Gaseous Waste (Biogas)

Biogas is similar to natural gas. Is the gaseous emission from anaerobic degradation of organic matter (from plants or animals) by a consortium of bacteria. Biogas is principally a mixture of methane (CH_4) and carbon dioxide (CO_2) along with other trace gases. Biogas is produced in all natural environments that have low levels of oxygen (O_2) and have degradable organic matter present. These natural sources of biogas include: aquatic sediments, wet soils, buried organic matter. Man's activities create additional sources including landfills, waste lagoons, and waste storage structures. Biogas technology permits the recovery of biogas from anaerobic digestion of organic matter using sealed vessels, and makes the biogas available for use as fuel for direct heating, electrical generation or mechanical power and other uses.

Level 1

At this levels waste products generated from the production of bio-ethanol and bio-diesel is use in the biogas production.

Level 2

At this level, the range of potential waste feed-stocks is much broader including: municipal wastewater, residual sludge, food waste, food processing wastewater, dairy manure, poultry manure, and aquaculture wastewater, seafood processing wastewater, yard wastes, and municipal solid wastes for the biogas production.

Level 3

This level we assume more technologies of biogas production is massively develop or imported for the conversion process, and millions cubic meter (m3) of biogas is produce.

Level 4

At this level the biogas produce with high quality has Caloric value ranges between 6000 to 7500 kcal and these can generate high energy for electric power.

Zorg Biogas's plant (zorgbiogas.com)