

Written evidence submitted by the United Kingdom Without Incineration Network (UKWIN) (EB33)

To the House of Commons Public Bill Committee on the Environment Bill

Introduction

UKWIN is an environmental non-governmental organisation (NGO) representing hundreds of local anti-incineration campaigns throughout the UK.

Executive Summary

- UKWIN supports the evidence provided by Greener UK and Wildlife & Countryside Link, and we echo the call to provide assurances that the Bill's proposed ban on transfrontier shipments of waste will not result in more recyclable materials being sent for incineration in the UK.
- UKWIN also agrees with Greener UK and Wildlife & Countryside Link that: "A government that is serious about protecting people's health must make a legally binding commitment to meet World Health Organization guideline levels of PM2.5 by 2030 at the very latest on the face of the bill".
- UKWIN is concerned about the potential for unintended adverse consequences to arise in relation to the Bill's currently proposed approach to producer responsibility for disposal costs and as such there is a need to ensure that measures to increase producer responsibility do not inadvertently incentivise local authority irresponsibility, e.g. it is important that the Bill does not make it cheaper and easier to incinerate material that could and should be recycled or composted.
- UKWIN calls for the Environment Bill to reflect the need to ensure investment is directed towards preventing recyclable material from entering the residual waste stream, including significant investment in education, and notes that current financial incentives to invest in education are insufficient.
- Evidence is provided to demonstrate how across all English regions there is a clear correlation between higher levels of incineration and lower levels of recycling.
- The Environment Bill should be aiming to avoid exacerbating incineration overcapacity by introducing a moratorium on new waste incineration capacity to help promote more effective use of existing capacity.
- The full cost to society of treatment via incineration is not reflected in the price of such treatment, meaning that even under so-called 'full cost recovery' producers of non-recyclable plastics would not be paying for all of the environmental harm caused by such waste being incinerated and would not be paying anything to offset the resulting emission of avoidable fossil CO₂.
- Incinerating a tonne of waste releases around a tonne of CO₂, roughly half of which is fossil CO₂. This means that without significant decarbonisation of residual waste the unpaid cost to society per tonne of waste incinerated will increase from just over £30 per tonne of waste incinerated in 2018 to more than £35 per tonne in 2035 and more than £100 per tonne in 2050 (in 2018 prices).
- With respect to the incineration of dense plastic, the gate fees paid on average represent only 40% of the full cost to society, and that is before the cost of releasing

other harmful emissions such as particulate matter and NO_x are included in the calculations.

- The Bill should support local authorities to renegotiate or terminate waste management contracts that present barriers to managing waste at the top tiers of the Waste Hierarchy.
- The Bill should also ensure that any cost recovery scheme where local authorities are funded for waste incineration is designed so that both local authorities and producers have a financial incentive to reduce, re-use and recycle in preference to incineration.
- The Bill should be amended to require that any regulations for cost recovery does not inadvertently include financial incentives for local authorities to incinerate waste, e.g. by ensuring that the money raised through the incineration of recyclable material goes to a central fund rather than directly to the Waste Disposal Authority.
- The Bill should ensure producers pay for externalities associated with waste incineration even when they are not currently reflected in the price of treatment, e.g. the cost of greenhouse gas emissions from the incineration of plastics.
- UKWIN calls for additional waste and resource efficiency measures to promote transparency with respect to residual waste, arguing that timely, accurate and detailed data is needed to inform householders (consumers), and local authorities, as well as waste management companies and other stakeholders.
- The Bill should be amended to require incinerator and landfill operators to undertake and publish annual waste compositional analysis, with local authorities being required to carry out waste compositional analysis of kerbside residual household waste at least every 4 years.
- UKWIN sets out our support for a range of amendments proposed by various MPs (up to and including Friday 20th March 2020).

