Energy UK response to ‘Targeted Charging Review: Minded to decision and draft impact assessment’

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About Energy UK

Energy UK is the trade association for the GB energy industry with a membership of over 100 suppliers, generators, and stakeholders with a business interest in the production and supply of electricity and gas for domestic and business consumers. Our membership covers over 90% of both UK power generation and the energy supply market for UK homes. We represent the diverse nature of the UK’s energy industry – from established FTSE 100 companies right through to new, growing suppliers and generators, which now make up over half of our membership.

Our members turn renewable energy sources as well as nuclear, gas and coal into electricity for over 27 million homes and every business in Britain. Over 730,000 people in every corner of the country rely on the sector for their jobs, with many of our members providing long-term employment as well as quality apprenticeships and training for those starting their careers. The energy industry invests £12bn annually, delivers £88bn in economic activity through its supply chain and interaction with other sectors, and pays £6bn in tax to HM Treasury.

Executive Summary

Energy UK welcomes the opportunity to respond to the Ofgem consultation ‘Targeted Charging Review: Minded to decision and draft impact assessment’.

Energy UK is supportive of the proposal to levy residual charges on final demand. In principle, we do not believe that residual charges should be placed on generation.

We do, however, need consistency on implementation across all network charging reforms, to achieve a level playing field whilst not undermining investor confidence. It is important that Ofgem consider the programme of implementing the proposals outlined in this consultation along with those of other work streams currently being progressed. Equally, we would expect that any reform which aims to remove distortions between generators connected to the domestic transmission and distribution networks should not be done in isolation, but should also consider the relative impact on competition between GB and interconnected generators.

The industry is going through change at present, including significant change outside of networks and charging arrangements (for example the suspension of the Capacity Market). The draft impact assessment in this consultation is based on arrangements which have changed, or may change quickly and at short notice. We ask that Ofgem keep the assumptions made in the impact assessment under review to ensure an accurate cost-benefit assessment can be made.

To date, there have been many good opportunities to engage with Ofgem as well as useful information dissemination such as webinars and podcasts. This early engagement is essential for a thorough industry-wide review to take place. Going forward, we welcome frequent opportunities to engage, similar to the Charging Futures Forum process.

Our responses to the questions asked in the consultation document are set out below. Should you have any questions, please don’t hesitate to get in contact.
Question 1: Do you agree that residual charges should be levied on final demand only?

Energy UK is supportive of the proposal to levy residual charges on final demand. We do however need consistency on implementation across all network charging reforms, to ensure that measures to increase overall competitiveness domestically do not lead to inconsistent investment signals through piecemeal reform implementation.

Question 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.

Energy UK are supportive of the assessments against the principles presented in consideration of changes in network residual charges.

It does not appear that these principles have been used in assessing other proposed changes (relating to embedded benefits) outlined in this document. Additionally, these principles should be reflected in the Terms of Reference in the BSUoS Task Force and any Code Modifications related to delivering any of the TCR reforms.

Question 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?

For a future smart, flexible energy system, multidirectional power flows will be increasingly seen as normal. We encourage Ofgem to see if there may be justification for all customers to make some contribution to all of the interconnected network. This would be a step-change from the current situation and would require further analysis on the whole system cost-benefit.

Question 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.

We agree that the research presented, together with evidence from other markets, suggests this is an appropriate method to recover the costs of historic investment. Nonetheless, it could be justified that EHV customers, given the considerable range of individual needs for electricity demand, could be treated differently.

Question 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)?
Yes. In principle, similar parties should pay the similar charges and behind-the-meter generation should not be excluded from that charge. We agree it is appropriate for the recovery of these residual charges to treat equitably behind-the-meter and metered generation. We believe the Electricity Network Access Project (ENAP) should review any appropriate differential charging under forward-looking charges.

Some members support the Ofgem approach and consider that it is important to not use network residual charging arrangements to drive investment. This group also considers that an early implementation of these charge will drive down consumer costs and will allow the most economic flexible solutions to come forward.

However, many members consider that it is important to recognise the impact the reform to residual charges will have on the growth of local flexibility. This group considers that more flexibility will be required in the future. To deliver this it is necessary to ensure market arrangements allow flexibility providers to realise the full value they provide. Cost-reflective forward-looking charges are part of this, as are reforms to the next Electricity Distribution Price Control (RIIO:ED2). This group believes to avoid the risk of stalling the development of local flexibility, these residual reforms should be coordinated with the other changes as necessary.

