Ofgem Targeted Charging Review

Response on behalf of the Solar Trade Association

About us

Since 1978, the Solar Trade Association (STA) has worked to promote the benefits of solar energy and to make its adoption easy and profitable for domestic and commercial users. A not-for-profit association, we are funded entirely by our membership, which includes installers, manufacturers, distributors, large scale developers, investors and law firms.

Our mission is to empower the UK solar transformation. We are paving the way for solar to deliver the maximum possible share of UK energy by 2030 by enabling a bigger and better solar industry. We represent solar heat, solar power and storage, and we have a proven track record of winning breakthroughs in these sectors. Solar now contributes 5% of annual UK electricity demand, with a recent day time high of 26%.

We regularly engage with Ofgem via consultations and actively engage in broader industry discussions to support the move to a smarter, more flexible energy system.

Respondent details

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Would you like this response to remain confidential?	No

Summary

This consultation continues a process by Ofgem that is concerning and inadequate for the delivery of a smart energy system. There is widespread recognition that the distribution and transmission charging codes need reform, but these reforms need to be considered within the context of an independent holistic review of network charging, and, crucially, in the context of major strategic reform in the power system. Government has been clear in its support for a smart energy system, in the long-term interests of consumers. The need for a holistic reappraisal has been repeatedly stated by numerous players in the industry. It is regrettable that Ofgem is pursuing narrow, ad hoc, piecemeal reforms – this is destabilising forward planning and investment for our members and creates instability for existing asset owners who

made investment decisions based on a stable charging environment. The approach outlined in the TCR does not support efficient investment decisions and it is adding to the perception of regulatory risk in the UK.

The TCR scope is too narrow and could result in counterproductive consequences and risk undermining innovation, investment, carbon objectives, security of supply and competition - they also run counter to the urgent need to create new markets in smart technologies.

We note the CMA's advice to Government 'strengthen governance of the energy market by clarifying Ofgem's objectives and ensuring transparency regarding regulatory and policy aims'. CMA want to see Ofgem's oversight of the industry code modification process strengthened and the potential for technology developments to shift demand to off-peak periods realised. We agree with these recommendations as it is vital Ofgem acts to support the smart energy agenda which requires rigorous strategic intervention.

Without a guiding strategic overview, Ofgem risks replacing one distortion with another and pursuing the wrong priorities.

Our members would like clear information on the network costs that Ofgem is seeking to recover in the residual charge, and which are not explained in the consultation. We would further like to understand when and how these costs are approved and what the process is for assessing alternative solutions that may be more cost effective for consumers. Transparency on these costs will also better inform fair and appropriate solutions.

Again, we strongly believe that a broader review of network charging must be undertaken and that considering residual charges alone risks damaging unintended consequences and would be a missed opportunity to review the charging mechanisms more broadly. We welcome the prospect of a wider system charging review.

Other initiatives and working groups have been established that are also reviewing charging methodologies (e.g. the ENA's TSO-DSO Project- WS4 and the Smart Grid Forum - WS6), we'd like to see work from all the other working groups taken into account before any decision is made on charging.

Lastly, we would like to take the opportunity to ensure there is no ambiguity with the use of the terminology of "Private Wire Networks" in relation to solar generation as referred to in point 3.16 in which one of our members, Lightsource, has been referenced. Under the section "How private wire networks affect residual chargers" there is an inference the Lightsource is planning to deploy solar parks by developing private wire networks which when read in conjunction with point 3.18 is suggesting these private networks would then pay "significantly less". The clarification we would like to make is twofold:

I. Lightsource have suggested they see a future of solar parks connected by Private Wires, not *Private Wire Networks* (also commonly referred to as private distribution networks). A Private Wire connection would be a single solar site connected to a single energy user in a manner no different than a typical roof top solar installation, the difference being the solar plant is operated next to or near site and operated by the solar company.

