

## Written evidence from the Environmental Services Association (ESA) (MET0033)

### ESA Introduction:

The Environmental Services Association (ESA) is the principal voice of Resource and Waste Management Industry in the UK. Our members turn waste into valuable resources while protecting the environment. Our sector provides essential services to local communities and businesses through expert services, collecting, sorting, and treating waste to recycle materials, recover energy and safely disposing of residues. We contribute to a low carbon, circular economy, and we safeguard public health. We help raise industry standards and constructively promote a policy framework which enables ESA Members to operate profitably and responsibly for the benefit of the environment.

### Questions

#### Data, measurement and monitoring

**8) What is the status of methane accounting, monitoring and reporting in the UK at present and how does it compare internationally? Is UK accounting and reporting considered to be accurate and robust? What improvements, if any, are possible and what benefits would these deliver?**

Techniques used across the UK Landfill Sector:

- **Modelling:** The sector utilises sophisticated modelling to obtain a reasonably accurate forecast of gas production rates over time to provide a view of environmental risk and help determine suitable control measures.
- **Monitoring:** To effectively monitor the emissions produced by waste in a landfill, sampling must take place frequently across the entire site and any associated pipework or gas storage systems to check for leaks into the air.
- A combination of hand-held and fixed monitoring equipment to regularly measure methane, Hydrogen sulphide, Carbon dioxide, oxygen, carbon monoxide and other trace gases. Weekly monitoring is the norm for most parameters.
  - **Gas collection system (GCS) infrastructure Monitoring (Boreholes and Pipes):** To ensure gas collection is performing as expected.
  - **Perimeter Borehole Monitoring:** To ensure that the GCS is adequately controlling the lateral migration of LFG from the site,

- **Surface emission monitoring:** Surface emissions monitoring is carried out to quantify methane emissions from restored or temporarily restored landfills to demonstrate appropriate management of LFG within the site and measure the integrity and performance of a capped area.

## **10) Are there significant methane leakages in the UK, and if so, where do they usually occur?**

Back in 2021, we conducted a comprehensive assessment of the Greenhouse Gas (GHG) emissions from the UK recycling and waste sector<sup>1</sup>, which provided the basis of our Net Zero Strategy<sup>2</sup>. This found that the second largest emitter of GHG emissions in the sector comes from the landfilling of waste, which was compromised of predominately methane fugitive emissions. The results found that of the 10,725 ktCO<sub>2</sub>e from landfill, where 9,864 ktCO<sub>2</sub>e came from fugitive landfill gas emissions.

Landfill gas is commonly a mixture of methane (CH<sub>4</sub>) 60% and carbon dioxide (CO<sub>2</sub>) 35 %. It will also contain trace concentrations of a range of vapours and gases. All landfills are required by law to collect and manage landfill gas – achieved by a combination of impermeable liners and a network of pipes and boreholes to collect the gas. Gas is then used to produce energy to the national grid (on site gas engines) or is flared if this is not possible.

There are broadly two means of capturing fugitive landfill gas emissions at landfill sites, i) capping the sites and installing gas engines, and where this is not feasible ii) flaring the methane to generate CO<sub>2</sub> a less polluting GHG emission in terms of global warming potential (GWP).

In the UK, methane capture at modern landfill sites is over 80% and can reach as high as 90% efficiency. However, older closed (pre-landfill directive) sites will not be as efficient.

As landfill sites come to the end of their life the amount of methane gas produces declines substantially as the decomposition process slows. Given the low methane concentration at these sites, the use of gas engines is not appropriate for both practical and economic reasons. This also applies to flaring if the concentrations are very low.

Where landfill gas is not efficiently collected it will find the easiest route of escape. These escape routes will comprise of; permeation through capped or temporary capped areas, venting from uncapped areas or cap defects, pipework leaks, and lateral migration. Monitoring of these emissions do take place as detailed in question 8.

