

# **Landfill gas methane capture and destruction at Khmelnitsky city MSW landfill**



**Project Owner: Khmelnitsk Communal  
Enterprise “Spetscommuntrans”**

## **Landfill gas methane capture and destruction at Khmelnitsky city MSW landfill**

**Investment project for the landfill gas capture and methane destruction by flaring.**

**Green house gas emissions reduction by means of the landfill gas methane combustion.**

## **Present situation**

- **Operated landfill, waste deposits started in 1956**
- **Design deposit capacity - 4.50 mil. m<sup>3</sup>**
- **Annual wastes deposite amounts – 360-500 thousand t. (Khmelnitsky city 300 000 residents + adjacent settlements)**
- **Landfill area 8,8 ha**
- **Accumulated wastes height: up to 40-45 m**
- **Wastes composition: Food products wastes 47%, plants and vegetation 50%, inert materials – 3%**
- **Waste compacting method- bulldozer**
- **Methane content in LFG – 40 - 65% (potable inst. measurements)**

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Project approach:

Construction of the landfill flaring system  
and JI project development



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## **Potential for CO<sub>2</sub> Emission reductions**

- Technical project design for 2 mil. m<sup>3</sup> LFG destruction equals to 16-18 k.t CO<sub>2</sub>**
- Present GHG emissions- up to 5 mil. m<sup>3</sup> LFG**

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<b>Required investments</b>	<b>Amount, thousand EURO</b>
Own funds	100
Investment funds	500
<b>Total investments</b>	<b>600</b>

**Income from emissions reduction (ERUs) trade**

**160 000 EURO/annum**

**Cash flow (9-years) – 840 000 EURO**

**PB (simple) – 3,7 years**

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## Project advantages

- Proven, reliable easy to monitor technology suggested;
- Destruction of the landfill gas components by flaring
- Short terms for the project implementation, construction (several months)

## Project owner contact details

Khmelnytsky city administration

<http://www.adm-km.gov.ua/>

Communal autotransport company "Khmelnytsk spetstrans"