

Developing the UK Emissions Trading Scheme (UK ETS) - North London Waste Authority Response

Link to consultation: <https://www.gov.uk/government/consultations/developing-the-uk-emissions-trading-scheme-uk-ets>

Closing Date: 11:45pm on 17 June 2022

NLWA has not sought to answer every question within the Consultation Document but have focused on the most sector relevant i.e. questions 124-146.

124) Do you agree with the proposed timing for when waste incineration and EfW could be introduced into the UK ETS?

NLWA is of the view that if the UK ETS is expanded to include the EfW sector, sufficient time must be allowed to enable the industry to prepare and to establish the impact of waste reforms in achieving the aims of promoting a circular economy and reducing carbon emissions from the waste sector.

The indicated time frame does not allow for this. Reasoning can be summarised into two key considerations:

- 1) The proposed timing does not provide the sector and operators with adequate time to prepare and react to the requirements of the UK ETS. The sector will need time to consider business models, re-design current and future contracts and to realise actual costs.

If implemented too early, the carbon costs will act more like a tax, the cost of which will be passed on to Local Authorities (LAs), who will have no real ability to avoid or mitigate costs. This will be a major burden to local authorities already facing intense financial pressures. and ultimately all households and local residents, as well as commercial clients.

NLWA currently disposes of around 570,000 tonnes of waste on behalf of over 2 million residents. At current ETS prices, this would imply the Authority facing costs of £23m as a result of the ETS, which represents over a third of the Authority's total expenditure. Costs would be likely to increase as the cap is tightened leaving the Authority open to much higher costs. These could be subject to fluctuation and unpredictability as well as increases – it is plausible that costs to rise to some £66m by 2050, equivalent to a doubling of the cost of treating waste for north London's residents.

Additionally, the costs of any new policies (like those referenced in response 2) below) need to be understood so as to not overburden local authorities and businesses (the most recent overall system costs for EPR are reported to be around £1.7 billion and recently the published impact assessment for the Consultation on Environmental Targets indicates treatment costs for local authority and businesses of around £3.69 billion). The additional ETS financial and administrative burdens passed back could result in perverse outcomes for the UK ETS policy, by penalising Local Authorities potentially reducing budgets available for broader waste management services such as waste prevention outreach, reuse and recycling activities. This is an example of the unintended consequences of the ETS which only serve to undermine the waste hierarchy and drive waste to less preferable disposal options i.e. landfill before a landfill ban could be implemented.

- 2) Impacts of implementation of the Environment Act and sector policies such as the Extended Producer Responsibility for Packaging (now determined for 2024), Plastic Packaging Tax and Deposit Return Scheme, amongst others, will not have been realised within the proposed timeframe for the introduction of the UK ETS.

Alignment with and effect of emerging policies that will have direct impacts on key factors such as recycling rates, waste composition and the fossil component of residual waste will need to be accounted for. Additionally, the introduction of the plastic packaging tax raises the issue of a potential double tax being applied; namely a tax at the point of manufacture and at the point of incineration if the UK ETS is implemented.

NLWA is of the view that if the UK ETS were to be expanded to include EfW, it should be done in a tapered manner: aligning with waste management policies, extension of free allowances, timeline to allow for further decarbonisation of waste streams and a realistic timeframe for the implementation of CCS.

125) For operators of waste incinerators, EfW plants, and local authorities (LAs), please outline the steps that you will need to take, and the time required to prepare for the expansion of the UK ETS to waste incineration and EfW.

Steps we have identified include:

1. An options assessment would be required to understand the specific implications of the UK ETS; whether simple participation (pass through of costs), pre-treatment options to decarbonise the waste stream and opportunities for abatement i.e. carbon capture use and storage. Any new infrastructure would be likely to have a lead time of up to 10 years, especially if land acquisition is necessary. Moreover, any additional infrastructure would have additional financing and operational costs
2. This would mean that even if work were to begin immediately waste pre-treatment infrastructure would not be operational until the early 2030s. In terms of carbon capture use and storage, this would require additional time to implement as the market is still developing and crucially the transport and storage infrastructure is not in place to enable the Authority's facility – or many other EfW plants - to connect to a network. More realistically this would unlikely be implemented before the early 2030s.

