

March 6, 2025

Toshiba Corporation

**Toshiba's Innovative Rechargeable Battery Set to Elevate Safety and Reliability of Electric Motorcycle Taxis, Addressing Fire Risks**  
*Propel Thailand Closer to Carbon Neutrality Goals*

Bangkok, Thailand – Toshiba Corporation showcased its rechargeable lithium-ion battery "SCiB™" at a media briefing in Bangkok on March 5, 2025, highlighting its exceptional characteristics of long lifespan and intrinsic safety, which elevate the safety and reliability of electric motorcycle taxis for both drivers and passengers. SCiB™'s unique features have the potential to play a significant role in the transition towards sustainable urban transportation in Thailand. By utilizing SCiB™, Toshiba aims to support Thailand's carbon neutrality objectives and facilitates the wide adoption of e-motorcycles that meet stringent standards, enhancing sustainability and reliability in the transportation sector.



*(2nd from the right) Mr. Toru Kajiwaru, Minister, Embassy of Japan, (centre) Mr. Yasuki Kanazawa, CEO & Director naturenix inc., (2nd from the left) Mr. Haruchika Ishii, Business Development Fellow, Strategy Group, Business Planning Dept., Battery Division, Toshiba Corporation*



*Toshiba rechargeable lithium-ion battery SCiB™ and demonstration charging station by naturenix inc.*

Thailand aims to achieve Carbon Neutrality by 2050 and Net-Zero Greenhouse Gas Emissions by 2065<sup>\*1</sup>. The demand for lithium-ion batteries in emerging countries for electric vehicles (EV) is expected to exceed 600GWh by 2035. However, only 2.8% of that is projected to come from batteries for motorcycles and three-wheeled vehicles, both widely used in public transport<sup>\*2</sup>.

Manufacturers of e-motorcycles face significant challenges in commercializing their products, primarily due to safety concerns surrounding conventional lithium-ion batteries. These issues include fire risks under various stressors and performance degradation over time, worsened by the tropical heat and humidity prevalent in Southeast Asian countries. The increasing risk of accidents as batteries age further complicates the integration of these vehicles into the transportation sector. Addressing these safety and longevity issues is crucial for successfully implementing e-motorcycle initiatives in the region and the industry's overall progress. Manufacturers must find innovative solutions to enhance safety and reliability, overcoming the hurdles posed by environmental factors and battery limitations to achieve wide adoption and ensure the viability of e-motorcycles in Southeast Asia's challenging climate.

The Toshiba's battery SCiB™ is showing potential to address these concerns and revolutionize the electric motorcycle industry in Southeast Asia. Its innovative lithium titanium oxide (LTO) anode chemistry offers superior safety, longevity, and performance in challenging environments, in contrast to the conventional carbon-based materials used in typical lithium-ion batteries. It demonstrates remarkable resilience, resisting internal short circuits and maintaining integrity during rigorous safety tests. SCiB™ maintains its performance through over 20,000 charge-discharge cycles with minimal degradation. Furthermore, its rapid-charging capability allows for recharging from zero to over 80% capacity in just six minutes, ensuring minimal downtime for e-motorcycles. These features directly address the safety, longevity, and performance issues hindering electric motorcycle adoption in the region, paving the way for more reliable and sustainable urban transportation solutions.



*Toshiba rechargeable lithium-ion battery SCiB™*

In September 2024, Toshiba partnered with [naturenix inc.](#), a Japan battery technology startup from Shimane University, and Windee International, a joint venture with Thailand's parking management servicer, to launch a demonstration test of battery subscription service for e-motorcycle taxis in Bangkok, announced in October 2024<sup>\*3</sup>. Such a battery subscription service is expected to allow users to access to the advanced and well-maintained battery technology in a cost-effective way. The ongoing trial is yielding promising results, highlighting SCiB™'s capacity to deliver efficient and practical solutions.

Together with partners, Toshiba offers a safe and cost-effective solution for electric motorcycle taxis in Bangkok, addressing fire risks. This innovative battery subscription

service not only accelerates EV adoption in Thailand's two- and three-wheeler segments but also has the potential to transform various vehicle markets, including buses and automated guided vehicles, significantly contributing to the country's efforts in achieving carbon neutrality.

### **About Toshiba**

As Toshiba Group celebrates its 150<sup>th</sup> anniversary in 2025, it is enhancing its management structure, streamlining operations, and investing in forward-looking businesses to build foundations for new growth.

This will allow it to continue to support advances toward a sustainable future with products and services developed by its wide range of businesses in the energy, infrastructure, and electronic devices domains.

Guided by its corporate philosophy, “Committed to People, Committed to the Future.,” Toshiba brings industry-leading capabilities in green transformation (GX) and digital transformation (DX) to solutions for companies addressing the many challenges faced by modern society. By leveraging the power of data derived from its constantly evolving products and solutions, the Group is determined to help to achieve carbon neutrality and a circular economy.

In fiscal year 2023, Toshiba Group generated annual sales of 3.3 trillion yen, and had 105,000 employees around the world.

For more information, visit <https://www.global.toshiba/ww/top.html> or follow Toshiba Corporation on [LinkedIn](#).

\*1: *[THAILAND’S FIRST BIENNIAL TRANSPARENCY REPORT](#), Chapter 3.1*

\*2: *Research by naturenix inc.*

\*3: *[Toshiba and Naturenix Launch Demonstration Test of Battery Subscription Service for Electric Motorcycle Taxis in Bangkok](#)*