

Biogas Action partner regions



AILE—Local Energy Agency of Western France



**Ekodoma
Latvia**



Czech Biogas Association | Czech Republic



ESS—Energy Agency for Southeast Sweden



CCS—Cornelissen Consulting Services | Netherlands



EIHP—Energy Institute Hrvoje Požar | Croatia



DFFB—Danish Technology Centre for Biogas | Denmark



IBBK—The International Biogas and Bioenergy Centre of Competence | Germany



SWEA—Severn Wye Energy Agency | United Kingdom



AURE-EE—Auvergne-Rhône-Alpes Energy Environment Agency | France



This project has received funding from the European Union's Horizon 2020 research and innovation programme.

DK input for panel

Intro-Background

- Danish cities/municipalities are generally in favour of exploiting biogas due to its positive impact on environment (CO₂ and other pollutants) and job creation
- However, several elements of this positive impact are not incorporated in the economy of establishing biogas plants or in the support scheme.
- The Danish biogas industry is seeking to incorporate these positive externalities in the policy and practice, but it is yet a challenge to deal with the complex realities of biogas and the national administration tends to be reluctant

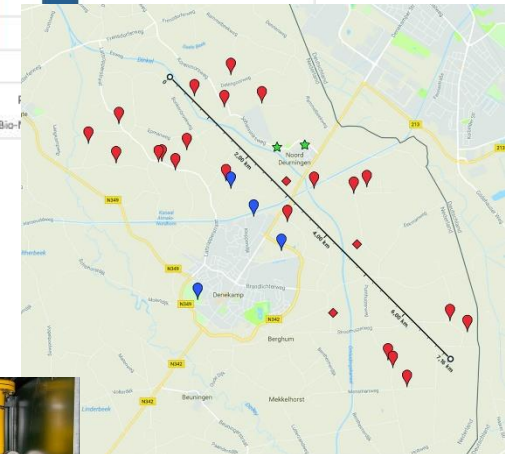
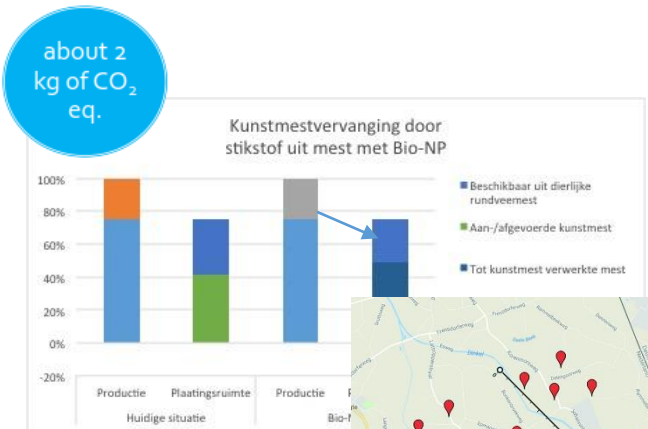
Story/statement for debate

