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UK Emissions Trading Scheme Scope Expansion: Waste

A joint consultation of the UK Government, the Scottish Government, the Welsh Government and the Department of Agriculture, Environment and Rural Affairs for Northern Ireland

Closing date: 18 July 2024

May 2024

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General information

Why we are consulting

The UK ETS Authority is seeking input on proposals for expanding the UK ETS to the waste sector.

We have previously announced our intention to expand the scope of the UK ETS to waste incineration facilities. This consultation seeks views on our proposals to inform implementation details. In particular, it proposes options and/or seeks views on:

- The scope of the scheme, including which activities are covered, thresholds for inclusion and exemptions,
- Participating in the scheme, including requirements for operators, monitoring, reporting and verification, and guidance,
- Impacts of the scheme and risks, including diversion of waste to landfill and waste export, decarbonisation pathways for customers, cost pass through to customers and equality considerations,
- How to adjust the UK ETS cap for waste, and
- How the UK ETS could potentially incentivise investment in heat networks.

Consultation details

Issued: 23 May 2024

Respond by: 18 July 2024

Enquiries to:

Emissions Trading,
Department for Energy Security and Net Zero 3rd Floor
3-8 Whitehall Place
London
SW1A 2EG

Email: ukets.consultationresponses@energysecurity.gov.uk

Consultation reference: UK Emissions Trading Scheme Scope Expansion: Waste

Audiences:

This consultation is expected to be of greatest interest to waste management companies and authorities, trade bodies, environmental services groups, local authorities, and other customers of waste incineration facilities, and those with an interest in heat networks.

We also welcome the views of any individual or organisation that has an interest, directly or indirectly, in the expansion of the UK ETS and/or the adjustment to the cap of the scheme.

We would like to hear your views on the proposed approach to expanding the scope of the UK ETS. We would like to know whether you think that the proposed policy changes are feasible in practice and will achieve our objectives.

Territorial extent:

This consultation relates to proposals to develop the UK ETS, which operates across England, Scotland, Wales, and Northern Ireland. This is a joint consultation, published by the UK Government, Scottish Government, Welsh Government and the Department of Agriculture, Environment and Rural Affairs for Northern Ireland.

How to respond

Respond online at: <https://energygovuk.citizenspace.com/energy-markets/expanding-uk-ets-energy-from-waste>

or

Email to: ukets.consultationresponses@energysecurity.gov.uk

Write to:

Emissions Trading,

Department for Energy Security and Net Zero 3rd Floor

3-8 Whitehall Place

London

SW1A 2EG

When responding, please state whether you are responding as an individual or representing the views of an organisation.

Your response will be most useful if it is framed in direct response to the questions posed, though further comments and evidence are also welcome.

Confidentiality and data protection

Information you provide in response to this consultation, including personal information, may be disclosed in accordance with UK legislation (the Freedom of Information Act 2000, the Data Protection Act 2018, and the Environmental Information Regulations 2004).

Consultation responses will be shared across the UK ETS Authority and may be shared with other government departments, such as the Department for Environment, Food and Rural Affairs.

If you want the information that you provide to be treated as confidential, please tell us, but be aware that we cannot guarantee confidentiality in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not be regarded by us as a confidentiality request.

We will process your personal data in accordance with all applicable data protection laws. See our [privacy policy](#).

[Add details of any elements specific to this consultation, such as longer retention periods (over 3 years) or third parties processing the responses.]

We will summarise all responses and publish this summary on [GOV.UK](https://www.gov.uk). The summary will include a list of names or organisations that responded, but not people's personal names, addresses or other contact details.

Quality assurance

This consultation has been carried out in accordance with the government's [consultation principles](#).

If you have any complaints about the way this consultation has been conducted, please email: bru@energysecurity.gov.uk.

Introduction

The UK Emissions Trading Scheme (ETS) came into operation on 1st January 2021. The scheme is a key part of our approach to addressing climate change, setting a limit on emissions from the sectors covered and ensuring an appropriate price is applied to them. The scheme is jointly run by the UK ETS Authority (or ‘the Authority’), and is comprised of the UK Government, Scottish Government, Welsh Government and the Department of Agriculture, Environment and Rural Affairs for Northern Ireland.

In March 2022, the Authority consulted on a wide range of changes to the scheme, with the aim of ensuring that it can play a key role in reaching net zero targets, while supporting businesses in the transition. This included a call for evidence on expanding the scope of the UK ETS to include waste incineration and energy from waste (EfW).

In the July 2023 Authority Response, the Authority confirmed its intention to include waste incineration and energy from waste in the scheme from 2028, preceded by a 2-year transitional phasing period from 2026-2028. In this period emissions will only be monitored, reported, and verified and there will be no obligation to purchase and surrender UK ETS allowances until 2028.

This follows the UK Government’s commitment in the Net Zero Strategy to explore expanding the UK ETS to the two-thirds of uncovered emissions. Commitment to further exploring expansion of the UK ETS was restated by the Authority in the long-term pathway for the UK Emissions Trading Scheme, published in December 2023¹.

The environmental principles, as set out in the Environment Act 2021, are embedded within the policy logic of UK Emissions Trading Scheme (ETS). The UK ETS is our principal mechanism for pricing the ‘carbon externality’ that greenhouse gas emissions represent, in line with the polluter pays principle. Expanding the scheme to new sectors and technologies will increase the coverage of the scheme and capture more emissions, and should lead to positive decarbonisation outcomes for the sector. For waste incineration and EfW, we anticipate that the expansion of the UK ETS will provide an incentive for the development and uptake of decarbonisation technologies or practices to reduce emissions. In addition, it will complement existing waste policy. Across the UK there are a suite of environmental tax measures which work together with non-fiscal policies to support ambitious environmental objectives of the four nations.

The purpose of this consultation is to provide more detail and consult on the implementation of how waste incineration and EfW will be included in the scheme from 2026 for the Monitoring, Reporting and Verification (MRV) only period, with full surrender obligations from 2028. For simplicity, this consultation will refer to “waste incineration facilities”.

This consultation also contains a Call for Evidence on incentivising heat networks, detailed in the ‘UK ETS & heat networks – call for evidence’ section.

Respondents need only reply to the questions that interest them or that they have views on. There is no requirement or expectation to respond to every question in this consultation.

¹The long-term pathway for the UK Emissions Trading Scheme. <https://www.gov.uk/government/publications/uk-emissions-trading-scheme-long-term-pathway/the-long-term-pathway-for-the-uk-emissions-trading-scheme>

Expanding the UK ETS to the waste sector

In the Authority Response to the 'Developing the UK ETS' consultation², published in July 2023, the Authority confirmed that:

- The Authority intends to expand the scope of the scheme to include emissions from waste incineration facilities in the UK ETS. The Authority intends for this expansion to be from 2028.
- We are minded to include a two-year transitional phasing period, from 1st January 2026-31st December 2027, where installations will monitor, report, and verify their emissions but not purchase and surrender UK ETS allowances.
- We will adjust the cap to take account of new sectors to be added to the UK ETS in a way consistent with delivering net zero, our Carbon Budgets and other climate targets, such as our Nationally Determined Contribution (NDC).
- We are not minded to exempt hazardous or clinical waste.
- We intend to place the point of obligation for MRV under the UK ETS on the operators of waste incineration and EfW facilities.
- The existing Ultra-Small Emitters threshold (less than 2,500 tonnes of CO₂e) will still apply, so participants in the waste sector below this threshold could apply for the status. The Hospital and Small Emitter threshold (less than 25,000 tonnes of CO₂e) will also apply, but the thermal input threshold will not.
- We intend to cover fossil CO₂ emissions in the expansion to waste incineration and EfW.
- We will explore different mechanisms for distributing costs of the UK ETS fairly, for example through linking to packaging Extended Producer Responsibility (pEPR).

The Authority also stated that we would set out additional detail and consult again on key aspects of the scheme including full details of implementation, further consideration of the implications of not exempting hazardous and clinical waste, options for mitigating risk of diversion of waste to landfill or export and cost pass through to customers. Given that we are expanding the existing UK ETS to the sector, the broad principles and policy design of the scheme will apply (such as a cap that limits total emissions across the whole scheme and frequent auctions of allowances), but the following chapter goes into further detail on how we intend to apply the UK ETS to the waste sector.

The full list of technologies we propose including in the scheme is in the coverage section below. By expanding the scheme to cover waste incineration facilities, we are placing a cap on a greater proportion of UK emissions and will support the waste sector to decarbonise in the most efficient way in line with the waste hierarchy. The waste hierarchy ranks options for waste management according to their environmental impact. Where waste does occur, we need to manage it in the most resource-efficient way possible. After waste prevention, priority goes to preparing waste for reuse, recycling, and then energy recovery (in that order). Disposal, for

² <https://www.gov.uk/government/consultations/developing-the-uk-emissions-trading-scheme-uk-ets>

example in landfill or incineration without energy recovery, is generally regarded as the worst option.

Scope of the scheme

Coverage

We are committed to ensuring that any expansion of the UK ETS to the waste management sector maintains a level playing field across different technologies, whilst supporting innovation and investment in more sustainable alternatives.

For that reason, the regulated activities we intend to include in the UK ETS in this sector are the incineration and combustion of waste, and other energy recovery from waste. This includes Advanced Thermal Treatment (ATT), Advanced Conversion Technology (ACT)³ and other related advanced waste treatment activities. It also includes waste-to-fuel activities, including the production of sustainable aviation fuel (SAF). Our position is to include the direct emissions associated with the production of these fuels, but not further life-cycle emissions from their outputs. As some of these technologies are still emerging and are not yet proven at large scale, the Authority will continue to work with stakeholders to understand the implications of this position and will review it if necessary. Only fossil CO₂ emissions will be in scope of these proposals.

Chemical recycling is a blanket term used for several different processes which use chemical processes to break materials back down to base polymers. This includes processes such as pyrolysis and gasification where different methods are used to break plastic down into several constituent parts. Some of these can be used to produce new plastics, while others may be burnt to produce energy, either directly or following conversion to transport fuel. Our intention is to only capture facilities in the UK ETS that are performing energy recovery activities, or those that produce fuels for burning. We do not intend to capture facilities that break down waste into polymers and monomers that are then used as raw materials for products that remain in the circular economy, which is a form of recycling. We are aware that some facilities may produce both fuels and polymers and monomers to be used as raw materials in the coming years, and we will consider this further before coming to a position.

Questions:

- 1. Do you agree that our proposals should apply to facilities that conduct the following activities: incineration and combustion of waste, and other energy recovery from waste (including the production of fuels)? (Y/N) Please give further details to support your answer.**
- 2. Are there any technologies which we have not referenced in this section, and which would not be covered by the activities we have set out, which you think should be covered by our proposals? (Y/N) Please give further details to support your answer.**
- 3. Do you agree that facilities that produce monomers and polymers from waste that can be used as raw materials (non-mechanical or 'chemical')**

³ Advanced Thermal Treatment and Advanced Conversion Technology cover a range of technologies, but mostly refer to installations that use pyrolysis and gasification to recover energy from residual waste.

recycling) for materials to remain in the circular economy should not be included in the scope of our proposals?

