

## **Response to Ofgem's Targeted charging review: minded to decision**

### **Background to ENGIE**

In the UK, ENGIE employs 17,000 people in a number of activities across the energy value chain, as well as through its extensive services and regeneration businesses.

In generation, ENGIE owns First Hydro in a 75/25 joint venture with Brookfield Renewable Partners. With a total capacity of 2088MW, it is the UK's largest pumped storage operator.

ENGIE also has a 50% stake in over 80MW of renewable generation. In supply, ENGIE operates an Industrial and Commercial (I&C) and Small and Medium Enterprise (SME) B2B electricity and gas supply business, and a domestic electricity and gas retail offer through its Home Energy business.

It owns the country's largest district heating business, providing district energy solutions to the public, commercial, industrial and residential sectors. A key site is the Olympic Park District Heating facility in London. Following the acquisitions of Balfour Beatty Workplace, Lend Lease FM and the Keepmoat regeneration business, it is also one of the top five service companies in the UK.

### **General comments**

In general, we are supportive of the minded to conclusions that are being consulted on. In two specific areas (the aggregation of larger sites into LLCF groups and the design of the generator residual) we believe that further work may be required to arrive at a robust solution.

We are a firm supporter of the principles-based methodology that has been adopted in the reviews around removing harmful distortions, fairness and proportionality. We support the Ofgem approach and consider that it is important that network charging arrangements for residual charges do not drive investment. An early implementation of these changes will not only drive down customer cost it will also allow the most economic flexible solutions to come forward. It will also ensure that behind the meter solution are not subsidised by network charging arrangements that simply push high costs onto others.

We believe that these reforms will lead customer cost saving and will deliver a more economic system with the best economic technologies coming forwards and consider it right that both transmission connected, and distribution connected generation should bear a fair share of the residual cost (BSUoS) of operating the system.

We also believe that investor confidence needs to be set against customer cost and the need to deliver an economically efficient system. Investors have been made aware that they need to take account of the regulatory regime where the Authority has a track record of acting in the interests of consumers where significant distortions become apparent in market arrangements such as those dealt with in this TCR.

Our detailed comments on the various questions is set out below.

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## Targeted charging review: minded to decision and draft impact assessment

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**Response deadline:** 4 February 2019

**Email:** [TCR@Ofgem.gov.uk](mailto:TCR@Ofgem.gov.uk)

### ENGIE's views on the consultation – questions

Question	Response
1. Do you agree that residual charges should be levied on final demand only?	Yes, we agree that the residual cost of the transmission [and distribution] system should be charged on final demand where final demand is end use (i.e. not including storage demand, or generation own use demand). The residual cost is effectively the balance of revenue required to support the regulated income for the various regulated companies after the forward-looking charge element has been calculated. We believe that this is compatible with academic literature (e.g. <a href="#">Diamond-Mirrlees et al</a> ) on production efficiency and recognises that the most efficient way to collect fixed revenue (e.g. Residual TNUoS) is to apply it only to end consumption. This approach will increase the production efficiency of the market.
2. 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?	Yes, we agree with this approach. Given the varying cost bases of the distribution companies it seems appropriate that a customer's residual charge should be based on costs from parts of the system that the customer uses (including the connection voltage and the higher voltages).

