



CERENERGY® project makes significant progress in a very short period of time

Highlights

- Project development for plant in Schwarze Pumpe is progressing well
- According to current planning, production capacity is well above 1,500 high-performance batteries per year
- Management of application process has been commissioned

Heidelberg, January 26, 2023. The last four months have been very eventful for the Altech Group. After concluding the joint venture agreement with Germany's world-leading battery institute Fraunhofer for the commercialization of the CERENERGY® Sodium Alumina Solid State (SAS) battery in September 2022, we embarked directly upon implementation. The next step was to appoint Leadec Automation & Engineering GmbH (Leadec) as the lead engineering firm for the final feasibility study for the 100 Megawatt manufacturing facilities in Schwarze Pumpe for the CERENERGY® SAS 60 KWh battery packs. With this groundbreaking environmentally friendly and highly efficient development, Altech Group intends to set a new standard in the field of industrial stationary storage solutions and to give new impetus to the renewable energy and grid storage market.

The CERENERGY® project continues to evolve

In the meantime, a newly formed team of the Altech Group has started the operational implementation to develop the production facility together with Leadec's partners for process and automation technology and Fraunhofer's battery expert team. For example, the design basis and optimal production process for the 100 MWh battery production have been finalized. The plant to be built will be capable to produce over 1,500 units of the 60-kilowatt-hour (KWh) ABS60 battery packs annually.

Leadec, the responsible engineering company, is currently developing the technical specifications that will be submitted to potential equipment suppliers to the plant for bidding. A preliminary layout of the battery plant and site has been completed.

Management of application process has been awarded

As part of the ongoing development, Altech contracted ARIKON Infrastruktur GmbH (Arikon) to manage the permitting process, site infrastructure requirements and facilities management for the CERENERGY® SAS battery plant. Arikon will be responsible for managing the application process and working with the relevant authorities to obtain all necessary permits for the project. This includes securing the necessary permits and licenses, coordinating with local authorities, and establishing the necessary energy infrastructure.

Negotiations with potential customers have started

In parallel with the implementation of production, initial discussions were started with potential customers in the power generation sector who expressed interest in future supplies of CERENERGY® batteries already at this early stage. As the world transitions from fossil fuel economy to sustainable energy economy through the provision of renewable energy sources such as wind and solar, battery storage solutions will need to be deployed on a larger scale to ensure a consistent supply of energy regardless of current production. The company aims to obtain acceptance commitments from potential customers already in the currently ongoing feasibility study (DFS) phase to support further financing of the project.

In the context of further financing, Altech is currently examining the use of various funding programs both at the state and federal level, as well as within the framework of existing EU funding programs, in addition to the use of third-party funds.

Managing Director Iggy Tan was extremely pleased with the progress of the CERENERGY® battery project, stating, "We got off to a very fast start in implementation after the joint venture was signed. I am pleased to see how quickly we are making progress in the partner alliance and are working together to expedite the implementation of this landmark project to decarbonize the energy sector."

Background

CERENERGY® batteries offer a breakthrough industrial grid storage alternative to lithium-ion batteries. CERENERGY® batteries are fireproof and cannot explode; have a life expectancy of more than 15 years; and operate under extreme, cold, hot environmental conditions. The battery technology uses only common salt as a storage medium and is lithium-free; cobalt-free; graphite-free; and copper-free and has no liquid electrolyte. Thus, the battery is not only environmentally friendly but also independent of risky supply chains and the associated price increases and supply bottlenecks. The Altech-Fraunhofer joint venture is developing a battery plant with an annual capacity of 100-MWh (Phase 1) on Altech's property in Saxony, Germany for use in industrial grid storage.

As CERENERGY® batteries can operate in a very wide temperature range from minus (-) 40 °C to plus (+) 60 °C, the Altech CERENERGY® battery ABS60 is ideal for use in cold European climates as well as in tropical or desert climates. In addition, ABS60 battery packs are fire resistant, allowing them to be safely installed indoors where lithium-ion batteries are prohibited.

The battery factory is now being equipped for industrial production of ABS60 batteries to serve the European renewable energy and grid storage market. Fraunhofer estimates that the manufacturing costs of CERENERGY® are in the range of 40% cheaper than comparable lithium-ion batteries. This is primarily due to lower material costs as no lithium, graphite, copper or cobalt is required for manufacturing. This will be definitively evaluated with the feasibility study now in implementation.

Altech Advanced Materials AG

The Management Board

About Altech Advanced Materials AG

Altech Advanced Materials AG (ISIN: DE000A2LQUJ6), headquartered in Heidelberg, Germany, is a holding company listed on the Regulated Market of the Frankfurt Stock Exchange. The company's goal is to participate in the market for lithium-ion batteries for electromobility through innovative and high-performance anode material based on high-purity alumina oxide (HPA) – Silumina Anodes™. Another focus is on solid-state batteries for stationary battery applications with CERENERGY®.

CERENERGY® Batteries Project

Altech Batteries GmbH (ABG) is a joint venture with world leading German battery institute Fraunhofer IKTS (“Fraunhofer”) to commercialise the revolutionary CERENERGY® Sodium Alumina Solid State (SAS) Battery. CERENERGY® batteries are the game-changing alternative to lithium-ion batteries. CERENERGY® batteries are fire and explosion-proof; have a life span of more than 15 years and operate in extreme cold and desert climates. The battery technology uses table salt and is lithium-free; cobalt-free; graphite-free; and copper-free, eliminating exposure to critical metal price rises and supply chain concerns.

The joint venture is commercialising its CERENERGY® battery, with plans to construct a 100MWh production facility on Altech’s land in Saxony. The facility intends to produce CERENERGY® battery modules to provide grid storage solutions to the market.

Further information at: www.altechadvancedmaterials.com

Altech Advanced Materials AG

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