

PRESS RELEASE

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Minimising landfilling will protect climate, health and environment

Playing down the benefits of minimising landfilling, as recently done by some stakeholders, is a dangerous message ahead of COP21, particularly from a global perspective, CEWEP says.

A recent consultancy report¹ claims that there is not much difference between landfill and incineration from a climate perspective, thereby ignoring that incineration with high energy efficiency (energy recovery) is higher up the waste hierarchy than landfilling.

As numerous scientists experienced in the field agree, “with efficient electricity and heat recovery waste to energy plants contribute significantly to reducing the climate impacts of modern waste management and appear much more climate friendly than when the waste is disposed of in landfills.”²

The basis for the consultancy report should be found in its Technical Annex. Unfortunately, the methodology followed is not reported in a transparent way: critical parameters such as the energy substitution for landfill-produced electricity are nowhere to be found. On the other hand, assumptions laid down for the Waste-to-Energy (WtE) performance create a clear underestimation of the climate benefits, e.g. consideration of electricity-only plants while the vast majority of European WtE plants generate Combined Heat and Power, and exclusion of benefits of metal recycling from WtE's bottom ash³.

It is interesting to note how a DEFRA study⁴ from 2014 with similar assumptions, quoted in the consultancy report, shows very different results. The calculations based on natural gas substitution (even considering electricity-only WtE plants and landfills with a very optimistic gas capture of 75%) conclude that whenever electricity-only WtE plants have a higher energy efficiency than 11%, they always provide a better carbon performance than very efficient landfills.

In conclusion, it appears that the authors of the consultancy report played with simplified modelling tools to justify political conclusions that had been drawn beforehand. CEWEP is concerned that the consultancy report could encourage countries, which landfill large amounts of waste, to simply continue landfilling. This is even more of a concern for countries outside Europe, sometimes lacking application of adequate landfilling standards, i.e. sufficient groundwater protection and landfill gas capture.

¹ EUNOMIA Report “The Potential Contribution of Waste Management to a Low Carbon Economy”, October 2015

² Waste to Energy: The Carbon Perspective, an article by Thomas H Christensen, Anders Damgaard & Thomas Astrup, Department of Environmental Engineering, Technical University of Denmark, Lyngby <http://waste-management-world.com/a/waste-to-energy-the-carbon-perspective>

³ Climate benefit for metals from bottom ash from WtE are above 2,000 kg CO₂equ/tonne according to a recent study by EdDE-Dokumentation 17, Metallrückgewinnung, October 2015

⁴ [WR1910 Energy recovery for residual waste - A carbon based modelling approach](#)

Scientific studies that have proved to apply good practices in similar assessments suggest that “Diversion from landfill is the main contributor to GHG mitigation in the waste management sector”⁵.

CEWEP is clear about the additional benefits of landfill diversion policy: apart from Greenhouse gas mitigation, landfill minimisation is crucially important for environmental and health reasons: avoiding groundwater pollution through potential leachate, loss of land and preventing microplastics from being blown by the wind from (legal and illegal) landfills into the seas or rivers.

The EU has well-founded scientifically-based arguments for its policy to divert waste from landfills as much as possible. And the rest of the world should be encouraged to introduce similar policies for climate protection and for a better use of our resources.

For more information please contact

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CEWEP (Confederation of European Waste-to-Energy Plants) is the umbrella association of the owners and operators of Waste-to-Energy plants (waste incineration with energy recovery) across Europe. CEWEP's members are committed to ensuring high environmental standards, achieving low emissions and maintaining state of the art energy production from remaining waste that cannot be recycled in a sustainable way.

This is how they replace fossil fuels, such as coal, gas and oil, used by conventional power plants. At the same time Waste-to-Energy plants help to reduce Greenhouse gas emissions by diverting non-recyclable waste from landfills.

Waste-to-Energy – creating reliable, cost-effective, local energy from citizens' waste.

⁵ The Climate Change Mitigation Potential of the Waste Sector, Institute for Applied Ecology (Öko-Institut) and the Institute for Energy and Environmental Research (IFEU) on behalf of German Federal Environment Agency (UBA), <http://www.umweltbundesamt.de/publikationen/the-climate-change-mitigation-potential-of-the>