Best-Practise-projects for
bioenergy utilisation in urban environments

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Project name: Saving of energy in the “Art and cultural centre old framework factory Noefa”
Location: Upper Austria, 4600 Wels, Anzengruberstr. 6-10
Bioenergy technology concerned: biomass (pellets), PV

Executive summary (1-2 sentences):
The consumption of fuel oil was reduced from annually 55,000 litres by 45 % to 30,000 litres in the year 2005. This could be achieved by the conversion of wood to pellet firing and by the acquisition of a modern oil-fired boiler for peak load heating.

Case description (half page)
Background:
The "Art and cultural centre old framework factory Noefa" is approximately 100 years old and offers 5,000 m² useful area. Approximately 20 associations, young entrepreneurs and institutions for culture are accommodated. For the heating of the building in the severe winter the waste of wood was too little, additionally about 55,000 litres fuel oil were annually used.
Description:
In the former woodworking industrial company already since 1991 a wood heating is in operation – recently after long effort it was adapted and changed over to pellet firing by means of the primary and secondary air control over a Lambda O_2 in the fire-place. The oil-fired boiler is now a smaller one which only works for peak load. Besides the possibility of using the large flat roofs for a photovoltaic plant could be finally created now after 3 years convictions work – since the end of 2005 the photovoltaic plant is in use.
Technical data (capacity, output, etc.):
Wood/pellet boiler 350 kW, oil boiler 400 kW
Photovoltaic plant 10 kW
Reduction of the operational costs incl. heating to 1.25 Euro per m²
Financial data (investment, subsidies, etc.):
Total investment costs: approx. 140,000 Euro
Subsidies: approx. 7,000 Euro

Which main problems had to be overcome?
Legal factors:
The idea to use the flat roofs for a photovoltaic plant came with a consultation of the O.Oe. Energiesparverband at the energy savings fair in Wels in the year 2001. It was very laborious and lengthy to convince all partners and participants to the investment. Only a lecture of Mr. Rudi Anschober at the Lions Club Wels convinced and thus the way was free for the photovoltaic plant which went on stream at the end of last year.
Economic:

The ash must be carried out more frequently and the fire tubes must be cleaned more frequently, this means more expenditure for the caretaker. In response to this additional work however a quantity of oil is saved.

Information flow (which information needed, sources, difficulties, etc.)
After approximately three years, in which they had caught up information for photovoltaic and boiler conversion again and again and had received partial contradictory information, an energy advise from the O.Oe. Energiesparverband was taken up. This advise and the attendance at the Energiesparmesse in Wels finally helped to receive “correct” information to tackle the restructuring.

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Pictures: