

25 January 2019

By email: to Andrew Self via TCR@Ofgem.gov.uk

Dear Andrew

Response to Ofgem's "Targeted charging review: minded to decision and draft impact assessment"

BUUK Infrastructure Ltd is the parent company of two IDNO licensees: The Electricity Network Company and Independent Power Networks. Our responses to the questions posed in Ofgem's consultation are provided in the annex to this letter. Whilst we have reviewed the consultation in its wider context, the main area of focus is on the impact that changes to the treatment of residual charges may have on IDNOs.

How changes to the treatment of residual charge can impact on IDNOs.

Changes to the way the residual component of charges is calculated and applied will potentially impact and distort the margins available to IDNOs. In practice¹ IDNO charges to suppliers replicate those charged by DNOs for their relevant distribution services area. In respect of consumers connected to the IDNO network, DNOs charge IDNOs for use of their upstream network through 'boundary' tariffs determined by applying a discount factor to the 'all-the-way-tariff' (the tariff charged to the end consumer and determined by the CDCM). The IDNO margin is therefore the difference between the DNO 'all-the-way' tariff and the DNO 'boundary' tariff.

The allowed revenue that a DNO recovers under its price control will not change as a consequence of changes to the way the residual component of the DUoS charge is recovered under DNO charging methodologies. The same is not true for IDNOs. Changes to the way DNOs recover the residual component are highly likely to change the margins made available to IDNOs through the CDCM and PCDM. To date work undertaken through Ofgem has not considered how the residual component should be allocated between an IDNO and a DNO, nor assessed how IDNOs will be impacted. Currently, the residual component is charged to IDNOs as part of the bundled charge. Therefore, the residual is essentially allocated between the DNO and the IDNO using the cost drivers in the DNOs' Price Control Disaggregation Model (PCDM). The potential impact of changes to the recovery of the residual will vary across DNOs because each DNO recovers a different proportion of their allowed revenues through the scaler.

The removal of the residual component from generation means that IDNOs with a predominant focus on generation may be unable to recover their total costs (whereas DNOs will recover these as a de facto 'cross subsidy' from its demand customer base).

¹ Licence condition BA2 of IDNO distribution licence sets out: "The licensee must set those Use of System Charges so that, except with the Authority's consent, the standing charge, unit rate, and any other component of the charges does not exceed the Use of System Charges to equivalent Domestic Customers ("the equivalent charges")."

Use of LLFCs

We have concerns with proposals to use Line Loss Factor Classes (LLFCs) to exclusively define the customer segment/type. We recognise that some DNOs may use the LLFC on its own to define the DUoS tariff, and thereby the customer type (i.e. the LLFC has a 1 to 1 relationship with the tariff); this is not true for all licensed distributors. We define the customer class and tariff through a combination of:

- the Line Loss Factor Class (LLFC);
- the Profile Class (PC); and
- the standard settlement configuration (SSC)

This is because, operating as an IDNO when we entered the market in 2006 there were a maximum of 999 LLFCs available for an IDNO to use across the 14 distribution service areas (making an average of 72 LLFCs available per GSP group). Our use of LLFCs (in addition to defining the group of loss adjustment factors for a metering point) includes:

- Identifying the network tier that we connect to the consumer and the network tier we connect to the upstream distributor. This is essential for attributing DUoS revenue between the upstream DNO and the IDNO.
- Separating out export metering points from import metering points.

Therefore, we are unable to use the LLFC to exclusively identify customers within a customer segment. We identify customer segments through the combination of the LLFC, PC and SSC. This is the form that data is provided to distributors in industry settlement flows (e.g. D0030). We recognise that a transition to full half hourly settlement could mean that the PC and SSC data items become redundant. However, we do not think this in itself is sufficient reason to rely solely on the use of the LLFC.

Under the SCR for Access and Forward Looking Charges one of the areas under consideration is making tariffs more granular on a locational basis, with different access options (firm, unfirm, etc) being made available. We believe this is where LLFCs could have a greater part to play in segregating out the different options.

