

ESWET input to the Public Consultation on the Circular Economy

20.08.2015

ESWET, the European Suppliers of Waste to Energy Technology, would like to welcome the opportunity to provide input on the Circular Economy, ahead of the package's re-release. Our views were already expressed on the waste management targets in the previous consultation. Please refer to <http://www.eswet.eu/position-papers.html> for our various position papers. We would like to highlight a few points here.

About the Circular Economy and Waste-to-Energy

The Circular Economy aims at maintaining the value of materials and energy used in products with the ultimate goal of minimising waste and resource use. For this to be a reality, ESWET believes that there is a need to reintroduce materials and energy contained in unrecyclable waste, so that these can feed and power the Circular Economy while minimising material or energy losses.

On the other hand, there is a huge stock of existing products that contain polluting substances that, when becoming waste, should not be reintroduced into the economy or the environment. Besides, current and future products are likely to contain such substances for some time too. It is therefore necessary to have a pollutant sink to progressively clean the resource circles until loops can be closed on a variety of streams.

To enable the reintroduction of materials and energy into a circular economy while acting as a pollutant sink, Waste-to-Energy is indispensable. The only alternative to it is landfilling, which is the least preferred option according to the Waste Hierarchy.

Waste-to-Energy delivers secondary raw materials

On material streams such as construction material and metals, Waste-to-Energy is a supplier of recyclates. Metals and minerals are present in the unrecyclable waste that would otherwise be landfilled. By extracting them through treatment of bottom ash, Waste-to-Energy is the most efficient – if not the only – technology allowing these materials from residual waste to be recycled for various purposes.

For instance, in the Netherlands, 116,000 tonnes of ferrous metals were extracted from Waste-to-Energy bottom ash in 2013, enabling their recycling for various purposes in the ferrous metal industry. Valuable non-ferrous metals are also routinely recovered from those residues. Motorcycle engines have even been made with aluminium recycled from Waste-to-Energy residues!

Recyclable metals embedded in residual waste would otherwise have been lost if landfilled, while the energy from combustible material surrounding them would also have been buried. This underlines the necessity of Waste-to-Energy to close material circles.

This explains our answers to section 5, whereas more Waste-to-Energy means more recovery of secondary raw materials from unrecyclable waste, often with better quality.

Smarter consumption, better products

ESWET warmly welcomes the consultation's focus shift from waste to product policy. Waste management can improve, but if consumption patterns and product design do not change, the Circular Economy will remain beyond reach.

Circular economy needs to be powered by clean, base-load energy

Sustainable base-load energy is crucial to power Europe's Circular Economy and Reindustrialisation. Energy from carbon-neutral biomass waste is renewable, accounting for about half the produced energy. Waste-to-Energy plants have very low pollutant emissions and tighter Emission Requirements than any other combustion industry.

Industries need steady supplies of electricity and heat, which Waste-to-Energy plants can provide cleanly, affordably and locally for various purposes. This includes supplying high-pressure and high-temperature steam for industries, something that most renewables cannot supply. Circular Economy is about material flows, but energy aspects must not be disregarded either.

Quality recycling is the real key to a Circular Economy

Many voices call for very high recycling targets, but a reality check is needed. Are high quantities of waste sent for recycling really bringing us closer to the Circular Economy? If recycling is not about quality, and for instance pollutants are re-introduced in the eco-cycle or materials are downcycled, are we really protecting health and the environment?

ESWET fully supports ambitious recycling targets, as long as they enable quality recycling. For instance, in countries that minimised landfilling, a significant amount (up to 40%) of aluminium recycled from MSW was actually extracted from Waste-to-Energy plants' bottom ash. This shows that recycling can take place in various forms, something that any proposed recycling targets should grasp in the spirit of quality recycling.

Minimising landfilling should be priority

Today's technology already allows minimisation of landfilling. An efficient dispatching of waste, along with careful planning of new sorting and energy recovery capacities, could quickly hasten the end of untreated waste landfilling. No, a landfill ban does not mean that all landfilled waste will be shifted to incinerators. To the contrary, locations with landfill bans/taxes have the highest recycling rates in Europe.

For instance, without a landfill ban, metals in unrecyclable waste are routinely landfilled. When the ban is implemented and residual waste is combusted, most, if not all metals are recycled from the ashes. Landfill bans do increase recycling rates.

This is where the EU needs to be ambitious, because all the technology and experience is already there. Minimising landfilling is the lowest-hanging fruit for materials and also yields tremendous climate and energy benefits.

ESWET believes that quick action on landfilling is the best way to kick-start the Circular Economy, pushing waste up in the Waste Hierarchy.

Outlook

ESWET believes that while an important emphasis must be put on product design and consumption patterns to decrease waste generation and improve its recyclability, Waste-to-Energy should be recognised as a necessary technology within the waste hierarchy.

ESWET will be following actively the discussions on the Circular Economy, specifically the Waste Management Targets, which must translate into realistic, quality recycling targets and ambitious landfill minimisation policies.

ESWET remains open to discuss how the technology can help, and stands ready to develop efficient and clean plants yielding recyclable materials and affordable energy.