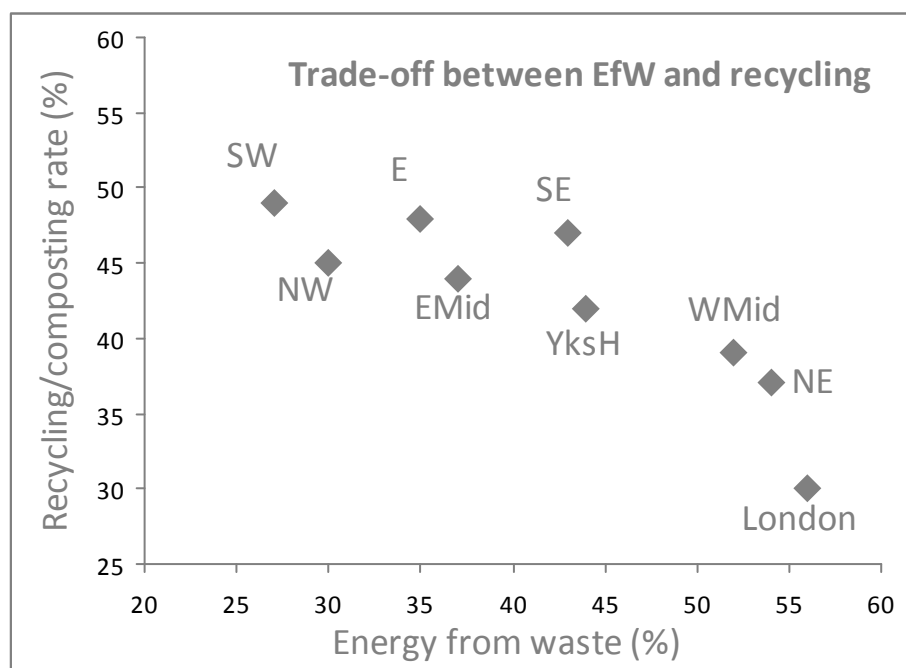


## Supplementary written evidence submitted by Professor Nicky Gregson, Durham University [IWS 035]

1. While giving evidence on 20 May 2019, I was asked about the link between recycling rates and incineration. I replied to the effect that there is evidence to suggest that areas with high recycling rates tend to have lower rates of incineration, and vice versa. That reply was disputed in the following panel by Jacob Hayler (ESA), using the example of South Oxfordshire, and then in paragraph 2 of supplementary written evidence of a letter dated 9 June 2019. Subsequently, that written evidence has been contested by UKWIN in their submission to the HC&LG Inquiry (June 2019).
2. The evidence I drew on in my oral response comes from the graph below, which plots recycling rates (averaged) against the percentage of material sent to energy-from-waste (averaged) by region.



Data source – Defra 2017/18 – Table 2a.

3: Energy from Waste (EfW) provision, for reasons to do with economies of scale, occurs mostly at the sub-regional scale. It is appropriate therefore to look to broader scales than individual local authorities (LAs) to see what, if any, relationship might exist between recycling rates and incineration rates. Whilst single examples can be used to argue that high recycling rates coincide with EfW solutions, they are just that – singular examples. They cannot provide evidence of a link, or a relationship. Within each region there are variations between the LAs in terms of recycling/incineration figures. However, the plot shows clearly that regions with high levels of incineration have lower rates of recycling, and the converse, that those regions with high rates of recycling tend to have lower rates of incineration. It is important to recognise that correlation is not causality. I am not suggesting that high levels of incineration cause low levels of recycling.

4: Understanding these patterns requires an appreciation of past policy and related investment decisions, and the interconnections and trade-offs within the Waste Hierarchy. Whereas some LAs procured integrated waste solutions, others separated residual waste procurement from that relating to 'dry recyclables' and compostable materials i.e. green waste and/or food waste. Many LAs also began their waste management programmes with the goal of achieving as much diversion from landfill as possible through recycling and composting. However, as the Landfill Tax and Landfill Allowance Trading Scheme regime started to bite, the financial necessity for LAs to procure other solutions for residual waste became increasingly pressing. Recycling alone was recognised as unable to achieve the necessary diversion rates.