II. A Private Wire solar plant (or roof top solar) would not allow a user to pay "significantly less" as suggested. The typical contribution for a Private Wire is between 10-20% of total demand due to the necessity to match demand to generation. This is not a level that will distort the market, especially as solar generation: occurs during the day so not at peak pricing time for use of the network, does not offset at Triad times and furthermore does not offset the standing charges.

Answers to Consultation questions

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?

There is potential for residual charges to fall on groups who are less able to take action, but there is far greater potential for the residual charges to fall on groups who have not made efforts to invest in demand reduction or demand displacement. And there are other priorities. We would be interested in any analysis by Ofgem in the number of consumers who are 'less able to take action'. Ofgem needs to recognise that actions to reduce or shift demand do not come without risk and consequence to those investors. In some cases investors take on considerable risk and are doing so to coincide with times of network stress. These innovators and risk takers should be supported for their actions. We regret the tone of this document which implies grid users acting to reduce grid demand are creating an unfair position – that is not the case.

We emphasise the value that investors in embedded generation create for UK consumers, which can reduce the need for costly infrastructure investment. Significant, uncoordinated changes to the residual charging mechanism risk creating a system in which large, transmission-connected generating plant & networks are artificially rewarded by the regulator at the expense of smaller, embedded generation & innovative participants, running counter to smart energy objectives. We would therefore strongly urge caution over any change which leads to an imbalance between forward looking charges and residual charges such that embedded generation is penalised through higher residual charges, despite the fact any wider charging system should clearly be cost-reflective and encourage embedded generation to the extent it reduces wider grid costs to the consumer.

Residual charges now comprise a very large component of network charging. We do not understand why Ofgem now states they are 'not meant to incentivise specific action by network users' – this is precisely what Triad has sought to do in order to reduce network costs going forwards. What analysis has Ofgem done on the potential for 'forward-looking' charges alone to encourage demand reduction and shifting investment?

The current mechanism comprises a methodology to pay for Transmission and Distribution Costs at both a capacity (standing charge) level and for time-dependent demand charges. Incentivising demand reduction and shifting in this way is highly relevant as new technologies and services are emerging - Ofgem should be actively encouraging users to take advantage of the new and growing opportunities.

As Ofgem recognises, intervention will always create some level of distortion to someone's detriment. Ensuring those interventions work with the grain of market forces is the best way to secure the best outcomes for consumers - these forces drive innovation and better business planning and will encourage a natural progressing of peak shifting and demand response. Ofgem itself estimates that a 10% demand shift results in potential avoided capital costs of between £265 - £536 million.[1]

If Ofgem acts to penalise rather than reward innovative stakeholders they risk driving customers off the grid entirely – an outcome of one regrettable international example. Three of the largest casinos in Las Vegas, Nevada have obtained approval to pay $127 million in exit fees in order to terminate a utility

[1] 15 July 2010, Ofgem Discussion Paper- Demand Side Response (https://www.ofgem.gov.uk/ofgem-publications/57026/dsr-150710.pdf)

contract with NV Energy. Two of the casinos are now on track to stop purchasing power due to their dissatisfaction of being hamstrung by the positon NV Energy has put them in, thereby impacting their investments[2].

We note the recommendations by the CMA that technical and regulatory changes are needed 'to modernise the market and ensure it works in the consumers' interests both now and in the future'. Furthermore that the value of technological developments should be realised for customers 'including the significant cost savings that should result from shifting demand from peak to off-peak periods'.

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

Transparency over the way in which residual charges are calculated would allow for greater certainty over the most appropriate course of action.

We recommend a code review which looks beyond residual charges to ensure that appropriate economic signals remain embedded in the system. Charging arrangements established twenty years ago do not reflect the changing nature of the energy system - yet they are established, much capacity rests on them, and it is unwise to destabilise decades of principles both ad hoc and in an instant. The risk of only reforming residual charging is not only an immediate threat to security of supply but the creation of a system of inappropriate price signals which rewards the status quo & which penalises innovation.

