

FEAD comments on the European Commission's Roadmap on Waste to Energy¹

15 June 2016

1. Need to align the waste-to-energy situation with EU policies

The complementary role of waste to energy in the Circular Economy

- FEAD welcomes the fact that the Commission will further assess the interface between energy and waste policy in its upcoming Communication on Waste to Energy, as part of the EU Energy Union and of the Circular Economy Package. The Communication is expected to stress the important role that energy from waste will need to play for those waste types which are either recycling residues or are non-recyclable for technical, environmental or economic reasons.
- The EU's energy and waste policies need to be better aligned. In order to achieve this, the Communication should assess the role of waste to energy within the waste hierarchy without putting into question this hierarchy. Moreover, the Communication should help to better define the role of energy recovery from waste in the energy mix, while ensuring that any assessment made of different waste to energy forms is technology neutral.
- While separate collection and recycling of waste must be supported where technically, environmentally and economically practicable, the remaining materials (e.g. sorting residues) which cannot be fully reused or recycled should be treated in the most sustainable way, in line with the waste hierarchy. Waste to energy preserves the value of residual waste by turning it into fuels, electricity and/or heat, hence preventing resource losses, decreasing the need for fossil fuels and reducing greenhouse gas emissions. Additionally, anaerobic digestion of bio-waste and biogas recovery from landfill also allow the production of biofuels.
- Last but not least, energy recovery or incineration may be the overall most sustainable option for some waste including some containing hazardous substances of which the risks cannot be adequately controlled when recycled. The Commission should however keep in mind that even though energy can be recovered from these processes in some cases, their primary aim is the environmentally sound treatment of waste.

Setting the right incentives at EU level

- Economic instruments aiming at promoting electricity and/or heat from waste have to be well designed in order to avoid inefficient results (market failures). Determining factors are among others tariff systems, support measures and access to the grid. It is important to set the right framework for such mechanisms at EU level.
- In particular, the recognition of biodegradable waste as a source of renewable energy in the Renewable Energy Directive 2009/28/EC has been very important for our sector. A significant percentage of the energy production of waste to energy plants comes from

¹ "EXPLOITING THE POTENTIAL OF WASTE TO ENERGY UNDER THE ENERGY UNION FRAMEWORK STRATEGY AND THE CIRCULAR ECONOMY", published on 4 February 2016.

the biodegradable fraction of municipal waste, for which operators can claim incentives. FEAD calls on the Commission to maintain this recognition when the Renewable Energy Directive is revised.

Communication should cover both municipal and commercial & industrial waste

- FEAD welcomes that the JRC Background Document on Waste to Energy covers waste streams both from municipal and from commercial and industrial sources, and strongly calls upon the Commission to do the same in its Communication. Similarly, the technical study to be carried out by the European Environmental Agency (referred to in the Roadmap) should include waste management capacities not only for municipal waste but also for C&I waste.
- A truly circular economy will not be created if only municipal waste is taken into account. Commercial and industrial waste should also be included in the scope of the Commission Communication on Waste to Energy as it is a much larger source of resources. To achieve a circular economy, the EU needs to know more about flows of C&I waste so as to ensure that these can be efficiently re-injected into the European economy. As a first step, the Commission should require Member States to put in place better data gathering on C&I waste.

2. Making WtE processes more energy efficient

Assessment of different forms of energy recovery

- Waste to energy includes a number of processes, such as waste incineration with energy recovery, biogas production from anaerobic digestion and landfill, co-incineration of SRF, pyrolysis and gasification. FEAD believes that all these forms of energy recovery from waste need to be given equal opportunities in line with their respective contribution to the energy mix (in terms of waste flows, actually treated tonnages, calorific value). This should allow the selection of the most efficient technique applicable for each specific situation. In some Member States, the Commission should assess the untapped potential of combined heat and power (district heating networks with households and industry) in view of a shift towards more energy efficient waste incineration, with accompanying support measures at national level where necessary to facilitate investment.
- The Commission should be cautious in calling certain WtE technologies “mainstream” as the potential of these techniques largely depends on the input material. While gasification and pyrolysis (which in our view are “alternative” techniques rather than “improved” existing techniques) may be an option for certain homogeneous waste streams, we would not call them “mainstream” for mixed municipal waste. Moreover, it is important to clearly define the system boundaries when comparing technologies. The system boundaries should be designed as such that all treatment steps needed to recover energy from waste are considered, including pre-treatment and the potential production of residues which eventually need to be landfilled. This will ensure that when comparing different WtE alternatives, all required treatment steps before and after (and therefore their energy use) are taken into account when determining their energy efficiency.