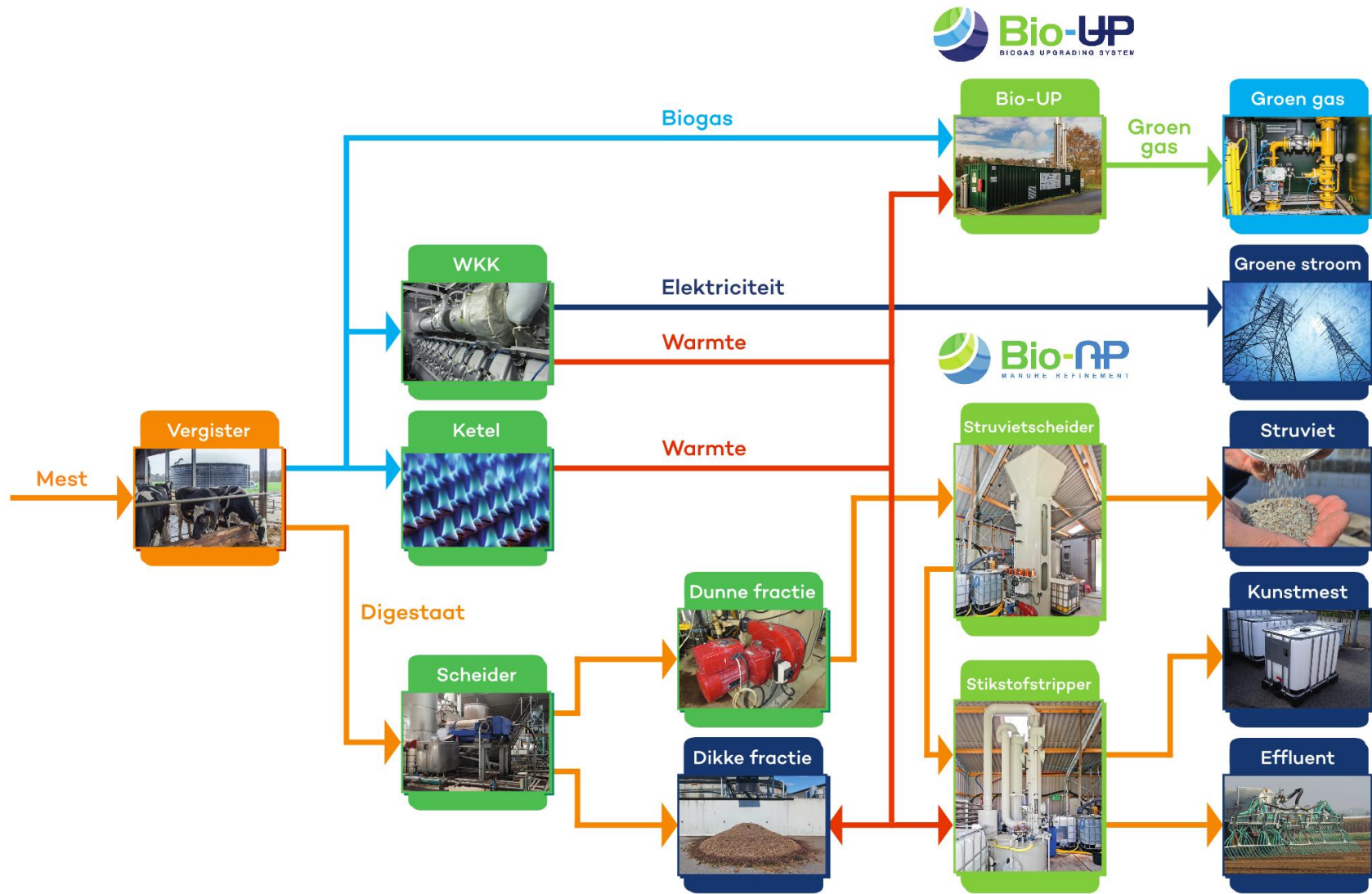
- In Denmark, when we discuss RES, we often tend to compare the economic support from the state for solar, wind and biogas. Why is that? Because it is so easy to understand! But that is not the hole truth, biogas can do much more than the other 2 RES “in the class”. Is it possible valuate them?
 - Local employment, odour issuers, “money stays in the local area”
 - Environmental improvement (local/regional and national)
 - Security of supply (national/international level)
- Biogas and support for biogas is very complex – is it hidden support for agriculture industries or is real support for the green transformation? (depending on the different side of the political wings the support is discussed with great passion/enthusiasm)



Experiences of promoting biogas and its benefits to society

- Statement
 - Small scale biogas is an essential part of circular agriculture and circular economy, but will not happen without radical innovations to value the externalities
- Innovative solutions in biogas:
 - Small scale biogas
 - Reduce methane emissions from manure management
 - Reduce odour emissions from farms
 - Closing nutrient cycles
 - Export of manure vs use of *unsustainable* fertilizer
 - Biogas with manure treatment as a solution for the excess of manure
 - Background: excess of manure in regions NL, DK, FR
 - No farming without biogas
 - Biogas hub, supplying biogas for renewable high temperature heat to industry
 - Biogas hub Noord Deurningen
 - Biomethane small scale
 - local grid injection of sustainable gas (Bio-Up)
 - Sell separated CO₂
 - Refueling your car at the farm
- New innovations in the pipeline?





Experiences of promoting biogas and its benefits to society

- Reasons for the resistance to biogas in the Netherlands and how to accommodate that
 - Biogas installations are associated with intensive agriculture
 - Media attention for negative stories
 - Misinformation
 - Biogas installations smell bad, vs biogas installations reduce odour
 - Biogas installations are manure factories
 - Biogas vs natural gas discussion
 - Production of biogas leads to reduction of organic matter in the soil
 - Bad examples of “cowboys”
- Statement
 - Good examples of biogas installations are not enough to soften resistance



CRO input for the panel



Intro

- No new biogas power plants since 2016., when Feed-in system stopped
- Ordinance on RES still pending to enable transition to market premium system
- Current energy legislation does not prohibit the use of energy crops as substrate
- Rural area became more and more underdeveloped since people are leave rural areas and do not have interest to deal with agriculture

Story/ statement for debate

- What can we do until premium system begins ? How can motivate people to stay in rural areas?

We should find the new investment ways (like Rural Development Fund) and add new products on the market beside electric energy (heat, digestate , fertilazers etc.)

4 plausible biogas market developments in HR:

- pocket size on-farm (<30kW, CHP, fertilizer),
- centralised (<30kW, CHP, fertilizer),
- industrial (>30kW, CBM, bioplastics),
- waste management company (>30kW, CBM, agrochemicals)



Advisory committees

Regional conferences gathering all stakeholders : 1 or 2 times/year



Thematic working groups

Digestate, bioNGV, Building standards : Supported by visits



The animation of a Regional Platform :

- ⇒ Create a common and comprehensive framework
- ⇒ Support innovations and set up a new dynamic for the biogas development

Panel session 2



This project has received funding from the European Union's Horizon 2020 research and innovation programme.