Support for the written evidence submitted by Greener UK and Wildlife & Countryside Link on the Environment Bill (EB10) and associated Briefing for Commons Second Reading of the Environment Bill

1. The submission from Greener UK and their associated Briefing for Commons Second Reading of the Environment Bill deserve full consideration by the Committee, and UKWIN supports this evidence.
2. Part 3 of the Greener UK's evidence is of particular interest as it overlaps with UKWIN's thinking, especially the statement at Paragraph 3.8 that: "We call on the government to:... Provide assurances that the ban [on Transfrontier shipments of waste] will not result in more [recyclable] materials to be sent to landfill or incineration in the UK".
3. Part 4 of Greener UK's evidence raises an issue that is of significant interest to our members, and we therefore endorse the statement at Paragraph 4.1 that: "A government that is serious about protecting people's health must make a legally binding commitment to meet World Health Organization guideline levels of PM_{2.5} by 2030 at the very latest on the face of the bill".
4. We also fully support the call made in Greener UK and Wildlife & Countryside Link's statement on Transfrontier shipments of waste (Clause 59) in their Briefing for Commons Second Reading of the Environment Bill that: "We seek assurances that

the government will not simply tackle this problem by causing more materials to be sent to landfill or incineration in this country, and advocate a moratorium on new incineration capacity".

Producer responsibility for disposal costs (Sections 47 and 48 & Schedule 5) and the need to introduce a moratorium on new waste incineration capacity

5. The concept of producer responsibility is broadly based on the 'producer pays' principle and on the notion that giving producers a greater incentive to increase the recyclability of products will promote the best environmental outcome.
6. The Government's December 2018 Resources and Waste Strategy states (on page 16) that: "Some things don't need to change – like our commitment to the 'polluter pays' principle. Reforming existing producer responsibility systems in line with this principle, will make certain that both the responsibility for and the cost of treatment or disposal of post-consumer products sits fairly and squarely with producers and not tax payers".
7. However, producers only have limited control over the waste management decisions made by Waste Collection Authorities and Waste Disposal Authorities. As such, there is also a need to ensure that measures to increase producer responsibility do not inadvertently incentivise local authority irresponsibility.
8. UKWIN is particularly concerned about the situation with respect to waste incineration, where local authorities can often be bound by long-term waste contracts that mean they have to pay a lot of money for the availability of incineration capacity, but the price difference between using and not using that capacity is often low.
9. For example, if a local authority pays £100/tonne for the availability of 180,000 tonnes of incineration capacity, and if that authority receives a £20 rebate for each tonne of unused capacity, then incinerating 180,000 tonnes of waste costs £18m. However, if that local authority only incinerated 100,000 tonnes then, even with the £20/tonne rebate, that local authority would still have to pay £80/tonne to not use that capacity. This makes the 'marginal' cost £20/tonne, reducing financial incentives to invest in waste education that could result in lower volumes of recyclable material being incinerated.
10. Matters would then be compounded in the event that producers would have to cover the full £100/tonne incineration cost (in the event that waste were sent to incineration) whilst not paying anything towards the incinerator if the material were recycled. This would effectively make the local authority's marginal cost for incineration -£80/tonne, meaning it would always be cheaper for the local authority to incinerate material even in circumstances where the gate fees for recycling (or for anaerobic digestion) are far lower than for waste incineration. It is important that the Bill does not make it cheaper and easier to incinerate material that could and should be recycled or composted.
11. EFRACOM has previously noted that: "When we [EFRACOM] asked the Minister how the Government ensures that only genuinely residual waste is sent to incinerators, he told us that the key pressure is gate fees—i.e. the charge that must be paid to dispose of waste in an incineration facility. However, we are concerned about the

effectiveness of this singular mechanism following evidence we received about 'put or pay contracts' and negative impacts on recycling rates".¹

12. If the gate fee were to shift from being an ineffective measure to one which actually encouraged incineration then this could result in significant environmental harm as well as unfairness in that local authorities doing the wrong thing (incinerating material that could and should be recycled, composted, or anaerobically digested) would be financially advantaged relative to local authorities doing the right thing (diverting from incineration and landfill).
13. UKWIN has submitted evidence on these topics as part of the UKWIN submission to the February 2019 consultation on reforming the UK packaging producer responsibility system² and to the HCLGCOM inquiry into the implications of the Waste Strategy for Local Authorities inquiry³. This evidence raises concerns regarding how the passing on of full fees for disposal costs could provide local authorities with a financial incentive to incinerate waste where they might otherwise have invested in greater recycling.
14. Unfortunately the current wording of the Environment Bill has not allayed our concerns that there could be perverse financial incentives for local authorities to avoid investing in waste education and collection and treatment infrastructure and instead to have producers subsidise the incineration of recyclable material to cover the cost of existing waste incineration contracts.
15. According to a recent study by WRAP a significant proportion of recyclable materials currently end up in the residual waste stream across the UK⁴. These findings are consistent with national studies, for example:
 - a. a WRAP study found that in Northern Ireland in 2017 55.0% of the residual waste stream was recyclable material⁵;
 - b. a study by WRAP Cymru found that in 2015: "In the kerbside collected residual waste stream, 48.9% of the material was widely recyclable"⁶; and

