

Country: **Sweden**

Total number of plants: 39
 with co-firing: 16
 fossil fuels for co-firing:

Locations (+database No.):

Ängelholm (112), Arlanda (113), Boras (114), Eksjo (115), Enköping (116), Eskilstuna (117), Falun (118), Fors (119), Gällivare (120), Göteborg (121), Helsingborg (122), Hudiksvall (123), Jönköping (124), Karlstad (125), Kiruna (126), Kristianstad (127), Linköping (128), Lugnvik (129), Lund (130), Lycksele (131), Malmö (132), Nässjö (133), Norrenergi (134), Norrköping (135), Nyköping (136), Örebro (137), Örebro (138), Oskarshamn (139), Rauhalahiti (140), Sala (141), Skelleftea (142), Stockholm (143), Sundsvall (144), Umea (145), Uppsala (146), Varberg (147), Värnamo (148), Västerås (149), Växjö (150).

Year of construction	No.	
before 1995	4	10 %
1995 - 2000	5	13 %
after 2000	1	3 %
unknown	29	74 %

Type of power generation	No.		Fuels	No.*	
Steam turbine:	10	26 %	Woodchips (forest residues):	10	50 %
Steam engine:	0	0 %	Woodchips (saw industry):	0	0 %
Organic rankine cycle:	0	0 %	Paper sludge:	0	0 %
Stirling engine:	0	0 %	Waste wood:	0	0 %
Hot air engine:	0	0 %	Bark:	3	15 %
Gas engine:	0	0 %	Peat:	0	0 %
Gas turbine:	1	3 %	Straw:	0	0 %
Other (or n.a.):	28	72 %	Other (or n.a.):	7	35 %

Character of plants	No.		Electric power	No.	
Testing plants:	0	0 %	<1MW:	0	0 %
Pilote plants:	0	0 %	1MW - <5MW:	1	3 %
Demonstration plants:	4	10 %	5MW - 20MW:	13	33 %
Commercial plants:	7	18 %	>20MW:	20	51 %
unknown:	28	72 %	unknown:	5	13 %

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

Name: Ängelholm

Database No. 112

Basic Info	
Country:	Sweden
Location:	Ängelholm
Character of plant:	n.a.
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:	n.a.	Total fuel input:	n.a. t/a
Electric power:	29 MW _{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	33,8333 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:	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
<i>Boiler (if steam technology)</i>			
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 _x H _y :	n.a. mg/Nm ³
Number of employes:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: CHP Bristakraft Arlanda

Database No. 113

Basic Info	
Country:	Sweden
Location:	Arlanda
Character of plant:	Commercial plant
Owner:	Brista Kraft AB
Contact Person:	Mr. Göran Eriksson
Telephone:	+46/ 8592/ 58800
Fax:	+46/ 8592/ 52565
email:	g.eriksson@bristakraft.se
webpage:	www.bristakraft.se
Year of construction:	1997

Technology		Fuel	
Type of power generation:	Steam turbine	Total fuel input:	n.a. t/a
Electric power:	44 MW _{el}	Tot. lower heating value:	2,4 kWh/kg
Thermal power:	85 MW _{th}	Moisture content:	35 % wet
Co-firing:	N		
Fuel conversion:	Combustion	Type of fuel 1:	Woodchips (forest residues)
Annual production electricity:	160 GWh/a	Share of fuel 1:	100 %
Annual production heat:	390 GWh/a	Input of fuel 1:	n.a. t/a
Electric efficiency:	30,7 %		
Thermal efficiency:	59,2 %	Type of fuel 2:	-
Total efficiency:	89,9 %	Share of fuel 2:	- %
Ratio electricity/ heat:	0,52	Input of fuel 2:	- t/a
Fuel power:	143,5 MW _{fuel}		
<i>Boiler (if steam technology)</i>		Type of fuel 3:	-
Steam mass flow:	n.a. t/h	Share of fuel 3:	- %
Steam temperature:	540 °C	Input of fuel3:	- t/a
Steam pressure:	144 bar		

Costs		Emissions	
Investment costs:	80,52 Mio €	CO:	n.a. mg/Nm ³
Spec.investment costs (elec):	1,83 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 _x H _y :	n.a. mg/Nm ³
Number of employees:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

CADDET Sweden, Newsletter 3/98, Box 12866, S-11298 Stockholm

n.a.... not available

Name: Boras

Database No. 114

Basic Info	
Country:	Sweden
Location:	Boras
Character of plant:	n.a.
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:	n.a.	Total fuel input:	n.a. t/a
Electric power:	20 MW _{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	76,6071 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:	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
<i>Boiler (if steam technology)</i>			
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 _x H _y :	n.a. mg/Nm ³
Number of employes:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: Eksjo

Database No. 115

Basic Info	
Country:	Sweden
Location:	Eksjo
Character of plant:	n.a.
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:	n.a.	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:	n.a.		
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
<i>Boiler (if steam technology)</i>			
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 _x H _y :	n.a. mg/Nm ³
Number of employes:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: CHP Enköping