CZ Input to Panel Session

First biomethane plant in CZ

Intro-Background

- EFG Rapotín - AD plant operating from 2016 with a capacity of 30,000 t / year.
 - Feedstock is Food and Beverage Waste, Processing Residues, Agricultural Residues, Sewage Sludge.
 - No operation support for biogas or electricity production.
- MIT and ERO did not apprehend biomethane as a challenge and a possibility to meet our renewables targets especially in transport.
- No operation support for biomethane and no GoO registry in the Czech Republic

Story/ statement for debate

- We have decided to be a first biomethane plant in CZ. We will inject our biomethane to the grid and sell to the European market as a non-subsidised biomethane with a high GHG emissions savings.
- As biomethane pioneers in the Czech Republic we feel a duty to help our followers. This is why we in a close cooperation with the CzBA have changed approach of the MIT and ERO to biomethane.
- Biomethane, operation support for biomethane and GoO registry are now an integral part of an amendment of a Renewable Energy Support Schemes that should be in effect in 2021.

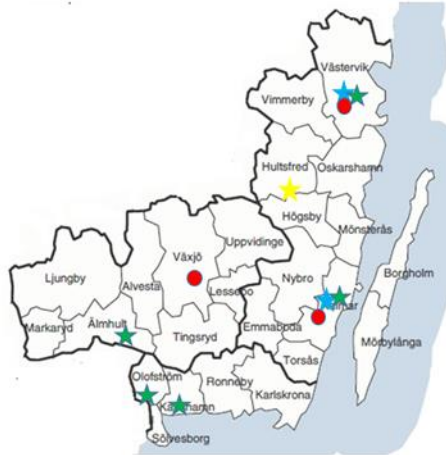


Ekodoma input for panel

- Intro-Background
- After a rapid increase in biogas production from 2010 until 2014, because of high government support, biogas production in Latvia has stabilized.
- At the moment government support for renewable energy production is on the decline in Latvia; thus, there is very little interest in developing new biogas projects.
- Because mixed signals have been given in terms of support for green electricity, the general public tends to perceive electricity generation from RES, including biogas, with a great dose of skepticism.
- Story/statement for debate
- As there is no interest on developing new projects at this point in Latvia, because of the very unstable political situation, it is important to strengthen the value of biogas industry in planning documents at state, regional and municipal level.
- Experience with Zemgale planning region has shown that regions can set comprehensive targets and their willingness to work towards more sustainable neighborhoods, by including support to biogas production in their regional SEAPs.

Integrating biogas in regions and cities

- How Southeast Sweden became a biomethane region

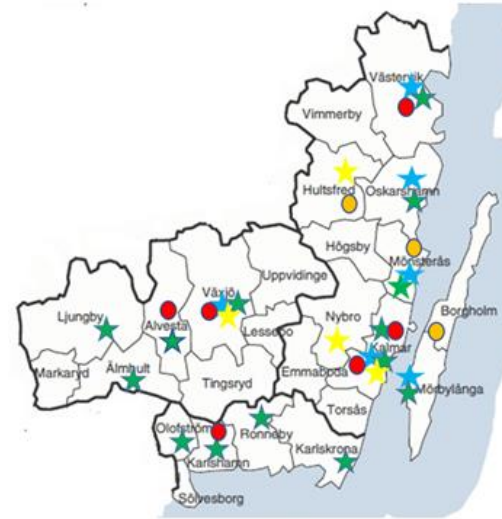


BioCNG in Southeast Sweden in 2011

Public procurement in Kalmar County 2007
 - 18 buses
 2 busdepots (blue)
 5 public refuelling stations (green)
 3 production plants with upgrading unit (red)
 Regional network Biogas Southeast

Challenges:

- Short term financial incentives - long term investments
- Production, distribution and consumption must be synchronized
- LBG to enable further investments in biomethane
- Initial high costs, legal and financial barriers
- Difficult to estimate and communicate socio-economic values



By 2014

- Common strategy and Action Plan 2014-17 (2020)
- 3 new biomethane plants 2012-15 (10 => 80 GWh/yr)
- Public procurement of buses in Växjö in favour of biomethane, 2013
- 9 refuelling stations for BioCNG

By 2018

- Public procurement in Kalmar county, 2016, 60% or 54 GWh/yr biomethane
- 3 new plants planned (LBG) or being built (CBG)
- 14 refuelling stations for BioCNG
- Pre-study concerning liquefied biomethane for heavy vehicles, marine transport and industry 2016-17
- Roadmap for a national LBG platform 2017-18

Success factors:

- Cooperation between public and private actors
- Political will
- Adopted strategies and targets
- Information & communication
- European and regional projects to enable long term work
- Driving spirit and risk-taking from investors
- Endurance



UK Input to Panel Session

an exercise in breaking out of silos
- and even working together!

