

İLTEKNO

İLERİ TEKNOLOJİ MÜHENDİSLİK TİC. A.Ş.

MUSTAFA HAMZAOĞLU
PROJE YÖNETİCİSİ
ELEKTRİK-ELEKTRONİK MÜHENDİSİ

FLEX FUEL SOLUTIONS (WWTP) SEWAGE GAS FIRED POWER PLANTS

RENEWABLE ENERGY

GASKİ WWTP

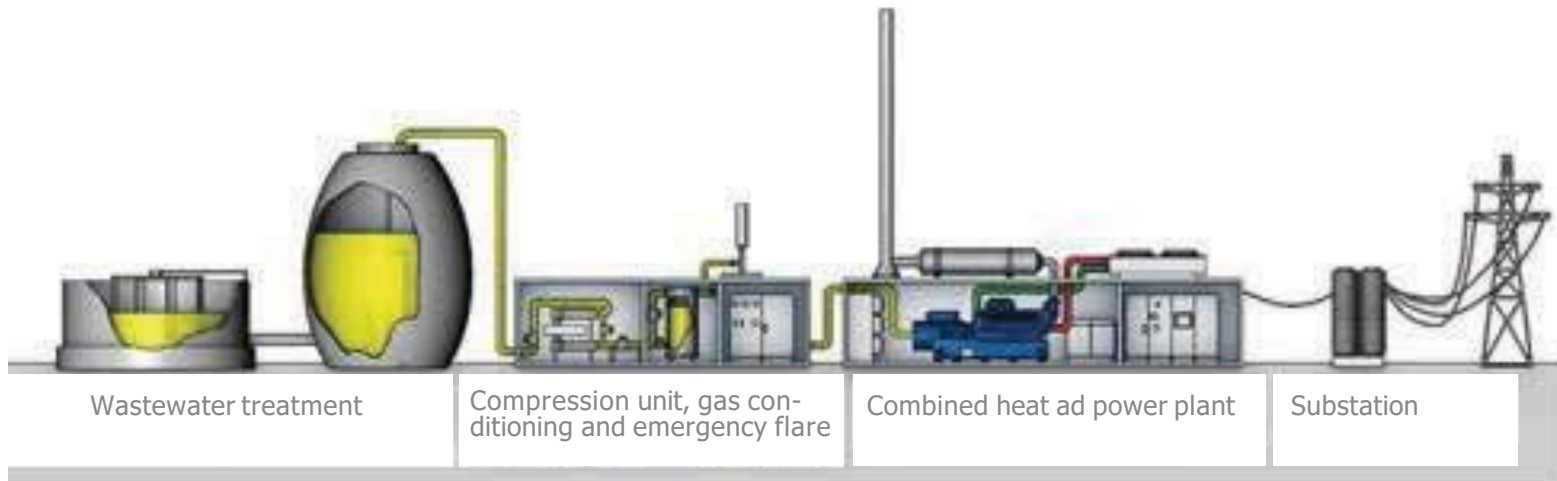
Gaziantep Sewage Gas Fired Engines

Commissioning year: 2006
Output: 1.6 MW
Type: 1 x TCG 2020 V12K
1 x TCG 2016 V16



- In this project,
Sludge in wastewater treatment plant goes to the digester. The harmful parts such as moisture and H₂S in the bioreactor are treated and pumped to the gas engine with the compressor. The electricity obtained from the gas engine is used in the gas treatment plant. With the waste heat generated from the cogeneration, the digester is kept at a temperature of 35 ° C, allowing the bacteria to reproduce in ideal conditions.

