



ZERO WASTE EUROPE WELCOMES THE EUROPEAN SUSTAINABLE FINANCE PLATFORM

In defence of the exclusion of Waste-To-Energy incineration from the EU Taxonomy Regulation

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Zero Waste Europe welcomes the launch of the European Sustainable Finance Platform and commends the European Union for driving the transition to a low-carbon, more resource-efficient and sustainable economy.

The [EU Taxonomy Regulation \(\(EU\) 2020/852\)](#) is a fundamental pillar to provide criteria for what economic activities can be considered 'sustainable finance': those that can make a substantial contribution to climate change mitigation and which do no significant harm to other environmental objectives such as transition to a circular economy, waste prevention, and recycling.

The EU Taxonomy therefore excludes 'Waste-To-Energy' (WTE) as it may harm one of the key environmental objectives: to ensure the transition to a circular economy, waste prevention and recycling, excluding any activity leading to significant inefficiencies in the use of materials in one or more stages of the life-cycle of products. This is applicable to issues such as durability, reparability, upgradability, reusability or recyclability of products. Similarly, it excludes situations in which an activity leads to a significant increase in the generation, incineration, or disposal of waste.

Waste to energy incineration is excluded from the EU Taxonomy's scope for climate change mitigation as it causes harm to the environmental objectives of a circular economy, waste prevention and recycling.



The EU is moving towards resource-efficiency without Waste-To-Energy incineration

The exclusion of Waste-To-Energy incineration from the EU Taxonomy is not an isolated event. Other important institutions and policies in the EU have also moved away from investing or supporting Waste-To-Energy incineration in the recent years.

Waste-To-Energy incineration was already limited back in 2011, when the European Commission launched the Roadmap to a Resource Efficient Europe (COM(2011) 571) with new ambitions for the EU to move towards a zero waste Europe. The roadmap had a strong push towards “residual waste close to zero” and it underlined that “incineration with energy recovery should be limited to non recyclable materials, landfilling is virtually eliminated and high recycling is ensured.”¹

EU member states have been warned against Waste-To-Energy incineration investments. The Communication on Waste-To-Energy (2017) analysed the role of Waste-To-Energy incineration and gave guidance to member states on how to cope with the problems generated. For high capacity countries, it recommended:

1. To make incineration more expensive through taxes (e.g. gate fees);
2. To phase out public support schemes for Waste-To-Energy incineration and use funds more efficiently to support upper tiers in the [waste hierarchy](#); and
3. To put a moratorium on any new facilities and decommission old ones.

For countries with low capacity, the recommendation was to improve separate collection obligation and recycling, bearing in mind long term targets.²

Waste-To-Energy incineration lost the renewable energy subsidies. The [Renewable Energy Directive](#) was revised in 2018, with the European Parliament and European Council approving [to phase-out subsidies to Waste-To-Energy incineration](#) if separate collection obligations have not been complied with. Up until then, WTE incinerators would receive subsidies for burning biogenic material under the false assumption of producing renewable energy. These subsidies provided up to 10-15% of the income for incinerators. Ever since the revision of the Renewable Energy Directive, WTE incinerators cannot receive subsidies if the separate collection and recycling targets at national level are not met.³⁴

¹ zerowasteurope.eu/2011/09/new-eus-resource-efficiency-roadmap-points-in-the-zero-waste-direction

² zerowasteurope.eu/2017/01/towards-a-new-european-mindset-on-Waste-To-Energy

³ zerowasteurope.eu/2018/01/the-european-parliament-halts-perverse-subsidies-to-energy-from-mixed-waste

⁴ zerowasteurope.eu/wp-content/uploads/edd/2019/09/zero_waste_europe_policy-briefing_REDII_October2019.pdf



The EU Cohesion Fund is considering stopping funding Waste-To-Energy incineration.

