

Targeted Charging Review consultation response

The Environmental Services Association (ESA) is the trade association representing the UK's resource and waste management industry. Our member companies are helping the UK move towards a circular economy by collecting, sorting and treating waste to recover materials and generate energy whilst protecting the environment and human health.

The UK waste and resource management industry currently generates 13,500 GWh per year of baseload electricity through Energy from Waste (EfW), landfill gas to energy (LFGTE) and Anaerobic Digestion (AD), providing 10% of the UK's renewable electricity.¹ These technologies play an important role in developing the UK's resource efficiency and security by recovering energy from material that would otherwise be wasted, and in diverting residual waste from landfill and thereby reducing GHG emissions. Indeed the industry has already reduced its GHG emissions by 70% since 1990.² On top of this, the industry operates hundreds of energy intensive material recovery facilities (MRFs) and transfer stations around the country. They have enabled the UK to increase its recycling rate from near zero to 45% today, ultimately delivering significant energy and CO₂ savings through recycling materials instead of discarding them and extracting primary resources afresh.

We do appreciate that the charging regime does need to be reviewed in order to become more cost-reflective and fair for end users. However, it is clear from the proposed changes that small, decentralised energy generation is being penalised, despite providing significant advantages to the system, in favour of larger generators. In the case of the waste and resources sector, the problems that the proposals seek to address are not caused by waste-fuelled energy generation since it is largely baseload power that does not create cost or distortions in the network. Ofgem is therefore penalising the sector for problems that it has not created, and in doing so is penalising the environmental solutions that this sector provides.

¹ Calculations based on BEIS (2018), [Digest of United Kingdom Energy Statistics](#), p.184

² Committee on Climate Change, [2018 Progress Report to Parliament](#), p.211

Understanding waste-fuelled energy generation

Waste-fuelled energy generation forms a vital part of today's waste and resource management solutions by not only treating the nation's residual waste and safeguarding public health, but also by putting resources that would otherwise be discarded to further use and thereby displacing resource-intensive fuels. In doing so, it produces renewable and low-carbon energy that helps the UK meet its decarbonisation aspirations. Ofgem's TCR reforms are therefore effectively a tax on environmental solutions and resource productivity. Waste-fuelled power stations not only generate electricity but provide an essential sanitary service, and are necessarily located close to waste generation and thereby energy demand as well. They are not located according to where they can connect to the grid for a cheaper price, and in that sense they do not influence charges; they simply have to accept the price of connection as determined by the charging regime. Such prices will however be factored into the business plans of any facility generating energy from waste and do affect commercial viability and potentially contracts with local authorities too.

It is important therefore to understand that changes to the charging regime will have wider, unavoidable consequences for waste management operations. Any decisions affecting waste-fuelled energy generation must be made in the context of the waste management system as a whole.

Defra's recently published Resources and Waste Strategy has set out long-term ambitions to make the most of the nation's waste by collecting more food waste to be sent to AD, sending more residual waste to EfW instead of landfill and upgrading plants so they can generate power more efficiently, continuing to generate electricity from landfills, and of course recycling more waste. Ofgem's TCR proposals run counter to these UK Government aspirations by impeding the much needed investment to deliver new infrastructure and modify existing facilities.

The resources and waste industry is already facing a number of challenges. Increased charges for energy consumption are hitting recycling facilities hard. Billions of pounds of private investment are urgently needed to avoid a 3-6Mt shortfall of residual waste treatment capacity. Already the investment climate for waste-fuelled energy generation has weakened due to the removal of Levy Exemption Certificates in 2015 and the reduction and eventual removal of the

TNUoS embedded benefits. Business cases for AD are already marginal due to the closure of RO and RHI, and loss of BSUoS income will lead to increased gate fees for waste which will have a negative impact on AD investment in the UK. Ofgem must avoid additional uncertainty and exorbitant costs which could lead to a waste treatment capacity crisis by undermining current and future investment.

Proposal for the resources and waste management industry

All the options that Ofgem has presented will be very damaging to the waste and resources sector. If Ofgem were to proceed with the proposals set out in the minded to decision, the significant additional costs to the resources and waste industry will have detrimental consequences for waste management that will not only inhibit the Government's ambitions of recycling more of the nation's waste, but could put the progress we have made in reverse.