It must be noted that pre-treatment of waste does not guarantee carbon savings are achieved. This is because demand for recyclable materials are a function of the materials markets and demand for such materials. It is very challenging to find outlets for the low-grade material extracted for recycling from residual waste pre-treatment facilities. A large proportion of inputs are ultimately incinerated as there is no market for the material.

3. A number of the policy measures referenced in the response to Q124 have the potential to impact future waste composition and volumes and thus waste input into incinerators/EfW facilities. We understand the Department is seeking to establish a baseline waste composition by 2024 (ahead of the measures coming into effect). The Authority would require at least one round of post-implementation composition data to assess changes in waste composition and the implications for emission trading. Meaningful post-implementation data is unlikely to be available before the late 2020s.
4. Understanding the scope of regulatory changes under permitting regime and associated forthcoming permit amendments (assuming MRV requirements mandated under permitting regime) will be important in addressing Change of Law provisions (outlined in response 5) below. Permit amendments will also need to have been affected ahead of

waste incinerators/EfW facilities becoming subject to UK ETS. It is for the relevant regulatory authorities to determine the timeframe for this.

5. The project agreements underpinning the provision of EfW to most local authorities include provision for Change of Law. The application of the UK ETS to waste incineration/EfW facilities will represent a Change of Law. The Parties to the Agreement will, therefore, need time to review and negotiation. The exact mechanism will be set out in each agreement (along with a mechanism to address any failure to agree). The Authority believes it would be prudent to plan for a review and negotiation period of up to 12 months. Similar Change of Law provisions will apply to waste supply contracts relied upon by merchant incinerators/EfW facilities and a similar review and negotiation period should be planned for.
6. Waste heat networks are important to the decarbonisation of heating for domestic and commercial customers, with Government estimating that such networks will need to supply 18% of heat demand by 2050 if carbon targets are to be met cost effectively. Indeed, they are seen as providing a unique opportunity to exploit larger scale – and often lower cost – renewable and recovered heat sources that otherwise cannot be used, such as a combined heat and power plant, or EfW plants. The Authority is committed to supplying heat from its new Energy Recovery Facility (ERF) to near-by development. The facility will be operational from 2026 and will support one of London's largest district heat networks, the Meridian Water Development. The heat network is currently being constructed and will be run by Enfield Council's energy company Energetik. The ERF will be able to export at least 35MWth of heat providing low-carbon hot water and heating for thousands of local homes in the Meridian Water development.
7. Recruit or procure additional resources and expertise to oversee the implementation and ongoing administration of the ETS; this is dependent on the approach taken by the Authority to address the implications of the ETS. At present it is not known how long this activity would take.

In conclusion if EfW is to be included in the UK ETS in an orderly and effective way, some 10 years would be needed. This is for technical and contractual reasons as described above. This does not include time for consideration with Government of how to manage the substantial net burden which would be imposed on local authorities.

126) Do you agree that the UK ETS should be expanded to include waste incineration and EfW? (Y/N) Please outline your reasoning, including alternative options for decarbonisation of the sector outside of the UK ETS.

NLWA shares the Government ambitions to achieve deep decarbonisation of the UK economy. As set out in the Net Zero Strategy, to stay on track to meeting net zero, industrial emissions will need to fall significantly, and all industrial sectors need to act to meet this change to ensure they are resilient to the effects of climate change. The move from landfill to EfW for treating the majority of residual waste has been a major success in supporting the waste sector to make substantial reductions in greenhouse gas emissions.

NLWA's primary purpose as a statutory waste disposal authority is the safe and hygienic disposal of non-recyclable household waste. The Authority carries out this function through the use of EfW, which is the most sustainable and low carbon form of treatment for non-recyclable waste. It is the Authority's view that policy which is targeted to ensure the sustainable management of waste is most effective if it is focused closer to the source of the emissions (i.e. at the product design and material selection stages). Such policies more directly address the root of the problem. As recognised in the Government's Resources and Waste Strategy *"Evidence suggests that 80% of the damage inflicted upon the environment*

when products become waste can be avoided if more thoughtful decisions are made at the production stage". It is important to understand that the EfW industry has very little control over the types and composition of the waste it receives. In this regard the industries' largest influence is over the types of collection infrastructure such as types of bins, size, collection frequency and commingled/source separated options; the overall aim being to improve the quality of materials and quantity of recycled materials. These aspects of the value chain are already being addressed through the Government's proposals for consistent collections.