We would be happy to meet with Ofgem or their appointed representatives to explain our points in more detail

Yours sincerely

Michael Harding
Regulation Director

Annex – Response to Consultation Questions

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

1.1 Whilst it may be true that:

- the residual charge component of a use of system charge does not represent any specific set of costs or activities; and
- that it is “merely” a topping up mechanism to match outputs from forward looking charging models,

a similar case can be made in respect of revenues derived from forward looking charging models. Such models are a hypothetical representation of what it might cost to construct a hypothetical increment (which will never be built). They do not represent how networks are actually constructed, reinforced or replaced. Nor do they represent many of the costs of operation.

1.2 Residual charges recover essential costs of operating the distribution network. And whilst it may not be possible to determine which of those costs are brought about by a generator, the same is true in respect of demand. Therefore, we have some concerns about the lack of an objective justification over the proposal that residual charges should be levied on final demand only, thereby requiring demand customers to provide a potential cross subsidy across to generation.

1.3 We agree that the application of residual charges should not result in charges that unduly distort investment signals for demand or generation; and that the application of residual charges should satisfy, in the round, the principles of:

- reducing distortions,
- fairness, and
- proportionality.

1.4 Also, we note Ofgem’s concerns that the current different approaches in transmission and distribution potentially distorts competition between generators connected to the transmission system, interconnected generators, embedded generators and “*behind the meter*” generation, we think many of these distortions result from:

- differences between the transmission and distribution charging methodologies - and not through the principles behind the application of residual charges; and
- the high proportion of the price control revenues that is recovered through the residual component,

and no necessarily due to the application of residual charges. Addressing the above issues could play a large part in reducing the level of distortions.

1.5 We think the removal of residual charges in their entirety from generation would introduce different distortions which could incentivise alternative economically inefficient behaviours in favour of transmission.

1.6 Ofgem’s analysis indicates that 80% of transmission charges relates to the residual costs, whilst for electricity distributors the residual component may make up to half of the distribution charge. However, on average the residual component is 30% of the total network charge. In one instance (UKPN London) the residual component is a negative

number. The costs incurred in operating networks broadly fall into the same cost categories for different network operators.

- 1.7 We agree that charges need to reflect the forward looking costs that network users impose on the network to give the economically efficient signals. However, residual costs also reflect part of the total efficient costs of operating the network business (assuming price controls are effective at determining efficient frontiers). Therefore, it appears appropriate to us that all network users should pay an element of the legitimate non-forward looking element of costs that are nonetheless essential for the operation of the distribution business.
 - 1.8 It seems wrong that, by removing the residual component from generator charging, a generator connected to the transmission system can avoid contributing towards 80% of the total transmission costs, whilst for a generator connected in the UKPN London distribution services area, the exclusion of the residual (negative) component would result in a higher charge to the generator, and potentially result in a cross subsidy to final demand customers.
 - 1.9 Notwithstanding the above, we recognise that each kW of output generation at some point becomes a kW of demand for a consumer. It is important to understand at what point on the network costs transition from those driven by facilitating specific generation to the costs of servicing demand. Arrangements need to avoid double charging for network use – once in conveying energy from generation, and then again through convey electricity to the consumer across the same piece of network. However, this is an issue that may be better addressed under the access and forward looking charges SCR.
- 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.**
- 2.1 Please see our response to question 1 above in respect of the treatment of residual charges for generation. We do not believe that Ofgem's assessment provides a robust assessment as to why generation should be exempt from residual charges.
 - 2.2 Because the amount of price control revenue recovered by the forward looking charges varies between transmission and distribution (and varies significantly between distributors), excluding residual charges from generation may introduce different distortions. We also believe that the removal of residual charges from one class of customer will result in what is in effect a cross subsidy. It is not clear to us that such discrimination is due.
 - 2.3 We acknowledge Ofgem's concerns that residual charges may "...distort investment and operational decisions". However, we think such distortions may have more to do with:
 - The percentage of revenue to be recovered through the residual charge.
 - Differences between transmission and distribution charging methodologies.
 - Weaknesses in charging methodologies in that they do not give a true reflection of forward looking costs.

