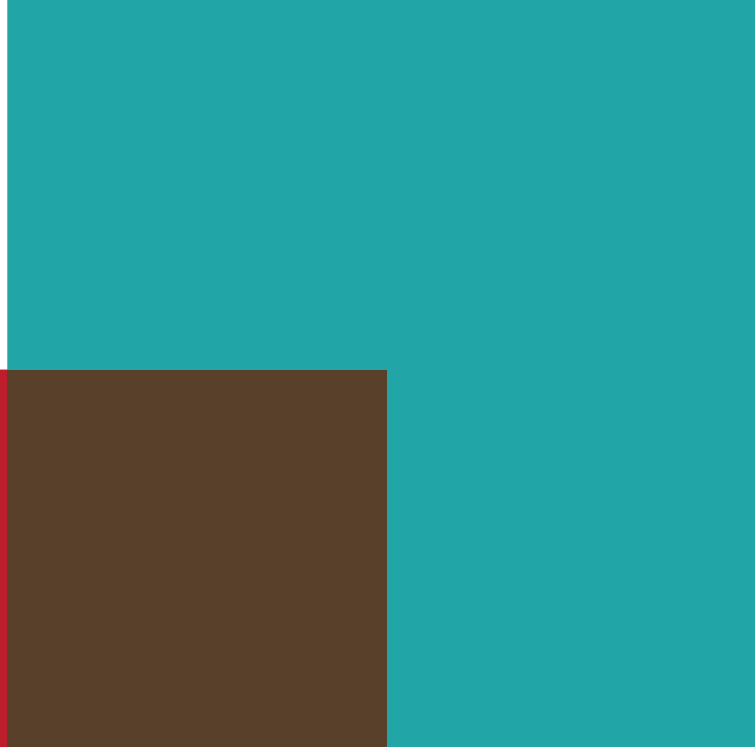




THE UNEVEN PLAYING FIELD: **HOW EUROPE'S WASTE TAXES DISTORT** **RECOVERY, LANDFILL AND TRADE**

OCTOBER 2026

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FOREWORD

Europe is at a critical moment in its transition towards a more circular, climate-resilient and energy-secure future. The choices we make today will determine not only how we manage waste and resources, but also how effectively Europe can deliver on its wider environmental and energy objectives.

This report examines an issue often considered primarily through a national lens: taxation of waste treatment. Across Europe, there are significant differences in how waste treatment is taxed. While these taxes may pursue legitimate national objectives, their wider consequences for European waste management and cross-border cooperation deserve greater attention.

Waste does not stop at national borders, and neither do climate change, resource scarcity or energy security. Yet differences in national tax systems can distort waste flows, investment decisions and the relative attractiveness of treatment options. This can make it harder to use Europe's existing infrastructure efficiently and to develop the integrated solutions needed to reduce landfill, recover resources and energy, and cut greenhouse gas emissions.

A more aligned European approach is therefore needed. National taxation policies should be considered not only against individual national objectives, but also in the context of Europe's shared ambitions: reducing landfill, achieving climate neutrality, improving resource efficiency and strengthening energy security.

The urgency of this broader perspective is increasingly clear. Europe is experiencing the growing impacts of climate change, including heatwaves, wildfires and pressure on agricultural production. At the same time, geopolitical developments have demonstrated the vulnerability created by dependence on external energy sources. These challenges reinforce the importance of making better use of the resources, energy and infrastructure already available within Europe.

The RDF Industry Group believes that European cooperation and alignment can unlock opportunities that individual Member States cannot realise alone. A well-functioning European waste market, supported by a coherent taxation and policy framework, can help direct waste towards appropriate treatment options while increasing materials and energy recovery and reducing reliance on landfill.

This report provides policymakers with a clear analysis of differences in waste treatment taxation across Europe and their implications for European cooperation. It offers an evidence base for considering how national policies can better support Europe's wider climate, waste and energy objectives.

We invite policymakers and stakeholders to engage with the RDF Industry Group on these findings. By working together and looking beyond individual national policy instruments, we can better harness the strength of European cooperation and build a waste management system that contributes to a more circular, climate-resilient and energy-secure Europe.

Robert Corijn

**Chair of the RDF Industry Group's
Policy Working Group**

Europe has spent decades building a waste hierarchy designed to deliver better environmental outcomes. As carbon pricing expands and fiscal frameworks evolve, we must ensure that taxation supports that hierarchy rather than undermines it. A level playing field across Europe, where recovery is consistently favoured over disposal and waste moves according to environmental and operational performance rather than tax distortions, will be essential to achieving our shared climate, circular economy and energy objectives.

Andy Jones

Chair RDF Industry Group

EXECUTIVE SUMMARY

With the proposed introduction of Emissions Trading Schemes (ETs) to the Energy from Waste (EfW) sector both in the European Union (EU) and the United Kingdom (UK), there is an increasing desire from operators and policymakers alike to create a level playing field and avoid tax arbitrage. This desire to prevent waste-derived fuel (WDF) moving between countries simply to optimise tax liabilities is welcomed; however, it brings into sharp focus Europe's current approach to residual waste taxation.

Europe's residual waste fiscal framework is increasingly important to waste, climate and circular economy policy. Landfill and incineration taxes can each support legitimate environmental objectives. However, when designed separately, they can also risk creating uneven or conflicting signals.

Residual waste taxation in Europe primarily relies on landfill and incineration taxes to incentivise waste to be managed further up the hierarchy, toward recycling and prevention. However, the current fiscal landscape is highly fragmented and individual countries apply different combinations of restrictions and taxes.¹ These instruments vary not only by rate, but by design: some apply per tonne of waste, some apply to fossil CO₂ emissions emitted, and some relate to energy or heat outputs of facilities.

In this report, we examine the patchwork of national taxes impacting residual waste – primarily these include landfill taxes and incineration taxes (including carbon-related charges), and ask – at a broader European level – **do these instruments create a level playing field and are these instruments aligned with achieving the waste hierarchy?**

Current Situation

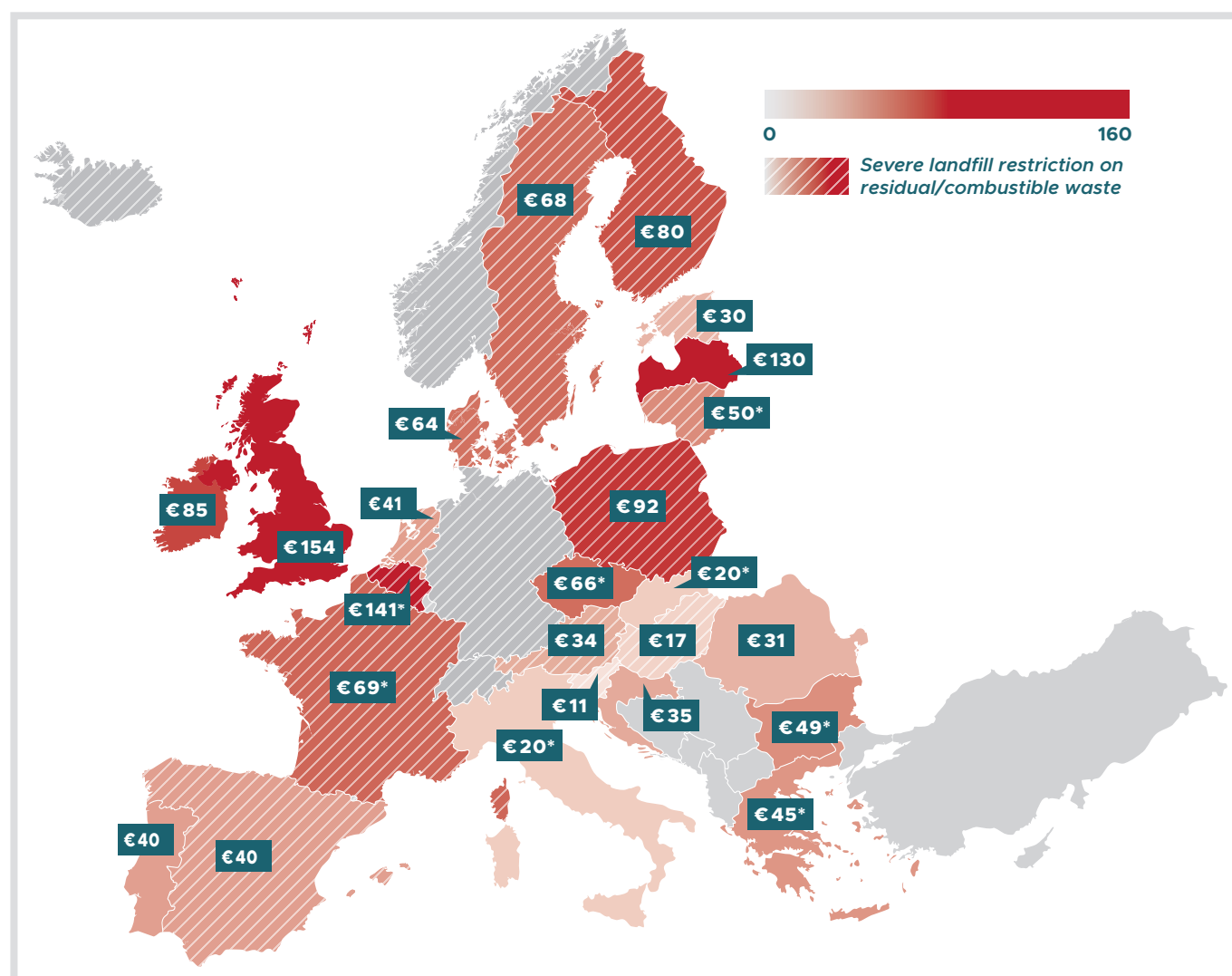
Our analysis assembles a 38-country dataset of the main instruments that affect the residual waste sector. The instruments can be summarised as follows:

- landfill taxation;
- landfill restriction;
- tonnage-based incineration taxes;
- energy-based incineration taxes; and
- carbon-based incineration taxes.



¹ In the context of this report, taxes include all related charges, levies and fees levied by the respective governments.

Landfill Taxes and Restrictions, 2026 (€/tonne)

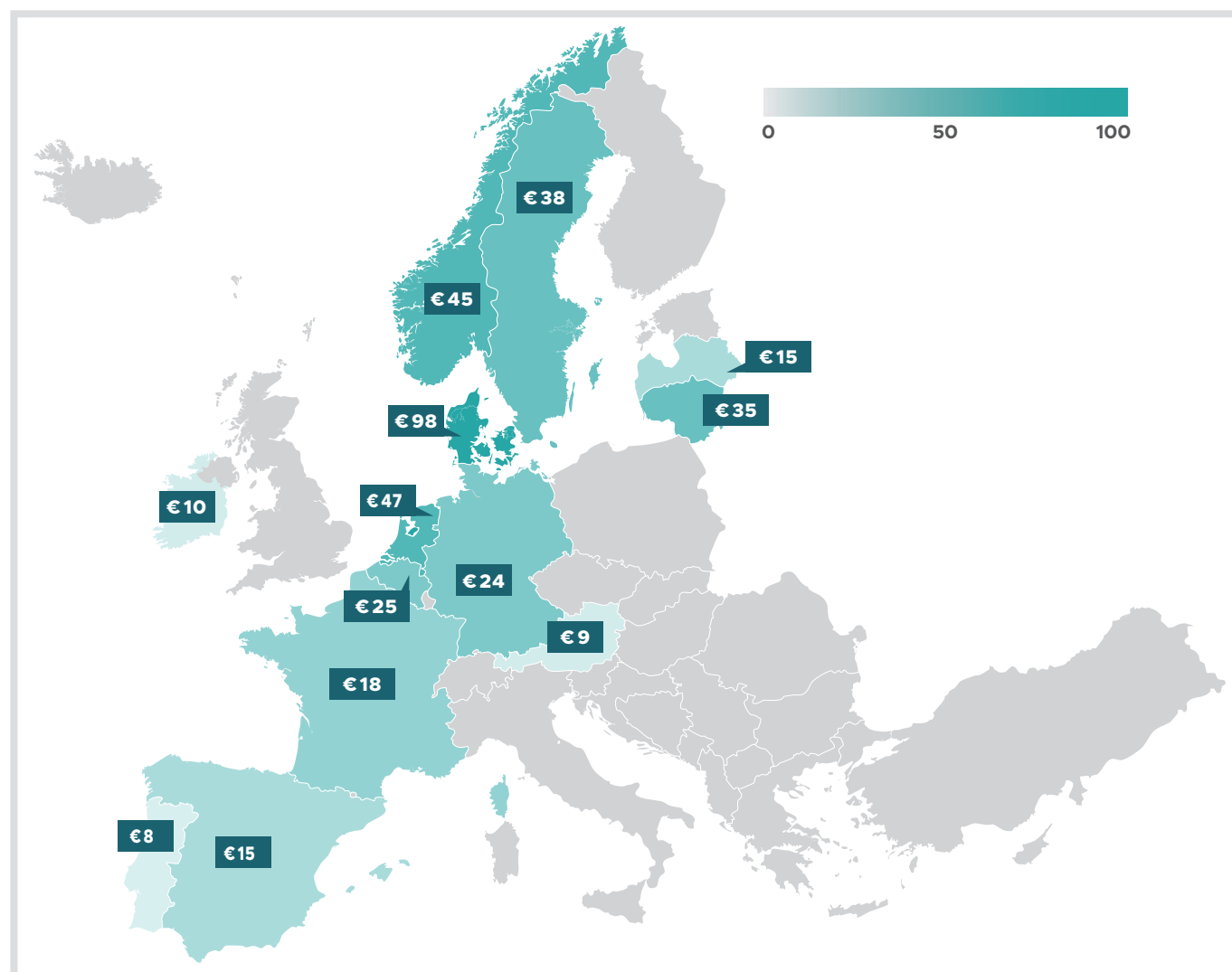


Notes: Rates shown are landfill-specific taxes and for mixed residual waste; waste-collection charges, treatment fees and gate fees are excluded. * indicates countries where material variation in the applicable rate is a common feature of the regime, for example by region, municipality or other key conditions. For 'Severe' landfill restriction categorisation, see Table 1.

