



BIOMETHANE
PRODUCTION | TRADING | SERVICES



BIOMETHANE TRADING IN EUROPE

Landwärme GmbH | Zoltan Elek

Members day Better Biomass 2017 | June 2017

OVERVIEW



01

About Landwärme

02

Pioneer Project
in Hungary

03

Trading Biomethane
in Europe

LANDWÄRME IS ONE OF THE LEADING BIOMETHANE TRADERS IN EUROPE



KEY FACTS

- Founded in 2007
- 30 employees in Munich & Berlin
- 160 Mio. € revenue in 2016



TRADING & SUPPLY

- Broad customer base in diverse markets: biomethane for electricity generation, as green gas for heating, or as biofuel
- Annual trading volume over 2 TWh
- Various cross border trading activities in Central Europe

PRODUCTION | SERVICES

- Biomethane production at 5 own sites in Germany
- Development of more than 20 projects for biomethane production
- Sourcing from more than 80 external producers

EXPERIENCE AND EXPERTISE IN ALL RELEVANT CERTIFICATION SCHEMES AND REGISTERS



 Bundesanstalt für
Landwirtschaft und Ernährung

NABISY
Nachhaltige-Biomasse-System





PIONEER PROJECT IN KAPOSVÁR, HUNGARY

BIOGAS PRODUCTION SINCE 2008



- Biogas plant since 2008 at the site of a sugar factory



- Input: >270.000 t of residues and waste
 - 85% from the sugar production
 - 15% external sources
- Until 2015 biogas usage was:
 - Electricity & steam production at existing plant during the sugar campaign
 - Heat production at a municipal bath



BIOGAS UPGRADING STARTED IN 2015



LANDWÄRME FUNCTIONS AS PROJECT DEVELOPER AND EXCLUSIVE TRADING PARTNER



CONSULTING

- Project development: planning und engineering of the upgrading facilities
- Coordination of all auditing and certification steps and monthly GHG calculation

TRADING

- Landwärme is the exclusive buyer of the biomethane produced on site
- Gas sales to Germany and several other central European countries

CERTIFICATION OF THE BIOMETHANE PRODUCTION IS OF UTMOST IMPORTANCE



- Initial certification according to REDcert EU by GUTcert in 2015
- Certification along the whole value chain
- GHG-emissions range from 12 to 20 g CO₂_{eq} / MJ



- Initial auditing of biogasregister criteria list by GUTcert in 2015
- Ways of utilization: renewable heat act and renewable energy heat act
- Exclusive use of waste and residues



- Initial certification of the biogas plant and upgrading unit according to naturemade star by TÜV Süd in September 2015
- Available for the usage in Switzerland



TRADING BIOMETHANE IN EUROPE

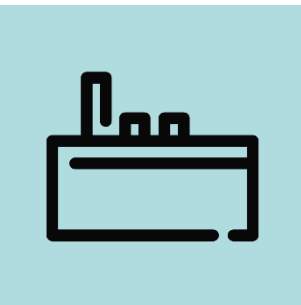
DIFFERENT USAGE PATHS FOR BIOMETHANE - BUT NOT ALL OPEN FOR EUROPEAN BIOMETHANE



- Voluntary green gas markets are developing especially in Germany, Switzerland and Benelux countries
- Several quota systems in Germany (e.g. EWÄRMEG)



- Tax reduction and quota systems in most countries
- Usage of imported biomethane still in early stages



- Feed-in tariffs for electricity from biomethane is the main driver in Germany (EEG)
- Imported biomethane not eligible



CLASH OF DRIVERS IN THE EUROPEAN MARKET



Import restrictions

In place or under discussion in several countries



Existing production

over 460 biomethane plants in 15 countries



Diverse systems
production support vs.
feed-in tariffs vs.
demand support



Revised RED
biomethane from
manure & waste
with big potentials
as advanced biofuel



VAST POTENTIALS CAN BE REALIZED



DEMAND FOR GREEN PRODUCTS

- Germany, Switzerland, Benelux countries
- Developing market by climate-conscious costumers

HIDDEN PRODUCTION CHAMPIONS

- Eastern European countries
- Huge agricultural space, unused waste and residue potentials

BIOFUEL SECTOR

- Italy, Sweden and the Netherlands
- Advanced natural gas vehicle market and continuously expanding infrastructure

START UP YOUR INTERNATIONAL ACTIVITIES WITH LANDWÄRME



- Landwärme is a leading biomethane trader & supplier in Europe
- Landwärme brings many years of experience in cross-border trading and project development
- Landwärme is a first mover in the Eastern European biomethane market
- We are eager to enhance our cross-border activities
- Join us in developing an up and coming market

CURRENT ACTIVITIES IN EUROPE





Landwärme GmbH
Ungererstr. 40
80802 München
info@landwaerme.de

THANK YOU