

Leclanché equips MS Jungfrau, the first hybrid boat on Lake Brienz, Switzerland

- *One of the BLS tourist fleet flagships, the MS Jungfrau has been converted into a hybrid ship with diesel and electric propulsion*
- *Leclanché provided the exclusive battery system with an energy of 168 kWh, allowing 30 minutes of operation in electric propulsion only and recharging in operation or at dockside*
- *This project comes in addition to the orders for two hybrid vessels for the CGN (Lake Geneva)*
- *With its secure systems that meet the most demanding certifications, Leclanché is a pioneer in the electrification of the global maritime fleet and its transition to sustainability*

YVERDON-LES-BAINS, Switzerland, 19th January 2022 – [Leclanché SA](#) (SIX: LECN), one of the world's leading providers of energy storage solutions, announces that it is supplying the battery system for the MS Jungfrau, the flagship of the BLS tourist fleet on Lake Brienz, Switzerland. Built in 1954 and carrying 700 passengers, the MS Jungfrau has been completely modernized with the addition of a hybrid electric and diesel propulsion system.

The Leclanché lithium-ion battery system, consisting of two sets of 12 type 16s2p modules fitted with 60Ah G/NMC cells, powers various electrical parts of the ship (engine, lighting, galley, etc.), depending on the needs and choices of the crew. The autonomy of the battery system is 30 minutes in 100% electric propulsion and up to 10.5 hours in hybrid operation with the possibility to recharge during operation. The complete charging time of the batteries during the night at dockside is less than 90 minutes. The MS Jungfrau Hybrid is sailing between Interlaken-East and Brienz.

Thanks to the batteries supplied by Leclanché, BLS estimates that the MS Jungfrau's annual diesel consumption will be reduced by 12,000 liters and that it will emit 30 tons of CO₂ less, which is equivalent to the emission of 15 cars per year.

Exclusive and certified system for commercial marine electrification

This complete upgrade of the cruise ship, now equipped with a modern propulsion system limiting the use of fossil energy, confirms Leclanché's pioneering role in the electrification of the world's commercial shipping. In Switzerland, Leclanché will equip two new hybrid boats ordered by the CGN company for cross-border transport between Switzerland and France on Lake Geneva.

Leclanché's Marine Rack System, powered by the company's proprietary lithium-ion batteries, has been specially developed for the marine industry. It has the potential to reduce the fossil fuel consumption of ships by an average of 20% (and up to 100% for fully electric ships), significantly reduces NO_x and fine particle emissions and offers unprecedented ease of use and operation. Tested to withstand extreme stress, it guarantees maximum safety and total waterproofing.



In its fast-growing eTransport Solutions business, Leclanché is the supplier of choice for several leading shipping companies, helping to adapt the merchant fleet to the new port approach and berthing regulations as well as drastically reducing its greenhouse gas emissions. Leclanché battery systems are used on several all-electric and hybrid transportation vessels including Ellen, the world's most powerful all-electric ferry operating in Denmark, and on commercial ships of the Italian company Grimaldi, manufactured by the Norwegian shipbuilder Kongsberg. The first of nine vessels ordered by Grimaldi are already in operation.

Battery systems supplied by Leclanché use high energy G-NMC lithium-ion cells with unique safety features including a dual cell laminate design and ceramic separators. Leclanché specifically designs and manufactures Class Type Approved and Certified Marine Rack Systems including fire prevention and suppression systems. Leclanché develops and manufactures its own graphite/NMC (lithium nickel manganese cobalt oxide) and LTO (lithium titanate oxide) batteries.

Anil Srivastava, CEO of Leclanché, said: *"We are proud to have participated in the refurbishment of the MS Jungfrau, a tourist symbol of Switzerland, the country of origin of our Company. This choice confirms the quality and reliability of Leclanché's battery systems and its pioneering role in the transformation of maritime transport to environmentally friendly propulsion."*

Claude Merlach, Director of BLS Navigation, said: *"We are delighted that we will now be able to glide silently across the lake on the MS Jungfrau for 30 minutes. This will allow our passengers to experience the lake and the Alpine panorama in an even more serene and relaxed manner. In addition, we are making a valuable contribution to our environment and to the goals of the Swiss government's Energy Strategy 2050."*



About Leclanché

Headquartered in Switzerland, Leclanché SA is a leading provider of high-quality energy storage solutions designed to accelerate our progress towards a clean energy future. Leclanché's history and heritage is rooted in over 100 years of battery and energy storage innovation and the Company is a trusted provider of energy storage solutions globally. This coupled with the Company's culture of German engineering and Swiss precision and quality, continues to make Leclanché the partner of choice for both disruptors, established companies and governments who are pioneering positive changes in how energy is produced, distributed and consumed around the world. The energy transition is being driven primarily by changes in the management of our electricity networks and the electrification of transport, and these two end markets form the backbone of our strategy and business model. Leclanché is at the heart of the convergence of the electrification of transport and the changes in the distribution network. Leclanché is the only listed pure play energy storage company in the world, organised along three business units: stationary storage solutions, e-Transport solutions and specialty batteries systems. Leclanché is listed on the Swiss Stock Exchange (SIX: LECN).

SIX Swiss Exchange: ticker symbol LECN | ISIN CH 011 030 311 9

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