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Dear Andrew,

Targeted Charging Review: minded to decision and draft impact assessment

We welcome the opportunity to respond to Ofgem's minded to decision published on 28th November 2019.

We agree with Ofgem's proposal to apply residual revenue collection charges, including TNUoS and DUoS, 100% to final demand as a fixed charge. We also consider there may be a case for considering a different method for larger customers such as a form of capacity charge. We agree this should result in reduced harmful distortions, a lower system cost and lower cost to customers over the long term, which are likely to be significantly better than those modelled in your analysis.

We agree with Ofgem's proposal to apply demand BSUoS on gross demand and in so doing remove the smaller embedded generators credit for avoiding demand BSUoS liabilities.

We agree that charging BSUoS to smaller embedded generators may be better for competition with transmission connected generators. However, a better alternative solution may be to implement Ofgem's longer term proposal to apply the same TCR residual revenue collection principles to BSUoS which may point toward collecting BSUoS as a form of fixed, or capacity, charge collected wholly from final demand. If this were to be the case, then it may not be helpful to charge BSUoS to smaller embedded generators as an interim measure, if such charge were likely to be reversed shortly after.

However, in contrast with our position on the previous elements of your minded to decisions, we are strongly opposed to your proposals on TGR to zero and suggest that Ofgem is addressing the issue of distorted competition from the wrong direction. The purpose of EU Regulation 838/2010 is to facilitate effective competition across the EU and Ofgem's concern should be to ensure all GB generation is not inappropriately disadvantaged compared with other EU member states.

In this regard, a better alternative solution to implement Ofgem's TCR principles may be to cap the TGR at £ 0 at this time, subject to compliance with the Euro 2.50 cap and not prejudice the outcome of potential later CUSC modifications relating to the EU Regulation.

If Ofgem were still concerned regarding a potential distortion between smaller embedded generators and larger generators, then this may be better addressed by extending any TGR credit to smaller embedded generators if this better facilitated effective competition with interconnected generation for all GB generators.

We highlight that the impact assessment shows there would be no system benefit from Ofgem's proposal to set the TGR to zero. We also note that beyond exploiting a short-term regulatory shock if it were introduced before participants could respond, then there would be no sustainable customer benefit either. Rather, customers may see a long-term increase in cost through increased regulatory risk.

Further, we would suggest that Ofgem's proposal regarding the TGR would in practice be detrimental to the cost of the system and lead to higher costs to customers overall. The impact would be worse than modelled by Ofgem because the impact assessment did not fully take account of the detrimental impact on competition between GB generation and interconnected generation in other Member States¹. In this regard, we would expect additional detrimental impacts through changes in the capacity and mix of GB renewables with subsequent changes in the capacity of (and flows across) interconnection, which would further exacerbate distortions to competition in the capacity market and the capacity of GB dispatchable generation. This would have detrimental impacts for delivering GB decarbonisation objectives, fuel security, effects on cross-border trade and peak demand security leading to higher system costs and higher cost to customers over the long term.

It may be helpful for Ofgem to consider the underlying reason for why the TGR has become negative, specifically why GB transmission charges are so much more expensive than those for interconnected generators located in other Member States. In this regard, we would welcome consideration of potential changes which may include the TNUoS reference node which Ofgem has indicated is within scope for the access and forward looking charges SCR.

Whilst reform of both the residual and access and forward looking elements of network charging cannot help but bring uncertainty, we are mindful of the impact of this on both new and existing users of the network. We would therefore encourage Ofgem to acknowledge this and to seek to issue clarity at the earliest possible opportunity

The following Annex contains our more detailed responses to the specific questions asked in the consultation. We hope this is useful input and should you wish to discuss any of this response, please do not hesitate to get in contact.

Yours sincerely,

John Tindal
Regulation

¹ As the change would be to a national network code (the CUSC) the Authority will need to ensure, as per Article 8(7) of Regulation 714/2009 the 'Third Package', that there is no effect on cross-border trade.

ANNEX

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

We agree with Ofgem's assessment that this is likely to result in reduced harmful distortions to markets. We agree this should result in a more efficient energy system and lower cost to customers over the long term.

We agree with Ofgem's assessment that retaining the collection of residual revenue charges on generation would likely be passed through to demand users anyway, but in an indirect and less transparent way which is likely to be less fair and more detrimental to customers. We also strongly believe that there is a high risk of increased distortions if demand TNUoS is reduced by increasing generation TNUoS through the removal of the negative TGR.

It would be helpful for Ofgem to also consider that removing market distortions will also tend to have an additional indirect benefit for increasing fairness. This occurs because leaving distortions in place would tend to creating winners and losers among different types of customers depending on their ability to respond to incentives.

Bearing this in mind, we would note that the application of Ofgem's principles which resulted in the proposal to collect all residual revenue from demand does not in turn support the proposal to remove the negative Transmission Generation Residual (TGR) by setting it to £ 0 per kW. We describe our position on this in our answer to questions 10, 11 and 13.

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 broadly agree with Ofgem's assessment of TNUoS and DUoS demand residuals against the principles identified by Ofgem.

In particular, we would welcome the associated reduction in harmful distortions which currently affects both the choice of location and dispatch decisions for some generation market participants. We particularly welcome the likely reduction in carbon emissions and improvements in local air quality which should result from removing the existing detrimental incentives for some users to operate less efficient thermal plant out of economic merit in order to earn DUoS credits at times and in circumstances when there is no network constraint to be resolved.

We agree with Ofgem's assessment that a move to fixed charges should reduce the risk of grid defection, however, further to Ofgem's assessment, we would suggest the risk of grid defection is significant and potentially substantial in the near term as increasingly valuable residual avoidance incentives combine with falling technology costs. If left uncorrected, this combination could have

resulted in a rapid market response which could have been substantially detrimental for customers and society as a whole in the medium and long term.

Further, it is important for Ofgem to act quickly before too many customers invest their time and money to profit from existing arrangements which could result in even more customers being disappointed if equivalent, necessary, reforms were to be introduced at a later date.

We would also highlight that Ofgem's principle of reducing harmful distortions is particularly important to support the decarbonisation of the energy system, the progression to a 'whole system' approach and in the development of new effective providers of flexibility. By contrast, if Ofgem permitted the existing harmful market distortions to continue, then this would tend to distort the deployment of low carbon generation and flexibility providers. An inefficient mix of assets would be built in suboptimal network locations and operating at times unhelpful to networks. If Ofgem does not take the proposed action, it is clear that a less economically efficient energy system would be delivered, that is less effective and the cost to customers would be higher than necessary. Investors in energy system assets encouraged by these distortions would also be disappointed.

We also welcome that the improved fairness is achieved in a way which appears to be practical and proportionate. The proposed use of fixed charges based on line loss factor classes is likely to be a practical solution for suppliers since this is an existing industry measure which is known in advance of quoting and billing customers.

However, with regard to the Transmission Generation Residual, we do not agree with Ofgem's assessment of the impacts against the principles, as we describe further in our answer to questions 11 and 13.

- 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?**

We do not provide a view regarding which types of customers should pay more, or less than other types of customer, other than agreeing with Ofgem's principles of reducing distortions and delivering fairness subject to limits of practicality and proportionality. In this regard we would suggest a few issues for Ofgem to consider.