In the long-term it may mean disconnecting from the grid, or that recycling and EfW plants have to co-locate, but this will take time, money, and will not be possible in all circumstances. This scenario would push residual charges onto connected users, which would call Ofgem's modelling into question, and would not deliver the objective of fairness for electricity users.

Given that the resources and waste management provide essential services to households and businesses, we ask that Ofgem carefully consider the impact of any changes on waste management as a whole, and where these impacts are deemed to have excessively harmful effects that obstruct the Resources and Waste Strategy, we ask that Ofgem consider an industry-based exemption or benefit that alleviates the damage.

Response to consultation questions

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

Yes, we agree that residual charges should be levied on final demand only. However, under a narrow interpretation of final demand there is a danger that generation will nonetheless be charged where there are consumption MPANs importing from the grid for the purposes of generation. EfW and AD plants may import electricity to enable them to manage variable amounts of feedstock, to allow them to continue to process waste during maintenance, or as part of a stand-by safety mechanism. This should be considered part of the generation process.

However, under Ofgem's fixed charge proposal, EfW could be facing costs of around £30-40k a year per site. Charging all MPANs would unfairly penalise EfW and AD, and would be inconsistent with the policy intention of not charging generation. Levying residual charges on generation in this way would lead to distortions in investment and dispatch decisions by generators.

To avoid this unintended consequence, we propose a "works power" definition that captures imports to licence exemptible embedded power stations where import is less than 10% of export across a calendar year. This would correspond with Ofgem's intention of recovering residual charges from demand rather than from generation.

- 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.**

No comments

- 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 support the continuation of this principle which does not require a wholesale review of the CDCM and EDCM charging methodologies. However, we note that an unintended consequence of the classification by line loss factor class is that some light industrial users will pay considerably more than has been modelled in the Impact Assessment because they are connected at HV despite only having a small annual load (see question 8).

- 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.

User segmentation by line loss factor class is a reasonable way of distinguishing customers. However, there needs to be more granularity to avoid cliff edge effects for consumers who have a small load relative to the median load in the class and who will thus see very large increases in costs. In particular, we are concerned that the class “HV HH metered” is a very poor match for User Group 11 (where the median modelled annual consumption is 5,000 MWh) even though many customers in the HV HH metered class consume less than 100 MWh/year. These users will see cost increases of as much as 200%.

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)?

No, consumers who have heavily invested in low carbon and renewable technologies in order to reduce demand behind the meter should not have to pay the same residual charges as those who have not.

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

There is a high amount of uncertainty associated with Ofgem’s predictions. There is a significant increase in costs for embedded generators, but it is far from certain that this will result in savings to consumers.

The impact on waste-fuelled energy generation will also increase the costs of refinancing projects which will hit local authorities.

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

No comments

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.

No, Line Loss Factor Classes in their current form are too broad to base fixed charges on in a fair manner. They are not a good proxy for industrial demand.

Sites with multiple meters for back-up and safe shutdown purposes are penalised (they would be paying twice whereas they can only use one supply at most). LFGTE may become uneconomic and flaring will increase resulting in a greater carbon impact. The impact on multi-MPAN industrial sites has not been considered in the distributional analysis.

There would be a significant increase in cost (200% for some materials recovery facilities and depots) due to boundary or “cliff edge” effects. There is also a lack of detail on consumer impact for <5,000 MWh p.a. in Ofgem’s distributional analysis to justify this, as well as a lack of assessment on different types of demand.

We propose to further categorize users by LLFC (60%) and annual net demand at meter (40%). This may reduce “cliff edge” effect of very small loads being caught up unfairly in the “HV HH metered” class (eg waste transfer stations, depots, MRFs, LFGTE).

Charges should also be on a per site basis as opposed to per MPAN. MPANs could instead be mapped to postcode or address using industry data (eg ECOES).

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?

See 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.**

No comments

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

No. Whilst we recognize BSUoS has increased to unsustainable levels over recent years, waste-fuelled energy generation is being penalised for a problem it has not created.