<sup>1</sup>[https://www.esauk.org/application/files/5316/4268/8976/ESA\\_GHG\\_Quantification\\_Final\\_Report\\_23\\_06\\_2020\\_Issued.pdf](https://www.esauk.org/application/files/5316/4268/8976/ESA_GHG_Quantification_Final_Report_23_06_2020_Issued.pdf)

<sup>2</sup> <https://www.esauk.org/what-we-say/publications/net-zero-strategy-report-registration-form>

## UK Methane emissions and sectors

### 12) What progress has the UK made on reducing methane emissions and where is there room for improvement?

#### The Waste Sector:

The recycling and waste management sector is proud of its emissions reduction record. The significant fall in waste sector greenhouse gas emissions, falling from over 70 MtCO<sub>2</sub>e in 1998 to around 25 MtCO<sub>2</sub>e in 2020<sup>3</sup>, has been driven almost entirely by a concerted reduction in landfill and the associated methane emissions.

This is primarily the result of the introduction of the Landfill Tax in 1996, which supported the diversion of biodegradable waste away from landfill and encouraged improved methane capture rates, resources optimisation, implementation of environmental standards, circular economy initiatives and many other factors. The Landfill Tax additionally supported efforts to reduce, reuse and recycle, but also diverted waste from landfill into energy from waste (EfW), which today as an essential public health service processes millions of tonnes of residual waste that would otherwise have gone to landfill.

Over the last 25 years, landfill emissions have been tackled in two ways:

- i. Reducing the amount of biodegradable waste going to landfill (with the landfill tax being a key driver); and
- ii. Increasing the efficiency of methane collection from landfills already containing biowaste with a requirement for operators to develop and maintain a landfill gas management plan.

With methane 84 times more potent a greenhouse gas over a 20-year period compared to carbon dioxide<sup>4</sup>, it is essential that more is done to continue to divert residual, biodegradable waste away from landfill and towards less polluting methods higher up the waste hierarchy.

In May 2023, DEFRA consulted on measures to affect the 'near elimination' of biodegradable waste going to landfill from 2028. In this consultation, DEFRA highlighted that nearly 5 million tonnes<sup>5</sup> of biodegradable waste was currently entering landfill each year. It is essential that this is expanded to cover all comprehensive combustible municipal waste to reduce future methane emissions from landfill sites. The sooner biodegradable waste is prevented from routinely entering landfill, the sooner the UK will be able to reduce its methane emissions, where landfill is responsible for the waste sector being the second largest source after agriculture.

<sup>3</sup><https://www.theccc.org.uk/wp-content/uploads/2022/06/Progress-in-reducing-emissions-2022-Report-to-Parliament.pdf>

<sup>4</sup> [https://energy.ec.europa.eu/topics/oil-gas-and-coal/methane-emissions\\_en](https://energy.ec.europa.eu/topics/oil-gas-and-coal/methane-emissions_en)

<sup>5</sup>[https://consult.defra.gov.uk/waste-and-recycling/cfe-near-elimination-bio-waste-to-landfill/supporting\\_documents/23.05.25\\_Near\\_Elim\\_Biodegradable\\_Waste\\_to\\_Landfill\\_CfE.pdf](https://consult.defra.gov.uk/waste-and-recycling/cfe-near-elimination-bio-waste-to-landfill/supporting_documents/23.05.25_Near_Elim_Biodegradable_Waste_to_Landfill_CfE.pdf)

Introducing a **comprehensive landfill ban on all combustible waste is a necessity** for the Emissions Trading Scheme (ETS) to work. Policy certainty related to the ban is vital to ensure investment confidence in the sector. Synchronisation of the proposed 'ban' with ETS EFW requirements in 2028 is crucial to avoid waste moving from EFW to landfill.

## **15) To what extent is there existing regulation in each emitting sector to mitigate methane emissions, and how well is this working?**

### **The Waste Sector: Regulation**

The management of landfill gas at permitted landfills is covered by three pieces of European legislation:

- Waste Framework Directive (75/442/EEC as amended)
  - Landfill Directive (1999/31/EC)
  - Integrated Pollution Prevention and Control (IPPC) Directive (96/61/EC).
1. The Landfill Directive: The Landfill Directive 1999/31/EC specifies the technical standards covering aspects of the construction, operation, monitoring, closure and surrender of landfills. The Directive is applied in England and Wales through The Environmental Permitting (England and Wales) 2007 Regulations. In Scotland the requirements of the Directive are applied through the Landfill (Scotland) Regulations 2003. Regulated by EA, SEAP, NRW, NIEA – sites inspections and site monitoring, as well as assessing and auditing operator monitoring. The Landfill Directive, requires the following gas control measures:
    - appropriate measures to control the accumulation and migration of landfill gas;
    - landfill gas must be collected from all landfills receiving biodegradable waste and the gas must be treated and, to the extent possible, used;
    - the collection, treatment and use of landfill gas in a manner which minimises damage to or deterioration of the environment and risk to human health;
    - flare landfill gas that cannot be used to produce energy.
  2. Unlicensed (closed) Landfill Sites Closed Landfills: Landfills that do not have a waste management licence or permit – may be regulated under the 'contaminate land' regulatory regime.
  3. Industry Best Practice: The ESA has developed Regulatory and Industry Best Practice Guidance that is deployed by operators within the Landfill Sector. For example, the ESA's Landfill Gas Code of Practice<sup>6</sup>.

## The Landfill Tax

The Landfill Tax was Introduced in October 1996 and levied on disposal of waste to landfill. The primary driver was to enable sites to achieve the EU Landfill Directive requirements.

Introductory tax rates were set in 1996 at £7 per tonne of active waste (mainly biodegradable waste), and £2 per tonne of inactive, inert waste e.g., mineral waste. The Landfill Tax 'escalator' was announced in 1999 and the rates are currently £102.10 per tonne for active waste and £3.25 per tonne or inactive waste.

The tax discouraged the disposal of wastes that contain biodegradable material from landfill and encouraged recycling and recovery alternatives - composting, anaerobic digestion and energy from waste - further 'up' the waste hierarchy.

For local authorities (in charge of municipal waste collection and disposal), the tax acts to make separate collection of recyclable material from households and businesses economically preferable to disposal in landfill.

Similarly, the differential in rates acts to incentivise sorting of mixed waste for further recycling in order to maximise volumes qualifying for the lower rate.

The result of the introduction of the Landfill Tax is a declining trend of local authority managed waste in England being disposed of in landfill is demonstrated in decreasing from 22 million tonnes in 2000 to 2001, to 2 million tonnes in 2019 to 2020.

## Waste Crime including landfill Tax Fraud

Successive ESA reports <sup>7</sup> have highlighted the shocking extent of waste crime in the UK and its cost to the UK's environment and economy and exposed an unfortunate truth: that despite additional government and regulatory focus in recent years, the extent of waste crime has considerably worsened, with its impact now approaching **£1 billion each year for England alone**.

It is clear that criminals are making huge profits at the expense of legitimate operators, and this is undermining the sector's investment in new infrastructure to treat waste further up the hierarchy from landfill as well as the pursuit of higher standards – which ultimately underpin the UK's transition to a circular economy as most recently outlined in ESA Open to letter to Environment Agency's CEO on the scale and impact of waste crime <sup>8</sup>

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<sup>6</sup>[https://www.esauk.org/application/files/8515/5782/4933/20120301\\_ICoP\\_Landfill\\_Gas\\_2012.pdf](https://www.esauk.org/application/files/8515/5782/4933/20120301_ICoP_Landfill_Gas_2012.pdf)

<sup>7</sup> Counting the Cost of Waste Crime

[https://www.esauk.org/application/files/3716/2694/1872/ESA\\_Cost\\_of\\_Waste\\_Crime.pdf](https://www.esauk.org/application/files/3716/2694/1872/ESA_Cost_of_Waste_Crime.pdf)

Rethinking Waste Crime:

[https://www.esauk.org/application/files/7515/3589/6448/20170502\\_Rethinking\\_Waste\\_Crime.pdf](https://www.esauk.org/application/files/7515/3589/6448/20170502_Rethinking_Waste_Crime.pdf)

Britain's Dirty Secret:

[https://www.esauk.org/application/files/4515/3589/6453/ESAET\\_Waste\\_Crime\\_Tackling\\_Britains\\_Dirty\\_Secret\\_LIVE.pdf](https://www.esauk.org/application/files/4515/3589/6453/ESAET_Waste_Crime_Tackling_Britains_Dirty_Secret_LIVE.pdf)

The findings of the April 2022 NAO Investigation<sup>9</sup> into government's actions to combat waste crime in England also illustrate perfectly why the waste sector is viewed as a soft target by criminals and why strong and timely enforcement by regulators is vital to tackling this issue.

Landfill tax fraud cost the UK around **£150 million in 2021 to 2022 according to HMRC's Tax Gap report**<sup>10</sup> and is therefore a significant contributor to the overall £1 billion cost of waste crime. At 18% of theoretical tax liabilities, the landfill tax gap is in the unenviable position of being one of the highest tax gaps in the UK.

ESA's previously referenced research highlights the prevalence of 'misclassification' connected to landfill tax fraud and the need to ramp up enforcement and impose higher penalties on illegal operators. There is also a recognition<sup>11</sup> of increased involvement of organised criminal gangs involved in illegal waste management including landfill tax fraud.

Preventing landfill tax fraud and waste crime in general will promote investment in the sector and thus enable the realisation of national environmental goals, such as increased recycling and reaching net zero greenhouse gas emissions by 2050. Waste crime undermines the waste hierarchy and circular economy aspirations of the government and the sector. Criminals who do not pay the full cost of waste management and disposal including landfill tax are able to dispose of waste much cheaper than a legitimate operator. Consequently, waste crime results in more waste going into illegal disposal sites and not being reused, recycled, or used for energy and so is inhibiting progress toward a circular economy.

There is also a fear amongst the legitimate landfill operator community that current brazen landfill tax fraud at some sites will culminate in a 'cut and run' approach with landfill abandonment a distinct possibility.

Waste crime in all its forms blights local communities, harms the environment, and undermines investment in legitimate businesses. Tackling waste crime, and in particular landfill tax fraud, effectively would see more waste flowing through permitted waste management routes higher up the hierarchy than landfill, and would also result in more landfill tax generated for those materials that cannot be reused, recycled, or recovered.

The introduction of the following policies could enable greater enforcement to tackle landfill tax fraud:

- Use existing powers effectively: It is disappointing that according to the NAO report has not historically prosecuted anyone for landfill tax non-compliance

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<sup>8</sup>[https://www.esauk.org/application/files/4716/8863/4950/ESA\\_Waste\\_Crime\\_Open\\_Letter\\_Final.pdf](https://www.esauk.org/application/files/4716/8863/4950/ESA_Waste_Crime_Open_Letter_Final.pdf)

<sup>9</sup> <https://www.nao.org.uk/press-releases/investigation-into-governments-actions-to-combat-waste-crime-in-england/#:~:text=Today's%20NAO%20report%20finds%3A,in%20fewer%20cases%20being%20identified>

<sup>10</sup> <https://www.gov.uk/government/statistics/measuring-tax-gaps/6-tax-gaps-other-taxes>

<sup>11</sup> <https://assets.publishing.service.gov.uk/media/5f5798e3e90e0709934a0403/waste-crime-review-2018-final-report.pdf>

despite the significantly high tax gap associated with this tax. The HMRC investigation into suspected systematic abuse of the landfill tax system referred to as Operation Nosedive, cost more than £3 million but ended in plans to pursue prosecutions being abandoned. HMRC also has an additional enforcement power (since 2018) to impose landfill tax at sites operating without a permit. This additional power enables HMRC to impose the full cost of landfill tax, plus additional penalties, on operators of unauthorised sites. With landfill tax alone now over £100 per tonne – this should provide a significant deterrent – but only if culprits have any fear of being prosecuted which we are concerned is not the case today. ESA very much supported the introduction of this power, but we have been disappointed that HMRC appears to have so far made very little use of it. We would like to understand why this is the case. Is there a need for the legislation to be revised to better enable its use? Or is the issue purely down to lack of resource within HMRC to undertake enforcement activity more generally? From our perspective, it is vital that enforcement bodies fully utilise every tool in the box to crack down on waste crime and that they are sufficiently resourced to do so.

