Country: **Germany**

Total number of plants: 47
with co-firing: 3
fossil fuels for co-firing:

Locations (+database No.):

Alexanderbad (57), Assamstadt (58), Bad Mergentheim (59), Bodelshausen (60), Boizenburg (61), Demmin (62), Domsland Eckernförde (63), Dortmund (64), Eisenberg (65), Feldberg (66), Hagenow (67), Hameln (68), Hohenstein (69), Irmenach (70), Kehl (71), Kehlheim (72), Kempten (73), Kirchmöser (74), Klosterfelde (75), Lam (76), Langenbach (77), Lobenstein (78), Lohr (79), Mengersgereuth-Hämmer (80), Mölln (81), n.a. (82), Neufahrn (83), Neumarkt (84), Nittenau (85), Oberrot (86), Osterode (87), Pfaffenhofen (88), Sauerlach (89), Schongau Altenstadt (90), Schwindegg (91), Siebenlehn (92), Stadtlohn (93), Stockelsdorf (94), Stuttgart (95), Sulzbach (96), Taufkirchen (97), Unterneukirchen (98), Unterschleißheim (99), Vierraden (100), Wiesloch (101), Wilburgstetten (102), Wismar (103).

Year of construction	No.	
before 1995	1	2 %
1995 - 2000	6	13 %
after 2000	2	4 %
unknown	38	81 %

Type of power generation	No.		**Fuels**	No.*	
Steam turbine:	21	45 %	Woodchips (forest residues):	24	39 %
Steam engine:	18	38 %	Woodchips (saw industry):	25	40 %
Organic rankine cycle:	1	2 %	Paper sludge:	1	2 %
Stirling engine:	1	2 %	Waste wood:	6	10 %
Hot air engine:	1	2 %	Bark:	2	3 %
Gas engine:	3	6 %	Peat:	0	0 %
Gas turbine:	0	0 %	Straw:	0	0 %
Other (or n.a.):	2	4 %	Other (or n.a.):	4	6 %

Character of plants	No.		**Electric power**	No.	
Testing plants:	2	4 %	<1MW:	24	51 %
Pilote plants:	3	6 %	1MW - <5MW:	11	23 %
Demonstration plants:	1	2 %	5MW - 20MW:	11	23 %
Commercial plants:	34	72 %	>20MW:	0	0 %
unknown:	7	15 %	unknown:	1	2 %

*) double counting possible because some CHP plants might use more than one fuel

Name: CHP Alexanderbad

Database No. 57

Basic Info	
Country:	Germany
Location:	Alexanderbad
Character of plant:	Commercial plant
Owner:	Ev.-Luth. Heimvolkshochschule Alexand
Contact Person:	Mr. Walter Lehner
Telephone:	+49/ 9232/ 993923
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology			**Fuel**		
Type of power generation:	Steam engine		Total fuel input:	n.a.	t/a
Electric power:	0	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	1	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	N				
Fuel conversion:	Combustion				
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Woodchips (forest residues)	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	100	%
Electric efficiency:	n.a.	%	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	n.a.	%			
Total efficiency:	-	%	Type of fuel 2:	-	
Ratio electricity/ heat:	-		Share of fuel 2:	-	%
Fuel power:	n.a.	MW_{fuel}	Input of fuel 2:	-	t/a
Boiler (if steam technology)					
Steam mass flow:	n.a.	t/h	Type of fuel 3:	-	
Steam temperature:	n.a.	°C	Share of fuel 3:	-	%
Steam pressure:	n.a.	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	n.a.	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	n.a.	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: CHP Nied Karl

Database No. 58

Basic Info	
Country:	Germany
Location:	Assamstadt
Character of plant:	n.a.
Owner:	Säge- Hobel u. Parkettwerk Nied Karl G
Contact Person:	Mr. Karl Nied
Telephone:	+49/ 6294/ 345
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology		**Fuel**	
Type of power generation:	Steam engine	Total fuel input:	n.a. t/a
Electric power:	0 MW_{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	1,5 MW_{th}	Moisture content:	n.a. % wet
Co-firing:	N		
Fuel conversion:	Combustion		
Annual production electricity:	n.a. GWh/a	Type of fuel 1:	Woodchips (saw industry)
Annual production heat:	n.a. GWh/a	Share of fuel 1:	100 %
Electric efficiency:	n.a. %	Input of fuel 1:	n.a. t/a
Thermal efficiency:	n.a. %		
Total efficiency:	- %	Type of fuel 2:	-
Ratio electricity/ heat:	-	Share of fuel 2:	- %
Fuel power:	n.a. MW_{fuel}	Input of fuel 2:	- t/a
Boiler (if steam technology)			
Steam mass flow:	n.a. t/h	Type of fuel 3:	-
Steam temperature:	n.a. °C	Share of fuel 3:	- %
Steam pressure:	n.a. bar	Input of fuel3:	- t/a

Costs		**Emissions**	
Investment costs:	n.a. Mio €	CO:	n.a. mg/Nm^3
Spec.investment costs (elec):	n.a. Mio€/MW_{el}	NO_x:	n.a. mg/Nm^3
Fuel costs:	n.a. €/t	Particles:	n.a. mg/Nm^3
Subsidies:	n.a. Mio €	C_xH_y:	n.a. mg/Nm^3
Number of employes:	n.a.	SO_2:	n.a. mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: CHP Beme-Parkettfabrik Jucker

Database No. 59

Basic Info	
Country:	Germany
Location:	Bad Mergentheim
Character of plant:	n.a.
Owner:	Beme-Parkettfabrik Jucker
Contact Person:	Mr. A. Jucker
Telephone:	+49/ 7931/ 9660
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology		**Fuel**	
Type of power generation:	Steam engine	Total fuel input:	n.a. t/a
Electric power:	0 MW_{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	1,8 MW_{th}	Moisture content:	n.a. % wet
Co-firing:	N		
Fuel conversion:	Combustion		
Annual production electricity:	n.a. GWh/a	Type of fuel 1:	Woodchips (saw industry)
Annual production heat:	n.a. GWh/a	Share of fuel 1:	100 %
Electric efficiency:	n.a. %	Input of fuel 1:	n.a. t/a
Thermal efficiency:	n.a. %		
Total efficiency:	- %	Type of fuel 2:	-
Ratio electricity/ heat:	-	Share of fuel 2:	- %
Fuel power:	n.a. MW_{fuel}	Input of fuel 2:	- t/a
Boiler (if steam technology)			
Steam mass flow:	n.a. t/h	Type of fuel 3:	-
Steam temperature:	n.a. °C	Share of fuel 3:	- %
Steam pressure:	n.a. bar	Input of fuel3:	- t/a

Costs		**Emissions**	
Investment costs:	n.a. Mio €	CO:	n.a. mg/Nm^3
Spec.investment costs (elec):	n.a. Mio€/MW_{el}	NO_x:	n.a. mg/Nm^3
Fuel costs:	n.a. €/t	Particles:	n.a. mg/Nm^3
Subsidies:	n.a. Mio €	C_xH_y:	n.a. mg/Nm^3
Number of employes:	n.a.	SO_2:	n.a. mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: CHP Schlotterer

Database No. 60

Basic Info	
Country:	Germany
Location:	Bodelshausen
Character of plant:	Commercial plant
Owner:	Schlotterer GmbH & Co.KG.
Contact Person:	Mr. W. Schlotterer
Telephone:	+49/ 7471/ 7396-0
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology			**Fuel**		
Type of power generation:	Steam turbine		Total fuel input:	n.a.	t/a
Electric power:	2	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	15	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	N				
Fuel conversion:	Combustion				
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Woodchips (saw industry)	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	100	%
Electric efficiency:	n.a.	%	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	n.a.	%			
Total efficiency:	-	%	Type of fuel 2:	-	
Ratio electricity/ heat:	-		Share of fuel 2:	-	%
Fuel power:	n.a.	MW_{fuel}	Input of fuel 2:	-	t/a
Boiler (if steam technology)					
Steam mass flow:	n.a.	t/h	Type of fuel 3:	-	
Steam temperature:	n.a.	°C	Share of fuel 3:	-	%
Steam pressure:	n.a.	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	n.a.	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	n.a.	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: Heating plant Fa. Therm

