

23 September 2016

Frances Warburton  
Partner  
Ofgem  
9 Millbank  
London SWP 3GE

Dear Ms Warburton,

We are writing to set out our views on Ofgem's open letter regarding charging arrangements for embedded generation dated 29 July.

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 industry currently generates almost 12,000 GWh per year of baseload electricity through Energy from Waste (EfW), landfill gas and Anaerobic Digestion (AD), providing 11% of the UK's renewable electricity.<sup>1</sup> 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 almost 70% since 1990.<sup>2</sup>

We understand that in a changing landscape, charging arrangements for the transmission network must be reviewed. However, we are concerned that Ofgem does not fully understand, or may be overlooking, the adverse implications of making the changes under consideration. We are also concerned that proposed blanket changes will inadvertently disincentivise and disadvantage baseload, low carbon and renewable generators.

#### Impact of removal of embedded benefits

##### *Energy from Waste (EfW)*

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<sup>1</sup> Calculations based on BEIS (2016), [Digest of United Kingdom Energy Statistics](#), p.192

<sup>2</sup> <https://www.theccc.org.uk/charts-data/ukemissions-by-sector/waste/> [accessed 22 September 2016]

In the case of EfW, a removal or significant reduction in TNUoS demand residual payments would be an additional blow to the sector after the removal of LECs last year. The knock-on effect will be a rise in gate fees, the increased costs of which will largely be taken on by local authorities.

Local authorities and our member companies have developed and invested billions in PFI and long term contracts for waste disposal facilities, which when funded included the revenue associated with electricity generation and embedded benefits. Any change to the charging mechanism of embedded benefits therefore poses a risk of financial default to such projects.

Many local authority contracts include provisions to compensate operators should a material change in law occur, whilst others include revenue sharing for the incomes generated from energy sales. These agreements are diverse and intricate, and ongoing change to income streams create added complexities, costing both operator and local authority alike.

Local authorities are already struggling to maintain their services with substantially shrunken resources, and this added burden will mean that waste management will have to compete further with frontline services for scarce funds.

#### *Landfill gas power generation*

In the case of landfill gas power generation, sites could be forced to close utilisation schemes early, meaning a loss of a valuable low carbon source of energy, and a reduction in the carbon off-setting that electricity generation from landfill gas provides.

The long term 60 year aftercare period for these sites is a highly complicated process. It requires significant forward planning, long term commitment, and reliance on future landfill gas income including embedded benefits. Therefore early closure of a site due to reduced forecast financial benefit will have detrimental social, environmental and economic consequences.

This acceleration in closure of landfills also has a wider implication for waste management. Already the industry is facing a waste treatment capacity gap. A significant reduction in embedded benefits could result in a widening of that gap due to site closures much earlier than new alternative waste treatment facilities can come on stream.

#### *Anaerobic Digestion (AD)*

For similar reasons, the on-going viability of operational AD facilities across the UK, already at significant risk due to cuts in Feed in Tariffs, will also suffer. This will hinder important

Government plans to encourage greater food waste collection and utilisation, which forms one of the mainstays of current UK policy affecting food processing and environmental sectors.

AD plants are capital intensive, requiring significant up front investment, and rely on energy sales incomes to produce the majority of their revenue and profits. Earlier plants that registered under the Renewables Obligation Order generate electricity, whereas post Renewable Heat Incentive developments have focussed more on gas to grid and heat use.

Penalising the older installations, where generation was their only option at the time of development, introduces a further market distortion. Plants operating gas to grid, and not requiring TNUoS benefit in support of their revenue, will have an increased market advantage, forcing marginal operations relying on electricity sales out of the market.

#### *Investor confidence in the waste to energy industry*

On top of this, investor confidence in the waste to energy industry will wither. We are currently experiencing a UK waste treatment capacity gap, resulting in 3.3 million tonnes a year of residual waste being exported to continental Europe for thermal treatment.<sup>3</sup> The UK is therefore losing out on a domestic source of low carbon energy. As the population continues to increase, and as we steadily move away from landfill, it is all the more important that the UK can build new alternative facilities to treat non-recyclable waste.

Our industry is heavily reliant on private finance to fund new projects and for reinvestment into existing projects, and Government has encouraged this due to the jobs and economic and environmental benefits that the sector delivers. However, investor confidence has already depleted due to the removal of LECs, and more recently Brexit.

A stable and sensible charging regime is essential for the industry to attract much-needed investment which will ensure we can continue to work towards delivering a circular economy, and energy and resource security in the UK.

#### Ofgem's approach

##### *Need for a full impact assessment*

ESA is concerned therefore that Ofgem has not understood the adverse implications for our sector and is in danger of rushing through ill-considered changes. The timescale proposed of

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<sup>3</sup> <http://www.letsrecycle.com/news/latest-news/uk-exports-of-rdf-in-2015-expected-to-reach-3-3m-tonnes/> [accessed 23/09/2016]

implementing changes before 2019/20 is far too short to make such a radical change that will have serious consequences for industry and local authorities alike.