2.4 Leaving the treatment of generation to one side, we agree with the process that Ofgem have followed in assessing the impacts of the changes. Also, we agree that the residual charge should be recovered through some form of fixed or capacity charge. However:

- We do not support Ofgem's preference for using LLFCs to allocate fixed charges.
- We are not convinced that the residual 'pot' to be recovered from each customer segment should set on historic volumes for that customer segment.

An alternative approach would be to apportion the residual pot to customer segments based on that customer segment's total contribution to system demand at the time of system peak (as opposed to aggregated Agreed Capacities). This approach may result in redistribution of the residual cost between segments would update over time.

2.5 If an approach using Agreed Capacity is followed, for domestic and small business users, average agreed capacity could be translated into a fixed charge for the customer segment. Whilst, this could be a single 'average' fixed charge within the segment, it could be developed into a more granular charge in the future with different bands within a customer segment (as and when more data to support such an approach becomes available).

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?

3.1 Such an approach would appear to work on the presumption that residual costs are driven by the network assets employed in providing the connection to the user. Whilst this may be true in part, it is not true in whole – some costs are driven by customer numbers. Therefore, we think there may be merit in considering under such an approach a proportion of the residual charge should be fixed and not related to the voltage level, with the remainder being a charge that is related to the voltage at which connection is made. However, we recognise the desire that residual charges should not distort pricing signals.

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.

4.1 We agree in principle. See our response to Question 2

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)?

- 5.1 Yes. We agree that similar customers with and without on-site generation should pay the same residual charges and that both types of users face the same residual charge for their Line Loss Factor Class (LLFC).
- 6. Do you know of any reasons why the expected consumer benefits from our leading options might not materialise?**
- 6.1 There are many assumptions, variables and unknowns in how Future Energy Scenarios will develop and evolve between now and 2030. A change to any one variable could significantly impact the expected customer benefits (in a negative or positive way). We think a high degree of caution should be used in placing too much reliance on this analysis.
- 7. Do you agree that our leading options will be more practical to implement than other options?**
- 7.1 There are many assumptions, variables and unknowns on how Future Energy Scenarios will develop and evolve between now, 2030 and beyond. A change to any one variable could significantly impact the expected customer benefits (in a negative or positive way). Also, given the number of changes the industry will face in the next 10 years, we think it will be difficult to isolate and attribute any specific quantitative benefits or detriments that consumers may receive as a consequence of changes to residual charging. Therefore, we think a high degree of caution should be exercised in placing too much reliance on this analysis.
- 7.2 To illustrate this point, the recent NAO office report on the roll out of smart meters has questioned the net benefits of the smart meter roll out following delays and higher costs than originally envisaged. This is within 3years of the original benefits being identified.
- 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.**
- 8.1 We agree with banding based on customer segments. However, we have concerns with placing reliance on the use of Line Loss Factor Classes (LLFCs) to exclusively define the customer segment/type. Whilst some DNOs may use the LLFC on its own to define the DUoS tariff (and thereby the customer type) it is not true for all. What defines the customer class and tariff is a combination of:
- the Line Loss Factor Class (LLFC);
 - the Profile Class (PC); and
 - the standard settlement configuration (SSC)
- 8.2 Operating as an IDNO when we entered the market in 2006 there were a maximum of 999 LLFCs available for an IDNO to use across the 14 distribution service areas (making an average of 72 LLFCs available per GSP group). Our use of LLFCs (in addition to defining the group of loss adjustment factors for a metering point) includes:
- Identifying the network tier that we connect to the consumer and the network tier we connect to the upstream distributor. This is essential for attributing DUoS revenue between the upstream DNO and the IDNO.

