

Best-Practise-projects for bioenergy utilisation in urban environments



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Project name:	A neighbourhood plant heats the school and sports complex
Location:	Marbach
Bioenergy technology concerned:	wood chips

Executive summary: Heating with wood chips reduces carbon dioxide emissions by 650 tons a year – Marbach's own forests provide 25% of the wood

Case description

Background:

In Marbach, the town northwest of Stuttgart where the German writer Friedrich Schiller was born, both economic and ecological reasons were behind the town's decision to switch to wood to heat their school and sports complex.

Description:

Seven buildings (including the high school, the trade and grade schools, the athletic buildings, a kindergarden and a youth centre) were connected via heating pipes to form a combined heating network. The wood-burning furnace that services this network was dimensioned to supply as much as possible of the heating that is needed. To cover peak load requirements, there is an additional furnace that can be set to burn either natural gas or oil. In order to accommodate for fluctuating heating needs, the wood-burning system can store some 20 m³ of heat that can be released on demand. In addition to the positive effect this has on the ecology (a savings of 650 tons of carbon dioxide per year), using local wood also reduces dependence on energy imports. Marbach's own forests supply 25% of the 4,500 m³ of wood chips that the system burns each year. The wood-chip furnace has a capacity of 800 kW and has been in service since October 2004.

Technical data (capacity, output, etc.):

Financial data (investment, subsidies, etc.):

Which main problems had to be overcome?

Legal factors :

Socio-economic factors:

Economic:

Others:

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

Lessons learned:

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Pictures:



