

Energy Systems Integration
Ofgem
9 Millbank
London
SW1P 3GE

Email to: Targetedchargingreview@ofgem.gov.uk

5 May 2017

Targeted Charging Review: a consultation

EDF Energy is one of the UK's largest energy companies with activities throughout the energy chain. Our interests include nuclear, coal and gas-fired electricity generation, renewables, and energy supply to end users. We have over five million electricity and gas customer accounts in the UK, including residential and business users.

Summary

We welcome the opportunity to respond to this consultation. EDF Energy strongly believes that the current network charging arrangements are creating material distortions leading to higher costs for consumers and that reform is necessary. We have advocated urgent and targeted reform through our CUSC modification CMP265 but have always acknowledged that, with more time, further reforms are necessary to deliver fairer allocation of network costs.

We agree that a 'targeted' review prioritising the most material distortions is the right approach and should ensure that these issues can be addressed in a timely manner. The review should largely focus on tackling the allocation of the residual element of network charges.

We agree that a Significant Code Review is appropriate given the cross-code nature of the issues. It is also important for clear leadership, which a SCR will provide, as network charging reforms are likely to create winners and losers making them challenging to progress. While SCRs do not have a strong track record for speed, in this case, we believe that this is likely to be the most expedient approach and 18 months to conclude the review is reasonable.

We would expect Ofgem to use its powers to freeze current, in-scope modifications¹ to enable a more efficient and effective use of industry resources. It will be important to utilise any existing analysis undertaken by these code modification work groups to support Ofgem's assessment.

We support the proposal for a Charging Coordination Group. This could provide a useful body to help prioritise, steer assessment and encourage alignment across codes. Without

¹ CUSC modifications CMP271, CMP274 and CMP276

formal governance, the effectiveness of this body will be contingent on clear Ofgem leadership to set the framework.

Finally we support the clarity provided by Ofgem on the approach to charging storage – in general we agree with the approach and support taking reforms forward outside the SCR.

Our detailed responses are set out in the attachment to this letter. Should you wish to discuss any of the issues raised in our response or have any queries, please contact Mark Cox on 01452 658415, or me.

I confirm that this letter and its attachment may be published on Ofgem's website.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Angela Hepworth".

Angela Hepworth
Corporate Policy and Regulation Director

Attachment

Targeted Charging Review: a consultation

EDF Energy's response to your questions

2. Why we propose to review residual network charges

Question 1: Do you agree that the potential for residual charges to fall increasingly on groups of consumers who are less able to take action than others who are connected to the system, is something we should address?

Yes we agree. Increasingly network and system operating costs are being avoided despite those parties having security and access to the network and without a commensurate reduction in the total costs of the network. This is something we strongly believe needs to be addressed as part of a targeted review. In some cases – the avoidance of transmission demand residual – urgent action is needed due to the scale of distortion and increasing consumer impacts and this is why we raised our CUSC modification CMP265. We do not believe that this issue can wait till the conclusion of Ofgem's review and welcome Ofgem's minded-to decision of 1 March 2017 and Ofgem's plan for a final decision in June 2017.

Question 2: If so, why do you think, or do not think, action is needed?

Unfair distortion amongst consumers

It is unfair that certain parties can avoid residual (shared) costs to the detriment of other consumers. Cost avoidance of shared network costs, which largely represent the investment that has already been made in the network, should not be dependent on use as these costs will mostly not be reduced by behavioural change – it simply means that other parties will bear these costs. This is unfair. It is important that all parties who have access to, or rely on, the system pay their fair share of these underlying costs and cannot earn inappropriate profits as a result of charging arrangements.

Unfair distortion for on-site generation investment decisions

Our analysis shows that, based on the current system of charging, it appears to be almost economic to invest in solar PV and solar PV + battery without additional feed in tariff payments. However, this case is based heavily on unfair avoidance of network charges and policy costs. It is important to address these issues urgently to ensure that changes are made before significant numbers of customers make investment decisions which are ultimately undermined by a change in the charging regime.

Unfair distortion amongst generators

Allowing some forms of generation to be treated differently for charging purposes, i.e. as negative demand, is creating a distortion between different types of generation. This will lead to incorrect investment decisions between different types of generation.

Action is therefore needed to ensure parties connected to the network pay their fair share of the costs. This applies both to network charges and low carbon policy costs.

Question 3: We are proposing to look at residual charges in a Significant Code Review. Are there any elements of residual charges that you think should be addressed more urgently? Please say why.

EDF Energy raised CUSC modification CMP265 as it was felt that the avoidance of the transmission demand residual by embedded generators, specifically impacting the Capacity Market, was material enough to warrant urgent action due to the market distortion and the consumer costs. We believe that this decision and reform to the transmission demand residual for Half-Hourly embedded generators cannot wait for the conclusion of an SCR.

We concur with the views set out by Ofgem in their two open letters which recognises transmission demand residual distortion should be removed prior to a SCR launch. Beyond this we do not believe there is any other residual charging that needs to be prioritised ahead of a SCR.

4. Experience in other countries

Question 4: Are there elements of the approaches in other countries that you think could be appropriate for GB residual charges?

CEPA's analysis of other jurisdictions in Europe and around the world, has identified similar issues with network charging having the potential to create market distortions and potential uneconomic developments. Often these have been coupled with distortions created by the allocation of policy costs as well which together have driven accelerated changes to energy mixes and customer behaviours not reflective of the economic fundamentals.

The main point from this international experience is that the allocation of shared costs needs to be thought about very carefully to minimise distortions. Network charges largely recover the costs of sunk investments, and so in the short to medium term cannot be reduced (as charges can only influence future investments). A fair basis to allocate these sunk costs needs to be identified. A key finding from this experience is that a move away from a commodity-based recovery towards a much more fixed element is likely to be appropriate to achieve this outcome. While a number of different approaches have been adopted, we support the view that a capacity-based fixed charge is likely to be a fair way to allocate these costs and more clearly relates to the costs that are being recovered. We note the Netherlands example where they removed commodity-based charging in favour of fixed capacity charging for low voltage customers in 2009 which appears to have been effective.

We recognise though that every market is different and will often have different legacy or locational issues and other potential drivers, e.g. metering systems, that will influence final tariff design. Therefore, while it is important to consider international experience and certainly learn from implementation experience, it is important to understand how charging reform would impact our own market including any distributional effects.

We also recognise that whatever the basis on which residual charges are levied some form of behavioural incentive is likely to be created, e.g. customers seeking reductions to their fuse size to reduce their capacity charge. We agree with Ofgem that charging design must realistically be based on reducing, rather than eliminating, distortions. One way to limit unintended behavioural incentives is to split the recovery of the residual element over a number of charge elements – the incentive to avoid each element is thus reduced, and it becomes harder to avoid these shared costs.

Overall, as set out in question 9, our preference, subject to further analysis particularly around distributional impacts, would be a residual charge recovery based on capacity. For practical reasons, including limiting distributional impacts it may also be appropriate to consider a hybrid approach where capacity is a more dominant component, similar to other jurisdictions.

Question 5: Are there other approaches that you know about from other jurisdictions, that you think offer relevant lessons for GB?

We are not aware of other approaches than those identified by Ofgem. Our own analysis returns similar conclusions to that of CEPA's. We believe that a primarily capacity-based approach to recovering residual costs is likely to material address the current distortions, noting that a form of hybrid may achieve similar outcomes.

5. Our proposed principles for assessing options

Question 6: Do you agree that our proposed principles for assessing options for residual charges are the right ones? Please suggest any specific changes, or new principles that you think should apply.

We agree with Ofgem's proposed three core principles for assessing options for residual charging which is the focus of the proposed TCR. If the review stretched beyond residual charging then cost-reflectivity and facilitating competition should feature as key charging principles.

On fairness we generally consider that all users should be treated in a non-discriminatory manner, i.e. between different customer classes or different technologies, but it may well be appropriate to have consideration to other criteria such as vulnerability when assessing fairness.

On proportionality and practical considerations we agree that simplicity, predictability/stability and future proofing arrangements to minimise the need for future change are all

important considerations. We recognise that there will be trade-offs between these objectives.

6. Some options for setting residual network charges

Question 7: In future, which of these parties should pay the transmission residual charges: generators (transmission- or distribution-connected), storage (transmission- or distribution-connected), and demand, and why? What proportion of these charges should be recovered from each type of user?

In determining whether to change who pays the residual charge, we should remember that we are currently bound by EU regulation 838/2010 which sets a limit on average generation TNUoS charges. This regulation would currently constrain actions to change the current allocation of transmission residual but we acknowledge that this restriction could change in future.

However, in principle we agree that, as far as practicable, arrangements between transmission and distribution should be normalised, and where possible with the rest of Europe. We agree that ultimately consumers bear this cost so a shift so that demand bears the cost of recovering all residual transmission costs (those not recovered via locational price signals), merits consideration assuming that its recovery is reformed. Absent of reform of residual charges though the existing distortions of treating embedded generation as negative demand will persist. This change would also create alignment with distribution charges.

Our views on charges for storage are set out in our response to questions 16-19.

Question 8: In future, which of these parties should pay the distribution residual charges: generators (transmission- or distribution-connected), storage (transmission- or distribution-connected), and demand, and why? What proportion of these charges should be recovered from each type of user?

It seems appropriate that treatment of network residual cost should be consistent regardless of connection point be it transmission or distribution level. Subject to the points raised in question 7, we support in principle these arrangements being normalised so that demand pays the residual costs for both transmission and distribution charges. As set out in question 7, this change is contingent on reforms to the recovery of residual charges – absent reform the current distortions with behind the meter generation will persist.

Question 9: Do you support any of the five options we have set out for residual charges below, and why?

As we set out in question 4, we support a shift to option C (fixed capacity component) although option B (fixed price), option D (gross kWh) and option E (a hybrid with a dominant capacity component) all have some merit. A shift to a much greater fixed component is most likely to address the current behavioural concerns making it much

harder to avoid these costs. This should ensure that there is a fairer allocation of these shared costs between parties and reduce market distortions.

In practice, while option C may be attractive, for practical considerations, including distributional impacts, it may be appropriate to adopt option E (hybrid). Also, as noted before, the risk of putting all these costs into another cost element is that you may create other unintended behavioural incentives and a mixed / hybrid approach could mitigate this.

For Option B (fixed charge) the challenge is determining the basis on which to set the fixed charge and as Ofgem note this change will create distributional effects but in principle has merit.

We see attractions of Option D and we consider that it may be optimal to measure separately consumption and production for a number of reasons, not just for network residual charging. For instance: to provide greater visibility and insight in operating the system efficiently or enabling different approaches to the recovery of policy costs. This approach would have practical considerations in terms of availability of metering in the short term. It may though be sensible to consider this issue in more detail and assess the scope for change in the future.

We believe that these issues will be identified further and the varying trade-offs established through impact assessment but our general view is a greater fixed component is likely to be optimal.

Question 10: Are there other options for residual charges that you think we should consider, and why?

No.

Question 11: Are there any options that you think we should rule out now? Please say why.

We do not support option A, net consumption. This is likely to materially over-reward customers who are able (or have already), and can afford, to install their own generation/storage. This does not meet the fairness test as they will still have the insurance of network connection but can avoid paying their share of this cost. This will continue to create behaviour that does not lead to lower costs for all consumers.

7. Benefits for smaller embedded generation, relative to other generation

Question 12: Do you think we should do further work to analyse the potential effects of the charging arrangements for smaller EG (called 'embedded benefits')?

Overall we support arrangements that do not unduly favour particular technologies or their voltage of connection and seek to ensure equal treatment. We agree that Ofgem should focus their attention and prioritise based on materiality. We agree that the residual network charge elements should be the priority.

Our view is that BSUoS charge avoidance through supplier's net consumption (and behind the meter generation) is smaller but is the next most significant charging distortion. There is no basis for suppliers to reduce their share of BSUoS costs simply by reducing their net consumption – the costs for balancing and ensuring that there is a secure energy system with the correct voltage and frequency will not reduce and will simply be allocated to other parties. We support review of the BSUoS charge avoidance-related embedded benefit.

While not strictly in scope we also note that avoidance of transmission losses costs is another area of embedded benefit - but is smaller still.

We also believe that the charging of low carbon policy costs should be reviewed to provide a fairer system and more cost reflective signals for demand side / on site generation decisions.

Question 13: Do you think changes are needed to the current charging arrangements for smaller EG, and when should any such changes be implemented?

We believe that BSUoS-related embedded benefits need reform. If there are other changes to charging arrangements for smaller EG needed (we are not aware of any) then it makes sense for these being taken concurrently and coordinated, e.g. through the CCG. However, such changes should not delay work on tackling residual network charge reform which we think is the highest priority.

Question 14: Of the embedded benefits listed in our table, do you think that any should be a higher or lower priority?

Yes. Priority should be given to those causing the most significant distortions. If a specific reform can be delivered quickly which brings benefit to consumers, then this should also be considered a priority. We believe that TNUoS demand residual payments (and DUoS residual payments for behind the meter) and BSUoS demand charge payments should be priorities.

Question 15: Do you think there are other aspects of transmission or distribution network charging which put smaller EG, or any other forms of generation or demand, at a material disadvantage?

No. As noted above avoidance of transmission losses costs is another item that could be considered - although not as urgently as other aspects highlighted.

8. Our views on residual and BSUoS charging for storage

Question 16: Do you agree with our view that storage should not pay the current demand residual charge, at either transmission or distribution level?

Yes. We agree that the charges imposed on storage should not place it in an unfair position. We support Ofgem's position for TNUoS/DUoS that standalone, metered storage should only pay one residual charge – if it is the generation residual then, as set out earlier, treatment of generation residual between distribution and transmission should be normalised. We also agree that storage should continue to pay both the demand and generation forward-looking charges as it is possible that they will separately access the network as both categories potentially driving different costs.