Baseload generators do not cause imbalance. 37% of BSUoS costs are from constraint management. Predictable baseload, such as that provided by waste-fuelled energy generation, helps to alleviate constraints therefore it should be treated differently to intermittent generation. It reduces the demand for the Balancing Mechanism as the local Distribution Systems are internally better supported. From that perspective the BSUoS payments should be even higher towards these assets as the demand for centralised generation is less.

We therefore disagree with removing the balancing services embedded benefit, and strongly oppose the full reform of imposing the balancing services charge to baseload embedded generation, given that it provides a benefit to the system.

Removal of the BSUoS embedded benefit will mean a significant loss of revenue, an estimated £34m across EfW, AD and LFGTE. Applying the balancing services charge would amount to a double-whammy.

Of particular concern will be the impact this will have on the financial models of investments. A number of investments in EfW have been made on the basis that the facility would receive embedded benefits for a significant period, and in some cases up to 15 years.

These financial models have already been negatively impacted by Ofgem's decision to phase out the TNUoS demand residual for embedded generators by April 2021. The hasty removal of BSUoS would be a further disadvantage and the proposal to charge BSUoS to embedded generators by April 2021 would be adding insult to injury. Embedded generation has had no foresight that an additional charge was coming, and to go forward with this proposal would be crippling to industry. It would be detrimental to investments that have banked on this revenue

stream over an extended time and could not have foreseen the incoming charge. These changes could dissuade further much-needed investment in this sector.

On top of this, levying the BSUoS charge on embedded generation would create unfair competition with interconnected energy. In Europe balancing charges are typically levied solely on demand customers, and not generation. We question then whether it is equitable to apply balancing charges to embedded generators that are not currently levied on energy flowing into the UK from interconnectors. Applying balancing charging to embedded generators, which are not commensurately applied to interconnected energy, could – all else being equal – result in an unfair advantage for interconnectors across the UK energy system.

Ofgem should therefore reconsider this proposal especially in light of investment decisions that have been made and sunk costs.

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

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

No comments

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.

a) Transmission and distribution residual charges

The timescale for implementation in 2020 is too short given the scale of impact these charges will have. We would therefore prefer a delayed, phased implementation of 2021-2023.

We strongly recommend that Ofgem consider delaying the implementation until access and forward-looking charging reforms are also implemented. Given that changes in forward-looking charges will affect residual charges, reforms to forward-looking charges and network access must come first in order to enable effective impact assessments relating to the TCR proposals and thereby avoid unintended consequences.

A longer time scale would allow Ofgem to join up its work on network charging more effectively and ensure decisions are based on adequate impact assessments and forward visibility.

b) Non-locational Embedded Benefits

We believe that implementation of any changes to BSUoS in 2020 is unreasonable due to time constraints. These could lead to unintended consequences and potential price distortions. A period of at least two years is required following the final decision before any changes take effect. An estimation of BSUoS charges is included in market hedging decisions and reflected in fixed price contracts to end users. Depending on the outcome, changes in the BSUoS charging regime will lead to adjustments in wholesale price as well as the revenue and cost base for both generators and suppliers. Most fixed price contracts (end user tariffs and wholesale market hedging trades) endure for no more than two years, allowing a two-year window of adjustment will reduce the risk of material unintended consequences. A more rapid implementation risks leading to windfall gains for some participants at the expense of corollary losses for others. By appropriately timing implementation participants can adjust pricing strategies and allow wholesale and retail markets to continue working efficiently.

In addition to this, the BSUoS workgroup will need time to split out residual and forward looking elements of BSUoS. It should be granted 12 months instead of 4 to disaggregate residual from forward looking elements and implement in 2022/23.

A later implementation period would also ease the impact on investment.

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

No. As discussed, the minded to TCR decisions will unfairly impact predictable, baseload generation which provides a balancing service to the network.

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 has assumed that the Capacity Market will continue to operate, and has not factored this into its modelling. The absence of a working Capacity Market for the foreseeable future is yet another hit to financial models.

In addition, economic impact assessments which model the quantitative impacts on consumers and wholesale market prices inherently lack a degree of certainty. This should be born in mind when making decisions that will significantly hit industry yet may not deliver the desired benefits.

It would be useful for Ofgem to publish a set of case studies that demonstrate the impact of implementing both the proposed changes to residual charges and to BSUoS.

We would welcome the opportunity to discuss these issues further with you and look forward to your response.

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