Reference list landfill gas projects

The Netherlands

Afvalzorg landfill Nauerna 80 ha

- Design, installation and operation of landfill gas recovery system (200 vertical wells and horizontal fields).
- Installation and operation of a 2 MW flare station and 1.8 MW transportable flare station.
- Installation and operation landfill gas utilisation; two boilers with a capacity of 1.5 MW.
- Design, installation and operation heat distribution system (4 km) for landfill gas utilisation. Heat supply to leachate treatment plant, head office Afvalzorg and a greenhouse complex (distance 1.8 km).
- Landfill gas generation, recovery and emission

Afvalzorg landfill Wieringermeer 40 ha

- Design, installation and operation of landfill gas recovery system (vertical wells).
- Design and implementation landfill gas utilisation; heat supply for a digester system.
- Installation and operation of a high temperature flare (2.5 MW) and 0.2 MW low calorific high temperature flare.
- Methane oxidation research in top cover systems together with University of Hamburg
- Landfill gas generation, recovery and emission modelling and research.

Afvalzorg landfill Braambergen 46 ha

- Design, installation and operation of landfill gas recovery system (vertical wells).
- Design and operation of a small size CHP (85 kWe) with on-site heat utilisation in office.
- Installation of high temperature flare (2.5 MW).
- Feasibility study landfill gas utilisation to supply heat via heat distribution system to monkey rescue centre AAP.
- Landfill gas generation, recovery and emission modelling and research.

Afvalzorg landfill Zeeasterweg 59 ha

- Design, installation and operation of landfill gas recovery system (vertical wells).
- Installation of high temperature flare (1 MW).
- Landfill gas generation, recovery and emission modelling and research.

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Afvalzorg landfill Hollandse Brug 28 ha

- Design, installation and operation of landfill gas recovery system (horizontal and vertical wells).
- Installation of high temperature flare (2 MW).
- Feasibility study landfill gas utilisation for heat supply to a wellness centre.
- Landfill gas generation, recovery and emission modelling and research.

Afvalzorg landfill Schoteroog 22 ha

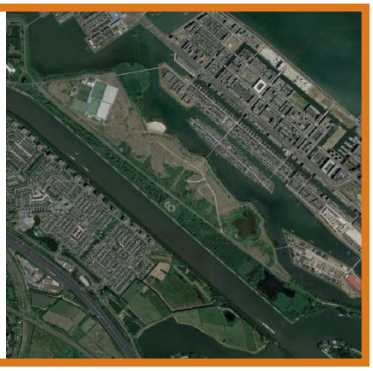
- Design, installation and operation of landfill gas recovery system (horizontal and vertical wells).
- Installation of low calorific high temperature flare (2 MW).
- Project development landfill gas utilisation (LNG/CNG production from landfill gas).
- Landfill gas generation, recovery and emission modelling and research.

Vlagheide landfill Schijndel 45 ha

- Design and operation of landfill gas recovery system (vertical and horizontal wells).
- Revision landfill gas station.
- Landfill gas utilisation in 4x 312 kWe CHP's.
- Installation and operation of 1.8 MW flare.
- Feasibility study landfill gas utilisation project for direct use of gas in MARS factory (distance 4.5 km).
- Landfill gas generation, recovery and emission modelling and research.

Diemerzeedijk landfill Amsterdam 50 ha

- Revision and operation of landfill gas recovery system.
- Design new landfill gas flare station including heat utilisation.
- Installation and operation of new 250 kW low calorific flare station including heat utilisation in nearby buildings.



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Avri landfill Geldermalsen 18 ha

- Design and revision landfill gas recovery system (vertical and horizontal wells).
- Supervision of installation of new landfill gas recovery system.
- Pre-feasibility of landfill gas utilisation.

Crayestein West landfill 7.5 ha

- Landfill gas generation, recovery and emission modelling.
- Design and construction landfill gas recovery system.
- Design and construction of integrated methane oxidation windows in the top cover of landfill.

AFVALZORG Landfill Gas Calculation Models

Afvalzorg has extensive experience in landfill gas modelling. Landfill gas models are used to calculate methane generation, recovery, utilisation and emissions at landfills. Modelling results are the essential basis for deciding on landfill gas management options, emission control and pre-feasibility of landfill gas recovery and utilisation projects.

Afvalzorg has developed two landfill gas models which are based on IPCC standards and mathematics and are easy to use. The models can be downloaded from our website (www.afvalzorg.com). Our models are being used in more than 50 countries worldwide.

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