maxbiogas

100% more biogas

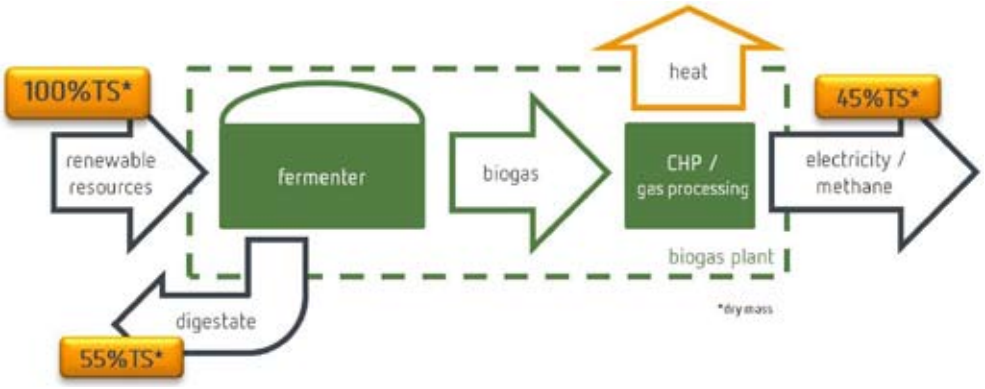
from biogas plants

Up to 100% more biogas with LX-plant, e.g.

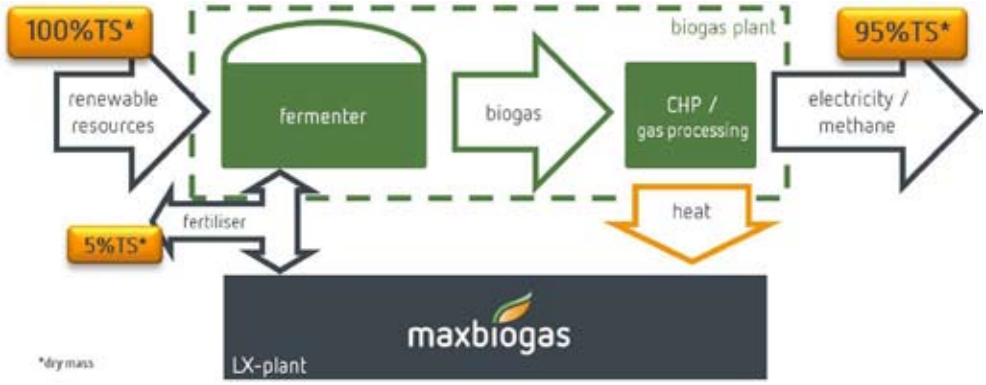
- 60% more biogas for maize silage
- 120% more biogas for straw
- 100% more biogas for grass

100% more biogas

Existing biogas plants produce biogas and „digestate". Today the digestate will be used as fertiliser. This is much better than throwing it away! But it is even better to use the fertiliser in the digestate (lignin, ammonium compounds, phosphor …) and the energy containing rest (cellulose und hemicelluloses) to produce more biogas from them.
Existing biogas plants convert only slightly more than 50% dry-matter of the most important substrates, namely maize silage and grass to biogas.



Biogas plants combined with maxbiogas LX-plants convert 95% dry-matter of the same substrates to biogas and also separate only the compounds which are responsible for fertilisation.



Technology

Maxbiogas technology is based on known processes from the paper industry. In this processes lignin is separated from cellulose. The main innovation of the maxbiogas process is based on the adaptation to the general thermal conditions of biogas plants as well as the recovery of the hemicelluloses. Processes which originally needed 150 bar and 200°C are now realised at 70°C and at normal pressure. This means, that in the maxbiogas process no additional thermal energy is required beside the waste heat from power generation or from gas purification.
The easiest application is the pre-treatment of biogas digestate. The solid parts of the digestate are mainly composed of cellulose und hemicelluloses which were not available for biogas production. The maxbiogas LX-plant pre-treats the digestate in such a way that it is transformed almost completely into biogas in the biogas plant fermenter. The energy used by the maxbiogas process is supplied by the power generation or by the gas purification of the biogas plant.

About maxbiogas

The company maxbiogas is developing sustainable technologies and plants for renewable energies and plant resourses. For more information please contact Dr. Katrin Streffer (katrin.streffer@maxbiogas.com).