



## **Consolar provides solar technology for first emissions-free polar station**

*Highly efficient solar energy systems provide heating and hot water in the Antarctic*

**Frankfurt am Main, April 2009** - Consolar has equipped the world's first CO<sub>2</sub>-free polar station "Princess Elisabeth" in the Antarctic with state-of-the-art solar technology. The two solar heating systems provided by Consolar ensure that the recently opened Belgian polar research station in the eastern Antarctic obtains heat, hot water and drinking water from renewable energy sources. The new station, so far the only one that has a 100 per cent CO<sub>2</sub>-emissions-free energy supply from renewable energy sources, was planned, built and financed within the framework of a private/public partnership by the International Polar Foundation (IPF) for the Belgian government. In February 2009 the station started its work on researching climate change at the South Pole.

### **Solar technology from Consolar provides station with CO<sub>2</sub>-emissions-free energy**

Freezing temperatures of down to 50 degrees below zero, squalls of up to 250 kilometres per hour, absolute darkness in winter and 24-hour sunshine in summer – such are the climatic and atmospheric conditions that must be endured by the solar power systems in order to meet the requirements of the 48-person team in the research station. After extensive market observation, the IPF opted for Consolar as supplier of solar thermal energy. "The many years of competence in the development of highly efficient solar solutions convinced us – and the products from Consolar have already shown what they can do, and have withstood the first storms without problem", says Alain Hubert, President of the International Polar Foundation. "We are very proud to support this pioneering polar station, which is not only active in matters of climate research but is also itself a model of environment-friendly working, with our solar technology", says Managing Director, Marketing and Sales, Andreas Siegemund from Consolar. "This project shows that if it is possible to create an emissions-free building in the extreme Antarctic climate, then it is possible anywhere in the world."

The tube collectors installed on the station's roof provide considerably more heat than flat collector conditions. On account of their special design with during violent storms any penetrating snow slides even in severe frost. The heat accumulators in the : and extremely low thermal loss: Consolar was awarded the "Blue Angel" environmental seal for this accumulator technology.



The advantage that they in very cold environmental conditions on the underside, even tubes suffer no damage for maximum efficiency.

The solar power systems were shipped to the Antarctic at the end of last year, a journey that took one and a half months, and installed at the polar station by the IPF technical team, which had previously been thoroughly acquainted with the technology by Consolar in Brussels. 18 tube collectors of the type TUBO 12 CPC with three SOLUS 560L heat accumulators provide the heat for heating the drinking water and the bioreactor. The second system with the CONUS 502 heat accumulator and twelve TUBO 12 CPC tube collectors generates the energy for room heating in the station as well as for the 'snow melter', which melts snow to obtain drinking and industrial water.

**Pictures:**



03\_Antarktika\_Polar Station.jpg



03\_Antarktika\_TUBO\_Röhrenkollektor auf dem Dach.jpg

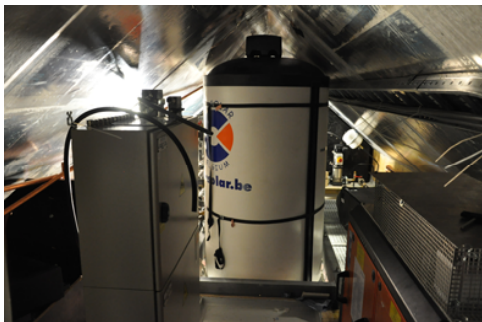
**Please use the Logos of the IPF (International Polar Foundation) with the pictures**



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03\_Montierter SOLUS Speicher.jpg

#### **About the International Polar Foundation:**

The International Polar Foundation (IPF) is a non-profit organisation aimed at promoting research as an instrument for increasing public awareness and understanding of basic climatic mechanisms. The IPF also supports the introduction of innovative solutions for facing the long-term challenges of climate change. Here you can see a film made by IPF on the installation of the solar power system.

- \* Information on "IPF Corporate": [www.polarfoundation.org](http://www.polarfoundation.org)
- \* Information on "IPF Science": [www.sciencepoles.org](http://www.sciencepoles.org)
- \* Information on "IPF Education": [www.educapoles.org](http://www.educapoles.org)
- \* Information on "IPF Adventure": [www.explorapoles.org](http://www.explorapoles.org)
- \* Information on the "Princess Elisabeth" power station: [www.antarcticstation.org](http://www.antarcticstation.org)

#### **About Consolar:**

Consolar Solare Energiesysteme GmbH is a leading supplier of highly efficient solar heating systems for detached houses and multiple dwellings. The owner-operated business, established in 1994, manufactures high-performance solar systems for water heating and heating support, as well as solar heating. The company's range of products extends from small warm water systems to large multi-purpose systems, from complete systems which use biomass energy to solar heat pumps for low energy heating. With these environmentally friendly solutions, a building can be completely heated using renewable energies, free from CO<sub>2</sub> emissions. Since its establishment, a focus of the company has been the high level of investment in research and development, alongside its ethical work practices. This is reflected in over 30,000 systems which have been installed with Consolar technology, as well as numerous awards and prizes for innovation. Consolar is represented in ten European countries with its head office in Frankfurt and its own development and production facility in Lörrach. Further information can be found at <http://www.consolar.de>.

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