



equadrat group

## Excerpt – References biomass and biogas plants



Graz • Fohnsdorf • Weng • Feldkirchen • Vorderstoder • Wiener Neudorf • Plovdiv



## District heating - Sinabelkirchen

**Project:** District heating A-8261 Sinabelkirchen,  
1,500 kW biomass und 800 kW oil

**Scale:** Design and side supervision - heating/sanitary  
installations/district heat supply incl. boiler house and  
district heat supply lines

**Construction period:** July 2003 until Autumn 2004

### Technical data:

1. Stage of extension 1,500 KW

Final stage: 4,000 KW

Length of pipelines: 1.400 m

Pressure: 7 bar

Primary cycle: 90 C – 60 C



## Cogeneration plant - Abtenau

**Project:** Cogeneration plant Abtenau, Salzburg AG  
Combinated heat and power generation through biomass

**Scale:** Design, static calculation, site supervision, construction site coordination

**Construction period:** May 2004 until December 2004

### Technical data:

6,000 kW thermal power

1,200 kW electric power via ORC-system

Boiler house: 1,300 m<sup>2</sup>

## District heating - Altenmarkt



**Project:** District heat supply of Altenmarkt and the company Atomic

**Scale:** Design, static calculation, site supervision, construction site coordination

**Construction period:** July 2004 until August 2005

### Technical data:

Biomass cogeneration plant 5,000 kW thermal power (final stage 7,500 kW)

500 kW electric power via ORC-system

approx. 6,000 m public power supply

## District heating - Kaindorf

**Project:** Biomass heating installation Kaindorf bei Hartberg

**Scale:** Design and site supervision, refurbishment of the heating system

**Construction period:** 2004

### Technical data:

**Total power:** 320 kW

**Energy saving per year:** approx. 65,000 kW (total)

**Cost saving per year:** approx. 2.300 €



## Project study - Feldkirchen

**Project:** Project study, A-9560 Feldkirchen/Carinthia

**Scale:** Study – district heating network

**Period:** Spring – autumn 2006

### Technical data:

5,000 thermal power

Approx. 5,400 m length of pipelines

Approx. 5.9 bn. kWh energy consumption per year

Approx. 203,000 € saving of electricity costs per year





## Local heat - Hinterstoder

**Project:** District heat supply Hinterstoder, biomass district heating station (800 kW) and approx. 1.6 km public power supply

**Scale:** Design, static calculation, site supervision

**Construction period:** Spring 1998 – Winter 1998

### Technical data:

800 kW biomass boiler - winter

400 kW biomass boiler for fewer operation or covering peak operation

Boiler house: 110 m<sup>2</sup>

Storage of the wood chips: 300 m<sup>2</sup>

## Biomass dictrict heating Grabnerhof

**Project:** Biomass district heating station incl. public power supply to Landwirtschaftliche Fachschule Grabnerhof

**Scale:** Design, static calculation, site supervision

**Construction period:** August 1998 – December 1998



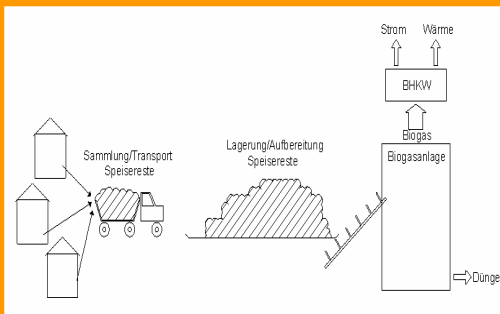
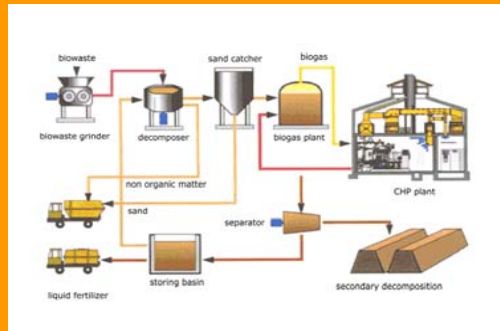
### Technical data:

500 kW biomass boiler - winter

Boiler house: 105 m<sup>2</sup>

Storage of the wood chips: 300 m<sup>2</sup>

Length public power supply: approx. 400 m



## Biogas plant Po-Ebene, Italy

**Project:** Biogas plant Po-Ebene; 13,000 kW electric power and 13,000 kW thermal power

**Substrate:** liquid manure of 18,000 – 25,000 pigs (hog feeding) and 1,000 tons/year poultry dung

**Floor space required for the plant:** 15 hectares

## Biogas plant China (Urumqi)

**Project:** Biogas plant Urumqi; 1,800 kW electric power and 1,800 kW thermal power

**Substrate:** 60 tons swill/day; 30 tons food waste/day; 60 tons sludge/day

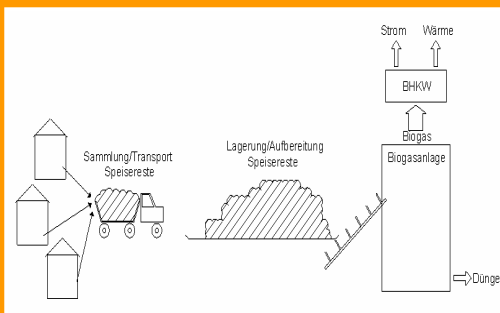
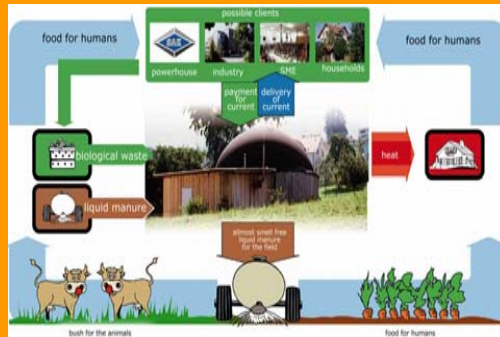
**Floor space required for the plant:** 3.0 hectares

## Biogas plant Serbia

**Project:** Biogas plant near Belgrade in Serbia; 1,000 kW electric power and 1,000 thermal power

**Substrate:** liquid manure of 10,000 cattles

**Floor space required for the plant:** 3.0 hectares



## Analysis biogas plant St. Veit/Glan, Austria

**Project:** Analysis biogas plant; St. Veit/Glan, Austria

**Substrate:** cut grass