GasHighWay Project

CURRENT STATUS OF BIOMETHANE USE FOR TRANSPORT IN ITALY

Biogas production

- Biogas production in Italy in 2007: 406.2 ktoe (about 4.7 TWh) with about 80% coming from MSW landfills
- Biogas is mainly used to produced electricity and heat
- 542 biogas plants (61 under construction) have been identified in 2009 by CRPA, of which:
  - 235 livestock effluent in co-digestion with energy crops or agro-industrial waste
  - 121 from anaerobic digestion of municipal and industrial sewage sludge
  - 14 from organic fraction of municipal solid wastes in co-digestion with sewage sludge
  - 31 from agro-industrial wastewater
  - 141 from the recovery of biogas from MSW landfills
- Mostly small and medium-sized farm-scale! only the 9% on the total number of the biogas plants have installed electrical power of more than 1 MWe

Biogas potential

- EuroObserver estimate a potentiality of 20 TWh/year of electric energy from biogas plant
- 1.300.000 m³/day of biogas can be produced only from livestock effluents
- 237.000.000 m³/year of biomethane is the total potential production (10 times more than the actual need of methane used for transports)
- Upgrading potential: all the biogas plants could be equipped to produce upgraded biogas, either for direct use as vehicle fuel or for injection into the natural gas grid

Biogas potential as a transport fuel

- high potential for a biomethane development as a transport fuel:
  - over 420.000 NG cars, 650 CNG stations
  - 2.100 Natural Gas urban buses
  - no traffic restrictions in Italian cities for NG vehicles
  - well established system of incentives for NG vehicles
  - best well to wheel carbon saving of all vehicle fuels

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