- 4. If yes, how should we treat facilities that produce both fuels and polymers and monomers to be used as raw materials? Please give further details to support your answer.**

Inclusion threshold, Hospital and Small Emitter Status and Ultra-Small Emitter Status

We are not minded to use the existing 20MW thermal input threshold for the inclusion of combustion units in the UK ETS, as we do not think it is appropriate because of the heterogeneity of waste feedstock (i.e. residual waste is composed of a variety of components, and the amount of those components can vary over time). This means that the UK ETS will cover all waste incineration facilities, with smaller facilities eligible for Hospital and Small Emitter (HSE) status or Ultra-Small Emitter (USE) status once these smaller facilities have participated in the MRV-only period. We note that this means the existing regulation exempting incineration facilities under the 20MW thermal input threshold on the same site as another regulated activity from inclusion in the UK ETS would no longer apply⁴.

In the Authority Response, we indicated that similar HSE and USE provisions that are currently available to eligible UK ETS participants will also be available to waste incineration facilities. For HSE provisions, we suggested that an eligibility threshold of less than 25,000 tonnes of fossil CO_{2e} per year will apply. Unlike in the existing scheme, the 35MW thermal input threshold used for combustion activities in existing sectors will not apply, also on the basis that the thermal input of a facility will depend on the heterogeneous content of the waste it receives. This is not the case for existing combustion activities covered by the UK ETS as fuels with consistent compositions are predominantly used in their activities. We also suggested that a USE threshold of less than 2,500 tonnes of fossil CO_{2e} will apply.

Facilities with HSE status must monitor, report and self-verify their emissions and will be subject to emission targets rather than requirements to purchase and surrender allowances equal to their fossil CO₂ emissions. If emission targets are exceeded, then operators will incur penalties equivalent to the average carbon price in the prior year for each tonne of fossil CO₂ emitted over their target. Facilities with USE status will be exempt from full participation in the UK ETS but must monitor their emissions in accordance with an approved monitoring plan. They will be subject to penalties if their emissions exceed the USE threshold, and further penalties will be incurred if they fail to notify their regulator of the exceedance. Both HSEs and USEs will be required to submit verified emissions reports to evidence their eligibility for the status.

Our understanding is that the economies of scale required to make waste incineration facilities viable makes it a low risk that smaller facilities are developed to gain HSE or USE status. The thresholds will be kept under review, so that they can be adjusted to respond to this risk should it come to fruition.

⁴ <https://www.legislation.gov.uk/ukdsi/2020/9780348209761/schedule/2>

Questions:

5. **Do you have any concerns with our position not to use the 20MW thermal input threshold for inclusion in the UK ETS? (Y/N) Please give further details to support your answer.**
6. **Should an alternative threshold for inclusion in the UK ETS be explored (e.g. waste throughput capacities) or will HSE and USE status eligibility sufficiently protect smaller facilities? Please give further details to support your answer.**
7. **Do you agree that the proposed thresholds for HSE and USE status are suitable for waste incineration facilities? (Y/N) Please give further details to support your answer.**
8. **Do you agree that it is unlikely that smaller facilities will be developed to gain eligibility for HSE or USE Status? (Y/N) Please give further details to support your answer.**
9. **If you disagree with the proposed thresholds for HSE and USE status, what alternatives would be suitable?**

Exemptions

We do not intend to exempt the incineration of any types of waste, including hazardous or clinical, from the UK ETS. This maintains a level playing field between different waste types which will minimise the risk of any perverse incentives (e.g. misdescription) arising to try and avoid obligations under the UK ETS. This approach will also maximise the emissions covered by the UK ETS.

Data on the emissions of currently operational facilities suggests that all specialist clinical waste facilities would be eligible for either HSE or USE status under the scheme, and that around a third of the UK's hazardous waste incinerators would be eligible for HSE status⁵. We also note that emissions from the incineration of hazardous waste makes up 3% of the UK's total waste incineration emissions, while emissions from the incineration of clinical waste makes up 1% of the UK's total waste incineration emissions.

We are considering the implications of our position not to exempt hazardous waste from the UK ETS. We are listening to the concerns regarding the management of wastes containing Persistent Organic Pollutants (POPs) and note that UK EfW capacity will increase by 2028, which will help to manage waste containing POPs. We also understand that there are emerging technologies for managing wastes containing POPs, including non-mechanical 'chemical' recycling, which signals the long-term potential for this waste to be managed further up the hierarchy, provided POPs are destroyed through the treatment process.

The Authority has heard from some stakeholders that the decarbonisation and emissions monitoring options that will be available to conventional facilities may be more challenging for hazardous waste incinerators to adopt. We have also heard some stakeholder views suggesting that exempting hazardous waste would not give rise to perverse incentives to avoid the UK ETS through e.g. misdescription, as hazardous waste incineration gate fees are substantially higher than non-hazardous waste treatment. We are committed to further

⁵ Department for Energy Security and Net Zero analysis using data from Defra and all four UK regulators projects fossil emissions for all UK waste incineration facilities.

exploring these issues and welcome the submission of any evidence as part of consultation responses.

We have considered the implications of our position to include clinical waste within the UK ETS. This has involved engagement with healthcare waste management stakeholders across the UK, who have expressed their support for the inclusion of clinical waste incineration in the UK ETS. This support is based on the alignment of the objectives of UK ETS with their own waste emission reduction targets.

Given we expect that clinical waste incinerators will at least be eligible for HSE status if not USE status, emission targets will incentivise decarbonisation and if they are achieved then their customers will not be subject to ETS cost pass through from penalties. Engagement with healthcare waste stakeholders has supported this view, and we will continue to monitor the potential for cost impacts on NHS and wider healthcare services.

We note that further work is needed to understand the decarbonisation options that are available to clinical waste incinerators, and to map out how the actions of their customers could help them to hit HSE emission targets.

Questions:

- 10. Do you agree with our position to include the incineration of hazardous and clinical waste in the UK ETS? (Y/N) Please give further details to support your answer and set out any concerns that you may have.**
- 11. What decarbonisation options will be available to hazardous and clinical waste incinerators and in what timescale (e.g. immediately or long-term)?**
- 12. Would the emissions monitoring methods outlined in the 'Monitoring and reporting' section be available to non-specialist incinerators also be available to hazardous and clinical waste incinerators of the same size? (Y/N) Please give further details to support your answer.**
- 13. If hazardous or clinical waste incineration was ever to be exempted from the UK ETS, is there a risk of other waste types being mislabelled as either to avoid the UK ETS? (Y/N) Please give further details to support your answer.**
- 14. Do you agree that HSE emission targets will incentivise clinical waste incinerators to decarbonise? (Y/N) Please give further details to support your answer.**
- 15. Do you agree that the customers of clinical waste incinerators will be able to take action to reduce the fossil content in the waste they generate and achieve their waste reduction targets? (Y/N) Please give further details to support your answer.**

Adjusting the cap for waste incineration facilities

This section will outline the proposals to adjust the UK ETS cap to account for coverage of emissions from EfW and waste incineration from 2028. It will detail the proposed approach, including to maintain the consistency of the cap with the delivery of climate targets, as well as resultant figures of UK Allowances (UKAs) to be added to the cap according to this approach.

Background: The UK ETS net zero-consistent cap

As outlined in the UK ETS Authority Response of July 2023, the Authority has decided to significantly increase the ambition of the scheme by aligning the cap for Phase I (2021-2030) to a net zero-consistent trajectory. This will equate to a reduction of total allowances of more than 30%, from 1365 million to 936 million allowances. The resetting of the cap provides a clear signal to decarbonise at the pace and scale required to achieve net zero.

The Authority Response also outlined that the net zero-consistent cap would be amended to account for the inclusion of new sectors. We signalled that we would adjust the cap to account for the greater coverage, while retaining the requirement for emissions reductions consistent with delivering net zero, Carbon Budgets and the NDC in 2030. The figure below illustrates the inclusion of the requisite emissions trajectories into the traded sector.

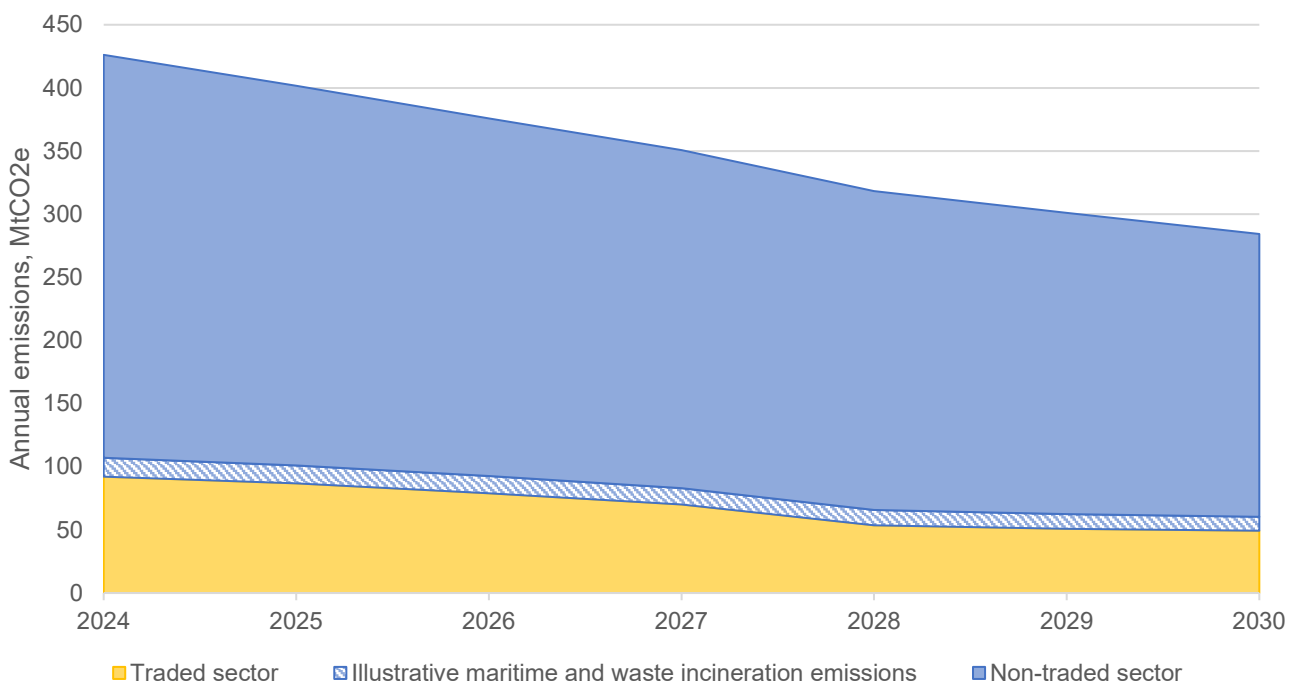


Figure 1: An illustrative emissions pathway to meet climate targets, comprised of traded and non-traded sector emissions. Figures are not representative of true or necessary emissions and are solely for explanatory purposes. The figure shows that the overall pathway remains unchanged. The cap adjustment accounts for the movement of emissions from the new sectors from the non-traded to traded sector upon inclusion in the UK ETS.