Database No. 116

Basic Info	
Country:	Sweden
Location:	Enköping
Character of plant:	Commercial plant
Owner:	ENA Kraft
Contact Person:	Mr. Björn Johansson
Telephone:	+46/ 171/ 25410
Fax:	+46/ 171/ 25412
email:	biorn.johansson@varmeverket.enkoping.se
webpage:	www.varmeverket.enkoping.se
Year of construction:	1994

Technology		Fuel	
Type of power generation:	Steam turbine	Total fuel input:	n.a. t/a
Electric power:	24 MW _{el}	Tot. lower heating value:	2,1 kWh/kg
Thermal power:	55 MW _{th}	Moisture content:	33 % wet
Co-firing:	Y		
Fuel conversion:	Combustion	Type of fuel 1:	Woodchips (forest residues)
Annual production electricity:	29 GWh/a	Share of fuel 1:	65 %
Annual production heat:	178 GWh/a	Input of fuel 1:	n.a. t/a
Electric efficiency:	26,1 %		
Thermal efficiency:	59,8 %	Type of fuel 2:	Bark
Total efficiency:	85,9 %	Share of fuel 2:	20 %
Ratio electricity/ heat:	0,44	Input of fuel 2:	n.a. t/a
Fuel power:	92 MW _{fuel}		
<i>Boiler (if steam technology)</i>		Type of fuel 3:	Wood shavings
Steam mass flow:	n.a. t/h	Share of fuel 3:	15 %
Steam temperature:	540 °C	Input of fuel3:	n.a. t/a
Steam pressure:	100 bar		

Costs		Emissions	
Investment costs:	40,992 Mio €	CO:	n.a. mg/Nm ³
Spec.investment costs (elec):	1,708 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 _x H _y :	n.a. mg/Nm ³
Number of employes:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

Bengt Hillring, The Analysis Report of Plant No. 6, VTT ALTENER AFB-NET, 2000

n.a.... not available

Name: CHP Eskilstuna

Database No. 117

Basic Info	
Country:	Sweden
Location:	Eskilstuna
Character of plant:	Demonstration plant
Owner:	Eskilstuna Energi & Milijö AB
Contact Person:	Mr. Anders Björklund
Telephone:	+46/ 1610/ 1890
Fax:	n.a.
email:	anders.bjoerklund@eskilstuna-em.se
webpage:	www.eskilstuna-em.se
Year of construction:	2000

Technology		Fuel	
Type of power generation:	Steam turbine	Total fuel input:	n.a. t/a
Electric power:	36 MW _{el}	Tot. lower heating value:	2,5 kWh/kg
Thermal power:	70,7 MW _{th}	Moisture content:	31 % wet
Co-firing:	N		
Fuel conversion:	Combustion	Type of fuel 1:	Bark
Annual production electricity:	160 GWh/a	Share of fuel 1:	50 %
Annual production heat:	330 GWh/a	Input of fuel 1:	n.a. t/a
Electric efficiency:	29,3 %		
Thermal efficiency:	58,4 %	Type of fuel 2:	Woodchips (forest residues)
Total efficiency:	87,7 %	Share of fuel 2:	50 %
Ratio electricity/ heat:	0,50	Input of fuel 2:	n.a. t/a
Fuel power:	121 MW _{fuel}		
<i>Boiler (if steam technology)</i>		Type of fuel 3:	-
Steam mass flow:	n.a. t/h	Share of fuel 3:	- %
Steam temperature:	540 °C	Input of fuel3:	- t/a
Steam pressure:	140 bar		

Costs		Emissions	
Investment costs:	67 Mio €	CO:	n.a. mg/Nm ³
Spec.investment costs (elec):	1,88732 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 _x H _y :	n.a. mg/Nm ³
Number of employees:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

Combined Heat and Power from Biofuel, Swedish National Energy Administration, Box 310, SE-63104 Eskilstuna, www.power-technology.com

n.a.... not available

Name: Falun

Database No. 118

Basic Info	
Country:	Sweden
Location:	Falun
Character of plant:	n.a.
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:	n.a.	Total fuel input:	n.a. t/a
Electric power:	9 MW _{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	37,6154 MW _{th}	Moisture content:	n.a. % wet
Co-firing:	N		
Fuel conversion:	n.a.	Type of fuel 1:	n.a.
Annual production electricity:	n.a. GWh/a	Share of fuel 1:	n.a. %
Annual production heat:	n.a. GWh/a	Input of fuel 1:	n.a. t/a
Electric efficiency:	n.a. %		
Thermal efficiency:	n.a. %	Type of fuel 2:	-
Total efficiency:	- %	Share of fuel 2:	- %
Ratio electricity/ heat:	-	Input of fuel 2:	- t/a
Fuel power:	n.a. MW _{fuel}		
<i>Boiler (if steam technology)</i>		Type of fuel 3:	-
Steam mass flow:	n.a. t/h	Share of fuel 3:	- %
Steam temperature:	n.a. °C	Input of fuel3:	- t/a
Steam pressure:	n.a. bar		

