

ENVIRONMENT AND CLIMATE OVERVIEW AND SCRUTINY COMMITTEE: 11 JUNE 2025

INCORPORATION OF ENERGY FROM WASTE AND WASTE INCINERATION FACILITIES INTO THE UK EMISSIONS TRADING SCHEME - UPDATE

REPORT OF THE DIRECTOR OF ENVIRONMENT AND TRANSPORT

Purpose of report

1. The purpose of this report is to update the Committee on the Government's plans to incorporate Energy from Waste (EfW) and waste incineration without energy recovery facilities into the UK Emissions Trading Scheme (UK ETS), and to update the Committee on the potential implications for the Council.

Policy Framework and Previous Decisions

- 2. As a Waste Disposal Authority, the Council is required, under the Environmental Protection Act 1990, to provide places for residents to deposit household waste and to dispose of the waste that is deposited. The Council is also required to arrange for the disposal of the waste that is collected by the Waste Collection Authorities (the district councils).
- 3. The Leicestershire Resources and Waste Strategy 2022-2050 (LRWS), which was approved by the Cabinet in April 2023, commits the Council to reducing waste to landfill to less than 5% by 2025, well in advance of the 10% national target by 2035.
- 4. The LRWS 2022-2050 and the management of residual waste by Leicestershire County Council as the Waste Disposal Authority supports the objectives of the Council's Environment Strategy 2018-2030 and the 'Clean and Green' outcome within the Council's Strategic Plan Refresh 2024-2026.

Background

- 5. The UK ETS was established under the Climate Change Act 2008 and came into force in January 2021 to replace the UK's participation in the EU ETS and align with the Government's 2050 net zero commitment. The UK ETS is a UK wide greenhouse gas emissions trading scheme to incentivise emissions reductions.
- 6. The UK ETS is governed by the UK ETS Authority, comprising of the UK Government, the Scottish Government, the Welsh Government and the Department of Agriculture, Environment and Rural Affairs in Northern Ireland.

- 7. The UK ETS is regulated by the Environment Agency, the Scottish Environment Protection Agency, Natural Resources Wales and the Northern Ireland Environment Agency and the Secretary of State (Offshore Petroleum Regulator for Environment and Decommissioning).
- 8. The UK ETS is a cap-and-trade system whereby a cap is set on the total carbon emissions allowed to be released by all sectors covered by the scheme, which decreases over time in line with net zero.
- 9. Initially, the UK ETS has covered energy intensive industries, including fossil fuel fired electricity generation, oil and gas refining, aviation and the production of cement, iron, steel, aluminium, glass, ceramics, paper and pulp, and chemicals.
- 10. The UK ETS applies to carbon dioxide emitted from fossil carbon (carbon from living matter that has died and been deposited on the ground). The majority of fossil carbon found in the waste stream comes from plastics. The less fossil carbon that is detected, the lower the financial obligation on operators.
- 11. Facilities currently in scope of the UK ETS (energy intensive industries, the power generation sector and aviation as summarised in paragraph 9), need to surrender allowances annually to cover their emissions. These can be bought via auctions or traded with other participants. Alternatively, facilities can invest in technology to reduce their emissions liability. One allowance equals one tonne of carbon emitted.
- 12. The price for a carbon allowance is variable and not a fixed tax price. It therefore has the potential to go up as well as down, as is demonstrated in the Figure 1 chart from Energy UK below.



Figure 1: Historic Fluctuation of the UK ETS Carbon Allowance Price

- 13. The carbon price per tonne of carbon, as at 1 January 2025, was £41.84.
- 14. In 2023, the UK ETS Authority confirmed its intention to include EfW and waste incineration in the UK ETS from 2028 following a two-year phasing period from 2026 to 2028 before full cost exposure, during which installations will monitor, report and verify their emissions. The cost of carbon emissions will fall on EfW operators, who may then pass on the costs to their customers, including local authorities.
- 15. Although Persistent Organic Pollutants and specific types of waste such as hazardous and clinical waste must be disposed of via incineration, the UK ETS Authority has proposed that these wastes will not be exempt from the UK ETS.
- 16. On the 23 May 2024, the UK ETS Authority published a further consultation on the UK ETS scope expansion to include EfW and waste incineration without energy recovery. The UK ETS Authority is yet to publish its response to this consultation.