Owing to the sector's limited influence on the supply chain the ETS will not have sufficient effect on the reduction of carbon emissions from waste and will serve only to increase council costs and therefore council tax. As such the Authority considers that expansion of the ETS to include the EfW sector should take place only if accompanied by appropriate system-wide mechanisms by Government, producers, retailers, regulators and local government to minimise waste and with appropriate support to manage the new financial burdens imposed on local authorities. NLWA is supportive of other policy mechanisms such as the extended producer responsibility, the plastic tax, deposit returns schemes and collections and packaging reform where product manufacturers and households are disincentivised to produce and consume products with a high embodied carbon content. Moreover, in line with Circular Economy principles to assess the whole value chain, focusing efforts higher up the chain with regards to design and materials, to reduce fossil carbon intensive materials. It should be noted that even products containing recycled content when disposed via energy from waste result in the same carbon impact, albeit reduced over the lifecycle had they been made from virgin materials. If the material is subsequently incinerated the carbon impact of disposal is the same.

Any solution for treating residual waste emits carbon both as a consequence of the waste management process itself and as a consequence of the embodied carbon in the item being managed. These emissions are only avoided if a product does not become waste in the first place. The ETS will not address product emissions because as a policy intervention it is applied too far from the source of influence i.e. produce designers, manufacturers etc. Regarding the emissions from the waste management process itself, no viable alternative treatment technologies exist for processing non-recyclable waste. As such the application of the ETS to the sector will only act as a tax which can only be passed through to waste producers whether they are commercial customers or residents.

EfW has the potential to achieve further emissions savings with the introduction of carbon capture and use or storage (CCUS) whilst continuing to contribute to the circular economy, national decarbonisation of electricity and heat and sustainable waste management. However, effective implementation of CCUS needs to happen across the whole sector to avoid the unintended consequences. The implementation of carbon capture will rely on the successful roll out of a viable transport and storage network. If transport and storage networks are not uniformly developed across the country this will result in many 'dispersed sites' which will not have easy or potentially affordable access to such a network. This will result in a geographical disadvantage for many EfW facilities which do not have access to future CCS solutions. This could also put some EfW plants at a commercial disadvantage simply because the location is less ideal for a transport and storage network, or they do not form part of a carbon capture cluster.

Therefore, implementation of the ETS would need to be managed carefully such that it does not become a geographical tax on dispersed sites, distorting the market and resulting in burdens falling on those communities who are least able to afford it.

Heat Network

The Government's consultation document states: "*The UK ETS may help raise the efficiency of conventional EfW plants by incentivising more plants to supply heat (i.e. heat offtake), or by potentially encouraging residual waste to be recovered in a way which lowers overall carbon emissions, such as chemical recycling*". It is not clear from the consultation document how the Government believes the ETS will incentivise "more plants to supply heat". NLWA is proud that the North London Heat and Power Project will support a large heat network, and this supports the new facility in having a very strong performance against the carbon intensity floor, which measures the efficiency of the plant in carbon terms. However, a heat network does not of itself change the carbon emissions. NLWA would support inclusion of a mechanism in the ETS which recognises and rewards the lower carbon intensity of EfW facilities supplying heat.

Pre-Treatment

The Consultation document states: "*The UK ETS could provide an incentive for the development and uptake of decarbonisation technologies or practices to reduce emissions from waste incineration and EfW, principally by strengthening long-term investment incentives. For example, by enhancing the pre-treatment of waste before it is incinerated to reduce fossil plastic in the waste stream (a costly and intensive process).*"

Simply extracting carbon intensive materials from the overall waste stream does not mean that these materials will be automatically reused or recycled. These materials will remain waste which will still require suitable treatment or disposal. The Authority recognises that ideally these materials would be reused or recycled however, significant quality challenges exist which prevents this outcome being achieved, whereas, in reality, this material is of little value and has limited end markets which means often the only safe management option is recovery at an R1 rated EfW facility or disposal to landfill.

