Solid-state battery with 50% better environmental balance on short way to series production

Battery cell passes basic functionality tests. Production line of 200 MWh on the way to Gigafactory. Game changer and technology leader in battery industry.

TEUFEN / ST. GALLEN, APPENZELL AUSSERRHODEN, SCHWEIZ, May 31, 2021 /EINPresswire.com/ -- An important milestone has been reached: The company High Performance Battery (HPB) has developed the world's first solid-state battery whose core - unlike all other solid-state battery projects - is the result of a chemical reaction within the battery. Whereas solid ion conductors are usually inserted into the battery as prefabricated parts, the HPB solid ion conductor is first created in the battery cell, similar to a "two-component glue". As a result, this technology elegantly solves significant hurdles for the series production of solid-state batteries as a possible successor technology to lithium-ion batteries.

The list of positive features of the HPB solid-state battery is long: The innovative battery technology of the High Performance Battery has an extremely long service life without loss of performance at almost constant capacity. Furthermore, the solid state battery is resistant to deep discharge and fast charging, the solid ion conductor is non-flammable and thus safe to use. In addition, the new technology has a 50 percent improved environmental balance compared to conventional lithium-ion batteries and does not require the controversial raw material cobalt. The innovative battery cell has already proven its basic functionality in initial tests.

Reliable storage technology for successful applications:

The new battery technology from High Performance Battery serves a broad field of applications: it has a high potential to be used in e-mobility - on land, on water and in the air - in the future. In particular, it is suitable for domestic energy supply and the intermediate storage of volatile

electricity.
Market development is also unconventional: HBP grants licences to producers and users for attractive market segments. The production start of the first production line of 200 megawatt hours is planned for 2023. The modular structure of the production is intended to enable short-term entry and easy scaling to gigafactory level.

Environmentally friendly solid-state battery on the way to becoming a technology leader:

"The development of the solid-state battery is a great success for the energy industry and eMobility. The establishment of the first production offers the opportunity to position ourselves as a technology leader on the global market. In addition to selling the licences and preparing for the start of production, we are continuing to optimise the battery cell in terms of size and capacity," says Dr Thomas Lützenrath, COO of High Performance Battery.

High Performance Battery was founded in 2015 and is specialised in the research and development of high-tech rechargeable batteries with a unique combination of performance data: durable, non-flammable, deep discharge resistant, almost constant capacity with almost constant internal resistance, without raw material bottleneck, free of cobalt and with significantly better environmental effects than conventional lithium-ion batteries.

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