Database No. 61

Basic Info	
Country:	Germany
Location:	Boizenburg
Character of plant:	Demonstration plant
Owner:	Therm. Verwertung v. Regenerativbr.
Contact Person:	Dr. Quensel
Telephone:	+49/ 40/ 54885-161
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology			**Fuel**		
Type of power generation:	Gas engine		Total fuel input:	n.a.	t/a
Electric power:	4	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	6	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	N				
Fuel conversion:	Gasification				
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Woodchips (saw industry)	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	100	%
Electric efficiency:	n.a.	%	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	n.a.	%			
Total efficiency:	-	%	Type of fuel 2:	-	
Ratio electricity/ heat:	-		Share of fuel 2:	-	%
Fuel power:	n.a.	MW_{fuel}	Input of fuel 2:	-	t/a
Boiler (if steam technology)					
Steam mass flow:	-	t/h	Type of fuel 3:	-	
Steam temperature:	-	°C	Share of fuel 3:	-	%
Steam pressure:	-	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	n.a.	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	n.a.	$Mio€/MW_{el}$	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: Infra Tec 3

Database No. 62

Basic Info	
Country:	Germany
Location:	Demmin
Character of plant:	Commercial plant
Owner:	Umwelttechnologie GmbH & Co
Contact Person:	n.a.
Telephone:	n.a.
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology			**Fuel**		
Type of power generation:	Steam turbine		Total fuel input:	n.a.	t/a
Electric power:	5	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	26	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	N				
Fuel conversion:	Combustion				
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Waste wood	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	100	%
Electric efficiency:	n.a.	%	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	n.a.	%			
Total efficiency:	-	%	Type of fuel 2:	-	
Ratio electricity/ heat:	-		Share of fuel 2:	-	%
Fuel power:	n.a.	MW_{fuel}	Input of fuel 2:	-	t/a
Boiler (if steam technology)					
Steam mass flow:	n.a.	t/h	Type of fuel 3:	-	
Steam temperature:	n.a.	°C	Share of fuel 3:	-	%
Steam pressure:	n.a.	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	n.a.	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	n.a.	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: Heating plant Domsland Eckernförde

Database No. 63

Basic Info	
Country:	Germany
Location:	Domsland Eckernförde
Character of plant:	Pilote plant
Owner:	EVN GmbH & Co KG
Contact Person:	Mr. Wolfgang Baaske
Telephone:	+49/ 461/ 707012-0
Fax:	+49/ 461/ 707023-16
email:	baaske@evn.de
webpage:	n.a.
Year of construction:	1999

Technology			**Fuel**		
Type of power generation:	Gas engine		Total fuel input:	n.a.	t/a
Electric power:	0	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	0,36	MW_{th}	Moisture content:	18	% wet
Co-firing:	N				
Fuel conversion:	Gasification				
Annual production electricity:	1,56	GWh/a	Type of fuel 1:	Woodchips (forest residues)	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	100	%
Electric efficiency:	22,5	%	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	45	%			
Total efficiency:	67,5	%	Type of fuel 2:	-	
Ratio electricity/ heat:	0,50		Share of fuel 2:	-	%
Fuel power:	0,8	MW_{fuel}	Input of fuel 2:	-	t/a
Boiler (if steam technology)					
Steam mass flow:	-	t/h	Type of fuel 3:	-	
Steam temperature:	-	°C	Share of fuel 3:	-	%
Steam pressure:	-	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	3,82086	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	21,227	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

Project description biomass CHP Domsland Eckernförde, Energie Versorgung Nord

n.a.... not available

Name: University of Dortmund

Database No. 64

Basic Info	
Country:	Germany
Location:	Dortmund
Character of plant:	Testing plant
Owner:	University of Dortmund
Contact Person:	Dr. Claus Forst
Telephone:	+49/ 231/ 7551
Fax:	+49/ 231/ 7555493
email:	fost@fem.mb.uni-dortmund.de
webpage:	www.fem.mb.uni-dortmund.de
Year of construction:	1998

Technology			**Fuel**		
Type of power generation:	Steam screw-type		Total fuel input:	n.a.	t/a
Electric power:	0	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	1	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	Y				
Fuel conversion:	Combustion				
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Natural gas	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	100	%
Electric efficiency:	8,5	%	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	76,9	%			
Total efficiency:	85,4	%	Type of fuel 2:	-	
Ratio electricity/ heat:	0,11		Share of fuel 2:	-	%
Fuel power:	1,3	MW_{fuel}	Input of fuel 2:	-	t/a
Boiler (if steam technology)					
Steam mass flow:	n.a.	t/h	Type of fuel 3:	-	
Steam temperature:	n.a.	°C	Share of fuel 3:	-	%
Steam pressure:	n.a.	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	n.a.	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	n.a.	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

K. Kauder, "Stromerzeugung mit Schraubenmotoren", university of Dortmund

n.a.... not available

Name: Heating plant Eisenberg

Database No. 65

Basic Info	
Country:	Germany
Location:	Eisenberg
Character of plant:	Commercial plant
Owner:	Biomass Eisenberg GmbH
Contact Person:	Mr. Rudolf Maier
Telephone:	+49/ 8932/ 1706
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology		**Fuel**	
Type of power generation:	Steam turbine	Total fuel input:	n.a. t/a
Electric power:	3 MW_{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	7,5 MW_{th}	Moisture content:	n.a. % wet
Co-firing:	N		
Fuel conversion:	Combustion		
Annual production electricity:	n.a. GWh/a	Type of fuel 1:	Woodchips (forest residues)
Annual production heat:	n.a. GWh/a	Share of fuel 1:	100 %
Electric efficiency:	n.a. %	Input of fuel 1:	n.a. t/a
Thermal efficiency:	n.a. %		
Total efficiency:	- %	Type of fuel 2:	-
Ratio electricity/ heat:	-	Share of fuel 2:	- %
Fuel power:	n.a. MW_{fuel}	Input of fuel 2:	- t/a
Boiler (if steam technology)			
Steam mass flow:	n.a. t/h	Type of fuel 3:	-
Steam temperature:	n.a. °C	Share of fuel 3:	- %
Steam pressure:	n.a. bar	Input of fuel3:	- t/a

Costs		**Emissions**	
Investment costs:	n.a. Mio €	CO:	n.a. mg/Nm^3
Spec.investment costs (elec):	n.a. Mio€/MW_{el}	NO_x:	n.a. mg/Nm^3
Fuel costs:	n.a. €/t	Particles:	n.a. mg/Nm^3
Subsidies:	n.a. Mio €	C_xH_y:	n.a. mg/Nm^3
Number of employes:	n.a.	SO_2:	n.a. mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: Infra Tec 2

Database No. 66

Basic Info	
Country:	Germany
Location:	Feldberg
Character of plant:	Commercial plant
Owner:	Umwelttechnologie GmbH & Co
Contact Person:	n.a.
Telephone:	n.a.
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology			**Fuel**		
Type of power generation:	Steam turbine		Total fuel input:	n.a.	t/a
Electric power:	5	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	22	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	N				
Fuel conversion:	Combustion				
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Woodchips (saw industry)	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	100	%
Electric efficiency:	n.a.	%	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	n.a.	%			
Total efficiency:	-	%	Type of fuel 2:	-	
Ratio electricity/ heat:	-		Share of fuel 2:	-	%
Fuel power:	n.a.	MW_{fuel}	Input of fuel 2:	-	t/a
Boiler (if steam technology)					
Steam mass flow:	n.a.	t/h	Type of fuel 3:	-	
Steam temperature:	n.a.	°C	Share of fuel 3:	-	%
Steam pressure:	n.a.	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	n.a.	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	n.a.	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: Infra Tec

Database No. 67

Basic Info	
Country:	Germany
Location:	Hagenow
Character of plant:	Commercial plant
Owner:	Umwelttechnologie GmbH & Co
Contact Person:	n.a.
Telephone:	n.a.
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology		**Fuel**	
Type of power generation:	Steam turbine	Total fuel input:	n.a. t/a
Electric power:	7 MW_{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	33,3 MW_{th}	Moisture content:	n.a. % wet
Co-firing:	N		
Fuel conversion:	Combustion		
Annual production electricity:	n.a. GWh/a	Type of fuel 1:	Woodchips (saw industry)
Annual production heat:	n.a. GWh/a	Share of fuel 1:	100 %
Electric efficiency:	n.a. %	Input of fuel 1:	n.a. t/a
Thermal efficiency:	n.a. %		
Total efficiency:	- %	Type of fuel 2:	-
Ratio electricity/ heat:	-	Share of fuel 2:	- %
Fuel power:	n.a. MW_{fuel}	Input of fuel 2:	- t/a
Boiler (if steam technology)			
Steam mass flow:	n.a. t/h	Type of fuel 3:	-
Steam temperature:	n.a. °C	Share of fuel 3:	- %
Steam pressure:	n.a. bar	Input of fuel3:	- t/a