Pre-treatment technologies used to extract materials from the residual waste stream have a high cost relative to their yield. The overall efficiency of processes to recover recyclables (plastics, paper/cardboard, metals) can be highly variable. As the consultation notes, such developments are costly and can struggle with reliability given that the material they process is non-homogenous.

127) Do you agree that all types of waste incinerators should be included in the UK ETS? (Y/N) If you believe certain incineration activities should be exempt, e.g. incineration of hazardous or certain healthcare waste, please provide details and specify which waste stream.

Referring back to Q126, we do not believe that any EfW plants should be included in the UK ETS without the right conditions being created. If some do end up being included then certainly not all types of waste incineration should be included, particularly healthcare waste and unavoidable hazardous waste streams. For these categories of waste, thermal destruction is the only management method to ensure safety of the environment. The plants are generally of small capacity and therefore have a much smaller contribution to emissions.

128) Do you believe ATT should be included in the UK ETS? (Y/N) What challenges could arise as a result of including ATT, if any, that are different to conventional waste incineration plants?

If applied then- yes. NLWA believe ATT should fall within the scope of the UK ETS on the basis that such facilities result in the release of fossil-based carbon dioxide in exactly the same manner as EfW facilities. The overwhelming majority (potentially all) ATT facilities within the UK are simply close-coupled gasifiers which are permitted to near identical regulatory standards and do not provide material benefit relative to conventional EfW with regards to emissions (across all permitted pollutant species generally). Given that the overall carbon

balance is at best comparable to EfW and potentially worse, as inferred by operational emissions and availability metrics, it appears prudent to include ATT within the UK ETS.

129) Do you agree that the point of MRV obligation for the UK ETS should be placed on the operators of waste incinerators and EfW plants? (Y/N) Please outline your reasoning in as much detail as possible and provide evidence to support your views.

Yes, NLWA is of the view that the implementation of the MRV obligation would need to be placed on plant operators as a practical necessity and likely via the permitting regime. This approach would result in additional administrative burden and cost on operators, but operators are best placed to meet this obligation given similar obligations with respect to emissions monitoring / compliance conducted at waste incinerators and EfW facilities, in addition to the regulated nature of such installations. Implementation timing should allow for adequate consultation between environmental regulators and industry, agreement on MRV principles and preferred technologies, permit amendments (if required), and deployment. MRV obligations should be designed to fully accommodate waste compositional variations (seasonal and resulting from impacts of emerging policies over the next 10-15 years). Waste composition and volumes vary during the course of a year due to seasonality effects; for example, periods of increased waste arisings typically occur for a number of weeks around holiday periods (including Easter and Christmas). Typically, during the summer months there is increased organic material in the residual waste stream. NLWA analysis of waste deliveries suggest waste tonnages can vary between 12% and 14% above and below mean respectively through the year.

130) If the point of MRV obligation is placed on operators of waste plants, should waste companies/operators or customers (either LAs or commercial and industrial customers) be responsible for meeting compliance obligations? (Y/N) Please outline your reasoning in as much detail as possible and provide evidence to support your views.

NLWA considers that this question is unclear. Considering this question, the following points are raised:

Currently compliance monitoring (with respect to waste types and permitted emissions) already falls within the responsibility of operators under the provisions of respective environmental permits. Waste type compliance is partially passed through to waste suppliers via waste supply contractual obligations and it is anticipated that similar mechanisms would be introduced with regards to any applicable MRV requirements introduced via the UK ETS.

The structure of the market is especially complex, and recognition of how relevant contracts are constructed with regards to responsibilities and pass through of obligations will need to be explored in detail. The impact of placing the MRV obligation on operators is likely to vary depending on the type of facility they are operating. Those operating merchant facilities (typically higher proportion of spot/short term waste supply contracts) are likely to have a larger number of customers, many of whom may be smaller scale businesses, with whom they will need to resolve compliance obligations. Operating facilities dependent on long-term local authority waste supply contracts will effectively need to need to resolve compliance obligations with a major public authority. These two types of customers will have different appetites for compliance which may lead to different outcomes within the same sector. Merchant facility operators may find themselves with more contractual disputes and/or a reduced customer base as some customers may revert to landfill whereas for operators servicing local authority

contracts, there may not be significant changes to MRV arrangements, albeit costs to local authorities will change.