Care should be taken that Ofgem's proposed methodology for collecting revenue charges does not provide a distortionary price signal for customers to choose to connect at one location, or at one voltage rather than another. It would be important to ensure that new distortions were not created whereby, for example, a customer may be incentivised to choose, or change the line loss factors class they are connected at by choosing to connect at a different voltage in order to reduce their residual charge.

Care should be taken to ensure that fixed charges based on line loss factor classes are appropriately fair whereby differences in the charges which different types of customer pay are justified by relevant differences in the energy system costs of serving those customers. Also, it is important that the position of treating two customers the same as each other can be reasonably justified by the similarities between those customers.

Care should be taken to ensure that the design of a fixed charge does not create, or encourage “creative” metering arrangements. For example, if the fixed charge is applied on a per meter basis, there may be an incentive for different customers to “artificially” locate behind a single meter such as using a private wire arrangement and thereby becoming liable for a single fixed charge which may be cheaper than the sum of their individual fixed charges. However, this risk should also be balanced with the need to avoid charging a single customer multiple fixed charges just because they may have multiple meters on the same site, while an otherwise identical customer may pay a much lower fixed charge simply because they only have a single meter. We suggest that Ofgem should also review other regulatory arrangements which may provide excessive incentives for private wire arrangements.

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 it is consistent with Ofgem’s stated principles of fairness and reducing distortions to charge users in the same segment the same charge.

In as far as having a similar line loss factor class can be used as a proxy for being a similar type of customer, then this would appear to be a reasonable approach.

It is helpful that the line loss factor class is an existing industry measure which is visible to both suppliers and customers at the point of quoting and billing. We view this approach as particularly appropriate for domestic customers and smaller industrial and business customers.

We would suggest Ofgem should take particular care regarding domestic customers with electric heating on Economy 7 meters such that they are not discriminated against, or treated unfairly compared with other customers. It is important that the changes arising from this proposal do not increase the existing distortions that make electric heating less competitive compared to other options such as gas or liquid fuel based heating.

We suggest that it may be worth considering whether the line loss factor class by itself is sufficiently fair with regard to larger customers connected at higher voltages. If Ofgem were to consider a measure of capacity to define banding, it would be important to identify a measure which was difficult for customers to avoid so as to minimise harmful distortions. We would therefore share Ofgem’s concern that charging by capacity could risk causing larger distortions than a fixed charge and it would be important to balance this risk of increasing distortions with achieving greater fairness.

If Ofgem were to consider a form of capacity based charging for larger customers, then it would be important that it should be known sufficiently in advance of each charging year to enable suppliers to calculate quotes and bills accurately. Examples may include contracted capacity, or historic ex-post maximum capacity which may be calculated across several historical years in a way similar to Annual Load Factor (ALF) for TNUoS charges.

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, we agree that it would be consistent with Ofgem's principle of fairness and reducing distortions that customers with similar underlying demand characteristics, as reflected by their line loss factor class, should pay a similar charge irrespective of where they procure their electricity from (in front of or behind the meter).

This feature would be a key factor in determining the success or otherwise of Ofgem delivering its objective of reducing distortions to deliver a more economically efficient energy system at lower cost to customers over the long term. Failure to treat customers with and without on-site generation equally would fail to address the harmful distortions which currently over incentivise behind the meter generation compared with generation connected directly to the distribution, or transmission networks. Lower costs to customers overall could be expected to come from reduced distortions across all competitive markets including those for electricity generation, capacity, low carbon generation, flexibility and ancillary services.

Price signals to reflect the costs, or benefits, of behind the meter generation, or Demand Side Response (DSR) should not come from residual charges, but from other mechanisms. For example, it is appropriate for network investment cost signals to be provided by specific forward looking elements of network charges, and it is appropriate for dispatch signals to come from a combination of elements including market based wholesale power prices, balancing markets, or other market based ancillary services whereas it is inappropriate for investment signals or generation dispatch signals to arise from residual costs that are not affected by the investment or the generation dispatch.

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

Regarding Ofgem's proposed changes to the TNUoS and DUoS demand residual to be collected as a fixed charge on final consumption, we do not foresee any reasons why the expected consumer benefits might not materialise.

Regarding the proposed changes to the TNUoS and DUoS demand residual, we would expect the consumer benefits to be larger than the impact assessment suggests. Cost benefit analysis can only go so far in predicting outcomes. It is likely that reducing market distortions will tend to have many additional positive system and customer benefits substantially beyond those explicitly modelled. In this regard we would expect the eventual customer benefits to be substantially greater than those modelled. We provide additional detail regarding these additional benefits in our answer to question 10.

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

Yes, regarding the leading proposals for the TNUoS and DUoS demand residuals, we agree that these are likely to be more practical than other options. The proposal to use a fixed charge based on line loss factor classes appears to be a particularly practical solution due to using readily available existing industry data.

It is our view that a solution based on capacity may be practical to implement for larger users, albeit the choice of definition for a capacity based charge would be key. However, a capacity based solution would be less likely to be a practical, or proportionate for smaller customers, or domestic customers in general without specific further work. We feel that practical problems of implementation should not preclude future revision of the approach as better understanding of what factors may give rise to system costs emerges.

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.

We agree that the proposed approaches set out for banding appear reasonable and that fixed charges would better serve Ofgem's principle of reducing distortions than the use of capacity based charges.

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?

Agree in principle that the use of LLFCs appears reasonable, although it will be important to consider the detail in subsequent industry workgroups. There may be a case for considering a different measure for EHV customers as long as this still effectively delivers the objective of minimising harmful distortions.

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.

We would highlight three key shortcomings of the impact assessment which have different implications for each of Ofgem's different proposals. We describe the shortcomings below, then our view of the subsequent implications for each of Ofgem's key conclusions.

Shortcoming 1: Does not account for changes in renewable generation mix

We would note that the impact assessment did not consider the impact on the mix of renewable generation:

"When evaluating larger changes to assumptions these effects tend to get smoothed out, but for smaller changes it can reduce the stability of the modelling and adds an additional area of uncertainty to the modelling results. We have made efforts to minimise the impact of these effects, for example the renewable build is locked down between scenarios as per the "background" FES scenario." (Frontier/LCP section 4, emphasis added)

Shortcoming 2: Does not account for changes in network reinforcement

We also note that the impact assessment did not take account of changes to the cost of network reinforcement. We would expect the removal of distortions to encourage market participants to respond more efficiently to forward looking charges and market prices signals, which should result in much more economically efficient electricity network, therefore lower cost to customers.

"New build is assumed to build in a 'generic GB' location. This removes any possible locational distortions to the results due to new build bidding in to the capacity market at differing levels. For the purposes of our system cost analysis, we do not quantify the network cost impacts as they are highly sensitive to changes in the assumed build locations of new plant." (Frontier/LCP Winder system Impacts of TGR and BSUoS Reforms, section 2.2.4, emphasis added)

Shortcoming 3: Does not account for changes in interconnector build

We would note that the impact assessment did not take account of changes in the capacity of (and flows across) interconnection which may arise from differences in competitive position between GB generation and interconnected generation in other Member States.