General policy approach to cap adjustment for new sectors

We propose that the cap adjustment approach outlined should apply to the remainder of Phase I (2021-2030) only. The Authority has committed in “The long-term pathway for the UK

Emissions Trading Scheme” to maintaining a net zero-consistent cap to 2050,⁶ and it will outline in due course detail on its intended approach to setting the cap in the next phase.

We propose that cap adjustments throughout Phase I of the UK ETS will account for all substantive changes to the composition of the traded sector.

Key priorities for adjustments to the UK ETS cap during Phase I are:

- Ensuring that all changes to the composition of the traded sector are captured in adjustments to maintain an appropriate balance of supply and demand.
- Maintaining net zero-consistency by ensuring that all cap adjustments are in line with government decarbonisation pathways for the relevant sectors.
- Providing certainty for market participants by minimising the frequency of such adjustments and consolidating cap adjustments where possible.

To produce the proposals for the EfW and waste incineration sector, we have considered the UK Government’s most recent decarbonisation pathways, which are aligned to the Carbon Budget Delivery Plan (CBDP).⁷ As these trajectories provide the best assessment of emissions reductions required in each sector to deliver climate commitments (including net zero, our Carbon Budgets and the NDC), this approach will ensure that the cap remains aligned with the delivery of these targets.

These proposals are for an approach to cap adjustment, with the resultant figures based on the policy design as proposed in this consultation, and on the evidence held and the analysis conducted to date. The approach will be confirmed in the Authority Response, with the exact adjustment figures subject to adjustments to account for the emissions coverage of the final policy design, the views of consultees, advice from the Climate Change Committee (CCC), and the results of further analysis to ensure consistency with the climate targets of the UK Government, Scottish Government, Welsh Government and Northern Ireland Executive.

The adjustment will add allowances to the net zero-consistent UK ETS cap. There will be no ringfencing of allowances for participants in newly covered sectors. It is the intended design of the UK ETS as a cap-and-trade scheme that the cap sets a limit on total emissions from the covered sectors, and that trading allows the market to determine the sectors in which emissions occur or emissions are abated. We recognise that different industries will decarbonise to different trajectories.

Proposed approach to cap adjustment for waste incineration facilities

In the Authority Response of July 2023, we advised that our estimates for in-scope emissions from waste incineration facilities in the first year of full inclusion (2028) would be equivalent to around seven million UKAs, decreasing each year for the remainder of the phase.

We have since appraised the Net Zero Scenarios from the Dynamic Dispatch Model (DDM), which is a Department for Energy Security and Net Zero model that projects electricity supply

⁶ The long-term pathway for the UK Emissions Trading Scheme, GOV.UK <https://www.gov.uk/government/publications/uk-emissions-trading-scheme-long-term-pathway/the-long-term-pathway-for-the-uk-emissions-trading-scheme>

⁷ The Carbon Budget Delivery Plan is the UK Government’s plan that details the proposals and policies required to reduce emissions and meet climate commitments, including Carbon Budgets. For more information, see Carbon Budget Delivery Plan, GOV.UK <https://www.gov.uk/government/publications/carbon-budget-delivery-plan>

in Great Britain to 2050.⁸ The DDM's Net Zero Scenarios provide individual trajectories for EfW, EfW combined heat and power (CHP) and ACT, as well as for other generation sources, to indicate a generation mix required for consistency with climate target delivery.⁹ The Net Zero Scenarios therefore inform both the trajectory for the power sector in the CBDP, as well as the setting of the cap for parts of the power sector in scope of the UK ETS.

We propose therefore to adjust the cap informed by emissions in scope per the Net Zero Scenario trajectories for EfW, EfW CHP, and ACT, because these trajectories provide the best available assessment of emission reductions required in the sector to deliver climate targets. We also intend to account for Energy and Emissions Projections (EEP) for fossil emissions from waste incineration activity without energy recovery.¹⁰

We aim to adjust the cap based on emissions pathways which are aligned to the CBDP and account for the most recent analysis of the impact on sectoral emissions of decarbonisation policies, such as those in the Resources and Waste Strategy in England, Beyond Recycling Strategy in Wales, Waste Management Strategy in Northern Ireland, and Circular Economy & Waste Route Map Consultation in Scotland. Relevant policies also include the Waste Industrial Carbon Capture Business Model (ICC BM) to incentivise the adoption of carbon capture technology, which is not currently modelled in the DDM's Net Zero Scenarios.¹¹ We propose therefore that the cap adjustment should account for internal estimates of the fossil emissions abated through Track 1 projects of the Waste ICC BM.

The table below accounts for the proposed approach, and for the scope of the scheme as proposed in this consultation. It accounts for coverage of fossil CO₂ emissions from EfW in Great Britain, and from waste incineration without recovery across the UK.¹²

	2028	2029	2030	Total
Indicative cap adjustment (millions of UKAs)	7.9	7.2	6.8	21.9

Figure 2: Indicative cap adjustment pathway based on the proposed approach, and the following calculation: DDM Net Zero Scenarios, plus EEP projections for waste incineration without recovery, and minus estimated abatement per Track 1 Waste ICC BM projects.¹³

As outlined in this consultation, we do not intend to cover emissions from non-mechanical, or chemical, recycling of waste into polymers and monomers for re-use in the circular economy. We do not expect emissions from these activities to be significant enough to alter the rounded figures above, but we intend to discount those emissions to ensure an accurate adjustment.

Based on the proposed scope outlined in this consultation, and on the evidence and analysis held currently, this approach would mean adjusting the UK ETS Phase I base cap to account

⁸ For more information on the design and function of the DDM, see Dynamic Dispatch Model (DDM), GOV.UK <https://www.gov.uk/government/publications/dynamic-dispatch-model-ddm>

⁹ The Net Zero Scenarios are not forecasts or expressions of government preference or policy. The specific trajectories for EfW, EfW CHP and ACT are held internally. For more information on the purpose and methodology of the DDM's Net Zero Scenarios, see Annexe O, Energy and Emissions Projections: 2021 to 2040, GOV.UK <https://www.gov.uk/government/publications/energy-and-emissions-projections-2021-to-2040>

¹⁰ Annexe C, Energy and Emissions Projections: 2022 to 2040, GOV.UK <https://www.gov.uk/government/publications/energy-and-emissions-projections-2022-to-2040>.

¹¹ For more information, see Carbon Capture Usage and Storage (CCUS): Business Models, GOV.UK <https://www.gov.uk/government/publications/carbon-capture-usage-and-storage-ccus-business-models>

¹² Further information on modelling inputs and assumptions for the proposed trajectories, such as on the fossil proportion of emissions, can be found in Section 3 of the analytical annex to this consultation.

¹³ Further information on this calculation can be found in Section 3 of the analytical annex to this consultation.

for expansion to EfW and waste incineration by adding a total of 21.9 million UKAs from 2028. Upon adjustment to discount emissions from facilities with either HSE or USE status, this total would be broken down with figures added to the annual caps, as in the table above.

The adjustment figures will be confirmed in the Authority Response, subject to adjustments to account for the emissions coverage of the final policy design, as well as our consideration of the abovementioned analysis, advice from the CCC, and the views of consultees.

Questions:

- 16. Do you agree that the proposed approach, of adding allowances equivalent to emissions in scope per emissions trajectories aligned to the CBDP, is the appropriate approach to adjusting the cap, to ensure the emissions reductions required to deliver climate targets? (Y/N). Please explain your reasoning, including by proposing an alternative approach if appropriate.**
- 17. Do you agree with the proposed approach to adjusting the cap to account for the inclusion in the scheme of emissions from the waste incineration sector? (Y/N). Please explain your reasoning, with reference to any alternative approaches or sources of evidence, such as on the impact of policies on the fossil proportion of emissions.**
- 18. What would you expect to be the impact of the proposed approach to cap adjustment on participants in the sector and/or the wider UK ETS market? Please explain your reasoning.**

Participating in the scheme

Regulatory regime and operator requirements

In general, we anticipate that the regulatory provisions which exist for sectors covered by the UK ETS currently will also apply to waste incineration facilities from 1st January 2028. The scheme year will run from 1st January to 31st December and the existing reporting and surrender deadlines of 31st March and 30th April respectively will be applicable for the sector. Waste operators will need to apply for a Greenhouse Gas Emissions Permit prior to participating in the scheme and comply with the conditions of the permit. Any penalties that currently apply to installations under the UK ETS, including those related to the MRV of emissions, will also apply to the waste sector. Waste operators will also need to appoint an independent verifier to verify their annual emissions report. The provider must be appropriately accredited by UKAS. The regulators will be the existing regulators for the UK ETS: the Environment Agency for facilities in England, the Scottish Environment Protection Agency for facilities in Scotland, Natural Resources Wales for facilities in Wales, and the Northern Ireland Environment Agency for facilities in Northern Ireland.

From 1st January 2028, we also intend for the penalties for failing to surrender sufficient allowances by the relevant deadline to be the same as those for existing operators, as well as penalties relating to emission targets for installations with HSE status. For failing to surrender sufficient allowances to cover reportable emissions by the deadline operators will face a mandatory penalty of £100 for each allowance it fails to surrender (multiplied by the inflation

factor) as well as needing to surrender the equivalent allowances to cover reportable emissions. All requirements set out above will apply to fossil carbon emissions only.

Requirements for the MRV-only transitional period will depend on whether the period is voluntary or mandatory. If it is mandatory, operators will need to apply for a Greenhouse Gas Emissions Permit and submit a monitoring plan to their regulator ahead of 2026. The same penalties set out above, apart from penalties relating to surrendering allowances, would apply. If the period is voluntary, operators would not need to apply for a Greenhouse Gas Emissions Permit nor submit a monitoring plan for 2026.

Further information on the MRV-only transitional period can be found in the section below.

Questions

19. Do you agree that it is practicable for existing regulatory requirements under the scheme, such as the compliance cycle, permit requirements, monitoring plan requirements and penalties, to apply to the waste sector? (Y/N) Please give further details to support your answer.

MRV-only period

We intend to expand the UK ETS to waste incineration facilities in 2026, which includes a 2-year MRV transitional phasing period from 1st January 2026 to 31st December 2027. This period could either be mandatory or voluntary.