- Shut down Illegal sites: It is frustrating that investigations related to illegal sites, on average, are becoming drawn out across many years – taking the Environment Agency an average of 1500 days according to the recent NAO investigation <sup>ii</sup>. Illegal sites cause significant misery for local communities, harm the environment and discourage investment in the sector by legitimate operators, so it therefore does not seem proportionate that only 5% (28) of the 632 illegal waste sites discovered in 2020/21 led to a prosecution <sup>ii</sup>. Sufficient enforcement would better prevent criminals from being able to produce, store, dispose of, or treat waste illegally, thus, reducing their ability to commit waste crime.
- Greater coordination between enforcement agencies: ESA supports the work of the Joint Unit for Waste Crime (JUWC). Collaboration between enforcement agency's is key to stamping out criminality but would like to see even greater focus from the JUWC and HMRC to tackle landfill tax fraud and illegal waste management in all its forms.
- Increase resources for HMRC, the EA and the JUWC in the longer term: HMRC, the Environment Agency and the JUWC must have sufficient, dedicated funding to allow for faster closure of illegal waste sites, increased monitoring of illegal operations including landfill tax fraud, and heightened enforcement actions. This is exacerbated further by inadequate levels of fines imposed on waste criminals, and that the recovered fines are not channelled back into tackling waste crime.
- A focus on Waste Producers: Better enforcement of waste 'Duty of Care'<sup>12</sup> failures. If Board-level Directors of waste producing companies were targeted

for failures in compliance, then the subsequent self-policing would be much more effective than retroactive HMRC or Environment Agency enforcement efforts.

- Policy Reform: Reform the requirements for waste carriers, brokers and dealers<sup>13</sup> and the introduction of digital waste tracking <sup>14</sup> would help to prevent criminals from entering the sector and would enable more effective regulation. Government has recently consulted on proposals, but these must be developed and implemented effectively.

#### Failure of Landfill tax to keep pace with inflation

Inflation spikes between 2021 and 2023 had previously not been accounted for in determining the rate of landfill tax, which for that period of time had eroded the competitiveness of alternative waste treatment and recycling facilities – and threatened to increase the volumes of material disposed of to landfill.

ESA therefore welcomed the announcement in the 2024 Spring budget which corrected this calculation and adjusted landfill tax to reflect actual RPI (rather than modelled forecasts). However, but we would urge Government to ensure that measures are put in place to ensure that this scenario is not repeated in the future and so actively drive material up the waste hierarchy by incentivising investment in alternative circular economy infrastructure as well as stimulating market demand for recycled materials.

### **Regulation Encouraging Landfill Gas Capture:**

#### Landfill methane capture and renewable electricity generation

The efficient collection and utilisation of methane from landfill sites has been simultaneously addressed through a combination of regulation, industry led best practice and financial incentivisation of the utilisation of the collected methane for energy (electricity) production.

For the biodegradable waste already in landfill, regulation has been used to require the capture of the methane and other gases produced. The Pollution Prevention and Control Regulations 2000 introduced a permitting system to allow for targeted control of the environmental impact of landfill sites, including gas, by the regulator (for example, the Environment Agency in England). Additionally, the Landfill Regulations 2002 required that all new landfill sites install landfill gas capture equipment, with energy recovery being the preferred option for its treatment.