Use synergies between Commission work on waste to energy and WI BREF review

- FEAD believes that the Waste Incineration BREF (WI BREF) review process can deliver a lot of relevant information about both waste incineration with energy recovery

and processes such as gasification and pyrolysis (some gasification and pyrolysis plants participated in the data collection for the WI BREF review).

- We ask the Commission to focus on operational data (such as the data collected for the WI BREF review) when assessing the potential of different technologies. Information from suppliers can be used as complementary information but will result in a bias when comparing proven (based on operational data) and alternative technologies (based on specifications from studies and supplier brochures).

3. Unevenly spread WtE capacities

- FEAD agrees with the Commission that the network of waste to energy facilities in the EU should be used efficiently. We welcome that the Communication will 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 do not consider that there is waste to energy overcapacity at EU level at the moment, even if some EU countries/regions may have abundant capacity or do not manage to fully exploit the available capacity. Many Member States currently do not have any capacity at all. FEAD therefore welcomes the planned study of the European Environment Agency on waste to energy capacities in the EU. We believe that it is necessary that the Commission identifies and maps the real (municipal and industrial) waste to energy capacities (in terms of waste volumes and the energy produced from them) in each Member State as well as the amount of waste shipped for energy recovery purposes (including SRF and C&I waste). This would clearly show where there are imbalances and will allow Member States to take this into account when drawing up their waste management plans.
- Furthermore, it needs to be kept in mind that shipments of waste can be a temporary solution but will not tackle the lack of waste management capacity which some countries face. The focus should first and foremost be the establishment of sorting and recycling facilities in those countries which currently still landfill most of their waste. As more waste will be diverted from landfill, an increase in shipments is to be expected in the short term, until these countries have set up their own infrastructure.

4. The potential from waste-derived fuels

[See FEAD comments on the JRC Background Document “Towards a better exploitation of the technical potential of waste to energy” submitted to Mr Hans Saveyn on 4 April 2016.]

5. Lack of clarity with respect to the waste hierarchy

- As stated above, while separate collection and recycling of waste must be supported where technically, environmentally and economically practicable, the remaining materials (e.g. sorting residues) which cannot be fully reused or recycled should be treated in the most sustainable way, in line with the waste hierarchy. Moreover, energy recovery or incineration may be the overall most sustainable option for some waste including some containing hazardous substances of which the risks cannot be adequately controlled when recycled.

- This Commission defines “non-recyclable” waste as waste which for technical, economical or environmental reasons cannot be recycled. FEAD agrees with this approach and encourages the Commission to assess these aspects on a life-cycle basis, taking into account the notion of time as technical, economic and environmental circumstances may evolve.
- Given the current very low prices of raw materials (e.g. drop in oil prices), the collection, sorting of waste and reprocessing into secondary raw materials could become uneconomic. FEAD therefore calls upon the Commission to set the right market incentives to correct existing market failures and stimulate the demand for secondary raw materials.

Conclusion

In conclusion, FEAD would like to point out that the assessment of waste to energy technologies should be technology neutral, that all forms of energy recovery should be given equal opportunities (in line with their potential to increase energy efficiency) but should also need to fulfil the same requirements (e.g. apply the same emission levels and Best Available Techniques for the same types of waste). Furthermore, investment in waste to energy should respect the waste hierarchy.

In a circular economy, the ultimate goal should be a step by step reduction of residual waste. However, as long as there continues to be residual waste, energy recovery will play an important role, also supported by an element of sustainable landfill. The achievement of a true circular economy will need to cover a full circle starting with eco-design thereby ensuring that the amount of waste which cannot be recycled is reduced to a minimum.

Finally, supply side measures alone such as recycling or landfill diversion targets will not deliver a more circular economy. Regulatory changes and economic instruments are also needed on the demand side to create more sustainable and resilient markets for secondary raw materials. This includes financially rewarding the benefits of recycling (i.e. reward for energy savings and/or CO₂ reductions).

About FEAD

FEAD, the European Federation of Waste Management and Environmental Services, represents the private waste management industry in Europe. FEAD’s members are national waste management associations covering 18 EU Member States, Norway and Serbia. They have an approximate 60% share in the household waste market and handle more than 75% of industrial and commercial waste in Europe. Their combined annual turnover is approximately € 75 billion.

FEAD represents about 3,000 companies with activities in all forms of waste management. These companies employ over 320,000 people who operate around 2,400 recycling and sorting centres, 1,100 composting sites, 260 waste-to-energy plants and 900 controlled landfills. They play an important role in the determination of the best environmental option for waste management problems and in returning valuable secondary raw materials to the European economy.