"Low-carbon build, interconnector build and demand growth are in line with the 'Steady Progression' and 'Community Renewables' scenarios from National Grid's 2018 "Future Energy Scenarios" report. Under Community Renewables the assumed level of decentralisation is significantly higher, reaching 50% by 2035 compared with only 30% in Steady Progression." (TCR, Frontier/LCP Wider System Impacts, 2.2.4, emphasis added)

Transmission and distribution residual charges

Regarding the proposed changes to the transmission and distribution residual charges, we broadly agree with Ofgem's conclusions regarding the distributional effects and wider system modelling.

Further, it is our view that the total system benefits and customer benefits from the proposed changes to the TNUoS and DUoS demand residuals are like to be better than the modelling suggests. This is because shortcomings in the impact analysis described above mean the impact assessment fails to recognise the primary benefit of Ofgem's proposals that it is likely to result in more economically efficient investment decisions regarding the types of renewables assets which are built and the locations they are built with subsequent impacts on the cost of building and operating network to accommodate them.

If left unchecked, the existing market distortions would likely crowd out other price signals and continue to excessively incentivise generation and flexibility services specifically located behind customer meters at the expense of other technologies, and/or in other locations. This would tend to deliver a GB energy system with a higher degree of behind the meter generation, which may be closer to National Grid's Community Renewables scenario. If those behind the meter assets have been built in response to excessive credits from the avoidance of residual revenue collection levies, then these distortions would tend to incentivise a more expensive technology mix which is likely to be less effective at mitigating network constraints, or even may exacerbate the costs of network investment and operation.

Ofgem's proposal to remove harmful distortions would likely result in a different and more efficient mix of renewable technologies with a correspondingly more efficient investment in flexible assets and storage driven by more effective competition and more economically efficient price signals. This could be expected to deliver decarbonisation and flexibility at a substantially lower total system cost, and substantially cheaper cost to customers over the long term than that suggested by the impact assessment.

We would also note that the impact assessment did not model the benefits from subsequent changes to network investment and network operational costs which would be expected to arise from these changes. We would expect that the removal of distortions to encourage market participants to respond more efficiently to forward looking charges and market prices signals should result in much more economically efficient electricity network and gas network. This should deliver Ofgem and BEIS policy objectives while being of lower overall cost to build and manage, therefore giving rise to lower overall cost to customers.

BSUoS – eventual outcome to apply the TCR principles to BSUoS residual cost recovery

We agree with Ofgem² that in as far as the purpose of BSUoS is residual revenue collection, then the same principles and solutions should be applied to BSUoS as Ofgem proposes for TNUoS and DUoS demand residual revenue collection. This would be consistent with Ofgem's proposals to apply residual revenue collection elements 100% from final consumption based on a form of fixed charge, or capacity charge and follows the same rationale.

Given that Ofgem have indicated that their longer term minded to position may be to apply the same TCR principles to residual revenue recovery to BSUoS, it appears to be a shortcoming of the impact assessment that it did not model this scenario. If the impact assessment had considered this, then we would expect Ofgem to have concluded this would be the best solution with regards to reducing harmful distortions and improving fairness instead of the two proposed changes to BSUoS.

We suggest it may be helpful if Ofgem developed a proposal regarding the detail of how this approach may work and carried out an impact assessment in time to feed in to the conclusions of this SCR.

BSUoS – Remove embedded benefit by applying demand BSUoS on a gross basis

We agree with Ofgem's conclusions that applying demand BSUoS on gross demand would be better than the current arrangements.

We agree that the current BSUoS embedded benefit to smaller embedded generators from charging demand BSUoS on a net basis provides a benefit compared with larger generators which cannot be economically justified. We agree that removal of this benefit should result in a more efficient system and lower cost to customers.

As per our comments regarding the changes to the TNUoS and DUoS demand residual revenue collection, we would expect the system and customer benefits of this proposal to be even better than those suggested by the impact assessment. This is because we would expect the subsequent improvement in economic efficiency of price signals to result in a more economically efficient mix of renewables and more efficient network reinforcement, although these benefits were not modelled.

BSUoS – Apply balancing services charges to smaller embedded generators

We partially agree with Ofgem's assessment of the proposal to apply BSUoS charges to smaller embedded generators. We agree that this would tend to levelise the playing field between smaller embedded generators and larger generators so, compared with the status quo, this may result in a more efficient system and lower costs to customers.

However, we would suggest that an even better solution to removing harmful distortions would be for Ofgem to apply their TCR principles for residual charges to collect BSUoS in a way equivalent to

² TCR minded to decision para 2.7

Ofgem's proposals for TNUoS and DUoS residual charges; i.e. on a fixed, or capacity basis 100% to final consumption.

Regarding Ofgem's proposal to apply BSUoS to distribution connected generators, this only appears to be a partial solution and is not as effective as it could be. While this proposal may reduce some harmful distortions between transmission and distribution connected generation, it would leave several other harmful distortions in place, so would not be the best possible value for customers. There are several shortcomings in the impact assessment which lead to a failure to recognise the additional benefit to the system and to customers that could be achieved if Ofgem had considered a proposal to remove BSUoS from all generation instead of this proposal which would apply BSUoS to all generation, apart from behind the meter generation, as described below:

Firstly, Ofgem appears to have not fully taken account of the impact on competition between GB generation and interconnected generation in other Member States in this proposal, in particular with regards to the impact on renewables (as well as the effect on cross-border trade³). This is because the impact assessment modelled the renewables mix as fixed. The continued application of BSUoS revenue collection charges on generators connected to the distribution and transmission networks, but not on energy imported over interconnectors would leave in place the existing distortions which tends to place GB generation at a competitive disadvantage compared with interconnected generators. If left in place, this distortion would tend to result in GB renewables being inappropriately disadvantaged compared with interconnector imports which would tend to result in a higher costs of the GB system and higher costs to GB customers in the long term as well as affecting cross-border trade.

We note that in section 4, table 2 of the consultation, Ofgem describes the reasons why harmful distortions may be reduced by collecting residual charges 100% from final demand due to reducing the distortion on competition between GB generation and interconnected generation. We note that in the Annex 5, Table 7, Ofgem suggests that the proposed BSUoS reforms would result in larger generation becoming more competitive relative to electricity flows across interconnectors, however this conclusion is misleading because it would be a relatively small effect due to a relatively small reduction in the BSUoS price, while the majority of this competitive disadvantage would be left in place. We would note that with regard to renewables, the proposals would have little to no impact on their dispatch due to their low short run marginal cost, but would instead only affect competition in terms of capacity of GB renewables compared with capacity of interconnected generation, which the impact assessment did not take into account.

"However, levying residual charges from generators can also distort outcomes between GB generators compared to interconnected generators, for whom residual charges are not levied." (Ofgem TCR minded to decision, Table 2).

