is about socialization of costs – which in effect means charging users for bits of the network they do not require, so the logic of cutting off lower voltages is unclear.

As we indicate in our answer to question 1, we believe that the vast majority of network costs were incurred for specific purposes (otherwise Ofgem would not have approved the expenditure) and we believe that better allocation of costs is possible and appropriate.

- 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**

Again, as we indicated in our answer to question 1, we believe that the vast majority of network costs were incurred for specific purposes (otherwise Ofgem would not have approved the expenditure) and we believe that better allocation of costs is appropriate. Better allocation of costs would lead to a fair, less distortionary proportional results. Splitting residual costs in an arbitrary manner will lead to an arbitrary result and in the longer term may have unintended consequences.

- 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)?**

As acknowledged in the executive summary, the forward-looking charges are “signals about how much costs will increase ... with network usage”. It is important to be clear that the forward-looking charges are not the absolute costs imposed on the network by a particular user. For example, the ICRP model used to set TNUoS charges only returns the relative costs (within the scope of the model) of connecting at a different point on the network. For example (depending on the choice of reference node) the ICRP model might state that the charges at nodes A and B were 10 and 15 GBP/kW respectively or (with a different reference node) 3 and 8 GBP/kW respectively. From the perspective of the model, only the difference between the two nodes (5 GBP/kW in both cases) is relevant. In the ICRP model, there is a “reference node” (which can be a single “real” node on the system or a virtual or “distributed” node). The property of the reference node is its charge is always zero, and by selecting different reference nodes on the system, the charges

for other nodes move up or down (whilst maintaining a constant difference between them). In the model the choice of a reference node is completely arbitrary, including the “distributed demand” reference node currently used.

Figure 1 shows a simple network with one generator and two identical demands, both connected to the same point on the system. One of the demands has a similar amount of on-site generation. We then apply the Ofgem proposal by allocating 50% of the residual to each of the two demands (on the basis that the gross demands are identical). We have supplied a simple spreadsheet that calculated the charges made to the generation and the two demand customers (users 1 and 2). The spreadsheet also has the ability to vary the reference node such that the monies recovered from the forward-looking charge vary.

We have provided more detail with the spreadsheet model supplied. However, the key point is that by varying the reference node in the ICRP model you vary the amount of money recovered in the forward-looking charge and hence the amount recovered via the residual charge. We have supplied some examples of difference reference nodes which illustrate three difference outcomes:

- i. The demand user without onsite generation pays the full cost of the transmission system;
- ii. The full cost of the transmission system is shared between the two users; and
- iii. The user who matches their onsite generation and demand and arguably does not need the transmission system pays the full cost of the system.

Other combinations are available by using different reference nodes, including examples where either user pays more than the full cost of the system and the other user receives a “refund”.

Our view is that this simple example shows that the proposal does not meet Ofgem’s assessment principles of fairness and reducing harmful distortions.

We believe that there is merit in the Ofgem proposal of the allocation of the residual only in the circumstances where the forward looking charge is the actual cost incurred (or avoided) as a result of the network user such that there is a meaningful split (rather than an arbitrary split) between the forward looking charge and the residual charge.

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

Please see answer to question 5.

We would also highlight that:

- i. in the Frontier analysis (figures 68 and 69, pages 84/5) the analysis ignores final consumption charges meaning that the results are misleading; and
- ii. the economic assessment undertaken included the (at the time, reasonable) assumption that the capacity market was ongoing, and does not recognize the current suspension of the market. An additional

assessment (and consultation) would be required if the capacity market has not been restored prior to the final decision.

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

Implementation is relatively straight forward up to the point you require sub-site gross metering for generation and demand. This then could significantly increase the costs of settlement metering, Elexon settlement costs and supplier settlement systems. If there was an incentive to place generation behind an import only meter, it makes policing metering arrangements more difficult.

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.

We have not reviewed the benefit of using LLFC, however there is not an obvious cost allocation between LLFC and the allocation of residual charges.

Deeming agreed capacity would seem a more reasonable way to go forward, although we would suggest that allowing users to select a different capacity (higher or lower) than the one they are deemed would be reasonable. We would suggest that an appeals system would need to be devised and some agreement on evidence required. We understand that in the gas market parties can challenge their allocated capacity.

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?

No view on this point, although end user categories would be another option.

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.

The assessment makes a number of behavioral assumptions. For example, if industrial demand has to pay a larger residual charge it will continue to operate in Britain and pay its larger share of the residual charge. It is quite plausible that demand may simply choose to locate abroad and not pay any of the residual charge. This would lead to the cost to remaining customers going up (if these costs genuinely cannot be saved).

Similarly, demand with onsite generation may simply choose to go off-grid to avoid these charges. There would be active disbenefit to both sides from this arrangement (loss of inertia, reserve sharing etc.).

The potential increase in the costs to some types of customers may also mean that they cease to display the flexible energy demand that they system

is used to. Ofgem needs to be sure that this change in behaviour does not impact the operability of the local network or reduce competition in the provision of ancillary services (which some of these sites may offer as they have invested in on-site equipment to achieve flexibility).

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

With regards to BSUoS we consider further work should be undertaken. The current Ofgem proposals feel like a “bolt-on” and have not been given the proper attention. We would like to see a fuller breakdown of costs incurred in BSUoS and where these costs are incurred.

