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For the Attention Of:

Andrew Self
Ofgem

By Email: TCR@Ofgem.gov.uk

4 February 2019

Dear Andrew

**Conrad Energy Consultation Response: Targeted Charging Review: Minded to
Decision and Draft Impact Assessment**

Thank you for the opportunity to respond to the above consultation. Conrad Energy is a developer of flexible generation and battery storage projects connected at distribution level, alongside a demand-side response and energy management services product suite. We are funded by I Squared Capital, a global private equity firm focused on energy and infrastructure.

Our primary focus in our business, which is reflected in our response to your consultation, is to provide local energy at the point of need. This requires a regulatory framework that is stable, flexible and future-proof, and our hope is that the combination of the TCR and associated Network Access and Forward-Looking Charges review can provide this.

There is currently an extremely high level of regulatory change and associated risk in the GB wholesale power market. This is naturally having an impact on investors' appetite to provide funding for the projects that are required to provide security of supply and flexibility over the coming years. We would urge Ofgem and BEIS to be cognisant of this when assessing the future direction of industry change. There needs to be a robust benefits case for each option, and a detailed analysis of the impact on not only system costs but also wholesale power prices, volatility and market dynamics. We believe that further work on the whole market impact of these and other proposed regulatory change is required before it is possible to fully assess wider impacts and the impacts on consumers.

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

Yes.

Whether it is via a transmission/distribution charge (TNUoS, DUoS) or balancing charges (BSUoS), the customer ultimately pays. This is either directly if the charge is levied on demand; or more opaquely if the cost (or benefit) is levied on generation, feeds through into the wholesale price of energy and is passed on to the consumer.

Where there is a price signal required to incentivise generation in the right locations, then the current system of load-flow-based charging is appropriate. However, the residual charge (or rebate) provides no signal, locational or otherwise, and is better placed directly onto consumers bills via a demand tariff.

If Ofgem's ultimate goal is to create a level playing field between transmission and distribution-connected generation, then moving the residual charge (or benefit) onto demand would be beneficial.

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.

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?

No.

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.

The natural outcome of a move towards capacity-based charging for demand is that Electric Vehicles (EVs), demand response (DSR) and behind-the-meter generation and battery storage (BtM) have fewer incentives to invest in projects when there is no Triad avoidance signal (other than for price avoidance or load-shifting). It is clear that there will be a consequent impact on wholesale prices, in particular over the winter peak. Ofgem should consider this impact carefully.

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)?

Please see response to 4 above.

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

There is a risk that without the significant demand side response associated with Triads over the winter period and a fixed charge for capacity, there will be less (or no) flexible demand response over the peak periods. As such, wholesale prices over the peak periods will be substantially higher. This will naturally feed through into customer's bills. It is also likely that Capacity Market clearing prices will also be consequentially higher, which would also have a consumer impact.

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

The easiest and most practical option to implement is no change – and this must always be a valid and fully-considered option. We do not see any significant implementation issues other than the wider market and price impacts noted above.

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

No.

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 comment.

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.

There is minimal assessment of the impact of these changes on wholesale power prices, volatility and market behaviour over peak periods. These changes do not exist in a consumer vacuum – if there is a change in behaviour for demand response then there will be an equal and opposite response in power price over the same period which will drive generator behaviour. The Frontier modelling is extremely simplistic in this regard and doesn't give any clarity on the real world impact of the proposed changes. The wider system modelling is therefore meaningless.

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

No.

The TCR's overall focus is that of charging for network use, i.e. the fundamental principles of payments that users make to NGET to recover the costs of investing in and managing the transmission network. While there may be changes to embedded benefits that may or may not be beneficial per se, it seems extremely odd to include them within this review, particularly with regards to recover of system operator costs..

Even if a case could be made for the proposed changes to be included, there is no analysis in this impact assessment of the general benefits of embedded generation on the GB system as a whole. There is a general principle across the charging structure of GB that generation ought to be sited closest to demand. There is therefore a clear benefit in principle of siting generation on the distribution network as compared to the transmission network and an avoided cost in doing so. This has previously formed part of the assessment of a number of modifications and is not addressed at all here. More analysis is required in terms of the overall benefit of distributed generation in terms of its ability to avoid investment on the transmission network; and the value of this in real terms.

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, although we struggle to understand why that rationale has not been applied to BSUoS.

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

No

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.

As long as there is certainty in both overall policy and individual modifications, there is no real benefit in transitional periods.

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

Please see responses to questions above.

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 responses to questions above.

Yours sincerely

Dave Wilkerson
Commercial Manager
Conrad Energy Limited