Most countries have introduced landfill taxes and regulatory restrictions that create a stronger disincentive for landfill disposal than incineration. However, there are some countries, particularly in Eastern Europe, that have weak landfill-diversion signals. While there is considerable variation in landfill tax rates across Europe, the practical significance of these differences is limited because the cross-border shipment of waste for disposal is prohibited under European waste shipment

rules, except in very limited and exceptional circumstances. As a result, residual waste destined for landfill is generally managed within its country of origin, meaning landfill operators compete primarily in domestic markets and are largely insulated from tax differentials in neighbouring jurisdictions.

Combined Incineration Taxes, 2026 (€/tonne)



Notes: The map sums the applicable 2026 tonnage-, energy- and carbon-based incineration taxes identified in the dataset, expressed on a common €/t waste basis. Carbon and energy charges are converted using the assumptions in Table A1. Figures represent fiscal burdens only and exclude gate fees, transport and other treatment costs.

Incineration taxes are less common when compared to landfill taxes and restrictions. Where applied inconsistently, they risk providing an artificial incentive for WDF to move between countries to simply avoid taxes. Our central finding with the current system is that countries have established an unequal playing field across the European market, altering user-facing commercial choices through tax arbitrage rather than genuine market competition.

Forward Look

So, to examine the risk of undermining the waste hierarchy due to higher taxation of incineration relative to landfill, we have undertaken a forward-looking analysis that examines what would happen if ETS is applied to fossil CO₂ from incineration alongside planned incineration taxes and landfill taxes in 2030.

Our analysis shows that there is the potential to reverse incentives for recovery, particularly where landfill remains materially available, such as in Italy. In other cases, such as Greece and Portugal, the differential between landfill and incineration taxation is reduced to near parity.

The introduction of ETS should therefore be viewed as both a risk and an opportunity. It has the potential to establish a more consistent carbon pricing signal linked to the fossil carbon content of residual waste. However, this objective is unlikely to be realised if ETS is simply layered on top of existing national tax regimes without broader reform. Unless countries simultaneously review and align existing landfill and incineration taxes, significant differences in overall treatment costs will persist, limiting the creation of a genuine level playing field across Europe.

Key Findings

■ **Europe does not have a common residual-waste fiscal signal.** Across the 38 countries reviewed, 24 have an identified landfill tax, while 14 have no identified national landfill tax. Our database identifies 13 countries with some form of incineration tax, but application is highly diverse. Eight apply a tonnage-based tax, six have a carbon-based tax, and Denmark also applies an energy-based tax. These taxes are able to be overlapped, with Denmark and the Netherlands applying multiple forms of incineration tax on the same facilities. The result is a fragmented framework of non-equivalent instruments that price different parts of the residual waste system and create different commercial signals for broadly comparable treatment activity and hinder the optimal cross-border utilisation of recycling and energy-recovery capacity across Europe

■ **A wide group has landfill taxes in place but still landfills heavily.** Countries including Bulgaria, Greece, Croatia, Romania, Italy, Spain, Portugal, and Hungary show that the presence of a landfill tax is not enough on its own. Several still landfill more than half of their municipal waste. This points

to a delivery gap: fiscal signals only work where they are set high enough, and are supported by enforcement, treatment capacity, separate collection, sorting infrastructure, recovery outlets and functioning end markets.

■ **Introduction of the ETS could reverse a preference for recovery in a significant group of countries.** This report tests how the landfill-recovery fiscal balance changes if ETS is applied to incineration. Across the scenario results, several countries see an existing positive landfill-incineration differential become negative. The undermining of the hierarchy risk is greatest where that reversal coincides with significant landfill reliance and weaker, partial or incompletely implemented landfill restrictions.

■ **Future ETS inclusion would not start from a blank slate.** Our analysis already shows several different approaches to carbon pricing for EfW: Denmark, Lithuania and Sweden have included EfW within the EU ETS; Germany applies national emissions trading; Norway uses a CO₂-based waste-incineration duty with an ETS exemption to avoid double pricing; and the Netherlands combines a tonnage-based tax with a carbon-based tax. ETS obligations could make carbon pricing more consistent, but only if existing incineration taxes are reviewed.

Recommendations

Ensure landfill is always less appealing than EfW

Where residual waste suitable for EfW is not effectively prohibited from landfill, countries should maintain or introduce landfill taxation sufficient to ensure that disposal remains more expensive than recovery. This safeguard becomes increasingly important as carbon pricing raises the cost of EfW and risks narrowing or reversing the landfill-incineration differential.

Harmonise residual waste taxes to enable a European residual waste market

National fiscal frameworks should be aligned so that EfW capacity is not made artificially more or less competitive because it is located in another European country. With landfill deterrence, ETS exposure and carbon-cost pass-through on a broadly comparable footing, treatment decisions should reflect capacity, efficiency, environmental performance, energy recovery and access to CCS rather than national tax differences or an assumption that all residual waste should be treated domestically or to stimulate tax tourism.

Use ETS as the default taxation method

As EfW is incorporated in ETS, additional national taxes that fall specifically on EfW should be phased out or redesigned so that comparable facilities do not face materially different fiscal burdens purely because of location. Other environmental taxes should target the behaviour or outcome they are intended to change rather than being layered onto residual waste treatment.

Standardise ETS pass-through principles if ETS is introduced

Common principles should govern how fossil-carbon emissions are measured, allocated between waste streams and passed through to customers. Similar waste should not face materially different ETS charges because of national rules, contract structures or operator methodology, and suppliers should be able to benefit from reducing fossil-carbon content. The pass-through mechanism provides sufficient consistency, transparency and predictability for waste producers and suppliers to understand the carbon cost associated with their waste and respond to it, including sufficient predictability for municipalities and other customers to budget for changes in allowance prices.

Make recycled materials more affordable than primary, fossil materials

When the treatment of WDF is taxed heavily, this also raises the cost of treating recycling residues and thus of the production of recycled materials. Taxes on primary materials should be higher than on the supply chain of the production of recycled materials (including taxes on recycling residues) to make recycled materials competitive and to be able to achieve our circular economy goals.

Support managed transition and investment certainty

Convergence should not simply impose a common additional cost: operators, municipalities and waste suppliers need credible ways to reduce exposure through sorting, fossil-carbon reduction, heat recovery and CCS. ETS revenue use, district-heating support and wider policy should provide sufficient long-term certainty for investment, while practical incentives should also reach those able to change the composition of the waste itself.



1.0 INTRODUCTION

With the proposed introduction of Emission Trading Schemes (ETs) to the Energy from Waste (EfW) sector both in the European Union (EU) and the United Kingdom (UK), there is an increasing desire from operators and policymakers alike to create a level playing field and avoid tax arbitrage. This desire to prevent waste-derived fuel (WDF) moving between countries simply to optimise tax liabilities is welcomed; however, it brings into sharp focus Europe's current approach to residual waste taxation.

Furthermore, the increased focus on the circular economy means that there is a desire to ensure that waste is managed according to the waste hierarchy. In the context of unrecyclable waste, this means ensuring that residual waste is recovered rather than disposed of.

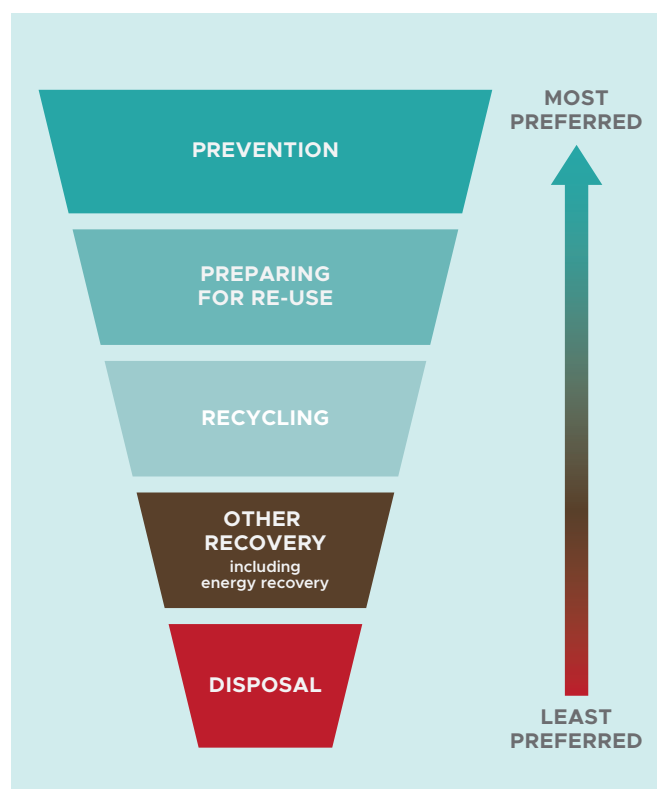
In this report, we examine the patchwork of national taxes impacting residual waste – primarily these include landfill taxes and incineration taxes (including carbon-related charges), and ask – at a broader European level – **do these instruments create a level playing field and are these instruments aligned with achieving the waste hierarchy?**

1.1 Background

The waste hierarchy, shown in **Figure 3**, provides the starting point for assessing residual-waste taxation. EU policy prioritises prevention, reuse and recycling, followed by other recovery, with disposal as the least-preferred option. For waste that cannot currently be managed through higher-order routes, the fiscal framework should support efficient recovery over landfill while remaining consistent with wider recycling, circular-economy and climate objectives.

Waste-derived fuel or 'WDF' markets operate across borders because recovery capacity differs significantly between countries - reflecting that some countries have been able to move away from landfill dependency more quickly than others. Cross-border movements of WDF are governed by the Waste Shipment Regulation and should be understood as a legitimate part of Europe's residual-waste system, where they support landfill diversion and the efficient use of existing recovery capacity. In countries with high landfill reliance and limited domestic recovery options, export to efficient recovery facilities can deliver better environmental outcomes than landfill, particularly where recovery capacity elsewhere is already built and linked to heat offtake or wider energy systems.

Figure 1: The Waste Hierarchy



Source: Waste Framework Directive 2008/98/EC, Article 4.

1.1.1 The Case for WDF Cross-Border Movements

The cross-border WDF value chain provides flexibility in a system where infrastructure cannot be built everywhere at the required pace. Where spare, efficient recovery capacity is available, cross-border WDF movements can help bridge treatment gaps, improve utilisation of existing assets and reduce reliance on landfill while waste-prevention measures, recycling systems and domestic infrastructure mature.

