



Department for Environment Food & Rural Affairs

Mary Creagh CBE MP
Parliamentary Under Secretary of State for Nature

Seacole Building
2 Marsham Street
London
SW1P 4DF

T: +44 (0) 3459 335577
E: correspondence.section@defra.gov.uk
W: gov.uk/defra

Baroness Sheehan
Chair of the Environment and Climate Change Committee
House of Lords
London
SW1A 0PW

15 November 2024

Dear Baroness Sheehan,

Thank you for your letter of 23 October to the Secretary of State regarding waste incineration and energy from waste. I am responding as the Minister responsible.

This Government is committed to transitioning to a circular economy, supporting sustainable economic growth by driving up resource efficiency and reducing our emissions and waste. As part of this we are considering the role of waste incineration, including Energy from Waste, and any implications for circularity, economic growth, and net zero.

In response to your specific questions, please find my answers below:

1. What proportion of UK energy comes from Energy from Waste (EfW)?

Independent analysis from consultancy Tolvik¹, based on data from the Department for Energy Security and Net Zero's Digest of United Kingdom Energy Statistics (DUKES), shows that Energy from Waste contributed 3.1% of the UK's electricity generation in 2023².

2. What is the Government's policy on the growth of this sector and its contribution to the UK energy mix?

Preventing waste from arising in the first place will be key to our transition to a circular economy. For residual wastes, i.e. those that cannot be prevented, re-used or recycled, a statutory reduction target has been set. The Environmental Targets (Residual Waste) (England) Regulations 2023 require the Government to ensure that the total mass of residual waste (excluding major mineral wastes) for 2042 does not exceed 287 kg per person. This is the equivalent of a 50% reduction from 2019 levels.

However, as we transition to a circular economy there will still be a need for the safe and sanitary management of residual waste. In accordance with the Waste Hierarchy, recovering energy from residual waste is preferable to disposal in landfill or incineration without energy recovery. The energy recovered through Energy from Waste is therefore a secondary benefit to the necessary sanitary waste management function.

¹ [UK Energy from Waste Statistics - 2023 - Tolvik](#)

² [Digest of UK Energy Statistics \(DUKES\) 2022 - GOV.UK](#)

Although recovering energy from waste is less environmentally harmful than disposal in landfill or incineration without energy recovery, the Government does not support overcapacity of Energy from Waste and this should only be an option for wastes that cannot be prevented, re-used or recycled.

3. Who is responsible for regulating emissions from the EfW sector?

The Environment Agency (EA) is responsible for regulating emissions from Energy from Waste facilities in England under the Environmental Permitting Regulations (England and Wales) 2016.

a. What form does that responsibility take?

When an operator applies for an environmental permit, they must describe how the plant will meet a requirement to use best available techniques (BAT) to minimise emissions. They must also submit the results of air quality modelling which predicts the impact of emissions on air quality under a worst-case scenario. The EA will then carry out a comprehensive assessment of the application, including the operator's air quality impact assessment. The EA also consults the UK Health Security Agency (UKHSA) on every application it receives for a new Energy from Waste plant. The EA will only grant a permit if it is satisfied that the plant will use BAT, and that the proposal would not give rise to any significant pollution of the environment or harm to human health.

If granted, the permit will contain emission limit values (ELVs) for a comprehensive range of pollutants. ELVs are always set at a conservative level, well below which harm to the environment or human health could occur. The EA carries out regular audits and inspections of plants to verify compliance, as well as working with industry to promote best practice and continuous improvement.

Energy from Waste plants achieve an extremely high level of compliance with their permits. Any permit breaches can be addressed through a number of tools, including increased subsistence fees for minor non-compliances and taking enforcement action for more serious permit breaches.

The EA does not decide where an Energy from Waste plant gets built, whether it is the right solution for treating waste in a particular area, or how large it should be. This is a matter for the relevant planning authority, including consideration of the impact on climate change from carbon dioxide (CO₂) emissions compared to other forms of waste treatment.

The EA cannot set ELVs on CO₂ emissions from Energy from Waste plants. However, the Department for Energy Security and Net Zero recently consulted on proposals to include emissions of fossil-derived CO₂ from Energy from Waste plants in the UK Emissions Trading Scheme. This is proposed to begin with a 2-year period (2026 and 2027) where emissions will be monitored, reported, and verified only. From 2028, facilities in the sector will be required to purchase and surrender UK ETS allowances, introducing a price signal to waste incineration emissions. On 15 October 2024 the Government published its response to a consultation on Decarbonisation Readiness requirements. These proposals will mean that any permit application for a new Energy from Waste facility made after February 2026 will have to demonstrate it is technically and economically feasible to fit carbon capture, and that it will have access to transportation routes for the storage of captured CO₂.

4. What assessment has the Government made of the sources of waste currently being incinerated?

Residual waste can originate from household and commercial businesses, but also from all sectors of society, including construction and demolition; agriculture, forestry and fishing; mining and quarrying; and industry. In 2022, 17.1 million tonnes of residual waste was incinerated (including at Energy from Waste facilities).

It is difficult to trace waste received by incinerators and/or put through incineration to its original source in currently available data. This is because waste from different sources may be mixed together during different stages of the waste management chain. For example, waste may arrive at a sorting facility classified as mixed municipal waste (e.g. classified with the List of Waste code 20 03 01) but leave that facility having undergone a waste management or treatment process and subsequently coded as such (a List of Waste Chapter 19 code).

Defra has commissioned a research project to obtain updated data on the material composition of municipal waste sent to residual end-of-life treatment options such as incineration. The project, which is currently ongoing, will include analysis of the origin of select Chapter 19 waste codes and may provide some insight into the origin of waste that is incinerated in England. Further research would however likely be required to obtain a full picture.

5. What impact does the EfW sector have on recycling rates and the move towards a circular economy?

In following the waste hierarchy, recovering energy from waste does not compete with, or conflict with, recycling. But we know that we create too much waste, recycling rates are too low, and we burn too much waste. Our Circular Economy ambitions and the delivery of the packaging reforms will help remedy this. In the meantime, the Environmental Permitting (England and Wales) Regulations 2016 prevents the incineration or landfilling of separately collected paper, metal, glass or plastic waste unless it has gone through some form of treatment process first and, following that treatment, landfill or incineration is the best environmental outcome.

Defra's Secretary of State has convened a Small Ministerial Group on the Circular Economy and asked the Department to work with experts from industry, academia, civil society, and the civil service to develop a Circular Economy Strategy for England and a series of roadmaps detailing the interventions that the Government will make on a sector-by-sector basis; supporting Government's Missions to kickstart economic growth and make Britain a clean energy superpower.

Thank you for writing to the Secretary of State on such an important issue.

very best wishes
Mary Creagh

Mary Creagh CBE MP