We are particularly concerned that Ofgem has not taken into account additional complications brought about by the EU referendum result. For example, there will need to be an assessment on the impact of the changes on interconnectors across Europe and how this is affected by Brexit. We would therefore like to see this review included in Brexit discussions, which would necessitate a longer review process and a later implementation date.

#### *Need to differentiate types of embedded generation*

On top of this, Ofgem should evaluate different types of embedded generation separately to avoid broad changes that create an imbalance in the UK's energy mix. Unlike many other forms of embedded generation, electricity generated by the waste industry is baseload. It plays a crucial role in generating electricity at all times, 24 hours a day, 7 days a week, contributing to security of supply. The benefit of responsive and embedded baseload generation, such as that provided by the waste industry, should be recognised in Ofgem's review.

Due to the ongoing need to process and treat waste provided by local authorities, technology such as EfW does not benefit from the luxury of trading in the electricity market with comparatively slow start up and shutdown times compared to intermittent generation. EfW is therefore unable to wait until optimal market conditions, as per the likes of intermittent oil/diesel/coal generation, as waste needs to be continually processed on an ongoing basis in order to service local authority waste disposal requirements and therefore avoid a backlog of waste in the UK market.

Any proposed changes should therefore continue to incentivise baseload, largely renewable power, such as that generated by energy from waste technologies, whilst it may be the intention to use proposed changes to balance less prioritised forms of generation including intermittent or fossil fuel reliant generation technologies.

#### *Market distortion concerns*

We also dispute the five reasons that the TNUoS demand residual payments may be distorting the market cited by Ofgem (p.5):

- In our opinion, any mix of generation should include a proportion of reliable, baseload and controllable renewable energy, such as EfW, landfill gas and AD generation, which is truly embedded in the distribution network. Although we are small in comparison to

transmission connected generation (TG), our business is evidence of a cost effective and efficient use of wastes—an indigenous and largely renewable fuel source, currently being lost to the UK by increasing ‘export’.

- Given the economies of scale of TG and the link between power prices and their fuel input costs, we do not believe the waste to energy sector’s operations or entitlement to embedded benefits has resulted in TG exiting the market.
- We do not agree with your concern over distorting dispatch. TG itself is likely to have a greater impact on peak pricing as it has limited flexibility, has to be maintained as a spinning asset, and efficiency lowers significantly when forced to operate at reduced load.
- If the Capacity Market is being distorted through embedded generators being able to bid at a significantly lower price, then this is positive for the market and consumers.
- In respect of your final point, innovation is often driven by potential financial reward, be that embedded benefits or other market support mechanisms (such as the Capacity Market or CfDs). If Ofgem wishes to stifle innovation it can remove any number of incentives in order to do so. Further, we do not believe that the access to embedded benefits is preventing TG from innovating, demonstrated by the success of National Grid’s recent EFR tender.

#### Modifications

In principle we prefer a split implementation grandfathering approach. Making changes that affect existing contracts (as put forward in CMP265) would be damaging to investor confidence. The waste management industry has invested billions in the energy sector, and has signed medium and long term contracts on the understanding that the embedded benefits would be received.

Therefore, we propose that if changes are to be introduced, they must only be introduced to future projects that have not yet reached commercial or financial close, providing a protection to existing assets and grandfathering of existing embedded benefits.

ESA also recommends that more consideration should be given to a split implementation approach which recognises the differences between intermittent and baseload embedded

generation, taking account of the large scale, long term investments made by the waste industry.

However, as discussed previously, any changes should not be rushed through, and their full impact should be carefully assessed.

#### Conclusion

ESA is concerned that Ofgem has not fully understood or recognised the adverse implications of making changes to charging arrangements for embedded generation and their impact on other parties (e.g. local authorities), growth and innovation in the sector enabled by strong investor confidence, and security of supply.

We appreciate that undertaking a Significant Code Review (SCR) would require a longer time scale, but looking at TNUoS payments in isolation risks unintended consequences for the market. Given that rushed changes could have serious repercussions and that the impact of Brexit must be taken into consideration, we strongly urge Ofgem to reconsider undertaking a SCR. A longer time scale would allow Ofgem to undertake a robust, systematic impact assessment that takes into account the nuances involved in making changes.

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

**Environmental Services Association**

**September 2016**

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[www.esauk.org](http://www.esauk.org)

**154 Buckingham Palace Road London SW1W 9TR**

**Tel: 020 7824 8882 e-mail [info@esauk.org](mailto:info@esauk.org)**

**Environmental Services Association Ltd. A company limited by guarantee.**

**Reg no 962961 London. VAT no 243 8018 73**