Consistent with the waste hierarchy, this enables residual waste to be managed through recovery rather than disposal. European lifecycle-assessment evidence suggests that, for suitable residual-waste streams, access to existing recovery capacity can deliver significantly better environmental outcomes than landfill, particularly by avoiding methane emissions and making efficient use of established infrastructure, including heat offtake. In its Global Methane Assessment, the United Nations concluded that Europe has the largest potential in reducing methane emissions by minimising landfill. Recent RFIG analysis estimated that cross-border WDF movements within Europe avoided 10.5 million tonnes of CO₂e in 2023, primarily by displacing landfill. A study by Prognos and CE Delft concluded:

“To achieve maximum CO₂ avoidance, policymakers are advised to make optimal use of all available capacity for recycling and waste-to-energy within EU27+UK”

The optimal use of the energy potential of WDF also supports Europe's push for more self-sufficiency in affordable, sustainable energy. The Competitiveness Compass and Clean Industrial Deal focus on developing low-fossil energy sources. In the EU's Energy Efficiency Directive, Member States are required to make national plans in which the use of sustainable heat sources – explicitly including EfW facilities – are assessed on their technical and economic potential to feed district heating networks.

Especially in Northern Europe, where the demand for district heating is present. The use in Northern European district heating networks of WDF from Southern Europe makes sense and avoids additional imports into Europe of natural gas from countries in North America and the Middle East. And finally, Europe also wants to become less dependent on imports of resources for its industry. The EU's Circular Economy Act wants to stimulate the production and use of recycled materials. Transregional Circularity Hubs are envisioned to bundle waste streams from different European countries to efficiently produce new secondary materials for the European industry. WDF is an integral part of such envisioned Circularity Hubs because each sorting and recycling activity leads to recycling residues that can be used as WDF. An efficient and affordable treatment route of WDF arising from such hubs makes the Circularity Hubs and their secondary materials more cost-effective to be able to compete with primary and imported resources and goods.

1.1.2 The Risks of a Patchwork Approach to Tax

The benefits of an integrated European WDF market can be undermined where taxation regimes create incentives that are disconnected from environmental performance. Differences in residual waste taxation rates may influence treatment decisions more strongly than the relative environmental merits of recovery and disposal, leading to outcomes that are inconsistent with wider circular economy objectives.

The report therefore argues that cross-border WDF movements are a legitimate and beneficial part of an integrated and efficient European residual-waste system. Rather than treating national borders as a rigid barrier that locks residual waste into suboptimal domestic outcomes, policymakers should recognise the systemic benefits of an integrated recovery market. Enabling WDF to move across borders ensures that existing, high-efficiency recovery infrastructure capacity across Europe is fully utilised, significantly reducing the risk of stranded assets and preventing the costly construction of redundant, unnecessary domestic facilities. To achieve this, the movement of WDF must be driven by market fundamentals – namely competitive gate fees and operational excellence and market demand – rather than being distorted by fragmented national tax regimes and fiscal arbitrage.

2.0 CURRENT PATCHWORK OF RESIDUAL WASTE TAXATION

Residual waste taxation in Europe primarily relies on landfill and incineration taxes to push waste up the hierarchy toward recycling and prevention. However, the current fiscal landscape is highly fragmented and individual countries apply different combinations of restrictions and taxes. These instruments vary not only by rate, but by design: some apply per tonne of waste, some apply to fossil CO₂ emissions emitted, and some relate to energy or heat outputs of facilities.

Our analysis assembles a 38-country dataset of the main instruments that affect the residual waste sector. This section separates the patchwork into five layers:

- **landfill taxation;**
- **landfill restriction;**
- **tonnage-based incineration taxes;**
- **energy-based incineration taxes; and**
- **carbon-based incineration taxes.**

Together, they show that Europe does not currently operate anything resembling a level fiscal playing field for residual waste treatment.

2.1 Landfill Taxation and Restrictions

Cross-border shipments of waste for landfill or other disposal operations are generally prohibited, except where stringent conditions under the Waste Shipment Regulation are met. Landfill therefore operates primarily as a domestic alternative to recovery, rather than as a competing cross-border treatment route. Thus, in the context of a level playing field, landfill restrictions and taxes are a key pillar of modern waste policy, serving as a key mechanism to ensure that recovery is favoured over disposal within each country. By progressively limiting landfill capacity and increasing its cost, policy intentionally drives material up the waste hierarchy, forcing a shift away from environmentally damaging disposal routes.

Our analysis includes landfill-specific taxes and levies applied at national, regional or municipal level. Where subnational rates apply, a representative rate is used, and the extent of coverage is stated.³

Figure 2 shows that landfill taxation is widespread but highly uneven across Europe. Of the 38 countries reviewed, 24 have an identified landfill

tax in our dataset, while 14 have no identified national landfill tax.

Only three countries exceed €100/t: the UK (€154/t), Belgium (€141/t) and Latvia (€130/t). A further seven have taxes above €60/t: Poland (€92/t), Ireland (€85/t), Finland (€80/t), France (€69/t), Sweden (€68/t), Czech Republic (€66/t) and Denmark (€64/t).

At the other end of the scale, no national landfill tax was identified for Albania, Bosnia and Herzegovina, Cyprus, Germany, Iceland, Kosovo, Luxembourg, Malta, Montenegro, North Macedonia, Norway, Serbia, Switzerland and Turkey.

The map therefore shows a broad geographic split, although the tax rate must be read alongside landfill restrictions because several low- or zero-tax countries rely primarily on regulatory controls rather than fiscal deterrence.

For example, Germany, Switzerland and Austria have restrictions on landfilling untreated or combustible waste.

The working classification of landfill restriction regimes is summarised in **Table 1**.

² In the context of this report, taxes include all related charges, levies and fees levied by the respective governments.

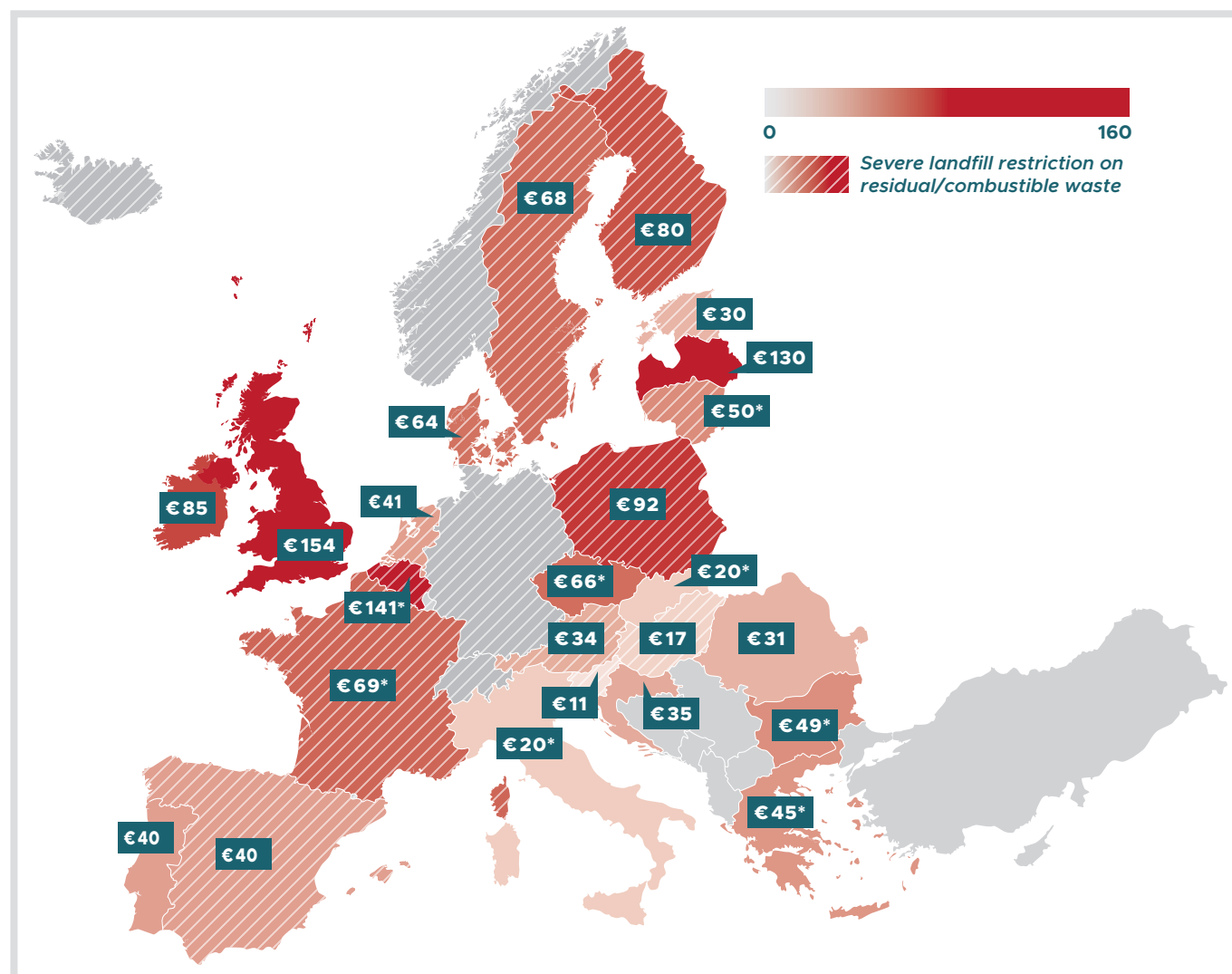
³ General waste-collection charges, treatment fees and commercial gate fees are excluded.

Table 1: Landfill Restrictions in Europe (2026)

Restriction type	Severity	Description	Example countries
Untreated municipal waste ban	Severe	Landfilling of mixed municipal/residual waste is prohibited unless prior treatment has occurred.	Belgium, Estonia, Hungary, Lithuania, Luxembourg, Netherlands, Slovenia, Spain
Biodegradable / organic waste restriction	Severe	Landfilling of biodegradable or organic fractions is restricted or prohibited.	Finland, Norway, Estonia, Sweden
Composition or calorific threshold	Severe	Waste above Total Organic Carbon, biological activity or calorific thresholds cannot be landfilled.	Austria, Germany, Poland, Denmark, Sweden, Luxembourg, Slovenia, Switzerland
Separately collected / recyclable materials ban	Light	Landfill restrictions apply mainly to separately collected or recyclable streams; weaker for mixed residual waste unless paired with broader requirements.	Cyprus, Czech Republic, France, Iceland, Malta, Romania, Slovakia, UK
No additional national restriction identified	None	No specific national restriction was identified beyond general landfill obligations, or no equivalent national rule was identified for non-EU countries.	Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Greece, Ireland, Italy, Latvia, and Turkey



Figure 2: Landfill Taxes and Restrictions, 2026 (€/tonne)



Notes: Rates shown are landfill-specific taxes and for mixed residual waste; waste-collection charges, treatment fees and gate fees are excluded. * indicates countries where material variation in the applicable rate is a common feature of the regime, for example by region, municipality or other key conditions. For 'Severe' landfill restriction categorisation, see Table 1.

2.2 Incineration Taxes

Alongside landfill restrictions, several countries have introduced dedicated incineration taxes over recent years. These are typically less standardised than landfill taxes.

The policy intent behind these fiscal measures is well-recognised: by increasing the cost of recovery, governments have sought to create a stronger economic disincentive for incineration, thereby motivating operators and waste producers to treat materials further up the waste hierarchy toward prevention, reuse, and recycling. However, even within a highly optimised circular economy, unavoidable residual waste will always remain.

For our analysis, we have separated incineration taxes into three categories:

- Tonnage-based incineration taxes
- Carbon-based incineration taxes
- Energy-based incineration taxes

Across the 38 countries assessed, incineration taxation is less common than landfill taxation. Our database identifies 13 countries with an identifiable tax in 2026. Of these, eight apply a direct per-tonne incineration or recovery tax, six have carbon-based taxes, and one (Denmark) applies an energy-based tax. These categories are not mutually exclusive: for example, the Netherlands combines a tonnage-based tax with a carbon-based tax.