Accounting for the number of different waste contracts typically supplying an individual facility, ensuring compliance with MRV obligations may be challenging for operators. Sampling of waste is typically undertaken periodically with individual waste deliveries loaded into a common waste bunker. If MRV obligations are monitored through post-combustion emissions data, then applying corrective actions on individual suppliers may be challenging or costly. This is because it will not be possible to accurately attribute the source of the biogenic/non-biogenic carbon to the individual waste deliveries. If post-combustion emissions monitoring is opted for (Option A: Individual plant monitoring) a system will need to be established by the operator to allow for the appropriate charges (reflecting the costs of the ETS) to be applied to those depositing the waste.

However, whichever system is chosen, the risk that the ETS imposes on the sector could see the miscalculation of EfW gate fees due to such issues as misidentification of ad hoc waste loads and fly-tipped waste, the overcharging of predominantly biogenic waste loads, and the disguising of waste by unscrupulous waste carriers. That is, it would be extremely difficult to apply the ETS in a consistent and fair manner to the wide ranging heterogeneous waste streams that EfW facilities are required to deal with on a daily basis.

131) Do you believe that the Small and Ultra Small Emitter schemes that are currently available to eligible UK ETS participants should also be available to waste incinerators and EfW plants? (Y/N) Please provide details including, where relevant, whether your organisation is likely to be eligible for these schemes based on current rules.

To ensure the UK ETS is equitable any new emitters brought into the scheme should, as a matter of principle, and where appropriate, be able to access the Small and Ultra Small Emitter schemes. However, in practice, the requirements for these schemes are unlikely to apply to operators of incinerator/EfW plants servicing waste disposal authorities. The schemes have limits on the amount of reportable carbon dioxide emissions needed to qualify (25,000 tCO₂eq/year for small emitters and 2,500 tCO₂eq/year for ultra-small emitters). We interpret the reference to 'reportable carbon dioxide emissions' as meaning those from non-biogenic materials (in line with IPCC reporting requirements).

We know of no municipal EfW facilities operating at a scale that would qualify for admission to the Small Emitters scheme.

However, notwithstanding our response to Q127, there may be more specialised waste incineration processes with the potential to qualify for the schemes.

132) Which MRV proposal do you believe should be implemented to determine the UK ETS obligation for waste incinerators and EfW plants?

More details of the scheme would need to be understood in order to make a fully informed decision however, at this early stage the Authority's preference is Option A (individual plant monitoring) in order to determine the ratio of fossil and biogenic CO₂. At this point in time the Authority does not have a preference for either the radiocarbon method or the balance method. Whichever system is opted for the accuracy of the system needs to be understood. It is recognised that implementation of such a system will pose additional burdens on operator in terms of maintenance and costs (please refer also to the Authority's points in Q130 regarding the difficulties with back-charging for deposited waste).

i) If Option A, please provide your views on which methods could be used, along with any information on the practicality of their implementation and likely costs.

The radiocarbon method offers good accuracy as the analytical technique is widely used and has been regularly refined since its inception, but it is also costly and should only be adopted if it is established all plants being brought into the scheme can implement this method of measurement. However, as detailed in Q130, this method could result in the mischarging of waste streams received on a daily basis by operators as it will be difficult to accurately link the costs to individual waste suppliers. A system will need to be put in place to account for this which could be applied consistently to gate fees. However, it is unclear how this method would deal with natural fluctuations in the composition of waste that appear throughout the year (as discussed in response to Q129) and how this would translate to the ETS allocation.

At this stage, the Authority's preference is for the individual plant monitoring. This is because this approach is likely to provide the most accurate estimation of the biogenic component of the residual waste stream. From a verification point of view this may be more straight forward to administer as samples are lab tested in contrast to the Emissions Factor Approach which would rely on consistent application of international standards for composition analysis on industry which could be difficult to monitor.

ii) If Option B, please provide your views on how these emissions factors should be calculated, along with any information on the practicality of implementation and likely costs.