Objectives of a phasing period

There are several reasons as to why the Authority wishes to implement an MRV-only period. First, data gathered will be used to inform future cap decisions, post-2030. Most waste incineration facilities do not currently monitor their fossil carbon emissions (only total carbon emissions). Data gathered in the MRV-only period will therefore enable us to verify our net zero consistent emissions trajectory, informing post-2030 cap decisions. Ensuring the cap remains aligned to net zero is key to reducing emissions from the covered sectors.

Second, the MRV-only period will help to identify any issues in our approach ahead of full cost exposure. This is particularly the case for MRV related issues, before we adjust the cap for waste incineration facilities, and require facilities to purchase and surrender allowances. Waste incineration facilities emit a higher level of biogenic emissions than other sectors currently covered by the UK ETS. This will require monitoring methods to be implemented that will give the fossil and biogenic split of emissions, which is an added level of complexity compared to other sectors and will require many facilities to install new monitoring technology. Exposing the waste incineration sector to the carbon price without an MRV-only period, therefore increases the risk of participants failing to accurately monitor and report their emissions, which may have impacts on other participants. For example, if a large volume of participants are not purchasing the correct volume of allowances, there could be an impact on carbon prices. In turn, this could reduce the overall effectiveness of the scheme in reducing emissions.

The MRV-only period will also have other benefits for the sector. For example, by giving them more accurate emissions figures, customers will better understand potential UK ETS costs that may be passed through to them and can take steps to minimise their potential future cost exposure, supporting decarbonisation of the sector. The Authority will also use this data to better understand the impact of the UK ETS on waste incineration customers. The MRV-only period will also help operators and their customers to better understand how the UK ETS works and what the requirements on them will be.

Requirements on participants during the MRV-only period

Option 1: Mandatory MRV-only period

If the period is mandatory, we propose that waste incineration facilities become full participants of the UK ETS. However, their obligation to purchase and surrender allowances will not begin until 2028, and therefore the only requirements they will face from 2026-28 will be to monitor, report and verify their emissions. EfW participants will therefore need to meet the MRV requirements for the relevant regulated activity. This will include completing a monitoring plan, to be approved by the regulator before 1st January 2026, monitoring emissions, verifying their emission reports, and submitting the verified reports to the regulator. Further details on the monitoring requirements are in the next section of this chapter.

Facilities that have fossil emissions lower than 25,000 tCO_{2e} would be classed as a low emitter and would therefore be subject to less onerous emissions monitoring and reporting in line with HSE status (see further information in the next section of this chapter). Similarly, facilities with emissions under than 2,500 tCO_{2e} would be able to apply for USE status, only with the obligation to evidence their continued eligibility for the status through agreed monitoring plans with regulators and ongoing monitoring in accordance with that plan. During the MRV-only period, all facilities, including those who may be able to apply for these statuses, would need to verify their emissions until they have successfully applied for HSE or USE status, at which point they will only be subject to the requirements of those statuses. We anticipate that facilities which meet the requirements for HSE or USE status will be able to apply for those statuses before 2028, ahead of full cost exposure.

Option 2: Voluntary MRV-only period

If the period is voluntary, waste incineration facilities will not become full participants of the UK ETS until 2028. During the voluntary MRV-only period, operators could choose to monitor their emissions and could choose to share data with the Authority and their customers if they wished to. As facilities would not have a Greenhouse Gas Emissions permit or regulator approved monitoring plan, how they choose to monitor their emissions could differ from eventual requirements post-2028. Also, without a regulator approved monitoring plan emissions will not be able to be verified. The Authority may use emissions data shared through such a voluntary period to inform post-2030 cap decisions, although we note that emissions would be unverified with this option. Also, we note that facilities wishing to evidence their eligibility for either HSE or USE status ahead of 2028 would need to monitor, report, and verify their emissions, which a voluntary period would not enable. The Authority would provide guidance on monitoring, and how information could helpfully be shared with customers and the Authority.

We would like to better understand the implications of these two options.

Questions:

- 20. Do you agree that an MRV-only period is the best way to meet the objectives of a phasing period for this sector? (Y/N). Please give further details to support your answer.**
- 21. How will operators and customers use any data from the MRV-only period?**
- 22. For customers and operators, will knowing expected costs earlier than full implementation provide an early incentive to reduce your exposure to**

the carbon price? (Y/N). Please give further details to support your answer.

23.If the MRV-only period is mandatory (Option 1): Do you agree that waste incineration facilities should be subject to the same MRV requirements for 2026-28 that they will be subject to from 2028 onwards (e.g. report emissions for all combustion units onsite)?

24.If the MRV-only period is mandatory (Option 1): Do you have any concerns with the requirement for all waste incineration facilities to meet MRV requirements, before applying for HSE/USE status?

25.If the MRV-only period is voluntary (Option 2): How likely do you think it is that operators would monitor their fossil emissions?

26.If the MRV-only period is voluntary (Option 2): How likely do you think it is that operators would:

- a) share their emissions with customers so they are better informed about potential future costs, and**
- b) share their emissions with the UK ETS Authority to inform cap decisions and evidence HSE or USE status eligibility?**

27.Do you have any other comments on the MRV-only transitional period, and either of the options identified?

Monitoring and reporting requirements

Under the UK ETS, waste incineration facilities will only need to purchase and surrender allowances for their fossil emissions, and not biogenic emissions. The Authority has been working with stakeholders to explore the emissions monitoring methods that are available to waste incineration facilities to determine the fossil and biogenic split of their emissions. This work has included an external report by Ricardo assessing the accuracy, cost, and practicality of the following methods: feedstock sampling and analysis, flue gas sampling and analysis, and predictive (balance) methods¹⁴:

- We understand that flue gas sampling and analysis to identify the presence of the carbon-14 isotope in emissions is an accurate method available for the determination of fossil CO₂ emissions, and that this is the preferred method for large operators in the sector.
- Further work is required to determine the effectiveness of predictive (balance) methods (e.g. BIOMA), as evidence gathered from ongoing industry trials has given rise to some concerns on its operation and performance.
- We understand that feedstock sampling and analysis methods, specifically manual sorting and selective dissolution, can be expensive, labour intensive and yield results with a higher uncertainty range than the other methods that have been explored.

All these methods come with installation and operating costs that could make them unsuitable for some smaller installations. Therefore, in line with the existing sectors covered by the

¹⁴ Ricardo MRV options for inclusion of Energy from Waste plants and Waste Incinerators within the UK ETS. Project report and findings 2024 <https://www.gov.uk/government/publications/climate-services-for-a-net-zero-resilient-world/cs-n0w-overview>

scheme, we are considering how default calculation factors could be used for the determination of fossil CO₂ emissions at smaller waste incineration facilities. We acknowledge that there are national, regional, and local differences in waste management key performance indicators (KPIs) (e.g. recycling rates) across the UK, which may require for granular default calculation factors to be developed to reflect the fossil and biogenic split in waste composition and combustion emissions.

There are also benefits to not prescribing specific methods through legislation as this will give operators flexibility to develop monitoring and reporting plans that are suitable for them, and which will allow for advancements to be made in available technologies. However, this should be balanced with the need for monitoring to be accurate proportionate to scale of emissions, and the need for the UK ETS Authority to give clear expectations for monitoring and reporting requirements.

We note that options to support accurate UK ETS cost pass through from waste incineration facility operators to customers are outlined later in the consultation.

Tiered approaches

We propose aligning the monitoring and reporting requirements for waste incineration facilities to the well-established tiers that existing sectors covered by the UK ETS are subject to¹⁵.

We are consulting on the suitability of two existing tiered approaches with the aim of establishing which would be most suitable. The first option would be based on uncertainty range tiers assigned for measurement-based methods for the determination of overall CO₂ emissions at installations. The second option would be based on methodological approach tiers that are assigned to facilities for the determination of biomass fractions in the fuels they burn.

There are monitoring and reporting requirements for installations with HSE status (categorised as 'low emitters' below) within both tiered structures. We note that whilst there are not specific requirements for facilities with USE status within the structures, these facilities will be required to submit monitoring plans for approval by regulators to ensure that an appropriate method of emissions monitoring is in place. We are seeking views on the suitability of these tiers for smaller waste incineration facilities. If necessary, we will consider if simplified monitoring and reporting provisions that fall outside the proposed tiers will be permitted.

Option 1 – Measurement-based method tiers:

Under the existing Monitoring and Reporting Regulation, installations covered by the UK ETS are assigned a tier (1 to 4) depending on which emitter category they fall into¹⁶. The categories are defined as follows:

- Category A ≤50,000 tCO₂e p.a. – Tier 2 (can apply to Tier 1)
- Category B >50,000 to ≤500,000 tCO₂e p.a. – Tier 4 (can apply to Tiers 2 or 3)
- Category C >500,000 tCO₂e p.a. – Tier 4 (can apply to Tier 3)

¹⁵ Commission Implementing Regulation (EU) 2018/2066, as applied to the UK ETS by article 24 of the Greenhouse Gas Emissions Trading Scheme Order 2020. https://eur-lex.europa.eu/eli/reg_impl/2018/2066/oj

¹⁶ In addition to emission levels, installations are also assigned categories based on their source streams. Further information can be found in Article 19 and Article 26 of the Monitoring and Reporting Regulation. <https://www.legislation.gov.uk/eur/2018/2066/contents>

The higher the tier, the lower the uncertainty range applicable to the installation in their monitoring plans for the determination of overall CO₂ emissions¹⁷. We note that this includes provisions for facilities categorised as low emitters. These requirements are summarised in figure 3 below.

Figure 3:

CO ₂ emission uncertainty	Tier 1 - Uncertainty range $\pm 10\%$	Tier 2 - Uncertainty range $\pm 7.5\%$	Tier 3 - Uncertainty range $\pm 5\%$	Tier 4 - Uncertainty range $\pm 2.5\%$
Category A	Can apply	Default		
Category B		Can apply	Can apply	Default
Category C			Can apply	Default
Low emitter	Default			

The general principle is that installations should monitor to the highest achievable accuracy and, if using a lower tier, strive to reach a higher tier. Installations can apply to lower tiers if they are able to demonstrate to the competent regulator that adopting the higher tier would not be technically feasible or would incur unreasonable costs.

UK ETS Authority data estimating fossil CO₂ indicates that all EfW facilities would fall into categories A or B, or else be eligible for HSE or USE status.

The adoption of these tiered monitoring and reporting requirements for waste incineration facilities would give confidence in reported emission levels, will leave room for innovation and development in methods, and adopting tiers based explicitly on emitter size is aligned to our overall approach of ensuring that smaller facilities are not disproportionately impacted by UK ETS expansion.

However, we understand that consideration needs to be given to the suitability of these tiers, given that they currently only apply to measurement-based methods and may not be applicable to calculation-based methods for determining fossil CO₂ emissions. Also, there may be challenges in determining accurate uncertainty ranges for the available monitoring and reporting methods, given the multiple staged processes within each of them (e.g. if a sample of waste is taken, then sent to a lab, then analysis is performed, each step would have its own attached uncertainty range).