Costs		**Emissions**	
Investment costs:	n.a. Mio €	CO:	n.a. mg/Nm^3
Spec.investment costs (elec):	n.a. Mio€/MW_{el}	NO_x:	n.a. mg/Nm^3
Fuel costs:	n.a. €/t	Particles:	n.a. mg/Nm^3
Subsidies:	n.a. Mio €	C_xH_y:	n.a. mg/Nm^3
Number of employes:	n.a.	SO_2:	n.a. mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: Heating plant Wesertal

Database No. 68

Basic Info	
Country:	Germany
Location:	Hameln
Character of plant:	n.a.
Owner:	Elektrizitätswerk Welertal GmbH
Contact Person:	Mr. Helmut Jantos
Telephone:	+49/ 5151/ 81-1525
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology			**Fuel**		
Type of power generation:	Steam turbine		Total fuel input:	n.a.	t/a
Electric power:	12	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	124	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	N				
Fuel conversion:	Combustion				
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Woodchips (forest residues)	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	100	%
Electric efficiency:	n.a.	%	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	n.a.	%			
Total efficiency:	-	%	Type of fuel 2:	-	
Ratio electricity/ heat:	-		Share of fuel 2:	-	%
Fuel power:	n.a.	MW_{fuel}	Input of fuel 2:	-	t/a
Boiler (if steam technology)					
Steam mass flow:	n.a.	t/h	Type of fuel 3:	-	
Steam temperature:	n.a.	°C	Share of fuel 3:	-	%
Steam pressure:	n.a.	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	n.a.	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	n.a.	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: CHP Schwörenhaus

Database No. 69

Basic Info	
Country:	Germany
Location:	Hohenstein
Character of plant:	Commercial plant
Owner:	Schwörenhaus KG
Contact Person:	Mr. Hans Schwörer
Telephone:	+49/ 7387/ 160
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology		**Fuel**	
Type of power generation:	Steam engine	Total fuel input:	n.a. t/a
Electric power:	0 MW_{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	15 MW_{th}	Moisture content:	n.a. % wet
Co-firing:	N		
Fuel conversion:	Combustion		
Annual production electricity:	n.a. GWh/a	Type of fuel 1:	Woodchips (forest residues)
Annual production heat:	n.a. GWh/a	Share of fuel 1:	100 %
Electric efficiency:	n.a. %	Input of fuel 1:	n.a. t/a
Thermal efficiency:	n.a. %		
Total efficiency:	- %	Type of fuel 2:	-
Ratio electricity/ heat:	-	Share of fuel 2:	- %
Fuel power:	n.a. MW_{fuel}	Input of fuel 2:	- t/a
Boiler (if steam technology)			
Steam mass flow:	n.a. t/h	Type of fuel 3:	-
Steam temperature:	n.a. °C	Share of fuel 3:	- %
Steam pressure:	n.a. bar	Input of fuel3:	- t/a

Costs		**Emissions**	
Investment costs:	n.a. Mio €	CO:	n.a. mg/Nm^3
Spec.investment costs (elec):	n.a. Mio€/MW_{el}	NO_x:	n.a. mg/Nm^3
Fuel costs:	n.a. €/t	Particles:	n.a. mg/Nm^3
Subsidies:	n.a. Mio €	C_xH_y:	n.a. mg/Nm^3
Number of employes:	n.a.	SO_2:	n.a. mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: CHP Hans Kirst

Database No. 70

Basic Info	
Country:	Germany
Location:	Irmenach
Character of plant:	n.a.
Owner:	Hans Kirst
Contact Person:	Mr. Hans Kirst
Telephone:	+49/ 6541/ 6045
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology		**Fuel**		
Type of power generation:	Steam engine	Total fuel input:		n.a. t/a
Electric power:	0 MW_{el}	Tot. lower heating value:		n.a. kWh/kg
Thermal power:	1,5 MW_{th}	Moisture content:		n.a. % wet
Co-firing:	N			
Fuel conversion:	Combustion			
Annual production electricity:	n.a. GWh/a	Type of fuel 1:	n.a.	
Annual production heat:	n.a. GWh/a	Share of fuel 1:		n.a. %
Electric efficiency:	n.a. %	Input of fuel 1:		n.a. t/a
Thermal efficiency:	n.a. %			
Total efficiency:	- %	Type of fuel 2:	-	
Ratio electricity/ heat:	-	Share of fuel 2:		- %
Fuel power:	n.a. MW_{fuel}	Input of fuel 2:		- t/a
Boiler (if steam technology)				
Steam mass flow:	n.a. t/h	Type of fuel 3:	-	
Steam temperature:	n.a. °C	Share of fuel 3:		- %
Steam pressure:	n.a. bar	Input of fuel3:		- t/a

Costs		**Emissions**	
Investment costs:	n.a. Mio €	CO:	n.a. mg/Nm^3
Spec.investment costs (elec):	n.a. Mio€/MW_{el}	NO_x:	n.a. mg/Nm^3
Fuel costs:	n.a. €/t	Particles:	n.a. mg/Nm^3
Subsidies:	n.a. Mio €	C_xH_y:	n.a. mg/Nm^3
Number of employes:	n.a.	SO_2:	n.a. mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: CHP Süddeutsche Sperrholzwerke

Database No. 71

Basic Info	
Country:	Germany
Location:	Kehl
Character of plant:	Commercial plant
Owner:	Dold Südwestdeutsche Sperrholzwerke
Contact Person:	Mr. S. Dold
Telephone:	+49/ 7851/ 8705-0
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology			**Fuel**		
Type of power generation:	Steam engine		Total fuel input:	100.000	t/a
Electric power:	0	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	1,5	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	N				
Fuel conversion:	Combustion				
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Woodchips (saw industry)	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	100	%
Electric efficiency:	n.a.	%	Input of fuel 1:	100.000	t/a
Thermal efficiency:	n.a.	%			
Total efficiency:	-	%	Type of fuel 2:	-	
Ratio electricity/ heat:	-		Share of fuel 2:	-	%
Fuel power:	n.a.	MW_{fuel}	Input of fuel 2:	-	t/a
Boiler (if steam technology)					
Steam mass flow:	59	t/h	Type of fuel 3:	-	
Steam temperature:	500	°C	Share of fuel 3:	-	%
Steam pressure:	90	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	n.a.	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	n.a.	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: CHP Kehlheimer

Database No. 72

Basic Info	
Country:	Germany
Location:	Kehlheim
Character of plant:	n.a.
Owner:	Kehlheimer Parkettfabrik GmbH
Contact Person:	n.a.
Telephone:	n.a.
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology			**Fuel**		
Type of power generation:	Steam engine		Total fuel input:	n.a.	t/a
Electric power:	0	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	2	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	N				
Fuel conversion:	Combustion				
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Woodchips (saw industry)	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	100	%
Electric efficiency:	n.a.	%	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	n.a.	%			
Total efficiency:	-	%	Type of fuel 2:	-	
Ratio electricity/ heat:	-		Share of fuel 2:	-	%
Fuel power:	n.a.	MW_{fuel}	Input of fuel 2:	-	t/a
Boiler (if steam technology)					
Steam mass flow:	n.a.	t/h	Type of fuel 3:	-	
Steam temperature:	n.a.	°C	Share of fuel 3:	-	%
Steam pressure:	n.a.	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	n.a.	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	n.a.	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: Biomass-plant Kempten-Ursulasried

Database No. 73

Basic Info	
Country:	Germany
Location:	Kempten
Character of plant:	Commercial plant
Owner:	ZAK Energie GmbH
Contact Person:	Mr. Lumer
Telephone:	+49/ 831/ 57148-0
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology		**Fuel**	
Type of power generation:	Steam turbine	Total fuel input:	n.a. t/a
Electric power:	2 MW_{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	21,4 MW_{th}	Moisture content:	n.a. % wet
Co-firing:	N		
Fuel conversion:	Combustion		
Annual production electricity:	n.a. GWh/a	Type of fuel 1:	Woodchips (forest residues)
Annual production heat:	n.a. GWh/a	Share of fuel 1:	n.a. %
Electric efficiency:	n.a. %	Input of fuel 1:	n.a. t/a
Thermal efficiency:	n.a. %		
Total efficiency:	- %	Type of fuel 2:	Woodchips (saw industry)
Ratio electricity/ heat:	-	Share of fuel 2:	n.a. %
Fuel power:	n.a. MW_{fuel}	Input of fuel 2:	n.a. t/a
Boiler (if steam technology)			
Steam mass flow:	n.a. t/h	Type of fuel 3:	-
Steam temperature:	n.a. °C	Share of fuel 3:	- %
Steam pressure:	n.a. bar	Input of fuel3:	- t/a