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 _x H _y :	n.a. mg/Nm ³
Number of employes:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: CHP Stora Enso Fors

Database No. 119

Basic Info	
Country:	Sweden
Location:	Fors
Character of plant:	Commercial plant
Owner:	Stora Enso GmbH
Contact Person:	Mrs. Anna Karin Djupentröm
Telephone:	+46/ 226/ 35000
Fax:	+46/ 226/ 35254
email:	annakarinn.djupenstroem@storaenso.com
webpage:	www.storaenso.com
Year of construction:	1985

Technology		Fuel	
Type of power generation:	Steam turbine	Total fuel input:	n.a. t/a
Electric power:	10 MW _{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	55 MW _{th}	Moisture content:	32 % wet
Co-firing:	Y		
Fuel conversion:	Combustion	Type of fuel 1:	Woodchips (forest residues)
Annual production electricity:	49 GWh/a	Share of fuel 1:	n.a. %
Annual production heat:	286 GWh/a	Input of fuel 1:	n.a. t/a
Electric efficiency:	12,9 %		
Thermal efficiency:	73,8 %	Type of fuel 2:	Coal
Total efficiency:	86,7 %	Share of fuel 2:	n.a. %
Ratio electricity/ heat:	0,17	Input of fuel 2:	n.a. t/a
Fuel power:	74,5 MW _{fuel}		
<i>Boiler (if steam technology)</i>		Type of fuel 3:	-
Steam mass flow:	n.a. t/h	Share of fuel 3:	- %
Steam temperature:	457 °C	Input of fuel3:	- t/a
Steam pressure:	60 bar		

Costs		Emissions	
Investment costs:	6,432 Mio €	CO:	n.a. mg/Nm ³
Spec.investment costs (elec):	0,67 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 _x H _y :	n.a. mg/Nm ³
Number of employees:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

Bengt Hillring, The Analysis Report of Plant No. 3, VTT ALTENER AFB-NET, 2000

n.a.... not available

Name: Gällivare

Database No. 120

Basic Info	
Country:	Sweden
Location:	Gällivare
Character of plant:	n.a.
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:	n.a.	Total fuel input:	n.a. t/a
Electric power:	1 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:	n.a.		
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
<i>Boiler (if steam technology)</i>			
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 _x H _y :	n.a. mg/Nm ³
Number of employes:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: Göteborg

Database No. 121

Basic Info	
Country:	Sweden
Location:	Göteborg
Character of plant:	n.a.
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:	n.a.	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:	Y		
Fuel conversion:	n.a.		
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
<i>Boiler (if steam technology)</i>			
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 _x H _y :	n.a. mg/Nm ³
Number of employes:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: Helsingborg

Database No. 122

Basic Info	
Country:	Sweden
Location:	Helsingborg
Character of plant:	n.a.
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:	n.a.	Total fuel input:	n.a. t/a
Electric power:	69 MW _{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	169,625 MW _{th}	Moisture content:	n.a. % wet
Co-firing:	Y		
Fuel conversion:	n.a.		
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
<i>Boiler (if steam technology)</i>			
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 _x H _y :	n.a. mg/Nm ³
Number of employes:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: Hudiksvall

Database No. 123

Basic Info	
Country:	Sweden
Location:	Hudiksvall
Character of plant:	n.a.
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:	n.a.	Total fuel input:	n.a. t/a
Electric power:	14 MW _{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	76,087 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:	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
<i>Boiler (if steam technology)</i>			
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 _x H _y :	n.a. mg/Nm ³
Number of employees:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: Jönköping

Database No. 124

Basic Info	
Country:	Sweden
Location:	Jönköping
Character of plant:	n.a.
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:	n.a.	Total fuel input:	n.a. t/a
Electric power:	10 MW _{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	123,636 MW _{th}	Moisture content:	n.a. % wet
Co-firing:	Y		
Fuel conversion:	n.a.	Type of fuel 1:	n.a.
Annual production electricity:	n.a. GWh/a	Share of fuel 1:	n.a. %
Annual production heat:	n.a. GWh/a	Input of fuel 1:	n.a. t/a
Electric efficiency:	n.a. %		
Thermal efficiency:	n.a. %	Type of fuel 2:	-
Total efficiency:	- %	Share of fuel 2:	- %
Ratio electricity/ heat:	-	Input of fuel 2:	- t/a
Fuel power:	n.a. MW _{fuel}		
<i>Boiler (if steam technology)</i>		Type of fuel 3:	-
Steam mass flow:	n.a. t/h	Share of fuel 3:	- %
Steam temperature:	n.a. °C	Input of fuel3:	- t/a
Steam pressure:	n.a. bar		

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 _x H _y :	n.a. mg/Nm ³
Number of employees:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: Karlstad

Database No. 125

Basic Info	
Country:	Sweden
Location:	Karlstad
Character of plant:	n.a.
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:	n.a.	Total fuel input:	n.a. t/a
Electric power:	32 MW _{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	171,429 MW _{th}	Moisture content:	n.a. % wet
Co-firing:	Y		
Fuel conversion:	n.a.		
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
<i>Boiler (if steam technology)</i>			
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 _x H _y :	n.a. mg/Nm ³
Number of employees:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: Kiruna