With these caveats, we have estimated where we think the outlined monitoring methods (further details on each can be found in the Ricardo report¹⁸) could sit within each of the emitter categories. This is summarised in figure 4 below and we welcome stakeholder views on these estimations.

¹⁷ UK ETS Guidance Note: Uncertainty Assessments for Installations 2022 https://assets.publishing.service.gov.uk/media/62cd78858fa8f54e88ec4fbc/uk_ets_guidance_note_uncertainty_assessments_for_installations.pdf

¹⁸ Ricardo MRV options for inclusion of Energy from Waste plants and Waste Incinerators within the UK ETS. Project report and findings 2024 <https://www.gov.uk/government/publications/climate-services-for-a-net-zero-resilient-world/cs-n0w-overview>

Figure 4:

X = unlikely to be suitable

✓ = may be suitable

✓✓ = most likely to be suitable

Method	Sub-method	Low emitter	Category A	Category B	Category C
Simplified approach	Default calculation factors	✓✓	✓	X	X
Feedstock sampling and analysis	Manual sorting	X	X	X	X
	Selective dissolution method	X	X	X	X
	Radiocarbon method (carbon-14)	X	X	X	X
Flue gas sampling and analysis	Radiocarbon method (carbon-14)	X	✓✓	✓✓	✓✓
Predictive (balance) method	BIOMA	X	✓	✓	✓

Option 2 – Determination of biomass fraction tiers:

Under the Monitoring and Reporting Regulation, installations that demonstrate the biomass fraction in the fuels they burn are required to do so in line with the methodological approach tiers summarised in figure 5.

Figure 5:

Biomass fraction determination	Tier 1 – Default calculation factor method	Tier 2 – Estimation methods	Tier 3 – Analytical methods
Category A	Default		
Category B	Can apply	Can apply	Default
Category C	Can apply	Can apply	Default

Low emitter	Default		
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The tiers are defined as follows:

- Tier 1 – Government published default calculation factor method.
- Tier 2 – Estimation methods (e.g. bespoke default calculation factor or predictive (balance) method).
- Tier 3 – Analytical methods (e.g. carbon-14, selective dissolution, or manual sorting).

[UK ETS guidance¹⁹ for monitoring and reporting biomass](#) in installations sets out methods that are applicable to tier 2 and 3. For estimation methods (tier 2), the guidance states that “Estimation methods must be based on scientifically proven methods. Preference should be given to methods at least partly referring to EN, ISO or national standards as well as to peer-reviewed publications.”

For analytical methods (tier 3) the guidance states that “operators must use the carbon-14 method unless they can demonstrate to the satisfaction of their regulator that this method leads to unreasonable costs or is technically not feasible”. However, the guidance also states that “standards must be appropriate for their use”, which gives flexibility for other analytical methods to be used if required.

The legislation also gives flexibility through provisions enabling installations to adopt a lower tiered approach that is more suitable for them if they can demonstrate that the methodological approach of their assigned tier is not technically feasible or would incur unreasonable costs.

Questions:

- 28. Do you agree that a tiered approach should be taken to monitoring and reporting requirements under the UK ETS? (Y/N). Please give further details to support your answer.**
- 29. Do you think that Option 1 would be suitable for waste incineration facilities? (Y/N). Please give further details to support your answer.**
- 30. Do you agree with our estimations in Figure 4 on how the available emissions monitoring methods for the sector could correlate with the uncertainty ranges for each tier in Option 1? (Y/N). Please give further details to support your answer.**
- 31. Do you think that Option 2 would be suitable for waste incineration facilities? (Y/N). Please give further details to support your answer.**
- 32. What approach (e.g. national, regional or installation specific) should be taken to the development of default calculation factors for smaller installations? Please give further details to support your answer.**

¹⁹ <https://www.gov.uk/government/publications/uk-emissions-trading-scheme-uk-ets-monitoring-and-reporting-biomass-in-installations>

Guidance

We recognise that waste incineration facilities will require support to implement the measures discussed in this consultation.

We intend to work with the relevant regulators and across the UK ETS Authority to develop tailored guidance as needed to support participants to meet their UK ETS obligations, and to support both them and their customers to prepare for the passthrough of compliance costs.

Prior to publication, we would aim to test the guidance with relevant stakeholders in the waste management value chain.

Guidance for waste incineration facilities

We intend to provide guidance to address sector-specific requirements for waste incineration facility operators. For example, we recognise that participants may require guidance on the approach to MRV, the application of the HSE and USE thresholds, the obligations for the MRV-only transitional period, and cost passthrough.

We aim to produce this guidance ahead of the MRV-only transitional period from 2026.

Guidance for the customers of waste incineration facilities

We understand that, for customers of waste incineration facilities, tailored guidance would be particularly valuable on the passthrough of costs from the operator to their customers.

We would also provide guidance if needed on interactions with other relevant policies, such as the pEPR, and on decarbonisation opportunities to reduce exposure to the carbon price. This would include information on wider support for local authorities, further detail on which is in the “Decarbonisation Pathways” section.

We would aim to produce this guidance ahead of the MRV-only transitional period from 2026, and to revise it, if necessary, to reflect the decarbonisation policy landscape at the end of the transitional period on 31 December 2027.

Questions:

- 33. On which aspects of the policy should we produce guidance, either for operators, their customers, or both? Please explain your reasoning.**
- 34. How should we seek to test any guidance either for operators, their customers, or both? Please explain your reasoning.**
- 35. To what timescale should guidance on different aspects of the policy, and for different audiences, be produced? Please explain your reasoning.**

Impacts of the scheme and reducing adverse risks

Diversion to landfill and waste export

We acknowledge concerns raised by stakeholders, particularly in the waste management sector, that the proposal to expand the UK ETS to waste incineration facilities may make sending waste to landfill relatively cheaper. This could undermine the waste hierarchy by encouraging more waste to be sent to landfill and by disincentivising innovation and investment in more sustainable waste management alternatives.

Stakeholders have also raised the carbon leakage risk of increased diversion of waste to export abroad, in the form of Refuse Derived Fuel (RDF) or Solid Recovered Fuel (SRF). We welcome views on how the Authority could seek to manage this risk. Whilst free allowances are the main tool used to manage carbon leakage risk in other sectors covered by the UK ETS, we do not believe that they are an effective way to deal with RDF/SRF export risk and this consultation seeks views on alternative measures.

The potential role of landfill taxes

Landfill Tax was introduced UK-wide on 1st October 1996 to provide an economic incentive to divert waste away from landfill and towards more environmentally friendly waste management options including EfW and recycling.

Landfill Tax was subsequently devolved to Scotland in 2015 and to Wales in 2018. All three taxes are currently broadly similar in their objectives, design and structure and are widely recognised as successful in helping reduce volumes of waste sent to landfill.

The rates of all three landfill taxes will be kept under review to ensure that they continue to support the waste hierarchy, by incentivising the diversion of waste from landfill.

Landfill Tax rates are set annually at fiscal events across the UK. By contrast, the UK ETS price will fluctuate based on market conditions.

A range of factors are considered when setting rates of landfill taxes applicable in England and Northern Ireland, Scotland, and Wales, respectively. This includes environmental objectives, impacts on businesses and local authorities, risk of unintended consequences such as waste crime and wider public finances. From 2028, a key consideration will be the impact of carbon pricing on waste incineration and its relative cost to landfill.

The potential inclusion of landfill emissions in the UK ETS

Some stakeholders have argued that expanding the UK ETS to cover emissions from landfill would manage any potential risk of landfill becoming cheaper than waste incineration. The inclusion of landfill in the UK ETS would mean that both waste incineration and landfill face the same carbon price, and the UK ETS cap would create a long-term decarbonisation trajectory for the sector.

This option would require additional consultation, mirroring what has been done for UK ETS expansion to waste incineration proposals. This would also require the development of proposals for monitoring CO₂ emissions from landfill sites. The main greenhouse gas emitted from landfill is methane, arising from the anaerobic breakdown of biogenic waste, which occurs over a long timescale. There is limited data on fossil emissions deriving from landfill sites.

Impacts from landfill can also extend to contamination and leachate, although modern landfills are engineered to minimise these impacts.

To inform a decision on whether to consider this option through further consultation, we welcome views and evidence on whether expanding the UK ETS to landfill would be feasible and would provide an effective decarbonisation incentive. We note that inclusion of landfill emissions in the UK ETS and landfill taxes are not mutually exclusive measures and the two could co-exist.

Role of wider waste policy in managing landfill risk

Alongside landfill taxes, there are a range of policies designed to support the sustainable management of resources and waste in line with the waste hierarchy. These include the UK-wide Plastic Packaging Tax, which aims to encourage the use of recycled rather than new plastic in plastic packaging. The Plastic Packaging Tax is designed to create greater demand for recycled plastic, and in turn stimulate increased levels of recycling and collection of plastic waste, diverting it away from landfill or incineration.

Defra's Collection and Packaging reforms are anticipated to deliver substantial increases in the recycling of target materials in England in the next ten to fifteen years. These reforms are expected to get England halfway to achieving the target of effectively halving residual waste (excluding major mineral wastes) produced per person by 2042²⁰. The remaining reduction will be delivered through the development of additional policies reflecting the combination of measures that will be required to move waste up the hierarchy.

In Wales, statutory recycling targets set for local authorities drive a reduction in the amount of residual municipal waste sent to waste incineration and landfill. The new Workplace Recycling Regulations 2023 which come into force on 6th April 2024 will also reduce the amount of residual waste from non-domestic premises that is sent to waste incineration and landfill. There are also bans on the incineration and landfilling of specified separately collected recyclable wastes, including plastic, paper, cardboard and food waste, and unsold textiles and unsold small waste electrical and electronic equipment. All wood waste will be banned from landfill from 6th April 2024. The Welsh Government has set a goal of zero residual waste by 2050.

In Scotland, the Circular Economy and Waste Route Map, open to consultation in early 2024²¹, sets out priority actions from now to 2030 to accelerate the more sustainable use of resources across the waste hierarchy. These actions will reduce the amount of residual waste produced, reducing the amount of waste sent to landfill and incineration. In addition, the landfilling of biodegradable municipal waste will be banned in Scotland from 31st December 2025, directly mitigating some of the risk of the UK ETS leading to increased landfilling of waste. The Scottish Government has also committed to extending this ban to include non-municipal biodegradable waste, subject to appropriate consultation and work to provide assurance around some specific waste streams.

In Northern Ireland, a feasibility study regarding the potential for banning or restricting biodegradable waste to landfill is currently underway.

