

Your Voice In Europe: ROADMAP feedback for Waste to Energy Communication

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Feedback:

The EEB thinks it is important to clarify the role of waste to energy (WtE) in the waste management system, making sure it does not create lock in effect that could hamper the implementation of higher steps in the waste treatment hierarchy, namely prevention, preparation to reuse and recycling. The EEB in line with latest report and infographics released by the European Environmental Agency does not think that energy recovery is part of the circular economy (CE) as such. Recovering energy from waste is most of the time a sign of failure in a circular economy vision as it definitively stops the material cycles. In a CE vision, incineration of waste is a disposal operation. Landfill restrictions and bans should be leading to resource conservation and material recycling measures, and only forms of energy recovery that would not freeze the system for decades should be part of the transition. E.g: when energy recovery can happen without undermining the material recovery dimension, such as with anaerobic digestion on separately collected bio-waste whose digestat can be then spread on land. Landfill restrictions and bans should trigger innovative production and consumption patterns, new product design and resource efficient business models, not more energy recovery which will not lever the same material, energy or CO2 savings, neither the same job creation opportunity.

We take note of some provisions in the European Commission roadmap to consider the role of WtE in the broader perspective of the circular economy and the waste treatment hierarchy, so that allegedly WtE will not take place at the expenses of reuse and recycling. We however think that some formulations in this roadmap cast doubt about the real willingness to limit WtE capacity and make sure energy recovery does not play against material savings and recycling.

We notably regret that waste burning or any form of energy recovery is qualified by default as renewable energy as it implies that efforts to reduce waste generation or even better designing waste out of the economy may not be effective.

For more detailed analysis of the formulations contained in this roadmap, please consult our briefing attached to this consultation.

29/02/2016 Brussels

Reaction on Waste to Energy Roadmap – communication http://ec.europa.eu/smart-regulation/roadmaps/docs/2016_env_086_waste_to_energy_en.pdf

This EEB briefing on the European Commission [roadmap on waste to energy](#) to prepare its communication on the topic is not a position paper on the circular economy package, the Energy Union program or the bio-based economy. It simply highlights some risks linked to the promotion of energy recovery solutions as they can be detected in the formulations of this roadmap. All quotes in italics are extracted from the roadmap.

The EEB acknowledges that the roadmap on WtE does refer to the broader CE perspective, notably when stating :

“When planning Member States need to prioritise actions targeting the highest ranks of the waste hierarchy - waste prevention; product reuse and recycling – through effective waste separate collection schemes and economic instruments (e.g. landfill tax or charges) – and avoid investments in end-of-pipe waste management solutions such as landfill sites and overcapacity in mechanical and biological plants and incinerators that could compromise meeting present and future objectives. “

And the fifth objective of the roadmap seems to remind this clearly: *“To examine the best ways that WtE can contribute to the EU energy mix without compromising the achievement of the EU's long-term reuse and recycling targets “*.

However we are worried that those provisions could act as mere cautious wording rather than proper conditions to question the place of WtE in Europe for the future. We think that formulations in the roadmap unfortunately imply that this good intention could be quickly forgotten on behalf of a short term promotion of WtE technologies.

To start with it is to be noted that when referring to economic instruments, as quoted above, there is no mention of incineration taxes as it is done for landfill to incentivise waste prevention product reuse and recycling. As taxes for landfill are a way to re-balance the market and avoid that the cheapest dirtiest option of landfilling is the most economical option, the same should happen to incineration and energy recovery. Any landfill restriction could make the incineration of waste the new cheapest option if not more systematically associated with taxes or charges.

Waste is not renewable by default.

The first worrying idea is to consider that WtE is similar to renewable energy *“contribute to the security of energy in the EU by producing energy from a renewable source”*: waste cannot be considered renewable by default! As long as energy recovery from waste can be presented as renewable and eventually supported as such financially and politically, the priority of reducing waste generation and designing it out of our economy cannot be properly implemented.

“Indeed, energy recovery can further contribute to the objectives of renewable energy through state-of-the-art incineration technology and emerging solutions such as gasification and anaerobic digestion to treat highly calorific and non-recyclable waste”. This ignores the fact that waste avoidance and recycling certainly save more energy and CO2 than any other form of energy recovery. The fact that we have residual non recyclable waste to deal with today should invite to change this situation, trigger innovative solutions and eventually consider very adaptable transitory solutions that will not create lock in effects for decades. ‘Emerging solutions’ should first be formulated towards resources conservation and recycling, and not towards more capacity investment technology that would need a constant supply of waste and perverse subsidies or political support to create even more waste to meet renewable energy objectives.

Energy from waste is not a primary option to reduce our dependency.

It may be a mere illusion to pretend that WtE will have a significant impact on EU import dependency.

“In 2012, EUROSTAT reported that 49.8 % of all wastes generated in the EU were disposed of (namely, landfilled and incinerated without energy recovery) in Member States while approximately 5 % were energy recovered, representing 1.3% of all energy used in the EU.”

While pointing to the missed opportunities for EU energy independence, we should focus more on energy efficiency and energy savings which are massive and yet largely untapped notably in housing and transport sectors. Recycling is also saving significant energy compared to virgin material extraction and processing, and if ambitious prevention and recycling targets are adopted, they could contribute in a more effective way to reduce EU dependency, not only on energy imports but also material imports. In addition wasted heat from industrial processes that could feed district heating is still largely neglected. Which we consider more appropriate, notably as for incineration *“... the residual waste (fly ash containing hazardous waste) and associated management costs can be particularly high. Also, investments tend to be long term, capital intensive and social opposition can be a hindrance to their development due to concerns related to air emissions.”*

Even in the case of district heating , we call for conditioning cohesion funding allocation to higher steps in the hierarchy receiving at least the same amount, and we should not allow that cohesion fund go to district heating projects based on an exclusive source of waste supply to be operated (as this will maximise the lock in effect).