Table 2: Types of Incineration Taxes (2026)

Incineration Tax Types	Countries	Count
Tonnage-based	Austria, Belgium, France, Ireland, Latvia, Netherlands, Portugal, Spain	8
Carbon-based (including ETS)	Denmark, Germany, Netherlands, Norway, Sweden, Lithuania	6
Energy-based	Denmark	1

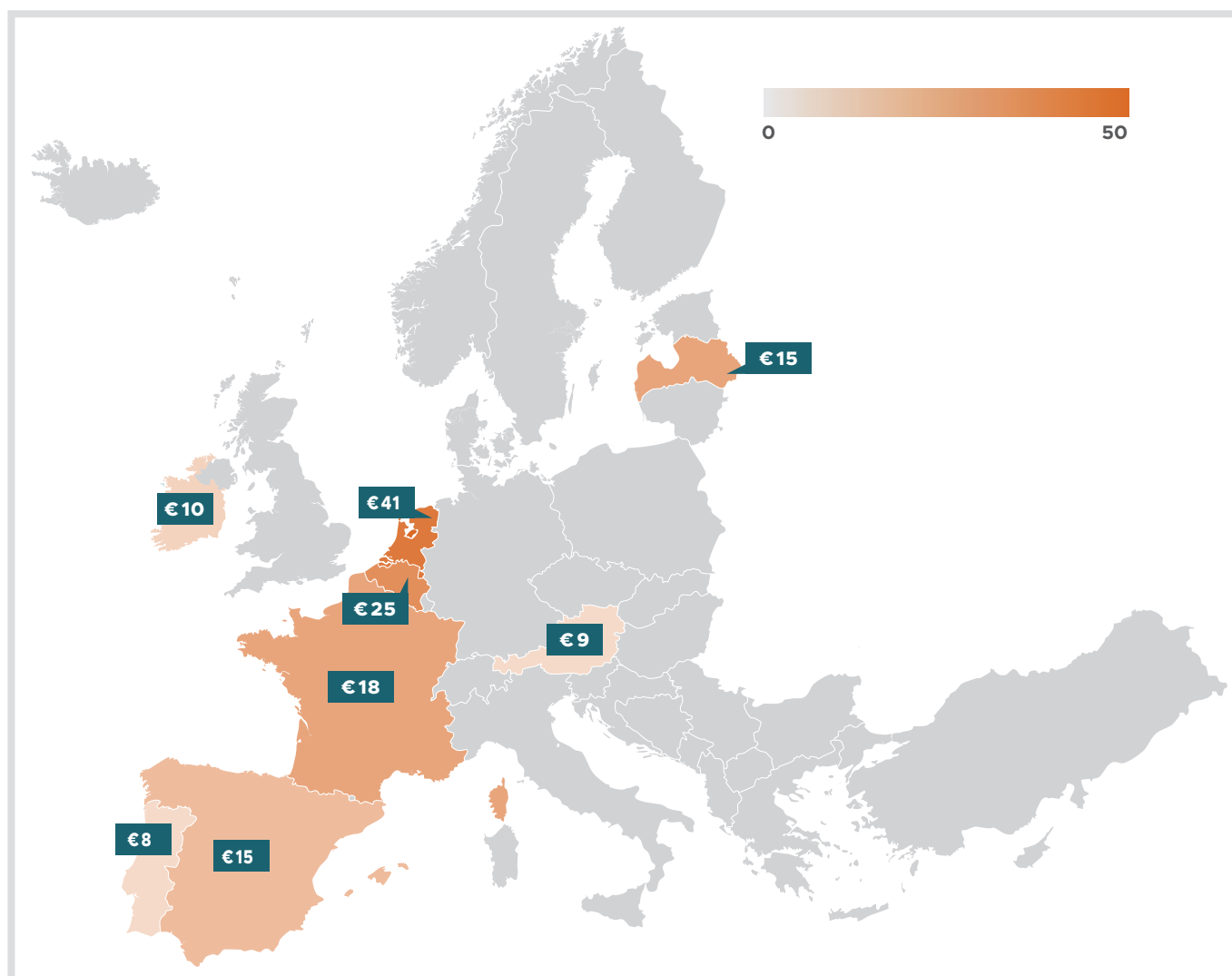
2.2.1 Tonnage-Based Incineration Taxes

The first category covers taxes applied to tonnage sent to incineration, co-incineration or energy recovery. These are usually expressed as €/tonne of waste, though there are often significant design variations as shown in [Table 3](#).

Table 3: Examples of Tonnage-based Incineration Taxes (2026)

Country	Instrument	Application and Rate
Ireland	Waste Recovery Levy	Flat recovery levy. €10/t on municipal and specified C&D waste sent to covered recovery operations, including R1 incineration and co-incineration, and equivalent exports.
Spain	Impuesto sobre residuos	Waste- and treatment-differentiated tax. Rates vary by waste type, installation and D10/R1 classification. Figure 3 uses €15/t for municipal waste treated at an R1 incinerator.
France	Taxe générale sur les activités polluantes – TGAP (waste component)	Energy-performance-differentiated tax. The comparator assumes energy performance of at least 65% (€16/t) plus the maximum €2/t local surcharge, giving €18/t. Below 65%, the rate is €29/t.
Portugal	Taxa de Gestão de Resíduos – TGR	Treatment-route-differentiated charge. D1 pays 100% of the base TGR, D10 85% and R1 20%. Figure 3 uses the R1 rate; material-recovery deductions may apply.
Netherlands	Afvalstoffenbelasting – ASB	Uniform landfill and incineration tax. A flat €40.85/t rate applies to covered waste landfilled or incinerated domestically or transferred abroad for those treatments.

Figure 3: Tonnage-based Incineration Taxes, 2026 (€/tonne)



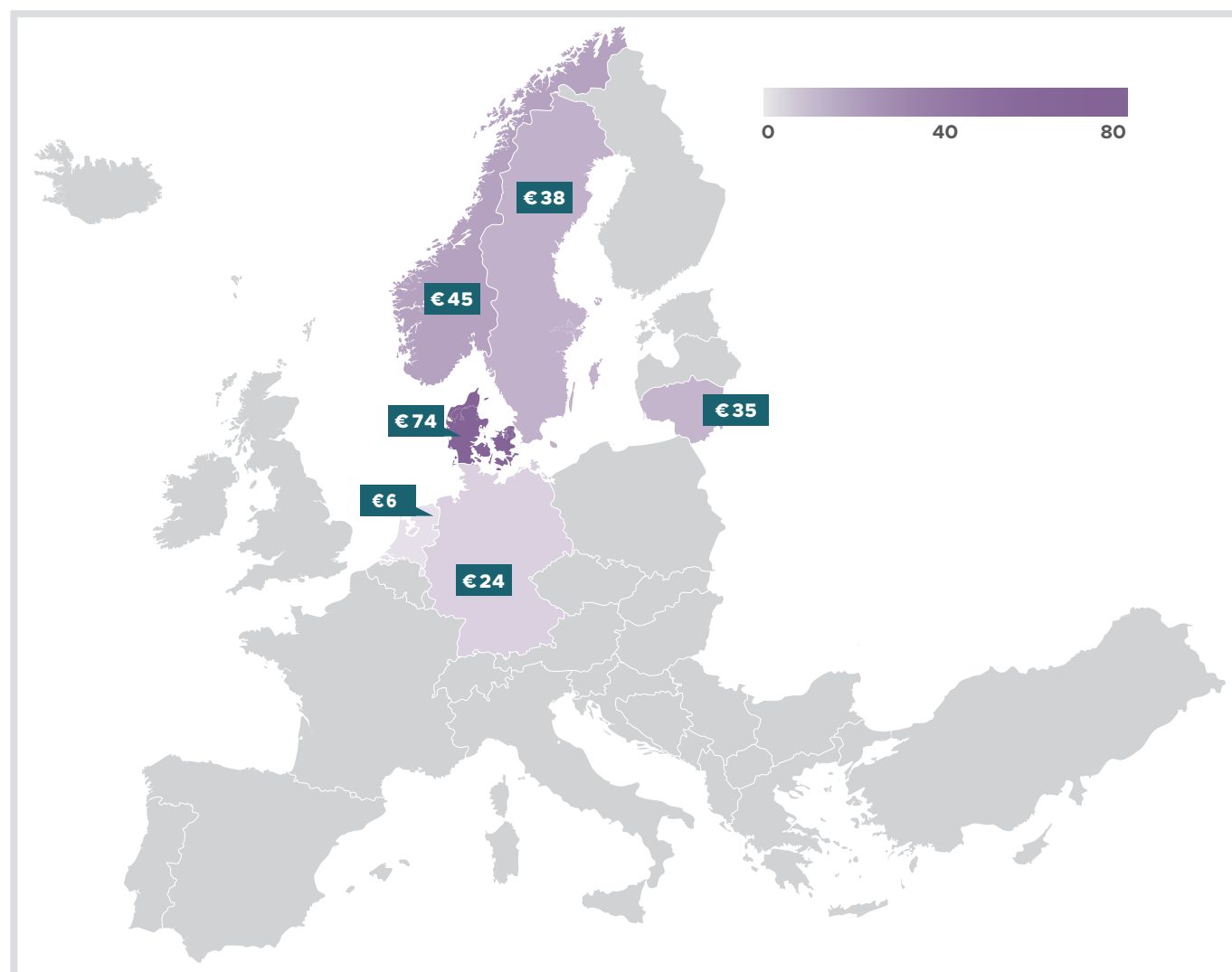
Notes: Rates show 2026 taxes applied directly per tonne of waste sent to incineration, co-incineration or energy recovery. Representative R1 rates are used where rates vary by treatment route, waste type, region or facility characteristics. Carbon- and energy-based charges are excluded; see Table A1 for country assumptions.

2.2.2 Carbon-Based Incineration Taxes

The second category covers carbon-based incineration taxes. These are usually linked to fossil CO₂ emissions associated with incineration. Tax instruments vary, but typically include the EU ETS, national ETS systems, or national CO₂ taxes.

These mechanisms effectively impose a tax on CO₂ emissions, calculated by either estimating or directly measuring incinerator output. The cost of the taxes is subsequently passed through to waste producers via cost pass-through methods that apportion the emissions to the waste.

Figure 4: Carbon-based Incineration Taxes, 2026 (€/tonne)



Notes: Carbon-based taxes are expressed as €/t of mixed residual waste, using national fossil-CO₂ assumptions. For installations already covered by the EU ETS, an illustrative 2026 EUA price of €75/tCO₂ is applied. National CO₂ taxes and emissions-trading systems are modelled according to their applicable tax base; figures are therefore representative rather than facility-specific.

Table 4: Carbon-based Incineration Taxes (2026)

Country	Instrument	Description
Sweden	EU ETS	EfW facilities whose main purpose is heat or electricity production are covered by the EU ETS, costs are linked to fossil-derived CO ₂ .
Germany	National emissions trading scheme	Fossil CO ₂ from waste incineration is priced through Germany's national emissions trading scheme (BEHG).
Norway	EU ETS or waste-incineration CO ₂ excise	Most co-incineration/energy plants above 20 MW are covered by the EU ETS, while municipal waste-incineration plants generally remain outside it. ETS-covered plants are exempt from the national excise; non-ETS plants pay NOK 848/t fossil CO ₂ (c. €76/tCO ₂ , or c. €45/t waste using the default factor).

Denmark	EU ETS and national CO ₂ tax	Relevant energy-producing EfW facilities are covered by the EU ETS, while fossil CO ₂ from non-biodegradable waste is also subject to the Danish CO ₂ tax.
Netherlands	National CO ₂ tax	EfW facilities are subject to a specific national CO ₂ levy on taxable emissions. The map displays an illustrative net charge for MSW after installation-specific dispensation rights, rather than the full statutory rate of €103.66/tCO ₂ . Imports of WDF have a higher fossil content and are charged more highly per tonne of WDF, at around €18.
Lithuania	EU ETS	Lithuania has three principal non-hazardous EfW facilities, but full EU ETS exposure is not uniform across them. Kaunas CHP and Gren Klaipėda are existing ETS installations burning a mix of MSW and industrial waste, while Vilnius CHP's waste unit is currently subject to monitoring only.

2.2.3 Energy-Based Incineration Taxes

Energy-based incineration taxes charge according to the energy associated with recovery, rather than waste tonnage or emissions. The tax base may be the energy content of waste used as fuel (GJ input), the useful heat or energy produced (GJ output), or both. The effective cost per tonne therefore varies with waste calorific value and energy recovery.