Secondly, we would note that because the impact assessment does not consider the impact on the mix of renewables capacity, it fails to assess the scale of remaining harmful distortions which this

³ As the change would be to a national network code (the CUSC) the Authority will need to ensure, as per Article 8(7) of Regulation 714/2009 the 'Third Package', that there is no effect on cross-border trade.

proposal would leave in place with regards to behind the meter generation. While this proposal may tend to levelise the playing field for BSUoS between small embedded generation and larger generation, it would fail to correct the harmful distortion for behind the meter generation which would continue to receive the double benefit from earning a demand BSUoS credit and not paying generation BSUoS. Leaving this distortion in place would tend to continue to over incentivise behind the meter smaller scale renewable generation, potentially in combination with batteries, compared with renewable generation connected to the either the distribution, or transmission networks resulting in a less efficient mix of renewables, a higher system cost and higher cost to customers.

We note that Ofgem recognised these short comings with regards to this proposal and it was unfortunate that the assessment did not model the impact of these remaining distortions for the renewables mix.

“However, the proposed reforms for BSUoS would leave some potential benefits for non-exporting on-site generation compared to other forms of generation since:

- a) Non-exporting on-site generation would continue to benefit from avoiding paying generation BSUoS, alongside avoidance of network and policy costs in general; and
- b) Non-exporting on-site generation would continue to receive benefits from helping to reduce demand BSUoS for the site on which it is located.” (Ofgem TCR minded to decision Annex 5, para 1.34)

Thirdly, we note that the impact assessment did not take into account subsequent impacts on the cost of reinforcement of transmission and distribution networks. As we described above, since the impact assessment did not take into account the effect of the BSUoS reforms on continued excessive incentives to locate renewable generation behind customer meters, it also did not take into account the subsequent harmful distortions this would leave in place regarding network reinforcement. Since this proposal would leave the behind the meter distortion in place, it would tend to over incentivise renewable generation behind customer meters, which would tend to result in more export driven distribution constraints and therefore tend to require more distribution network reinforcement than would otherwise be economically efficient.

Fourthly, by failing to model the option of charging BSUoS 100% to final consumption, the impact assessment failed to identify the remaining harmful distortion with regards to storage assets which would be left in place. In this regard, BSUoS charges would continue to provide a harmful distortion for transmission connected storage dispatch decisions. Even if transmission connected storage only had to pay BSUoS in one direction; e.g. when it was exporting electricity; this would still have a detrimental impact on the arbitrage margin available to them and therefore reduce the economic efficiency of their dispatch. This would tend to result in unnecessarily higher energy system costs and higher costs to customers over the long term.

Setting TGR to £0 and replacing with a new form of “adjustment factor”

If the TGR were set to £0 and replaced with a new adjustment factor to deliver compliance with the Euro 2.50 cap, then there would be a disbenefit to customers

The impact assessment modelled the impact of setting the TGR to £ 0 as a corresponding reduction in the cost of the Transmission Demand Residual (TDR), however within Ofgem’s stated TCR proposals this would not be possible while remaining compliant with the Euro 2.50 cap. We are concerned that Ofgem’s impact assessment fails to model the direct impact of Ofgem’s proposed removal of the TGR, which would be to replace it with a new “adjustment factor” to ensure continued compliance with the Euro 2.50 cap. By contrast, the modelling appears to assess the impact of an entirely different and future modification to change the way the CUSC deals with compliance with the Euro 2.50 cap, the details of which are not known to stakeholders at this time.

As Ofgem have previously suggested, the removal of the negative TGR would require the creation of a new form of “adjustment factor” to perform the same purpose of complying with the Euro 2.50 cap. If this is calculated in the same way as the TDR, then there would be no change at all to charges, so no benefit to customers. We therefore disagree that removal of the negative TGR would result in a windfall benefit to customers in the short term.

In this case, the removal of the negative TGR and replacement with a functionally equivalent adjustment factor would fail Ofgem’s test of practicality and proportionality. This is because it would involve significant unnecessary additional cost of devising how such an adjustment factor may be applied, changing the legal text of the CUSC, changing National Grid ESO billing systems, and industry participants having to change their financial models, all with no actual benefit because it would not result in any change to charging arrangements other than cosmetically.

The replacement of the TGR with a form of new adjustment factor would introduce substantial additional risk for generators which pay TNUoS due to an uncertainty regarding how such an adjustment factor may operate. This would tend to result in higher risk margins in both the capacity mechanism and CfD bid prices which would result in higher costs to customers than would otherwise be necessary.

Transmission Generation Residual effectively set to £ 0 - Summary

We do not agree with Ofgem’s conclusions regarding system benefits, or the customer benefits related to the removal of the negative TGR because this would be detrimental for cost to customers.

The purpose of the Euro 2.50 cap was to freeze relative charges between different Member States relative to each other within ranges and then review those ranges, in 2015, with a view to moving to a closer harmonisation of the ranges⁴. It is therefore appropriate and within the purpose and spirit

⁴ In accordance with Recital 10 of Regulation 838/2010.

of the Regulation⁵ that since GB locational charges are becoming increasingly more extreme compared with European competitors that the negative TGR, or equivalent adjustment is essential to maintain a level playing field between generation in GB and continental Europe in the best interest of GB (and other Member States) customers over the longer term.

We note that Ofgem appreciates this issue of distorting international competition from the following text:

“However, levying residual charges from generators can also distort outcomes between GB generators compared to interconnected generators, for whom residual charges are not levied.” (Ofgem TCR minded to decision, Table 2)

Transmission Generation Residual effectively set to £ 0 – Detrimental to customer cost

Regarding the proposed removal of the negative TGR by setting it to £0 per kW, we would suggest that the customer benefit would be smaller than that suggested and is instead likely to be detrimental to customers in the longer term. This is because the negative TGR itself exists to reduce harmful distortions in terms of competition between GB generators and interconnected generators which has system benefits and customer benefits beyond those modelled.

The consumer cost modelling does not model the impact of the removal of the TGR as a stand alone item, which makes it difficult to reach a conclusion regarding this element alone, although some important conclusions can be drawn.

Firstly, we are concerned by Ofgem’s interpretation of the customer benefit regarding timing of implementation of setting the TGR to £ 0 as described in the graph in Figure 14 of the Frontier/LCP report ‘Wider System Impacts of TGR and BSUoS Reforms’. In particular, we would note that this figure shows the majority of customer benefit only occurs in the first three years (2020, 2021 and 2022), because in this period there is no feedback to higher capacity market prices, or CfD because capacity auction has already taken place and no new CfD contracts are modelled for those years. So, the customer benefit in those years relies on Capacity Mechanism eligible plant and existing renewables having no commercial route to respond to this increase in their cost base.

If Ofgem attempted to make the case that they could deliver a windfall benefit to customers by removing the negative TGR and increasing transmission generator TNUoS charges quickly as a deliberate commercial shock before generators were able to reflect the change in their market and contractual arrangements, then this would be an example of poor regulatory practice. Use of this regulatory surprise approach would reduce confidence in the industry leading to increased risk premia for regulatory uncertainty which, in turn results in higher system costs and higher costs to customers over the long term.

⁵ 838/2010

Secondly, we would note that Figure 37 suggests the change in customer costs would be very small, or even an increase in later years by the time that generators are able to take the increase in their TNUoS cost into account in their commercial decisions.