FLEX FUEL SOLUTIONS (WWTP) SEWAGE GAS FIRED POWER PLANTS



- Waste water treatment produces methane gas
- Gas is collected cleaned, pressurized, then used to produce electricity i.e. Renewable energy
- Waste heat is utilized into useful heat for WWTP plants treatment process









FLEX FUEL SOLUTIONS (WWTP) SEWAGE GAS FIRED POWER PLANTS

RENEWABLE ENERGY

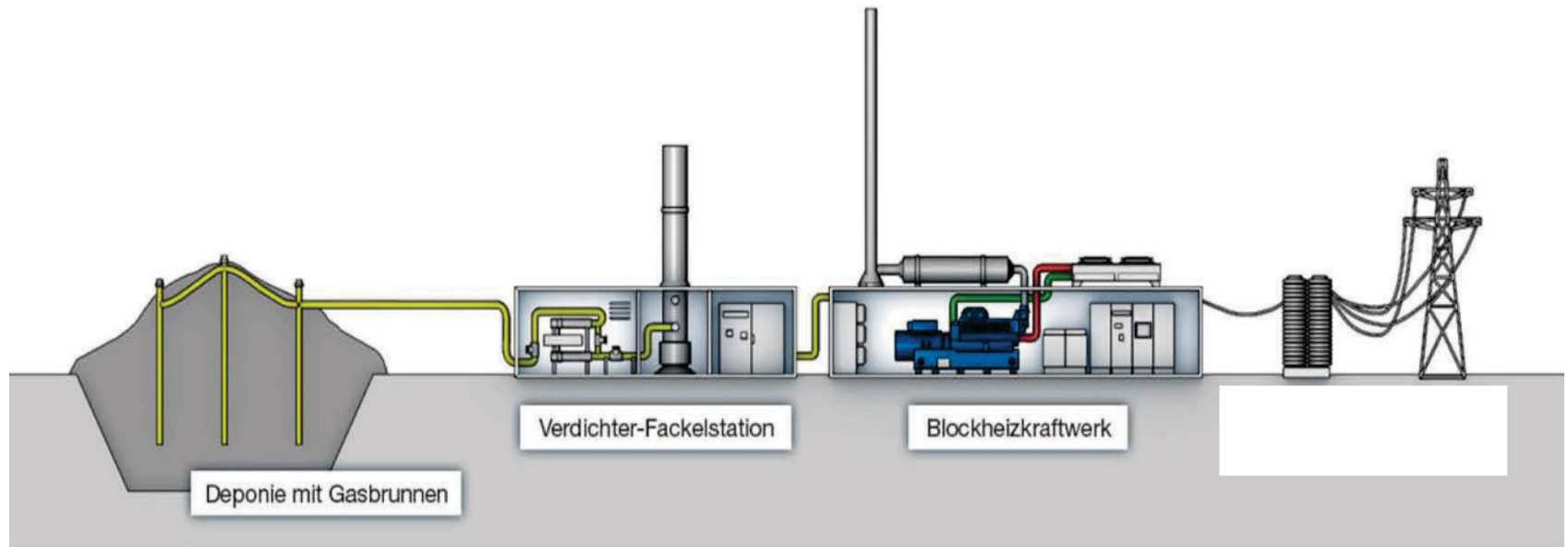
ESKİ WWTP

Eskişehir Sewage Gas Fired Engines

Commissioning year: 2009
Output: 2.1 MW
Type: 2 x TCG 2020 V12



FLEX FUEL SOLUTIONS LANDFILL GAS FIRED POWER PLANTS



- Municipal Waste is stored in a landfill site
- Stored waste produces gas with high methane content
- Gas is collected by a network of pipes, cleaned, pressurized
- Gas is then used to produce electricity i.e. Renewable energy
- Waste heat can be utilized into useful heat