²⁰ Defra Environmental Improvement Plan 2023. <https://www.gov.uk/government/publications/environmental-improvement-plan>

²¹ Scottish Government Consultation on the Draft Circular Economy and Waste Route Map 2024 <https://consult.gov.scot/zero-waste-delivery/draft-circular-economy-and-waste-route-map>

Refuse Derived Fuel and Solid Recovered Fuel export

Whilst UK Government, Scottish Government, Welsh Government and Northern Ireland Executive are all committed to managing as much of their own waste as possible, we understand that some export may remain a necessary part of waste management strategies in the short to medium term, particularly in areas that do not currently have access to domestic waste incineration capacity. However, we also understand that a higher rate of waste being exported abroad could impact the decarbonisation incentive for the UK waste sector.

The UK ETS Authority would like to explore the possibility of implementing any mitigation measures which would still allow for RDF/SRF export to continue to be an option. The UK respects our commitment to free and open trade, our international climate change commitments and the needs of industry and consumers. Therefore, we will ensure that any measures taken forward will be in compliance with our international obligations, including World Trade Organisation (WTO) commitments and trade agreements.

The UK ETS Authority has explored developing an RDF/SRF export tax or implementing an outright ban, as had been suggested by stakeholders in response to the 2022 call for evidence. We note that some of the UK's free trade agreements may prohibit export taxes being levied in certain circumstances, and work is ongoing to identify such agreements. Also, we note that an export ban would conflict with our objective of ensuring that RDF/SRF export remains an option where necessary.

A potential alternative option that we identified is the use of permitting/licensing systems as a mechanism through which we could seek to influence the flow of RDF/SRF exports. We could limit the number of permits/licenses that are issued for exporting these forms of waste. However, such a measure could be challenging to implement from a regulatory standpoint in seeking to fairly allocate permits among exporters. Alternatively, we could implement a charge that would be applied through or alongside existing permitting/licensing requirements, which could be fixed or variable. We note that charges are currently applied on RDF/SRF exporters through notification controls under the Transfrontier Shipment of Waste Regulations 2007²², which are levied to cover the administrative costs incurred by regulators. We note that an assessment of how these measures will align with international trade rules is ongoing.

We acknowledge that there are other domestic policies in development that would support in protecting against this risk, such as Defra's planned consultation on a non-OECD plastic waste exports ban. Furthermore, the EU Parliament's proposals to extend the EU ETS to waste incineration facilities as part of their 'Fit for 55' package will significantly influence the flow of RDF/SRF exports. We will continue to monitor developments in these policies.

Questions:

36. Do you expect waste incineration gate fees to become more expensive than landfill or export as a result of UK ETS expansion? Is this expectation the same for all material types and regions? Please provide evidence to support your answer.

37. If waste incineration gate fees were to become relatively more expensive, with consideration of non-price factors when taking waste disposal and

²² The Transfrontier Shipment of Waste Regulations 2007.
<https://www.legislation.gov.uk/ukSI/2007/1711/contents/made>

management decisions, how significant is the risk that waste is, in practice, diverted back down the hierarchy to landfill or export?

- 38. Considering possible benefits and challenges that could arise, do you think that further UK ETS expansion to landfill should be explored as a mechanism to protect against the diversion of waste from waste incineration to landfill? (Y/N) Please give further details to support your answer.**
- 39. Do you think alternative options to manage the landfill risk should be explored? If so, please give further details on which options and why.**
- 40. Do you think that either of the approaches outlined above to address landfill risk would give rise to unintended consequences? (Y/N) Please give further details to support your answer.**
- 41. What would be the most effective approach to mitigate the risk of waste being diverted from waste incineration to RDF/SRF export? Please give details to support your answer.**
- 42. Do you think that limiting the number of RDF/SRF export permits/licenses issued would be an effective mechanism to reduce the risk of waste diversion from waste incineration to export abroad? (Y/N) Please give further details to support your answer.**
- 43. Do you think that a permitting/licensing charge on RDF/SRF exports would be an effective mechanism to reduce the risk of waste diversion from waste incineration to export abroad? (Y/N) Please give further details to support your answer.**
- 44. Would a fixed or variable charge be most effective at managing this risk? Please give further details to support your answer.**
- 45. If we were to proceed with the development of a variable charge rate:**
- a) Would it be sufficient for the charge rate to reflect the UK ETS carbon price?**
 - b) Will consideration need to be given in the charge rate calculation to the carbon price (if any) in the destination country to which RDF/SRF exports are bound?**
 - c) How frequently will variable charge rates need to be updated?**
- 46. Do you think that alternative options to manage the RDF/SRF export risk should be explored? (Y/N) If so, please give further details on which options and why.**
- 47. Do you think that any option to address RDF/SRF export mitigation risk could give rise to unintended consequences? (Y/N) Please give further details to support your answer.**

Decarbonisation pathways

Due to qualifying change in law (QCIL) clauses in customer contracts, UK ETS costs may, depending on exact contractual arrangements, be passed from operators to their customers, including both commercial customers and local authorities. As the point of obligation for purchasing and surrendering allowances will apply to the operator, there will be no difference in carbon price for commercial customers compared to the public sector per tonne of carbon emitted. We understand, however, that local authorities are the largest customers for waste incineration facilities, often with long-term contracts that supported development of the facility.

All customers of waste incineration facilities will be able to reduce their exposure to the carbon price by engaging with and partaking in decarbonising activities. This section outlines decarbonisation pathways, a proposed means through which some UK ETS costs may be passed back to the producers of a proportion of waste materials and the steps we will be taking to consider support for local authorities.

To support this process, the Authority will work closely with Department for Levelling up, Housing and Communities and across Scottish Government, Welsh Government and Northern Ireland's Department of Agriculture, Environment and Rural Affairs to assess the financial impact of the UK ETS on the local government sector. We note that decarbonisation opportunities vary across the United Kingdom, and within nations too, and we will take this into account in future policy making. We will undertake New Burdens Assessments, ensuring any likely financial impact the UK ETS has on the local government sector is assessed. Similar expectations apply in Scotland, Wales, and Northern Ireland. However, it should be noted that the Authority's aim is that any support for local authorities should be delivered through a means that maintains the incentive to decarbonise.

Decarbonisation policies and activities for local authorities

The expansion of the UK ETS to cover waste incineration facilities would provide an incentive for the development and uptake of decarbonisation technologies and practices to reduce emissions. The Authority will also ensure that any expansion of the UK ETS to waste incineration facilities will complement existing and upcoming waste and environmental policies that impact both local authorities and waste incineration operators. Across the UK there are a suite of environmental tax measures, such as the Plastic Packaging Tax, which work together with non-fiscal policies to support the ambitious environmental objectives across the United Kingdom.

It is anticipated that upstream policies such as those in the Resources and Waste Strategy in England, Beyond Recycling Strategy in Wales, Waste Management Strategy in Northern Ireland, and Circular Economy & Waste Route Map in Scotland will impact how we manage resources across waste sector. These policies are designed to move waste higher up the waste hierarchy and therefore decrease the amount of fossil wastes (i.e. those made from extracted fossil fuels) sent to waste incineration facilities, reducing emissions and subsequently a local authority's exposure to the carbon price.

Collection and packaging reforms across the UK are anticipated to deliver substantial increases in recycling of target materials over the next ten to fifteen years and in England these reforms will get us roughly halfway towards our target to halve residual waste (excluding major mineral waste) produced per person by 2042, as set out in the government's

Environmental Improvement Plan, published in January 2023.²³ There is a wide suite of policies available to meet the remaining reduction required and we will be considering and developing additional policies over the coming years.

UK Government, Scottish Government, Welsh Government and Northern Ireland's Department of Agriculture, Environment and Rural Affairs have committed to plan collectively for the implementation of UK ETS in this sector by 2028, particularly focussing on fossil fuel derived wastes that do not currently have a decarbonisation pathway or a cost recovery mechanism. The Authority will detail the findings in its formal response to this consultation. The exact make-up of any future policy pathways across the United Kingdom will vary based on decisions made under devolved competence and could include UK-wide and nation-specific measures.

If needed, the Authority will publish guidance to support decarbonisation activities and provide details on wider funding opportunities. We would aim to produce this guidance ahead of the intended MRV-only transitional period from 2026, and to revise it, if necessary, to reflect the decarbonisation policy landscape at the end of the transitional period on 31 December 2027. Additional information on guidance can be found under 'Participating in the Scheme'.

In Scotland, the Circular Economy and Waste Route Map, currently in consultation²⁴, sets out priority actions from now to 2030 to accelerate more sustainable use of our resources across the waste hierarchy. These will help to reduce the amount of waste produced and decarbonise the waste sector and include facilitating the co-design of high quality, high performing household recycling and reuse services with households, COSLA, local authorities and service operators.

Local authorities play an important and distinctive role in reducing emissions at a local level and delivering on net zero and climate targets, including the collection and management of fossil wastes. Decarbonisation activities for local authorities include the delivery of sustainable waste management practices such as awareness-building campaigns to minimise the amount of fossil wastes entering the waste stream, providing collections for different materials including recyclables, and utilising mixed waste sorting technology pre-incineration to extract recyclable materials.

Some stakeholders have recommended that allowing local authorities to bid for funding for specific decarbonisation activities would better incentivise them to reduce their fossil wastes. We want to better understand the decarbonisation activities that are available to local authorities, beyond the activities and practises described above, and understand their potential impact.

Decarbonisation technology for wider waste sector

We recognise that a comprehensive suite of policies including funding, regulation and carbon pricing is needed to deliver decarbonisation. There is also a need to accelerate the deployment of cutting-edge technologies like Carbon Capture & Storage (CCS) across the wider waste sector in the UK. The design of the Industrial Carbon Capture business models for industrial users with limited viable alternatives to achieve deep decarbonisation incentivises the uptake

²³ Defra, Environmental Improvement Plan 2023: <https://www.gov.uk/government/publications/environmental-improvement-plan>

²⁴ Scottish Government Consultation on the Draft Circular Economy and Waste Route Map 2024 <https://consult.gov.scot/zero-waste-delivery/draft-circular-economy-and-waste-route-map>

of carbon capture technology. There is a specific variant of the revenue support contract for successful waste management CCS projects, known as the 'Waste ICC Contract'²⁵.

We recognise the importance of CCS to EfW sites without CCS pipeline access and note the current uncertainty in the deployment and funding timelines for the Scottish Cluster, including the emitter project criteria and future phases of store and network expansion to enable Non-Pipeline Transportation (NPT) projects. The UK ETS is committed to recognise NPT by allowing UK ETS participants who will use NPT methods for CO₂ storage purposes to make carbon subtractions and will consult in due course on how this will be integrated into the UK ETS framework. We appreciate however that this is an emerging technology, and we acknowledge that access to this technology varies across the UK and not all existing waste incineration site will be able to fit CCS. As such, we will keep the development of carbon capture technology under review as the industry matures.

As outlined in 'UK ETS & Heat Networks - Call for Evidence', we are seeking views on incentivising heat export. We expect that any incentive mechanism will lower the costs of the UK ETS for these facilities and in turn, the cost savings may be passed back to the customer of the facility as per contractual arrangements. As such, the incentivisation of heat offtake in waste incineration facilities has the potential to further lower costs for customers.