Costs		**Emissions**	
Investment costs:	n.a. Mio €	CO:	n.a. mg/Nm^3
Spec.investment costs (elec):	n.a. Mio€/MW_{el}	NO_x:	n.a. mg/Nm^3
Fuel costs:	n.a. €/t	Particles:	n.a. mg/Nm^3
Subsidies:	n.a. Mio €	C_xH_y:	n.a. mg/Nm^3
Number of employes:	n.a.	SO_2:	n.a. mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: Wood heating plant Kirchmöser

Database No. 74

Basic Info	
Country:	Germany
Location:	Kirchmöser
Character of plant:	Commercial plant
Owner:	V.I.A. GmbH & Co.KG
Contact Person:	n.a.
Telephone:	n.a.
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology		**Fuel**	
Type of power generation:	Steam turbine	Total fuel input:	n.a. t/a
Electric power:	5 MW_{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	42 MW_{th}	Moisture content:	n.a. % wet
Co-firing:	N		
Fuel conversion:	Combustion		
Annual production electricity:	n.a. GWh/a	Type of fuel 1:	Woodchips (forest residues)
Annual production heat:	n.a. GWh/a	Share of fuel 1:	n.a. %
Electric efficiency:	n.a. %	Input of fuel 1:	n.a. t/a
Thermal efficiency:	n.a. %		
Total efficiency:	- %	Type of fuel 2:	Woodchips (saw industry)
Ratio electricity/ heat:	-	Share of fuel 2:	n.a. %
Fuel power:	n.a. MW_{fuel}	Input of fuel 2:	n.a. t/a
Boiler (if steam technology)			
Steam mass flow:	n.a. t/h	Type of fuel 3:	-
Steam temperature:	n.a. °C	Share of fuel 3:	- %
Steam pressure:	n.a. bar	Input of fuel3:	- t/a

Costs		**Emissions**	
Investment costs:	n.a. Mio €	CO:	n.a. mg/Nm^3
Spec.investment costs (elec):	n.a. Mio€/MW_{el}	NO_x:	n.a. mg/Nm^3
Fuel costs:	n.a. €/t	Particles:	n.a. mg/Nm^3
Subsidies:	n.a. Mio €	C_xH_y:	n.a. mg/Nm^3
Number of employes:	n.a.	SO_2:	n.a. mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: Heating plant Klosterfelde

Database No. 75

Basic Info	
Country:	Germany
Location:	Klosterfelde
Character of plant:	Commercial plant
Owner:	SEC
Contact Person:	Dipl.-Ing. Frank Grünke
Telephone:	+49/ 30/ 54796-236
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology		**Fuel**	
Type of power generation:	Steam turbine	Total fuel input:	n.a. t/a
Electric power:	3 MW_{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	20 MW_{th}	Moisture content:	n.a. % wet
Co-firing:	N		
Fuel conversion:	Combustion		
Annual production electricity:	n.a. GWh/a	Type of fuel 1:	Woodchips (forest residues)
Annual production heat:	n.a. GWh/a	Share of fuel 1:	n.a. %
Electric efficiency:	n.a. %	Input of fuel 1:	n.a. t/a
Thermal efficiency:	n.a. %		
Total efficiency:	- %	Type of fuel 2:	Woodchips (saw industry)
Ratio electricity/ heat:	-	Share of fuel 2:	n.a. %
Fuel power:	n.a. MW_{fuel}	Input of fuel 2:	n.a. t/a
Boiler (if steam technology)			
Steam mass flow:	n.a. t/h	Type of fuel 3:	-
Steam temperature:	n.a. °C	Share of fuel 3:	- %
Steam pressure:	n.a. bar	Input of fuel3:	- t/a

Costs		**Emissions**	
Investment costs:	n.a. Mio €	CO:	n.a. mg/Nm^3
Spec.investment costs (elec):	n.a. Mio€/MW_{el}	NO_x:	n.a. mg/Nm^3
Fuel costs:	n.a. €/t	Particles:	n.a. mg/Nm^3
Subsidies:	n.a. Mio €	C_xH_y:	n.a. mg/Nm^3
Number of employes:	n.a.	SO_2:	n.a. mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: CHP Rossberg

Database No. 76

Basic Info	
Country:	Germany
Location:	Lam
Character of plant:	Commercial plant
Owner:	Rossberg Hermann GmbH. &Co.KG
Contact Person:	Mr. Hermann Rossberg
Telephone:	+49/ 9943/ 94050
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology			**Fuel**		
Type of power generation:	Steam turbine		Total fuel input:	n.a.	t/a
Electric power:	1	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	5,5	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	N				
Fuel conversion:	Combustion				
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Woodchips (saw industry)	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	100	%
Electric efficiency:	n.a.	%	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	n.a.	%			
Total efficiency:	-	%	Type of fuel 2:	-	
Ratio electricity/ heat:	-		Share of fuel 2:	-	%
Fuel power:	n.a.	MW_{fuel}	Input of fuel 2:	-	t/a
Boiler (if steam technology)					
Steam mass flow:	n.a.	t/h	Type of fuel 3:	-	
Steam temperature:	n.a.	°C	Share of fuel 3:	-	%
Steam pressure:	n.a.	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	n.a.	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	n.a.	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: Biomass CHP Mann

Database No. 77

Basic Info	
Country:	Germany
Location:	Langenbach
Character of plant:	Commercial plant
Owner:	Family Mann
Contact Person:	Mr. M. Döring
Telephone:	+49/ 2661/ 626252
Fax:	+49/ 2661/ 626262
email:	n.a.
webpage:	www.emil-mann.de
Year of construction:	1995

Technology			**Fuel**		
Type of power generation:	Steam engine		Total fuel input:	n.a.	t/a
Electric power:	1	MW_{el}	Tot. lower heating value:	2,4	kWh/kg
Thermal power:	3,7	MW_{th}	Moisture content:	32	% wet
Co-firing:	N				
Fuel conversion:	Combustion				
Annual production electricity:	3	GWh/a	Type of fuel 1:	Woodchips (forest residues)	
Annual production heat:	22,1	GWh/a	Share of fuel 1:	n.a.	%
Electric efficiency:	8,6	%	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	62,7	%			
Total efficiency:	71,3	%	Type of fuel 2:	Waste wood	
Ratio electricity/ heat:	0,14		Share of fuel 2:	n.a.	%
Fuel power:	5,9	MW_{fuel}	Input of fuel 2:	n.a.	t/a
Boiler (if steam technology)					
Steam mass flow:	6	t/h	Type of fuel 3:	-	
Steam temperature:	360	°C	Share of fuel 3:	-	%
Steam pressure:	28	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	n.a.	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	n.a.	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

Brochure (2000) of Fa. Spillingwerk GmbH Werftstrasse 5, D-20457 Hamburg, owner information of Markus Mann (2000), www.emil-mann.de

n.a.... not available

Name: LED Power Station

Database No. 78

Basic Info	
Country:	Germany
Location:	Lobenstein
Character of plant:	Commercial plant
Owner:	n.a.
Contact Person:	n.a.
Telephone:	n.a.
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology			**Fuel**		
Type of power generation:	Steam turbine		Total fuel input:	n.a.	t/a
Electric power:	2	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	12	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	N				
Fuel conversion:	Combustion				
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Woodchips (forest residues)	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	n.a.	%
Electric efficiency:	n.a.	%	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	n.a.	%			
Total efficiency:	-	%	Type of fuel 2:	Woodchips (saw industry)	
Ratio electricity/ heat:	-		Share of fuel 2:	n.a.	%
Fuel power:	n.a.	MW_{fuel}	Input of fuel 2:	n.a.	t/a
Boiler (if steam technology)					
Steam mass flow:	n.a.	t/h	Type of fuel 3:	-	
Steam temperature:	n.a.	°C	Share of fuel 3:	-	%
Steam pressure:	n.a.	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	n.a.	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	n.a.	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: CHP Oskar Winkler Formholz

Database No. 79

Basic Info	
Country:	Germany
Location:	Lohr
Character of plant:	Commercial plant
Owner:	OWI Formholz GmbH & Co.KG
Contact Person:	Mr. Istvan Avar
Telephone:	+49/ 9352/ 509-105
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology		**Fuel**	
Type of power generation:	Steam engine	Total fuel input:	n.a. t/a
Electric power:	0 MW_{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	3 MW_{th}	Moisture content:	n.a. % wet
Co-firing:	N		
Fuel conversion:	Combustion		
Annual production electricity:	n.a. GWh/a	Type of fuel 1:	Woodchips (forest residues)
Annual production heat:	n.a. GWh/a	Share of fuel 1:	n.a. %
Electric efficiency:	n.a. %	Input of fuel 1:	n.a. t/a
Thermal efficiency:	n.a. %		
Total efficiency:	- %	Type of fuel 2:	Bark
Ratio electricity/ heat:	-	Share of fuel 2:	n.a. %
Fuel power:	n.a. MW_{fuel}	Input of fuel 2:	n.a. t/a
Boiler (if steam technology)			
Steam mass flow:	n.a. t/h	Type of fuel 3:	-
Steam temperature:	n.a. °C	Share of fuel 3:	- %
Steam pressure:	n.a. bar	Input of fuel3:	- t/a