For the later years where there is still shown to be a reduction in customer cost, this appears to be roughly 100% accounted for by reduced cost of supplier BSUoS avoidance payments and reduced supplier BSUoS charge. This means that the customer cost modelling clearly shows that the setting of the TGR to £ 0 has, on average, no net benefit to customer cost at all.

This result of a net neutral impact on customer cost from setting the TGR to £ 0 should not be a surprise since it would be consistent with Ofgem's view in table 2 that there would unlikely be a reduction in cost to customer from charging generators a higher residual charge because it would tend to be passed back to customers anyway through other charges in a less economically efficient way, which would tend to result in higher total cost of the system, higher cost to customers and worse customer fairness over the long term.

"As we would expect charges on generation to be largely passed through to demand users in the long run, from a fairness perspective we do not think there is a strong argument for residual charges to fall on either generation or demand users." (Ofgem TCR Minded to decision table 2)

Transmission Generation Residual effectively set to £ 0 – Detrimental to system cost

We would suggest that the proposal to set the TGR to zero to result in an increase in system costs with an associated increase in customer costs over the long term. This effect of increasing system costs would occur due to factors which the impact assessment did not take into account, as described below.

Regarding the assessment of system impacts, it is unfortunate that the modelling did not consider the impact of setting the TGR to zero separately. This means that Ofgem cannot rely on this modelling to support any case for setting the TGR to £ 0. We would note that Figure 34 of the Frontier /LCP impact assessment suggests the system benefit from the combination of TGR to £0 and partial BSUoS reform is relatively small and an increase in costs in later years. We would suggest that for years where a system benefit is shown, this may largely be explained by the reform to BSUoS charges, which suggests the modelling points to no system benefit at all from setting the TGR to zero.

Detrimental impacts related to GB capacity and security of supply

Ofgem has not carried out a full impact assessment regarding impacts on fuel security and associated security of supply (or the effect on cross-border trade) of removing the negative TGR in order to increase TNUoS charges paid by generators.

Ofgem acknowledge that an effect of increasing the TGR would be to increase generator bid prices into the Capacity Mechanism, which will reduce the capacity of contracts and result in a higher loss

of load expectation⁶. This is concerning and we suggest Ofgem should give greater weight to this detrimental impact in their considerations.

The modelling does not take into account changes in interconnector capacity or flows, so it fails to take account of the international competition benefits of the existing negative TGR.

If the modelling had considered the impact of the TGR on a standalone basis and modelled changes in interconnector capacity, this it could be expected to show that the system cost saving from reduced new build of CCGT would have been offset by an increase in cost of new interconnectors. An alternative way of looking at this could be if the TGR were left in place, then we would expect a reduction in the system cost of building interconnector capacity compared with baseline.

If Capacity Mechanism eligible stations were able to mitigate the higher TGR through higher capacity mechanism and CfD bid prices, then this would make them artificially more expensive and less competitive compared with interconnectors, and interconnected generation, which could be expected to result GB generation capacity being increasingly displaced by interconnected generation and interconnection capacity.

This displacement of domestic GB generation capacity would subsequently have many detrimental impacts on GB customers including higher risk to security of supply and higher charges to customers and remaining GB generators relating to revenue collection charges which interconnectors do not pay, such as BSUoS, unless this were charged wholly to final demand. In addition, HM Treasury would suffer a reduction in Carbon Price Support Rate revenue, because this is not paid by interconnectors and interconnected generators. This HM Treasury shortfall would need to be made up through either higher taxation, or a greater level of government debt, both of which will result in higher cost to GB customers.

It should also be noted that since the capacity mechanism is currently suspended, there is no guarantee that any generators will be able to mitigate the increase in TNUoS charges through their Capacity Mechanism bid prices, so the removal of the negative TGR at this time would have a further detrimental impact on investor confidence. This could have additional detrimental unintended consequences for GB security of supply during this uncertain time.

Ofgem should consider that a high level of commercial uncertainty would be caused for transmission connected generators by removing the negative TGR at this time before industry has sight of what form an eventual solution may be likely to take. This would have associated detrimental impacts on higher risk margins, damaged investor confidence, higher cost to customers and greater risk to GB security of supply.

⁶ Ofgem TCR minded to decision, para 5.29

Detrimental impacts related to capacity and mix of renewables

We would expect a further system and customer cost disbenefit to arise from changes to the renewables mix and total renewables capacity, which, as we described above, the impact assessment did not model. This impact would occur because setting the TGR to £0 combined with a move towards subsidy free renewables would tend to result in investors building more renewable generation capacity in interconnected countries and building correspondingly less renewable capacity in GB (as well as affecting cross-border trade). This would tend to result in GB losing inward investment and becoming increasingly reliant on energy imports from interconnected countries which is only “deemed” to be low carbon.

The impact assessment does not appear to have taken into account the position that setting the TGR to £0 would be particularly detrimental for existing renewables generators connected to the transmission network which may tend to result in their closure earlier than would otherwise have been the case. This would occur because, unlike dispatchable carbon emitting plant, renewables are not able to mitigate such an increase through capacity mechanism bids.

Such transmission connected renewables generators have been suffering increasingly expensive transmission network charges compared with equivalent interconnected and distribution connected renewable generators and it would appear perverse with regards to Ofgem and BEIS objectives of decarbonisation, to single out this particular group of renewables generators connected to the transmission network for such a damaging impact to their P&L. It may also be detrimental in terms of complying with EU law in terms of promoting renewable generation.

The modelling does not take account of the effect on lower new renewables built through the CfD scheme and the subsequent detrimental impact on achieving GB carbon targets. The impact assessment acknowledges that the increase in the TGR would tend to result in more expensive CfD bid prices⁷ which will increase the cost of the CfD scheme to customers and tend to result in a lower capacity of renewables supported within the scheme. Renewable capacity will become increasingly sensitive to this effect because as CfD strike prices become closer to the intermittent market reference price, a small increase in strike price can result in a proportionally very large increase in total scheme support.

We would be particularly concerned regarding the impact on existing renewables and potential future renewables built on a subsidy free basis. These generators would have no route to pass through higher TNUoS costs, so this would represent a worsening of their commercial viability which may lead to early closure, decisions not to repower, or decisions not to build at all. We would note that lower load factor renewables such as wind and PV would be particularly affected by this because the increase in their TNUoS capacity charge would represent a much larger increase in their levelized cost of energy.

⁷ Ofgem TCR minded to decision, Annex 5, table 7, p18

Detrimental impacts on system cost due because reduced GB renewables would feedback to higher reliance on interconnector imports

We would expect a detrimental impact on system cost from reduced build of GB renewables resulting in GB customers becoming excessively reliant on interconnector capacity to accommodate associated additional flows into GB. This would have several important implications including:

- i. Place further risk to GB long-term carbon targets by disadvantaging renewable capacity in GB compared with renewable capacity in interconnected countries. Currently interconnector imports are treated as zero carbon, although it is possible that this treatment may change. Even if interconnector flows remained classed as low carbon, it is possible that market changes in other countries may result in interconnectors reducing import, or becoming a net export. In this event, with the reduced domestic renewables capacity, GB could be left falling substantially short of low carbon targets.
- ii. Worsening GB fuel security because GB customers would tend to be more dependent on imported energy combined with domestic fossil fuelled generation. This would mean that in the event of a fuel supply shock, GB would be at higher risk since we may not be able to rely on interconnector imports and we would have less domestic GB renewable capacity to cope with potential fuel shortages.
- iii. Worsening security of supply risk may be expected to result from the points above. Ofgem concluded that the Capacity Mechanism would still tend to deliver broadly sufficient capacity to deliver the target loss of load expectation, but this conclusion did not take into account the impacts on reduced GB renewables capacity, increased interconnector capacity and worsening exposure to fuel security.