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

We agree that there will be overall consumer benefits as a result of implementing either one of the leading options.

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

We agree that against the other options evaluated, the two leading options are preferable. We would ask Ofgem to keep in mind that segmentation or banding should be restricted to available industry data to avoid additional process costs.

**Question 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 agree with the banding approaches for both LLFC and Agreed Capacity. However we have reservations on the practicality of implementing the Agreed Capacity option where a deemed capacity value is used.

**LLFC**

We believe that banding based on LLFC is the most appropriate and practical option. The methodology is currently used in DUoS charging so is well understood.

**Agreed Capacity**

Whilst we broadly agree on banding based on the Agreed Capacity we have reservations on its practicality, particularly on when a deemed value is used.
For larger sites, typically Half-Hourly metered, the majority of these customers have an agreed capacity level with their distribution network company. This information is a widely used data item to calculate existing Distribution charges. It is not perfect and information stored on a centralised database (ECOES) requires manual updates from suppliers to keep it accurate. This means that if a customer changes their agreed capacity level with their distribution company there can be a lag before this is accurately reflected in their contract which could lead to incorrect recovery of costs.

For smaller sites and those Half-Hourly metered sites that do not have an agreed capacity level the proposal is for this to be deemed. The only practical way to do this is by an agreed banding; i.e. LLFC.

Ofgem appear to suggest banding for these types of customer should be determined by their on-site usage (EV or Heat pump installations). This information does not exist and to try to record this centrally would incur significant changes to supplier and industry processes; this will be more costly to implement than the favoured Fixed Charge recovery option linked to LLFC.

The use of deemed capacity is likely to cause issues in equity between customer groups (e.g. if the deemed value is under-estimated, larger customers will subsidise smaller customers and vice versa). We therefore do not support the capacity method.

**Question 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?

Yes this is a practical option, noting that it is currently used in the distribution charging methodologies.

Nonetheless, it could be justified that EHV customers, given the considerable range of individual needs for electricity demand, could be treated differently.

**Question 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.

Regarding the wider system modelling (c) in applying the proposals on non-locational embedded benefits and the associated interpretation (d):

Members observed that the modelling does not study how the differential cost impacts will influence new non-CM generation investment. Although the impact assessment applies the cost impacts to two FES scenarios of pre-determined renewables roll-out¹, this is not iterative and the changes in costs to different generation types will result in changes to future investments. This, together with the absence of modelled impact on network costs, were seen as flaws which could lead to different conclusions. Members will present their own views on the resulting benefits or disbenefits.

Many members consider that, unlike the proposals on network residual charging, which were well discussed through the review process in various workshops and webinars, other reforms to charging such as the BSUoS proposals for embedded generators and the Small Generator Discount (SGD) were

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¹ Frontier Economics subsidiary report “Wider System Impacts of TGR and BSUoS Reforms” (pp 6, 10, 14, 54).
not well-communicated through the consultation process; specific proposals such as ‘full reform’ to BSUoS have therefore come as a surprise to many in the industry. Ofgem’s assumption that investor confidence will be unaffected is undermined and likely false. In such a significant process of change for the industry, it is vital that all decisions are well discussed and consulted upon. Some members have concerns that Ofgem’s assumptions on the impacts for embedded generation underplays the resultant impact to subsidy free renewables deployment and therefore the posited carbon savings may not be fully realised.

Other members support the approach that has been taken by Ofgem and consider that the reform of BSUoS embedded benefit is long overdue. These members consider that this reform will not only lead to customer cost savings, but will deliver a more economic system with the best economic technologies coming forwards. These members believe that both transmission connected, and distribution connected generation should be treated consistently in respect of the residual cost of operating the system. These members consider that investor confidence needs to be set against customer cost and the need to deliver an economic efficient system and that for many years Ofgem have flagged up that investors need to take account of the regulatory regime. These members felt that the Authority has a track record of acting in the interests of consumers where significant distortions become apparent in market arrangements.

