



NEDERLANDSE GROEN GAS MAATSCHAPPIJ

- PRESS RELEASE -

Green Deal for NGGM

Zoetermeer the Netherlands, 3 October 2011 – On Monday 3 October 2011 the minister of Economic Affairs Agriculture and Innovation, Mr. Maxime Verhagen, signed a so called “Green Deal” with the green gas production company NGGM (Dutch Green Gas Company), energy company Essent (subsidiary of RWE) and the dairy production company FrieslandCampina regarding the realization of installations for the small scale production of (liquid) biogas out of manure. This unique concept is called “Biogas XL”.

The minister of Economic Affairs, Agriculture and Innovation in the Netherlands has closed Green Deals with several parties to enable sustainable initiatives. Purpose of the Green Deal is to show that sustainability and economic growth can go together. The Biogas XL initiative of NGGM is an example for other parties in the market and can speed up the total green gas market.

Contents of the Green Deal

NGGM, Essent and FrieslandCampina intend to realize two Biogas XL pilot projects before the end of 2013. On two dairy farms a small scale manure fermentation installation will be built. Subsequently the biogas produced during the fermentation process will be upgraded to liquefied green gas (also called Liquefied Bio Gas, LBG or bio-LNG) or optionally upgraded to green gas which can be inserted into the public gas grid. The liquefied green gas can be used as biofuel for trucks and buses. The green gas inserted into the grid is suitable for domestic use or as biofuel for vehicles in a compressed form. According to Titus Metz, the spokesman of NGGM, Biogas XL can become a break-through in the agricultural sector. “The Biogas XL concept will make available high quantities of biogas as energy source and will reduce the emissions of the green house gas methane in dairy farming substantially”.

After the completion of these pilot projects NGGM, Essent and FrieslandCampina intend to realize 125 installations on dairy farms in the Netherlands. Biogas XL can have an important contribution to an energy neutral dairy production chain.

According to Titus Metz the long and complicated permitting procedures are a barrier for small scale non complex projects like Biogas XL at this moment. “The essence of the Green Deal is the agreement with the national authorities that the parties involved will investigate how the permitting



NEDERLANDSE GROEN GAS MAATSCHAPPIJ

process can be standardized and the lead time can be reduced. By this initiative of the Dutch government NGGM can contribute to a fast extension of the green gas production in the Netherlands in the future”.

The national authorities will supply information to the municipalities about the environmental aspects and the technical regulations and standards for green gas production installations. This will prevent that individual municipalities have to invent how to judge the permit application documents and which permit conditions have to be included in the permit. The national authorities will also investigate whether for green gas production installations until a certain size a notification procedure can be applied instead of an entire permit procedure or not. By this notification procedure the process can be standardized and the lead time can be reduced strongly. The above mentioned will be executed during 2012 and 2013.

-----REMARK FOR THE EDITORS-----

If you have any questions regarding this press release, please do not hesitate to contact Mr. Titus Metz, Development & Operations Manager of NGGM.

Also for pictures or interview requests you can reach us via:

NGGM (Dutch Green Gas Company; Nederlandse Groen Gas Maatschappij B.V.)
Titus Metz, Development & Operations Manager
Phone: +31 79-361 3668
Mobile: + 31 6-31 76 95 43
titusmetz@nggm.com
www.nggm.com

The appendix contains background information about NGGM and the environmental advantages of Biogas XL, which also can be used for publication.



NEDERLANDSE GROEN GAS MAATSCHAPPIJ

Appendix with background information Green Deal NGGM

Biogas XL: advantages for the environment

- Strong reduction of emissions of the strong green house gas methane (methane as green house gas is more than 20 time stronger than CO₂) can be achieved by fermenting manure. At this moment in most cases methane is discharged to the atmosphere. Because of Biogas XL the energy in the methane can be applied usefully. Also the emissions of ammonia will reduce.
- Biogas XL concerns fermentation of pure manure, no co-fermentation products are needed (so no transportation of biomass).
- Organic nitrogen will be converted into nitrogen minerals and this nitrogen in the remaining manure (the digestat) will be faster available for the cultivated plants than is the case when using normal manure. The farmer can reduce the use of artificial fertilizers.
- Because of the fermentation process (high temperatures) diseases and seeds of weedage will be killed or broken down for the main part.
- Less emissions of odor on the farms
- Because of the use of (green) gas in road transportation emissions of fine dust and NO_x can be reduced strongly compared with traditional fuels and there will be less noise nuisance. When green gas is used as fuel almost 100% less CO₂ is discharged (from well to wheel) compared with conventional fuels.

Who is NGGM (Dutch Green Gas Company)?

The Dutch Green Gas Company (Nederlandse Groen Gas Maatschappij B.V., abbreviation NGGM) is a gas production company having the purpose to develop green gas production. NGGM develops, finances and exploits green gas production installations inside and outside the Netherlands. These installations will upgrade raw biogas which is produced by agricultural or industrial fermentation installations to green gas to be inserted into the public gas grid, compressed biogas (CBG) for vehicles or Liquefied Bio Gas (LBG, bio LNG or bio methane) which can be used as biofuel in trucks and buses. As a co-product pure liquid CO₂ is produced which can be used for cooling (energy savings) or sold as a product to the industry. For upgrading of the biogas NGGM makes use of technology and installations of Gastreatment Services B.V. from the Netherlands (www.gastreatmentservices.com).