The Association for Decentralised Energy

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Bringing Energy Together

ADE Response - Targeted Charging Review | 4 February 2019

Context

The Association for Decentralised Energy welcomes the opportunity to respond to Ofgem's minded to decision on the Targeted Charging Review.

The ADE is the UK's leading decentralised energy advocate, focused on creating a more cost effective, efficient and user-orientated energy system. The ADE has over 120 members active across a range of technologies, and they include both the providers and the users of energy. Our members have expertise in demand side energy services, including demand response and storage, combined heat and power and district heating networks.

Our networks, and the energy system, are moving from a fossil-fuelled, centralised system to one dominated by variable, low carbon generation and significant flexibility connecting to both the transmission and distribution networks. Current network charging arrangements do not reflect this new smart system and it is important that they are reformed.

Residual charges in the electricity networks are not identifiable, discrete costs but arise from the difference between network operators' annual allowable revenues agreed through the RIIO price settlement and the models used to calculate the incremental cost of additional capacity – models that vary in certain respects across DNOs and between distribution and transmission. The cap on network charges for generation of €2.50/MWh has also led to increases in the transmission demand residual through forcing the transmission generation residual negative. As a result, the ADE does not support Ofgem's view that residual charges can straightforwardly and exclusively be considered fixed or sunk costs.

More broadly, the Targeted Charging Review is focused upon creating a level-playing field so that power assets cannot create a competitive advantage simply through differences in regulatory treatment. We strongly support this ambition. Currently, decentralised energy users trying to participate in the power market tend to not have defined rights to access the network, pay significant connection reinforcement costs, cannot be made whole if constrained and remain effectively excluded from many of the energy markets unless acting through a larger intermediary. Creating a level-playing field means removing unjustifiable distortions whilst simultaneously opening up justifiable revenue streams. Businesses cannot absorb considerable additional costs one year on the hope of revenue to come – and the relative stage of development of a policy programme is not sufficient justification for requiring them to do so.

Therefore, in what follows, we ask that Ofgem implements the Targeted Charging Review simultaneously with its other reforms, including principally the Access and Forward-looking charges Significant Code Review, and whilst maintaining pressure upon the ESO and network operators to develop more mature markets in which flexibility can compete by the start of the RIIO-ED2 price control.

Section 4: How we reached the leading options

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

The ADE agrees with this view.

It is important that this is achieved through the detailed code modification process following this consultation. The TCR currently refers to work undertaken by Elexon and others to isolate final demand for the purposes of final consumption levies. Work to date suggests that whilst it will be possible to exclude licensed generation and exemptible generation operated by licensed operator from residual charging, it will be more difficult to exclude exemptible generation not operated by those holding a generation license.

If this approach is taken to residual charges, it will have the unintended consequence of charging residuals on import MPAN volumes of generating plant; including many Energy from Waste, anaerobic digestion, biomass and other plants.

To mitigate this, we propose that such import should be classified as 'works power' defined as 'any electricity supplied from the distribution grid to an embedded exemptible generating plant where the energy supplied does not exceed (10%) of the energy exported to the distribution grid in the period 1st April to 31st March each year'.

Such 'works power' should be excluded from residual charges.

2 Do you agree with how we have assessed the impacts of the changes we have considered against the principles?

We agree that the qualitative impacts of the seven shortlisted options you have identified against the principles are comprehensive.

3 …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 the lower levels… Are there other approaches that would better meet our TCR principles?

The ADE agrees that the current arrangements should be maintained. We do not support a shift to users also paying for lower levels of the network.

4 …Do you agree that it is fair that for all users in the same segment to pay the same charge, and the manner in which we have set the segments?

The ADE does not support the hasty implementation of the TCR ahead of reforms to provide a cost-reflective signal for flexibility.

Subject to any residual charges reform meeting these concerns and being implemented in a more appropriate way, the ADE recognises that there would be justified reasons to understand fairness as favouring equality over equity and therefore, prefer a fixed charging approach. There would similarly be justified reasons for understanding fairness as favouring equity over equality and therefore, preferring a capacity charging approach.

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 aforementioned, the ADE does not support Ofgem's view that residual costs can straightforwardly be considered exclusively fixed or sunk costs. Further, the ADE does not support the hasty implementation of the TCR ahead of reforms to provide a cost-reflective signal for flexibility.

Subject to any residual charges reform meeting these concerns and being implemented in a more appropriate way, the ADE does consider that where behaviour cannot influence the total system or consumer cost, then there should not be an incentive to avoid those costs.

As set out in more detail below, we are concerned that the forward-looking signals that should discriminate between customers with and without on-site generation where they benefit the system are not currently fully cost-reflective. It is important that changes to residual charging are implemented at the same time as changes to access and forward-looking charges so that customers face the appropriate signal and can invest on that basis.

