



The european wood energy road ©



Eibiswald: Sun und wood complement one another in district heating

Solar collectors on boiler house roof

Nahwärme Eibiswald reg.Gen.m.b.H., founded in 1991, is a rural company with fourteen members from the Koralm region operating a wood chip fired biomass heating plant. The system was commissioned in 1993 and supplies schools, an old people's home, industrial and commercial enterprises and 150 private households (total connected load 3.532 kW) with district heating. A wood chip storage facility was built in 1997, with

Information about the municipality

Sea level:	362 m
Inhabitants:	1.388
Area:	2,39 km ²
Woodland (of members):	1.200 ha

Fuel supply

The biomass boiler is fired with 4.000 bulk m³ of forest wood chips, 6.050 bulk m³ of industrial wood chips (with a water content of 30 to 40 %) and 5.000 bulk m³ of bark.

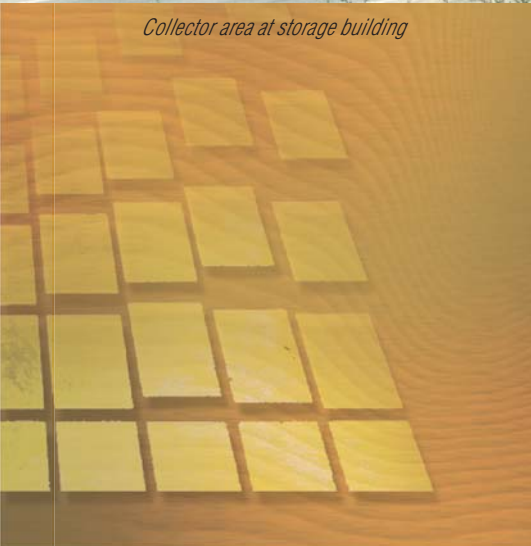
The solar unit has an average annual heat output of 480 MWh. Using biomass and solar power saves 2.030.000 kg carbon dioxide per year.

Boiler

The boiler unit from TU Feuerungsanlagen is supplemented with backup and peak load boilers from Loos and HOVAL for oil or gas. The Investment costs for the biomass heating plant were apporox. EUR 3.600.000.



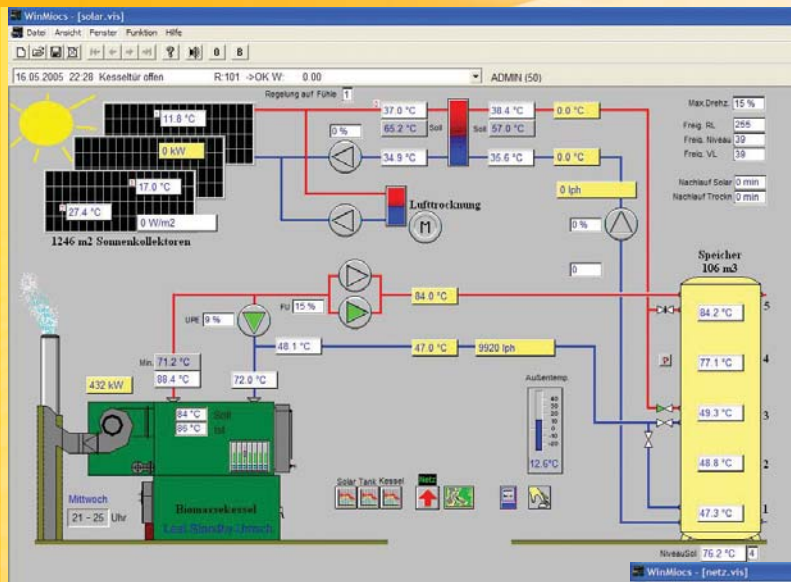
Collector area at storage building



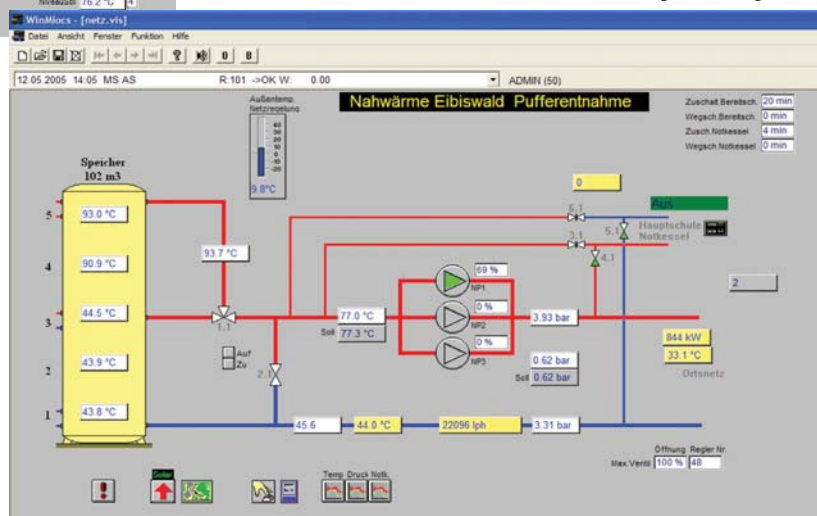
1.250 m² of solar collectors on the roof. With the aid of this largest Austrian unit, Nahwärme Eibiswald reg.Gen.m.b.H. was able to care the customers' wish for year-round heat supply for hot water heating, but also for room heating on cool summer days. The energy is stored in a buffer storage unit with a volume of 106.000 litres. The excess energy is used for drying wood chips. The local heating grid is approx. 6,3 km long and circulates some 169.000 m³ of water every year.



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Monitoring of buffer storage loading



Buffer storage unloading



air view of Eibiswald (GIS-Steiermark)

Economic and technical specifications

Year of the commissioning:	1993
Investment:	3.600.000 Euro
Funding:	
Own-/external capital	1.250.000 Euro
Province/Fed. Min./EU	1.600.000 Euro
Connection rates	730.000 Euro
Number of customers:	80
Connected load:	4.032 kW
Boiler type:	TM-Combustion plants
Number of boilers:	
2 biomass + backup oil boiler	
Boiler capacity:	2.500 kW
Flue gas cleaning:	Multicyclone
Fuel / annual fuel volume:	
Forest chips	4.000 m ³
Industrial chips	6.000 m ³
Bark	500 m ³
Heat generated:	7.050 MWh
Heat sold:	6.122 MWh
Total storage size: stor. building	5.000 m ³
Energy rate:	
Index linked to Group IV	
Lighting and heating	4,50 Cent/kWh
Grid length:	5,63 km

Information /Contact

LandesEnergieVerein Steiermark
 Burggasse 9/II, A-8010 Graz
 Tel.: +43 (0) 316/877-3389
 Fax: +43 (0) 316/877-3391
 E-mail: office@lev.at

Contact for visits

Nahwärme Eibiswald reg.Gen.m.b.H.
 Aichberg 3, A-8552 Eibiswald
 Hannes Gollob, Tel.: +43 664 45 37 429
 Heinrich Steppeler, Tel.: +43 664 10 20 365
 Tel. u. Fax: +43 (0) 3466/43008
 E-mail: info@nahwaerme.coop
 http://www.nahwaerme.coop

Boiler producer:

TM-Feuerungsanlagen GmbH
 A-8271 Bad Waltersdorf

Producer of heat exchanger:

NOPRO GmbH, A-8842 Bad Katsch/Mur

Producer of solar collectors:

S.O.L.I.D. GesmbH, A-8055 Graz

Pipe producer:

Ke-Kelit GmbH, A-4020 Linz and
 FW-Handelsoges.m.b.H, A-8552 Eibiswald 111