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

Summary view of all changes

We agree with Ofgem's proposal to apply demand BSUoS on gross demand and in so doing remove the smaller embedded generators credit for avoiding demand BSUoS liabilities.

We agree that charging BSUoS to smaller embedded generators may be better for competition with transmission connected generators. However, a better alternative solution may be to implement Ofgem's longer term proposal to apply the same TCR residual revenue collection principles to BSUoS which may point toward collecting BSUoS as a form of fixed, or capacity, charge 100% from final demand. If this were the case, then it may not be helpful to charge BSUoS to smaller embedded generators as an interim measure, if such charge were likely to be reversed shortly after.

We disagree with Ofgem's proposal to set the TGR to zero and suggest it should be capped at zero instead.

We explain these positions in more detail below.

BSUoS – eventual outcome to apply the TCR principles to BSUoS residual cost recovery

We agree that the purpose of BSUoS is only for revenue collection and it is our view that it does not provide a useful forward looking signal. If BSUoS were to be a helpful price signal, then it would provide an opposite signal to generation compared with demand, but instead, it provides the same price signal to both. Further in as far as market participants may change their investment, or dispatch decisions based on current BSUoS charges, it would tend to incentivise behaviour which is counter productive.

We agree with Ofgem's application of the TCR principles for residual charging and we would agree with Ofgem applying these same principles to BSUoS. In this regard, applying BSUoS as a fixed, or capacity charge 100% to final demand would be consistent with Ofgem's proposals regarding TNUoS and DUoS residual cost recovery and would be a better solution than either of Ofgem's proposed changes to BSUoS embedded benefits.

In particular, we agree with Ofgem's consideration of the impact on on-site generation:

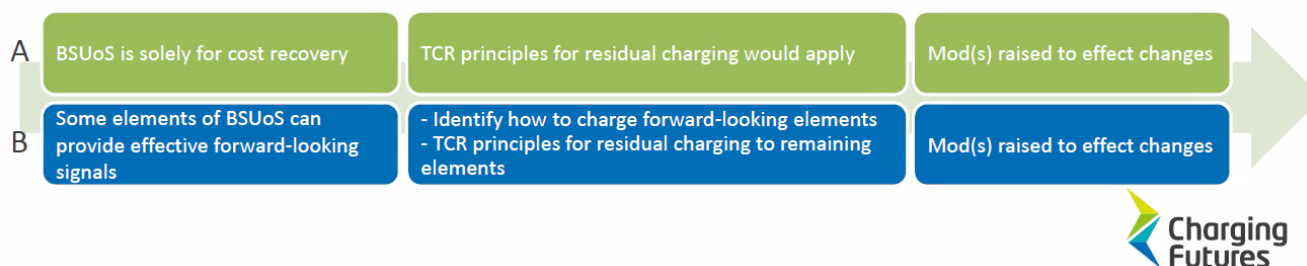
"our proposed approach to transmission and distribution residual charges addresses these issues, and if applied to BSUoS charges, would also address these issues in respect of BSUoS charges;" (Ofgem TCR consultation, Annex 5, para 1.35 e)

We note that in paragraph 2.7 of the consultation, Ofgem state that BSUoS is a cost recovery mechanism and that they will decide whether to launch an SCR to consider applying the wider TCR reforms to BSUoS in due course. This would appear to imply that Ofgem's longer term minded to position may be to apply BSUoS as a fixed, or capacity charge 100% to final demand.

"Balancing System Use of System (BSUoS) charges recover the electricity system operator's costs of balancing the electricity system and largely function as a cost recovery charge at present. When we launched the review, we indicated that we would consider the applicability of applying any wider TCR reform options to balancing changes. Since then, our Electricity Network Access Project has proposed a review of BSUoS (on which we will shortly be making a decision on whether to launch a Significant Code Review). We will consider the outcome of this work alongside responses to the proposed changes we are setting out in this document." (TCR minded to decision, para 2.7)

Ofgem repeated this position in a subsequent Charging Futures Forum meeting⁸ whereby Ofgem were very clear that their longer term vision for BSUoS cost recovery was to apply the TCR principles for residual charging, which implies charging it on a fixed, or capacity charge 100% to final demand.

In light of the findings of the Task Force, ultimately, there are two possible outcomes for BSUoS, either:



BSUoS – Remove embedded benefit by applying demand BSUoS on a gross basis

Implementing this change may be seen as a least regrets approach since, although it may be made redundant by future BSUoS reforms to apply the TCR residual revenue collection principles, it would be consistent with the direction of travel concerning energy system charges in general. There may be system and customer benefits from implementing this change at an earlier opportunity in case further reforms may be delayed.

Regarding Ofgem's first proposal to remove the embedded benefit from demand BSUoS avoidance by charging demand BSUoS on gross demand, this appears to be consistent with Ofgem's principles of reducing harmful distortions and increasing fairness.

We do not believe that BSUoS currently provides a useful price signal, however, we would note that this proposal would be a further benefit in that it would remove an existing unjustified difference in incentive. We would note that the current arrangement, by applying demand BSUoS on net demand, results in the BSUoS embedded benefit as a dispatch credit to smaller embedded generators which provides the opposite dispatch incentive compared with the incentive received by both larger generators and demand. This appears to be a clear distortion and there is a clear case for removing this.

BSUoS – Apply balancing services charges to smaller embedded generators

If BSUoS were treated the same as the TNUoS and DUoS residuals, then this may negate the need for Ofgem to implement the two sequential BSUoS proposals, firstly charging BSUoS on gross demand and secondly charging BSUoS on distribution connected generation output. However, since wider BSUoS reform appears to be at an earlier stage, then there may be a benefit in implementing Ofgem's proposals to BSUoS embedded benefit reform in the meantime. If Ofgem chooses to implement the proposals in this consultation as an interim measure, then it would be essential for Ofgem to be very clear to industry that this was an interim measure while Ofgem's longer term

⁸ http://www.chargingfutures.com/media/1269/jan19-forum_full_slides.pdf

mindful to decision was to apply BSUoS residual revenue collection wholly on demand in the same way as TNUoS and DUoS residuals would be charged.