Costs		**Emissions**	
Investment costs:	n.a. Mio €	CO:	n.a. mg/Nm^3
Spec.investment costs (elec):	n.a. Mio€/MW_{el}	NO_x:	n.a. mg/Nm^3
Fuel costs:	n.a. €/t	Particles:	n.a. mg/Nm^3
Subsidies:	n.a. Mio €	C_xH_y:	n.a. mg/Nm^3
Number of employes:	n.a.	SO_2:	n.a. mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: CHP Sperschneider

Database No. 80

Basic Info	
Country:	Germany
Location:	Mengersgereuth-Hämmer
Character of plant:	Commercial plant
Owner:	Hermann Sperschneider KG
Contact Person:	Mr. Hermann Sperschneider
Telephone:	+49/ 3675/ 746208
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology			**Fuel**		
Type of power generation:	Steam engine		Total fuel input:	n.a.	t/a
Electric power:	0	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	2	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	N				
Fuel conversion:	Combustion				
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Woodchips (saw industry)	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	100	%
Electric efficiency:	n.a.	%	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	n.a.	%			
Total efficiency:	-	%	Type of fuel 2:	-	
Ratio electricity/ heat:	-		Share of fuel 2:	-	%
Fuel power:	n.a.	MW_{fuel}	Input of fuel 2:	-	t/a
Boiler (if steam technology)					
Steam mass flow:	n.a.	t/h	Type of fuel 3:	-	
Steam temperature:	n.a.	°C	Share of fuel 3:	-	%
Steam pressure:	n.a.	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	n.a.	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	n.a.	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: Biomass CHP Theodor Höhns

Database No. 81

Basic Info	
Country:	Germany
Location:	Mölln
Character of plant:	Commercial plant
Owner:	Theodor Höhns
Contact Person:	Mr. Theodor Höhns
Telephone:	+49/ 4542/ 8003-0
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology			**Fuel**		
Type of power generation:	Steam engine		Total fuel input:	n.a.	t/a
Electric power:	1	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	5,5	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	N				
Fuel conversion:	Combustion				
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Woodchips (saw industry)	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	100	%
Electric efficiency:	n.a.	%	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	n.a.	%			
Total efficiency:	-	%	Type of fuel 2:	-	
Ratio electricity/ heat:	-		Share of fuel 2:	-	%
Fuel power:	n.a.	MW_{fuel}	Input of fuel 2:	-	t/a
Boiler (if steam technology)					
Steam mass flow:	n.a.	t/h	Type of fuel 3:	-	
Steam temperature:	n.a.	°C	Share of fuel 3:	-	%
Steam pressure:	n.a.	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	n.a.	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	n.a.	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: Heating plant Priener Hütte

Database No. 82

Basic Info	
Country:	Germany
Location:	n.a.
Character of plant:	Testing plant
Owner:	Deutscher Alpenverein
Contact Person:	Mrs. Christa Robl
Telephone:	+49/ 8057/ 428
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology			**Fuel**		
Type of power generation:	Gas engine		Total fuel input:	n.a.	t/a
Electric power:	0	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	0,11	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	Y				
Fuel conversion:	Gasification				
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Oil	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	n.a.	%
Electric efficiency:	n.a.	%	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	n.a.	%			
Total efficiency:	-	%	Type of fuel 2:	Waste wood	
Ratio electricity/ heat:	-		Share of fuel 2:	n.a.	%
Fuel power:	n.a.	MW_{fuel}	Input of fuel 2:	n.a.	t/a
Boiler (if steam technology)					
Steam mass flow:	-	t/h	Type of fuel 3:	-	
Steam temperature:	-	°C	Share of fuel 3:	-	%
Steam pressure:	-	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	n.a.	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	n.a.	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: CHP Neufahrn

Database No. 83

Basic Info	
Country:	Germany
Location:	Neufahrn
Character of plant:	Commercial plant
Owner:	Versorgungsbetriebe Neufahrn/Eching
Contact Person:	n.a.
Telephone:	n.a.
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	2002

Technology			**Fuel**		
Type of power generation:	n.a.		Total fuel input:	40.000	t/a
Electric power:	5	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	13	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	N				
Fuel conversion:	n.a.				
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Waste wood	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	100	%
Electric efficiency:	n.a.	%	Input of fuel 1:	40.000	t/a
Thermal efficiency:	n.a.	%			
Total efficiency:	-	%	Type of fuel 2:	-	
Ratio electricity/ heat:	-		Share of fuel 2:	-	%
Fuel power:	n.a.	MW_{fuel}	Input of fuel 2:	-	t/a
Boiler (if steam technology)					
Steam mass flow:	0	t/h	Type of fuel 3:	-	
Steam temperature:	0	°C	Share of fuel 3:	-	%
Steam pressure:	0	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	16	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	3,2	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

project partner

n.a.... not available

Name: Biomass CHP Neumarkt

Database No. 84

Basic Info	
Country:	Germany
Location:	Neumarkt
Character of plant:	Commercial plant
Owner:	Pfleiderer AG
Contact Person:	Mr. Axel Knörr
Telephone:	+49/ 9181/ 28310
Fax:	+49/ 9181/ 28550
email:	axel.knoerr@pfleiderer.com
webpage:	www.pfleiderer.com
Year of construction:	1997

Technology			**Fuel**		
Type of power generation:	Steam turbine		Total fuel input:	n.a.	t/a
Electric power:	13	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	38	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	N				
Fuel conversion:	Combustion				
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Woodchips (saw industry)	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	n.a.	%
Electric efficiency:	22,2	%	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	63,3	%			
Total efficiency:	85,5	%	Type of fuel 2:	Woodchips (forest residues)	
Ratio electricity/ heat:	0,35		Share of fuel 2:	n.a.	%
Fuel power:	60	MW_{fuel}	Input of fuel 2:	n.a.	t/a
Boiler (if steam technology)					
Steam mass flow:	n.a.	t/h	Type of fuel 3:	-	
Steam temperature:	457	°C	Share of fuel 3:	-	%
Steam pressure:	70	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	n.a.	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	n.a.	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

VDI Report Nr. 1588, 2001

n.a.... not available

Name: CHP Schlingmann

Database No. 85

Basic Info	
Country:	Germany
Location:	Nittenau
Character of plant:	Commercial plant
Owner:	Schlingmann GmbH & Co.
Contact Person:	Mr. Heinz Schmidt
Telephone:	+49/ 9436/ 9510
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology			**Fuel**		
Type of power generation:	Steam turbine		Total fuel input:	n.a.	t/a
Electric power:	1	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	13,8	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	N				
Fuel conversion:	Combustion				
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Woodchips (forest residues)	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	n.a.	%
Electric efficiency:	n.a.	%	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	n.a.	%			
Total efficiency:	-	%	Type of fuel 2:	Woodchips (saw industry)	
Ratio electricity/ heat:	-		Share of fuel 2:	n.a.	%
Fuel power:	n.a.	MW_{fuel}	Input of fuel 2:	n.a.	t/a
Boiler (if steam technology)					
Steam mass flow:	n.a.	t/h	Type of fuel 3:	-	
Steam temperature:	n.a.	°C	Share of fuel 3:	-	%
Steam pressure:	n.a.	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	n.a.	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	n.a.	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: Bark heating plant Klenk

Database No. 86

Basic Info	
Country:	Germany
Location:	Oberrot
Character of plant:	Commercial plant
Owner:	Fam. Klenk GmbH & Co.
Contact Person:	Mr. M. Klenk
Telephone:	+49/ 7977/ 72170
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology			**Fuel**		
Type of power generation:	Steam turbine		Total fuel input:	n.a.	t/a
Electric power:	4	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	36	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	N				
Fuel conversion:	Combustion				
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Bark	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	100	%
Electric efficiency:	n.a.	%	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	n.a.	%			
Total efficiency:	-	%	Type of fuel 2:	-	
Ratio electricity/ heat:	-		Share of fuel 2:	-	%
Fuel power:	n.a.	MW_{fuel}	Input of fuel 2:	-	t/a
Boiler (if steam technology)					
Steam mass flow:	n.a.	t/h	Type of fuel 3:	-	
Steam temperature:	n.a.	°C	Share of fuel 3:	-	%
Steam pressure:	n.a.	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	n.a.	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	n.a.	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: Heating plant Krome

