

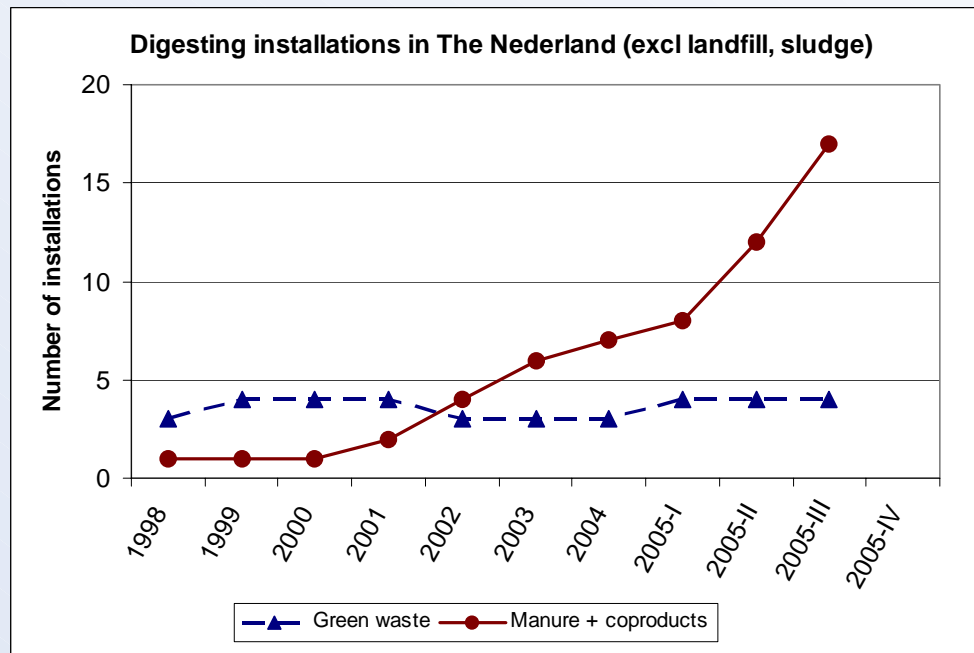
Country update of The Netherlands

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Developments

- Strong increase in renewable energy – mainly co-combustion
 Import of palm oil, combustion in gas fired power stations
- Strong increase in manure digestion activities:
 - Co-digestion with maïs
 - One installation per month being realised
 - Suppliers are Dutch (Thecogas PlanET, Host, OGIN) for farm scale plants and German for 36 kton/year plants (Schmack, Osmo).



Developments

Development per plant:

- **Lichtenvoorde** (10-15.000 ton/year of cat. II and III waste):
No developments, still running on non-homogenised material, preparing homogenisation
- **Moerdijk** (30.000 t/y of restaurant and kitchen waste).
Thermophilic plant, construction almost finished, own design, hygienisation, two 500 m³ hydrolysis tanks, two 2000 m³ digestion tanks.
- **BioRek Elsendorp** - Taken over by Orgaworld (Lelystad plant)
Plan to digest waste (green, animal wastes). No news
- **Tilburg plant** - plans to restart on industrial waste stream
No news
- **Haarlem** - Biogas upgrading plant at Landfill in Haarlem
Upgraded gas will be used as a vehicle fuel. Project will start 1/1/2006.
From end of 2005, in Haarlem + IJmond 88 busses will be fuelled with natural gas
- **Amersfoort** - Sludge digester at communal wastewater plant has stopped to codigest animal fats => fats are exported to Germany for codigestion.

Developments

Development per plant:

- **Esbeek** Construction of 36.000 ton/y manure + ???. Digester will start within weeks. Osmo (German, Osnabrück) builds digester. Plant is owned by large number of farmers.
- **Wanroij**. Construction of 36.000 ton/y digester has started. Input is manure + ?? incl. grass. Supplier is Schmack: two Eco3 horizontal plug flow reactors

General

- Number of natural gas filling stations increases:



Political situation

Renewable energy

- Yesterday (3rd Tuesday of September) = “ Day of princes” :
 - Support for Renewable Energy is increased
1,000 M€ for wind energy, 400 M€ for renewable energy s in general
 - Biofuels will finally be stimulated by:
 - 1) tax redemption
 - 2) obligation for oil companies to mix percentage of biofuels
 - Natural gas as a transport fuel is stimulated by redemption of exotax (€0,02 - 0,10/m³, depending on amount).
- Nuclear power plant in Borssele will stay open until 2030.
 - Deal (to be finalised) between government and owners of plant will probably result in 250-500 M€ extra budget for Renewable energy.

Co-digestion

- Positive list (allowed co products) will change in 2006.
Probably general criteria will replace specific list.
Quite unclear what will happen exactly.

Political situation

- Amount of small scale biogas plants:
 - Under current financial conditions: 2800 plants possible
 - My estimation: only 50 - 100 will be realised in 2005-2010

Current rate: 10-15 installations / year