We understand that customers may be required to cover the costs of decarbonisation technologies, such as mixed waste sorting and CCS, installed at waste incineration facilities. Similarly, we know that any cost savings, or profits made, through these decarbonisation technologies may also be passed through to customers. We would welcome any evidence on the extent of costs, savings and potential profits that may be generated and passed through to customers by investing in these technologies.

Passing costs to producers

We propose aligning the UK ETS with 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. pEPR is designed to improve efficiency by placing responsibility on businesses for the environmental impact of their packaging. This is to incentivise appropriate use of packaging and the use of recyclable and reusable packaging and encourage more domestic reprocessing and overall system improvements and savings. In turn, this will lower the amount of fossil wastes that enter the residual waste stream and waste incineration facilities, consecutively reducing a local authority's exposure to the carbon price.

We currently estimate that between 20-30% of fossil waste by weight that is incinerated is within scope of pEPR, and potentially the carbon price for approximately 20-30% of waste by weight handled by local authorities could be covered by pEPR payments. Mandatory collection of flexible plastics from households for recycling under pEPR will further reduce the percentage of fossil wastes entering the residual waste stream and waste incineration facilities.

We recognise that work is ongoing to deliver the pEPR scheme, with a recent consultation²⁶ on the draft regulations for pEPR across the UK. We will continue to take a joined approach in linking the UK ETS with pEPR. We also recognise that there are several waste streams that

²⁵ <https://www.gov.uk/government/publications/carbon-capture-usage-and-storage-ccus-business-models>

²⁶ <https://www.gov.uk/government/consultations/draft-producer-responsibility-obligations-packaging-and-packaging-waste-regulations>

are not within scope of pEPR and as such will not be covered by this cost pass through mechanism.

Supporting Local Authorities

Local authorities and central Governments share a collective aim of delivering net zero. Local authorities have consistently shown their commitment to furthering climate policy, decarbonisation and supporting the path to net zero.

UK Government is considering the process for supporting local authorities in England once waste incineration facilities are included in the UK ETS until they have decarbonisation pathways in place. This includes considering the pressures resulting from the expansion of the UK ETS in the round at the next Spending Review. Scottish Government, Welsh Government and Northern Ireland Executive will continue to be funded in line with the Statement of Funding Policy and UK Government will continue to work with them during this process. We will also work to ensure that the incentive to decarbonise remains, as this is integral to the UK ETS, and ensure alignment with the net zero emissions targets.

All four administrations will continue to work with and engage the local government sector to ensure these mitigations are sufficient to support decarbonisation of the waste incineration sector and to ensure an equitable balance of contributions from the private and public sectors to the transition to net zero.

Questions:

- 48. Do you agree with the decarbonisation pathways for waste incineration facilities detailed above? (Y/N) Please give further details to support your answer, including information on the ability of local authorities and/or waste incineration operators to undertake the decarbonisation pathways detailed. Please also provide any information on additional decarbonisation activities or pathways that are available to local authorities and/or waste incineration operators.**
- 49. Do you have any evidence on the costs, savings and potential profits that could be generated from decarbonisation technologies such as CCS and heat networks? (Y/N) If yes, please provide further details. We would particularly welcome evidence for the whole contractual period and/or lifetime of the facility.**
- 50. Please provide any comments on cost savings from decarbonisation technologies such as CCS and heat networks and whether these will be passed back to customers, including local authorities.**
- 51. Do you agree there is a need for guidance on decarbonisation for local authorities and waste incineration operators? (Y/N) Please give further details to support your answer, including any information on the type, form and content of guidance needed.**
- 52. Beyond the mechanisms listed above, are there any other mechanism(s) you would recommend to support local authorities to decarbonise? (Y/N) Please give further details to support your answer, including any information on the type of support mechanism(s) recommended and details on the type of materials that may fall outside the scope of the proposed support mechanisms detailed above.**

Accurate apportioning of cost pass through

The Authority understands that cost pass through will very likely occur between operators of waste incineration facilities and their customers because of qualifying change in law (QCiL) clauses in contracts, although this will depend on the precise terms of those contracts.

We recognise the importance of accurately apportioning fossil content and UK ETS costs between different customers at facilities which accept waste from multiple sources, to reflect emissions reductions and recycling efforts, as this will encourage and reward reductions in the fossil content of residual waste. We are therefore consulting on options for cost pass through.

We note that the Authority will support this by providing guidance, as we understand that any provisions will be dependent on specific operator and customer contexts (e.g. ability of operator to collect and analyse samples).

Option 1 - Sampling

We have considered feedstock sampling and analysis as a method to support accurate cost pass through. As part of this, we have reviewed existing requirements for sampling and manually sorting through waste at Material Recovery Facilities (MRF), to assess the quality and quantity of recyclable materials that have been received from different suppliers.

We have identified sample analysis methods that could be used to determine the fossil and biogenic split in the composition of waste samples, which overlaps with our wider work on developing proposals for monitoring and reporting requirements under the scheme. These approaches include manual sorting, selective dissolution, and front-end carbon-14 analysis.

Some stakeholders have raised concerns with sampling as an overall approach and with the outlined analytical methods. These include logistical challenges presented by the structure of the sector (e.g. where sampling should take place given the stages involved in the transport of waste from customers to facilities), the potential risk to safety (particularly where hazardous or clinical materials are handled), the scope for human error and manipulation, and challenges in determining appropriate sample sizes and a frequency of collection that would give results with satisfactory levels of uncertainty. We are committed to understanding the extent of these challenges and how they could be overcome.

With these concerns in mind, we are exploring if alternative approaches to sampling analysis should be developed to support accurate cost pass through, including a default calculation factor approach which has been suggested by some stakeholders.

Option 2 – Default calculation factor approach

A default calculation factor approach refers to the development of figures that estimate the biogenic and fossil split of waste. These figures could be developed at a range of scales (e.g. nationally, regionally or at customer level) and would be multiplied by the mass flowrate of waste arriving at waste incineration facilities from individual waste suppliers. The results of these calculations would be an estimation of the quantities of fossil and biogenic waste received, which would be used by operators to determine the UK ETS cost pass through liability of their customers.

We are mindful that a default calculation factor approach that did not account for the efforts of individual waste suppliers to reduce the fossil content of their mixed waste would reduce important incentives to decarbonise. We have considered how these incentives could be maintained in such measures, for example by accounting for waste management KPIs in the

calculation of any factors that are ascribed to specific customers. As part of this, we are working with Defra as they develop their pEPR payment calculations, which aim to reward higher performing local authorities across different KPIs with higher reimbursement payments.

Option 3 – Combined, phased approach

We are also considering if a phased approach to cost pass through mechanisms should be taken. This could involve a simpler approach in the early stages of the scheme during the MRV period from 2026, and then from 2028 onwards operators and customers would work together to develop more accurate approaches. It is our view that phasing in requirements in this way would give more time which could allow for learnings from the MRV only period to be considered in the development of more accurate approaches.

Questions:

- 53. Do you think that sampling (e.g. MRF requirements) would be an effective approach for supporting accurate cost pass through from EfW operators to customers? (Y/N) Please give further details to support your answer.**
- 54. Do you think that the outlined sample analysis techniques (e.g. manual sorting, selective dissolution, and carbon-14) would effectively support accurate cost pass through? (Y/N) Please give further details to support your answer.**
- 55. Do you think that alternatives to sampling, including default calculation factors, should be explored? (Y/N) Please give further details to support your answer.**
- 56. Do you think that a phased approach to the development of a cost pass through mechanism would be a practical way to proceed? (Y/N) Please give further details to support your answer.**

Equality considerations

The public sector equality duty (PSED) (s.149 of the Equality Act 2010) requires public authorities to consider how policies or decisions affect people who are protected under the Equality Act 2010. Public Authorities must, in exercising their functions, have due regard to the need to achieve the objectives set out under s149 of the Equality Act 2010:

- (a) eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under the Equality Act 2010;
- (b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;
- (c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

We have conducted a PSED analysis of the application of the UK ETS to waste incineration and we have not identified any unlawful discrimination, harassment, victimisation, or other conduct prohibited by the 2010 Act in these policies. We will continue to gather evidence through the consultation process and keep these considerations under ongoing review.

Questions:

57. Do you consider that the application of the UK ETS to waste incineration will lead to any impacts for any groups with protected characteristics under the Equality Act 2010? Do you consider there to be any further equality considerations? Do you consider any elements of the UK ETS expansion to waste incineration could be designed to advance equality of opportunity and/or foster good relations? Please explain your response, providing evidence where possible.

UK ETS & heat networks - call for evidence

Incentivising heat networks

The Authority recognises that the UK ETS could incentivise new and existing participants, including waste incineration facilities, to export heat via heat networks. Heat networks supply heat from a central source to consumers and help reduce emissions associated with heating domestic and commercial buildings.

The UK ETS already provides some incentive to certain participants through Free Allowances for installations that export or utilise heat, recognising the saved emissions by reusing waste heat and the role of heat export in the transition to net zero. However, the Authority launched a review into free allocation policy in 2021 with the UK Emissions Trading Scheme free allocation review call for evidence²⁷, with the aim to ensure free allocation policy is working effectively in the UK context to both incentivise emissions reduction and to better target support at sectors most at risk of carbon leakage.

We understand there is a distinctive opportunity to continue to reduce some of the barriers facing UK ETS participants looking to invest in a heat network and export or utilise heat. This could apply to all sectors under the UK ETS, including but not limited to EfW, and include both waste and surplus heat as well as heat produced for the purpose of export. We want to incentivise clean heat sources and we are considering options to incentivise heat offtake through the UK ETS. We also recognise that the cost savings associated with proposals to incentive heat offtake would result in lower costs for some customers of UK ETS installations, for example local authorities as customers of waste incineration facilities that export heat.

We are therefore calling for evidence on how to further encourage UK ETS participants to capture and utilise surplus or waste heat.

Questions:

- 58. Do you agree that the UK ETS should be used to support heat offtake through the ETS? (Y/N) Please outline your reasoning and provide evidence to support your views.**
- 59. Do you have a view on what incentive mechanism (e.g. free allowances, subtraction of a number of allowances from the UK ETS obligation, etc.) would work best to encourage the export and utilisation of heat? (Y/N). Please provide as much detail as possible to support your answer.**
- 60. Do you think that policies to incentivise heat offtake should apply to surplus or waste heat, as well as heat produced for the purpose of export? (Y/N). Please provide as much detail as possible to support your answer.**
- 61. If an incentive is provided, how should the level of incentive be determined e.g. should it be linked to emissions that are offset by exporting heat, the volume of emissions associated with the production**

²⁷ <https://www.gov.uk/government/calls-for-evidence/uk-emissions-trading-scheme-free-allocation-review-call-for-evidence>

of heat, etc.? (Y/N) Please provide as much detail as possible to support your answer.

