



INCLUDING INCINERATION IN THE EU-ETS: POTENTIAL IMPACT ON LANDFILLING

REPORT FOR ZERO WASTE EUROPE

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Executive Summary

This report assesses the risk that including waste incineration in the EU Emissions Trading System (EU ETS) could lead to an increase in landfilling across the European Union. It finds that such a shift is unlikely under current regulatory and economic conditions, and would be less so were the Landfill Directive to be better articulated, and properly implemented, so as to align with the views of the Court of Justice of the European Union (CJEU).

The inclusion of waste incineration in the EU ETS is intended to address greenhouse gas emissions from the sector by introducing a price on emissions of carbon dioxide (CO₂). Approximately half of the CO₂ emissions from incineration of municipal type waste are fossil-derived, coming from waste materials such as plastics, making the measure relevant for achieving EU climate objectives.

While the EU ETS will add to the cost of incineration, price signals alone are not expected to drive a significant diversion of waste to landfill. Waste management systems in the EU are shaped by policy and law that constrain the degree to which a reversion to landfill is possible, and where competition may be more price sensitive, long-term arrangements of a contractual nature will likely limit the extent to which such a switch can occur.

In many Member States, landfilling of untreated waste is restricted or prohibited. Many countries with such bans and restrictions in place already landfill less than 5% of municipal waste, indicating the extent to which policy successfully limits landfilling. These Member States account for the majority of incineration of municipal waste, and the majority of incineration / co-incineration of all waste.

In many other Member States, there is very little incineration to switch away from. Most of these Member States belong to a group which have so far failed to implement a requirement to treat waste prior to landfilling which aligns the views of the Court of Justice of the European Union (CJEU). Two are Member States who have belatedly implemented such requirements that will take effect in future. In this group of Member States, where taxes on landfill have been absent or low, as well as subject to significant slippage, disposal to landfill has likely remained the cheapest option for managing residual municipal-type waste. Landfill taxes are now being applied at increasing rates in some of these Member States, but treatment requirements are lacking.

Four Member States – Italy, Poland, France and Spain - account for a significant share of incineration of municipal waste, but also still landfill significant proportions of municipal waste (as of 2023). These Member States might be those for which a switch away from incineration to landfill seems, on the face of it, most likely. However, both Italy and Poland have in place policies regarding treatment of waste prior to landfill that reduce this likelihood: Poland's tax on landfill has risen relatively quickly to €95 per tonne in 2025. If France is to meet EU recycling targets, it seems likely that it will need to be incinerating less waste than in 2023, but the principal switch needs to be recycling, not landfill. France has recently increased its landfill tax (to €65 per tonne), as well as increasing the tax applicable to incineration (various rates from €7.50 to €25 per tonne apply for non-hazardous waste), which might support that direction of change. In Spain, significant regional differences persist. In neither France nor Spain is there, to our knowledge, a national stipulation to treat waste prior to landfill that is aligned with the CJEU rulings.

Many Member States – including France and Poland (see above) – have seen recent increases in landfill taxes that are comparable with, and sometimes greater than, the likely increase in costs of incinerating mixed municipal type wastes resulting from the EU-ETS, which we estimate to be of the order €35 per

tonne at current EUA prices. Some examples are given below, indicating that the applied taxes have increased significantly in the past, and that the existing tax differential between landfill and incineration in these Member States is already significant.

Table E-1: Significant Landfill Tax Increases in Recent Years, and Latest Tax Rates on Landfill and Incineration

Member State	Increase (€ per tonne)	Period	Landfill Tax (€ per tonne)	Incineration Tax (€ per tonne)
Czechia	€29	2021 - 2025	€61 (2025)	-
	€45	2021 - 2029	€75 (2029)	-
France	€23-€47	2020 - 2025	€65	€7.5-€25
Ireland	€55	2010 - 2023	€85	€10
Latvia	€129	2006 - 2026	€130	€15
Lithuania	€40	2021 - 2023	€50	-
Poland	€66	2021 - 2025	€97	-
Portugal	€28.40	2016 - 2025	€35	€18.7 (D10) €4.4 (R1)
Romania	€26	2019 - 2024	€32	-

Source: see Appendix 2

The impact of the EU ETS will vary according to the fossil carbon content of waste. Beyond the ‘mixed’ municipal and other wastes, and sorting residues, there are a number of waste streams which are incinerated / co-incinerated that have low, or zero, fossil carbon content. The effect of the EU-ETS on the cost of incinerating these wastes will be zero, or close to zero, so no shift to landfill would be expected. The effect of the EU-ETS on costs will be greatest for waste streams with significant fossil carbon content, creating incentives for improved sorting (where relevant) and recycling, and potentially, carbon capture and storage. A share of these wastes will likely already be destined for co-incineration at cement kilns and other facilities which are already within the EU-ETS, so there would be no ‘new’ effect on these. Although – because of existing landfill bans and treatment requirements – the likelihood of a switch from incineration to landfill is likely to be very small, the wastes for which the price impact of the ERU-ETS are highest are those which would be least likely to degrade in landfills, should they be sent there as a result. It would follow that the potential for detrimental impacts related to greenhouse gas emissions would be minimal (because the price effect would be greatest for the materials least likely to degrade in landfills).

