



press release  
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## **Saft Li-ion battery technology provides the energy storage at the heart of ABB's new SVC Light concept for the Smart Grid**

*SVC Light with Energy Storage will be a key element in the Smart Grid vital to mitigate potential network disruptions created by increasing levels of renewable generation*

**Paris, April 29, 2010** – Saft Li-ion (lithium-ion) battery technology is providing the energy storage at the heart of ABB's new SVC Light concept that will be a key element in the creation of the Smart Grid essential to handle significantly increased levels of renewable generation. The SVC Light with Energy Storage adds a significant new dimension to ABB's Smart Grid philosophy by combining energy storage capability with its well-established SVC Light technology. This approach will alleviate many of the concerns related to the addition of wind power and solar energy generation to existing grids by helping to level out intermittent production and support demand response.

ABB is targeting the SVC Light with Energy Storage concept at industrial, distribution and transmission level energy storage applications. It offers a fully integrated, cost effective and environmentally attractive solution for installations that require the continuous voltage control and frequency regulation essential for grid stability combined with short term power support to cover load or supply variations.

*"The SVC Light with Energy Storage provides a new dimension in developing smart grids and it will allow a significant increase in renewable generation, maximizing CO2 free generation. It will provide cost effective, environmentally attractive, and high quality services for our customers' existing networks",* says Claes Ryttoft, head of technology for ABB's Power Systems division

### **Supporting up to 50 MW for 60 minutes**

The SVC Light with Energy Storage will store power from renewable energy sources and surplus power from the grid in its Saft Li-ion battery system. At times when the level of renewable power available falls, such as when the wind drops or photovoltaic panels are obscured by cloud, or whenever a peak in power consumption occurs, the system will inject the power required to provide controlled ramping and to maintain a stable grid.

The use of Saft's modular Li-ion battery technology makes the concept's ability to store energy highly scalable. Currently, rated power and capacity are typically in the range of 20 MW for minutes to tens of minutes. However, up to 50 MW for 60 minutes and beyond is possible.

### **Li-ion battery system**

Saft modular Li-ion battery technology offers a number of important features for the SVC light with Energy Storage. These include excellent cycling capability – 3,000 cycles at 80 percent depth of discharge or 1 million cycles at 3 percent depth of discharge, as well as a long calendar life and an intelligent, self-diagnostic design. It also offers high energy density, millisecond-level response time and high power capability - both in charge and discharge. Furthermore, Saft's Li-ion technology provides precise information on the battery's state of charge (SOC), which is a vital function in a dynamically operating energy storage system

An array of battery modules provide the necessary rated DC voltage and storage capacity for each installation. Paralleling within the battery provides a high level of fault tolerance and ensures excellent system availability.

### **Field testing**

In addition to the development and supply of the battery system, Saft is collaborating with ABB in qualification and field testing of the SVC Light with Energy Storage system. The first trial installation is already underway in part of the UK distribution grid. When it is commissioned, later in 2010, it will demonstrate the concept's capability under a variety of network conditions, including operation with nearby wind generation.

### **About Saft**

*Saft (Euronext: Saft) is a world specialist in the design and manufacture of high-tech batteries for industry. Saft batteries are used in high performance applications, such as industrial infrastructure and processes, transportation, space and defence. Saft is the world's leading manufacturer of nickel batteries for industrial applications and of primary lithium batteries for a wide range of end markets. The group is also the European leader for specialised advanced technologies for the defence and space industries and world leader in lithium-ion satellite batteries. Saft is also delivering its lithium-ion technology to the emerging applications of clean vehicles and renewable energy storage. With approximately 4,000 employees worldwide, Saft is present in 18 countries. Its 15 manufacturing sites and extensive sales network enable the group to serve its customers worldwide. Saft is listed in the SBF 120 index on the Paris Stock Market.*

*For more information, visit Saft at [www.saftbatteries.com](http://www.saftbatteries.com)*

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