Regarding Ofgem's proposal to apply BSUoS to distribution connected generators, this only appears to be a partial solution and is not as effective as it could be. While this proposal may reduce some harmful distortions between transmission and distribution connected generation, it would leave several other harmful distortions in place, so would not be the best possible value for customers. These remaining distortions would include:

- leaving an existing discrimination in place because behind the meter generation would still be able to earn a credit from demand BSUoS avoidance, while otherwise equivalent generation connected to the transmission and distribution networks would not receive this credit. We describe this issue further in our response to question 10.
- leaving in place the exemption that behind the meter generation has from the liability to pay generation BSUoS, while otherwise equivalent generators connected to the transmission and distribution networks would have to pay this cost.
- Continuing the existence of the harmful distortion where transmission connected electricity storage dispatch is affected by BSUoS whilst embedded storage is not. Even if transmission connected storage only had to pay BSUoS in one direction, e.g. when it was exporting electricity, this would still have a detrimental impact on the arbitrage margin available to them compared to embedded storage and therefore reduce the economic efficiency of their dispatch. This would tend to result in unnecessarily higher energy system costs and higher costs to customers over the long term.
- The continued application of BSUoS revenue collection charges on generators connected to the distribution and transmission networks, but not on energy imported over interconnectors would leave in place the existing distortions which places GB generation at a competitive disadvantage compared with interconnected generators. If left in place, this distortion would tend to result in higher costs of the GB system and higher costs to GB customers in the long term.

Ofgem should consider whether it would be appropriate to apply this change to increase BSUoS charges for distribution connected generators while a subsequent reform shortly after may be to reverse the change by applying BSUoS revenue collection to final consumption instead. This type of policy reversal would appear inefficient and may result in unnecessary cost and uncertainty for industry.

TGR fixed at zero

We do not agree with Ofgem's proposal to remove the negative TGR by setting it to £0 because it is our view that this would be detrimental for both system cost and cost to customers, as well as

serving no useful purpose at this time. We provided an explanation for this position in our answer to question 10.

The removal of the TGR, effectively setting at zero, is different from Ofgem's other proposals because Ofgem cannot implement this change simply as a matter of policy. This is because the negative TGR exists to ensure compliance with the Euro 2.50 cap, which is a matter of European law. It is not at all clear how, or if it may be possible, to change the way the CUSC treats this issue, so we would be concerned that where Ofgem suggest it is their proposal to effectively set the TGR to zero by changing the approach to compliance with EU law, Ofgem is inappropriately pre-judging the outcome of a potential future CUSC modification, which may be said to have fettered their discretion.

Instead, we would suggest Ofgem should deliver their objective to making residual charges 100% from final demand by leaving the TGR in place and placing a cap on it at £0 per kW, subject to compliance with the Euro 2.50 per MWh cap. This would enable time for subsequent industry processes to give proper consideration as to what an enduring solution may be appropriate.

Capping the TGR at £ 0 per kW would be better than Ofgem's proposal to set the TGR to zero for the following reasons:

- i. It would equally meet Ofgem's principle of reducing distortions because Ofgem's proposal would deliver no additional benefit to the system, or to customers compared with simply placing a cap on the TGR at £ 0.
- ii. If Ofgem's objective was to use the removal of the negative TGR to increase the TNUoS charges for generators, then the proposal to cap the TGR at £ 0 instead would better meet the principle of reducing harmful distortions compared with interconnected generators. The reason why the negative TGR exists is specifically to reduce harmful distortions in competition between GB generation and interconnected generation according to EU Regulation⁹.
- iii. It would better meet Ofgem's principles of proportionality and practicality since it would deliver practically the same effect as introducing a new adjustment factor, but with substantially lower cost to industry through lower administrative costs and with a simpler change to charging arrangements.
- iv. It would deliver greater benefits to the system and lower costs to customers compared with Ofgem's proposals. This is because it would avoid imposing unnecessary uncertainty and cost and risk on the system and customers in the meantime before an alternative enduring solution is designed.
- v. It would demonstrate better regulatory practice because the only apparent justification for Ofgem to replacing the role of the TGR with an otherwise functionally identical adjustment

⁹ EU Regulation 838/2010

factor at this stage would be to more purely meet their principle of collecting residual charges 100% from final demand as quickly as possible. However, it would appear to be poor regulatory practice to rush this change through out of principle when it would have no benefit, but instead be detrimental to customers and costs to the system compared with waiting for an enduring solution.

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, we agree with Ofgem's proposal to not address other remaining embedded benefits at this stage. It may be appropriate to consider other embedded benefits at a later stage, but we agree that Ofgem has identified the most important elements to address first.

However, we would highlight that the way policy costs are collected from suppliers on a commoditised £/MWh basis currently causes additional distortions that are detrimental to system efficiency and fairness in an equivalent way to that which Ofgem has identified with network residual charges. These policy costs may not be conventionally considered as embedded benefits, but by giving economically unjustified credits to certain generators (i.e. behind the meter generation) and not others, they have an equivalent distortive effect. If left unresolved, this distortion is likely to become increasingly detrimental resulting in generally higher cost to customers and unfair disparities between different groups of customers. We would urge Ofgem to work closely with BEIS to reform the collection of policy costs from electricity suppliers as soon as practically possible using the same principles as Ofgem has applied to the collection of network residual revenue collection.

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

As we described in our answer to question 11, a reason to retain the BSUoS embedded benefit at this stage may be if Ofgem were to implement a wider reform of BSUoS with the same timescale that may result in BSUoS revenue collection being charged in the same way as Ofgem propose for the TNUoS and DUoS demand residuals.

Regarding the negative TGR, there are many reasons that Ofgem has not taken account of that mean this charging element should be maintained. As we explained in our answer to question 10, the impact assessment shows that there is no direct customer benefit from setting the TGR to zero, but further the customer and system impacts of this change are likely to be detrimental because of the factors which the impact assessment did not take into account.

As we explained in our answer to question 11, we would suggest that it would be more appropriate for Ofgem to conclude from this SCR that the TGR should be capped at zero, subject to compliance with Euro 2.50 Euro cap instead of making a policy to set it at zero.

We suggest that when considering reducing competitive distortions, there are three groups that Ofgem should particularly consider, namely between GB transmission connected generation, GB distribution connected generation and interconnected generation¹⁰. Ofgem appear to be currently focused on levelling competition between GB transmission generation and GB distribution generation, but failing to recognise the more important issue of competition (and the effect on cross-border trade) between all GB generators and interconnected generators. In this regard, we would suggest that if Ofgem is concerned that the negative TGR may be distorting competition between GB transmission and GB distribution generation, then a better solution may be to extend the negative TGR credit to distribution connected generation as well. We suggest this would be a better approach since it would address Ofgem's perceived issue with regards to a level playing field between transmission and distribution without worsening the competitive position of all GB generation as compared with interconnected generators.

We would note that it is not within Ofgem's power to fix the TGR, or equivalent adjustment factor, to £0 because it must remain compliant with the Regulation 838/2010. Even after National Grid's purported modification¹¹ which may change the way the CUSC complies with the Regulation, it is possible that there may still be a negative TGR/adjustment factor for transmission generation. Since Ofgem is apparently concerned that compliance with the Regulation resulting in a negative TGR/adjustment factor may distort competition between transmission generation and distribution generation, then this concern would appear to remain in place irrespective of the result of National Grid's subsequent modification (depending on if it raised, progressed and approved by Ofgem). This means that in order to fully address Ofgem's perceived concern, it may be necessary to apply any resulting negative TGR/adjustment factor to distribution connected generation anyway, regardless of the outcome of National Grid's potential modification.

