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Landfill gas is generated due to anaerobic degradation and conversion processes which take place inside landfill sites. This gas is mainly composed of methane and carbon dioxide but also of toxic and carcinogenic trace elements.

Without a landfill gas capture system these greenhouse gases are emitted into the air. Therefore a systematic capture and utilization of landfill gas makes a significant contribution to decrease environmental pollution as among other things conventional fuels are substituted.

### Creation and capture of landfill gas

Landfill gas is generated from organic substances which are present in municipal waste. Due to biochemical processes organic waste is degraded under anoxic and anaerobic conditions.



A well-directed gas collection pipe system in combination with surface sealing has to be installed so that the remaining methane emissions tend to become marginal. The gas capture system is built of horizontal and vertical collectors, pipes for gathering the gas, compressors, a gas collecting point, an analyzing station and transportation pipelines.

### Utilization

To incinerate the landfill gas in a safe and environmental friendly way it is state of art today to use the gas energetically.



A landfill produces significant amounts of gas for a period of about 20 years. During this time it is not only possible but mandatory to use the landfill gas energetically or to operate a flare.



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