



EUROCITIES statement on waste-to-energy in a circular economy

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City authorities are responsible for the collection and treatment of municipal waste. Better management of waste resources generated by households, businesses, the mining industry or the construction sector is a key factor in the transition to a circular economy. In the future, it is expected that countries that are very advanced in their transition to a circular economy will have a decreased demand for waste-to-energy, due to prevention and the introduction of new recycling innovations. However, waste-to-energy with heat and energy recovery is still currently an essential element in a sustainable waste management system, if the waste hierarchy is respected and energy is recovered in an environmentally friendly manner.

Role of waste-to-energy

The Commission's communication on 'the role of waste-to-energy in the circular economy' focuses on energy recovery from waste and its place in the circular economy. Although it analyses the various waste treatment processes generating energy, their different environmental impact and circular economy potential, it fails to acknowledge the contribution of environmentally friendly heating and the CO₂ reduction potential of waste incineration plants at the present. We believe it is important that:

1. the need for destruction of residual waste is recognised

Waste regulation in EU and member states is built on the need for better management of waste resources together with safe and environmentally treatment of residual waste. Several failures in waste management systems clearly show that these requirements still are essential in our societies. Waste-to-energy gives citizens and industry an efficient and reliable method of treatment of waste for which there is no other alternative towards a circular economy.

Classic components of household waste like paper and cardboard, compostable waste, glass, scrap metal etc. should be collected separately and recycled. There is scientific evidence that recycling has the highest impact on carbon footprint in these cases, due to energy savings in the production of new goods, and is better than assigning the material to

waste to energy treatment¹. However, after having done the maximum to reduce waste generation through prevention and increase of reuse and recycling, cities with high rates of recycling still need basic infrastructure for the treatment of the residual waste, both the daily waste collected and waste from unforeseen situations such as fires, natural catastrophes or as required by EU law to prevent infection risk of diseases.

Proportions of municipal waste are not recyclable but still need to be treated according to the waste hierarchy. There are no recycling mechanisms for different kinds of (mixed) plastic waste and complex goods like e.g. toys, broken shoes, sorting remains from recycling plants, polluted waste fractions and there is no demand on the markets for such materials. City authorities are required by legislation to take care of these waste fractions, but require the correct infrastructure.

The continued development of green procurement guidelines is encouraged to develop the circular economy and the use of recycled material needs to be part of the standards to assign a label to a certain product. We would welcome a clearer EU definition of quality standards for recycled material as well as further work on eco-design ensuring standards for design for recycling are achieved.

2. waste with calorific value should not end up in landfill

Waste that still has a calorific value or recyclable material should not be disposed of in a landfill. The continuation of this approach underlines the need for waste management plans by member states as stressed by article 28 of the waste framework directive. There should be possibilities for city authorities to secure financing for basic waste management infrastructure within national/regional waste management plans.

Some member states have already established a ban on landfill waste that still has a calorific value. This has minimised the carbon footprint of waste management by eliminating methane emission from landfills. We support the gradual limitation of the landfilling of municipal waste to 10% by 2030, as proposed by the Commission. We recommend extending the limitation to commercial waste and ensuring that if there is still any landfill, it is composed of only inert and low calorific waste.

3. resource efficiency in ashes from waste-to-energy plants is increased

About 20% of the waste in a waste-to-energy plant ends up as bottom or fly ashes. These ashes contain a huge range of metals, construction materials or other useful substances such as zinc and phosphorous. These are extracted but the potential is much higher. We support the further development of methods and technology to realise this potential.

¹ www.umwelt.nrw.de/fileadmin/redaktion/PDFs/umwelt/munlv_klimaschutz_endbericht.pdf

4. the right capacity is found

It is important to define the correct capacity for waste-to-energy-plants, respecting the waste hierarchy in which recycling and calorific use of waste potential is maximised. EUROCITIES supports the need for national waste management plans in the Waste Framework Directive and calls for a better use of this requirement among member states to plan infrastructure sustainably.

5. waste-to-energy plants are embedded into supply grids

Waste-to-energy plants with district heating system and electricity production play an important role in sustainable, local and integrated waste management systems. Waste incineration plants producing electricity and energy for district heating and district cooling systems, energy for industrial processes or the production of solid recovered fuels for industrial plants such as cement kilns are the most efficient way to recover energy from residual waste.

Waste to energy plants such as incinerators and anaerobic digesters should be designed as local or regional power and district heating and cooling facilities to achieve maximum energy efficiency. Preference should be given to locations with a connection to existing district heating grids or to industrial sites with a large demand for process heat.

We encourage the European Commission to develop guidelines at EU level, in collaboration with city authorities, on how to efficiently integrate waste-to-energy plants into local heat and power grids, while securing that overcapacity and future recycling capacity needs are taken into account.