¹ Committee report on Waste management in England (UK Parliament, 15 October 2014). Available from:

<https://www.publications.parliament.uk/pa/cm201415/cmselect/cmenvfru/241/24107.htm>

² <https://ukwin.org.uk/files/pdf/UKWIN-EPR-Consultation-Submission-May-2019.pdf>

³ IWS 030

<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/housing-communities-and-local-government-committee/implications-of-the-waste-strategy-for-local-authorities/written/102151.pdf> and IWS 034

<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/housing-communities-and-local-government-committee/implications-of-the-waste-strategy-for-local-authorities/written/102824.pdf>

⁴ <https://wrap.org.uk/content/quantifying-composition-municipal-waste>

⁵ <https://www.daera->

[ni.gov.uk/sites/default/files/publications/daera/Northern%20Ireland%20Kerbside%20Waste%20Composition%202017%20Volume%20%20Local%20Authority%20Waste%20Composition%20Analysis.pdf](https://www.daera-ni.gov.uk/sites/default/files/publications/daera/Northern%20Ireland%20Kerbside%20Waste%20Composition%202017%20Volume%20%20Local%20Authority%20Waste%20Composition%20Analysis.pdf)

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<http://www.wrapcymru.org.uk/sites/files/wrap/Wales%20Municipal%20Waste%20Composition%202015-16%20FINAL.pdf>

- c. a WRAP study found that 74.5% (+/- 2.4%) of residual commercial & industrial waste in Wales in 2019 could have been recycled ("The majority of the [residual C&I] waste analysed (74.5% (+/- 2.4%) or 450,478 tonnes annually) could have potentially been recycled")⁷.
16. Similar results have been found in kerbside Waste Composition Analysis conducted on behalf of local authorities in England, where for example:
- a. 63% of residual waste at kerbside was found to have been potentially recyclable in Merseyside and Halton in 2015⁸;
 - b. ~50% of kerbside residual waste was estimated to be recyclable in Newcastle upon Tyne in 2016⁹;
 - c. 65.78% of kerbside residual waste was estimated to be recyclable in St. Albans (Hertfordshire) in 2015, with the overall figure for Hertfordshire being 51.2% recyclable in the residual waste bins¹⁰; and
 - d. 56.8% of kerbside residual waste was estimated to be recyclable in Barnet in 2015¹¹.
17. These figures indicate that particular care needs to be taken to ensure that investment is directed towards preventing recyclable material from entering the residual waste stream, including significant investment in education, and that current financial incentives to invest in education are insufficient.
18. Across England the average rate of incineration for Local Authority Collected Waste (LACW) in 2018/19 is 43.8% and the average rate of recycling is 42.7%.¹² This means that to achieve a 65% LACW recycling rate for England the rate of incineration would have to fall to at least 35%, which is equivalent to a reduction of 8.8 percentage points.
19. Moving from the national data for England to the regional and local data, the correlation between higher rates of incineration and lower rates of recycling become clear.
20. The regional rates of recycling and incineration reflect the differences in incineration and recycling capacity and investment across England. As shown in Figure 1, across all regions and the national average there is a clear inverse correlation between the levels of incineration and the level of recycling:

⁷ <http://www.wrapcymru.org.uk/reports/composition-analysis-commercial-and-industrial-waste-wales>

⁸ <https://www.merseysidewda.gov.uk/wp-content/uploads/2016/08/Merseyside-and-Halton-Waste-Partnership-Final-Report-16173i4.pdf>