For example, response and reserve holding is typically driven by the risk of a large loss from the system (often a large generator or an interconnector) and allocation of this cost to these parties may be more appropriate.

With regard to congestion, it is the net (not the gross) injection at a grid node that contributes to network congestion. It would be wrong to regard this as an embedded benefit and remove it without further consideration (and review of other options such as wholesale pricing areas as employed in Scandinavia, Italy etc.).

We would propose that Ofgem awaits the outcome of the Balancing Services Task Force before considering the treatment of these costs further.

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 believe that Ofgem has identified the most material items.

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

The value of these is relatively small and we think that the normal modification process is a more appropriate forum for review.

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 are supportive of giving sufficient notice of changes and potentially phasing them in as this allows time to adjust commercial agreements and allow new pricing to flow through. However, we do have significant concerns about the impact of parties holding longer term agreements, the obvious ones being 15 year Capacity Market Agreements. These changes were not envisaged in 2014 when the first CM auction was held and these changes,

combined with other market changes, will have a material impact on those parties with 15 year CM contracts. While we recognise that the CM is currently suspended, heaping further pressure on these businesses, Ofgem may want to consider a longer lead time to all the CM market to stabilize and these parties seek new business opportunities, for example the ESO making the BM a functioning market for them.

Notice of changes and phasing in of changes helps maintain investor confidence (if any).

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 disagree with your minded to decision. Please refer to our answer to question 5 where we illustrate that, because the forward looking charges are only "signals" and not the absolute costs (or benefits) of a user's impact on the system then the allocation of residual charges in the way proposed does not meet Ofgem's criteria.

We believe that more attention should be placed on proper identification and allocation of forward looking costs. Proper identification and allocation of costs should result in the removal of inefficiencies in markets. When forward looking charges allow for near full recovery of system costs, the amount recovered via the residual becomes much smaller and, by default, less distortive.

We have always argued that Ofgem needs to look at all the cost elements in the round. To simply address residuals on their own was always likely to lead to a sub-optimal, economically inefficient outcome.

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 refer to our answer to Question 5.

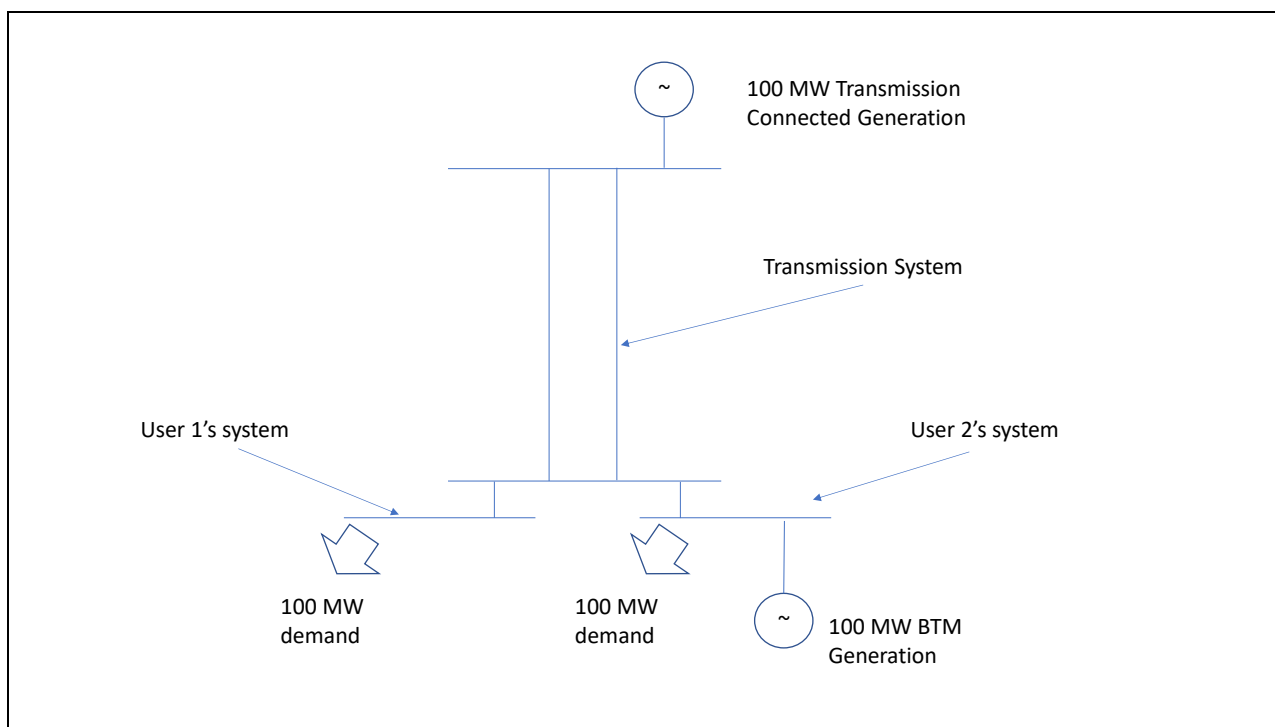


Figure 1: Simple network to illustrate impact of different reference nodes on proposed network charges