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

As set out in the Frontier analysis supporting these reforms, 'there is a greater deal of uncertainty associated with the consumer benefits estimates as some of the elements of consumer cost, in particular costs associated with the Capacity Market (CM) are inherently unpredictable'.

The ADE considers that the current indefinite suspension of the Capacity Market following the successful legal challenge of its State Aid approval can only make these consumer benefits more uncertain. This is particularly the case as the current modelling shows that the benefit from reduced avoidance does outweigh the additional costs to consumers of higher Capacity Market clearing prices but not by a very large margin. It is uncertain but possible that the suspension could have an impact on Capacity Market clearing prices.

More broadly, we consider that a number of areas within the impact assessment mean that the consumer benefits modelled are very uncertain.

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

The ADE does not support the hasty implementation of the TCR ahead of reforms to provide a cost-reflective signal for flexibility.

Subject to any residual charges reform meeting these concerns and being implemented in a more appropriate way, the ADE agrees that these options would be most practical.

8 Do you agree with the approaches set out for banding (either LLFC or deeming for agreed capacity)?

The ADE does not support the hasty implementation of the TCR ahead of reforms to provide a cost-reflective signal for flexibility.

Subject to any residual charges reform meeting these concerns and being implemented in a more appropriate way, the ADE would agree with these shortlisted approaches.

9 Do you agree that LLFCs are a sensible way to segment residual charges?

The ADE does not support the hasty implementation of the TCR ahead of reforms to provide a cost-reflective signal for flexibility.

Subject to any residual charges reform meeting these concerns and being implemented in a more appropriate way, there would be justified reasons to effectively segment residual charges by LLFC groups; e.g. half-hourly metered at HV or EHV. We also recognise that there would be justified reasons to further segment charges to reflect the heterogeneity within some of these groups.

Section 5: Quantifying the benefits of reform

10 Do you agree with the conclusions we have drawn from our assessment of the following?

The ADE recognises that Ofgem will make its decision on the basis of principles and not the Impact Assessment's modelling.

However, the uncertainty and lack of analysis in crucial parts of the impact assessment mean that the modelled system and consumer savings that support the principles-based decision are extremely uncertain.

Modelling of DSR

TRIAD response can be achieved through a large range of demand-side response (DSR) technologies including –

- Load response
- On-site generation
- On-site storage

Regarding export specifically, non-exporting on-site generation can be considered comparable to load response. However, fuel and capex expenditure will obviously differ considerably between generation-related DSR and load-related DSR. This is pertinent because relative fuel and capex expenditure between on-site and larger, front of meter assets is a crucial driver of system savings in the impact assessment.

Load-related DSR will be strongly impacted by the removal of the bulk of the TRIAD signal. It is surprising that this was not modelled in the same detail as on-site generation. It is not appropriate to treat capacity and dispatch volumes of load-related DSR as unchanged by the TCR to 2040.

This is particularly acute because progress on truly cost-reflective signals for DSR will still not be mature by April 2021 – the proposed implementation date of this reform. An overview (not comprehensive) of these signals is set out below. This is intended to support the evidence submitted confidentially to Ofgem by ADE members detailing the financial impact of this hiatus.

It is important to note that firstly, assets mostly cannot substitute access to one of these revenue streams for another – for example, loss in access to credits for reinforcement deferral cannot easily be substituted for access to dynamic frequency response markets. The overview below is not meant to suggest this. Secondly, evidence from ADE companies suggests that investment risk has increased for network charging during TCR – reducing the effectiveness of network charges and credits as a signal for investment.

The ADE considers that this impact should be modelled and shared with industry ahead of the final decision on the TCR.