⁹ https://www.whatdotheyknow.com/request/analysis_of_the_recyclability_of

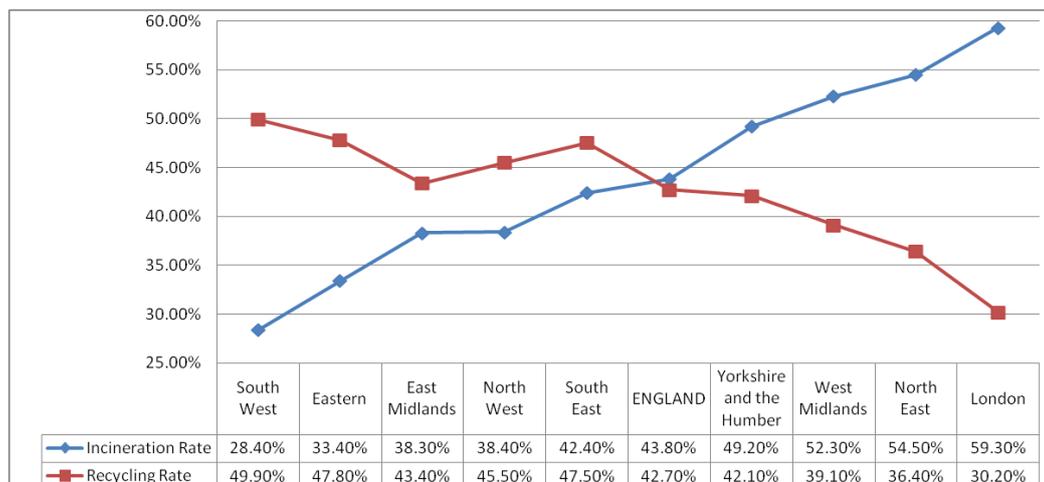
¹⁰ <http://bailey.persona-pi.com/Public-Inquiries/Rattys%20Lane%20-%20Hoddesdon/C%20-%20During%20PI%20dox/doc-54.pdf>

¹¹ https://files.datapress.com/barnet/dataset/waste-composition-analysis---houses/2015-10-12T14:06:11/BARNET%20WASTE%20ANALYSIS%202014_2015%20houses%202%20season%20final%20report%209%20July%202015.pdf

¹²

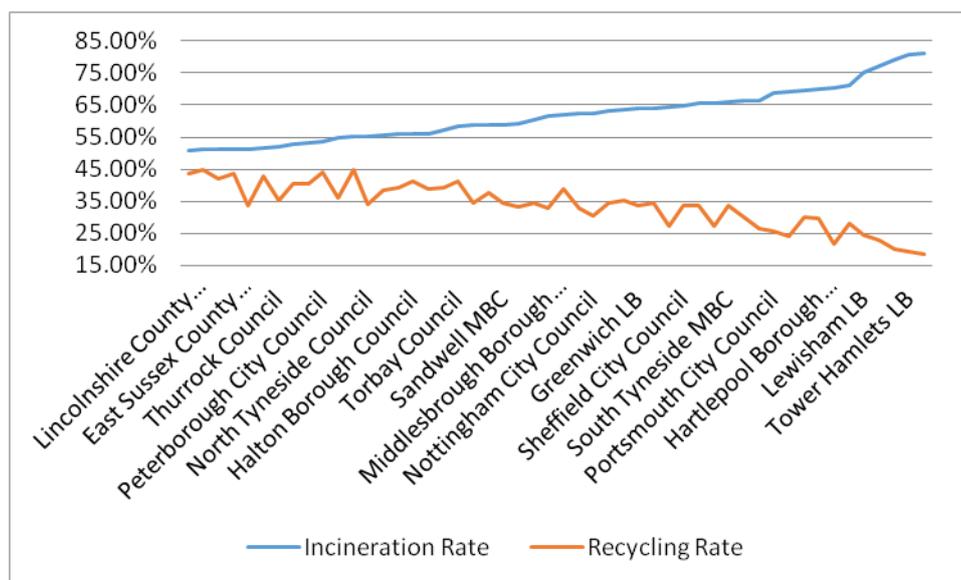
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/763211/LA_and_Regional_Spreadsheet_201718.ods

Figure 1. English Regional Local Authority Collected Waste (LACW) incineration and recycling rates in 2018/19¹³



21. Furthermore, there 50 local authorities who burn the majority (i.e. more than 50%) of their LACW, and these authorities also exhibit a clear inverse correlation between the rate of incineration and the rate of recycling¹⁴:

Figure 2. Recycling and incineration rates for LACW of English Local Authorities burning more than 50% of their waste¹⁵



¹³ Sources: Table 2a of Local authority collected waste generation from April 2000 to March 2019 (England and regions) and local authority data April 2018 to March 2019 (Defra, December 2019). Available from:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/766014/LA_and_Regional_Spreadsheet_201718_rev2.xlsx