(In your answer, please outline how frequently fossil emissions should be monitored under both options and consider whether there are other suitable MRV options that we have not identified.)

Spot monitoring of mixed waste is open to improper charges being applied, that is over or under charging for different types of waste with different fossil carbon content. There is also potential for chargeable waste streams to be intentionally mixed or hidden. Moreover, the heterogenous nature of waste means that this method could not be factored fairly and consistently to each waste load treated by an EfW.

133) Do you believe that one of the MRV options proposed is more likely to lead to perverse incentives (e.g. more waste diverted to landfill) or to unintended consequences as a result of applying the UK ETS to waste incineration and EfW? Please consider different scenarios and provide evidence to support your views where possible.

No, providing the additional costs do not exceed landfill gate fees including tax. A co-ordinated approach to fiscal measures will be necessary to ensure the Landfill Tax regime and ETS support waste hierarchy priorities (at least between the recovery and disposal tiers).

NLWA recognise there is potential for waste streams to be pushed down the waste hierarchy if the waste market is not balanced to reflect the financial impacts of the scheme i.e. landfill tax increases. If gate fees increase substantially there is the potential for increased fly-tipping and waste crime.

The policy must also recognise and address the possible outcome of increased organised waste crime which would need to be matched by increased local expenditure on policing against rogue waste operators and illegal fly-tipping. The extent of the waste crime problem was highlighted in a recent National Audit Office report which highlighted that the large rise in the standard rate of landfill tax had increased the returns criminals can potentially make from certain types of waste crime. At the same time, there has been an increase in the money criminals can make by avoiding landfill tax through the misdescription of waste, illegal waste

sites, and some types of fly-tipping. Organised crime groups have become more involved in waste crime. The 60 organised crime groups monitored by the Joint Unit for Waste Crime (Joint Unit) have extensive involvement in other types of crime – 70% are involved in specialist money laundering.

134) Do you believe any additional greenhouse gases, other than CO₂, that are emitted by EfW plants or incinerators, should be covered by the UK ETS? (Y/N) If so, please provide details on which gases and how it could work in practice.

No, the UK ETS should apply to fossil-based carbon dioxide.

135) How would the application of an ETS to waste incineration and EfW impact stakeholders (including operators of waste incinerators, operators of EfW plants, LAs, consumers, customers)?

As stated in response to Q124, the cost of the ETS could result in a near doubling of waste fees in the long term which would be passed to local authority and ultimately north London residents. This would therefore lead to pressure on council tax and an increase in costs to communities. However, there would be no “price signal” or incentivisation to citizens because waste costs are covered in council tax, which is based on property value. Waste costs are unrelated to the volume and nature of waste produced by any given household.

As stated in response to Q126, the application of the ETS to waste incineration and EfW could detract from other initiatives in support of the Authority’s primary duty to treat and dispose of waste from its constituent boroughs.

136) Could the introduction of a carbon price incentivise waste operators and/or LAs to improve their operations or processes to reduce fossil waste being incinerated? (Y/N) Please outline your reasoning in as much detail as possible and provide evidence to support your views.

The ETS is likely to have very little impact on the composition of the waste stream as discussed in response to Q126. This is because waste operators have little control over the composition of the waste stream. To achieve real reduction in carbon emissions can only be achieved by a societal change of significant proportion and would require all areas of the economy spanning manufacturing change, and technological developments with a significant uptake of waste prevention initiatives and behaviours.

NLWA believe costs would simply be passed-on to local authorities. This would increase the costs on already under-resourced local authorities and bring pressures to reduce other local authority budgets.

It is worth highlighting that modern EfW facilities are already extremely efficient as regards energy production. This is something the industry has refined for many years both from a commercial perspective (i.e. the more effective the plant is at energy recovery the more potential revenues can be gained from energy production) and from a regulatory perspective through the Best Available Techniques References documents which are mandated through the environmental permitting process. As such incentives are already in place to improve operations and the ETS is unlikely to provide further significant stimulus.

137) Could the introduction of a carbon price incentivise LAs to support households to improve recycling practices? (Y/N) Please outline your reasoning in as much detail as possible and provide evidence to support your views.

