Mass production verification of ultra-high energy and ultra-high power density lithium-ion batteries （TeraWatt Technology K.K.）

City	Year of Establishment	Founder
Yokohama	2019	Ken Ogata

Partner VC	Latest round of Fundraising	Valuation
Khosla Ventures LLC	Pre-C	Non-Disclosure

Website : https://www.terawatt-technology.com

○ Business Plan

In the pursuit of realizing a sustainable society, 'decarbonization' has garnered unprecedented attention in human history, with global decarbonization strategies accelerating. Electrification, particularly of various devices, serves as a primary driver of 'decarbonization.' Supporting this effort is the lithium-ion battery industry, particularly the next-generation lithium-ion batteries, which have garnered significant global attention. By 2030, the global production scale of lithium-ion batteries is projected to reach approximately 3,000 GWh, with a market size of around ¥40 trillion. TeraWatt Technology is committed to the mission of 'Electrifying Everything for a Sustainable Society.' We are dedicated to developing next-generation lithium-ion batteries that are significantly lighter, smaller, more powerful, and safer than existing ones, with the aim of commercializing these innovations.

○ Research Outline

We aim to establish a large-scale pilot facility for the pilot production and mass verification of next-generation lithium-ion secondary batteries, capable of high energy density, high power density, and enhanced safety, slated for market entry post-2025. Our objective is to deploy these batteries not only in existing applications such as next-generation electric vehicles and drones but also in new applications like eVTOL (electric vertical takeoff and landing aircraft).

At the large-scale pilot facility, we will conduct validation activities to establish production equipment and process technologies that meet customers' desired performance quality. The following developments will be pursued:

Research and Development Project 1: Verification of production technology and performance reproducibility for three cell capacities.
Research and Development Project 2: Verification of productivity KPIs for single-line production.

Business Area/Field	Research Period	Research Grant Amount	International collaborative technology demonstration
Energy & Infrastructure	DMP 2023～2025	JPY 2,499 million	Japan, United States, Europe, Asia

As of March,2024