¹⁴

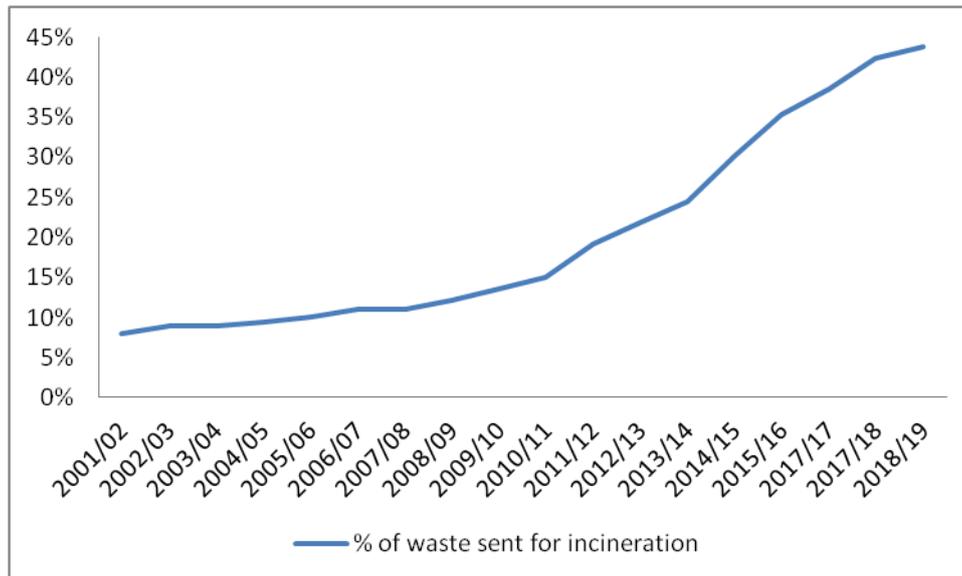
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/766014/LA_and_Regional_Spreadsheet_201718_rev2.xlsx

¹⁵ Sources: Table 2a of Local authority collected waste generation from April 2000 to March 2019 (England and regions) and local authority data April 2018 to March 2019 (Defra, December 2019). Available from:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/766014/LA_and_Regional_Spreadsheet_201718_rev2.xlsx

22. Many Local Authorities have publicly blamed long-term waste contracts that encourage waste incineration as one of their barriers to higher recycling rates¹⁶. For example, in July 2019 the leader of Stroud District Council stated that: "The incinerator is a disaster. It is expensive to run, the contract undermines attempts to reduce the amount of waste we produce and recycle, and will undermine our commitment to become carbon neutral by 2030 and tackle climate change"¹⁷.
23. As set out in Figure 3 below, the proportion of Local Authority Collected Waste incinerated in England has increased from 8% of waste managed in 2001/02 (2.4 million tonnes) to 43.8% in 2018/19 (11.0 million tonnes).

Figure 3. Proportion of English LACW sent for incineration, 2001/02 to 2018/19¹⁸



24. Taken together with the issues of incineration competing with recycling, the Environment Bill should be aiming to avoid exacerbating incineration overcapacity by introducing a moratorium on new waste incineration capacity. This would help promote more effective use of existing capacity, therefore partially addressing some of our concerns that the measures in the Environment Bill could result in a proliferation and continuation of recyclable materials being incinerated.
25. Such a measure would be in line with Early Day Motion #581 of the 2017-19 session entitled ('Moratorium on New Waste Incineration Capacity') which attracted signatures from across the political spectrum, and which noted: "That this House notes in the UK there is now more waste incineration capacity built and under construction than it is forecast there will be genuinely residual combustible waste to burn; further notes that incineration overcapacity can be a barrier to achieving the recycling society; believes that realising such a recycling society would result in significant economic, social and environmental benefits; acknowledges the need to send a clear message that the

¹⁶ <https://ukwin.org.uk/files/pdf/UKWIN-Examples-of-incineration-harming-recycling-July-2019.pdf> and <https://www.gov.uk/government/publications/local-authority-letters-on-recycling-rates>

¹⁷ Stroud District Council leaders oppose waste from our district being burnt at the new Javelin Park incinerator (Stroud District Council, 2 July 2019). Available from: <https://www.stroud.gov.uk/news-archive/stroud-district-council-leaders-oppose-waste-from-our-district-being-burnt-at-the-new-javelin-park-incinerator>

¹⁸ <https://www.gov.uk/government/statistical-data-sets/env18-local-authority-collected-waste-annual-results-tables>

waste hierarchy should shift focus away from incineration and towards waste reduction, reuse, recycling and composting; and calls on the Government and the devolved governments to introduce a complete moratorium on new waste incineration capacity, covering both conventional waste incineration and other forms such as gasification and pyrolysis, as a matter of urgency".