Seeking to promote sustainable development and to reduce economic and social disparities among all European regions, this mechanism is now following the proposal from the European Commission to stop all funds going for Waste-To-Energy incineration. At the time of writing, the European Parliament has adopted this measure in their official position in plenary and it's pending approval at the Council of the EU.⁵

The European Investment Bank (EIB) has excluded Waste-To-Energy incineration as a contributor to a Circular Economy. The EIB - the biggest multilateral financial institution and one of the largest providers of climate finance in the world - published its [Circular Economy Guide](#) in January 2019. This document excludes Waste-To-Energy incineration as a contributor to a Circular Economy.⁶ In October 2019, the EIB pulled its funding out of a controversial waste incinerator in Belgrade (Serbia), after the European Commission's warnings that it could threaten environmental targets. In particular, it argued the adverse effect the plant would have on Serbia's recycling and circular economy targets under its EU accession process (guided by the EU Accession Agreement).

To sum up, we have witnessed the development of circular economy policies embracing the principles of the waste hierarchy and zero waste, moving away from waste-to-energy incineration and prioritising the maximisation of material recovery. These are all critical precedents that need to be considered in the development of criteria for sustainable finance at European and global level.

Why Waste-To-Energy incineration should not receive green finance

1. Waste-To-Energy incineration is a high carbon-intensive source of energy.

Carbon intensity, one of the most important metrics used as technical criteria for the Taxonomy, refers to the amount of CO₂ emissions equivalent per unit of electricity generated or per unit of output. For each potentially

⁵ zerowasteurope.eu/2019/03/cohesion-fund-the-european-parliament-votes-to-help-europes-most-needy-regions-go-circular
zerowasteurope.eu/2019/02/european-parliament-steps-forward-to-stop-burning-eu-funds
www.euractiv.com/section/circular-economy/opinion/how-the-eus-cohesion-fund-can-support-the-circular-economy

⁶ "While communication from the EC acknowledges that energy recovery from non-recyclable residual waste contributes to the circular economy, it is in practice difficult to judge whether a waste stream is non-recyclable or not. Therefore, the EIB does not include energy recovery through incineration and other forms of thermal treatment of: (1) mixed residual waste and fuel generated therefrom; and (2) plastics, as a category that contributes to the circular economy".



eligible activity, it needs to verify whether the company or issuer meets the relevant screening criteria, e.g. electricity generation <100g CO₂/kWh.

Waste-To-Energy incineration would fail this test, as the carbon intensity of energy produced through waste incineration is twice the EU28 average electricity grid intensity (which is 298 g CO₂eq per kWh) according to the latest analysis of European power sector by Agora Energiewende and Sandbag.⁷

2. **Waste-To-Energy incineration harms recycling and stops waste prevention policies for decades.**

Evidence shows that incinerators burn a large amount of recyclable materials – sometimes as much as 85% of all materials incinerated were recyclables.⁸ Rather than operating in tandem – where recyclables are recycled and only non-recyclables are burned –, Waste-To-Energy incineration and recycling typically compete for the same waste materials, as incinerators depend upon waste materials that have high calorific value, which are precisely the ones readily processed by recycling programmes: paper, cardboard, and plastics.

Investing in an incinerator sets a community on a long-term path tied to this outdated, inefficient approach. Incinerators are among the most expensive and least efficient forms of generating electricity. The associated high costs lock up funds instead of making them available for less expensive, more effective strategies.

3. **The EU already has overcapacity to incinerate and a lock-in problem to Waste-To-Energy incineration.**

As acknowledged in the [Communication on Waste-To-Energy \(2017\)](#), many countries in the EU have overcapacity to incinerate and they have found themselves in a 'lock in' situation, i.e. unable to improve their circular economy and climate change mitigation targets. This is the case for Denmark and the rest of Scandinavian countries, who themselves have called out their model as inefficient^{9,10} and have been advised by waste management experts to move away from Waste-To-Energy incineration.¹¹

4. **Waste-To-Energy incineration is unsafe and a threat to public health.**

Multiple accidents from incinerators in industrialised countries show that this technology is not reliable. Some examples of incinerators which do not comply with emissions regulations and have severe operational issues are:

- a. Denmark: the Norfos incinerator has repeatedly exceeded the limit value for toxic emissions since 2014, as revealed by the Danish Environmental Protection Agency which released an injunction showing the measurements in July 2019. The bar chart shows that, since 2014, Norfos violated the dioxins emissions' limit for three of the last five years.¹²

⁷ Sandbag: [The European Power Sector in 2018](#)

⁸ [zerowasteurope.eu/2019/10/a-story-of-hidden-emission-the-case-of-sant-adria-de-besos-incinerator](#)

⁹ [www.politico.eu/article/denmark-devilish-waste-trash-energy-incineration-recycling-dilemma](#)

¹⁰ [greenallianceblog.org.uk/2020/07/20/scandinavians-call-their-waste-incineration-crazy-so-why-copy-them](#)

¹¹ [norden.diva-portal.org/smash/get/diva2:1304371/FULLTEXT01.pdf](#)

¹² [zerowasteurope.eu/2019/07/the-case-of-the-danish-norfos-plant](#)



- b. The Netherlands: a study by Zero Waste Europe and Toxico Watch revealed that the dioxin emissions of the REC incinerator have been systematically underestimated, as they frequently went far beyond the limits set by the environmental permit (0,01 ng TEQ/Nm³). The study also exposed how breaches have been hidden thanks to unreliable testing which seriously understated the emissions level. The local community reacted and citizens, led by the association [Stichting Afvaloven Nee Foundation](#) sued the REC for its toxic emissions.¹³
 - c. Spain: the Barcelona incinerator caused high levels of concern among residents after the release of several scientific studies showing worrying levels of dioxins and furans in the area, which increase the risk of developing various diseases.¹⁴
 - d. Lithuania: the “Fortum Klaipėda” incinerator has been responsible for several environmental breaches without being held accountable. The plant has regularly exceeded the daily limits for Hydrogen Chloride and has also incinerated a higher amount of waste than allowed in its IPPC permit.¹⁵

5. **Waste-To-Energy incinerators undermine air quality.**

Burning waste in incinerators releases various types of emissions including lead, mercury, dioxins and furans, particulate matter, carbon monoxide, nitrogen oxides, acidic gases (i.e., SO_x, HCl), metals (cadmium, lead, mercury, chromium, arsenic, and beryllium), polychlorinated biphenyls (PCBs), and brominated polyaromatic hydrocarbons (PAHS).

Direct exposure to these toxins risks the health of facility workers and residents in nearby communities, while indirect exposure through the food chain poses global risks. In London, fifteen deaths of London residents per year are attributable to emissions of nitrogen oxides and particulate matter from the city’s five Waste-To-Energy incinerators energy sources.¹⁶

6. **Waste-To-Energy incineration produces toxic by-products.**

Incineration creates another waste management issue, as it produces highly toxic by-products, such as fly ash, bottom ash, and wastewater. These residues are mostly sent to landfills where the ash can spread via wind and air. Some ash is mixed into concrete, buried in salt mines, mixed into asphalt for roads, or even spread on agricultural lands mislabeled as soil fertilizer. Pollutants remaining in the ashes threaten air and water quality and pose health risks for workers and nearby communities, whether they end up in landfills, cement kilns, mines, or agricultural lands.

¹³ zerowasteurope.eu/wp-content/uploads/2018/11/NetherlandsCS-FNL.pdf

¹⁴ zerowasteurope.eu/2019/10/a-story-of-hidden-emission-the-case-of-sant-adria-de-besos-incinerator/

¹⁵ zerowasteurope.eu/wp-content/uploads/2018/12/ZwE-Klaipeda-case-study.pdf

¹⁶ ‘Health Effects due to Emissions from Energy from Waste Plant in London’. Greater London Authority (GLA).



In line with a core vision that all materials are preserved in the circular economy loop, sustainable finance should be developed and foresee funding provisions in a way that takes the values of material recovery, technology research, and promotion of best practices to heart.

In conclusion, and for the reasons exposed above, Zero Waste Europe strongly supports the current exclusion of Waste-To-Energy incineration from sustainable finance scope in the EU Taxonomy Regulation and encourages its replication in subsequent legislation.