

ENERGY SOURCES ON MUNICIPAL WASTE LANDFILLS

Municipal waste dumps are the places where the energy potential of landfill gas can be utilized conveniently. The landfill gas that contains a sufficient percent of methane can be used as a fuel for CHP units or for power pack units.

ZDECHOVICE LANDFILL, CZECH REPUBLIC



The technology for the energy utilization of landfill gas consists of gas collection wells, gas collection network, filling station, power pack unit, transformer station, and flare stack. The degassing system of the dump body in Zdechovice has been continuously extended and optimized since 2003.

Brief characteristics of power pack unit

CHP unit type	Quanto C1100 BIO
Fuel	Landfill gas
Electrical output	1 100 kW
Annual power production	5 500 MWh
Year of installation	2003
Place of installation	Landfill Zdechovice, CZ
Investor	TEDOM a.s.

Benefits of power pack unit installation

The landfill gas that is generated in the dumps spontaneously as a result of biodegradation processes belongs to the aggressive gases that cause the greenhouse effect. Installation of the power pack unit allowed both the energy and economical utilization of landfill gas. Otherwise, the landfill gas would have to be uselessly combusted in the flare stack. This project is in harmony with the obligations of the Czech Republic to cut down the greenhouse gas emissions and increase the production of power from the renewable and secondary energy sources.

SELECTED REFERENCES FROM MUNICIPAL WASTE LANDFILLS



Landfill, Benátky nad Jizerou, CZ

CHP unit type: 2x Cento T160 CON BIO
Electrical output: 320 kW
Year of installation: 2008



Landfill, Křovice, CZ

CHP unit type: Cento T150 CON BIO
Electrical output: 150 kW
Year of installation: 2005



Landfill Petrůvky, CZ

CHP unit type: Cento T300 CON BIO
Electrical output: 300 kW
Year of installation: 2004



Landfill, Trhový Štěpánov, CZ

CHP unit type: Cento T160 CON BIO
Electrical output: 160 kW
Year of installation: 2012

Other references from this field:

- 3x Cento T200 BIO, Treffieux, France, 2013
- Quanto D580 BIO, Valaliky, Slovakia, 2012
- Cento T200 BIO, Lokja, Finland, 2012
- 2x Cento T180 BIO, Walbrzezno, Poland, 2011
- 6x Cento T160 BIO, Hesse, France, 2011
- Cento T160 BIO, Thoars, France, 2010
- Cento T180 BIO, Daibe, Latvia, 2009
- Cento T160 BIO, Zwickau, Germany, 2008
- Cento T180 BIO, South Corsica, USA, 2008
- Cento T300 BIO, Rimini, Italy, 2008
- Cento T160 BIO, Recanati, Italy, 2008
- Cento T160 BIO, Kozlany, CZ, 2007
- Cento T150 BIO, Neu Ulm, Germany, 2007
- Cento T120 BIO, Krölpa, Germany, 2007