26. In the House of Commons on 28th March 2019 one of the primary sponsors of EDM #581, John Grogan MP, questioned Michael Gove, saying: "Most studies now indicate that we have an excess of incineration capacity to deal with residual waste. Is there not a danger that, if we build more incinerators, waste that would otherwise be recycled will be diverted to those incinerators?" and the then Environment Secretary acknowledged this by responding: "That is a fair point".
27. Since EDM #581 was signed yet more incineration capacity has been built and even higher recycling targets have been adopted, thus adding to the need for a moratorium.
28. In addition to the existing capacity of around 12.41 million tonnes across 42 facilities in the UK there is also around 1.07 million tonnes of capacity under construction (5 facilities) and 3.37 million tonnes in commissioning (15 facilities). This means the UK currently has 63 incinerators and around 16.85 megatonnes of incineration capacity¹⁹.
29. As noted by the National Infrastructure Commission in their National Infrastructure Assessment published in July 2018: "Reducing the waste sent to energy from waste plants (incinerators) by recycling more plastic and converting more food waste into biogas can also help reduce overall emissions...The successful delivery of a low cost, low carbon energy and waste system requires...encouraging more recycling, and less waste incineration"²⁰.
30. Given the need to increase recycling and to move towards a more circular economy, current incineration capacity is more than enough and any further additional capacity could be significantly counterproductive with respect to meeting the UK's recycling targets and meeting our environmental ambitions.
31. Returning to the polluter pays principle, a related issue is that the full cost to society of treatment via incineration is not reflected in the price of such treatment, meaning that even under so-called 'full cost recovery' producers of non-recyclable plastics would not be paying for all of the environmental harm caused by such waste being incinerated and would not be paying anything to offset the resulting emission of avoidable fossil CO₂.
32. According to the Government an estimated 6.3 million tonnes of fossil CO₂e was emitted from incineration in 2018²¹.

¹⁹ 2018 EfW Statistics (Tolvik, June 2019). Available from: https://www.tolvik.com/wp-content/uploads/2019/06/Tolvik-EfW-Statistics-2018-Report_July-2019-final-amended-version.pdf

²⁰ Pages 33-34 of the National Infrastructure Assessment (National Infrastructure Commission, July 2018), available from https://www.nic.org.uk/wp-content/uploads/CCS001_CCS0618917350-001_NIC-NIA_Accessible.pdf

²¹ Incinerators: Greenhouse Gas Emissions: Written question - HL927 Answered on: 05 February 2020. Available from: <https://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Lords/2020-01-29/HL927/>

33. According to the Government's Green Book supplementary guidance: Valuation of energy use and greenhouse gas emissions for appraisal ('Table 3: Carbon prices and sensitivities 2010-2100 for appraisal, 2018 £/tCO₂e')²² the cost of non-traded carbon in 2018 was between £34 and £101 with a central figure of £67.
34. Because this CO₂ from incineration was not taxed this means that for the 6.3 million tonnes of fossil CO₂ results in an unpaid cost to society of around £422m (i.e. between £214m - £643m).
35. Government assumptions regarding the cost of non-traded carbon is that it will go up over time as the cost of abatement measures increase. This means that the cost per tonne of fossil CO₂ released by incineration will rise from £67/tonne in 2018 to £75 in 2025, £81 in 2030, and £231 by 2050 (in 2018 prices).
36. Incinerating a tonne of waste releases around a tonne of CO₂, roughly half of which is fossil CO₂²³. This means that without significant decarbonisation of residual waste the unpaid cost to society per tonne of waste incinerated will increase from just over £30 per tonne of waste incinerated in 2018 to more than £35 per tonne in 2035 and more than £100 per tonne in 2050 (in 2018 prices).
37. The incineration of plastic releases more fossil CO₂ per tonne than incinerating mixed waste in general, with around 2 tonnes of fossil CO₂ released for every tonne of dense plastic incinerated.²⁴ This means that there is an unpaid cost to society of around £134 per tonne of dense plastics incinerated in 2018.
38. The median gate fees for incinerators in 2018 was £89/tonne,²⁵ meaning that for dense plastic the gate fee only reflected around 40% of the full cost to society, and that is before the cost of releasing other harmful emissions such as particulate matter and NO_x are included in the calculations.
39. A number of the issues with waste incineration outlined above, which the Environment Bill either fails to address or could inadvertently exacerbate, have also been highlighted by a recent United Nations Environment Programme (UNEP) report entitled: 'Waste to Energy: Considerations for Informed Decision-Making'.²⁶
40. The UNEP document states in its executive summary that: "The European Union...which has relied on waste incineration for the past few decades, is now moving away from thermal WtE [Waste to Energy] and other forms of incineration and is focusing on more ecologically acceptable solutions such as waste prevention, reuse and recycling as it shifts towards a circular economy".