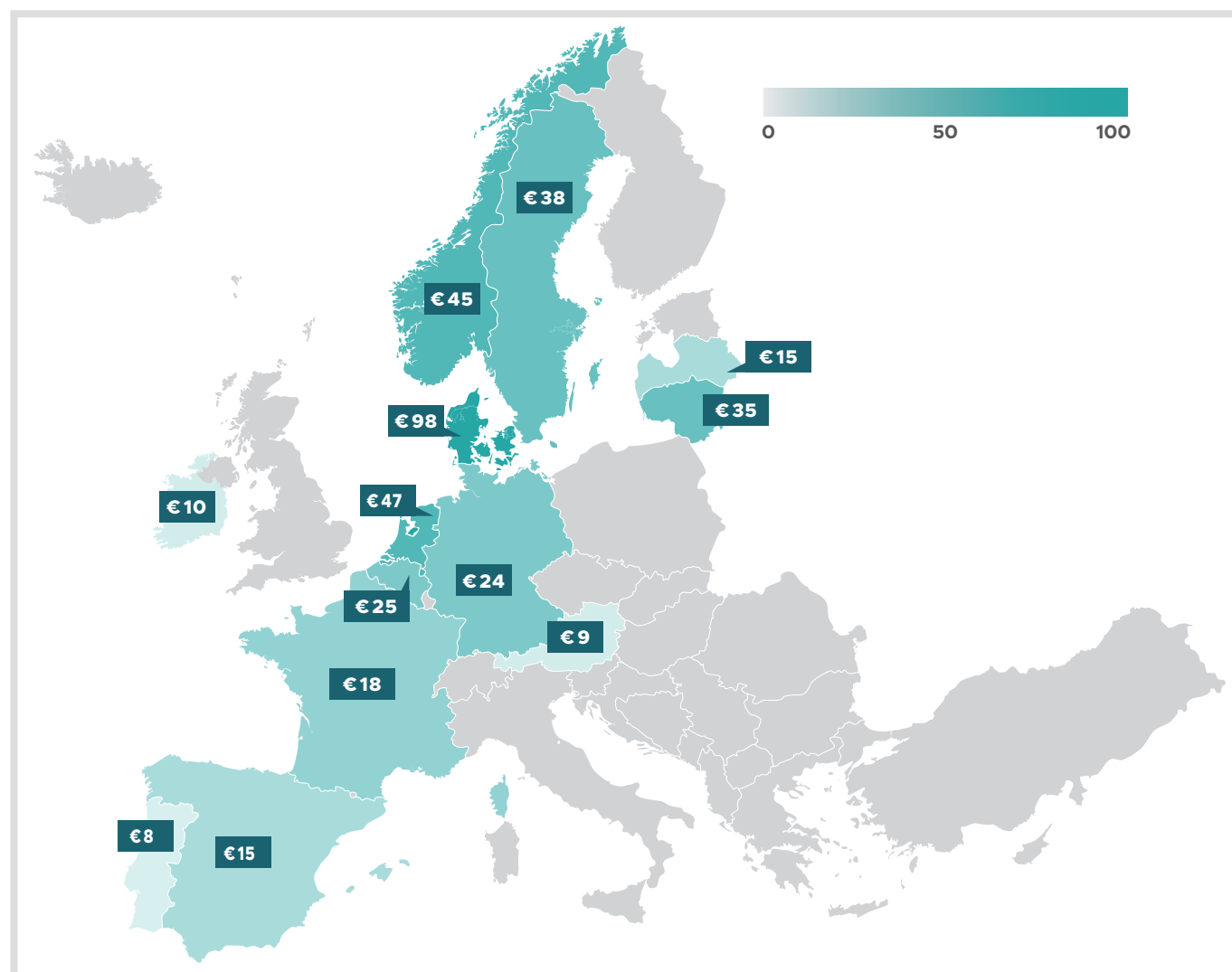
Such taxes are uncommon in Europe. Denmark is the only country in this dataset with an explicitly energy-based tax, applying a waste heat tax of DKK 17.0/GJ of taxable heat and a supplementary tax of DKK 14.5/GJ on waste energy input in 2026. Electricity generation is excluded from these energy-tax bases, while fossil CO₂ emissions are taxed separately.

2.2.4 Combined Incineration Taxes

The various incineration-related taxes can also be combined into a single comparator. This is useful for assessing the overall impact of various taxes on incineration.



Figure 5: Combined Incineration Taxes, 2026 (€/tonne)



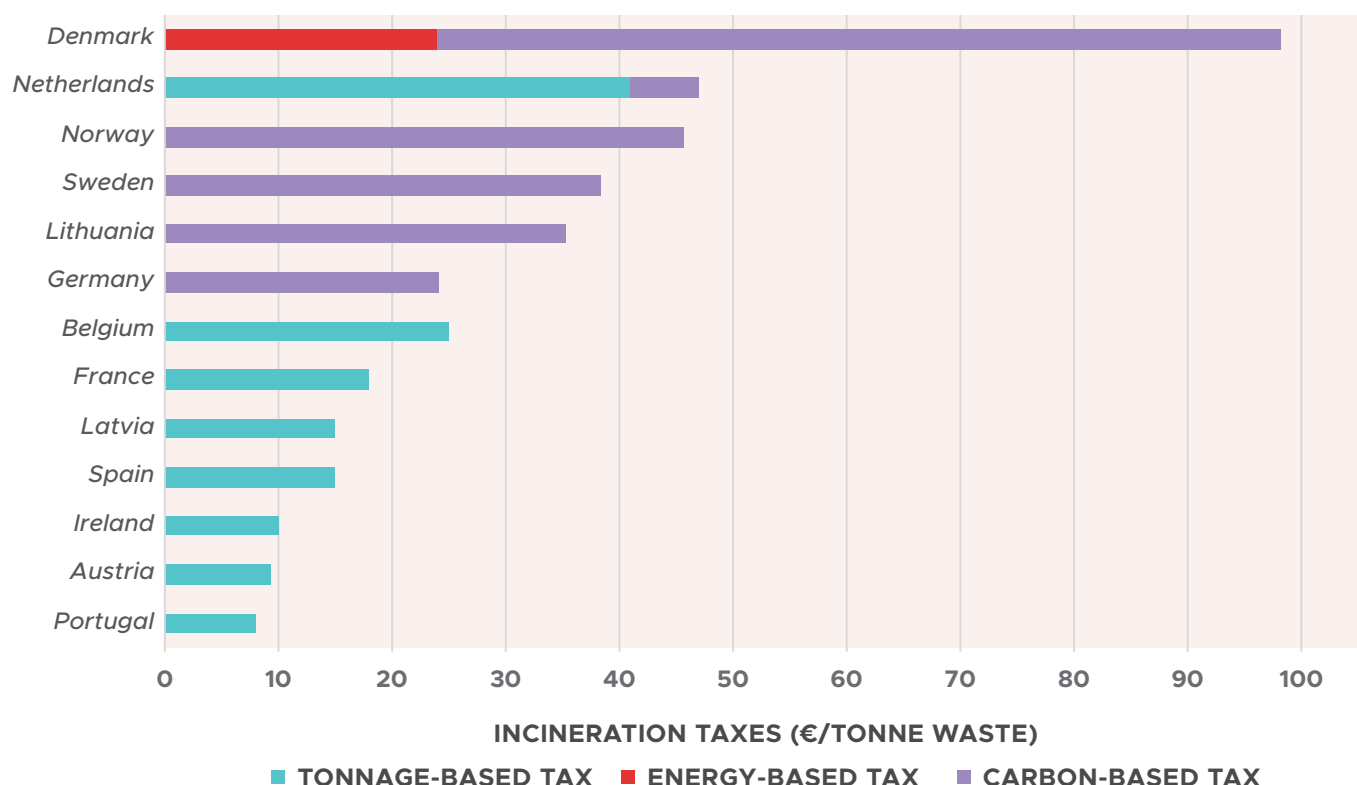
Notes: The map combines applicable 2026 tonnage-, energy- and carbon-based incineration taxes, expressed as €/t of mixed residual waste. Carbon- and energy-based taxes are converted to a common €/t basis using the assumptions in the report dataset. Figures are representative and exclude gate fees, transport and other treatment costs.

Our analysis identified 13 countries with an identifiable incineration tax in 2026. Across these countries, the tax ranges from €8/t in Portugal to approximately €98/t in Denmark, with a median of approximately €24/t.

emissions-trading mechanisms. The Netherlands combines its tonnage-based tax with a carbon tax, while Denmark combines energy-based taxes with carbon pricing through the EU ETS and national CO₂ taxation.

Figure 6 breaks down the different taxes. The figure shows that incineration taxes are not only uneven in size, but structurally different in design. Austria, Belgium, France, Ireland, Latvia, Portugal and Spain primarily apply direct per-tonne waste or recovery taxes. Germany, Lithuania and Sweden are exposed mainly through carbon-based

Figure 6: Combined Incineration Taxes, 2026 (€/tonne)



Notes: Bars show the component taxes included in the combined 2026 incineration-tax comparator. Carbon- and energy-based charges have been converted to €/t waste using the assumptions in Table A1. EU ETS estimates are gross of any free allocation.

2.2.5 The Overall Picture

Taken together, the evidence shows that Europe does not have a consistent fiscal architecture for residual waste treatment, with at least three separate forms of inconsistency.

First, countries differ in whether landfill is deterred primarily through tax, restriction, or both, or not deterred at all. Second, incineration taxes are applied less widely and inconsistently between countries. Third, where incineration taxes are used, the basis for the tax differs materially between tonnage, carbon, and energy – thus they are difficult to compare.

The taxation regime presents two key risks:

1) Incineration is taxed higher than landfill.

If incineration is taxed higher than landfill, then there would be a perverse incentive to dispose of WDF in landfill rather than recover the energy from it via incineration. To a large extent, this risk is averted. The current system generally aligns with the waste hierarchy, as most countries have introduced landfill taxes and regulatory

restrictions that create a stronger disincentive for landfill disposal than for the incineration of residual waste. However, there are some countries, particularly in Eastern Europe, that have weak landfill-diversion signals. That said, with the phased introduction of ETS on incineration, there is a greater chance that this risk materialises further. This is explored further in Section 3.1.

2) Incineration taxes are inconsistent between countries.

Inconsistent tax rates may provide an artificial incentive for WDF to move between countries to simply avoid taxes. This risk is realised in the current configuration, and the distortion generates artificial market signals. Consequently, countries have established an unequal playing field across the European market, altering user-facing commercial choices through tax arbitrage rather than genuine market competition.

3.0 FORWARD LOOK

The current European tax patchwork is not static. Several countries are expected to increase or adjust existing landfill and incineration taxes. Approaches to existing taxes include:

- **Confirmed or scheduled landfill or incineration tax escalators**, where the tax is explicitly scheduled to be higher by 2030, e.g. the Netherlands and Portugal.
- **Unpublished annual or other regular increases**, e.g. to keep in line with inflation or tied to other variables.
- **Static or periodically revised taxes** without a predetermined escalator, e.g. Ireland's €10 per tonne waste tax has been in place since 2023.

Meanwhile, carbon-based incineration taxes are set to become a more material part of the residual waste treatment landscape. In the UK, there are plans to introduce the UK ETS, but at the time of writing, no confirmed date has been set for its likely implementation. At the EU level, the European Commission has proposed bringing non-hazardous waste incineration and co-incineration into the EU ETS, with surrender obligations phased from 25% in 2031 to 100% from 2034. The proposal remains subject to negotiation and would allow temporary national opt-outs through 2035.

The application of the ETS to incineration activity could provide a more consistent fossil-carbon signal for incineration, strengthening incentives to reduce fossil-derived waste and capture fossil CO₂. Its effect would nevertheless depend on how it interfaces with a country's existing taxes. There are three broad possibilities:

1. **ETS could replace existing carbon-based incineration taxes;**
2. **ETS could be added to existing incineration taxes (e.g., in addition to tonnage-based taxes), creating an additional burden on incineration; and**
3. **Countries could reform existing incineration taxes to net off the impact of ETS.**

Sweden provides a good example of the first approach: the incineration tax and ETS first resided side-by-side, but then Sweden decided to abolish its incineration tax and continue with ETS only. Norway provides the clearest existing example of the third approach: waste incineration facilities covered by the EU ETS are exempt from the national CO₂ tax, avoiding two carbon prices being applied to the same emissions.

Accordingly, the two principal risks, namely the **undermining of the waste hierarchy due to higher taxation of incineration relative to landfill**, and **the absence of a level playing field arising from inconsistent incineration tax regimes** across countries, are likely to remain significant concerns in the future.

3.1 Indicative 2030 scenario with full-exposure ETS stress test

So, to examine the risk of undermining of the waste hierarchy due to higher taxation of incineration relative to landfill, we have undertaken a forward-looking analysis that examines what would happen if ETS is applied to fossil CO₂ from incineration alongside planned incineration taxes and landfill taxes in 2030.

Although EU ETS costs are not expected to apply in full until after 2034 (or 2036 with derogation), we have modelled ETS costs from 2030 for all countries in our assessment. This reflects the fact that 2030 is the year for which there is greatest

long-term visibility over proposed changes to existing landfill and incineration taxes. The analysis is therefore intended as a stress test, rather than a forecast of the precise position in 2030.

For each country, we calculate the difference between landfill tax and the modelled total tax on incineration in 2030. This shows whether adding a full ETS-equivalent carbon cost would strengthen, narrow or reverse the tax incentive for recovery. The results are then considered alongside landfill restrictions to identify where this could undermine the waste hierarchy without further reform. The scenario is applied across the whole dataset, including countries without domestic EfW capacity or outside the EU ETS, as it is intended to test the relative tax signal rather than forecast actual treatment costs or activity.