62. Do you have a view as to whether incentivising heat offtake through the UK ETS could have any perverse consequences? (Y/N). Please provide as much detail as possible to support your answer.

Consultation questions

1. Do you agree that our proposals should apply to facilities that conduct the following activities: incineration and combustion of waste, and other energy recovery from waste (including the production of fuels)? (Y/N) Please give further details to support your answer.
2. Are there any technologies which we have not referenced in this section, and which would not be covered by the activities we have set out, which you think should be covered by our proposals? (Y/N) Please give further details to support your answer.
3. Do you agree that facilities that produce monomers and polymers from waste that can be used as raw materials (non-mechanical or 'chemical' recycling) for materials to remain in the circular economy should not be included in the scope of our proposals?
4. If yes, how should we treat facilities that produce both fuels and polymers and monomers to be used as raw materials? (Y/N) Please give further details to support your answer.
5. Do you have any concerns with our position not to use the 20MW thermal input threshold for inclusion in the UK ETS? (Y/N) Please give further details to support your answer.
6. Should an alternative threshold for inclusion in the UK ETS be explored (e.g. waste throughput capacities) or will HSE and USE status eligibility sufficiently protect smaller facilities? Please give further details to support your answer.
7. Do you agree that the proposed thresholds for HSE and USE status are suitable for waste incineration facilities? (Y/N) Please give further details to support your answer.
8. Do you agree that it is unlikely that smaller facilities will be developed to gain eligibility for HSE or USE Status? (Y/N) Please give further details to support your answer.
9. If you disagree with the proposed thresholds for HSE and USE status, what alternatives would be suitable?
10. Do you agree with our position to include the incineration of hazardous and clinical waste in the UK ETS? (Y/N) Please give further details to support your answer and set out any concerns that you may have.
11. What decarbonisation options will be available to hazardous and clinical waste incinerators and in what timescale (e.g. immediately or long-term)?
12. Would the emissions monitoring methods outlined in the 'Monitoring and reporting' section be available to non-specialist incinerators also be available to hazardous and clinical waste incinerators of the same size? (Y/N) Please give further details to support your answer.
13. If hazardous or clinical waste incineration was ever to be exempted from the UK ETS, is there a risk of other waste types being mislabelled as either to avoid the UK ETS? (Y/N) Please give further details to support your answer.
14. Do you agree that HSE emission targets will incentivise clinical waste incinerators to decarbonise? (Y/N) Please give further details to support your answer.

15. Do you agree that the customers of clinical waste incinerators will be able to take action to reduce the fossil content in the waste they generate and achieve their waste reduction targets? (Y/N) Please give further details to support your answer.

16. Do you agree that the proposed approach, of adding allowances equivalent to emissions in scope per emissions trajectories aligned to the CBDP, is the appropriate approach to adjusting the cap, to ensure the emissions reductions required to deliver climate targets? (Y/N). Please explain your reasoning, including by proposing an alternative approach if appropriate.

17. Do you agree with the proposed approach to adjusting the cap to account for the inclusion in the scheme of emissions from the waste incineration sector? (Y/N). Please explain your reasoning, with reference to any alternative approaches or sources of evidence, such as on the impact of policies on the fossil proportion of emissions.

18. What would you expect to be the impact of the proposed approach to cap adjustment on participants in the sector and/or the wider UK ETS market? Please explain your reasoning.

19. Do you agree that it is practicable for existing regulatory requirements under the scheme, such as the compliance cycle, permit requirements, monitoring plan requirements and penalties, to apply to the waste sector? (Y/N) Please give further details to support your answer.

20. Do you agree that an MRV-only period is the best way to meet the objectives of a phasing period for this sector? (Y/N). Please give further details to support your answer.

21. How will operators and customers use any data from the MRV-only period?

22. For customers and operators, will knowing expected costs earlier than full implementation provide an early incentive to reduce your exposure to the carbon price? (Y/N). Please give further details to support your answer.

23. If the MRV period is mandatory (Option 1): Do you agree that waste incineration facilities should be subject to the same MRV requirements for 2026-28 that they will be subject to from 2028 onwards (e.g. report emissions for all combustion units onsite)?

24. If the MRV period is mandatory (Option 1): Do you have any concerns with the requirement for all waste incineration facilities to meet MRV requirements, before applying for HSE/USE status?

25. If the MRV period is voluntary (Option 2): How likely do you think it is that operators would monitor their fossil emissions?

26. If the MRV period is voluntary (Option 2): How likely do you think it is that operators would:

a) share their emissions with customers so they are better informed about potential future costs, and

b) share their emissions with the UK ETS Authority to inform cap decisions and evidence HSE or USE status eligibility?

27. Do you have any other comments on the MRV-only transitional period, and either of the options identified?

28. Do you agree that a tiered approach should be taken to monitoring and reporting requirements under the UK ETS? (Y/N). Please give further details to support your answer.
29. Do you think that Option 1 would be suitable for waste incineration facilities? (Y/N). Please give further details to support your answer.
30. Do you agree with our estimations in Figure 4 on how the available emissions monitoring methods for the sector could correlate with the uncertainty ranges for each tier in Option 1? (Y/N). Please give further details to support your answer.
31. Do you think that Option 2 would be suitable for waste incineration facilities? (Y/N). Please give further details to support your answer.
32. What approach (e.g. national, regional or installation specific) should be taken to the development of default calculation factors for smaller installations? Please give further details to support your answer.
33. On which aspects of the policy should we produce guidance, either for operators, their customers, or both? Please explain your reasoning.
34. How should we seek to test any guidance either for operators, their customers, or both? Please explain your reasoning.
35. To what timescale should guidance on different aspects of the policy, and for different audiences, be produced? Please explain your reasoning.
36. Do you expect waste incineration gate fees to become more expensive than landfill or export as a result of UK ETS expansion? Is this expectation the same for all material types and regions? Please provide evidence to support your answer.
37. If waste incineration gate fees were to become relatively more expensive, with consideration of non-price factors when taking waste disposal and management decisions, how significant is the risk that waste is, in practice, diverted back down the hierarchy to landfill or export?
38. Considering possible benefits and challenges that could arise, do you think that further UK ETS expansion to landfill should be explored as a mechanism to protect against the diversion of waste from waste incineration to landfill? (Y/N) Please give further details to support your answer.
39. Do you think alternative options to manage the landfill risk should be explored? If so, please give further details on which options and why.
40. Do you think that either of the approaches outlined above to address landfill risk would give rise to unintended consequences? (Y/N) Please give further details to support your answer.
41. What would be the most effective approach to mitigate the risk of waste being diverted from waste incineration to RDF/SRF export? Please give details to support your answer.
42. Do you think that limiting the number of RDF/SRF export permits/licenses issued would be an effective mechanism to reduce the risk of waste diversion from waste incineration to export abroad? (Y/N) Please give further details to support your answer.

43. Do you think that a permitting/licensing charge on RDF/SRF exports would be an effective mechanism to reduce the risk of waste diversion from waste incineration to export abroad? (Y/N) Please give further details to support your answer.

44. Would a fixed or variable charge be most effective at managing this risk? Please give further details to support your answer.

45. If we were to proceed with the development of a variable charge rate:

a) Would it be sufficient for the charge rate to reflect the UK ETS carbon price?

b) Will consideration need to be given in the charge rate calculation to the carbon price (if any) in the destination country to which RDF/SRF exports are bound?

c) How frequently will variable charge rates need to be updated?

46. Do you think that alternative options to manage the RDF/SRF export risk should be explored? (Y/N) If so, please give further details on which options and why.

47. Do you think that any option to address RDF/SRF export mitigation risk could give rise to unintended consequences? (Y/N) Please give further details to support your answer.

48. Do you agree with the decarbonisation pathways for waste incineration facilities detailed above? (Y/N) Please give further details to support your answer, including information on the ability of local authorities and/or waste incineration operators to undertake the decarbonisation pathways detailed. Please also provide any information on additional decarbonisation activities or pathways that are available to local authorities and/or waste incineration operators.

49. Do you have any evidence on the costs, savings and potential profits that could be generated from decarbonisation technologies such as CCS and heat networks? (Y/N) If yes, please provide further details. We would particularly welcome evidence for the whole contractual period and/or lifetime of the facility.

50. Please provide any comments on cost savings from decarbonisation technologies such as CCS and heat networks and whether these will be passed back to customers, including local authorities.

51. Do you agree there is a need for guidance on decarbonisation for local authorities and waste incineration operators? (Y/N) Please give further details to support your answer, including any information on the type, form and content of guidance needed.

52. Beyond the mechanisms listed above, are there any other mechanism(s) you would recommend to support local authorities to decarbonise? (Y/N) Please give further details to support your answer, including any information on the type of support mechanism(s) recommended and details on the type of materials that may fall outside the scope of the proposed support mechanisms detailed above.

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55. Do you think that alternatives to sampling, including default calculation factors, should be explored? (Y/N) Please give further details to support your answer.

56. Do you think that a phased approach to the development of a cost pass through mechanism would be a practical way to proceed? (Y/N) Please give further details to support your answer.

57. Do you consider that the application of the UK ETS to waste incineration will lead to any impacts for any groups with protected characteristics under the Equality Act 2010? Do you consider there to be any further equality considerations? Do you consider any elements of the UK ETS expansion to waste incineration could be designed to advance equality of opportunity and/or foster good relations? Please explain your response, providing evidence where possible.

58. Do you agree that the UK ETS should be used to support heat offtake through the ETS? (Y/N) Please outline your reasoning and provide evidence to support your views.

59. Do you have a view on what incentive mechanism (e.g. free allowances, subtraction of a number of allowances from the UK ETS obligation, etc.) would work best to encourage the export and utilisation of heat? (Y/N). Please provide as much detail as possible to support your answer.

60. Do you think that policies to incentivise heat offtake should apply to surplus or waste heat, as well as heat produced for the purpose of export? (Y/N). Please provide as much detail as possible to support your answer.

61. If an incentive is provided, how should the level of incentive be determined e.g. should it be linked to emissions that are offset by exporting heat, the volume of emissions associated with the production of heat, etc.? (Y/N) Please provide as much detail as possible to support your answer.

62. Do you have a view as to whether incentivising heat offtake through the UK ETS could have any perverse consequences? (Y/N). Please provide as much detail as possible to support your answer.

Next steps

The responses to this consultation will be used to develop final policy decisions for implementation.

The consultation will be open for 8 weeks before closing. The Authority will then work through the responses and aim to publish the Authority Response in due course, with a view to announcing implementation details ahead of the MRV-only transitional period.

This consultation is available from: www.gov.uk/government/consultations/uk-emissions-trading-scheme-scope-expansion-waste

If you need a version of this document in a more accessible format, please email alt.formats@energysecurity.gov.uk. Please tell us what format you need. It will help us if you say what assistive technology you use.