²² Carbon Balances and Energy Impacts of the Management of UK Wastes Defra R&D Project WRT 237, Final Report, December 2006 . Available from:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/793632/data-tables-1-19.xlsx

²³ Evaluation of the climate change impacts of waste incineration in the United Kingdom (UKWIN, October 2018). Available from: <https://ukwin.org.uk/files/pdf/UKWIN-2018-Incineration-Climate-Change-Report.pdf>

²⁴ http://randd.defra.gov.uk/Document.aspx?Document=WR0602_4750_FRP.pdf

²⁵ WRAP Gate Fees Report for 2018/19. Available from:

<https://www.wrap.org.uk/sites/files/wrap/WRAP%20gate%20fees%20report%202019.pdf>

²⁶ Waste to Energy: Considerations for Informed Decision-making (UN Environment Programme, June 2019). Available from: <https://www.unenvironment.org/ietc/resources/publication/waste-energy-considerations-informed-decision-making>

41. The UNEP Report goes on to highlight the issues of lock-in, overcapacity and the incineration of recyclable material, stating that: "As with all large investment projects, thermal WtE can potentially create lock-in effects that may lead to plant overcapacity and hamper efforts to reduce, reuse and recycle. Incinerating materials, regardless of the amount of energy that may be recovered, constitutes a leakage from a circular economy. The lock-in effect generally refers to a dedicated investment in a thermal WtE project, and the requirement of a fixed amount of waste for incineration over the plant's life. The lock-in effect could lead to undermining waste prevention, reuse and recycling policies and programmes due to lack of funds to develop those systems, or 'put or pay' contracts that mandate municipalities provide a fixed amount of waste to the incinerator or pay a fine. These conditions pose a risk to the waste management hierarchy, and can hamper waste reduction, and in turn dampen the potential boost that local economies often get through reduction, reuse, recycling and composting. In developed countries with effective prevention and recycling systems, reduced amounts of MSW for incineration can lead to thermal WtE plant overcapacity...several studies have shown that thermal WtE plants burn mostly recyclable or compostable waste".
42. To address the issues outlined above, the Bill should require that any regulations for cost recovery be required to:
- a. Ensure that any cost recovery scheme where local authorities are funded for waste incineration is designed so that both local authorities and producers have a financial incentive to reduce, re-use and recycle in preference to incineration;
 - b. Ensure that any system for cost recovery from producers is designed to avoid creating financial incentives for local authorities to incinerate waste, e.g. by ensuring that the money raised through the incineration of recyclable material goes to a central fund rather than directly to the Waste Disposal Authority;
 - c. Be accompanied by, or include support for, local authorities to renegotiate or terminate waste management contracts that are proving to present barriers to managing waste at the top tiers of the Waste Hierarchy;
 - d. Ensure that producers pay for externalities associated with waste incineration even when they are not currently reflected in the price of treatment, e.g. the cost of greenhouse gas emissions from the incineration of plastics; and
 - e. Be accompanied by a moratorium on new waste incineration, or at the very least include powers that the relevant Minister can exercise to introduce a moratorium on new waste incineration capacity, e.g. for the purposes of promoting recycling, discouraging the exacerbation of incineration overcapacity, and minimising losses to ('leakages' from) the circular economy.

Need for additional waste and resource efficiency measures to promote transparency with respect to residual waste

43. As set out above, a significant proportion of residual waste is recyclable. This results not only in the flagrant squandering of resources that comes at a high (externalised) cost to the environment, but also in the misuse of existing incineration and landfill capacity.