HIGHEST CONCERN

By overlaying ETS costs on top of expected changes to current taxes, without further reforms, incineration is expected to be taxed more than landfill. This risks undermining the waste hierarchy by disincentivizing recovery relative to disposal.

	CURRENT (2026)	2030 + ETS		CURRENT (2026)	2030 + ETS
Cyprus	0.00	-51.70	Malta	0.00	-51.70
Italy	+20.00	-32.25	Romania	+30.52	-21.18

'HIGHEST CONCERN' NON-EU COUNTRIES (8) 0.00 → -51.70
Albania • Bosnia and Herzegovina • Iceland • Kosovo • Montenegro • North Macedonia • Serbia • Turkey

MEDIUM CONCERN

In these countries, the tax differential between landfill and incineration narrows from positive to near parity, eroding the incentive for recovery relative to disposal. At the same time, landfilling remains materially available due to weaker restrictions.

Croatia	+35.00	-1.70	Greece	+45.00	+3.30
Bulgaria	+48.57	-3.13	Portugal	+32.00	+1.54

WEAK / INVERTED FISCAL SIGNAL, BUT LANDFILL REMAINS RESTRICTED

In these countries, ETS costs would weaken or reverse the incentive for recovery rather than disposal. However, restrictions on untreated, combustible or otherwise non-compliant residual waste materially constrain landfill diversion risk.

Austria	+25.10	-24.99	Lithuania	+14.75	+2.42
Denmark	-34.33	-58.47	Luxembourg	0.00	-51.70
Estonia	+29.84	-21.86	Slovakia	+20.00	-31.70
France	+51.00	+8.79	Slovenia	+11.00	-40.70
Germany	-24.10	-44.46	Spain	+25.00	-33.41
Hungary	+16.68	-35.02			

'WEAKENED FISCAL SIGNAL, LANDFILL RESTRICTED' NON-EU COUNTRIES
Norway: -€45.24/t → -€65.12/t • Switzerland: €0.00/t → -€59.20/t

FISCAL SIGNAL REMAINS SUPPORTIVE

In these countries, landfilling remains more heavily taxed than recovery despite ETS costs. Restrictions on landfilling may also be in place as a further safeguard.

Belgium	+116.35	+68.22	Latvia	+115.00	+63.30
Czech Republic	+66.03	+35.38	Poland	+91.62	+47.47
Finland	+80.00	+28.30	Sweden	+29.5	+17.19
Ireland	+75.00	+18.50	Netherlands*	-6.00	+10.00

'FISCAL SIGNAL REMAINS SUPPORTIVE' NON-EU COUNTRIES
United Kingdom: +€153.66/t → +€123.06/t

* **Netherlands:** Future interaction between the national AVI CO₂ levy and EU ETS remains unresolved. For the 2030 + ETS scenario, the differential is retained at +€10/t, reflecting the proposed policy of setting landfill-with-exemption €10/t above the effective incineration burden as at September 2026.

Notes: ETS costs are modelled using an assumed 2030 allowance price of €110/tCO₂, applied to the national fossil-CO₂ intensity assumptions used in the model. For non-EU countries, it is assumed that an equivalent carbon-based tax to the EU ETS (e.g. UK ETS) is applied.

Existing ETS liabilities are replaced by the modelled ETS-equivalent cost rather than double counted. Other national carbon-pricing instruments are treated according to their expected interaction with ETS. Confirmed statutory tax changes are used where available. Where a tax is regularly indexed but no 2030 rate has been published, the report applies the relevant modelling assumption shown in the country dataset; where no separate assumption is available, a 2% annual uplift is used. For statutory trajectories denominated in local currency, the 2026 exchange-rate basis is held constant rather than forecasting future FX movements. The 2030 scenario does not forecast facility-level liabilities, gate fees, contract terms, future waste composition, plastics content, sorting performance, or changes to fossil/biogenic split. Categorisations of risk are based on current rather than incoming landfill restrictions.

The scenario results demonstrate that based on our scenario, the inclusion of additional taxes on incineration has the potential to reverse incentives for recovery, particularly where landfill remains materially available, such as in Italy, Cyprus, and Romania. In other cases, such as Greece and Portugal, the differential between landfill and incineration taxation is reduced to near parity.

Other countries are likely to be more resilient to the additional carbon cost. Ireland, for example, is forecast to retain a positive differential because landfill taxation remains sufficiently high even after the margin narrows.

In some markets, the tax differential is less important because landfill is effectively constrained through regulation. Austria, Estonia and Slovenia, for example, move to negative modelled differentials but have strong restrictions on untreated or combustible residual waste.

Accordingly, to minimise the risk that the waste hierarchy is undermined by landfill being taxed less than incineration, some countries are likely to require reforms to their landfill regimes. This could either be an increase in landfill tax, or the inclusion of strong restrictions.

3.2 Implications from the 2030 tax and ETS scenario

Future changes to existing landfill and incineration taxes, alongside the proposed expansion of the EU ETS to waste incineration, have the potential either to simplify or further complicate Europe's residual waste fiscal framework. While the phased introduction of ETS reduces the immediate cost impact on operators, the proposed opt-out provisions could result in materially different carbon cost exposures between installations and Member States through to 2035.

The ETS proposal includes a limited mechanism intended to avoid double carbon pricing. Existing national carbon-based incineration taxes, where paid at a rate above the phase-adjusted average ETS auction price, could contribute towards a Member State qualifying for an exemption from ETS until 2035, provided at least one additional condition relating to landfill diversion or recycling performance is also met. However, this is not a universal exemption. The carbon-tax criterion must be combined with wider waste management performance criteria, and the proposal does not require Member States to remove or align existing tonnage-based or energy-based incineration taxes alongside ETS.

As a result, the proposal acknowledges the interaction between ETS and equivalent carbon-based taxation but stops short of creating a harmonised fiscal framework for residual waste treatment. Significant differences in landfill tax rates and incineration taxes would remain across Europe, even where ETS applies. Consequently, identical waste streams could continue to face substantially different fiscal burdens depending on where they are treated.

The introduction of ETS should therefore be viewed as both a risk and an opportunity. It has the potential to establish a more consistent carbon pricing signal linked to the fossil carbon content of residual waste. However, this objective is unlikely to be realised if ETS is simply layered on top of existing national tax regimes without broader reform. Unless countries simultaneously review and align existing landfill and incineration taxes, significant differences in overall treatment costs will persist, limiting the creation of a genuine level playing field.

Without such coordination, there remains a substantial risk of tax arbitrage, with waste continuing to flow towards jurisdictions offering the lowest overall fiscal burden rather than those delivering the best environmental outcomes. In these circumstances, ETS could become another component of Europe's existing patchwork of residual waste taxes, rather than the mechanism that helps to rationalise and harmonise it.

3.3 Complexity in ETS Pass-Through

While the introduction of the ETS is expected to increase the overall cost of incineration, its practical impact is unlikely to be uniform. The extent of that impact will depend not only on the prevailing carbon price, but also on how ETS costs are measured, allocated and passed through to customers.

In most cases, ETS costs are expected to be recovered from waste producers. However, the methodology used to estimate or measure the fossil carbon content of waste may vary significantly between countries, regulators and operators. Approaches could include standardised waste-to-carbon conversion factors, waste-code assumptions, physical sampling, C14 or flue-gas measurements, or facility-specific emissions factors. Consequently, the same carbon price per tonne of CO₂ could translate into materially different charges per tonne of waste.

For WDF markets, this creates a significant commercial risk. If ETS liabilities are calculated differently across jurisdictions, or even between facilities within the same jurisdiction, costs may

diverge for reasons unrelated to underlying treatment performance or environmental outcomes. This creates the potential for waste flows to be redirected in response to differences in ETS pass-through methodologies rather than genuine market fundamentals.

Transparency and predictability will therefore be essential. Waste producers and exporters need to understand whether an ETS-related charge is being applied, how it has been calculated, and the extent to which it reflects the actual fossil carbon content of their waste. Without a consistent and transparent approach to cost recovery, the ETS risks reinforcing the existing patchwork of residual waste taxation across Europe rather than reducing it. Routing decisions could become increasingly influenced by differing pass-through mechanisms rather than environmental performance, carbon intensity or landfill diversion objectives. Furthermore, municipalities and other waste producers would face considerable challenges in forecasting and budgeting waste management costs if ETS charges cannot be estimated using a predictable and standardised framework.



4.0 RECOMMENDATIONS

Our analysis demonstrates that Europe's fiscal framework for WDF remains fragmented and incoherent. The introduction of the EU ETS, in its current form, is unlikely to resolve this. Two fundamental risks remain:

1) Incineration could be taxed more heavily than landfill. In some jurisdictions, the combined effect of ETS and existing incineration taxes could result in residual waste facing a higher tax burden when sent for energy recovery than when disposed of in landfill. This creates a perverse incentive that risks undermining the waste hierarchy by favouring a less environmentally desirable outcome.

2) Fiscal disparities between countries continue to distort the market. Significant differences in landfill taxes and incineration taxes (including ETS implementation) create an unequal tax regime across Europe. These distortions can influence market behaviour, encouraging waste to move across borders in response to tax differentials rather than genuine competitive, operational or environmental advantages. The result is an uneven playing field in which commercial decisions are increasingly shaped by tax arbitrage rather than market fundamentals.

Unless the introduction of ETS is accompanied by broader harmonisation of landfill and incineration taxation across Member States, Europe is unlikely to achieve a genuine level playing field for residual waste treatment. Instead, the risk is that ETS becomes another layer within an already fragmented fiscal landscape, perpetuating market distortions and incentivising the movement of waste in search of lower tax burdens rather than better environmental outcomes.

The objective should be a level playing field in which fiscal policy supports the waste hierarchy and decarbonisation without creating artificial incentives for waste to move between treatment routes or countries simply to secure a lower tax burden.

This does not require every country to operate an identical waste tax system. It does, however,

require common outcomes. Landfill should not undercut recovery for combustible residual waste; fossil carbon from EfW should face a common and transparent carbon price; and national fiscal measures should not create additional EfW-side burdens that undermine that common price or encourage route-shopping and cross-border waste tourism.

Much like wider questions of waste circularity, infrastructure capacity and environmental performance that are increasingly being considered at European level, the fiscal framework for residual waste should be considered across the European market rather than solely country by country. This is the only way to support the Global Methane Pledge and for Europe to become more self-sufficient and competitive on sustainable energy and resources.

The long-term objective should therefore be a European market in which ETS provides the principal carbon price for EfW, landfill remains effectively deterred, and other fiscal measures are targeted at the behaviours or outcomes they are intended to change rather than being layered indiscriminately onto residual waste treatment. Landfill reduction, methane avoidance, efficient energy recovery, fossil-carbon reduction and circular economy objectives should be assessed together. The production of recycled materials should remain price-competitive by not over-taxing the treatment of recycling residues (and thus WDF). A country-by-country approach that treats domestic treatment as inherently preferable may miss cases where cross-border solutions considered at the European level deliver a better environmental outcome.

4.1 Recommendation 1: Ensure landfill is always less appealing than EfW

As carbon-based incineration taxes are introduced, landfill must not become the cheaper treatment route for residual waste that is suitable for EfW. Where such waste is not effectively prohibited⁴ from landfill, countries should maintain or introduce a landfill tax sufficient to ensure that landfill remains more expensive than incineration,

⁴ Strong and effectively enforced landfill bans or equivalent restrictions can provide the necessary safeguard without an additional tax. In their absence, however, landfill taxation should be mandatory.

whether the available EfW capacity is domestic or elsewhere in Europe. Maintaining this fiscal hierarchy would also support the EU Landfill Directive's 2030 objective that waste suitable for recycling or other recovery should not be accepted at landfill.

This becomes increasingly important as carbon pricing raises the overall cost of incineration. As illustrated in this report, applying an illustrative ETS cost to fossil carbon entering EfW without a corresponding increase in landfill costs risks narrowing or reversing the fiscal differential and weakening the intended waste hierarchy signal.

4.2 Recommendation 2: Harmonise residual waste taxes to enable a European residual waste market

National fiscal frameworks should be aligned so that EfW capacity is not made artificially more or less competitive if it is located in another European country. A more level fiscal playing field should allow treatment decisions to reflect underlying capacity, efficiency and environmental performance rather than national tax differentials.

