

WASTE TO ENERGY IN DENMARK

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ABSTRACT*

Denmark is the leading country in Europe in recycling and incineration of waste. Avoiding disposing of waste to landfills has a priority. In Denmark, total amount of 12 700 000 t of waste was produced in 2003. This corresponds to 2350 kg per person. About 66% of it is recycled, 26% incinerated, and 8% disposed of to landfills. There are 29 incinerator plants in operation. In 24 of them, combined heat and power is produced, and in five smallest plants, only heat is produced. All the plants comply with the EU's incineration directive (2000/76). Denmark has highest incineration rate (kg/cap/year) in Europe. In 2003, about $1.47 \cdot 10^6$ MWh electricity was generated, and $6.36 \cdot 10^6$ MWh heat produced. This corresponds to the need of 430 000 and 360 000 households, respectively. The net thermal efficiency was 83%. About 98% of all bottom ash was recycled.

Incineration practice in Denmark is considered very successful. Apart from historical reasons (over 100 years of competence), coherent energy and environmental policy exists. All electricity and practically all of the heat generated can be sold. Extended district heating schemes are available in Denmark. Municipalities are key actors in waste management and incineration. Non-profit municipal companies can offer cheap treatment of waste, and run the risk of investments.

The Rambøll Group ranks among Top 10 consultancies in Europe and Top 25 globally. The ranking is primarily maintained by a strong market position in Denmark. With more than 70 offices covering the Nordic region, Rambøll Group's strategic focus is to be a local partner for customers. In waste-to-energy, Rambøll Group is among four leading consultants in the world. It has a long track record of successful planning and completed waste-to-energy projects.

* *Compiled by the Editors on a base of the Author's presentation.*