<p>3. 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)?</p>	<p>Yes, we agree with this as it is not the actual consumption but the potential consumption that matters when recovering residual charges. The payment of the residual charge is a zero-sum game. If a specific user avoids the charge then that charge is picked up through other users facing higher charges. As has been demonstrated by the analysis, users who install “low cost generation” to avoid the charge simply increase the overall cost of the energy system. Whilst the “low cost generation” used by on-site generation provides some flexibility there are far more efficient ways to provide the same level of flexibility, the avoided triad cost is not a suitable benchmark.</p> <p>The proposal will ensure that the incentive to invest in inefficient plant to reduce grid demand in triad periods is removed and all users pay a fair share of residual cost.</p>
<p>4. Do you agree that our leading options will be more practical to implement than other options?</p>	<p>From a practicality perspective the leading option is the simplest to implement although as per Q5 care must be taken in establishing the level of residual charge applicable to each class.</p>
<p>5. 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?</p>	<p>Whilst in principle we support this approach some care needs to be taken in determining the “pot size” for the various LLFCs.</p> <p>A simple example is the level of residual cost to be paid by economy 7 users. Economy 7 (E7) users, as a class, consume higher levels of energy than single tariff meters. Under the proposals E7 customers are likely to be charged a significantly higher residual charge than single tariff meter users (£117 against £76). This is at odds with the fairness principle where similar users should pay similar tariffs. The advent of smart meters will lead to multiple time-of-use tariffs but these meters are likely to be subject to lower residual charges than E7 users; this seems problematic at best, as it is the forward looking charge that should signal the difference between these two classes of user rather than the residual charge.</p> <p>As demonstrated above setting the rate for the LLFC based on the class consumption (MWh) can be problematic. An alternative could be considered in which the rate for the class of domestic and lower voltage users is based on “maximum aggregate winter demand (MW)” and for higher voltages the “winter own peak demand (MW)” could be used. The total class demand (MW) would be used only to divide up the residual pot and the final charge would still be applied on a fixed (£/user) basis.</p>

	For the larger demand customer care will need to be taken with the grouping of the LLFC and this will need to be subject to additional work as it is not clear how the solution will work in practice.
6. 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.	Yes. We consider that the three key principles of fairness, proportionality and practical consideration and reducing harmful distortion have been applied to the target solution and the appropriate conclusion drawn.
7. 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.	<p>The key challenge to the proposed solution is where users in a class have low consumption relative to others in the class. These users will typically be using the power either for backup or reserve in the industrial segment or single occupancy home in the domestic sector.</p> <p>Whilst we understand the principle of a fixed charge for all there may be a case for having a “low-use discount scheme” where the fixed charges are reduced by [50%] for the lowest [5% energy] of users in a class. This would help mitigate some of the fuel poverty issues in the domestic sector and provide a recognition that users who only use the system for backup or reserve a smaller charge may be appropriate. The discounted charge would help mitigate against low-use users going off grid (as an alternative to paying a full charge). Also see Q5 answer</p>
8. Do you know of any reasons why the expected consumer benefits from our leading options might not materialise?	No.
9. 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 are comfortable with line loss banding although believe a low-use discount scheme could be implemented for industrial and domestic users.

<p>10. Do you agree with the conclusions we have drawn from our assessment of the following?</p> <ul style="list-style-type: none"> <li>a. distributional modelling</li> <li>b. the distributional impacts of the options</li> <li>c. our wider system modelling</li> <li>d. how we have interpreted the wider system modelling?</li> </ul> <p>Please be specific which assessment you agree/disagree with</p>	<p>Yes.</p> <p>We have reviewed the modelling provided as part of the minded to decision and note wider system impacts under the various scenarios as well the distributional impacts. The conclusion is logical and reflects the design of the minded to methodology. We do think that it brings out the possibility that low-use industrial users (less than [5%]) who principally use the grid for “reserve” may consider disconnecting altogether (resulting in higher costs for others in the group). But we also recognise that all users should make an appropriate contribution to the unavoidable costs of the network.</p>
<p>11. Do you agree with our proposed approach to the reform of the remaining non-locational Embedded Benefits?</p>	<p>Yes, we support this change. We believe the current system leads to several defects:</p> <ol style="list-style-type: none"> <li>1. Charging of BSUoS to suppliers and embedded Exemptible generation on a net Trading Unit basis results in a non-cost reflective benefit being gained by embedded generation. This is in the form of reduced BSUoS charges to the supplier registering the export meters, or a BSUoS payment to an embedded Exemptible generator who registers the export metering themselves.</li> <li>2. Embedded generation does not make a fair contribution to the costs of system balancing and other system costs that are required to support the overall power system, leading to higher costs for others.</li> <li>3. The BSUoS embedded benefit results in inefficient dispatch across the system, artificially reducing the marginal cost of energy from embedded generation by around £5 /MWh.</li> <li>4. The current arrangements cause more efficient investments which do not benefit from BSUoS avoidance to be abandoned or deferred while less effective ones, which do so benefit, go ahead. This will increase total system costs, which is likely to lead to higher costs for consumers.</li> </ol>
<p>12. Do you agree with our proposal not to address any other remaining Embedded Benefits at this stage? Which of the</p>	<p>Yes, other embedded benefits are unlikely to be of significant size and it is not cost effective to address them at the moment.</p>