This not a realistic prospect. Local authorities already take action – through the design of services and through communication - to encourage residents to recycle as much as possible. The application of ETS will not be a factor which will resonate with residents or motivate them to behave in a way which they otherwise would not. There could be some benefit if a portion of the ETS were hypothecated to drive decarbonisation of the input waste stream.

138) Is there opportunity (in the medium-long term) for the carbon price to incentivise waste operators and/or LAs to invest in carbon capture and storage infrastructure, to reduce fossil carbon emissions? (Y/N) Please outline your reasoning in as much detail as possible and provide evidence to support your views.

NLWA strongly supports the implement of CCS in line with the Climate Change Committee's recognition that this is the best solution for the waste sector's long term contribution to achieving net zero emissions. It also recognises that there is no solution for waste disposal which does not involve carbon emissions. The Authority has developed a CCS strategy in relation to the Edmonton facility and seeks Government support and engagement to make this a reality.

Attaching an increased cost to carbon emissions from EfW plants through the UK ETS provides a financial incentive to invest in measures which reduce the cost of purchasing carbon allowances.

However, it does not of itself drive the successful implementation of CCS. CCS depends on technical developments, and development of large scale transport and storage systems for the benefit of all major emitters in the country (going well beyond the waste sector). This involves a major Government role in facilitating developments building on and going beyond current measures to support implementation of this new infrastructure. For an Authority like NLWA it is more effective to allow the Authority to focus on plans for implementation of CCS rather than divert staff and commercial resource to managing the uncertain consequences of premature inclusion of EfW in the UK ETS.

NLWA agrees that financial mechanisms should be developed so that EfW plants equipped with CCS can provide a service at comparable cost to those without CCS – the facilities with the best environmental performance should not be made less attractive to customers.

139) In the event of the carbon price being applied to waste operators, will waste operators be able to pass through their costs to customers (including LAs)? (Y/N) Please explain in as much detail as possible why, how, and to what extent this may or may not occur.

Yes, NLWA anticipates costs simply being passed to LAs as soon as the carbon price is applied, with the potential of disproportionately impacting the poorest residents. This may detract from other council services and efforts to improve the management of household waste through, for example, waste prevention and recycling communication activities.

Moreover, the difficulty in implementing such measures as CCS at dispersed sites would mean that the UK ETS would essentially result in a geographic tax being applied to those least able to afford it.

140) For LA owned plants, would unitary authorities and waste disposal authorities be the only authorities exposed to the carbon price – in the event of waste operators passing through costs? (Y/N) Please explain in as much detail as possible and provide evidence to support your views.

No. It is a positive solution if local authority plants also accept commercial waste generated in the area. This avoids waste generated by businesses in the locality being transported long distances which adds to the environmental impact. Therefore local authority operators would have the technical challenge of allocating ETS costs in a fair way between local authority and other customers.

141) Do you believe that government should consider phasing in ETS obligations to the sector over time? (Y/N) If yes, please outline why, how, and to what extent phasing options could be provided.

If the scheme is to go ahead then NLWA agrees that phased introduction should be adopted. This will also allow for observations of the impacts of other policies such as Deposit Return Scheme (DRS), Extended Producer Responsibility (EPR), and the introduction of the plastics tax to be assessed.

The initial introduction of a sliding scale for free allowances would provide an allowance for mechanisms to be established and work correctly and allow for future reviews and resetting.

142) Would operators of incineration/EfW plants be exposed to competitiveness impacts abroad and carbon leakage risk, in the event of being exposed to the carbon price? (Y/N) Please explain in as much detail as possible and provide evidence to support your views.

This answer depends on if and when European EfW facilities are to be included in the EU ETS. Including EfW plants in the UK but not the EU could see domestic facilities exposed to an increase in the commercial competitiveness of European facilities due to lower gate fees resulting in a distortion in the marketplace. This would lead to the incentivisation of RDF export unless there is a balancing of the UK and EU markets and costs. One 'balance' that could be implemented as a further fiscal measure is additional customs duties for exports, which may also work towards reducing the potential for an increase in waste crime.

143) Have you identified any other distributional impacts (including wider environmental or social impacts) arising from this proposal? (Y/N) Do you have views on how government could address these concerns?

