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Toshiba Asia Pacific Pte. Ltd.

**Transforming mobility with Toshiba in the challenging environment of mines by advancing electrification solutions that contribute to carbon neutrality.**

SINGAPORE - As the demand for minerals surges globally, concerns about decarbonization in the mining sector intensify. Toshiba addresses this challenge by introducing its proprietary SCiB™ rechargeable battery technology to mining equipment. It aims to promote optimal electrification and decarbonization while ensuring safety and durability in mines' challenging operating environments.


*Transforming mobility with Toshiba in the challenging environment of mines*

Electrifying mining equipment is crucial for achieving carbon neutrality. However, it poses significant challenges due to the demanding nature of mining operations, which demands batteries that are exceptionally durable, long-lasting, and capable of withstanding harsh conditions. Toshiba's SCiB™ battery uses Lithium Titanium Oxide (LTO), a metal lithium does not precipitate. It stands out for its unique features, including **High Safety, Long Life, and Rapid Charge**, making it an ideal solution for mining electrification.

**The Characteristics of Toshiba rechargeable battery SCiB™**


*The Characteristics of Toshiba rechargeable battery SCiB™*

Toshiba pinpointed the electrification of mining equipment as a promising market opportunity, recognizing the unique features of SCiB™ technology could drive meaningful change and improvement. By reducing the number of batteries needed and optimizing charging systems, the SCiB™ can enhance productivity and contribute to environmental sustainability in the mining sector.

To drive the adoption of SCiB™ in mining, Toshiba collaborates with stakeholders across the value chain, providing customized simulations and technical proposals tailored to meet individual customer requirements. Additionally, the company participates in industry exhibitions and trade shows to demonstrate the benefits of SCiB™ and address the specific concerns of mining companies and equipment manufacturers.

*How the SCiB™ can contribute to the electrification of mining, an example with open pit mine*

The roadmap for mining electrification focuses on introducing SCiB™-powered dump trucks by the late 2020s and 2030. As part of this effort, Toshiba aims to collaborate with partner companies on demonstration tests to verify the operational efficiency and greenhouse gas emission reductions of these vehicles. Furthermore, there is significant potential for electrification in underground transportation light vehicles, where SCiB™'s intrinsic safety features, including low ignition risk and zero emissions, offer substantial safety and environmental benefits.

Looking ahead, Toshiba aims to deepen its understanding of the mining sector and continue technology development to address industry challenges effectively. By leveraging the distinct capabilities of SCiB™, Toshiba aspires to develop solutions that contribute to solving global issues beyond mining, showcasing the battery's versatility and societal value to society.

For more information, please visit Toshiba Clip.

**About Toshiba Asia Pacific Pte. Ltd.**

Toshiba Asia Pacific Pte. Ltd. (TAPL), a subsidiary of Toshiba Corporation, was established in 1995 as Toshiba's regional headquarters for operations in Southeast Asia, India and Oceania. Apart from its head office in Singapore, Toshiba Asia Pacific has overseas offices in Bangladesh and Vietnam. TAPL supports Toshiba companies in the Asia Pacific region with a strong focus on expanding our business in Energy Systems, Social Infrastructure Systems, Devices & Storage and Digital solutions. TAPL's commitment aligns with Toshiba's unwavering drive to solve global social issues by advancing the quest for carbon neutrality and resilient infrastructure by creating integrated value-add solutions.

Find out more about TAPL at https://asia.toshiba.com/