



## **Saft wins Energy Storage North America innovation award for capturing energy from electric rail for grid use**

*Operation of MW scale Li-ion battery system at SEPTA successful*

**Jacksonville, Fla., Oct. 13, 2014** – Saft, the world’s leading designer and manufacturer of advanced technology batteries for industry, was an awardee of an Energy Storage North America (ESNA) Innovation Award, which honors energy storage projects that help solve the challenge of creating a stable and dynamic electricity grid. The award was granted for Saft’s work on behalf of the Southeastern Pennsylvania Transportation Authority (SEPTA) in partnership with [ABB](#), [Viridity Energy](#) and [Maxwell Technologies](#). The Energy Optimization Project, following on from an earlier deployment in 2012, uses a hybrid energy storage system to capture, store, and reuse "regenerative energy" created by the braking from thousands of daily train stops in the Philadelphia area.

The original SEPTA project—still in successful operation—uses a Saft Li-ion battery to capture energy from rail cars through a regenerative braking process, and to generate revenue through demand-side participation in power markets by performing regulation service. The initiative marked the first time power from train braking was employed to stabilize the grid and generate economic benefit, resulting in \$250,000 in new annual revenue for SEPTA.

*“This contract showcases the vital role of battery energy storage in advancing the power grid and enabling next-generation technology within new and emerging applications,”* said Blake Frye, Vice President of Sales, Energy Storage for Saft North America. *“Saft’s experience and leadership in developing energy storage solutions for ground-breaking, highly-specialized projects of this nature positions us well for significant growth in this sector.”*

Previously, regulation service was interrupted every time there was a regenerative braking event, causing a reduction in revenue. This led SEPTA to consider the hybrid system, which was installed at the Griscom Substation, located on SEPTA’s highest volume route, the Market-Frankford Line.

*“SEPTA is proud to receive this award,”* said SEPTA Chief Engineer Andrew Gillespie. *“Initiatives such as the Energy Optimization Project are key elements in SEPTA’s overall Sustainability Program, the success of which is critical to transit agency’s ability to serve its riders and the Philadelphia region for both the short- and long-term.”*

The Griscom system splits the ABB converter into two parts: one with Maxwell ultracapacitors that recover the braking energy; and one with the Saft container for regulation service. The innovative hybrid system design allowed Saft to optimize its battery system for regulation, achieving higher revenue and longer operating life. The system uses Saft’s Intensium® Max 20M container and provides approximately 800kW of regulation for 19 hours per day.



## About Saft

Saft (Euronext: Saft) is a world leading designer and manufacturer of advanced technology batteries for industry. The Group is the world's leading manufacturer of nickel batteries and primary lithium batteries for the industrial infrastructure and processes, transportation, civil and military electronics' markets. Saft is the world leader in space and defense batteries with its Li-ion technologies which are also deployed in the energy storage, transportation and telecommunication network markets. More than 3,800 employees in 18 countries, 14 manufacturing sites and an extensive sales network all contribute to accelerating the Group's growth for the future.

Saft batteries. Designed for industry.

[www.saftbatteries.com](http://www.saftbatteries.com)

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