Waste to energy is not part of the CE

An ambiguous provision is to let believe that energy recovery from waste is an integral part of the CE.

“It is thus presumed that important amounts of non recyclable municipal waste, whose energy content could otherwise be fed back into the economy, are being leaked from a circular economy model”. This statement is misleading for two reasons:

- First it ignores the EU’s own intentions of changing the design of products to avoid that there is a continuation of non recyclable materials being placed on the market. It should be noted that in view of the period to return on investment of big capacity waste to energy plants (20 years or more), the re-design strategy seems all the more realistic, notably if we are serious about the CE.
- Second it tends to state that energy recovery is inside the CE, when [latest documents by EEA](#) on CE show that incineration is also a leakage from the CE model. In a CE perspective burning material is a

failure. Only processes with the potential to still enable material recovery at the end, e.g. biogas, should be compatible with CE vision.

Energy recovery should not be boosted at the expenses of environment and human health

“The Communication will assess how existing WtE processes (e.g. incineration, co-incineration) and other emerging improved processes e.g. gasification can be optimised through new technology and changes in operational parameters. For this purpose, the information obtained through the ongoing work related to the Best Available Techniques reference documents (BREFs) will be utilised as needed”: It should be noted that the review of the BREFs while trying to optimise energy recovery should not neglect their main purpose which is the environment and human health protection. With that regard, the energy recovery optimisation should not be performed at the expenses of the monitoring and limiting emissions of substances and emissions.

Dealing with overcapacity

The Commission acknowledges that there is an issue with overcapacity compared to supply in certain countries, *“the Communication should thus consider to what extent shipments of combustible non-recyclable waste from Member States with a high landfill rate and insufficient WtE capacity towards Member States with WtE overcapacities might contribute to better waste management and to a more efficient use of the network of WtE facilities in the EU”*. We think it's a fair acknowledgement of the risk of over capacity of incineration and WtE plants in Europe. This should be the main reason why a moratorium on the construction of new WtE plants should be declared until a proper analysis on amount and existing capacity is performed. It should also be noted that shipment of waste should be accepted under certain conditions, notably that the local opportunity of extracting recyclable material has been grasped as well as the stabilisation of bio-waste not properly separated. In that perspective, it may be worth investigating if shipment of 'untreated' residual waste could be prohibited (= waste not having been processed – e.g: sorted, sanitized).

Furthermore, the risk of overcapacity also exists if we look at the different WtE options. *“Recent research by the Joint Research Centre (JRC) of the Commission identified about 20 different waste derived fuels some of which may be undervalued and/or underutilised. Thus, the Communication would present the results of an analysis of the most relevant streams with a view to highlight their potential in the energy and economy context, e.g. co-processing”*. While we are rather sceptical with regards promoting SRF, as they also potentially interrupt the material cycle of materials (being biowaste or plastics, wood, papers...), we think that the WtE roadmap should be an opportunity to compare the costs and benefits - or the drawbacks and merits- of different energy recovery solutions. Beyond the risk of overcapacity of incineration plants, there is also a risk of over capacity of energy recovery facilities in general. The roadmap should be an opportunity to make clear in which conditions WtE plants are eventually needed and which form of energy recovery should prevail (e.g: anaerobic digestion, incineration, SRF, advanced bio-fuels...) and be clear about preventing simultaneous investments that would create a tension on the market to access the same residual waste supply at the expenses of the viability of the investments and their ability to meet environmental and human health standards. It is

only in that perspective that we understand the proposed investigation by the Commission: *“the Communication should clarify the role of WtE under the waste hierarchy as the best option for the management of combustible non-recyclable waste, thus highlighting most efficient processes for each main waste stream”*.

Hazardous waste are to be dealt with in specific facilities

“Also, it should analyse the contribution of WtE as a safe option to eliminate waste containing hazardous substances which should be safely managed so as not to pose any significant risks to human health and the environment”. We are very worried with regards this statement, as it could be read as using conventional WtE plants to do the job of specific hazardous waste treatment plants which have specific working conditions required by law. Those hazardous treatment plants should not be put in competition with installations not designed for this purpose. Already today, too many derogations are provided at local level to treat hazardous streams in sites designed only for dealing with non hazardous waste.

Making sure all stakeholders are involved.

This is what we can read when it comes to targeted stakeholders.

“Stakeholders

Primarily, Member States' regulators, waste-to-energy plants operators, waste-derived fuels producers, recycling industries and industries using waste as input to their processes are affected”.

We find it striking that representatives of the civil society, notably of local authorities and NGOs, are not mentioned as key stakeholders. We have evidences that it is not the intention of the Commission to exclude any stakeholder from the process, but we cannot help thinking that this omission also reflects a lack of perspective on the broader picture in which WtE reflexions should take place. We notably would like to make sure that municipalities will be presented the risks of investing or committing to large capacity WtE plants. Very often these investments come with obligations by municipalities to feed the installation with minimum volume of waste, hampering their ability to control their waste management, and putting at risk the finances of the municipality on the medium/long term. This may deprive the local authority from future savings possibilities linked to improved waste management, increase in waste prevention and recycling.