Energy UK members have identified further flaws in the modelling which likely limit the accuracy of the model outputs:

Current BSUoS arrangements mean that each Supplier, and the embedded generators they account for, are not always in receipt of BSUoS embedded benefits. Embedded generators also pay the BSUoS generation charge in any HH that the GSP Group is exporting. This is because Suppliers pass through the cost of the system operator is handling that export. Ofgem do not appear to have accounted for this in their impact assessment, and have therefore likely overstated the benefits of reform (see paragraph 6.11 of TCR minded-to position document).

The modelling has been carried out assuming that the transmission generator residual (TGR) has already been fixed at £0/kW before any other changes have been made. Any adjustment factor required to maintain compliance with EU regulation 838/2010 does not appear to have been modelled, and may therefore be mis-stating the benefits. The statement that setting TGR to £0/kW represents a windfall gain for consumers may be overestimating the benefit to consumers.

Regarding wider system modelling (c) for network residual charging reform and the associated interpretation (d):

Many members believe there is likely to be a significant impact on the willingness to invest in the provision of local flexibility resulting from the proposed reform to network residual charges. This may not be the long-term interests of customers as significant levels of flexibility will be required in the future, as highlighted in the Ofgem-BEIS Smart Systems and Flexibility Plan. Whilst we understand some of the reasons for not including potential network benefits in the Impact Assessment, we are concerned that this may cause the value of local flexibility to be understated. The localised nature of some types of flexibility, such as that situated behind-the-meter, means that these may well be especially well-suited to providing services to avoid network reinforcement.

Regarding distribution modelling (c) for residual reform:

Energy UK are concerned at the wide range of capacity values suggested for domestic customers – in the consultation, deemed values for low / medium / high are 4kVA, 6kVA and 8kVA. The Frontier analysis shows 18kVA. Such a range of values demonstrates uncertainty around the real numbers and will lead to inaccuracies of pricing all customer groups.
Question 11: Do you agree with our proposed approach to the reform of the remaining non-locational Embedded Benefits?

In principle we agree with a direction of reform that levels the playing field for generators connected at different connection points across the network.

Many members consider that the proposals on non-locational Embedded Benefit were not given the same opportunity for considered and open debate during the TCR process when compared with the proposals on network residual charging, and may be less robust and less well-prepared as a result. These members expressed concerns that this chapter of the report gives the appearance of a “bolt-on” consideration.

Other members were comfortable with the approach and consider the BSUoS defect has been flagged for a number of years and it is appropriate to deal with this issue at this time.

For any proposed reform, implementation plays a crucial part in investor confidence, and we ask that as far as practicable the final TCR proposals do not undermine contracts for those already entered into the Capacity Market, or those with Contracts-for-Difference, that the proposals ensure overall competitiveness against European interconnected generation is not diminished, and that signals from other reforms (particularly the Access and Forward-Looking charges work) are co-ordinated to send consistent investment and also operational signals to the market.

We note that Ofgem acknowledges that the principles of network residual charging may be similarly applied to BSUoS charging, and that the task force will be assembled to consider whether the various elements of BSUoS could be targeted or represent a residual charge, in kind. It would therefore seem consistent, and would also avoid unnecessary disruption, to complete this work before setting out a position on levying BSUoS charges to embedded generation.

Many members also pointed to the Electricity Networks Access Project which will review the differential charging treatment of EHV customers and transmission-connected customers, and that as such they feel that the future of the Small Generator Discount would be most appropriately tied to the outcomes of this parallel work, rather than setting an expectation in the TCR. These members supported setting a position on the BSUoS embedded benefit after the Task Force has concluded, as a more logical path.

Other members disagree with this position and believe that a delay in implementing the changes to embedded BSUoS benefits will lead to increased customer cost and will drive a suboptimal economic outcome. These members believe that it is clear that BSUoS charges are dominated by a significant amount of costs which should be recovered on a similar basis to residual charges, as outlined in Ofgem’s minded to position. They accept there may possibly be one or two elements within BSUoS which can be charged in a more targeted manner, if this provides useful signals, but that this cannot form a significant proportion of the total as these signals would already be apparent. These members therefore believe that the work to provide a more equitable allocation of BSUoS costs should be regarded as a higher priority than the work of the BSUoS task force, but could be carried out in parallel without much concern of interference between the two. These parties feel that the work should address issues with the distortion of cross border trade, as well as embedded benefits. They therefore believe that it may not make sense to charge distributed generation BSUoS as proposed in the short term, only to subsequently change the method soon afterwards, and that instead effort should be focussed on an enduring solution whereby no generation is charged regardless of where it is connected.