<table>
<tr><th rowspan="2">Cost-reflective value</th><th colspan="3">Is the recoverable value likely to be cost-reflective by April 2021?</th></tr>
<tr><th>Extent</th><th>For demand reduction</th><th>For export</th></tr>
<tr><td colspan="4">Network infrastructure</td></tr>
<tr><td rowspan="3">Reinforcement deferral at distribution</td><td rowspan="3">Limited</td><td colspan="2">Through efficient TOU: Red and super-red rate charges/credits remain following the TCR. Market may be unlikely to invest as reform through Access likely to be underway for implementation in April 2022/23. Result of Access reform unclear – potentially less TOU signal through shift to capacity-based charging.</td></tr>
<tr><td colspan="2">Through efficient location: Shallow connection boundary (removing presumption for reinforcement) not in place until April 2022 earliest. Updated engineering standards for Distribution likely to remain in development – possibly undervaluing the contribution of DSR and storage to network operability and capacity.</td></tr>
<tr><td colspan="2">Through direct competition: Flexibility tenders only beginning to be implemented in most DNO areas (e.g. UKPN aim to reach 200MW max. at EHV and HV by 2023).</td></tr>
<tr><td rowspan="2">Reinforcement deferral at transmission</td><td rowspan="2">Limited</td><td colspan="2">Through efficient TOU: TRIAD value that remains following TCR will provide significantly less of a signal to shift demand at peak. Even if remaining signal is still sufficient for some forms of DSR, market may be unlikely to invest as reform through Access likely to be underway for implementation in April 2022/23. Result of Access reform unclear.</td></tr>
<tr><td colspan="2">Through direct competition: Opening up of NOA investments to non-network solutions likely to still be at a very early stage.</td></tr>
<tr><td>Constraint/curtailment management at distribution</td><td>Limited</td><td colspan="2">Active Network Management contracts likely to remain in place – replacing signal for flexibility with reduced cost connections for generation subject to unlimited constraint.

Possible new mechanisms to trade capacity on a temporary basis through Access reform with implementation in April 2022 at earliest. Result of Access reform unclear.

Flexibility tenders only beginning to be implemented in most DNO areas.</td></tr>
<tr><td>Constraint/curtailment management at transmission</td><td>In place</td><td colspan="2">Will be in place at Transmission by end of 2019 (see Balancing below).</td></tr>
<tr><td colspan="4">Broader market signals</td></tr>
<tr><td>Response to wholesale market</td><td>Very limited</td><td colspan="2">Some industrial users will have flexible/dynamic contracts with suppliers that do create exposure to wholesale price signals. This is likely to still be relatively nascent for commercial and domestic users. It is likely that independent aggregators will still be required to work</td></tr>
</table>

		through a licensed supplier to access the wholesale market. Large reforms such as the Supplier Hub Review may impact this but any recommendations are unlikely to be implemented by 2021.
		Removal of FiT for renewable generation and export in 2019 – may be replaced with the Smart Export Guarantee by 2021.
Energy capacity availability	Uncertain	**Capacity Market currently suspended indefinitely pending EC State Aid investigation but likely to be reinstated.** Once reinstated, barriers likely to remain to DSR. Capacity Market clearing prices are unlikely to respond immediately to TCR implementation and load DSR is unlikely to be the marginal CMU; the TCR Impact Assessment, for example, models large investment and thus, higher clearing prices only from 2023.
Balancing	In place	Independent access to the Balancing Mechanism is due to be implemented by end of 2019. Ongoing work for sub-site metering and DSR baselining may continue into 2020 but should be in place by 2021.
System operability	Limited	**Reserve:** DSR is able to access TERRE (end of 2019) and STOR. Currently unclear whether TERRE will reduce STOR volumes. DSR currently effectively excluded from Fast Reserve. Successful auction trial for frequency response may be extended to other products but unlikely to be in place by 2021.
		Frequency response: DSR able to access to FFR. By 2021, new products are likely to have been introduced. Weekly (and possibly day-ahead) auctions by 2021 will support DSR participation.
		Voltage control: Power Potential trial will have concluded. Further developments currently unclear – possible work beginning through SNAPS on a better market for reactive power.
		Restoration: Trial to use distributed energy resources for black start likely to have concluded. Further developments currently unclear.

Modelling of investor confidence

We also disagree that the reforms will not have a meaningful impact on investor confidence. The minded to decision states that 'we do not consider any increase in cost of capital to be likely, as potential for change in charging arrangements is well established'. We note that, as a result, hurdle rates have been held constant in the impact assessment.

It is true that network charging arrangements are subject to open code governance and that implementation of these changes is likely to happen 5 years after the TCR was first announced. However, the gap between the implementation of the TCR and that of other reforms as well as the sheer scale of the changes mean that investment confidence is likely to be negatively affected. We consider that it is not a conservative approach therefore to model no impact on investor confidence and may exaggerate the benefits.

Modelling of on-site CHP

We also disagree with the modelling of CHP.

The impact assessment includes enhanced capital allowances. However, it was announced in the November 2018 Budget that these will be removed from 2019. We understand that the modelling took place ahead of the November Budget and understand therefore why it could not be taken into account. However, the modelling is therefore out of date and overestimates the benefits recoverable by CHP.

Modelling of Capacity Market

When the modelling was conducted, the court ruling suspending the Capacity Market's State Aid approval had not yet been announced. Therefore, we understand why this quite exceptional event has not been factored in.