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<sup>12</sup> <https://www.gov.uk/government/publications/waste-duty-of-care-code-of-practice>

<sup>13</sup> <https://www.gov.uk/government/consultations/waste-carrier-broker-and-dealer-system-reform>

<sup>14</sup><https://www.gov.uk/government/publications/digital-waste-tracking-service/mandatory-digital-waste-tracking>



The Renewables Obligation scheme for the incentivisation of renewable energy was introduced in April 2002 and applied to the generation of electricity by landfill gas. This was designed to encourage generation of electricity from eligible renewable sources in the UK. Landfill gas is collected and used to power turbines which generate power for the grid, generating 3,500 GW/hour in 2020. This scheme has been successful in encouraging improvements in landfill gas collection; however, this scheme is closing and with existing landfill contracts expiring from 2027. The cessation of Renewable Obligation scheme in 2027 will impact on more 'marginal' gas capture schemes and could incentivise flaring as opposed energy generation.

The continuous capital and operational expenditure relating to the installation of landfill gas capture, processing and exporting infrastructure should not be underestimated, and consequently, it is highly likely that prevailing market prices in the long run will not be sufficient to incentivise these investments. These challenges are multiplied for closed landfill sites where landfill gas concentrations are in decline. To mitigate these The ESA supports the inclusion of post-RO landfill sites within future Repowering CfD allocation rounds.

## **Waste and Resource Management Industry:**

### **21) What further progress could be made in the waste and waste management sector on reducing methane emissions? Are there interventions and/or technologies that could bring emissions down?**

Landfill emissions can be reduced in three ways: creating less waste; sending less biodegradable waste to landfill; and capturing more of the methane released at landfill sites.

In 2021, the ESA published out Net Zero Strategy which set out how the sector can achieve Net Zero Emissions by 2040. Within the document, we committed to the following targets relating to landfill and the control of methane emissions:

- Divert all organic waste from landfill by 2030 to recycling and energy production through composting, anaerobic digestion (AD), and EfW with the support of mandatory separate food waste collections.
- Increase capture of methane emissions from landfill to 85% by 2030.
- Further improve modelling and data collection for landfill GHG emissions.

To successfully achieve these targets and deliver on our ambitions, the sector needs clear effective policy by Government and effective regulation by the Environmental Agency. The key policies that will unlock significant emission reduction opportunities include:

#### **1. Stop the disposal of organic material at landfill:**

- a. Deliver a comprehensive combustible municipal waste to landfill ban by 2028. This is the single biggest policy lever to reduce future methane emissions from landfill in the UK, whilst supporting wider waste reduction policies across the UK. It is essential this is delivered by 2028 to avoid any waste and carbon leakage caused by the introduction of the Emissions Trading Scheme to the EfW sector. Landfill must remain the least economically and environmentally attractive for the disposal of residual waste.
- b. Support Local Authorities to deliver separate food waste collections. Councils are currently experiencing a period of significant financial stress. They need sufficient funds to implement this essential policy. This should acknowledge the current shortfall in funding caused by inflation since announcement of HMG funding.

## 2. Reducing methane from existing sites:

- a. Continuing to exclude landfill gas from the Emissions Trading Scheme. It is derived from biogenic content and there will be zero rated under international reporting guidelines. This will encourage investment in the use of landfill gas by reducing the cost.
- b. Allow full capital allowance expensing on the purchase of new landfill gas turbines to support private sector investment.
- c. Delivering mandatory separate food waste collections

At an individual site level, the following can encourage further reductions in methane emissions:

- Developments in technology to enable flaring of even low methane concentration gas;
- Enhanced application of best practice methodologies across the sector.

## **22) Given the regulations already in place for methane reduction in the waste sector, why are emissions from the waste sector static over recent years? Are existing regulations monitored and enforced?**

### 1. Shifting Waste Up the Hierarchy

This assertion misses the substantial emissions reduction the sector has achieved since 1990, which has mainly been achieved by diverting hugely out of landfill and up the waste hierarchy to EfW.

In a 2014 study, the UK Green Investment Bank found that on average an energy from waste facility saved 200kg of CO<sub>2</sub>e emissions for every tonne of residual waste diverted from landfill<sup>15</sup>. This accounted for both the lower direct emissions from methane avoidance from landfill, and for the displaced emissions from the power produced from this waste by an energy from waste facility.