With landfill deterrence, ETS exposure and carbon-cost pass-through on a broadly comparable footing, proximity can operate largely through transport and logistics costs. Waste should not move simply to secure a lower tax burden, but nor should national taxation prevent use of more appropriate capacity elsewhere in Europe.

This should support a more integrated European approach to residual waste capacity, as is increasingly the case for recycling, circularity and other waste infrastructure. Europe should consider collectively how much capacity is needed, where it already exists and where additional capacity is genuinely required, rather than assuming each country should provide sufficient domestic capacity for all of its own residual waste.

EfW facilities are not interchangeable. Opportunities for productive heat use, efficient electricity generation and access to CO₂ transport and storage vary materially between locations. These differences should inform both utilisation of existing facilities and investment in new capacity, avoiding unnecessary duplication where more efficient or better-placed capacity already exists elsewhere.

A more integrated European approach may also warrant consideration of how cross-border recovery emissions are recognised, particularly where opportunities for heat recovery and CCS differ between countries.

Taken together, these measures should support a European residual waste market in which capacity is planned and used where it delivers the greatest system benefit to achieve the European climate, energy and circularity goals.

4.3 Recommendation 3: Use ETS as the default taxation method

The long-term objective should be for ETS to provide the default tax for EfW across Europe. Accordingly, as EfW is incorporated within ETS, national EfW taxes should be phased out or redesigned so that they do not explicitly fall on EfW facilities.

This does not mean that national environmental taxes or the objectives they pursue are without merit. Countries may still wish to use taxes to support waste prevention, recycling, resource efficiency or wider circular-economy objectives. However, those measures should target the behaviour or impact concerned - for example waste generation or product and material choices - rather than being applied indiscriminately when residual waste reaches an EfW facility.

The transition to this end-state will be important. EU ETS surrender obligations will phase in from 2031 to 2034, however qualifying States may derogate from the surrender obligation for emissions up to and including 2035, meaning full exposure may not apply consistently across the EU until 2036. This could maintain substantial differences in EfW carbon costs for several years, while nothing in the derogation prevents other national EfW taxes from continuing or increasing. The transition should not become a period in which national fiscal policy further widens those differences, rendering otherwise efficient capacity uncompetitive or driving premature closure.

At the same time, the period to 2036 gives Member States substantial time to redesign or replace existing measures where they wish to retain their environmental objectives or associated tax revenues. The end of the derogation should therefore provide a clear point of convergence: common EU ETS coverage should be accompanied

by the rationalisation of additional national EfW taxation and the redirection of other fiscal measures towards the behaviours they are intended to influence.

Without this rationalisation, comparable EfW facilities will continue to compete partly on national tax policy rather than treatment efficiency or environmental performance, maintaining incentives for route-shopping even where the underlying carbon price is common.

4.4 Recommendation 4: Standardise ETS pass-through across Europe

A common ETS price will not create a level playing field if the cost is calculated and passed through to waste suppliers differently between countries, facilities or contracts.

There should therefore be a standardised approach to the allocation and pass-through of ETS costs for EfW. It should provide sufficient consistency, transparency and predictability for waste producers and suppliers to understand the carbon cost associated with their waste and respond to it, including sufficient predictability for municipalities and other customers to budget for changes in allowance prices.

The framework should also preserve the underlying environmental incentive: suppliers that reduce the fossil-carbon content of residual waste should be capable of benefiting from a lower carbon cost.

Common principles should cover:

- the basis for measuring fossil-carbon content and distinguishing fossil from biogenic CO₂;
- allocation between waste streams, including mixed or variable WDF composition;
- the use of facility or portfolio averaging; and
- minimum transparency, evidence and reconciliation requirements.

The objective should be comparable treatment of carbon costs, rather than identical commercial contracts or gate fees. Similar waste should not face materially different ETS charges simply because of national rules, contract structures or operator methodology. Without sufficient standardisation, ETS risks creating another source of route-shopping rather than a consistent incentive to reduce fossil carbon in residual waste.

4.5 Recommendation 5: Ensure secondary, recycled materials can compete with primary materials

Increased carbon and incineration taxes also mean an increase in the cost of treating sorting and recycling residues and therefore increase the cost of producing recycled materials. Recycled materials (such as recycled plastic) often already have difficulty competing against primary materials (such as virgin, fossil plastics). As recyclers face higher tax burdens than fossil producers, the price gap increases. In some countries – such as the Netherlands – the national carbon and incineration taxes on treating recycling residues are making recyclers turn their back on the Netherlands and move their recycling operations to other countries as the national carbon tax on fossil plastic production is withdrawn.

4.6 Recommendation 6: Support managed transition and investment certainty

As Europe moves towards a more harmonised residual-waste fiscal framework, convergence should not be achieved simply by imposing a common additional cost. A stronger and more consistent carbon signal should be accompanied by credible ways for operators, municipalities and waste suppliers to reduce their exposure, including sorting and fossil-carbon reduction, heat recovery and CCS.

The EU ETS proposal begins to recognise this by widening eligible uses of auction revenues, supporting EfW decarbonisation technologies and providing district-heating free allocation. These measures should be retained, with sufficient longer-term certainty for heat and CCS investment, where infrastructure can take many years to develop.

The price signal must also reach those able to change the waste itself. Waste producers and suppliers should have practical incentives (that are not just avoided costs) to reduce fossil content, improve sorting and increase recycling; otherwise higher carbon costs risk remaining primarily a downstream treatment penalty rather than driving the intended upstream response.

5.0 TECHNICAL ANNEX

Table A1: National tax comparator dataset

Country	Incineration Taxes (€ per tonne waste, 2026)	Incineration tax notes/source	Landfill Tax (€ per tonne waste, 2026)	Landfill tax notes/source
Albania	None	No national incineration tax. Source: OECD circular-economy roadmap for Albania .	None	No national landfill tax. Source: OECD circular-economy roadmap for Albania .
Austria	9.20	Direct federal incineration tax applied per tonne of waste incinerated. Source: Altlastensanierungsgesetz §6 .	34.30*	Untreated MSW cannot be directly landfilled under Austria's landfill restrictions. *The €34.30/t rate for mass-waste landfills is used as the closest landfill comparator, representing the rate applicable to residual waste after the treatment required for lawful landfilling. Altlastensanierungsgesetz §6 .
Belgium	25.06	Regional taxes apply. Representative rate calculated as the average of Flanders €32.00/t for incineration of household waste and Wallonia €18.11/t for non-hazardous waste with heat recovery. Brussels applies a separate indexed rate of €17.67/t in 2026, which is noted but not included in the representative figure. Sources: OVAM 2026 rates ; Wallonia 2026 waste-tax rates ; Brussels Environment ; EEA methodology .	141.41	Regional taxes apply. Representative rate calculated as the average of Flanders €134.22/t for combustible waste and Wallonia €148.59/t for waste deposited in a technical landfill. Brussels is not included because it has no corresponding landfill rate. Sources: OVAM 2026 rates ; Wallonia 2026 waste-tax rates . Landfilling untreated/combustible MSW is heavily restricted, so the rate may only be relevant where disposal is legally permitted or derogated; it is not a penalty rate.
Bosnia and Herzegovina	None	No national incineration tax. Source: EEA country waste profile .	None	No national landfill tax. Source: EEA country waste profile .
Bulgaria	None	No national incineration tax. Source: EEA Bulgaria waste profile .	48.57	National per-tonne landfill deduction under Article 64 of the Waste Management Act. BGN 95/t converted at the fixed rate of €1 = BGN 1.95583. A 50% reduction may apply where municipal waste-management targets are met. Sources: Ordinance No. 7 ; EEA Bulgaria waste profile .
Croatia	None	No national incineration tax. Source: EEA Croatia waste profile .	35.00	Direct national landfill fee applied per tonne of waste disposed through D1, D5 or D12. The 2026 rate is €35/t. Source: Regulation on the unit landfill fee, NN 137/2024 .

Country	Incineration Taxes (€ per tonne waste, 2026)	Incineration tax notes/source	Landfill Tax (€ per tonne waste, 2026)	Landfill tax notes/source
Cyprus	None	No national incineration tax; Cyprus has no municipal waste-incineration facilities. Source: EEA Cyprus waste profile .	None	No landfill tax currently in force. Draft regulations proposed €10/t in 2026, but the proposal was rejected. Sources: Cyprus Department of Environment draft regulations ; parliamentary status .
Czechia	None	No national incineration tax. Source: EEA Czechia waste profile .	66.03	National landfill fee. Representative rate uses the 2026 recoverable-waste rate of CZK 1,600/t, converted at €1 = CZK 24.233. A reduced CZK 500/t municipal-waste rate applies within the statutory allowance of 0.15 t per inhabitant in 2026. Sources: Waste Act 541/2020, Annex 9 and §157 ; ECB exchange rate .
Denmark	98	Denmark applies a layered combination of waste-energy taxes, domestic carbon taxation and EU ETS. For a representative ETS-covered EfW CHP supplying district heat, the 2026 statutory rates are 17.0 DKK/GJ effective waste-heat tax, 14.5 DKK/GJ supplementary waste tax, 860.3 DKK/tCO ₂ on non-biodegradable waste and 154.9 DKK/tCO ₂ e under the emissions tax for ETS-covered sectors. Using 10 GJ/t waste input, 6.14 GJ/t useful heat, 1.08 tCO ₂ /t waste and 48% fossil CO ₂ gives an indicative stack of c.€24/t non-carbon waste/heat taxes, c.€35/t domestic carbon taxes and c.€39/t EU ETS. Source: Danish Tax Administration ; Danish Ministry of Taxation ; Denmark NID 2026 .	63.67	National landfill tax applied per tonne of waste deposited. 475 DKK/t converted to €63.67/t. Sources: Danish landfill-tax legislation ; EEA Denmark waste profile .
Estonia	None	No national incineration tax. Source: EEA Estonia waste profile .	29.84	National pollution charge applied per tonne of non-hazardous waste landfilled. Source: Environmental Charges Act, §21 .
Finland	None	No national incineration tax. Source: EEA Finland waste profile .	80.00	National waste tax applied per tonne of waste delivered to landfill. Sources: Waste Tax Act ; Finnish Tax Administration .
France	18.00	National per-tonne incineration tax based on plant energy performance. Representative rate uses €16/t for non-hazardous waste treated at a plant with energy performance of at least 65%, plus the possible municipal surcharge of up to €2/t. Facilities below 65% pay €29/t. Source: French Tax Code – incinerated waste .	69.00	National per-tonne landfill tax. The €69/t rate for non-hazardous waste is used; municipalities may add a surcharge of up to €2/t. Source: French Tax Code – landfilled waste .

Country	Incineration Taxes (€ per tonne waste, 2026)	Incineration tax notes/source	Landfill Tax (€ per tonne waste, 2026)	Landfill tax notes/source
Germany	24.10	Waste incineration is covered by Germany's national emissions trading system under the BEHG rather than a direct incineration tax. A €60/tCO ₂ midpoint is used within the statutory €55–65/tCO ₂ 2026 price corridor. For residual waste, the official EBeV 2030 default gives 53.5% biomass, 8.8 GJ/t and 0.0982 tCO ₂ /GJ, equivalent to c.0.402 t fossil CO ₂ /t waste. €60 × 0.402 = c.€24.1/t waste. Source: German Emissions Trading Authority .	None	No national landfill tax. Source: EEA Germany waste profile
Greece	None	No national incineration tax. Source: EEA Greece waste profile .	45.00	National landfill fee applied to untreated municipal waste and specified treatment residues. €45/t is the 2026 standard rate; reduced rates of €35–42.50/t apply to municipalities according to the implementation status of planned waste-treatment facilities. Sources: Law 5193/2025, Article 235 ; Ministry of Environment .
Hungary	None	No national incineration tax. Source: EEA Hungary waste profile .	16.68	National landfill levy applied per tonne of waste disposed through specified disposal operations. HUF 6,000/t converted using the ECB rate of €1 = HUF 359.65. Sources: Hungarian Waste Act, §68 ; ECB exchange rate .
Iceland	None	No national incineration tax. Source: EEA Iceland waste profile .	None	No landfill tax currently implemented. A tax of ISK 15/kg for general waste has been proposed but has not been legislated. Source: Iceland's First Biennial Transparency Report .
Ireland	10.00	National waste recovery levy applied per tonne accepted for recovery at R1 incineration and co-incineration facilities. Source: Circular Economy (Waste Recovery Levy) Regulations 2024 .	85.00	National landfill levy applied per tonne of waste disposed at landfill. Source: Waste Management (Landfill Levy) (Amendment) Regulations 2023 .
Italy	None	No tax for R1 energy-recovery incineration. A €5.16/t disposal tax applies only to incineration without energy recovery and specified residues and sludges. Source: EEA Italy waste profile .	20.00	Regional landfill tax. €20/t used as a representative proxy across regional rates within the national range of €5.17–25.82/t. Source: EEA Italy waste profile .
Latvia	15.00	Direct national Natural Resources Tax applied per tonne of waste incinerated or co-incinerated; cement clinker kilns are exempt. Source: Latvia Natural Resources Tax Law, Article 20¹ .	130.00	National Natural Resources Tax applied per tonne of non-hazardous municipal and production waste landfilled. 2026 rate: €130/t. Source: Latvia Natural Resources Tax Law, Annex 3 .