However, the suspension does create significant uncertainty on the functioning of the Capacity Market, the level of competition in auctions and when new, large investment will come forward – particularly in the short- to medium-term. We consider that this in turn creates significantly more uncertainty regarding the systems savings (through the securing of plant through the Capacity Market) and consumer savings (through potentially increasing the costs passed to consumers through higher Capacity Market prices in the short-term outweighing the initial savings).

Modelling of renewables

The Impact Assessment seems to treat change in overall renewable capacity as an input through relying on the Future Energy Scenarios. However, the TCR is likely to have a significant impact on new renewable energy investment. It is therefore not appropriate to model such investment as unaffected by the changes.

Section 5: Quantifying the benefits of reform

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

The ADE disagrees with Ofgem's minded to decision.

Although reform of the remaining Embedded Benefits was signalled during the CMP264/5 discussions and in the early stages of the TCR, the introduction of Generation BSUoS charges for embedded generation was not. Therefore, it is not the case that investors and market participants could have reasonably expected, and priced in, these changes.

The ADE considers that if reform is taken to BSUoS charging, only the partial reform should be implemented. Any further changes should only be made through the BSUoS taskforce and the broader changes to forward-looking charges through the Access SCR.

12 Do you agree with our proposal not to address any other remaining Embedded Benefits at this stage?

The ADE agrees with the decision not to consider the other remaining Embedded Benefits at this stage.

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

The ADE considers that the remaining Embedded Benefits should be maintained and considers that Ofgem's current rationale is comprehensive.

Section 6: Transitional arrangements

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.

The ADE does not agree with Ofgem's proposed approach to implement the reforms to transmission and distribution residual charges starting in April 2021.

From a purely pragmatic perspective, it is not reasonable for Ofgem to make their final decision on the TCR in Summer 2019 without any regard to the situation with the Capacity Market.

The TCR decision relies heavily on arguing that more cost-reflective bid behaviour in the Capacity Market will lead to a more efficient system. Further, whilst we recognise that Ofgem's decision will be made on principle, the central role of the Capacity Market in creating the total system and consumer cost impacts modelled in the Impact Assessment also cannot be ignored.

We consider that the current suspension of the Capacity Market creates sufficiently exceptional circumstances to warrant delaying the decision on the TCR until the European Commission have published their final State Aid decision following a Phase 2 investigation. This may happen in Summer 2019 – thereby, leaving the current TCR decision timescales unchanged. Whilst we consider that the risk is very low and continue to work to avoid it, there is also still a risk that the European Commission could publish a negative decision – terminating the Capacity Market.

Given how closely related the Capacity Market and reform of residual charges are, we argue that Ofgem should only make the decision on the TCR once we know with certainty that the Capacity Market will be reinstated and under what terms.

From a broader perspective on the market, we are also very concerned by the likely gap in the early 2020s between the removal of the bulk of the TRIAD signal and the introduction of new, meaningful and cost-reflective signals for flexibility through the Access SCR and other reforms. As already noted above, we consider that this is likely to have a significant detrimental impact on flexibility.

We are not asking for no reforms to be made. We are also very supportive of Ofgem's duty to protect all consumers and the need to ensure consumers are protected from unnecessary cost. However, the benefits and costs of the proposed hasty implementation of these reforms is sufficiently uncertain at present to warrant a review of the timelines whilst continuing to meet this duty. More specifically, we consider that the significant uncertainty in the short-term system and consumer impacts and the timings for broader reforms through Access, RIIO-ED2 and the ESO's market reforms mean that Ofgem would be justifiable in –

- Tying the final decision on the TCR to confirmation of the EC's State Aid approval of the Capacity Market;

- Implementing the TCR's recommendations in full starting in 2023, in line with other reforms

Section 7: Our 'minded to' position

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

The ADE does not support the hasty implementation of the TCR ahead of reforms to provide a cost-reflective signal for flexibility.

Subject to any residual charges reform meeting these concerns and being implemented in a more appropriate way, the ADE considers that there would be justified reasons for supporting either the minded to position of the fixed charges or the alternative of capacity charges.

We also consider that there would be justified reasons for retaining the current EHV and HV segments or reviewing feasible options for separating these segments into smaller groups.

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.

The ADE does not support the hasty implementation of the TCR ahead of reforms to provide a cost-reflective signal for flexibility.

Subject to any residual charges reform meeting these concerns and being implemented in a more appropriate way and if fixed charging is taken forward, we do not agree that charges should be charged on each demand MPAN.

We understand that Ofgem is already considering levying residual charges on a site basis for EHV-connected sites. To be consistent, this approach should be also be taken for sites with multiple import MPANs connected at HV. A possible approach may be to use the industry database, ECOES, which allows suppliers to link MPANs. This would allow a site to receive a single fixed charge.

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