Database No. 126

Basic Info	
Country:	Sweden
Location:	Kiruna
Character of plant:	n.a.
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:	n.a.	Total fuel input:	n.a. t/a
Electric power:	9 MW _{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	88,875 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:	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
<i>Boiler (if steam technology)</i>			
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 _x H _y :	n.a. mg/Nm ³
Number of employees:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: Kristianstad

Database No. 127

Basic Info	
Country:	Sweden
Location:	Kristianstad
Character of plant:	n.a.
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:	n.a.	Total fuel input:	n.a. t/a
Electric power:	15 MW _{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	97,7273 MW _{th}	Moisture content:	n.a. % wet
Co-firing:	Y		
Fuel conversion:	n.a.		
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
<i>Boiler (if steam technology)</i>			
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 _x H _y :	n.a. mg/Nm ³
Number of employes:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: CHP Linköping

Database No. 128

Basic Info	
Country:	Sweden
Location:	Linköping
Character of plant:	Commercial plant
Owner:	Tekniska Verken AB
Contact Person:	Mr. Ingvar Carlsson
Telephone:	+46/ 13/ 208211
Fax:	+46/ 13/ 208006
email:	n.a.
webpage:	www.tekniskaverken.linkoping.se
Year of construction:	1995

Technology		Fuel	
Type of power generation:	Steam turbine	Total fuel input:	n.a. t/a
Electric power:	77 MW _{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	240 MW _{th}	Moisture content:	33 % wet
Co-firing:	Y		
Fuel conversion:	Combustion		
Annual production electricity:	400 GWh/a	Type of fuel 1:	Woodchips (forest residues)
Annual production heat:	1021 GWh/a	Share of fuel 1:	n.a. %
Electric efficiency:	21,4 %	Input of fuel 1:	n.a. t/a
Thermal efficiency:	66,7 %		
Total efficiency:	88,1 %	Type of fuel 2:	Bark, coal, oil
Ratio electricity/ heat:	0,32	Share of fuel 2:	n.a. %
Fuel power:	360 MW _{fuel}	Input of fuel 2:	n.a. t/a
<i>Boiler (if steam technology)</i>			
Steam mass flow:	n.a. t/h	Type of fuel 3:	-
Steam temperature:	475 °C	Share of fuel 3:	- %
Steam pressure:	59 bar	Input of fuel3:	- t/a

Costs		Emissions	
Investment costs:	236 Mio €	CO:	n.a. mg/Nm ³
Spec.investment costs (elec):	3,065 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 _x H _y :	n.a. mg/Nm ³
Number of employes:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

Bengt Hillring, The Analysis Report of Plant No. 12, VTT ALTENER AFB-NET, 2000

n.a.... not available

Name: CHP Lugnvik

Database No. 129

Basic Info	
Country:	Sweden
Location:	Lugnvik
Character of plant:	Commercial plant
Owner:	Jämtkraft AB
Contact Person:	Mr. Hans Plogner
Telephone:	+46/ 63/ 149190
Fax:	n.a.
email:	hans.plogner@jamtkraft.se
webpage:	www.jamtkraft.se
Year of construction:	2002

Technology		Fuel	
Type of power generation:	Steam turbine	Total fuel input:	n.a. t/a
Electric power:	41 MW _{el}	Tot. lower heating value:	2,22 kWh/kg
Thermal power:	80 MW _{th}	Moisture content:	16-36 % wet
Co-firing:	N		
Fuel conversion:	Combustion	Type of fuel 1:	Woodchips (forest residues)
Annual production electricity:	160 GWh/a	Share of fuel 1:	100 %
Annual production heat:	430 GWh/a	Input of fuel 1:	n.a. t/a
Electric efficiency:	29,3 %		
Thermal efficiency:	58 %	Type of fuel 2:	-
Total efficiency:	87,3 %	Share of fuel 2:	- %
Ratio electricity/ heat:	0,51	Input of fuel 2:	- t/a
Fuel power:	138 MW _{fuel}		
<i>Boiler (if steam technology)</i>		Type of fuel 3:	-
Steam mass flow:	n.a. t/h	Share of fuel 3:	- %
Steam temperature:	540 °C	Input of fuel3:	- t/a
Steam pressure:	110 bar		

Costs		Emissions	
Investment costs:	57 Mio €	CO:	n.a. mg/Nm ³
Spec.investment costs (elec):	1,407 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 _x H _y :	n.a. mg/Nm ³
Number of employes:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

Combined Heat and Power from Biofuel, Swedish National Energy Administration, Box 310, SE-63104 Eskilstuna

n.a.... not available

Name: Lund

Database No. 130

Basic Info	
Country:	Sweden
Location:	Lund
Character of plant:	n.a.
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:	n.a.	Total fuel input:	n.a. t/a
Electric power:	27 MW _{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	63,6429 MW _{th}	Moisture content:	n.a. % wet
Co-firing:	n.a.		
Fuel conversion:	n.a.		
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
<i>Boiler (if steam technology)</i>			
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 _x H _y :	n.a. mg/Nm ³
Number of employes:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: Lycksele

Database No. 131

Basic Info	
Country:	Sweden
Location:	Lycksele
Character of plant:	n.a.
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:	n.a.	Total fuel input:	n.a. t/a
Electric power:	15 MW _{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	47,027 MW _{th}	Moisture content:	n.a. % wet
Co-firing:	Y		
Fuel conversion:	n.a.	Type of fuel 1:	n.a.
Annual production electricity:	n.a. GWh/a	Share of fuel 1:	n.a. %
Annual production heat:	n.a. GWh/a	Input of fuel 1:	n.a. t/a
Electric efficiency:	n.a. %		
Thermal efficiency:	n.a. %	Type of fuel 2:	-
Total efficiency:	- %	Share of fuel 2:	- %
Ratio electricity/ heat:	-	Input of fuel 2:	- t/a
Fuel power:	n.a. MW _{fuel}		
<i>Boiler (if steam technology)</i>		Type of fuel 3:	-
Steam mass flow:	n.a. t/h	Share of fuel 3:	- %
Steam temperature:	n.a. °C	Input of fuel3:	- t/a
Steam pressure:	n.a. bar		

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 _x H _y :	n.a. mg/Nm ³
Number of employees:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: Malmö

Database No. 132

Basic Info	
Country:	Sweden
Location:	Malmö
Character of plant:	n.a.
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:	n.a.	Total fuel input:	n.a. t/a
Electric power:	128 MW _{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	412,487 MW _{th}	Moisture content:	n.a. % wet
Co-firing:	n.a.		
Fuel conversion:	n.a.		
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
<i>Boiler (if steam technology)</i>			
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 _x H _y :	n.a. mg/Nm ³
Number of employes:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: Nässjö

Database No. 133

Basic Info	
Country:	Sweden
Location:	Nässjö
Character of plant:	n.a.
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:	n.a.	Total fuel input:	n.a. t/a
Electric power:	9 MW _{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	39,8571 MW _{th}	Moisture content:	n.a. % wet
Co-firing:	N		
Fuel conversion:	n.a.	Type of fuel 1:	n.a.
Annual production electricity:	n.a. GWh/a	Share of fuel 1:	n.a. %
Annual production heat:	n.a. GWh/a	Input of fuel 1:	n.a. t/a
Electric efficiency:	n.a. %		
Thermal efficiency:	n.a. %	Type of fuel 2:	-
Total efficiency:	- %	Share of fuel 2:	- %
Ratio electricity/ heat:	-	Input of fuel 2:	- t/a
Fuel power:	n.a. MW _{fuel}		
<i>Boiler (if steam technology)</i>		Type of fuel 3:	-
Steam mass flow:	n.a. t/h	Share of fuel 3:	- %
Steam temperature:	n.a. °C	Input of fuel3:	- t/a
Steam pressure:	n.a. bar		

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 _x H _y :	n.a. mg/Nm ³
Number of employes:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: Norrenergi

Database No. 134

Basic Info	
Country:	Sweden
Location:	Norrenergi
Character of plant:	n.a.
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:	n.a.	Total fuel input:	n.a. t/a
Electric power:	11 MW _{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	33,5789 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:	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
<i>Boiler (if steam technology)</i>			
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 _x H _y :	n.a. mg/Nm ³
Number of employes:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: Norrköping

Database No. 135

Basic Info	
Country:	Sweden
Location:	Norrköping
Character of plant:	n.a.
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:	n.a.	Total fuel input:	n.a. t/a
Electric power:	95 MW _{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	425,256 MW _{th}	Moisture content:	n.a. % wet
Co-firing:	Y		
Fuel conversion:	n.a.		
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
<i>Boiler (if steam technology)</i>			
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 _x H _y :	n.a. mg/Nm ³
Number of employes:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: Nyköping

Database No. 136

Basic Info	
Country:	Sweden
Location:	Nyköping
Character of plant:	n.a.
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:	n.a.	Total fuel input:	n.a. t/a
Electric power:	35 MW _{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	118,197 MW _{th}	Moisture content:	n.a. % wet
Co-firing:	Y		
Fuel conversion:	n.a.	Type of fuel 1:	n.a.
Annual production electricity:	n.a. GWh/a	Share of fuel 1:	n.a. %
Annual production heat:	n.a. GWh/a	Input of fuel 1:	n.a. t/a
Electric efficiency:	n.a. %		
Thermal efficiency:	n.a. %	Type of fuel 2:	-
Total efficiency:	- %	Share of fuel 2:	- %
Ratio electricity/ heat:	-	Input of fuel 2:	- t/a
Fuel power:	n.a. MW _{fuel}		
<i>Boiler (if steam technology)</i>		Type of fuel 3:	-
Steam mass flow:	n.a. t/h	Share of fuel 3:	- %
Steam temperature:	n.a. °C	Input of fuel3:	- t/a
Steam pressure:	n.a. bar		