Why Is It Important?

17. In England, waste sent to incineration has increased. The UK Government data on the management of local authority waste shows that waste sent for incineration increased by 0.5 million tonnes to 12.6 million tonnes in 2023/24 compared to 2022/23 and was the disposal method used for 50.2 percent of all local authority waste. In line with the waste hierarchy, materials which could be reused or recycled should not be sent to incineration. Raising the cost of burning plastic aims to incentivise greater reuse and recycling of plastics and reduce carbon emissions.

The Impact of Expanding the UK ETS to EfW and Waste Incineration

- 18. The UK ETS Authority has stated that it understands the concerns that the costs of ETS are likely to be passed from the operators of incinerators and EfW facilities to their customers because of the Qualifying Changes in Law clauses in contracts and that this may raise the costs of waste disposal.
- 19. Whilst it is considered likely that there will be some level of cost pass through, what remains unclear is whether the operator compliance costs and costs for carbon reduction infrastructure will also be passed through to customers or whether operators will absorb these costs. Any additional costs will put pressure on the wider Council services.
- 20. The UK ETS Authority also believes that it is important for accurate costs to be passed through to customers to incentivise them to reduce the fossil content in the waste sent to EfW and waste incineration.
- 21. Research undertaken by the Local Government Association (LGA) in collaboration with the District Council's Network and the County Council's Network in September 2024 estimates that the direct expansion of the UK ETS to local authorities (in respect to EfW and waste incineration) in 2028 could add gross additional costs of between £367 million and £747 million and could rise to £1.1 billion in 2036 with a total cumulative cost over this period that could be as high as £6.5 billion.

- 22. Until the UK ETS Authority's response to the 2024 consultation is made available, there remains uncertainty in respect to how the fossil content of waste inputs into EfW and waste incineration will be determined.
- 23. A 2028 start date for inclusion of EfW and waste incineration in the UK ETS and the Council's target of less than 5% waste to landfill by 2025 will also result in greater tonnage being directed to EfW facilities.
- 24. The UK ETS Authority also acknowledges stakeholder concerns that including EfW and waste incineration in the UK ETS may make sending waste to landfill cheaper and undermine the waste hierarchy by encouraging more waste to be sent to landfill. This would create a perverse outcome as explained in points 25 and 26 below.
- 25. Landfill tax was introduced across the UK from October 1996 to provide an economic incentive to divert waste away from landfill towards more environmentally friendly waste management options including EfW, recycling and re-use. It has been a key driver behind local authority waste to landfill in England falling by 90% since 2000.
- 26. The Circular Economy Package, transposed into UK law through the Environment Bill, established the 2035 target to recycle 65% of municipal waste and a target to limit landfilling of municipal waste to a maximum of 10% by 2035. The Bill, (now the Environment Act 2021) also sets a legislative target to halve the amount per person of residual waste (excluding mineral waste) that is sent to landfill and incineration for England by 2042 compared with 2019 levels.
- 27. Through the 2024 consultation, the UK ETS Authority also sought to explore the monitoring methods available to facilities to determine how much of their carbon emissions come from fossil sources and would therefore fall in scope of the UK ETS. The Council is awaiting the UK ETS Authority's response to the consultation for confirmation of their preferred approach to this.
- 28. The LGA suggest that it is difficult to correctly identify from input composition the fraction that is fossil derived and that only post-combustion analysis is accurate. The LGA also suggests where there are multiple sources of waste into a single facility, it will be difficult to allocate ETS costs to each source by using input composition analysis.
- 29. The LGA input composition analysis has indicated a range from 13.5% to 50% fossil waste in the residual waste stream covering the following categories, as shown in Figure 2 below:

Category	Percentage
Plastic film	2 – 13%
Dense plastic	2.5 – 14%
Absorbent hygiene products	2 - 20%
Waste electrical electronic	1% approximately
equipment/household waste	
Misc. combustibles (HWRC/residual)	6 - 41%

Figure 2: Input combustion analysis

Post-combustion analysis indicated 40% fossil derived waste.

