Saft energy storage system to support New Zealand’s transition to low-carbon electricity

- Meridian Energy is building New Zealand’s first large-scale grid-connected battery energy storage system (BESS) at Ruakākā on North Island.
- Saft lithium-ion technology will provide 100 MW power and 200 MWh storage capacity to support grid stability as intermittent wind and solar power increases in New Zealand.

Paris, January 10, 2023 – Saft, a subsidiary of TotalEnergies, has been awarded a major contract by Meridian Energy to construct New Zealand’s first large-scale grid-connected BESS. Located at Ruakākā in the country’s North Island, the 100-megawatt (MW) BESS will improve the stability of the national grid, as intermittent renewable power generation increases in New Zealand. The BESS is the first stage of a project that will include the construction of a co-located 130 MW solar farm by Meridian Energy.

Saft is providing a fully integrated solution for the Ruakākā BESS, including supply of battery and power conversion equipment, installation, commissioning and 20 years operational services. Scheduled to enter service in the second half of 2024, the BESS will have storage capacity of 200 megawatt-hours (MWh) to support the local grid demand for around two hours.

This versatile North Island asset will open multiple new revenue streams for Meridian, with the ability to load shift between price periods and participate in the North Island reserve electricity market. Meridian anticipates that the BESS will deliver annual revenues of up to $35 million (USD).
Meridian Energy Chief Executive Neal Barclay said, “As intermittent renewable generation increases in New Zealand, this BESS will help manage supply fluctuations and reduce this country’s reliance on fossil fuels. We have a bold vision for Ruakākā, with a grid-scale solar farm planned to further speed up our transition to a low carbon economy. The shared infrastructure provided by the BESS will significantly improve the economics of the future solar farm.”

The complete BESS solution supplied by Saft will include 80 Intensium ® Shift battery containers, based on lithium iron phosphate (LFP) technology with 40 inverters Freemaq PCSK GEN3, 20 Medium-Voltage Power Stations and a Power Management System provided by third-party suppliers. Saft will integrate these equipments with Meridian and Transpower 33kV switchgears, SCADA and power station.

Suited to energy time-shifting, peaking and capacity support applications, Intensium-Shift 3 MWh containers are scalable building blocks. They can be installed in line-ups with power conversion equipment with a 50% smaller system footprint, while reducing 50% of site-related activities, allowing a faster deployment of utility-scale storage plants.

Intensium-Shift containers benefit from Saft’s safety concept with a unique combination of proven and tested safety devices, such as fire suppression systems or blast panels. Containers are fully populated in Saft’s factories and use a modular approach, embedding batteries, thermal systems and digital control interfaces connecting to Saft's cloud-based data platform I-Sight. This end-to-end data management solution ensures real-time remote monitoring of system KPI’s and enables optimized asset utilization with minimum OPEX and downtime.

Saft works in close partnership with customers, providing technical expertise and support from project inception and engineering, through implementation and commissioning to end-of-life, dismantling and recycling of containers.

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 company that produces and markets energies on a global scale: oil and biofuels, natural gas and green gases, renewables and electricity.

We energize the world.  www.saftbatteries.com

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