- Separating out export metering points from import metering points.
- 8.3 We identify customer segments through the combination of the LLFC, PC and SSC. Data is provided in this form to distributors in industry settlement flows (e.g. D0030). Therefore, for us to use the LLFC exclusively to identify a customer segment would not work.
- 8.4 We recognise that a different approach would be required for metering points registered under the CVA. Also we recognise that should we transition to full half-hourly settlement, the PC and SSC data items could become redundant.

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?

Not on its own. Please see our response to question 8.

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.

a) distributional modelling

- 10.1 In the modelling we note that for ex ante capacity the recovery of residual charges from domestic charges is based on a notional allocation of capacity of 18kVA for each customer, based on the fuse size. We think it is unrealistic approach to allocate residual charges to segments based on notional capacities calculated from fuse sizes. If all domestic consumers were to use their 18kVA capacity at the same time electricity distribution systems would fall over! We believe a better way of allocating the residual 'pot' between segments is to use the deemed demand raised by each customer segment at time of peak system demand.

b) the distributional impacts of the options

- 10.2 We note that Ofgem concludes believe this would provide a more realistic allocation of capacity used and would have a lesser impact on the 74% distribution of residual charges to domestic consumers (as indicated in figure 1. of Appendix 4 of Ofgem's minded to position).
- 10.3 We are concerned that it is proposed that fixed charges should be based on historic segment contributions. We do not think this is appropriate for a period that will start seeing significant changes to the way the energy system is used. We believe it is appropriate, and feasible, to adopt a more enduring approach for the allocation of the residual between customer segments.

c) our wider system modelling

- 10.4 No comment.

d) how we have interpreted the wider system modelling

- 10.5 No comment.

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

No comment.

- 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.**

No comment.

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

No comment.

- 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 recognise the challenges.

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

15.1 We have set out our concerns and reasoning in our responses to other questions. Whilst recognising the distortional effect that the current approach to recovering the residual component of charges may have on generators, we do not believe it is appropriate that generators should be exempt from the residual charges in their entirety.

15.2 The residual component of use of system charges represent legitimate costs incurred in operating a distribution business. Generation, will bring costs to the operation of distribution and transmission systems which are not modelled in forward looking methodologies (indeed the forward looking component of charges may identify benefits as opposed to charges). Therefore, we think it is appropriate that generators should be required to pay a fair proportion of those costs.

15.3 We recognise that a kW of output from a generator is also a kW of demand for a consumer. It is important to recognise that in the process of being conveyed across networks from the generator to the consumer there will be a point at which network costs will transition from being driven by generation to being driven by demand. Residual costs to generators should seek to only recover the specific costs that generators bring.

15.4 We are uncertain that the approach to allocate the residual component to customer segments through the use of historic volumes offers a robust solution for the future. We agree that using notional agreed capacities (with a deemed capacity of 18kVA for domestic consumers) skews the recovery of costs towards domestic consumers and think this is wrong. We believe a more robust approach is to allocate the residual component to segments based on the segment demand at time of system peak. We agree for smaller users the residual amount should be recovered by a fixed charge (which should be based on average capacity. However, for large users we think the of ex-ante capacity charges is a faire and less distortional approach).

- 15.4 In general we agree with the implementation dates set by Ofgem. However, we believe these should be co-ordinated with the implementation of any changes resulting from the SCR on the forward looking charges in order to minimise unnecessary volatility in through the changes in charges; i.e. once through changes to residual charges and then again through methodology changes for forward looking charges.
- 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.**
- 16.1 We have raised our concerns over the use of LLFCs exclusively to define customer segments in our covering letter and in responses to earlier questions. In our response we have suggested how customer segments could be identified across all distributors.
- 16.2 Changes to the way the residual component of charges is calculated and applied will potentially impact and distort the margins available to IDNOs. Although the way the residual component of the DUoS charge is recovered (and from whom) may change, the allowed revenue that a DNO recovers under its price control will not; i.e. the overall impact on the DNO is neutral. The same is not true for IDNOs where changes to the way the residual component is applied could change (and distort unduly) the margins available to IDNOs. Ofgem, in their minded to decision document, has not considered how the residual component should be allocated between an IDNO and a DNO.