<p>embedded benefits do you think should be removed as outlined in xx? Please state your reasoning and provide evidence to support your answer.</p>	
<p>13. Are there any reasons we have not included that mean that the remaining Embedded Benefits should be maintained?</p>	<p>No.</p>
<p>14. Do you agree with our proposed approach to transitional arrangements for reforms to:</p> <ul style="list-style-type: none"> <li>a. transmission and distribution residual charges</li> <li>b. non-locational Embedded Benefits?</li> </ul> <p>Please provide evidence to indicate why different arrangements would be more appropriate.</p>	<p>Yes, although we believe that dealing with the generation residual charge is not as simple as has been detailed in the document. The residual charge is set after the locational charge has been determined so in fact the determination of the locational or forward-looking charge is the key item here. The generation residual charge should not be considered in isolation.</p> <p>The locational part of the charge is set using a number of “technical” parameters: the expansion factor, the method used to derive the zero point of the locations charge (slack bus, demand, generation or distributed) and the method used for the load flows. Options such as G=0 where the net collection from generation is set at zero will be important to consider in this context as currently the “unrestricted” locational onshore collection from generation is around £413m from positive zones and £67m paid to negative zones a net contribution of around £346m <sup>1</sup>. The actual amount is set by the mathematical model used to determine the locational charge.</p> <p>The locational element of the model only sets the incremental difference between two nodes and therefore does not represent the absolute incremental cost. Setting G=0 for the locational charge for example would set the collection from the locational element to net zero across all generation. We believe that these areas will require technical assessment if the decision to collect no “residual” charges from generation is confirmed. There are several options to manage this question and without the technical assessment it is likely that unnecessary distortions will be introduced in the determination of generation charges.</p> <p><sup>1</sup>2019-20 NG transport and tariff model</p>
<p>15. Do you agree with our minded to decision set out? If not please state your reasoning</p>	<p>Yes,</p>

<p>and provide evidence to support your answer.</p>	<p>We are a firm supporter of the principles-based methodology that has been adopted in the reviews around removing harmful distortions, fairness and proportionality. We support the Ofgem approach and consider that it is important that network charging arrangements for residual charges do not drive investment. An early implementation of these changes will not only drive down customer cost it will also allow the most economic flexible solutions to come forward. It will also ensure that behind the meter solution are not subsidised by network charging arrangements that simply push high costs onto others.</p> <p>We believe that these reforms will lead to customer cost saving and will deliver a more economic system with the best economic technologies coming forwards and consider it right that both transmission connected, and distribution connected generation should bear a fair share of the residual cost (BSUoS) of operating the system.</p> <p>We also believe that investor confidence needs to be set against customer cost and the need to deliver an economically efficient system. Investors have been made aware that they need to take account of the regulatory regime where the Authority has a track record of acting in the interests of consumers where significant distortions become apparent in market arrangements such as those dealt with in this TCR.</p>
<p>16. For our preferred option do you think there are practical considerations or difficulties that we have not taken account of? Please provide evidence to support your answer.</p>	<p>The charges allocated to the LLFC will need to be developed further to ensure that the relative level of charges between classes also meets the key principles. This needs further work. We also consider that a low-use tariff for each class may need to be created where the lowest [5%] by volume in a class are subject to a reduced residual charge. We believe this will ensure that these users do not simply leave the Grid entirely and make no contribution (as well as dealing with issues associated with single occupancy domestic properties occupied by fuel poor customers).</p> <p>Removal of the Generator Residual payment needs careful thought as the “headline” residual payment does not reflect the actual residual as arguable the locational charge is not cost reflective and simply delivers the charge difference between two locations with the residual simply collecting the appropriate funds. Work to understand the correct locational charge will need to take place to ensure the correct residual charge “is removed.”</p>