Without markets for fossil-based materials (plastics) recovered from residual waste and/or the maintenance of gate fee parity between incineration and landfill there is the potential for fossil-based plastics to be diverted to landfill, increasing the quantity landfilled beyond current levels. Whilst the landfilling of plastic would, for all practical purposes, prevent the release of fossil carbon to the atmosphere the proposal has the potential to move the management of this particular waste fraction down the waste hierarchy. Government will need to address market development, including quality standards and end-of-waste criteria if the intention of the UK ETS is to facilitate the removal of fossil-based plastic from incinerator feedstock, without diverting it to landfill.

For many urban authorities waste incineration and EfW offer the best means of addressing the Proximity Principle. Urban authorities also tend to have more social housing including flatted accommodation. This type of housing does not afford the same opportunities for waste segregation and storage as some other types of housing. The application of UK ETS to the waste incineration/EfW sector could, therefore, more heavily impact some geographical areas and societal groups than others.

144) What additional policies would be needed to support the UK ETS in decarbonising waste incineration and EfW? How would this change over time?

There are forthcoming policies and measures that may support decarbonising waste incineration and EfW, such as Plastic Packaging Tax, EPS and DRS. Whilst these are not strictly additional policies it may be that, after a suitable period of operation and evaluation, additions to these policies and measures are identified that further support UK ETS and decarbonisation of the sector. Regular, say five-yearly evaluation, of these policies and measures would allow for regular fine-tuning, which, over time, would likely become focused on any remaining 'problem' areas.

In relation to waste incineration and EfW it can be argued that UK ETS is an end-of-pipe solution to a problem that might best be addressed further upstream through the development of material (and design) policies that minimise, and ideally prevent fossil-based carbon from entering the residual waste stream. Over time such policies are, in our view, likely to have a larger impact on residual waste composition (and by extension decarbonisation) than policies where material separation choices are still influenced by waste producer behaviours. It should be remembered that operators of waste incinerators/EfW facilities and the LAs they serve do not have full control/influence over the composition of the residual waste they receive. Indeed, 'front-end' policy is arguably a better means of conveying 'resource' messages, not least because the advertising power of the material/product manufacturers and sellers could be utilised. And, as mentioned elsewhere in this response, the implementation of what is effectively a tax on LAs will not generate the same level of change as the Landfill Tax achieved because the alternatives are less and also more complex.

145) How would the expansion of the UK ETS to waste incineration and EfW interact with existing and planned policies in waste incineration, EfW, and waste management more broadly, as well as any other relevant non-decarbonisation policies?

As previously mentioned, the introduction of DRS and EPR have the potential to impact the composition of residual waste received by waste incineration/EfW facilities. The impacts of this need to be evaluated and the UK ETS should be shaped accordingly. A tax at the end-of-pipe is not necessarily the best investment incentive for progressive waste management unless viable alternatives are available. Viable alternatives require functioning markets. Government, therefore, needs to consider and facilitate changes in recycling markets that will support the recycling of post-collection materials separated from residual waste as currently the quality of such materials makes them unmarketable. Without this support implementation of UK ETS may simply further increase waste management costs for no environmental and social gain.

Government is also consulting on the application of CCUS to waste incineration/EfW. The expansion of UK ETS to the sector could jeopardise investment in CCUS or increase the costs associated with waste incineration/energy recovery (if CCUS is mandated) to a level where landfill (without substantial increases in Landfill Tax and/or its inclusion in the UK ETS) becomes the more financially attractive option.

CCUS should be promoted ahead of UK ETS as such systems capture both fossil and biogenic carbon, unless Government is considering UK ETS as a behaviour change mechanism – in which case Point of Sale mechanisms are likely to be more effective.

146) Are there other parts of the waste management system that should be included in the scope of the UK ETS? For example, landfill or wastewater. (Y/N) Please explain in as much detail as possible and provide evidence to support your views.

Yes, landfill needs to be considered. In previous responses NLWA has raised several points of the importance of landfill considerations required within the application of the UK ETS. Not

least that there needs to be appropriate relative between the treatment/disposal alternatives for residual waste; including landfill.