The complexity of this situation is why very careful thought and appropriate industry engagement is needed. In summary action is needed, but action that has been properly considered, that rewards innovation and system cost savings, and that is managed appropriately in its implementation.

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.

We would like to see a Significant Code Review for all aspects of network charging, including residual charges, provided such a review could be achieved in a timely fashion.

We would like to understand how the SCR process will work alongside the CCG and how modifications and decisions will be made on charging.

As stated earlier, a number of other reviews are taking place on charging at the same time as this TCR e.g. TSO-DSO review. These other reviews are considering a broader range of charging issues and therefore we think the TCR's SCR scope should be expanded.

A greater priority for Ofgem should be to provide long term certainty on low levels of regulatory risk to allow for efficient business planning and earlier, cost-effective investment. This has been voiced widely in the media[3], most recently in The Directors Report 2017 published by The Energyst. In response to a question in the survey that asked for suggestions of one action for government or regulators to take in 2017, 45 senior industry executives echoed certainty as the common theme. "Set a cross party 10-20 year plan for energy production / regulation/ charges and to stick to it and not constantly alter policy," said one

[2] https://www.bloomberg.com/news/articles/2016-05-20/vegas-casinos-plan-to-leave-warren-buffett-s-nevada-utility
[3] https://www.inenco.com/wp-content/uploads/2017/01/HYS-overview.pdf (pg. 4: "[Energy Users] were more concerned about the uncertainty surrounding these charges, from a need to "provide clarity on longer term non-commodity costs" to a need for certainty, calling on Government to guarantee "consistency in taxes and levies…")

respondent. “Think holistically about the future and vision of the energy market, and stop wasting money on short-term fixes with very low value,” said another.[4]

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

Extreme caution is required here. The UK has unique characteristics and particularly high grid costs and there is a risk that intervention based on other countries could have unintended, irreversible consequences. Ofgem makes much of the Netherlands example however, the Dutch situation was not intended to address cost recovery but to reform the supply model around retailers so that consumers no longer received separate bills from both suppliers and the Dutch TSO. A secondary consideration was how distribution charging could align with distribution cost drivers.

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

There are existing lessons that may parallel potential future scenarios (see Nevada example in question 1). Therefore, a permanently reduced ability for businesses to load shift, reduce costs and achieve desired flexibility can foreseeably encourage UK business to consider measures as drastic as grid defection.

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 would like to understand where the proposed principles have come from. They are far from adequate in our view. We would want to understand the way in which Ofgem is judging fairness, and again what the relevant residual charges are made up of, as part of a wider Significant Code Review.

As above, regulation should be guided by the strategic need for a smart grid and Ofgem should also be guided by its statutory requirement to contribute to sustainable development and to protect existing and future consumers. We believe this is best done through principles such as cost reflectivity. We would also like to see Ofgem supporting innovation and competition, rewarding risk rather than prioritising the protection of business as usual. We agree with the CMA that Ofgem’s objectives need to be better defined and we suggest that the principles should be set out by the CCG, which needs to comprise representation appropriate to the delivery of smart system. (See answer to Q20)

We also understand the ENA’s TSO-DSO WS4 has been tasked to produce an analysis of commonality of approach and principles for charging, we would want to ensure the working group processes and outcomes are aligned with that of Ofgem’s to ensure consistent results.

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?

The SCR should look to answer these questions, and can do so with the aid of a CCG that in our view should develop a dedicated SCR scope. We believe that all users connected to the system should pay a fair contribution to the common costs incurred to run and operate the network and that the SCR should be

[4] http://theenergyst.com/wp-content/uploads/2017/03/The-Directors-Energy-Report-2017.pdf (pg. 11)

user and technology agnostic. However, charges cannot be fairly appropriated without a comprehensive review that includes evidence-based analyses.

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?

See question 7.

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

We would need to understand the flexibility needs of the network better before commenting on our preferred option, and again, understanding the nature of a flexible network could be incorporated into a wider Significant Code Review that looks beyond residual charges. We believe selecting a preferred option now has the potential to dampen the ability of the network to deliver future flexibility requirements.

