ALTECH: INTRODUCING SPECIFICATIONS OF CERENERGY® -BATTERY PACKS AT INTERNATIONAL BATTERY FAIR AABC

- **Preliminary specifications of CERENERGY® battery packs defined**
- **Presentation of the technology and the battery at the European trade fair aabc in Mainz**
- **Performance figures confirm advantages of the novel ceramic solid-state battery for commercial industrial applications**
- **Expected total cycle cost of approx. 6 ct€/kWh**

Heidelberg, 20. June 2023.

Altech Advanced Materials AG (Altech; FRA: AMA1) has announced preliminary specifications of the CERENERGY® battery packs 60 KWh (ABS60) and 1 MWh (ABS1000) GridPack. As part of the European Advanced Automotive Battery Conference (aabc) trade fair, which will take place in Mainz, Germany, from 19 to 21 June 2023, Altech will present the novel ceramic solid-state battery and has published concrete performance data for the first time. The design of the stationary battery is geared to the specific needs for grid operation of industrial customers who, for example, want to temporarily store electricity from renewable energy sources, or want to compensate for peak loads to reduce costs (peak shaving), or contribute to grid stability.

Since the CERENERGY® battery does not require any external temperature management and can be operated without any danger due to complete operational safety, the batteries can be delivered fully assembled and ready for operation under conventional transport conditions (plug & play) on the one hand and are virtually maintenance-free on the other. Overall, this leads to an expected total cycle cost (Round Cycle Efficiency) of about 6ct€/kWh.

These preliminary specifications have been developed in collaboration with the joint venture partner, Fraunhofer IKTS (Fraunhofer). They are an important milestone for Altech, enabling discussions with potential off-take partners and thus paving the way for access to the growing market for grid storage batteries.

In principle, the batteries can be used outdoors in any climatic zone in a temperature range from -20 to over +60 degrees Celsius without external cooling or heating. The active material is conventional common salt, which is available in almost unlimited quantities. No cobalt, lithium or graphite is used. This makes the battery incombustible and solves existing and known challenges on the topic of fire protection and safety as well as in the procurement of critical materials from unsafe third countries. Supply chains are massively shortened. All materials and critical components are sourced in Europe. Unlike the usual lithium-ion-based

mega battery packs, these GridPacks can be stacked on top of each other and do not require any special fire safety precautions. The stackability of the GridPacks minimises the battery footprint and allows for easy scalability to meet all energy storage needs. Connection to the energy source and the grid is straightforward using a 'plug and play' approach. As there are no moving parts, the Altech GridPacks are virtually maintenance-free and completely silent in operation.

The continuously increasing global expansion of renewable energy sources with unsteady power generation has highlighted the need for efficient and reliable energy storage solutions. Grid storage batteries have proven to be the key to balancing energy supply and demand, ensuring a stable energy supply and maximising the use of renewable energy sources. "Our solution is easy to deploy anywhere and has solved the existing challenges of safety and unrestricted climatic usability, as well as raw material use, supply chain dependency and full recyclability in manufacturing. Together with the specifications presented, we will quickly be in a position to submit a customised offer to the market," says Uwe Ahrens, CEO of Altech Advanced Materials AG.

The market for grid-connected energy storage is expected to grow at a compound annual growth rate of 28 % in the coming decades. The global market for grid energy storage is projected to grow from USD 4.4 billion in 2022 to USD 15.1 billion in 2027. In the longer term, growth is expected from 20 GW in 2020 to over 3,000 GW in 2050.

Currently, the Altech-Fraunhofer joint venture is developing a battery plant for the industrial production of the CERENERGY® battery in Schwarze Pumpe, Saxony, with an initial production line that will have an annual output of 100-MWh (Phase 1).

The complete preliminary specifications for the CERENERGY® 60 KWh (ABS60) battery pack and the 1 MWh (ABS1000) GridPack battery products are available in detail at:
https://www.altechadvancedmaterials.com/projects/cerenergy/

About Altech Advanced Materials AG

Altech Advanced Materials AG, headquartered in Heidelberg, Germany, is a holding company listed on the Regulated Market of the Frankfurt Stock Exchange (ISIN: DE000A31C3Y4). 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®.

Further information at: www.altechadvancedmaterials.com

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