

## Press Release

# R1: An incentive for improving energy efficiency

15<sup>th</sup> January 2013

**CEWEP publishes the third edition of its report on the energy efficiency of Waste-to-Energy Plants (waste incineration with energy recovery) in Europe.**

*“The energy efficiency criterion (R1 formula) that was introduced in the Waste Framework Directive has proved to be an incentive for Waste-to-Energy plants in Europe to improve their Energy Efficiency”,* Ella Stengler, CEWEP’s Managing Director, stated on the occasion of the publication of the association’s third Energy Efficiency report.

The Municipal Solid Waste (MSW) incinerated by the European plants investigated in the new report amounts to 59.4 million tonnes/year and represents a share of 85.5% of the total MSW incinerated in Europe in 2009.

The R1 factor  $\geq 0.60$ , which is the energy efficiency criterion established for existing plants to obtain recovery status, is met by 65.6% (206 WtE plants) out of the total 314 investigated.

The amount of MSW being recovered in the 206 investigated plants reaching  $R1 \geq 0.60$  is 46.39 million tonnes MSW/year and equals 78.1% of the corresponding total amount investigated in the Report (59.4 million tonnes of MSW).

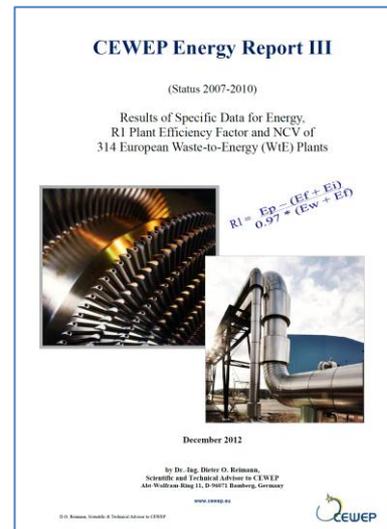
Better R1 energy efficiency results have been achieved in comparison with the previous Report (2004-2007; before the Waste Framework Directive was adopted), even though the assessment criteria became more stringent in the final version of the R1 Guideline and more plants from South-Western Europe are included in the new Report (2007-2010). For the latter it is much more difficult to achieve the R1 threshold, in particular if plants are small and can only export electricity (often with little or no opportunity to export heat).

The improvements in energy efficiency have been achieved due to optimization efforts carried out by the plant operators. The WtE sector is the first for which efficiency criteria have been introduced in the Waste Framework Directive and it has proved to be an effective instrument for achieving quality (energy) recovery.

The report calculates that potentially 11 million tonnes of CO<sub>2</sub> for EU27 and about 12 million tonnes of CO<sub>2</sub> for EU27 + Switzerland and Norway are saved annually through the substitution of fossil fuels by energy production from WtE plants.

Additionally, millions of tonnes of Greenhouse gas emissions are saved by diverting waste from landfills higher up the waste hierarchy. CEWEP believes that moving waste away from landfills to Recycling and WtE, as well as improving grid access and infrastructure for energy supply from WtE plants, would allow European WtE plants to generate by 2020 potentially 196 Terawatthours of sustainable energy. This is the equivalent amount of energy generated by 6-9 nuclear stations or 25 coal power plants.

**The Waste Framework Directive with the introduction of energy efficiency criteria for WtE plants was a step in the right direction. Further steps should follow.**





A copy of this report can be downloaded from here:

[www.cewep.eu/976](http://www.cewep.eu/976)

And the two previous editions of the report are also available here:

[www.cewep.eu/information/energyclimate/cewepenergyefficiencyreports/index.html](http://www.cewep.eu/information/energyclimate/cewepenergyefficiencyreports/index.html)

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CEWEP (Confederation of European Waste-to-Energy Plants) is the European umbrella organisation of owners and operators of Waste-to-Energy Plants (waste incineration with energy recovery). 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 is not otherwise suitable for recycling.