



Saft's new energy storage system helps operators meet the multi-usage challenges of renewables integration

- New Intensium® Max 20 High Energy with LFP technology is designed for multi-usage applications including energy time-shifting and ancillary grid services
- Saft is gearing up to deliver 1 GWh capacity of the new ESS in 2022 as operators demand utility-scale installations with hundreds of MWh of energy storage

Paris, November 23rd, 2021 – Saft has launched the Intensium® Max 20 High Energy container with lithium iron phosphate (LFP) technology, expanding its range of energy storage solutions (ESS) and its project execution capabilities. The new ESS solution meets the growing demand for flexible and expandable energy storage capable of supporting multi-usage applications. Typical uses are time-shifting that helps operators of solar photovoltaic (PV) farms optimize their revenues as well as ancillary services that support grid stability.

The Intensium® Max 20 High Energy with LFP technology is ideal for the long and deep cycles required to store PV energy produced during daylight hours for use during the evening's peak demand. This is because it delivers a 50 percent higher energy throughput than previous generations of ESS over a 20-year lifetime of 6000+ cycles.

At the same time, the power architecture and thermal management of the new ESS supports dynamic operation at the high rates demanded for frequency regulation and other ancillary grid services. Furthermore, LFP technology is cost-effective as it is based on abundant raw materials.

Hervé Amossé, Saft Executive Vice President for Energy Storage Solutions, said: "Our new solution is a building block for the utility-scale systems Saft provides as turnkey installations. As the system is fully developed and assembled in-house, we can ensure high performance, safety, scalability and repeatability combined with the robustness and durability demanded by utility customers.

"Most importantly, operators now have the flexibility to optimize revenues as market conditions change. For example, they can switch from time-shifting to ancillary grid services or vice-versa. This is made possible by Saft system's design, modularity and digital control system that allows for multiple, changing operating patterns and cost-effective augmentation."



Each Intensium® Max 20 High Energy with LFP technology is housed in a standard 20-foot container with all the essential control, thermal management and safety functions. The containers integrate a state-of-the-art safety approach at every step from design, testing and validation to operation. That approach guarantees the protection of operators and first responders. The units are assembled and tested at Saft's factories before shipping for plug-and-play installation anywhere in the world.

Through its three global energy storage hubs in North America, Europe and Asia, Saft in-house teams provide project engineering, project execution and service for ESS turnkey installations worldwide, backed up by an expanding manufacturing footprint and supply chain to deliver more than 1 GWh of capacity of the new ESS in 2022.

The new ESS is scalable to 100 MW and above, thanks to Saft's control system which manages up to 52 battery strings in parallel as a single battery. The cloud-enabled controller is the digital cornerstone for remote supervision and services as well as making the system future-proof for data-mining and digital twin functionalities. Battery management is based on Saft's own control algorithms and operational data that accurately determine State of Charge (SOC). It is based on a control philosophy that optimizes performance, energy storage capacity, reliability and long life.

About Saft

Saft specializes in advanced technology battery solutions for industry, from the design and development to the production, customization and service provision. For more than 100 years, Saft's longer-lasting batteries and systems have provided critical safety applications, back-up power and propulsion for our customers. Our innovative, safe and reliable technology delivers high performance on land, at sea, in the air and in space. Saft is powering industry and smarter cities, while providing critical back-up functionality in remote and harsh environments from the Arctic Circle to the Sahara Desert. Saft is a wholly owned subsidiary of TotalEnergies, a broad energy group that produces and markets fuels, natural gas and electricity.

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Press Contacts

Saft

Antoine Frenoy, Corporate communications manager Tel.: +33 1 58 63 16 60,
e-mail: antoine.frenoy@saftbatteries.com

Definition Agency

Andrew Bartlett, Tel.: +44 207 580 6502, e-mail: andrew.bartlett@definitionagency.com

C360 Agency

Dorothy Fuchs, e-mail: Dorothy@c-360.agency