Database No. 87

Basic Info	
Country:	Germany
Location:	Osterode
Character of plant:	Commercial plant
Owner:	Krome GmbH
Contact Person:	Mr. T. Krome
Telephone:	+49/ 5522/ 2266
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology		**Fuel**	
Type of power generation:	Steam engine	Total fuel input:	n.a. t/a
Electric power:	0 MW_{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	1,8 MW_{th}	Moisture content:	n.a. % wet
Co-firing:	N		
Fuel conversion:	Combustion		
Annual production electricity:	n.a. GWh/a	Type of fuel 1:	Woodchips (saw industry)
Annual production heat:	n.a. GWh/a	Share of fuel 1:	100 %
Electric efficiency:	n.a. %	Input of fuel 1:	n.a. t/a
Thermal efficiency:	n.a. %		
Total efficiency:	- %	Type of fuel 2:	-
Ratio electricity/ heat:	-	Share of fuel 2:	- %
Fuel power:	n.a. MW_{fuel}	Input of fuel 2:	- t/a
Boiler (if steam technology)			
Steam mass flow:	n.a. t/h	Type of fuel 3:	-
Steam temperature:	n.a. °C	Share of fuel 3:	- %
Steam pressure:	n.a. bar	Input of fuel3:	- t/a

Costs		**Emissions**	
Investment costs:	n.a. Mio €	CO:	n.a. mg/Nm^3
Spec.investment costs (elec):	n.a. Mio€/MW_{el}	NO_x:	n.a. mg/Nm^3
Fuel costs:	n.a. €/t	Particles:	n.a. mg/Nm^3
Subsidies:	n.a. Mio €	C_xH_y:	n.a. mg/Nm^3
Number of employes:	n.a.	SO_2:	n.a. mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: Biomass CHP Pfaffenhofen

Database No. 88

Basic Info	
Country:	Germany
Location:	Pfaffenhofen
Character of plant:	Commercial plant
Owner:	Biomasse Heizwerk GmbH
Contact Person:	Dipl.-Ing. Volkmar Schäfer
Telephone:	+49/ 8441/ 86350
Fax:	+49/ 8441/ 494640
email:	volkmar.schaefer@eta-energieberatung
webpage:	n.a.
Year of construction:	2000

Technology			**Fuel**		
Type of power generation:	Steam turbine		Total fuel input:	n.a.	t/a
Electric power:	7	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	13,7	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	N				
Fuel conversion:	Combustion				
Annual production electricity:	40	GWh/a	Type of fuel 1:	oodchips (forest residues, saw industr	
Annual production heat:	109	GWh/a	Share of fuel 1:	100	%
Electric efficiency:	25,1	%	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	51,3	%			
Total efficiency:	76,4	%	Type of fuel 2:	Woodchips (saw industry)	
Ratio electricity/ heat:	0,49		Share of fuel 2:	n.a.	%
Fuel power:	26,7	MW_{fuel}	Input of fuel 2:	n.a.	t/a
Boiler (if steam technology)					
Steam mass flow:	n.a.	t/h	Type of fuel 3:	-	
Steam temperature:	450	°C	Share of fuel 3:	-	%
Steam pressure:	60	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	36	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	5,37313	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

www.eta-energieberatung.de, Volkmar Schäfer: "Das Biomasse-Heizkraftwerk Pfaffenhofen", Symposium Energieinovation, 2002

n.a.... not available

Name: CHP Sauerlach

Database No. 89

Basic Info	
Country:	Germany
Location:	Sauerlach
Character of plant:	n.a.
Owner:	Zukungts-Energie-Sauerlach
Contact Person:	n.a.
Telephone:	n.a.
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	2002

Technology			**Fuel**		
Type of power generation:	Organic rankine cycle		Total fuel input:	10.200	t/a
Electric power:	0	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	n.a.	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	Y				
Fuel conversion:	Combustion				
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Woodchips (forest residues)	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	98	%
Electric efficiency:	n.a.	%	Input of fuel 1:	10.000	t/a
Thermal efficiency:	n.a.	%			
Total efficiency:	-	%	Type of fuel 2:	Oil	
Ratio electricity/ heat:	-		Share of fuel 2:	2	%
Fuel power:	n.a.	MW_{fuel}	Input of fuel 2:	200	t/a
Boiler (if steam technology)					
Steam mass flow:	-	t/h	Type of fuel 3:	-	
Steam temperature:	-	°C	Share of fuel 3:	-	%
Steam pressure:	-	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	8,9	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	22,25	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

project partner

n.a.... not available

Name: Biomass Plant Schongau-Altenstadt

Database No. 90

Basic Info	
Country:	Germany
Location:	Schongau Altenstadt
Character of plant:	Commercial plant
Owner:	Schongau-Altenstadt GmbH
Contact Person:	Mr. Siegfried Schuster
Telephone:	+49/ 8869/ 91110
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology			**Fuel**		
Type of power generation:	Steam turbine		Total fuel input:	n.a.	t/a
Electric power:	12	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	35	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	N				
Fuel conversion:	Combustion				
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Woodchips (forest residues)	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	100	%
Electric efficiency:	n.a.	%	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	n.a.	%			
Total efficiency:	-	%	Type of fuel 2:	-	
Ratio electricity/ heat:	-		Share of fuel 2:	-	%
Fuel power:	n.a.	MW_{fuel}	Input of fuel 2:	-	t/a
Boiler (if steam technology)					
Steam mass flow:	n.a.	t/h	Type of fuel 3:	-	
Steam temperature:	n.a.	°C	Share of fuel 3:	-	%
Steam pressure:	n.a.	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	n.a.	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	n.a.	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: CHP Obermaier

Database No. 91

Basic Info	
Country:	Germany
Location:	Schwindegg
Character of plant:	Commercial plant
Owner:	Obermaier GmbH
Contact Person:	Mr. Johann Schreiner
Telephone:	+49/ 8082/ 406
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology			**Fuel**		
Type of power generation:	Steam engine		Total fuel input:	n.a.	t/a
Electric power:	1	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	3,5	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	N				
Fuel conversion:	Combustion				
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Woodchips (saw industry)	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	100	%
Electric efficiency:	n.a.	%	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	n.a.	%			
Total efficiency:	-	%	Type of fuel 2:	-	
Ratio electricity/ heat:	-		Share of fuel 2:	-	%
Fuel power:	n.a.	MW_{fuel}	Input of fuel 2:	-	t/a
Boiler (if steam technology)					
Steam mass flow:	n.a.	t/h	Type of fuel 3:	-	
Steam temperature:	n.a.	°C	Share of fuel 3:	-	%
Steam pressure:	n.a.	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	n.a.	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	n.a.	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: Wood-heating plant Siebenlehn

Database No. 92

Basic Info	
Country:	Germany
Location:	Siebenlehn
Character of plant:	Pilote plant
Owner:	PPS Pipeline Systems GmbH
Contact Person:	Mr. Kurt Weller
Telephone:	+49/ 7612/ 62249
Fax:	+49/ 7612/ 63688
email:	n.a.
webpage:	n.a.
Year of construction:	2000

Technology			**Fuel**		
Type of power generation:	Hot air engine		Total fuel input:	n.a.	t/a
Electric power:	2	MW_{el}	Tot. lower heating value:	3,77	kWh/kg
Thermal power:	4,5	MW_{th}	Moisture content:	20	% wet
Co-firing:	N				
Fuel conversion:	Gasification				
Annual production electricity:	14,2	GWh/a	Type of fuel 1:	Woodchips (forest residues)	
Annual production heat:	27	GWh/a	Share of fuel 1:	n.a.	%
Electric efficiency:	20	%	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	45	%			
Total efficiency:	65	%	Type of fuel 2:	Waste wood	
Ratio electricity/ heat:	0,44		Share of fuel 2:	n.a.	%
Fuel power:	10	MW_{fuel}	Input of fuel 2:	n.a.	t/a
Boiler (if steam technology)					
Steam mass flow:	-	t/h	Type of fuel 3:	-	
Steam temperature:	-	°C	Share of fuel 3:	-	%
Steam pressure:	-	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	14,32	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	7,16	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