30. The LGA worked with 14 local authorities to analyse their residual waste fossil proportion with respect to the above categories with the following results shown in Figure 3 below. Factors that can influence the proportion of fossil based wastes in the residual waste stream include, the overall tonnage sent for disposal, the affluence of an area, the age of the local population, the particular waste collection systems in place in an authority area and the effectiveness of local authority behaviour change communication campaigns.

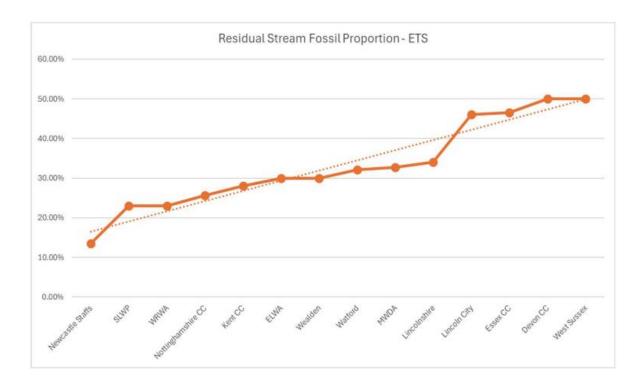


Figure 3: Residual Waste Fossil Proportion

- 31. The UK ETS Authority has indicated that it will undertake new burdens assessments to ensure that any likely financial impact of the UK ETS on local government is assessed.
- 32. Decreasing the amount of fossil wastes (such as plastics) sent to waste incineration facilities would lower a local authority's exposure to the carbon price.
- 33. However, the existing uncertainty as to the final approach of the UK ETS Authority and variables including percentage of fossil content in the waste, the price of carbon, tonnage of material sent to EfW, the impact of contract qualifying changes in law and the Collection and Packaging Reforms, makes financial planning and mitigation difficult.
- 34. These challenges are compounded by the complexity of apportioning costs in two tier areas, the uncertainty regarding the future local government reforms, future population and housing growth and the variable inclusion of trade waste collections by Waste Collection Authorities.

- 35. Waste Disposal Authorities also have limited ability to directly reduce the amount of fossil based waste in the waste stream further to their statutory duty, under the Environmental Protection Act 1990, to dispose of waste placed in bins by the public, over which there is no control.
- 36. The UK ETS Authority will publish guidance prior to the monitoring, reporting and verification period, which is beginning in 2026, to support the decarbonisation activities.

Collection and Packaging Reforms

- 37. Over the coming years, the Government's Collection and Packaging Reforms (CPRs) are expected to achieve: an increase in food waste that is recycled; an increase in packaging materials that are recycled; a reduction in unnecessary packaging that is produced; a reduction in the residual waste that is generated; a reduction in littering and a reduction in carbon emissions. A report on the Government's CPRs was presented to the Committee on 13 June 2024.
- 38. The UK ETS Authority proposes to align the UK ETS with Packaging Extended Producer Responsibility (pEPR) so that the carbon price is considered as part of the pEPR cost recovery process. This means that the payments to local authorities for the management of in scope materials under pEPR will include the cost of the UK ETS where incineration is an appropriate method of disposal for waste packaging. It is estimated that the proportion of in scope materials under pEPR in the residual waste stream managed for disposal by the Council may be between 10% and 18%.
- 39. pEPR places the cost on businesses for the environmental impact of their packaging which they place on the market. The objective is to increase the use of recyclable and reusable packaging and to reduce the use of non-recyclable packaging, therefore lowering the amount of fossil based wastes that enter the residual waste stream. This would subsequently reduce a local authority's exposure to the carbon price.
- 40. The return of drinks containers through the Government's Deposit Return Scheme from October 2027 as well as an anticipated increase in recycling through the Government's Simpler Recycling for businesses and households (from 31 March 2025 and 2026 respectively) as well as the mandatory collection of flexible plastics from businesses and households from 31 March 2027 should help to further reduce the percentage of fossil wastes entering the residual waste stream.
- 41. Additional extended producer responsibility schemes for other fossil based wastes including textiles, absorbent hygiene products and non-packaging plastics are needed to further reduce the fossil content of waste and further lessen the financial burden on local authorities.