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 _x H _y :	n.a. mg/Nm ³
Number of employes:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: CHP Örebro

Database No. 137

Basic Info	
Country:	Sweden
Location:	Örebro
Character of plant:	Commercial plant
Owner:	Örebro Energy AB
Contact Person:	Mr. Anders Lejdholt
Telephone:	+46/ 19/ 159346
Fax:	n.a.
email:	n.a.
webpage:	n.a.
Year of construction:	1998

Technology		Fuel	
Type of power generation:	Steam turbine	Total fuel input:	n.a. t/a
Electric power:	63 MW _{el}	Tot. lower heating value:	2,4 kWh/kg
Thermal power:	105 MW _{th}	Moisture content:	n.a. % wet
Co-firing:	Y		
Fuel conversion:	Combustion	Type of fuel 1:	Woodchips
Annual production electricity:	264 GWh/a	Share of fuel 1:	n.a. %
Annual production heat:	441 GWh/a	Input of fuel 1:	n.a. t/a
Electric efficiency:	32,8 %		
Thermal efficiency:	54,7 %	Type of fuel 2:	Peat, coal, oil
Total efficiency:	87,5 %	Share of fuel 2:	n.a. %
Ratio electricity/ heat:	0,60	Input of fuel 2:	n.a. t/a
Fuel power:	192 MW _{fuel}		
<i>Boiler (if steam technology)</i>		Type of fuel 3:	-
Steam mass flow:	n.a. t/h	Share of fuel 3:	- %
Steam temperature:	540 °C	Input of fuel3:	- t/a
Steam pressure:	144 bar		

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 _x H _y :	n.a. mg/Nm ³
Number of employes:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

Combined Heat and Power, Swedish National Energy Administration, Box 310, SE-63104 Eskilstuna

n.a.... not available

Name: Örebro

Database No. 138

Basic Info	
Country:	Sweden
Location:	Örebro
Character of plant:	n.a.
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:	n.a.	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.a.		
Fuel conversion:	n.a.		
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
<i>Boiler (if steam technology)</i>			
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 _x H _y :	n.a. mg/Nm ³
Number of employees:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: Oskarshamn

Database No. 139

Basic Info	
Country:	Sweden
Location:	Oskarshamn
Character of plant:	n.a.
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:	n.a.	Total fuel input:	n.a. t/a
Electric power:	7 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:	n.a.	Type of fuel 1:	n.a.
Annual production electricity:	n.a. GWh/a	Share of fuel 1:	n.a. %
Annual production heat:	n.a. GWh/a	Input of fuel 1:	n.a. t/a
Electric efficiency:	n.a. %		
Thermal efficiency:	n.a. %	Type of fuel 2:	-
Total efficiency:	- %	Share of fuel 2:	- %
Ratio electricity/ heat:	-	Input of fuel 2:	- t/a
Fuel power:	n.a. MW _{fuel}		
<i>Boiler (if steam technology)</i>		Type of fuel 3:	-
Steam mass flow:	n.a. t/h	Share of fuel 3:	- %
Steam temperature:	n.a. °C	Input of fuel3:	- t/a
Steam pressure:	n.a. bar		

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 _x H _y :	n.a. mg/Nm ³
Number of employees:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: CHP Rauhalahti

Database No. 140

Basic Info	
Country:	Sweden
Location:	Rauhalahti
Character of plant:	Commercial plant
Owner:	Fortum Service Oy
Contact Person:	Mr. Markku Hulkkonen
Telephone:	+35/ 30/ 96190
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:	87 MW _{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	180 MW _{th}	Moisture content:	n.a. % wet
Co-firing:	N		
Fuel conversion:	Combustion	Type of fuel 1:	Peat, Coal
Annual production electricity:	n.a. GWh/a	Share of fuel 1:	n.a. %
Annual production heat:	n.a. GWh/a	Input of fuel 1:	n.a. t/a
Electric efficiency:	n.a. %		
Thermal efficiency:	n.a. %	Type of fuel 2:	Woodchips (forest residues)
Total efficiency:	- %	Share of fuel 2:	n.a. %
Ratio electricity/ heat:	-	Input of fuel 2:	n.a. t/a
Fuel power:	n.a. MW _{fuel}		
<i>Boiler (if steam technology)</i>		Type of fuel 3:	-
Steam mass flow:	n.a. t/h	Share of fuel 3:	- %
Steam temperature:	n.a. °C	Input of fuel3:	- t/a
Steam pressure:	n.a. bar		

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 _x H _y :	n.a. mg/Nm ³
Number of employees:	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: Sala

Database No. 141

Basic Info	
Country:	Sweden
Location:	Sala
Character of plant:	n.a.
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:	n.a.	Total fuel input:	n.a. t/a
Electric power:	9 MW _{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	27,6207 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:	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
<i>Boiler (if steam technology)</i>			
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 _x H _y :	n.a. mg/Nm ³
Number of employees:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: Bioenergy Plant Skelleftea