However, considering the question narrowly, of the options put forward, option A is our favoured choice (notwithstanding the point made above). Network charges should be paid by reference to net demand, though we disagree that the time of use element should be discarded as there is value in not placing demand-strain on the system during peak times. Ofgem needs to analyse these potential savings better in order to clarify the benefits that embedded generators can add. A time of use (and cost reflective) element helps to create a market for innovation to help reduce peaks. In our view Ofgem should be doing more to support new innovative markets and to foster a system that can account for people's ability to shift and reduce their energy demand.

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

Ofgem could consider options under which not all network users bear the costs of residual charges, but as outlined in previous questions, we feel this needs to be looked at as part of a wider review. More severe imbalances should also be assessed, such as the treatment of grid connection costs at the transmission vs. distribution level, for example.

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

Once again, we feel a wider Significant Code Review, beyond residual charges, is the right approach to deal with the issue here. We agree that the status quo is not sustainable but a way forward needs more careful consideration.

However, any system based around gross kWh consumption should be ruled out, i.e. Option D. Any system based around gross demand would serve as a disincentive to consumers reducing their energy demand, either through energy efficiency or through embedded generation, which runs counter to decarbonisation goals.

Therefore we would also rule out options B, C, and E - because this will encourage serious grid defection for the larger consumers and trigger potentially irreversible and catastrophic changes to all users. Large users may look to reduce their capacity through generation and large scale storage- then Ofgem may find the equity on the grid in a worse position overall.

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')?

First and foremost, a wider review of network charging beyond residual charges only would be the best approach to achieve optimal charging arrangements for smaller EG. Such work should link with others such as the ENA TSO-DSO working group and BEIS/Ofgem's Smart Systems Forum.

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

The main problems faced by smaller EG are grid-connection costs and prohibitively high statement of works charges. Whereas parties seeking to connect to the transmission grid pay shallow, relatively low costs and are compensated in the case of grid outage. At the distribution level the opposite is true – this is not fair. Connection to the distribution network requires deep (and therefore more expensive) costs, and there is no compensation during outages.

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

We support a holistic view of embedded benefits rather than reviewing some in priority over others.

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?

As outlined in question 13, cost barriers to grid connection at the distribution level put new-build embedded generation at a major disadvantage versus assets connecting at the transmission level.

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

We agree with Ofgem's view that storage should not pay the current demand residual charge at either the transmission or distribution level.

Storage does not represent final consumption and therefore should also pay neither policy costs nor network charges relating to consumption – both of these points should form part of the SCR.

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

We agree with Ofgem's view.

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

As these changes would not apply for storage located with demand, we do not think either of these will achieve a level playing field for storage.

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?

We agree that to encourage development of storage in the UK the removal of the double charging should be implemented urgently ahead of any wider code review.

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 are strongly supportive of the principle of the CCG; the goals and principles of the group must be clearly set out.

For the CCG to be successful it must be reflective of the wider industry and cannot be dominated by a limited number of key players; trade associations and innovative grid users should have a seat at the table. The CCG should be responsible for consolidating feedback from other working groups covering charging. In addition its work must reflect those of other relevant groups and stakeholders such as the ENA TSO-DSO working group.

Subject to the CCG being representative of network users today we believe that Ofgem-led modifications are preferable to industry-led modifications to avoid significant reworking/redrafting following a long and hopefully sufficient industry engagement process.

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

We think the scope of the proposed TCR is too narrow; we think the CCG should be used to determine the scope of the TCR. To the extent Ofgem has to revisit other code points in the future it will create further uncertainty for industry and investors. We would therefore like to see the scope of the review widened to include:

- Connection costs: distribution network versus transmission network
- Final consumption levies on storage
- The balance of forward looking costs versus residual costs

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?

A holistic SCR process is appropriate for assessing the state of residual charging but as per question 21, we would hope to see a wider review take place, albeit one which is completed quickly.