For the avoidance of doubt, storage connected behind the meter, e.g. within a residential property, should not affect the way the customer is charged, i.e. the customer would continue to pay the demand residual charge.

Question 17: Do you agree with our view that storage should not pay BSUoS on both demand and generation?

Yes. BSUoS costs are mainly to ensure that the system maintains adequate voltage, frequency and stability so that all users have a secure system to use. If BSUoS is charged to storage based on its consumption and production then it can be argued that storage is paying twice for the same access and security. Given this we support the view that change is needed to ensure storage is treated in a similar manner to other parties.

Question 18: Which of the BSUoS approaches describe is more likely to achieve a level playing field for storage?

We think storage should only contribute towards BSUoS at its gross export. This keeps its treatment aligned with that of generators.

Question 19: Do you think the changes in this chapter should be made ahead of any wider changes to residual charging that may happen in future? Do you agree with our view that these changes should be implemented by industry through the standard code change process?

Yes. We think that the guidance given by Ofgem is clear and sensible and industry should take this forward to deliver the necessary reforms outside of a SCR.

9. Our approach to taking these changes forward

Question 20: We would welcome your thoughts on the potential make-up of a CCG. Please refer to the potential role, structure, prioritisation criteria and assessment criteria.

We support the proposal for a Charging Coordination Group. This could provide a useful body to help prioritise, steer assessment and encourage alignment across codes.

However, without formal governance, the effectiveness of this body will be contingent on clear Ofgem leadership to set the framework. For instance, we would not want such a body to simply be another forum to give a view, e.g. alongside industry code panels, working groups, consultants, industry responses etc, in advance of Ofgem undertaking their own assessment. There is a risk that this would waste valuable resources which could otherwise be utilised working on the solution and slow down change and reforms.

It will also be important to set out how the CCG would work alongside the panels, specifically DCUSA and CUSC. Through the recent proposed CMA changes for code governance the expectation is that the panels will develop their own strategic plans alongside Ofgem. It will be important for Ofgem to set out how the CCG will work with the panels' expanded roles and not duplicate effort.

To be effective the group must have representation from across the sector so that issues can be joined up and parties feel they can influence but must be small enough to be an effective body with sufficient knowledge and expertise. We agree that the group can have a role in coordinating potential changes emanating from different codes and potentially can have an initial assessment of the merits of the changes. We would see these as helpful inputs to Ofgem's thinking – we would not see this group cutting across the work of the code panels and modifications – but rather in the first instance helping to develop Ofgem's TCR proposals, prioritising and steering work outside the TCR and then helping to develop Ofgem's future focussed work.

There needs to be clarity how this group would interact with the various other charging forums the consultation mentions so that stakeholders understand the overall framework – there is currently a risk that network charging is being considered in too many separate forums.

We believe that prioritisation criteria for reform issues must be based on materiality to consumers and scale of market distortion. In terms of assessing the merits of any proposed changes we agree that the list of criteria set out in para 9.7 is a good starting point. As previously noted Ofgem's proposed core charging principles only seem to be applicable to residual charges – the CCG will be considering charging arrangements more generally and therefore the proposed principles need expansion as previously set out.

Question 21: Do you agree with our proposed delivery model, including its scope?

Yes. We believe that an SCR is likely to be the best approach to deliver targeted reform quickly and efficiently. We believe that an SCR has advantages over the industry change process. Specifically it can operate across codes – this is important for the residual where it makes sense that similar changes are made to both DUoS and TNUoS and they can be thought about together. The industry change process is also not well designed for material contentious modifications – experience shows that these can become very slow and cumbersome process. While SCRs do not have a strong track record for speed, in this case, we believe that given the contentious nature of the changes it is likely that with Ofgem's leadership an SCR will be more efficient and timely.

It will be important for Ofgem to guard against scope creep and to carefully manage the CCG to ensure it adds value and helps rather than adds burden to the process.

Question 22: Do you agree that our proposed SCR process is most appropriate for taking forward the residual charging and other arrangements for smaller EG discussed in this document?

Yes. We have been advocates of a SCR for some time as we believe that this is likely to be the best governance route to deliver reforms expediently. Ofgem's leadership and project management will ensure that reforms can be delivered efficiently.

One area of concern is the interaction with the existing CUSC modifications, CMP271/4/6, which are considering issues directly in scope of Ofgem's proposed TCR. To minimise industry effort and improve efficiency we would support, in this case, Ofgem subsuming / freezing these modifications through the SCR. Otherwise there is a real risk of duplicate effort and significant industry burden and inefficiency.

EDF Energy
May 2017