44. It is therefore important that those sending discarded material for treatment at incineration and landfill facilities know how much of that material could have been recycled or composted had the correct infrastructure in place and/or had the existing infrastructure been properly utilised.
45. Timely, accurate and detailed data is needed to inform householders (consumers), and local authorities, as well as waste management companies and other stakeholders. Indeed, the Government's Resources and Waste Strategy recognises the importance of accurate good quality data about the nature of waste arisings.
46. Section 8.1.6 of the Resources and Waste Strategy sets out the need for 'Ensuring data on the composition of residual waste is regularly updated', and includes the following: "Residual waste is the mixed material that is typically incinerated for energy recovery or landfilled. Much of the products and materials contained in this waste could have been prevented, reused or recycled. This is inefficient not only because materials that hold value are being lost, but also incineration and landfill are the most expensive ways to treat waste. Understanding waste composition is fundamental to the Strategy's objectives of eliminating avoidable plastic waste over the lifetime of the 25 Year Environment Plan, working towards eliminating food waste to landfill by 2030 and eliminating avoidable waste by 2050. It will enable us to estimate the carbon content of mixed waste. Future compositional analyses will be required to monitor progress".
47. As such we propose that:
- a. The Bill be amended to require all operators of facilities such as incinerators and landfills which serve as a destination for more than 50,000 tonnes of mixed residual waste per year (including Commercial & Industrial Waste, RDF, etc.) be required to undertake and publish waste compositional analysis of material sent for incineration (including gasification or pyrolysis) and landfill at least once a year based on guidance to be provided by the relevant Minister to determine information including:
 - i. The categories for the waste, e.g. how much is dense plastics, how much is food waste (as a quantity and a percentage by weight);
 - ii. The carbon content of the waste, e.g. how much biogenic or fossil CO₂ would be released were the material to be incinerated;
 - iii. For Local Authority Collected Waste, what proportion of the waste could have been recycled or composted if use had been made of existing Council services operating in the area;
 - iv. How much could have been recycled or composted assuming the material had been separately collected for a best-in-class recycling and composting service.
 - b. The Bill be amended to require local authorities to carry out waste compositional analysis of kerbside residual household waste at least every 4 years, along similar lines to (a) above, to help determine the benefits that could be accrued from better sorting by households, more comprehensive recycling and composting services, etc.

Furthermore, it should be made a requirement for local authorities to have recent analysis of residual waste composition and recyclability and compostability of this material in place before signing or renewing any long-term waste management contract for the treatment of residual waste.

Support for specific amendments given up to and including Friday 20 March 2020

48.UKWIN supports the following amendments because they would support better resource management, environmental protection, monitoring, and/or enforcement:

- a. 114 (Clause 18, page 11, line 19, leave out paragraph (a))
- b. 93 (Clause 18, page 11, line 19, leave out “the armed forces, defence or”)
- c. 94 (Clause 18, page 11, line 20, leave out paragraph (b))
- d. 95 (Clause 20, page 12, line 32, at end insert—...)
- e. 156 (Schedule 1, page 126, line 2, leave out “have regard to the need to”)
- f. 97 (Clause 22, page 13, line 8, at end insert—...)
- g. 189 (Clause 22, page 13, line 16, leave out subsection (5))
- h. 99 (Clause 26, page 15, line 31, at end insert “(including international environmental law”)
- i. 192 (Clause 29, page 17, line 5, leave out subsection (4))
- j. 5 (Clause 30, page 18, line 6, leave out “may” and insert “must”)
- k. 118 (Clause 33, page 19, line 39, at end insert—...)
- l. 184 (Clause 35, page 21, line 28, at end insert—...)
- m. 127 (Clause 43, page 26, line 6, leave out “mainly”)
- n. 115 (Clause 43, page 26, line 10, leave out paragraph (b))
- o. 116 (Clause 43, page 26, line 11, leave out paragraph (c))
- p. 78 (Clause 44, page 27, line 24, at end insert—...)
- q. 158 (Schedule 4, page 151, line 16, after “waste” insert “, reducing the consumption of virgin materials,”)
- r. 59 (Schedule 4, page 151, line 32, after “be” insert “prevented, reduced,”)
- s. 164 (Schedule 7, page 166, line 26, leave out lines 28 to 32 and insert—...)
- t. 182 (Schedule 9, page 174, line 32, leave out paragraph 1(2)(b) and insert—...)
- u. NC6 (To move the following Clause—“The environmental purpose...”)
- v. NC7 (To move the following Clause— “Waste Recycling: Duty to maintain an end use register...”)
- w. NC10 (To move the following Clause— “OEP: Penalty notices...”)
- x. NC13 (To move the following Clause— “OEP register...”)