"Holzheizkraftwerk neuen Typs in Siebenlehn Landkreis Freiberg/Sachsen", TU Freiberg, Nov. 1999

n.a.... not available

Name: CHP Hüls

Database No. 93

Basic Info	
Country:	Germany
Location:	Stadtlohn
Character of plant:	n.a.
Owner:	Hüls GmbH & Co.KG
Contact Person:	Mr. H. Hemsing
Telephone:	+49/ 2563/ 860
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology		**Fuel**		
Type of power generation:	Steam engine	Total fuel input:	n.a.	t/a
Electric power:	0 MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	3,4 MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	N			
Fuel conversion:	Combustion			
Annual production electricity:	n.a. GWh/a	Type of fuel 1:	Woodchips (saw industry)	
Annual production heat:	n.a. GWh/a	Share of fuel 1:	100	%
Electric efficiency:	n.a. %	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	n.a. %			
Total efficiency:	- %	Type of fuel 2:	-	
Ratio electricity/ heat:	-	Share of fuel 2:	-	%
Fuel power:	n.a. MW_{fuel}	Input of fuel 2:	-	t/a
Boiler (if steam technology)				
Steam mass flow:	n.a. t/h	Type of fuel 3:	-	
Steam temperature:	n.a. °C	Share of fuel 3:	-	%
Steam pressure:	n.a. bar	Input of fuel3:	-	t/a

Costs		**Emissions**		
Investment costs:	n.a. Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	n.a. Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a. €/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a. Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.	SO_2:	n.a.	mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: CHP Knauf

Database No. 94

Basic Info	
Country:	Germany
Location:	Stockelsdorf
Character of plant:	Commercial plant
Owner:	Knauf GmbH & Co.KG
Contact Person:	Mr. Karl-Otto Knauf
Telephone:	+49/ 451/ 49901-0
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology			**Fuel**		
Type of power generation:	Steam engine		Total fuel input:	n.a.	t/a
Electric power:	0	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	6,75	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	N				
Fuel conversion:	Combustion				
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Woodchips (forest residues)	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	100	%
Electric efficiency:	n.a.	%	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	n.a.	%			
Total efficiency:	-	%	Type of fuel 2:	-	
Ratio electricity/ heat:	-		Share of fuel 2:	-	%
Fuel power:	n.a.	MW_{fuel}	Input of fuel 2:	-	t/a
Boiler (if steam technology)					
Steam mass flow:	n.a.	t/h	Type of fuel 3:	-	
Steam temperature:	n.a.	°C	Share of fuel 3:	-	%
Steam pressure:	n.a.	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	n.a.	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	n.a.	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: CHP Frank Richard

Database No. 95

Basic Info	
Country:	Germany
Location:	Stuttgart
Character of plant:	Commercial plant
Owner:	Frank Richard GmbH
Contact Person:	Mr. Frank Richard
Telephone:	+49/ 711/ 82640-01
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology		**Fuel**	
Type of power generation:	Steam engine	Total fuel input:	n.a. t/a
Electric power:	0 MW_{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	2,5 MW_{th}	Moisture content:	n.a. % wet
Co-firing:	N		
Fuel conversion:	Combustion		
Annual production electricity:	n.a. GWh/a	Type of fuel 1:	Woodchips (forest residues)
Annual production heat:	n.a. GWh/a	Share of fuel 1:	n.a. %
Electric efficiency:	n.a. %	Input of fuel 1:	n.a. t/a
Thermal efficiency:	n.a. %		
Total efficiency:	- %	Type of fuel 2:	Woodchips (saw industry)
Ratio electricity/ heat:	-	Share of fuel 2:	n.a. %
Fuel power:	n.a. MW_{fuel}	Input of fuel 2:	n.a. t/a
Boiler (if steam technology)			
Steam mass flow:	n.a. t/h	Type of fuel 3:	-
Steam temperature:	n.a. °C	Share of fuel 3:	- %
Steam pressure:	n.a. bar	Input of fuel3:	- t/a

Costs		**Emissions**	
Investment costs:	n.a. Mio €	CO:	n.a. mg/Nm^3
Spec.investment costs (elec):	n.a. Mio€/MW_{el}	NO_x:	n.a. mg/Nm^3
Fuel costs:	n.a. €/t	Particles:	n.a. mg/Nm^3
Subsidies:	n.a. Mio €	C_xH_y:	n.a. mg/Nm^3
Number of employes:	n.a.	SO_2:	n.a. mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: Biomass plant Sulzbach-Rosenberg

Database No. 96

Basic Info	
Country:	Germany
Location:	Sulzbach
Character of plant:	Commercial plant
Owner:	ESP-GEKO GmbH
Contact Person:	Mr. Luber
Telephone:	+49/ 89/ 741158-1
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology		**Fuel**	
Type of power generation:	Steam turbine	Total fuel input:	n.a. t/a
Electric power:	4 MW_{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	22 MW_{th}	Moisture content:	n.a. % wet
Co-firing:	N		
Fuel conversion:	Combustion		
Annual production electricity:	n.a. GWh/a	Type of fuel 1:	Woodchips (forest residues)
Annual production heat:	n.a. GWh/a	Share of fuel 1:	n.a. %
Electric efficiency:	n.a. %	Input of fuel 1:	n.a. t/a
Thermal efficiency:	n.a. %		
Total efficiency:	- %	Type of fuel 2:	Woodchips (saw industry)
Ratio electricity/ heat:	-	Share of fuel 2:	n.a. %
Fuel power:	n.a. MW_{fuel}	Input of fuel 2:	n.a. t/a
Boiler (if steam technology)			
Steam mass flow:	n.a. t/h	Type of fuel 3:	-
Steam temperature:	n.a. °C	Share of fuel 3:	- %
Steam pressure:	n.a. bar	Input of fuel3:	- t/a

Costs		**Emissions**	
Investment costs:	n.a. Mio €	CO:	n.a. mg/Nm^3
Spec.investment costs (elec):	n.a. Mio€/MW_{el}	NO_x:	n.a. mg/Nm^3
Fuel costs:	n.a. €/t	Particles:	n.a. mg/Nm^3
Subsidies:	n.a. Mio €	C_xH_y:	n.a. mg/Nm^3
Number of employes:	n.a.	SO_2:	n.a. mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: Biomasse Heizkraftwerk Taufkirchen

Database No. 97

Basic Info	
Country:	Germany
Location:	Taufkirchen
Character of plant:	Commercial plant
Owner:	n.a.
Contact Person:	Mr. Leserer jun.
Telephone:	+49/ 8961/ 441415
Fax:	+49/ 8961/ 441488
email:	n.a.
webpage:	Bioenergie-Taufkirchen.de
Year of construction:	2000

Technology			**Fuel**		
Type of power generation:	Steam turbine		Total fuel input:	25.000	t/a
Electric power:	2	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	7	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	N				
Fuel conversion:	Combustion				
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Woodchips (forest residues)	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	50	%
Electric efficiency:	19,5	%	Input of fuel 1:	25.000	t/a
Thermal efficiency:	63,6	%			
Total efficiency:	83,1	%	Type of fuel 2:	Waste wood	
Ratio electricity/ heat:	0,31		Share of fuel 2:	50	%
Fuel power:	11	MW_{fuel}	Input of fuel 2:	n.a.	t/a
Boiler (if steam technology)					
Steam mass flow:	11	t/h	Type of fuel 3:	-	
Steam temperature:	430	°C	Share of fuel 3:	-	%
Steam pressure:	34	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	35,7	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	16,6047	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

Info brochure: Biomasseheizkraftwerk Taufkirchen, C.A.R.M.E.N., Schulgasse 18, D-94315, bioenergie-taufkirchen.de

n.a.... not available

Name: Heating plant Unterneukirchen

Database No. 98

Basic Info	
Country:	Germany
Location:	Unterneukirchen
Character of plant:	Commercial plant
Owner:	Biogene Fernwärme GmbH & Co.KG
Contact Person:	Mr. Helmut Gsuk
Telephone:	+49/ 8634/ 8875
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology			**Fuel**		
Type of power generation:	Steam engine		Total fuel input:	n.a.	t/a
Electric power:	0	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	2,17	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	N				
Fuel conversion:	Combustion				
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Woodchips (forest residues)	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	100	%
Electric efficiency:	n.a.	%	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	n.a.	%			
Total efficiency:	-	%	Type of fuel 2:	-	
Ratio electricity/ heat:	-		Share of fuel 2:	-	%
Fuel power:	n.a.	MW_{fuel}	Input of fuel 2:	-	t/a
Boiler (if steam technology)					
Steam mass flow:	n.a.	t/h	Type of fuel 3:	-	
Steam temperature:	n.a.	°C	Share of fuel 3:	-	%
Steam pressure:	n.a.	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	n.a.	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	n.a.	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: Heating plant Kraillinger Innovationsmeile

