

**REFERENCES DISTRICT HEATING SYSTEM**  
**(SOA Kat. OG11 – OG9 – OG6)**

**\* ECOTERMICA PRIMIERO SPA**

District heating station Fiera di Primiero – 2<sup>nd</sup> contract section.

Delivery, relocation and implementing of the pipes for the realization of the district heating station – 2<sup>nd</sup> contract section. Bore of DN 25 to DN 250 over a total length of 6.200 m pipes, including excavation and the delivery of the alarm system.

Pipe system: ECOLINE

Alarm system: Nordic

Location of execution: Tonadico, Fiera di Primiero, Mazzano, Siror, Transacqua (TN)

Date of execution: 2013 - ongoing

Project: EUT Bressanone – Dott. Ing. Roberto Carminati  
EUT Bressanone – Dott. Ing. Francesco Berretta

**\* DISTRICT HEATING STATION SILANDRO**

Enlargement of the district heating system at Silandro 9<sup>th</sup> contract section.

Delivery, relocation and implementing of pipes for the enlargement of the district heating station with a bore of DN 25 till DN 100 over a total length of 4.000 m pipes, including excavation and the delivery of the alarm system.

Pipe system: ECOLINE

Alarm system: Brandes

Location of execution: Vezzano / Silandro (BZ)

Date of execution: 2013 - ongoing

Project: Dr. Ing. Siegfried Pohl

**\* SOCIETÀ COOPERATIVA ENERGETICA LACES**

Expansion of the district heating system. Delivery, installation and implementation of pipes as well as connection to 84 new outstations. The work includes excavation as well as execution for attendant facilities.

Max. bore DN 100/225 over a total length of 11.000 m (strong pipes) and 1.600 m (flexible pipes).

Pipe system ECOLINE hard / BRUGG soft – Serie 2

Alarm system: Brandes  
Location of execution: Latsch / Tarsch (BZ)  
Year of execution: 2011  
Project: Studio Fleischmann & Janser - Dr. Ing. Gerhard Janser

\* **MUNICIPALITY TERLANO**

Expansion of the district heating system. Delivery, installation and implementation of pipes as well as connection to 13 new outstations. The work includes also excavation and execution of outstations.

Max. bore DN 80/180 over a total length of 900 m (flexible pipes) and 1.740 m (strong pipes).

Pipe system: ECOLINE hard / BRUGG soft – Serie 2  
Alarm system: Brandes  
Location of execution: Terlano (BZ)  
Year of execution: 2011  
Project: Per. Ind. Larcher  
Dr. Ing. Remo Johann Mayr  
Dr. Ing. Michael Pfeifer

\* **PROVINCIA AUTONOMA DI BOLZANO – TVA BZ**

Relocation of pipes for the district heating system and the new refuses dressing system at Bozen. Section DN 400/630 from building “F” till the end with a total length of 180 m. The work includes excavation as well as execution for outstations.

Pipe system: ECOLINE – Serie 2  
Alarm system: Nordic  
Location of execution: Bolzano (BZ)  
Year of execution: 2011 - ongoing  
Project: Studio Dr. Ing. Michele Carlini

\* **DISTRICT HEATING SYSTEM SARENTINO**

Expansion of the district heating system. Delivery, installation and implementation of the pipes as well as connection to the new outstation. Max. DN 100/225 over a length of 500 m. The work includes excavation as well as execution of the outstation.

Pipe system: ISOPLUS – Serie 2

Alarm system: Nordic  
Location of execution: Sarentino (BZ)  
Year of execution: 2011  
Project: Studio Dr. Ing. Hannes von Hepperger

\* **IREN ENERGIA SpA**

Realization for the district heating at Turin. The work includes excavation as well as implementation of outstations. The sub-network has a total length of 100 m with DN 600/800 pipes.

Pipe system: ZPUM  
Alarm system: Brandes  
Location of execution: Torino (TO)  
Year of execution: 2011  
Project: Iren Energia SpA

\* **ECOTERMICA PRIMIERO SpA**

Realization of a biomass district heating system in the municipality Transacqua.

The work includes excavation as well as the attendant facilities (output 4.000 kW), connection to the heating kettle and water treatment plant.

Delivery and implementing of the outstation. The work includes civil buildings, galleries, as well as attached facilities and implementation of 617 outstations.

Realization of the district heating system. The work includes excavation. The district heating system has a total length of 35.000 m and DN 25 to DN 250 pipes.

Electric capacity: 20 MW  
Outstation: 15 to 1.000 kW  
Alarm system: Nordic  
Pipe system: ZPUM  
Location of execution: Transacqua (TN)  
Year of execution: 2010 – 2012  
Project: EUT Bressanone – Dr. Ing. Robert Carminati  
EUT Bressanone – Dr. Ing. Francesco Berretta

\* **NICHELINO ENERGIA Srl**

Delivery, installation and implementing of the district heating system of the municipality Nichelino (TO) – 2<sup>nd</sup> contract section. Bore of DN 25 to DN 300 over a total length of 30.000,00 m pipes, including excavation.

Pipe system: ZPUM  
Alarm system: Nordic  
Location of execution: Nichelino (TO)  
Year of execution: 2010  
Project: Nichelino Energia Srl

\* **PROVINCIA AUTONOMA DI BOLZANO**

Lateral adjustment of the substation on the northwest side of the refuse dressing Bozen, realization of a alternative way with a total length of 144 m and DN 250 bore.

Pipe system: ECOLINE  
Alarm system: Nordic  
Location of execution: Bolzano (BZ)  
Year of execution: 2009  
Project: Studio Dr. Ing. Michele Carlini

\* **DOLOMITI ENERGIA SpA ex Trentino Servizi SpA**

Delivery, installation and ready-for-use implementing of the new power-heating-cooling coupling at Trient for hot and cold water.

Electric capacity: 1,8 MW  
Thermal output: 14,3 MW  
Refrigerating capacity: 7,2 MW  
Location of execution: Trento (TN)  
Year of execution: 2010 - 2011  
Project: ATZWANGER SpA

\* **NICHELINO ENERGIA Srl**

Delivery, relocation and implementing of the district heating grid of the municipality Nichelino (TO) – 1<sup>st</sup> contract section. Bore of DN 25 to DN 250 over a total length 3.000 m of pipes,

including excavation.

Pipe system: ZPUM  
Alarm system: Nordic  
Location of execution: Nichelino (TO)  
Year of execution: 2009  
Project: Nichelino Energia Srl

\* ***DOLOMITI ENERGIA SpA ex Trentino Servizi SpA***

Ready-for-use delivery, installation and implementing of the new system at Rovereto for the hot water district heating grid.

Electric capacity: 2.400 kW  
Thermal output: 12.600 kW  
Location of execution: Rovereto (TN)  
Year of execution: 2008  
Project: ATZWANGER SpA

\* ***BIOENERGIE – District Heating Station Renon***

a) Thermo-hydraulic Equipment:

Delivery and installation of a oil tank system including equipment (actual power output 4.000 kW/h), tank pipes, pump station, water treatment system, thermo oil system (output 5.000 kW), ORC- heating - power – coupling (output 1.000 kW), as well as the heat measurement.

b) District heating grid:

Ready-for-use delivery, implementing including excavation over the total length 35.000 m.

Pipe system: ISOPLUS  
Alarm system: ISOPLUS  
Location of execution: Renon (BZ)  
Year of execution: 2008 - 2009  
Project: Studio Dr. Ing. Hannes von Hepperger

\* ***SOCIETÀ COOPERATIVA ENERGETICA LACES***

Delivery, relocation and implementing of pipes for the realization of the transmission network for the municipality Laces, including Goldrain and Morter. Bore of DN 25 to DN 250 over a total

length of 40.000 m of pipes, including excavation and equipment.

Pipe system: German Pipe  
Alarm system: Brandes  
Location of execution: Laces / Coldrano / Morter (BZ)  
Year of execution: 2007 - 2009  
Project: Studio Fleischmann & Janser - Dr. Ing. Gerhard Janser

**\* DISTRICT HEATING STATION SILANDRO**

Delivery, relocation and implementing of pipes for the realization of the transmission network for the municipality Silandro. Bore of DN 25 to DN 250, delivery and relocation of pipes for a total length of 12.000 m.

Pipe system: German Pipe  
Alarm system: Brandes  
Location of execution: Silandro (BZ)  
Year of execution: 2007  
Project: Dr. Ing. Ulrich Innerhofer  
Per. Ind. Alfred Jud

**\* SESA SpA – District Heating Station Este und Ospedaletto Euganeo**

Delivery, relocation and implementing of pipes for the realization of the transmission network for the municipality Este.

Bore of DN 25 to DN 300 over a total length of 4.941,90 m of pipes, including civil buildings, excavation as well as equipment.

Pipe system: Socotherm  
Alarm system: Nordic  
Location of execution: Este (PD)  
Year of execution: 2007 - 2008  
Project: Dr. Ing. Turetta

**\* AZIENDA ENERGETICA SPA**

Construction of the district heating station with heat energy coupling of Merano, first and second contract section, carried out by the consortium with the company Marx SpA, Costruzioni edili

stradali, from Silandro (BZ). Delivery and installation of the district heating grid of Untermais, Merano, including the overall excavation and underground engineering, complete with heat transfer stations and accessories with an overall length of 6.000 lm. Turnkey delivery, installation, technical approval as well as 6-year commissioning and maintenance of the new energy and district heating station, complete with accessories. Gas turbine for heat energy coupling and heat boiler for steam and hot water production. DH station complete with auxiliary and reserve boiler and accessories.

Electrical capacity:	6.000 kWth
Steam capacity:	4.500 kWth
Thermal power station:	19.000 kWth
Pipe system:	Socotherm - ISOPLUS
Location of execution:	Merano (BZ)
Year of execution:	2005 - 2007
Project:	Studio Dorfmann – Dr. Ing. A. Dorfmann

**\* *LIGNA CALOR FRENADEMETZ SpA***

Expansion of the DH station of the district heating plant in La Villa. Expansion of the pre-existing DH station with a rape oil operated heating boiler and a capacity of 16.000 kW.

a) Thermo-hydraulic Equipment:

Delivery and installation of a oil tank system including equipment (actual power output 3.000 kW/h), tank pipes, pump station, water treatment system, thermo oil system (output 150 kW), as well as the heat measurement.

b) District heating grid:

Ready-for-use delivery, implementing including excavation over the total length 35.000 m

Pipe system:	ABB-MØLLER
Electric power:	7.000 kW/h
Heat recovery:	VAS condensation, Capacity: 800 kW
Heating grid:	36.608 m
Location of execution:	La Villa / Badia (BZ)
Year of execution:	1997 / 2006
Project:	EUT Bressanone – Dr. Ing. Roberto Carminati

\* **DISTRICT HEATING SYSTEM CHIUSA**

**DISTRICT HEATING SYSTEM LATZFONS – HEATING SYSTEM**

Thermo-hydraulic Equipment:

Complete supply and installation of oil boiler system, as well as accessories (nominal capacity: 2.600 kWth), complete boiler house conducting, regulation and heat metering.

Location of execution: Lazfons (BZ)

Year of execution: 2005

Project: Studio Dr. Hannes von Hepperger

\* **WARMWOOD Srl**

Turnkey delivery of Vindicatico's entire biomass-fueled district heating grid, including supply, installation and commissioning of:

- All construction of the DH station;
- Biomass boiler, including automated loading system and flue-gas purification and condensation systems;
- Thermo-hydraulic and remote monitoring systems for the DH plant;
- District heating grid, including excavation and underground engineering, with an overall length of about 5.100 m;
- Heat transfer stations, including remote monitoring and regulation for about 238 recipients;
- Electrical system for DH station.

Installed capacity: 8.000 kWth

Biomass boiler: VAS

Conduit system: LOGSTOR

Alarm system: Nordic, CWA

Location of execution: Vidiciatico (BO)

Year of execution: 2005 - 2006

Project: ATZWANGER SpA

\* **AES TORINO SpA**

Construction of calibre 700 main leads and distributors, including excavation work and additional accessories, with an overall length of 30.300 m.

Conduit system: LOGSTOR



Alarm system: Nordic, CWA  
Location of execution: Central Torino (TO)  
Year of execution: 2004 - 2007  
Project: ATZWANGER SpA

\* **WÄRMEWERK LATZFONS Srl**

Turnkey delivery, installation and commissioning of a district heating grid, including all excavation and underground engineering, with an overall length of 3.720 m.

Conduit System: LOGSTOR  
Alarm system: Nordic, CWA  
Location of execution: Latzfons (BZ)  
Year of execution: 2004  
Project: Studio Dr. Hannes Hepperger

\* **AMPS SpA**

a) Thermo-hydraulic Equipment:

Supply and installation of 90 heat transfer stations, together with accessories and connection to the sole recipient.

b) District Heating Grid:

Supply, installation and commissioning of a DH grid, including excavation and underground engineering (Expansion of a district heating system and construction of house connections) in the municipality of Parma, with an overall length of 3.833,78 m.

Conduit system: SOCOLOGSTOR  
Alarm system: Nordic, CWA  
Location of execution: Parma (PR)  
Year of execution: 2003 - 2004  
Project: ATZWANGER SpA

\* **MUNICIPALITY S. QUIRICO D'ORCIA**

Supply, installation and commissioning of conduits insulate in rustproof stainless steel for heating water conduits with an overall length of about 700 m.

Conduit system: SOCOLOGSTOR  
Location of execution: S. Quirico d'Orcia / Bagno Vignoni (SI)  
Year of execution: 2002  
Project: Technical Office- Municipality S. Quirico d'Orcia

**\* AZIENDA SERVIZI MUNICIPALIZZATI BRESSANONE**

Supply, installation and commissioning of a district heating system, first contract section, with an overall length of about 320 m.

Conduit system: SOCOLOGSTOR  
Alarm system: Nordic, CWA  
Location of execution: Bressanone (BZ)  
Year of execution: 2002  
Project: Technical Office – ASM Bressanone

**\* ECOTERMICA SAN MARTINO SpA**

Turnkey delivery of San Martino di Castrozza's complete biomass-fueled district heating system, including the supply, installation and commissioning of:

- Overall construction of the DH system;
- Biomass boiler, including automated loading system and flue-gas purification and condensation systems;
- Oil boiler and heat-energy coupling;
- Thermo-hydraulic system and remote monitoring system for DH station;
- District Heating grid, including excavation and underground Engineering, with an overall length of about 14.257,10 m, DN 25 to DN 200;
- Heat transfer stations, including remote monitoring and regulation for about 244 recipients;
- Electrical system for the DH station;
- Heating storage of 266 m<sup>3</sup>.

Installed Capacity: 16.100 kWth  
Biomass boiler: JÄRNFORSEN / VAS  
Conduit system: SOCOLOGSTOR  
Alarm system: CWA  
Location of execution: San Martino di Castrozza (TN)

Year of execution: 2002 - 2003 / 2007 / 2008 / 2009 / 2010  
Project: EUT Bressanone – Dr. Ing. Roberto Carminati  
EUT Bressanone - Dr. Ing. Francesco Berretta

\* ***DISTRICT HEATING STATION SARENTINO***

a) Thermo-hydraulic Equipment:

Supply and installation of a complete oil boiler system, together with accessories (nominal capacity: 4000 kWth), complete boiler house conduiting, pump station and water treatment system, as well as complete regulation and heat metering.

b) District Heating Grid:

Supply, installation and commissioning of a district heating grid with an overall length of 6.500 m.

c) Heat Transfer Stations:

Supply, installation and commissioning of heat transfer stations for about 127 recipients.

Conduit system: ISOPLUS  
Alarm system: Nordic, CWA  
Location of execution: Sarentino (BZ)  
Year of execution: 2002 – 2006  
Project: Studio Dr. Hannes von Hepperger

\* ***ENERGIEGENOSSENSCHAFT SULDEN GEN.M.H.B.***

Supply, installation and commissioning of a district heating system, including excavation and underground engineering, with an overall length of about 9700 lm. Work executed as a joint venture.

Conduit System: ISOPLUS  
Alarm system: Brandes  
Location of execution: Solda (BZ)  
Year of execution: 2001 - 2003  
Project: EUT Bressanone – Dr. Ing. Roberto Carminati

\* ***AZIENDA PUBLISERVIZI BRUNICO***

Supply, installation and commissioning of a district heating system, 4<sup>th</sup>, 10<sup>th</sup> and 20<sup>th</sup> contract section, calibre 400/600 and 125/25, including excavation and underground engineering with an overall length of about 41.200 m.

Conduit system: ISOPLUS  
Alarm system: Brandes  
Location of execution: Brunico (BZ)  
Year of execution: 2001 / 2003 / 2007  
Project: EUT Bressanone – Dr. Ing. Roberto Carminati

\* **TONALE ENERGIA Srl**

Supply, installation and commissioning of a district heating system, including excavation and underground engineering, with an overall length of about 6.500 m.

Conduit system: SOCOLOGSTOR  
Alarm system: Nordic, CWA  
Location of execution: Passo del Tonale / Vermiglio (TN)  
Year of execution: 2001 - 2002  
Project: EVOLVE S.r.l. – Dr. Ing. Edoardo Citter

\* **PFELDERER GENOSSENSCHAFT Soc.Coop.a.r.l.**

Supply, installation and commissioning of a district heating grid with an overall length of about 3.500 m. Supply and installation of 27 heat transfer stations.

Conduit system: SOCOLOGSTOR  
Location of execution: Plan / Moso in Passiria (BZ)  
Year of execution: 2001  
Project: Studio Dr. Ing. Hannes von Hepperger

\* **AZIENDA ENERGETICA METROPOLITANA TORINESE Spa**

Supply, installation and commissioning of a district heating station integrated with a line main of calibre 700/900, including excavation and underground engineering, with an overall length of 2.000 m.

Conduit system: ABB – MØLLER  
Alarm system: Nordic, CWA

Location of execution: Torino (TO)  
Year of execution: 1999 - 2001  
Planning: ATZWANGER SpA

\* **BIOENERGIA FIEMME SpA**

Turnkey delivery of the overall biomass district heating station of Cavalese, including supply, installation and commissioning (as well as 3 months plant management) of:

- Overall construction of the DH station;
- Biomass-Heat Boiler, including automated loading system and flue gas purification and condensation systems;
- Methane boiler and heat-energy coupling;
- Thermo-hydraulic System and remote monitoring system for the DH station;
- District heating grid, including excavation and underground engineering, with an overall length of about 20.000 m;
- Heat transfer stations, including remote monitoring, regulation and commissioning for about 400 recipients;
- Electrical system for the DH plant.

Installed capacity: 12.400 kWth

Biomass-heat boiler: KOHLBACH

Conduit system: SOCOLOGSTOR

Alarm system: Nordic, CWA

Location of execution: Cavalese (TN)

Year of execution: 1999 – 2001

Planning: EUT Bressanone – Dr. Ing. Roberto Carminati

\* **MUNICIPALITY PONTEDASSIO**

Turnkey delivery of district heating, including a DH station with heat-energy coupling. Supply, installation, commissioning and 10-year management of:

- Methane boiler and heat-energy coupling;
- Thermo-hydraulic system and remote monitoring of the DH station;
- District heating grid, including excavation and underground engineering, with an overall length of about 1.100 m.

- Heat transfer stations, including remote monitoring, regulation and commissioning for about 7 recipients.

Installed capacity: 1.000 kWth  
Conduit system: SOCOLOGSTOR  
Location of execution: Pontedassio (IM)  
Year of execution: 1999  
Project: Dr. Ing. Sismondini

\* **AZIENDA SERVIZI MUNICIPALIZZATI SpA - ROVERETO**

Supply and installation of a district heating system – 1<sup>st</sup> and 2<sup>nd</sup> contract section and additional work for the installation of transfer stations, main lead with a calibre of 350/500, including excavation, underground engineering and installation of a data network for remote monitoring; overall length: 23.404 m.

Installation, fitting and start up of the 4<sup>th</sup> contract section with 106 heating stations.

Conduit system: SOCOLOGSTOR  
Location of execution: Rovereto (TN)  
Year of execution: 1998 - 2001  
Planning: ASM Rovereto SpA

\* **AZIENDA ENERGETICA METROPOLITANA TORINESE SpA**

a) Thermo-hydraulic Equipment:

Supply and installation of 99 heat transfer stations as well as accessories and connection to the sole recipient.

b) District Heating System:

Supply, installation and commissioning of a district heating system in the ALFA zone, main lead with a calibre of 500/710, in the quarters "LE VALLETTE", "CASTELGOMBERTO-MIRAFIORI", "BARICENTRO TERMICO N. 54" including excavation and underground engineering, with an overall length of 17.135 m.

Conduit system: SOCOLOGSTOR  
Location of execution: Torino (TO)  
Year of execution: 1997 - 2002  
Planning: ATZWANGER SpA

\* **ENERGIEVERSORGUNG VALS Srl**

Turnkey delivery, installation and commissioning of the district heating grid, including excavation and underground engineering, with an overall length of 15.240 m.

Conduit system: KE-KELLIT  
Location of execution: Vales (BZ)  
Year of execution: 1997  
Planning: Dr. Ing. Schneider

\* **CENTRALE TERMICA DOBBIACO Soc.Coop.a.r.l.**

1. Contract Section: Supply, installation and commissioning of a complete district heating grid with an overall length of 43,188 lm.
2. Contract Section: Supply and installation of a complete pump station, heat exchanger, pressure maintenance system, crane system, and regulation system, as well as complete heating and sanitation facilities for the plant.

Conduit system: SOCOLOGSTOR  
Capacity: 8.000 kWth  
Location of execution: Dobbiaco (BZ)  
Year of execution: 1995 – 1997  
Planning: Per. Ind. Alfred Jud

\* **WÄRMEWERK RASEN SpA**

Turnkey delivery, installation and implementation, including excavation and underground engineering of a district heating system with an overall length of 25.761 m.

Conduit system: ABB-MØLLER  
Capacity: 5.000 kWth  
Location of execution: Rasun (BZ)  
Year of execution: 1994 – 1995  
Planning: EUT Bressanone – Dr. Ing. Roberto Carminati

\* **ISTITUTO PER L'EDILIZIA SOCIALE DELLA PROVINCIA AUTONOMA DI BOLZANO (I.P.E.S.)**

a) Thermo-hydraulic Equipment:

Turnkey delivery of complete central heating (28.000 kWth supply) with accessories, including

construction work for buildings and facilities, boiler house conduits, pump stations and water treatment systems, as well as complete regulation and heat metering.

b) District Heating Grid:

Supply, installation and commissioning of a district heating system with an overall length of 4.320 m.

Conduit system:	STEINBACHER
Capacity:	28.000 kWth
Location of execution:	Bolzano (BZ)
Year of execution:	1985 - 1986
Planning:	ATZWANGER SpA