Resource Implications

- 42. The total municipal residual waste for Leicestershire for 2023/24 was approximately 160,000 tonnes. Of this, approximately 121,000 tonnes was sent to EfW.
- 43. If the Council assume full cost pass through from the EfW facilities, the factors influencing this will be:

- a) How much waste is sent to EfW
- b) The cost of carbon allowances and
- c) How much fossil carbon is in the waste.
- 44. By 2028, it is estimated that 150,000 tonnes of municipal residual waste will be sent by the Council to EfW for disposal. Based on an assumed carbon allowance price of £80 and an assumed fossil carbon content of 50%, the estimated cost impact of ETS to the Council from 2028 is £6m. This is as included in the revised MTFS Cabinet report that was approved by the full Council on the 19 February 2025.

Next Steps

45. The consideration of the Government's response to the 2024 consultation will be undertaken when the response is published to further understand the impact on the Council of including EfW and waste incineration in the UK ETS. Additional consideration of the detail of the legislative change when this is made available by the Government will also be undertaken by the Council.

Timetable for Decisions

- 46. It is anticipated that the UK ETS Authority will publish further guidance on the accurate apportioning of cost pass through and transitional arrangements in due course.
- 47. Officers will continue to monitor the situation and will update the Committee as appropriate.

Conclusions

48. Members are asked to note the content of the report.

Background papers

Call for Evidence (published 25 March 2022) 'Developing the UK Emissions Trading Scheme' Consultation outcome published 03 July 2023: <u>https://assets.publishing.service.gov.uk/media/649eb7aa06179b000c3f7608/uk-emissions-trading-scheme-consultation-government-response.pdf</u>

24 April 2023 – Report to the Cabinet – 'Leicestershire Resources and Waste Strategy 2022-2050':

https://democracy.leics.gov.uk/documents/s175771/Leicestershire%20Resources%20and %20Waste%20Strategy%20Cabinet%20240423.pdf

Second consultation; 'UK Emissions Trading Scheme scope expansion: waste', published 23 May 2024:

https://assets.publishing.service.gov.uk/media/6669a60c9d27ae501186db79/ukets-scopeexpansion-consultation-waste.pdf

13 June 2024 – Report to the Environment and Climate Change Overview Scrutiny Committee – Collection and Packaging Reforms:

https://democracy.leics.gov.uk/documents/s183335/Collection%20and%20Packaging%20 Reforms.pdf

7 February 2025 – Report to the Cabinet – Revised Cabinet Report Provisional Medium Term Financial Strategy 2025/26 – 2028/29:

https://democracy.leics.gov.uk/documents/s188565/Updated%20Cabinet%20MTFS%20R eport%20Feb25%20-%20100225.pdf

7 February 2025 – Report to the Cabinet – Medium Term Financial Strategy Appendix C – Growth and Savings 25–26 to 28-29 AMENDED: <u>https://democracy.leics.gov.uk/documents/s188568/Appendix%20C%20-</u> %20Growth%20and%20Savings%2025-26%20to%2028-29%20AMENDED.pdf

Circulation under the Local Issues Alert Procedure

46. None.

Equality Implications

47. There are no equality implications arising from the recommendations in this report.

Human Rights Implications

48. There are no human rights implications arising from the recommendations in this report.

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