5: All LAs' residual waste contracts seek to achieve statutory targets of diversion from landfill. In this they have been successful – be that through EfW or Mechanical Biological Treatment (MBT) solutions. Residual waste contracts rest on projections of waste arisings over many years, and of population and household growth, plus projections of the composition of that waste, which relate to the technical specification of

plants, and hence their performance (technically and financially). That modelling will have informed negotiations between LAs and their contractors over the size of residual waste treatment facilities, the guaranteed minimum tonnage supplied to the residual waste facility and price banding.

6: Recognising that value that could be recovered is being lost through the residual waste stream, some residual waste contracts, particularly those that involve MBT solutions, also contain recycling targets. The evidence is that these contracts are not performing to target. MBT was seen as the only bankable technology alternative for those LAs wanting to avoid EfW solutions for residual waste. LAs who procured MBT (with or without anaerobic digestion) were promised a technology capable of adding 10% to their recycling rates. Instead, some have been faced with plants performing at < 2% (e.g. Leeds). Others have been beset with technical difficulties that have impinged negatively on their recycling rates and failed to achieve contracted performance levels (e.g. Greater Manchester, Lancashire, East London).

7: By contrast, LAs who procured EfW solutions for residual waste recognise that, whilst those contracts successfully enable meeting landfill diversion targets, they do not help deliver on recycling rates (e.g. Project Integra, South Tyne & Wear WP). These LAs have been vocal in arguing for the inclusion of incinerator bottom ash in recycling data, which they claim could add as much as 10% to their recycling rates. These arguments are suggestive: they indicate that residual waste solutions and recycling are not independent, and that there are unintended consequences for recycling rates of adopting particular residual waste solutions. For some LAs, achieving diversion through high tonnages to EfW is seen to have come at the cost of higher recycling rates. Lock-in to these long contracts does little to incentivise capturing more value from the recycling stream whilst encouraging extracting value from the residual stream by materials re-classification.

8: To date, recycling targets have not been statutory in England. The map below provides a 'where we currently are' graphic. It shows not only the scale of the challenge in realising the 2020 target (50%) but also that this challenge is a geographical challenge. It is not just that England will not make this target; or that the target is difficult for particular types of areas, characterised by certain populations and housing types/densities. Almost all of Northern England will not reach this target, along with the major conurbations and areas characterised by high levels of rural deprivation.

The map of recycling rates poses questions over just how national the new Waste Strategy (WS) is. Is it a strategy for England, or is it a strategy based on what has been possible in certain parts of Southern England? In which case, there are very real questions over how possible, achievable and affordable the strategy is for and in the North and the major cities. Alternatively, how might the WS be modified to accommodate for regional and urban differences?

The map also shows a correspondence between LAs with lower recycling rates and those most affected by cuts in central government funding since 2010. LA budget pressures consequent upon austerity, combined with doubts as to the financial affordability of the WS, have led to a number of oral comments on where financial support for the new WS might best be targeted, with arguments for and against supporting those LAs who have done well, and those whose recycling rates are below average. In this regard, it is important to recognise that LAs have consistently sought to meet the recycling targets indicated (50% by 2020), whilst others sought to surpass this target, aiming to achieve 60% by 2015 (e.g. Devon). Whilst some LAs have been more aspirational than others, no LA has gone into procurement seeking to do the minimum. Many of those LAs currently in the bottom half of the recycling performance table had aspirations to be much better, in some cases 'world class' – Leeds, Lancashire and Greater Manchester would all be examples, but they have been beset with major technical failures. Equally, it is worth noting that well-cited top national performers, such as Devon, have failed to reach the very high targets they set for themselves, notwithstanding procuring a 'Rolls Royce' service – potentially because they also have residual waste EfW contracts, but also because recycling contracts currently are not performing to the level anticipated (e.g. East Devon).

9: The new WS, for it to deliver on aspirations, requires far more by way of 'Rolls Royce' recycling services whilst risking making stranded assets of other infrastructure. It also requires that contracts perform at or beyond levels not yet seen in England, where no LA has yet to reach the 65% recycling target. Some demonstration of the achievability of such targets in particular areas, as well as agreement as to what is an appropriate target for other areas, might be useful ahead of further rounds of procurement.

# Map: Recycling rates for English LAs (data: Defra, 2017/18)

