

BEST PRACTICE EXAMPLES

PARTNER;	O.Ö. Energiesparverband
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WORK TASK	4.1.

	<p>Name of Project:</p> <p>Biomass tri-generation plant for the companies Fischer GmbH and FACC AG</p> <p>1. PROJECT BACKGROUND</p> <p>The company Fischer GmbH was founded in 1924 in Ried, Austria, and stands today as one of the premier sports brands in international skiing and tennis. The subsidiary company FACC (Fischer Advanced Composite Components) was founded in 1989 and is a leading company in Austria for the development, fabrication and maintenance of components for the aviation industry. The main business fields are structural aircraft components, engine fairings and aircraft interiors.</p> <p>2. IMPLEMENTATION</p> <p>The company's production facility in Ried/Upper Austria was in need for an upgrade of the process heat supply. So in the late 1990's the companies decided to go for a renewable energy solution for the reason of climate protection and contribution to the Upper Austrian energy strategy. Formerly the heat was supplied by a nearly 30 years old 8.3 MW steam boiler (+ 4 MW back-up boiler) fuelled with 3,000 t heavy oil, resulting in CO₂-emissions of about 9.5 Mill kg/a. The new biomass tri-generation plant that was put into operation in February 2001, produces heat for space heating and production, cooling and electricity. Approximately 26,000 MWh heat, 1,000 MWh cooling and 2,500 MWh electricity per year are generated from biomass.</p> <p>Financing of the plant was done via a third-party financing scheme. The Scharoplan GmbH was responsible for detailed planning, call for tenders, implementation of the project, maintenance and training of the staff. The companies Fischer GmbH and Scharoplan GmbH signed a 15-year contract for energy supply including fixed energy prices. Fischer pays for the energy consumed (heat, cooling and electricity). The contract assures Fischer energy prices in line with market rates and 100 % cover against outages. This innovative plant is the first biomass tri-generation plant in Austria and it demonstrates impressively that the change to biomass can also be possible</p>	

and beneficial for the production of high quality products.

3. TECHNICAL DETAILS

Installed capacity	7,700 kW boiler output 6,200 kW heat output 900 kW cooling output
Fuel	Wood chips
Fuel consumption [t/year]	50,000 – 60,000 m ³ /year
Calorific value of the fuel [GJ/year]	15,48 MJ/kg = ca. 240.000 GJ/year

4. FUEL (more specific data, supply and distribution system)

About 60.000 piled meter bark, wood chips and saw mill residues per year are needed to fuel the biomass steam boiler. To ensure an environmentally friendly fuel transport, a new railway branch line for biomass delivery was constructed on the premises of the companies Fischer and FACC. A 30 m long railway carriage in special design was constructed to transport the daily demand of 180 m³ biomass.

5. ECONOMIC DATA

Total investment (€): 3,780,000 Euro

6. ENVIRONMENTAL IMPACT

With this biomass CHP-plant the company saves 2,552,972 kg per year of heavy fuel oil and 9,456,000 kg per year of CO₂ emissions.

The possibility to deliver the biomass with the train to the CHP-plant makes also the transportation of the fuel environment-friendly.

7. END USERS

End user of this plant is the companies Fischer GmbH and FACC AG. The company produces with this plant electricity, thermal heat for the offices and the production facilities and also process heat and cooling.

8. PLANT OPERATOR

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