The EU Landfill Directive requires the treatment of waste prior to landfilling. Appendix 1 suggests that Bulgaria, Croatia, Cyprus, Estonia, France, Greece, Hungary, Malta, Portugal, Romania and Spain are yet to introduce national requirements for treatment that align with the ruling of the Court of Justice of the European Union (CJEU), with Czechia and Slovakia having only recently done so. Although some of these Member States have increased taxes on landfill recently (see above), in most cases, the taxes are not especially high (see Appendix 2). Were the treatment requirement to be better articulated in the Landfill Directive, and then, implemented at Member State level, not only would this effectively reduce the greenhouse gas emissions from waste landfilled in future, but the option of cheap disposal to landfill would be closed off. Indeed, in many of the Member States mentioned, the costs of landfilling would increase accordingly, with the levels of increase similar to those that would be implied by including incineration within the EU-ETS. Simply implementing existing law better, therefore, would have the effect of improving the economics of recycling whilst also addressing the problem of methane emissions from any future landfilling of waste.

Overall, the quantity of waste at risk of diversion from incineration to landfill is limited by the effectiveness of existing policies; the geographical concentration of incineration in Member States where those policies are in place; the existence of contractual-style commitments to supply waste to facilities; the fact that the fossil-derived carbon content of wastes sent for incineration / co-incineration is often low or zero; and the fact that there is plenty of scope for further recycling of wastes currently being incinerated. Several Member States are likely to need to scale back incineration in future if they are to meet EU recycling targets. The inclusion of incineration within the EU-ETS can support progress in that direction. In Member States without significant incineration capacity, ensuring that the treatment requirement of the Landfill Directive is effectively implemented can support an upward, not a downward, shift in the waste hierarchy.

E.1.0 Recommendations

The inclusion of waste incineration in the EU ETS is unlikely to result in a significant increase in landfilling. The more likely evolution in the coming period is a switch to recycling, and a freeing up of capacity at incinerators in Member States which account for the majority of incineration today.

Incineration should be included within the EU-ETS as planned.

The difficulties in measuring, on an ongoing basis, diffuse emissions from landfills make including them within the EU-ETS less than straightforward. Because effective treatment of waste prior to landfilling, allied with suitable measure to manage landfilled waste, can significantly reduce the potential for fugitive methane emissions, actively pursuing this route makes the matter of including landfills in the EU-ETS, which would be far from straightforward, less problematic.

The Landfill Directive should be amended so that the definition of ‘treatment’ is aligned with the CJEU ruling. That would define treatment as a combination of sorting of mixed waste, and stabilisation of the organic fraction so that the respirometric activity falls below 10mg O₂/kg dry matter. The Directive should also be rendered consistent with this definition (for example, by amending references to maximising the amount of landfill gas collected for energy recovery). Either in the Landfill Directive or through the Landfill BREF, the choice of appropriate cover layers and other measures to manage residual methane generation should be elaborated. There should be no criteria restricting what may be landfilled according to its calorific value.

The problem of methane emissions from landfills that received waste in the past will remain. Because some of these will be closed, and because the scope for generating revenue that would be needed to fund the purchase of allowances will in many cases have passed (once a site no longer receives waste), then the scope for including ‘old sites’ within the EU-ETS is likely to prove problematic. This will become all the more so if no entity can be identified who would carry the associated liabilities (as may be the case for older sites, not to mention illegal dumps).

Consideration could be given to a scheme providing for the generation of methane credits to encourage entrepreneurs to fund activities to reduce future methane emissions from past disposals. This would need to be based on emissions reductions relative to credible counterfactuals, and might be restricted to specific activities. The credits could be given value through their being traded within the EU-ETS.

To give even greater comfort that any switch away from incineration is towards tiers higher in the waste hierarchy, it is proposed to introduce a measure to reduce steadily the quantity of residual municipal waste generated. The merit of such an approach, as a complement to including incineration under the

EU-ETS, and a proper articulation and enforcement of the LFD treatment requirement, is that it emphasises reducing all forms of residual waste management (incineration, co-incineration, landfilling of treated waste (and landfilling of untreated waste whilst it still takes place)).

We propose that an economic instrument to reduce residual municipal waste is introduced.¹

¹ Dominic Hogg (2025) *Cap-and-trade on residuals: Proposals for a Circular Economy Act* Report for Zero Waste Europe. October 2025. Dominic Hogg (2026) *Marginalising Waste: a Trading Scheme to Reduce Residuals*, Report for Reloop and Zero Waste Europe, February 2026.

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Zero Waste Europe (ZWE) is the European network of communities, local leaders, experts, and change agents working towards a better use of resources and the elimination of waste in our society. We advocate for sustainable systems; for the redesign of our relationship with resources; and for a global shift towards environmental justice, accelerating a just transition towards zero waste for the benefit of people and the planet.

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