

## Best-Practise-projects for bioenergy utilisation in urban environments



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**Project name:** BHW Bäuerliche Bioenergie Fröling Grieskirchen GmbH & Co.KG

**Location:** Upper Austria, 4710 Grieskirchen, Parz 26

**Bioenergy technology concerned:** biomass (wood chips)

### Executive summary (1-2 sentences):

The company Froeling GmbH produces 9000 MWh heat in co-operation with 26 farmers in the surrounding area of Grieskirchen by means of a wood chip heating system per year.

### Case description (half page)

#### Background:

In Grieskirchen, a municipality in Upper Austria with approximately 5,000 inhabitants, different companies are situated; in addition a large school centre and a new residential area are planned in the next years, which are all together potential customers. For this reason the company Froeling GmbH decided to establish a biomass heating station and to cooperate with the surrounding farmers regarding the supply of wood chips.

#### Description:

The plant has a 3 MW URBAS boiler and - if necessary – additional boilers can still be attached. Besides a 500 kW boiler from Froeling was installed. The wood chips are stored in a depot with a capacity of approx. 6.000 - 7,000 m<sup>3</sup> and forwarded to the boiler with assistance of an automatic interior crane. At present 3,000 meters of pipelines are installed; it is accepted that in the year 2007 the installed pipeline length will amount to 4,000 meters. The wood chips are produced by 26 farmers in the surrounding area of the plant from trees of their forest stands and supplied with tractors and dump trailers directly to the depot of the heating system.

#### Technical data (capacity, output, etc.):

3 MW boiler, 5,000 working hours per year

500 kW boiler, 3,500 working hours per year

2,700 t demand of wood chips per year, price for wood chips: between 8 and 15 Euro per m<sup>3</sup>

Output: warm water 95 °C, 9,000 MWh/a

#### Financial data (investment, subsidies, etc.):

Total investment costs: 2.7 million Euro, operating costs: 22,000 Euro, maintenance costs: 2,500 Euro

subsidies: 35 % of the investment costs

### Which main problems had to be overcome?

#### Legal factors:

The project was gradually developed from 1999 – 2004 and the responsible authorities and officials have always been informed and asked for their opinion. Thus problems with the

dedication procedure, with air pollution control and with the building negotiation have been avoided in the run-up to the project. The building negotiation ran without larger problems, since the project was accepted by all sides.

**Socio-economic factors:**

The only problem was an anonymous letter to all households with the title "Objection against the planned biomass heating plant (sender was the institute for economic oil heating, IWO Austria). Since nowhere in the wording of this letter concretely the biomass heating plant Grieskirchen was able to find, the letter fell under general propaganda and could not be fought judicially. Thereupon 8 persons raised objection against the project, however they were all together rejected in an answer. Municipality, government of the region O.Oe. and the population of Grieskirchen stand behind the project, which is particularly important.

**Economic:**

In 2004 there were extreme increases in steel prices. The costs of pipe installation and the technical plant increased therefore, too. The boiler manufacturers had many orders and also the building industry could implement price increases. In 2004 the bonus for accretion of investment was launched, which helped to cover these expenditures.

**Information flow (which information needed, sources, difficulties, etc.)**

Authorities and responsible officials have been constantly informed about the continuation of the project, thus a smooth procedure was guaranteed.

**Lessons learned:**

One who plans 5 years, should have 3 years to convert the project. Rather retain the overview and build more slowly than to make everything at once.

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**Pictures:**

