Swiss Country Report
Istanbul - April 2011

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Biogas Plant Inventory

Gross gas production

![Graph showing gross gas production from 2000 to 2010 for Agriculture, Industrial waste water, and Biowaste.]
Biogas upgrading plants

Number of Installations

GWh/a injected

Agriculture
WWTP
Biowaste
Total
GWh/a injected
New biogas plants

• **Spiez**
  Dry batch fermenter

• **Bätterkinden**
  Agricultural plant

• **Oberkirch**
  Agricultural plant

• **Cadenazzo**
  Agricultural plant

© Oberland Energie Biomassezentrum
Biogas plants under construction

- **E-Bio / Bellechasse:** Agricultural plant (17,000 tpy)
- **Schweizer/ Gollion:** Agricultural plant
- **Eisenmann / Liesberg:** Biowaste (10,000 tpy)

- **Kompogas:** Wauwil (16,000 tpy), Villeneuve (20,000 tpy), Chavornay (20,000 tpy)

- **SwissEcosystems:** WWTP Frutigen, agricultural plant Zwillingen

- **Divers agricultural installations:** Cadenazzo, Diesbach, Bure, Fleurier, Düdingen
Economic support data

Increase of the cap on feed in tariffs:
- New cap up to 0.009 (instead of 0.006) CHF/kWh on electricity consumption
- Some projects in the waiting list can be accepted

Voluntary support programme for biogas injection by the Swiss Gas Association (VSG):
- Within 6 years the injection of biogas shall be increased 6 times
- Local gas providers supply a fund with ~2 million CHF per year
Legislation and Guidelines

**Feed in tariff for electricity:** subsidies new on net electricity production

**Animal feeding:** No more animal feeding with organic waste (Summer 2011)

**Revision of the Act on Waste Treatment:** Discussion on codigestion in WWTP and on digestion temperature in agricultural plants (substrate hygienisation)

**Guidelines:**
- Quality management for compost and digestate
- Guide on odour and noise reduction in agricultural plants
Associations

Fusion and new name:
Biogas Forum + Biomasse Energie = Biomasse Suisse

Main focus 2011:
• Quality of installation planification, construction and operation
• Professional trainings
• Information, communication and project monitoring
Research projects

2 projects using Life Cycle Analysis

- **Optimal plant size:**
  Centralised vs. decentralised agricultural biogas production

- **Optimal biogas valorisation:**
  Heat production - cogeneration - grid injection
Research projects

Gas potential measurements

- Standardised tests in batch digesters:
  - Reasons for unreliable test results
  - Differences to full-scale digestion
  - Collaboration with IWA

MBR reactor

- Digestion of manure and co-substrates:
  Efficiency improvement for economic and space savings