FLEX FUEL SOLUTIONS

LANDFILL GAS FIRED POWER PLANTS

RENEWABLE ENERGY

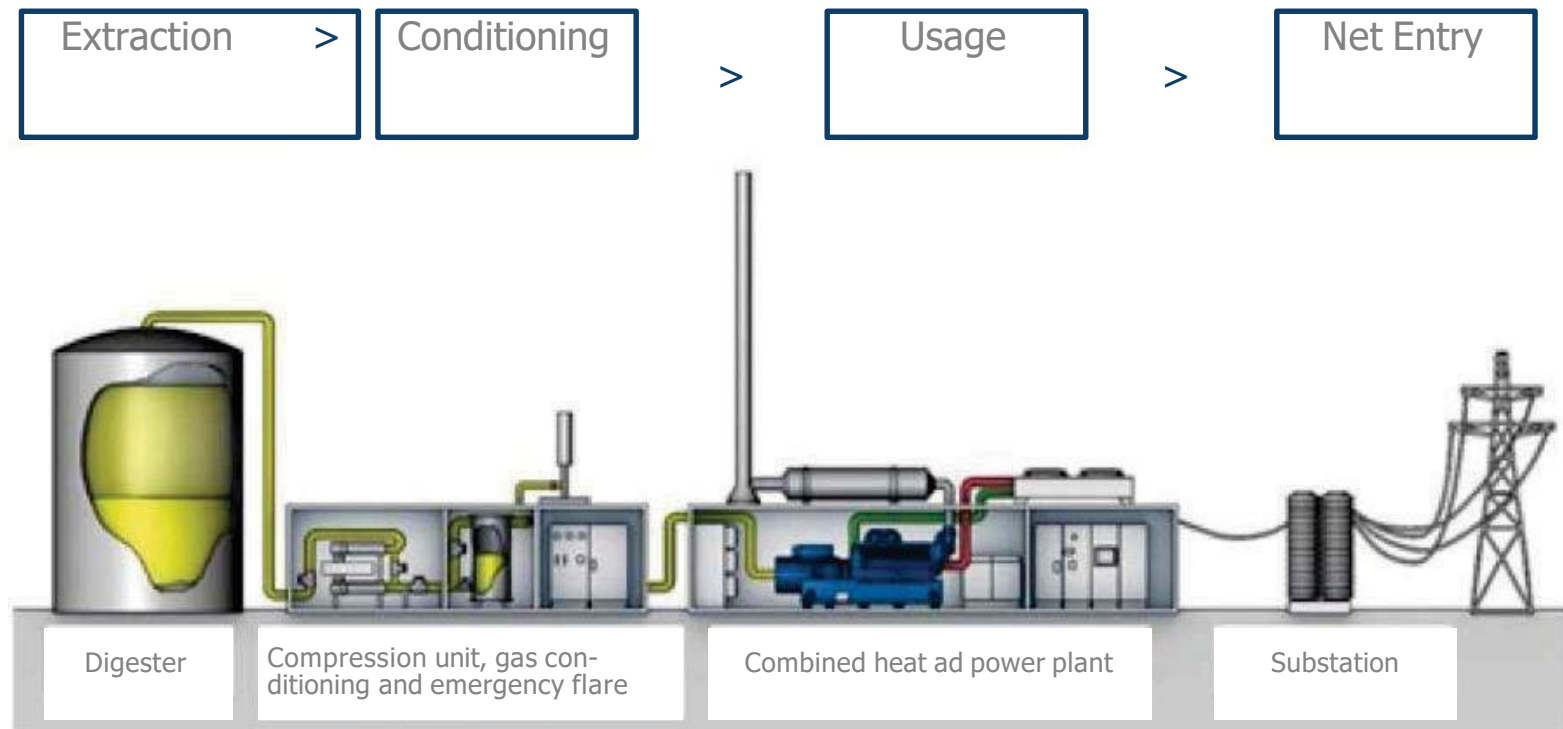
HER ENERGY

Kayseri Landfill
Landfill Gas Fired Engines
& integrated Greenhouse

Commissioning year: 2012
Output: 7 MW
Type: 5 x TCG 2020V16



FLEX FUEL SOLUTIONS BIOGAS FIRED POWER PLANTS



- Organic waste, biomass is used to produce methane gas
- Gas is treated and used to produce electricity
- Waste heat is utilised for the process

FLEX FUEL SOLUTIONS BIOGAS FIRED POWER PLANTS

RENEWABLE ENERGY

HEXAGON PAMUKOVA

Pamukova
Biogas Fired Engines
(Waste/Biomass to Energy)

Commissioning year: 2010
Output: 1.5 MW
Type: 1 x TCG 2016 V16C
1 x TCG 2016 V12C



İLTEKNO

İLERİ TEKNOLOJİ MÜHENDİSLİK TİC. A.Ş.

Thank You.

m.hamzaoglu@iltekno.com

www.iltekno.com