

ESWET Press Release

The European Commission's Communication on the role of Waste-to-Energy in the Circular Economy

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ESWET welcomes the publication of the Communication, since we believe that waste management policies, in order to bring benefits to all EU citizens, should be based on efficient and sustainable solutions. Waste-to-Energy (i.e. thermal energy recovery of waste) is one of them: it complements Circular Economy by dealing with waste not suitable for recycling that would be otherwise landfilled. On the other hand, it also provides a source of reliable and local energy that can be used in our houses or by industry. Finally, it helps recovering important materials (metals and minerals).

Waste-to-Energy potential

The Communication states that the rules on separate collection and more ambitious recycling targets *'are expected to reduce the amount of waste potentially available for Waste-to-Energy processes such as incineration and co-incineration'*.

However, according to a recent study on the technical potential of Waste-to-Energy prepared by the EU Joint Research Centre (JRC) in the framework of this Communication, we can expect in the EU a stable, or even increasing amount of feedstock for the Waste-to-Energy processes.

*'(...) despite the existing potential for waste prevention and reduced generation of these streams [household and similar waste] through better and more widespread source-separated collection, **energy recovery is likely to increase to support the necessary massive diversion from landfill.** Moreover, higher recycling rates for other waste types may lead to a **further increase in the generation of sorting residues**, unless the quality of the materials collected separately at source improves.^{1'}*

ESWET would like to understand how these two statements are compatible.

¹ [Towards a better exploitation of the technical potential of waste-to-energy](#), p. 9

Waste-to-Energy capacity

The Communication also highlights that incineration capacity is unevenly spread within the EU. Indeed, 13 Member States still landfill more than 50% of their municipal waste and they have no or very little Waste-to-Energy capacity. Hence, ESWET believes that there is room for integrated waste management plans, including new thermal recovery facilities, in these regions. Therefore financial support should be given for the implementation of such integrated waste management strategies, including new thermal recovery facilities.

Finally, it is also important to notice that waste statistics used for assessing incineration capacities does not take into account commercial and industrial waste, which is also treated in thermal energy recovery facilities. As it is mentioned in the study on incineration capacities (also prepared to support this Communication)² it is difficult to identify share of mixed municipal waste and non-municipal waste in the plants. Municipal waste generation and Waste-to-Energy capacities are therefore figures that are difficult to compare. Consequently ESWET advises caution when talking about risk of overcapacities.

Waste hierarchy

The Communication dedicates a lot of attention to anaerobic digestion. This technology has its obvious advantages – it deals with bio-waste and provides supplies of fertilisers for the agriculture industry – if the feedstock is not contaminated. However, it is suitable only for part of the waste.

Thermal recovery is the only choice when handling certain types of waste materials, such as unrecyclable plastic. Moreover, it has also an important sanitising role: the incineration process removes toxic substances from the ecocycle. In this context, we want to remark that contaminated bio-waste should not be used for producing compost and thermal treatment is an obvious alternative.

Incineration taxes

Introducing incineration taxes or placing a moratorium on the construction of new facilities will not necessarily foster a transition towards the Circular Economy. Since thermal energy recovery plants deal with waste that is not suitable for recycling, the incineration rate depends on recycling feasibility of products. Hence, incineration taxes, when introduced together with high landfilling charges, will simply increase the costs for citizens.

Incineration taxes proved ineffective even in a Member State with well-developed waste treatment strategies – Sweden. The country introduced taxation of incineration of household waste in 2006, but repealed it in 2010. It was observed that the tax did not have any

² [Assessment of waste incineration capacity and waste shipments in Europe](#), p. 5

significant effect on improving recycling rates. It raises therefore a question whether other Member States should go through a similar experience, or could they learn from this lesson?

Optimising Waste-to-Energy processes

As it is stated in the Communication, Waste-to-Energy contributes also to the Energy Union strategy and Paris Agreement. However, what is worth noticing is that this contribution comes not only from the anaerobic digestion, but mainly from the thermal energy recovery. Diverting residual waste from landfill (without landfill gas treatment) into thermal energy recovery and metal recycling from bottom ashes can provide savings up to 1.75 tonnes of CO₂eq/tonne of residual waste.

The metal recycling from bottom ash was briefly mentioned in the Communication, yet we believe it deserves more attention. Thermal energy treatment allows to recover 80kg of metals from 1 tonne of residual waste that otherwise would be buried in a landfill.

Moreover, the Communication mentions that thanks to the use of the most effective technologies, such as Combined Heat and Power, the amount of energy recovered in Waste-to-Energy processes can increase by 29%. This number also comes from the JRC study mentioned above. What the Communication does not mention, is that according to this study the biggest share of this potential lies with thermal energy recovery of waste...

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