<sup>15</sup> <https://www.greeninvestmentgroup.com/assets/gig/news/gib-residual-waste-report-july-2014-final.pdf>

Energy from waste is unique in being able to provide a recovery service from non-recycled residual waste and provide energy, heat and recycled aggregates back into the circular economy as well as prevent increased methane emissions.

Whilst emissions from the waste sector overall have fallen sharply, this transition has meant that carbon dioxide emissions from the energy from waste sector in isolation have increased modestly, as waste is diverted from landfill. The EfW sector has been selected by government as a critical industry to bring forward commercial-scale industrial decarbonisation through carbon capture and is the largest industrial sector to partner with DESNZ in their CCS Cluster Sequencing Competition, accounting for over 25% of the projects in Track 1. Given that approximately half of the sector's feedstock is biogenic waste, not only will the energy from waste sector be able to decarbonise the UK's residual waste through carbon capture, but the sector can become one of the UK's largest sources of negative emissions – putting the 'net' in net zero.

From landfill emissions in excess of 70 MtCO<sub>2</sub>e in 1998, to potential negative emissions of 10 MtCO<sub>2</sub> by 2050<sup>16</sup>, energy from waste technology has the potential to turn one of the historically largest sources of greenhouse gas emissions into a vital part of the net zero solution - creating energy, not methane, from society's residual waste.

## 2. Lack of Enforcement

Existing regulations not monitored and enforced effectively. This is expanded in further detail within question 15.

## 3. Link with the Emissions Trading Scheme

A comprehensive landfill ban on all combustible waste is a necessity for the Emissions Trading Scheme (ETS) to work. Policy certainty related to the ban is vital to ensure investment confidence in the sector. Synchronisation of the proposed 'ban' with ETS EFW requirements in 2028 is crucial to avoid waste moving from EFW to landfill.

## **23) Is the UK on track to meet the Government's deadline of all local authorities collecting food waste separately from landfill by March 2026?**

The introduction of separate collections food waste is an essential policy driver that is needed to divert organic waste from landfill and ensure our sector can achieve our Net Zero by 2040 ambitions.

<sup>16</sup> In its Sixth Carbon Budget, the CCC estimated that the EfW sector could provide up to 10Mt of negative carbon emissions from the biogenic waste it processes by 2050 under its Headwinds scenario (<https://www.theccc.org.uk/wp-content/uploads/2020/12/The-Sixth-Carbon-Budget-The-UKs-path-to-Net-Zero.pdf>)

Currently, councils and their contractors still have insufficient clarity to be able to invest across recycling reforms. The UK is therefore unlikely to reach the March 2026 deadline without further clarity regarding what is required of local authorities and their contractors, clear deadlines, and understanding of what flexibility will be brought into the system, and what enforcement and funding structures will look like.

**24) To what extent will improved methane captured at landfill sites, remain necessary to reduce methane emissions after this date?**

Addressing methane emissions from landfill must focus on preventing future emissions from new material entering these facilities and ensuring that legacy emissions are captured.

For a reduction of future emissions, the most critical aspect in the introduction of a **comprehensive combustible municipal waste to landfill ban in 2028**. This must align with the proposed introduction of the Emissions Trading Scheme to the waste sector in 2028. Without this clear policy alignment, there is significant room for unintended consequences where we see residual waste moving down the hierarchy towards landfill, encouraging the creation of further methane emissions and undermining the waste hierarchy.

Organic waste deposited at landfill sites will continue to emit methane for over twenty years. It is critical that we maximise the capture of landfill gas to address these legacy emissions. This can be principally achieved in two ways:

- i. Best practice management of the site during the active phase;
- ii. Incentivising gas capture post Renewable Obligation expiry starting in 2027 [please see question 15 for further explanation]

Together the implementation of these proposal should achieve lifetime landfill capture rates up to 90%.