Database No. 142

Basic Info	
Country:	Sweden
Location:	Skelleftea
Character of plant:	Demonstration plant
Owner:	Skelleftea Kraft AB
Contact Person:	Mr. Lars-Olof Andersson
Telephone:	+46/ 910/ 772500
Fax:	+45/ 910/ 772878
email:	lars-olof.andersson@skekraft.se
webpage:	www.skekraft.se
Year of construction:	1996

Technology		Fuel	
Type of power generation:	Steam turbine	Total fuel input:	n.a. t/a
Electric power:	36 MW _{el}	Tot. lower heating value:	1,9 kWh/kg
Thermal power:	62,9 MW _{th}	Moisture content:	9 % wet
Co-firing:	N		
Fuel conversion:	Combustion	Type of fuel 1:	Woodchips (forest residues)
Annual production electricity:	120 GWh/a	Share of fuel 1:	100 %
Annual production heat:	210 GWh/a	Input of fuel 1:	n.a. t/a
Electric efficiency:	31,1 %		
Thermal efficiency:	54,9 %	Type of fuel 2:	-
Total efficiency:	86 %	Share of fuel 2:	- %
Ratio electricity/ heat:	0,57	Input of fuel 2:	- t/a
Fuel power:	114,5 MW _{fuel}		
<i>Boiler (if steam technology)</i>		Type of fuel 3:	-
Steam mass flow:	n.a. t/h	Share of fuel 3:	- %
Steam temperature:	540 °C	Input of fuel3:	- t/a
Steam pressure:	140 bar		

Costs		Emissions	
Investment costs:	21 Mio €	CO:	n.a. mg/Nm ³
Spec.investment costs (elec):	0,591 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 _x H _y :	n.a. mg/Nm ³
Number of employees:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

CADDET Sweden, Technical Brochure No. 136, Box 12866, S-11298 Stockholm

n.a.... not available

Name: Stockholm

Database No. 143

Basic Info	
Country:	Sweden
Location:	Stockholm
Character of plant:	n.a.
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:	n.a.	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:	Y		
Fuel conversion:	n.a.		
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
<i>Boiler (if steam technology)</i>			
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 _x H _y :	n.a. mg/Nm ³
Number of employees:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: Sundsvall

Database No. 144

Basic Info	
Country:	Sweden
Location:	Sundsvall
Character of plant:	n.a.
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:	n.a.	Total fuel input:	n.a. t/a
Electric power:	59 MW _{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	217,317 MW _{th}	Moisture content:	n.a. % wet
Co-firing:	N		
Fuel conversion:	n.a.	Type of fuel 1:	n.a.
Annual production electricity:	n.a. GWh/a	Share of fuel 1:	n.a. %
Annual production heat:	n.a. GWh/a	Input of fuel 1:	n.a. t/a
Electric efficiency:	n.a. %		
Thermal efficiency:	n.a. %	Type of fuel 2:	-
Total efficiency:	- %	Share of fuel 2:	- %
Ratio electricity/ heat:	-	Input of fuel 2:	- t/a
Fuel power:	n.a. MW _{fuel}		
<i>Boiler (if steam technology)</i>		Type of fuel 3:	-
Steam mass flow:	n.a. t/h	Share of fuel 3:	- %
Steam temperature:	n.a. °C	Input of fuel3:	- t/a
Steam pressure:	n.a. bar		

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 _x H _y :	n.a. mg/Nm ³
Number of employees:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: Umea

Database No. 145

Basic Info	
Country:	Sweden
Location:	Umea
Character of plant:	n.a.
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:	n.a.	Total fuel input:	n.a. t/a
Electric power:	12 MW _{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	82,1739 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:	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
<i>Boiler (if steam technology)</i>			
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 _x H _y :	n.a. mg/Nm ³
Number of employes:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: Uppsala

Database No. 146

Basic Info	
Country:	Sweden
Location:	Uppsala
Character of plant:	n.a.
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:	n.a.	Total fuel input:	n.a. t/a
Electric power:	200 MW _{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	454,81 MW _{th}	Moisture content:	n.a. % wet
Co-firing:	Y		
Fuel conversion:	n.a.		
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
<i>Boiler (if steam technology)</i>			
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 _x H _y :	n.a. mg/Nm ³
Number of employes:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: Varberg

Database No. 147

Basic Info	
Country:	Sweden
Location:	Varberg
Character of plant:	n.a.
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:	n.a.	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:	n.a.	Type of fuel 1:	n.a.
Annual production electricity:	n.a. GWh/a	Share of fuel 1:	n.a. %
Annual production heat:	n.a. GWh/a	Input of fuel 1:	n.a. t/a
Electric efficiency:	n.a. %		
Thermal efficiency:	n.a. %	Type of fuel 2:	-
Total efficiency:	- %	Share of fuel 2:	- %
Ratio electricity/ heat:	-	Input of fuel 2:	- t/a
Fuel power:	n.a. MW _{fuel}		
<i>Boiler (if steam technology)</i>		Type of fuel 3:	-
Steam mass flow:	n.a. t/h	Share of fuel 3:	- %
Steam temperature:	n.a. °C	Input of fuel3:	- t/a
Steam pressure:	n.a. bar		