In our answer to question 10 we explained the concerns some members had over the wider system modelling. Where valid, this would lead to a re-statement of the posited benefits and hence the case for the proposed reforms.
Regarding the transmission generator residual (TGR), this is viewed as less an issue of charging principles but rather a requirement of compliance. A disbenefit of fixing the TGR to zero and recovering more costs from transmission generation is to reduce competitiveness with interconnected generation. Many members believe that alternative solutions could be more effective in delivering the TCR aims. As an example, any adjustments implemented to comply with EC83/82010 could equally be applied to both transmission and distribution connected generators which would deliver domestic generator parity and not further exacerbate international competitiveness.

Members noted that it is difficult to comment further on the approach to the TGR without sight of the specific modification which the ESO has been instructed to deliver. We believe that putting critical aspects of implementation design under review outside this consultation increases uncertainty over future impacts and may lead to unintended consequences. Therefore, we would welcome a more open and transparent development of outstanding elements of the proposals, with more opportunity to engage and comment before final direction is given by Ofgem.

Question 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 Ofgem has correctly identified the most significant of the embedded benefits to address first. Proportionally the remaining Embedded Benefits are not material so can be addressed at a later time, if necessary.

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

In principle, there could be a case for the remaining embedded benefits (those not addressed by the proposals in the consultation) to be removed but Energy UK believe that these are small enough to mean it is not worth addressing them at this time under the TCR. Parties are welcome to propose their own changes regarding these remaining embedded benefits through the standard Code change process should they wish.

Question 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.

There are various other ongoing industry developments that are likely to affect network charges. These include, but are not limited to, the Electricity Network Access Project and the BSUoS Task Force. Implementation of TCR reforms should be coordinated with the other industry developments. This will avoid unnecessary instability in network charges and improve investor confidence by providing a coherent approach.

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

In principle, Energy UK agrees with Ofgem’s minded to decision on residual charges and believes the changes will result in a more level playing field. We are supportive of the network residual being
recovered from final demand and agree that behind the meter generation should not be able to offset residual payments. There are, however, a number of issues outlined in our answers above that need to be addressed.

Many members consider that Ofgem should ensure that all areas of reform, including embedded benefit reform, are aligned with the Access SCR as well as any other changes which aim to alter charging arrangements in other types of generation in order to ensure a smooth transition and reach an appropriately level playing field. These members feel that the removal of the embedded benefits outlined in the minded to decision may be correct in principle but some practical considerations should be taken into account. More thought needs to be given to ensure correct modelling assumptions (and therefore interpretation of modelling outputs), and proper implementation of non-locational embedded benefits.

Other members believe that delaying implementation of BSUoS reforms will lead to addition cost to consumers and delay the implementation of reforms that will ensure that all uses of the system pay a fair share of charges for use of the system. These members feel that the current arrangement where effectively one group of customers (transmission) are subsidising another group of customer is not sustainable and needs to be resolved in as short a time frame as is possible.

The proposal to cut embedded benefits and apply charging to embedded generators seems to be the focus of the conclusions. The embedded generation community are anxious to understand how they will take part in new opportunities and ancillary services which will help reduce grid costs and manage the system. Embedded generators urgently need to see a clear value for what they can offer the system. Ofgem need to prioritise the opportunities for embedded generators and not just the costs.

**Question 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 decision to charge residual to final demand only is welcomed but the process of doing so is yet to be defined. There are issues such as EU regulation 838/2010 and competition with respect to European generation which have not yet been discussed. From a practicality perspective, the industry is unlikely to get a sight of these exact proposals by the deadline for TCR responses submission. Therefore it is impossible to have a view on all related practicality and implementation issues that may arise. Proposed implementation dates might be too ambitious and not give the industry sufficient time to put all necessary arrangements in place.

Regarding distribution modelling for residual reform, Energy UK are concerned at the wide range of capacity values suggested for domestic – in the consultation, deemed values for low / medium / high are 4kVA, 6kVA and 8kVA. The Frontier analysis shows 18kVA. Such a range of values demonstrates uncertainty around the real numbers and will lead to inaccuracies of pricing all customer groups.

We urge Ofgem to ensure that TCR decisions are not made in isolation but with a wider market context and having regard for interactions with other existing reform.