Panasonic ENERGY

Panasonic Energy Co., Ltd.
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Panasonic Energy Partners with Sila for Procurement of Next-Generation Silicon Anode Material for EV Batteries

Aiming to boost EV battery performance and strengthen local supply chains in North America

Osaka, Japan – December 12, 2023 – Panasonic Energy Co., Ltd., a Panasonic Group Company, today announced the signing of an agreement to purchase next-generation nano-composite silicon anode material for EV lithium-ion batteries from Sila Nanotechnologies Inc. ("Sila"; Alameda County, California).

Titan Silicon™, the high-performance silicon material supplied by Sila, outperforms conventional silicon by offering higher capacity as well as suppressing expansion during charging, which has been a longstanding challenge of the material. The use of silicon is key to improving battery performance, as it has in theory 10 times the capacity of graphite, a material commonly used in the current production of lithium-ion battery anodes. However, silicon's charging-induced expansion, leading degradation of battery performance, has spurred years of industry research to address the issue. Leveraging its battery technology and the partnership with Sila, Panasonic Energy is aiming to replace a higher proportion of graphite in the anode material with silicon, enhancing energy density. This is expected to help deliver improved EV performance, increased vehicle range, and reduced charging times.

For years, Panasonic Energy has been actively developing technology to master the use of silicon materials, successfully mass-producing the industry's first silicon-based EV batteries. To achieve a 25% increase in battery energy density, from the current level of 800Wh/L to 1,000Wh/L by 2031, it is essential to incorporate next-generation silicon materials in its battery development.

Panasonic Energy will procure the necessary silicon material from Sila's manufacturing facility in Washington State, U.S. With a strategic focus on North America, Panasonic Energy is working to strengthen local supply chains in order to expand battery production there. The partnership with Sila not only aligns with Panasonic Energy's commitment to a resilient supply chain, but it will also result in a reduction in the company's carbon footprint, as well as logistics and transportation costs.

By establishing further partnerships in the region, Panasonic Energy plans to further expand its silicon procurement network. Leveraging advanced battery technology and extensive expertise, the company aims to drive the growth of the lithium-ion battery industry to meet the surging global demand for EVs, thereby helping to achieve a more sustainable society.

About Panasonic Energy Co., Ltd.

Panasonic Energy Co., Ltd., established in April 2022 as part of the Panasonic Group's switch to an operating company system, provides innovative battery technology-based products and solutions globally. Through its automotive lithium-ion batteries, storage battery systems and dry batteries, the company brings safe, reliable, and convenient power to a broad range of business areas, from mobility and social infrastructure to medical and consumer products. Panasonic Energy is committed to contributing to a society that realizes happiness and environmental sustainability, and through its business activities the Company aims to address societal issues while taking the lead on environmental initiatives. For more details, please visit https://www.panasonic.com/global/energy/

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About Sila Nanotechnologies Inc.

Founded in 2011, Sila is a next-generation battery materials company with the mission to power the world's transition to clean energy. Sila shipped the world's first commercially available silicon anode for lithium-ion batteries in 2021. Sila's materials drive battery performance enhancements in consumer electronics devices and will power electric vehicles starting with the Mercedes-Benz G-Class series. Committed to American leadership in clean energy production, Sila is scaling its technology at its manufacturing facility in Moses Lake, Washington. Major financial investors include 8VC, Bessemer Venture Partners, Canada Pension Plan Investment Board, Coatue, In-Q-Tel, Matrix Partners, Sutter Hill Ventures, and funds and accounts advised by T. Rowe Price Associates, Inc.

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