



EUROPEAN SUPPLIERS
OF WASTE-TO-ENERGY
TECHNOLOGY

**ESWET'S COMMENTS ON THE
PUBLIC CONSULTATION ON
THE ACTION PLAN TOWARDS
A ZERO POLLUTION AMBITION
FOR AIR, WATER AND SOIL**





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10 February 2021

ESWET, the European Suppliers of Waste to Energy technology, welcomes the opportunity to contribute to the initiative of the European Commission for securing clean air, water and soil, healthy ecosystems and a healthy living environment for Europeans.

As a preliminary statement ESWET would like to **underline the difficulty of assessing cross-sector options** in the consultation process **without a clear view of each sector specificities and nuances**.

However, **ESWET greatly supports the Commission in its objective to mainstream the zero-pollution ambition** into all its policy developments and would like to underline the role of Waste-to-Energy technologies in pollution prevention and the reduction of greenhouse gas (GHG) emissions.

Waste-to-Energy and pollution prevention

Waste-to-energy (WtE) covers a broad range of technologies including thermal processes (e.g: incineration with energy recovery) but also many others like mechanical and thermal, thermo-chemical or biochemical processes.

These WtE technologies are essential in **pollution prevention and sustainable waste management**: it avoids landfilling of non-recyclable waste, where it would be likely lost as a resource and would create long-term risks of air, water and soil pollution and nuisance (use of valuable lands, odor emissions, greenhouse gas (GHG) emissions, plastic dissemination, groundwater pollution, soil contamination etc.).

In addition, poor landfills management can potentially be the cause of waste ending up in the environment, polluting rivers and oceans and other natural habitats.

Waste-to-Energy is one of the **most stringently regulated sectors** regarding air emissions, which ensures that WtE is a clean waste management activity.

However, the monitoring of emissions presents some implementation gaps between Member States which fragments the market and creates difficulties to collect data in a uniform way and for suppliers to provide equipment complying with different national requirements. It therefore disrupts to some extent monitoring at EU level, which is already effective in the waste-to-energy sector with available digital tools.

Waste-to-Energy and GHG emissions reduction

The main mission of Waste-to-Energy is to **safely treat waste unfit for recycling** (e.g. polluted waste, degraded waste after several rounds of recycling, and waste made up of composite materials etc.) or reuse and to **recover energy from it for the benefit of the community and industries**, in line with the waste hierarchy.

The continuous energy provided by Waste-to-Energy plants, even when the sun does not shine and the wind does not blow, **prevents the extraction and further use of fossil fuel**: in 2018 in Europe, WtE plants generated around 40 billion kWh electricity and 90 billion kWh heat, which provided 18 million citizens with electricity and 15.2 million citizens with heat.

In addition, many Waste-to-Energy plants also perform **material recovery** (e.g. metals & aggregates), which completes the proper separate collection and sorting in the prevention of **the polluting and energy-consumptive extraction of virgin material**.

Waste-to-Energy therefore allows for the offset of CO₂ emissions:

- The energy produced from non-recyclable waste annually avoids the emission of up to 49 million tonnes of CO₂ that would otherwise be emitted with the use of fossil fuels¹.
- In the EU, WtE saves 3.8 million tonnes of CO₂ equivalent every year through metal recovery from waste that could not be directly recycled after sorting².

Coupled to landfill diversion, material and energy recovery, Waste-to-Energy ensures that non-recyclable waste is used as a resource instead of being landfilled which would emit methane, a greenhouse gas (GHG) 84 times more potent than CO₂ over 20-year period³.

Regarding the reduction of direct CO₂ emission of the Waste-to-Energy sector, they are only two options to significantly reduce direct CO₂ emissions:

- Either to stop treating non-recyclable waste, which is obviously not a sustainable option;
- Or to make economically viable the implementation of Carbon Capture and Storage technologies (CCS) in Waste-to-Energy plants, which requires financial support. Coupled with Carbon Capture and Storage, waste-to-energy is one of the few sectors able to provide negative carbon emissions: once captured and stored, the biogenic fraction of CO₂ from WtE, counts as a net carbon removal. It therefore offers the opportunity to offset emissions from sectors with inevitable CO₂ emissions.

¹ *Waste-to-Energy in the EU: The Effects of Plant Ownership, Waste Mobility, and Decentralization on Environmental Outcomes and Welfare*. <https://www.mdpi.com/2071-1050/12/14/5743>

² *CEWEP's Bottom Ash Factsheet*. <https://www.cewep.eu/bottom-ash-factsheet/>

³ *IPCC, 2014: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]*. IPCC, Geneva, Switzerland, 151 pp. https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf

Therefore, ESWET calls the Commission to take into account the following points in its drafting of the Action Plan Towards Zero Pollution:

- Consider the diversity of Waste-to-Energy recovery, and the advantages of incineration with energy recovery.
- Acknowledge the essential role of Waste-to-Energy in the safe treatment of non-recyclable waste, as well as in preventing pollution and loss of resources through landfill diversion.
- Consider not only direct emissions but also the offset of CO₂ emissions via:
 - material recovery;
 - energy recovery;
 - landfill diversion.
- Help harmonise rules and interpretation on emissions monitoring and reporting EU-wide, without creating additional administrative or financial burden.



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ESWET is a European association representing the European suppliers of Waste-to-Energy technologies, committed to foster the development and dissemination of Waste-to-Energy at the European level. ESWET also seeks to raise the awareness of the positive implications of the technology in terms of better waste management, energy and for the environment.

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