Database No. 99

Basic Info	
Country:	Germany
Location:	Unterschleißheim
Character of plant:	Pilote plant
Owner:	Südwärme GmbH
Contact Person:	Mr. Wolfgang Götzendorfer
Telephone:	+49/ 89/ 321/ 706
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology		**Fuel**	
Type of power generation:	Stirling engine	Total fuel input:	n.a. t/a
Electric power:	0 MW_{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	0,4 MW_{th}	Moisture content:	n.a. % wet
Co-firing:	N		
Fuel conversion:	Combustion		
Annual production electricity:	n.a. GWh/a	Type of fuel 1:	Woodchips (forest residues)
Annual production heat:	n.a. GWh/a	Share of fuel 1:	100 %
Electric efficiency:	n.a. %	Input of fuel 1:	n.a. t/a
Thermal efficiency:	n.a. %		
Total efficiency:	- %	Type of fuel 2:	-
Ratio electricity/ heat:	-	Share of fuel 2:	- %
Fuel power:	n.a. MW_{fuel}	Input of fuel 2:	- t/a
Boiler (if steam technology)			
Steam mass flow:	- t/h	Type of fuel 3:	-
Steam temperature:	- °C	Share of fuel 3:	- %
Steam pressure:	- bar	Input of fuel3:	- t/a

Costs		**Emissions**	
Investment costs:	n.a. Mio €	CO:	n.a. mg/Nm^3
Spec.investment costs (elec):	n.a. Mio€/MW_{el}	NO_x:	n.a. mg/Nm^3
Fuel costs:	n.a. €/t	Particles:	n.a. mg/Nm^3
Subsidies:	n.a. Mio €	C_xH_y:	n.a. mg/Nm^3
Number of employes:	n.a.	SO_2:	n.a. mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: CHP paper factory Haindl

Database No. 100

Basic Info	
Country:	Germany
Location:	Vierraden
Character of plant:	Commercial plant
Owner:	Haindl Paper GmbH Schwedt
Contact Person:	Mr. Helmut Hauser
Telephone:	+49/ 3332/ 281-0
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology		**Fuel**	
Type of power generation:	Steam turbine	Total fuel input:	n.a. t/a
Electric power:	n.a. MW_{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	n.a. MW_{th}	Moisture content:	n.a. % wet
Co-firing:	N		
Fuel conversion:	Combustion		
Annual production electricity:	n.a. GWh/a	Type of fuel 1:	Paper sludge
Annual production heat:	n.a. GWh/a	Share of fuel 1:	100 %
Electric efficiency:	n.a. %	Input of fuel 1:	n.a. t/a
Thermal efficiency:	n.a. %		
Total efficiency:	- %	Type of fuel 2:	-
Ratio electricity/ heat:	-	Share of fuel 2:	- %
Fuel power:	n.a. MW_{fuel}	Input of fuel 2:	- t/a
Boiler (if steam technology)			
Steam mass flow:	n.a. t/h	Type of fuel 3:	-
Steam temperature:	n.a. °C	Share of fuel 3:	- %
Steam pressure:	n.a. bar	Input of fuel3:	- t/a

Costs		**Emissions**	
Investment costs:	n.a. Mio €	CO:	n.a. mg/Nm^3
Spec.investment costs (elec):	n.a. Mio€/MW_{el}	NO_x:	n.a. mg/Nm^3
Fuel costs:	n.a. €/t	Particles:	n.a. mg/Nm^3
Subsidies:	n.a. Mio €	C_xH_y:	n.a. mg/Nm^3
Number of employes:	n.a.	SO_2:	n.a. mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: CHP Nordbaden

Database No. 101

Basic Info	
Country:	Germany
Location:	Wiesloch
Character of plant:	Commercial plant
Owner:	Psychiatric Center Nordbaden
Contact Person:	Mr. Wolfgang Wilhelm
Telephone:	+49/ 6222/ 550
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology		**Fuel**	
Type of power generation:	Steam engine	Total fuel input:	n.a. t/a
Electric power:	0 MW_{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	2,4 MW_{th}	Moisture content:	n.a. % wet
Co-firing:	N		
Fuel conversion:	Combustion		
Annual production electricity:	n.a. GWh/a	Type of fuel 1:	Woodchips (forest residues)
Annual production heat:	n.a. GWh/a	Share of fuel 1:	100 %
Electric efficiency:	n.a. %	Input of fuel 1:	n.a. t/a
Thermal efficiency:	n.a. %		
Total efficiency:	- %	Type of fuel 2:	-
Ratio electricity/ heat:	-	Share of fuel 2:	- %
Fuel power:	n.a. MW_{fuel}	Input of fuel 2:	- t/a
Boiler (if steam technology)			
Steam mass flow:	n.a. t/h	Type of fuel 3:	-
Steam temperature:	n.a. °C	Share of fuel 3:	- %
Steam pressure:	n.a. bar	Input of fuel3:	- t/a

Costs		**Emissions**	
Investment costs:	n.a. Mio €	CO:	n.a. mg/Nm^3
Spec.investment costs (elec):	n.a. Mio€/MW_{el}	NO_x:	n.a. mg/Nm^3
Fuel costs:	n.a. €/t	Particles:	n.a. mg/Nm^3
Subsidies:	n.a. Mio €	C_xH_y:	n.a. mg/Nm^3
Number of employes:	n.a.	SO_2:	n.a. mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: Biomass CHP Rettenmaier

Database No. 102

Basic Info	
Country:	Germany
Location:	Wilburgstetten
Character of plant:	Commercial plant
Owner:	Rettenmaier GmbH & Co.KG
Contact Person:	Mr. Rettenmaier
Telephone:	+49/ 9853/ 3380
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology			**Fuel**	
Type of power generation:	Steam turbine		Total fuel input:	n.a. t/a
Electric power:	7	MW_{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	36	MW_{th}	Moisture content:	n.a. % wet
Co-firing:	N			
Fuel conversion:	Combustion			
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Woodchips (forest residues)
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	n.a. %
Electric efficiency:	n.a.	%	Input of fuel 1:	n.a. t/a
Thermal efficiency:	n.a.	%		
Total efficiency:	-	%	Type of fuel 2:	Woodchips (saw industry)
Ratio electricity/ heat:	-		Share of fuel 2:	n.a. %
Fuel power:	n.a.	MW_{fuel}	Input of fuel 2:	n.a. t/a
Boiler (if steam technology)				
Steam mass flow:	n.a.	t/h	Type of fuel 3:	-
Steam temperature:	n.a.	°C	Share of fuel 3:	- %
Steam pressure:	n.a.	bar	Input of fuel3:	- t/a

Costs			**Emissions**	
Investment costs:	n.a.	Mio €	CO:	n.a. mg/Nm^3
Spec.investment costs (elec):	n.a.	Mio€/MW_{el}	NO_x:	n.a. mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a. mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a. mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a. mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available

Name: CHP Klausner Nordic Timber

Database No. 103

Basic Info	
Country:	Germany
Location:	Wismar
Character of plant:	Commercial plant
Owner:	Klausner Nordic Timber
Contact Person:	n.a.
Telephone:	n.a.
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	n.a.

Technology			**Fuel**		
Type of power generation:	Steam turbine		Total fuel input:	n.a.	t/a
Electric power:	17	MW_{el}	Tot. lower heating value:	n.a.	kWh/kg
Thermal power:	47	MW_{th}	Moisture content:	n.a.	% wet
Co-firing:	N				
Fuel conversion:	Combustion				
Annual production electricity:	n.a.	GWh/a	Type of fuel 1:	Woodchips (saw industry)	
Annual production heat:	n.a.	GWh/a	Share of fuel 1:	100	%
Electric efficiency:	n.a.	%	Input of fuel 1:	n.a.	t/a
Thermal efficiency:	n.a.	%			
Total efficiency:	-	%	Type of fuel 2:	-	
Ratio electricity/ heat:	-		Share of fuel 2:	-	%
Fuel power:	n.a.	MW_{fuel}	Input of fuel 2:	-	t/a
Boiler (if steam technology)					
Steam mass flow:	n.a.	t/h	Type of fuel 3:	-	
Steam temperature:	n.a.	°C	Share of fuel 3:	-	%
Steam pressure:	n.a.	bar	Input of fuel3:	-	t/a

Costs			**Emissions**		
Investment costs:	n.a.	Mio €	CO:	n.a.	mg/Nm^3
Spec.investment costs (elec):	n.a.	Mio€/MW_{el}	NO_x:	n.a.	mg/Nm^3
Fuel costs:	n.a.	€/t	Particles:	n.a.	mg/Nm^3
Subsidies:	n.a.	Mio €	C_xH_y:	n.a.	mg/Nm^3
Number of employes:	n.a.		SO_2:	n.a.	mg/Nm^3

Source:

TU-Graz: "Analyse und Systematisierung existierender und vorgesehener KWK-Anlagen", 2001

n.a.... not available