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 _x H _y :	n.a. mg/Nm ³
Number of employes:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: CHP Värnamo

Database No. 148

Basic Info	
Country:	Sweden
Location:	Värnamo
Character of plant:	Demonstration plant
Owner:	Sydkraft
Contact Person:	Mr. Krister Stahl
Telephone:	+46/ 40/ 369580
Fax:	n.a.
email:	kre.stahl@telia.com
webpage:	n.a.
Year of construction:	1996

Technology		Fuel	
Type of power generation:	Gas turbine	Total fuel input:	n.a. t/a
Electric power:	6 MW _{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	9 MW _{th}	Moisture content:	20 % wet
Co-firing:	N		
Fuel conversion:	Gasification	Type of fuel 1:	Woodchips (forest residues)
Annual production electricity:	n.a. GWh/a	Share of fuel 1:	n.a. %
Annual production heat:	n.a. GWh/a	Input of fuel 1:	n.a. t/a
Electric efficiency:	33,3 %		
Thermal efficiency:	50 %	Type of fuel 2:	Bark
Total efficiency:	83,3 %	Share of fuel 2:	n.a. %
Ratio electricity/ heat:	0,67	Input of fuel 2:	n.a. t/a
Fuel power:	18 MW _{fuel}		
<i>Boiler (if steam technology)</i>		Type of fuel 3:	-
Steam mass flow:	- t/h	Share of fuel 3:	- %
Steam temperature:	- °C	Input of fuel3:	- t/a
Steam pressure:	- bar		

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 _x H _y :	n.a. mg/Nm ³
Number of employees:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

Krister Stahl, Progress Report, Värnamo Biomass Gasification plant, 1999

n.a.... not available

Name: Västeras

Database No. 149

Basic Info	
Country:	Sweden
Location:	Västeras
Character of plant:	n.a.
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:	n.a.	Total fuel input:	n.a. t/a
Electric power:	250 MW _{el}	Tot. lower heating value:	n.a. kWh/kg
Thermal power:	612,419 MW _{th}	Moisture content:	n.a. % wet
Co-firing:	Y		
Fuel conversion:	n.a.	Type of fuel 1:	n.a.
Annual production electricity:	n.a. GWh/a	Share of fuel 1:	n.a. %
Annual production heat:	n.a. GWh/a	Input of fuel 1:	n.a. t/a
Electric efficiency:	n.a. %		
Thermal efficiency:	n.a. %	Type of fuel 2:	-
Total efficiency:	- %	Share of fuel 2:	- %
Ratio electricity/ heat:	-	Input of fuel 2:	- t/a
Fuel power:	n.a. MW _{fuel}		
<i>Boiler (if steam technology)</i>		Type of fuel 3:	-
Steam mass flow:	n.a. t/h	Share of fuel 3:	- %
Steam temperature:	n.a. °C	Input of fuel3:	- t/a
Steam pressure:	n.a. bar		

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 _x H _y :	n.a. mg/Nm ³
Number of employes:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

FJÄRRVÄRME Statistik 2001

n.a.... not available

Name: CHP Sandvik II

Database No. 150

Basic Info	
Country:	Sweden
Location:	Växjö
Character of plant:	Demonstration plant
Owner:	Växjö energi AB
Contact Person:	Mr. Ulf Johansson
Telephone:	+46/ 470/ 775250
Fax:	+46/ 470/ 23538
email:	n.a.
webpage:	n.a.
Year of construction:	1993

Technology		Fuel	
Type of power generation:	Steam turbine	Total fuel input:	n.a. t/a
Electric power:	38 MW _{el}	Tot. lower heating value:	2,3 kWh/kg
Thermal power:	66 MW _{th}	Moisture content:	n.a. % wet
Co-firing:	Y		
Fuel conversion:	Combustion		
Annual production electricity:	175 GWh/a	Type of fuel 1:	Woodchips (forest residues)
Annual production heat:	350 GWh/a	Share of fuel 1:	95 %
Electric efficiency:	31,4 %	Input of fuel 1:	n.a. t/a
Thermal efficiency:	54,5 %		
Total efficiency:	85,9 %	Type of fuel 2:	Peat, Oil
Ratio electricity/ heat:	0,58	Share of fuel 2:	5 %
Fuel power:	121 MW _{fuel}	Input of fuel 2:	n.a. t/a
<i>Boiler (if steam technology)</i>			
Steam mass flow:	n.a. t/h	Type of fuel 3:	-
Steam temperature:	540 °C	Share of fuel 3:	- %
Steam pressure:	142 bar	Input of fuel3:	- t/a

Costs		Emissions	
Investment costs:	46,9 Mio €	CO:	n.a. mg/Nm ³
Spec.investment costs (elec):	1,23421 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 _x H _y :	n.a. mg/Nm ³
Number of employees:	n.a.	SO ₂ :	n.a. mg/Nm ³

Source:

CADDET Schweden, Technical brochure Nr. 104, Box 12866, S-11298 Stockholm, www.agores.org

n.a.... not available