Confederation of European Waste-to-Energy Plants

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Press Release

Metals Recycling from Waste-to-Energy bottom ashes contributes to a more "resource efficient'' Europe

Collection of metals from bottom ashes of Waste-to-Energy (incineration) Plants can make an important contribution towards a more resource efficient Europe. The Packaging Group of the European Aluminium Association (EAA) and the Confederation of European Waste-to-Energy Plants (CEWEP) estimate that for the whole of Europe up to 200,000 tonnes of extra aluminium could be recycled each year from the bottom ashes, providing that more local waste management operators invest in the right separation equipment and that EU Member States take a more ambitious approach to prevent landfilling. In order to create a more resource efficient Europe it is essential to stop landfilling of recyclable and recoverable waste.

Due to the extra quantities of raw materials recovered from bottom ashes the aluminium companies and the Waste-to-Energy Plants actively contribute to a further reduction of the environmental impact of waste and thus help to improve Europe's resource efficiency, using unavoidable waste as a valuable resource wherever possible. The extra amount of recycled aluminium would result into an additional greenhouse gas saving of 1.8 million tonnes per year, which is the equivalent of permanently removing 60,000 passenger cars from the roads[1].

Several European countries are already recycling the valuable parts of bottom ash, which is the residue from combusted household waste. The remaining ferrous and non-ferrous metals in the waste is extracted from the bottom ashes and recycled into new highly valuable products such as bicycles, window frames or aluminium castings for the automotive industry. Other remaining minerals are used as secondary aggregates, for example in road construction or in building products.
An increasing number of Waste-to-Energy Plants and bottom ash processors in countries like Denmark, Germany, the Netherlands, Belgium, Switzerland and Italy are investing in the latest available sorting technologies, supported by the growing need for raw materials in Europe and the market prices for scrap metal.

The aluminium industry is happy to use these additional amounts of recycled material. However, both EAA and CEWEP stress that the preferred option remains the pre-sorting and selective collection of used aluminium packaging items such as beverage cans, aerosol cans and food containers.
But if the non-sorted items end up in the household waste fraction sent for incineration, the combustion process helps to clean and separate the metals and inerts from the remaining waste. Further sorting and recycling of non-ferrous metals by using innovative combinations of eddy current and detection-ejection machines is possible and results into considerably higher metal yields. Typically one tonne of bottom ash contains between 10-15% ferrous and non-ferrous metals, including 15 to 20kg of aluminium.

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Confederation of European Waste-to-Energy Plants (CEWEP) *represents Waste-to-Energy Plants across Europe. WtE Plants treat waste which remains after waste prevention and recycling producing energy from it.*

The Packaging Group of the European Aluminium Association (EAA) *is dedicated to increase the recycling and recovery performances of used aluminium packaging, including aluminium recycling from bottom ashes.*

[1] With the assumption of a total amount of 30 tonnes of GHG emissions during the entire life-cycle of a passenger car.