An alternative solution may be for Ofgem to consider why GB transmission charges are on average so much more expensive than other European countries. It would be helpful to consider if there may be an opportunity to make other changes to TNUoS charges which could deliver both a level playing field in GB and with interconnected generators as well as ensuring no effect on cross-border trade. In this regard, we note that Ofgem has stated that consideration of the TNUoS reference node will be in scope of the Access and Forward Looking Charges SCR. We would suggest it would be poor regulatory practice to firstly increase TNUoS charges to transmission connected generators by setting the TGR to £0, then subsequently reduce them again due to future changes to the TNUoS reference node shortly after. We would suggest that Ofgem should consider these issues in parallel and that Ofgem should be clear that they would not propose to set the TGR to £0 without first considering whether it may be appropriate to reduce the average cost of TNUoS locational charges.

¹⁰ In addition to competitive distortions, Ofgem also need to be mindful of the affect on cross-border trade as per Article 8(7) of Regulation 714/2009.

¹¹ Which, as at the date of writing, stakeholders have yet to see.

We would further suggest that Ofgem's proposal to set the TGR to £0 is premature before considering in more detail how GB can remain compliant with the Euro 2.50 cap and more generally how GB generation can remain competitive with generation in interconnected markets. We would suggest the legal and practical issues regarding how to comply with the EU Regulation 838/2010 (as well as Regulation 714/2009 and Directive 2009/72) are considerable and it is important that this should be done carefully. We would suggest Ofgem could risk leaving itself open to the accusation of "fudging" if it is seen to instruct National Grid to change the way the CUSC interprets EU law in order to achieve the objective of a £0 TGR instead of considering what interpretation of the EU law is most appropriate and in the best interest of the GB system and GB customers as well as systems and consumers in other Member States.

In our answer to question 10, we also explained why we do not think it is appropriate to remove the TGR and replace it with a new "adjustment factor" of either the same, or different value. This would not be practical, or proportionate since it would result in disruption to CUSC and market participants for no benefit to either customers, or market participants, other than increasing perception of risk in the meantime.

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 that there is a balance to be struck between introducing the proposed changes and realising the benefits of those changes quickly compared with giving suppliers and network users sufficient visibility and notice of the changes to update their systems accordingly.

TNUoS and DUoS demand residual

Regarding the proposed changes to the TNUoS and DUoS demand residual, it is our view that having identified the flaws in the current arrangements, it is important that Ofgem act quickly in order to address the identified distortions and to discourage parties from investing further in technologies or practices that will not be supported in the longer-term.

However, there should be sufficient notice for suppliers to appropriately update relevant systems. There also needs to be sufficient lead time for suppliers to update tariffs and contractual agreements which would be required to ensure that the tariffs which customers pay would reflect the new charging arrangements.

BSUoS

We would support the timescale which Ofgem proposed to implement changes to BSUoS embedded benefits from April 2020, or April 2021.

TGR to £0 per kW

We do not support Ofgem's proposal at all to remove the negative TGR by setting it to £0 per kW. However, if this were to be implemented, then it should be delayed to coincide with a decision regarding an enduring solution for complying with the Euro 2.50 cap, or at the very least delayed to coincide with the delivery year for the next T-4 Capacity Market auction delivery year following Ofgem's decision.

A rationale for a quick implementation has been previously used for other regulatory changes that the change had been well signalled in advance and users should have already factored it in, but such reasoning does not apply in this case. This is because the issue relating to the TGR relates to legal interpretation, not simply regulatory policy, previous Ofgem guidance regarding their regulatory policy position could not be relied upon by generators. The result of the CMP261 CMA legal challenge was not known until recently in February 2018 and Ofgem's response setting out their subsequent policy direction was not published until May 2018¹².

Even now, it is not at all clear to industry how a prospective future CUSC modification may change the application of the Regulation because substantial legal, technical practical complexities remain, noting that industry has yet to see such a modification.

As we described in our answer to question 11, in the open letter following the CMA's ruling in the CMP261 case, Ofgem already gave a clear reassurance to the generation community that any increase in transmission generation TNUoS charges would provide an appropriate implementation period which generators could have reasonably interpreted as to coincide with the next available T-4 capacity auctions delivery year. It would be poor regulatory practice for Ofgem to renege on this assurance at this late stage. Such a reversal from regulatory guidance could be interpreted as being counter to transmission connected generators' reasonable, legitimate, expectations.

"As with any major decision we take, we will consider implementation timelines (including whether any transitional arrangements are necessary) holistically, as part of the TCR process, taking into account the scale of change, and implications on all parties impacted by the changes." (Ofgem open letter May 2018)

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 agree with Ofgem's minded to decision regarding the TNUoS and DUoS demand residual charges.

¹² https://www.ofgem.gov.uk/system/files/docs/2018/05/cmp261_update_letter_3_may.pdf

We agree with Ofgem's proposal to remove the embedded benefit from avoidance of demand BSUoS by moving to charge demand BSUoS on a gross demand basis.

We would partially agree with Ofgem's proposal to apply generation BSUoS charges to distribution connected generators. While we agree that this proposal may be better than the baseline, we view a better solution would be Ofgem's proposal to apply the TCR residual revenue recovery principles to BSUoS, which would imply collecting BSUoS on a form of fixed, or capacity charge 100% to final consumption. We would be concerned that it may be unnecessarily disruptive for industry if Ofgem should decide within this SCR to start charging BSUoS to distribution connected generators, only to reverse this decision shortly afterward to collect it from final consumption instead.

We disagree with Ofgem's minded to decision regarding the TNUoS generator residual for the reasons we outlined in our response to questions 10, 11, 13 and 14.

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.

Ofgem appear not to have fully considered the practical implications of implementing full BSUoS reform to begin charging BSUoS to smaller embedded generators, only to potentially reverse this position shortly afterwards if Ofgem went on to apply the TCR principles for residual revenue collection to BSUoS charges.

Ofgem appear to have failed to appreciate that it would be in practice highly challenging for industry to deliver Ofgem's objective of increasing generator TNUoS charges through the removal of the negative TGR. This is because compliance with the Euro 2.50 cap is a highly complex and involved issue and it is not at all clear from a legal, technical, or practical point of view how the CMP261 CMA result may be translated into a practically implementable test while remaining compliant with the EU Regulation 838/2010.

We suggest Ofgem should consider in more detail implications for network companies regarding the risk that some network assets may become a stranded if reforms result in generators choosing not to build as expected or existing generators closing early or not repowering.

It would be helpful if Ofgem continued to provide support for communication of these changes so that customers develop a better understanding of the relevant issues and how these reforms will impact them.

Ofgem should also take into account the impact of these reforms on generators bidding into the next CfD auction despite facing uncertainty regarding the exact form that future charging arrangements may take.

Ofgem's proposals will tend to increase costs faced by generators who are bidding into the next CfD auction, so it may be appropriate to work with BEIS to consider whether the administratively set CfD Strike Price caps should also be increased accordingly.

Ofgem has not properly considered the practical, legal and technical considerations and difficulties associated with their proposal to set the TGR to £0 which would require replacing it with new arrangements such as a new adjustment factor to ensure charging remained compliant with the Euro 2.50 cap. We have provided a detailed justification for this in our answers to questions 10, 11 and 13.