



Media Release
International Polar Foundation
Brussels, February 9th, 2010

A Historical Handover in Antarctica

The International Polar Foundation and partners Laborelec and Schneider Electric bring the Princess Elisabeth Station to “zero emission”

We are pleased to announce the handover of the fully functional smart microgrid inside the Princess Elisabeth Station to the International Polar Foundation (IPF). After successful completion of the final tests of all systems, the Princess Elisabeth Station now operates solely on renewable energies, achieving a major first.

This innovative energy management system, designed and implemented by Laborelec, a subsidiary of Electrabel and one of the research centres of GDF SUEZ Research & Innovation division, rests on a Programmable Logic Controller (PLC), the “brain” of the station, developed by Schneider Electric. By continuously managing energy offer and demand, and prioritizing energy needs within the station, the PLC helps achieving best energy efficiency. Princess Elisabeth Antarctica can meet its energy needs with an installed power only one-tenth of commonly accepted standards. This feat allows it to rely solely on renewable energies and thus achieve its “zero emission” operational target.

Using available technologies to produce and control energy, the IPF and partners Laborelec and Schneider Electric have succeeded in designing a new way to manage power in an energy autonomous building. Their joint achievement sets new standards in terms of energy efficiency and management. It redefines the concept of energy consumption by devising a system distributing available resources according to priorities, instead of endlessly supplying energy to meet an uncontrolled demand.

At the end of this Antarctic summer season, a new satellite link will grant remote access to the PLC. The Princess Elisabeth Station will then be monitored online. All its energy-related systems will be managed and adjusted remotely throughout the winter season.

Achieving this milestone in energy management for Antarctic research stations has been made possible by the joint efforts of the International Polar Foundation, Laborelec-GDF Suez, and Schneider Electric.



Pictures

Pictures of the handover are available to the press contacting the IPF's press officer, Ben Huyge. They can be downloaded at: http://www.polarfoundation.org/news/press_pictures_list/.

Background information:

www.polarfoundation.org

Princess Elisabeth project and news:

www.antarcticstation.org

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International Polar Foundation (IPF):

The **International Polar Foundation** is a public utility foundation, which aims to promote polar research as a tool for raising public awareness and fostering understanding of the fundamental mechanics of our climate.

The IPF also encourages the adoption of innovative solutions that will enable us to respond in a sustainable manner to the challenges associated with climate change.