

Landfill gas methane capture and destruction at Khmelnitsky city MSW landfill



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

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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. m³**
- **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 CO₂ Emission reductions

- **Technical project design for 2 mil. m³ LFG
destruction equals to 16-18 k.t CO₂**
- **Present GHG emmissions- up to 5 mil. m³ LFG**

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Required investments	Amount, thousand EURO
Own funds	100
Investment funds	500
Total investments	600

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

Khmelnitsky city administration

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

Communal autotransport company “Khmelnitsk spetstrans”