Country	Incineration Taxes (€ per tonne waste, 2026)	Incineration tax notes/source	Landfill Tax (€ per tonne waste, 2026)	Landfill tax notes/source
Kosovo	None	No national incineration tax identified. Source: Kosovo Environmental Protection Agency municipal waste report 2023–2024 .	None	No national landfill tax identified; municipal waste and landfill service charges are not treated as a landfill tax. Sources: Kosovo Environmental Protection Agency municipal waste report 2023–2024 ; Kosovo circular-economy policy paper .
Lithuania	35.25	Principal Lithuanian WtE CHP installations including Kaunas CHP and Gren Klaipėda are already within the full EU ETS. A gross illustrative ETS burden of €35.25/t waste is used, based on €75/EUA × 1.00 tCO ₂ /t waste × 47% fossil CO ₂ . This is not a blanket statutory Lithuanian rate and is gross of free allocation. Sources: Lithuanian APVA ; EU ETS records	50.00	National environmental pollution tax applied per tonne of non-hazardous waste landfilled. €50/t basic tariff used; indexed to consumer prices and also applies to landfilled MBT outputs. Sources: Lithuanian Ministry of Environment ; EEA Lithuania waste profile .
Luxembourg	None	No national incineration tax. Source: EEA Luxembourg waste profile .	None	No national landfill tax. A €200/t gate fee applies to non-hazardous municipal waste but is not treated as a tax. Source: EEA Luxembourg waste profile .
Malta	None	No national incineration tax. Source: EEA Malta waste profile .	None	No national landfill tax. A differentiated government gate fee applies; the mixed-waste landfill gate fee is €100/t in 2026 but is not treated as a tax. Sources: WasteServ gate fees ; EEA Malta waste profile .
Montenegro	None	No national incineration tax identified. Sources: Montenegro National Waste Management Plan ; European Commission Montenegro Report 2025 .	None	No national landfill tax identified; landfill charges are service or gate fees rather than a national tax. Sources: Montenegro National Waste Management Plan ; European Commission Montenegro Report 2025 .
Netherlands	46.85	Direct national waste tax of €40.85/t, plus a modelled net CO ₂ -levy add-on of c.€6/t for the representative MSW comparator used in this report. The effective CO ₂ tax is installation- and waste-specific because it applies to monitored fossil CO ₂ after dispensatierechten (dispensation rights); imported WDF also faces higher charges. Source: Dutch Tax Administration – waste-tax rate ; NEa – CO₂-levy rates .	40.85	Direct national waste tax applied per tonne of waste landfilled. The same rate applies to landfill and incineration. Source: Dutch Tax Administration – waste-tax rate
North Macedonia	None	No national incineration tax identified. Sources: OECD circular-economy roadmap ; EEA waste profile .	None	No national landfill tax identified; the OECD recommends its future introduction. Source: OECD circular-economy roadmap .

Country	Incineration Taxes (€ per tonne waste, 2026)	Incineration tax notes/source	Landfill Tax (€ per tonne waste, 2026)	Landfill tax notes/source
Norway	45.24	Norway applies a CO ₂ -based tax to non-ETS waste incineration of NOK 848/t fossil CO ₂ in 2026. The statutory default factor is 0.592 t fossil CO ₂ per tonne of waste, giving an illustrative burden of c. €45/t waste. ETS-liable installations are exempt from the tax from 1 January 2026, avoiding double carbon pricing. Sources: Norwegian Tax Administration ; ECB exchange rate .	None	No national landfill tax. Source: CEWEP landfill taxes and restrictions overview .
Poland	None	No national incineration tax. Source: EEA Poland waste profile .	91.62	National environmental landfill charge differentiated by waste code. PLN 396.31/t for mixed municipal waste code 20 03 01 in 2026, converted at €1 = PLN 4.3258. Sources: 2026 ministerial rates notice ; ECB PLN exchange rate .
Portugal	8.00	National TGR applied per tonne of waste treated. R1 energy recovery is charged at 20% of the €40/t landfill rate = €8/t; D10 incineration is charged at 85% = €34/t. Sources: RGGR, Article 111 ; 2026–2030 TGR uplift .	40.00	National TGR applied per tonne of waste deposited through D1. The rate increased from €35/t in 2025 to €40/t in 2026. Sources: RGGR, Article 111 ; 2026–2030 TGR uplift .
Romania	None	No national incineration tax. Source: EEA Romania waste profile .	30.52	National circular-economy contribution applied per tonne of municipal waste landfilled. RON 160/t converted at the ECB rate of €1 = RON 5.2418. Sources: OUG 196/2005, Annex 2 ; ECB exchange rate
Serbia	None	No national incineration tax identified. Sources: Serbia Waste Management Programme ; European Commission Serbia Report 2025 .	None	No national landfill tax identified; landfill gate and municipal service charges are not treated as a national tax. Sources: Serbia Waste Management Programme ; European Commission Serbia Report 2025 .
Slovakia	None	No national incineration tax. Source: European Commission Environmental Implementation Review 2025 – Slovakia .	20.00	National landfill fee varies from €11–30/t according to the municipality's separate-collection rate. €20/t used as the representative rate. Sources: Government Regulation 330/2018 ; European Commission Environmental Implementation Review 2025 – Slovakia .
Slovenia	None	No national incineration tax. Source: EEA Slovenia waste profile .	11.00	National environmental charge applied per tonne of non-hazardous waste landfilled. Sources: Slovenian landfill environmental-charge regulation ; EEA Slovenia waste profile .

Country	Incineration Taxes (€ per tonne waste, 2026)	Incineration tax notes/source	Landfill Tax (€ per tonne waste, 2026)	Landfill tax notes/source
Spain	15.00	Direct national tax applied per tonne of municipal waste sent to an R1 energy-recovery incinerator. Autonomous Communities may increase the national rate. Source: Spanish Tax Agency .	40.00	Direct national tax applied per tonne of municipal waste sent to a non-hazardous landfill. Autonomous Communities may increase the national rate. Source: Spanish Tax Agency
Sweden	38.4	EU ETS applies to EfW facilities classified as energy-production or co-incineration installations. The illustrative 2026 burden is calculated using $\text{€75/EUA} \times 1.04 \text{ tCO}_2/\text{t waste} \times 49\% \text{ fossil CO}_2 = \text{€38.4/t waste}$. Source: Naturvårdsverket – 2025 reference values for mixed waste	67.89	National waste tax applied per tonne of waste landfilled. SEK 750/t converted at the ECB rate of $\text{€1} = \text{SEK 11.0473}$. Sources: Swedish Tax Agency ; ECB exchange rates .
Switzerland	None	No national incineration tax. Source: EEA Switzerland waste profile .	None	No national landfill tax applicable to municipal residual waste. Combustible municipal waste is required to be incinerated rather than landfilled. Sources: Swiss Federal Office for the Environment ; EEA Switzerland waste profile .
Turkey	None	No national incineration tax. Source: EEA Türkiye waste profile .	None	No national landfill tax. Source: EEA Türkiye waste profile .
United Kingdom	None	No incineration tax in 2026. The UK ETS currently applies only through a voluntary MRV period, with no requirement to purchase or surrender allowances. Source: UK ETS Authority voluntary MRV guidance .	153.66	Standard residual-waste rate of £130.75/t used, converted at the ECB rate of $\text{€1} = \text{£0.85093}$. England and Northern Ireland, Scotland and Wales apply the same 2026 standard rate. Sources: HMRC ; Revenue Scotland ; Welsh Government ; ECB .

Table A2: Full results of 2030 escalator + ETS scenario

Country	Current Landfill– Incineration differential €/t	Assumed 2030 ETS + Incineration tax burden €/t	Assumed 2030 Landfill Tax €/t	2030 + ETS Differential €/t
Albania	0.00	51.70	0.00	-51.70
Austria	25.10	59.29	34.30	-24.99
Belgium	116.35	84.85	153.07	68.22
Bosnia and Herzegovina	0.00	51.70	0.00	-51.70
Bulgaria	48.57	51.70	48.57	-3.13
Croatia	35.00	51.70	50.00	-1.70
Cyprus	0.00	51.70	0.00	-51.70
Czechia	66.03	40.96	76.34	35.38
Denmark	-34.33	122.14	63.67	-58.47
Estonia	29.84	51.70	29.84	-21.86
Finland	80.00	51.70	80.00	28.30
France	51.00	76.21	85.00	8.79
Germany	-24.10	44.46	0.00	-44.46
Greece	45.00	51.70	55.00	3.30
Hungary	16.68	51.70	16.68	-35.02
Iceland	0.00	51.70	0.00	-51.70
Ireland	75.00	66.50	85.00	18.50
Italy	20.00	52.25	20.00	-32.25
Latvia	115.00	66.70	130.00	63.30
Kosovo	0.00	51.70	0.00	-51.70
Lithuania	14.75	51.70	54.12	2.42
Luxembourg	0.00	51.70	0.00	-51.70
Malta	0.00	51.70	0.00	-51.70
Montenegro	0.00	51.70	0.00	-51.70

Table A2: Full results of 2030 escalator + ETS scenario

Country	Current Landfill-Incineration differential €/t	Assumed 2030 ETS + Incineration tax burden €/t	Assumed 2030 Landfill Tax €/t	2030 + ETS Differential €/t
Netherlands*	-6.00	-124*	134.47	+10.00

* Netherlands: BP27 proposes a 2030 landfill-with-exemption rate of €134.47/t, calibrated to remain €10/t above the effective incineration rate. Actual incineration-side CO₂ costs vary by AVI, as the levy applies to monitored fossil CO₂ emissions after installation-specific dispensatierechten. Future interaction between the national AVI CO₂ levy and EU ETS remains unresolved; the 2030 + ETS scenario therefore retains the +€10/t differential, assuming the landfill rate is adjusted accordingly.

North Macedonia	0.00	51.70	0.00	-51.70
Norway	-45.24	65.12	0.00	-65.12
Poland	91.62	51.70	99.17	47.47
Portugal	32.00	58.46	60.00	1.54
Romania	30.52	51.70	30.52	-21.18
Serbia	0.00	51.70	0.00	-51.70
Slovakia	20.00	51.70	20.00	-31.70
Slovenia	11.00	51.70	11.00	-40.70
Spain	25.00	73.41	40.00	-33.41
Sweden	29.51	56.30	73.49	+17.19
Switzerland	0.00	59.20	0.00	-59.20
Turkey	0.00	51.70	0.00	-51.70
United Kingdom	153.66	49.94	173.00	123.06

Method note: Table A2 is an illustrative stress test, not a forecast of actual 2030 EU ETS liabilities. It applies an assumed €110/tCO₂ price to each country's fossil-CO₂ intensity; where country-specific data are unavailable, the model assumes 1.0 tCO₂/t waste and a 47% fossil share, giving €51.70/t waste.

The scenario assumes full exposure and does not model ETS phase-in, derogations through 2035, free allocation or other installation-specific EU-ETS reductions. Existing national tonnage- and energy-based incineration taxes are retained. Existing EU ETS liabilities are replaced by the modelled ETS cost rather than double counted. Other national carbon-pricing instruments are treated according to their interaction with the EU ETS: charges that cease, are exempted or are offset once ETS liability applies are replaced by the modelled ETS cost (Germany and Norway), while carbon taxes designed to apply in addition to ETS are retained (Denmark). Where the future interaction with the EU ETS remains unresolved, the country is treated separately rather than assuming either substitution or full stacking (Netherlands).

Confirmed tax trajectories are used where available; otherwise indexation assumptions are applied where taxes are regularly uplifted, or the figure is held static where it remains constant for years at a time. The comparison covers the fiscal differential only: landfill restrictions are assessed separately and gate fees, transport, treatment costs, contractual pass-through, revenues, CCS and future waste-composition changes are excluded. For non-EU countries, the ETS-equivalent cost is illustrative only.