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hokutai Inc. ●●●●

**HARNESSING
THE POWER OF
THE SUN FOR A
SUSTAINABLE
FUTURE**

Tomotaka Takasaki,
CEO



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TOP
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IN APAC
2023

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TOP 10
ENERGY
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IN APAC
2023

The annual listing of 10 companies in APAC that are at the forefront of facilitating greener energy consumption and impacting the Energy Sector

COVER STORY



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HARNESSING THE POWER OF THE SUN FOR A SUSTAINABLE FUTURE

In a united stride toward a greener tomorrow, the world rallies behind renewable energy, propelled by rising environmental consciousness and the pursuit of sustainable development goals.

Japan is leading the charge in this eco-conscious movement, with an ambitious goal of a 46 percent reduction in greenhouse gas emissions by 2030.

Playing a pivotal role in this endeavor, through a combination of enhanced energy efficiency and the strategic deployment of renewable sources, is hokutai.

It takes the lead in driving large-scale solar project planning and development and offers end-to-end services with a consultation to harness the limitless potential of nature's clean energy.

A portfolio comprising 600 projects makes hokutai a distinguished developer and supplier of comprehensive solutions in the renewable energy domain. Along with solar energy, it actively explores opportunities in wind power, geothermal energy, and other renewable energy sources, with a steady commitment to promoting a greener and more sustainable future.

One of its standout features is the ability to manage the entire gamut of operations related to development projects in-house.

"Our capability to oversee the entire engineering, procurement, and construction (EPC) process allows

us to create solar projects from scratch and offer them as turnkey solutions to investors," says Tomotaka Takasaki, CEO.



Using idle land, agricultural land and factory roofs, we aim to promote the widespread adoption of solar power generation and achieve electricity self-sufficiency

The company also excels in handling the nuanced aspects of negotiations, land acquisition, and supervision of development sites. hokutai's dedicated engineering department delves deep into development-related research, sophisticated designs, robust construction and diligent maintenance, guaranteeing every technical aspect aligns with the highest standards of excellence.

With everything under one roof, hokutai ensures a unified vision, seamless communication and consistent quality throughout project stages.

Clients can rest assured knowing every detail is handled with precision and passion. This translates to time and cost savings, efficient project execution, and optimal returns on investment.

Risk-Free Projects with Advanced Assessments for Site Selection

A solar project's location is a key determiner of its efficiency and output, as the amount of sunlight the solar panels receive directly affects their performance and energy production.

hokutai's is adept at identifying optimal locations for solar development, taking into account factors such as the local weather, geographical features and proximity to the electricity grid.

Through effective location scouting, its dedicated team secures favorable sites at discounted rates. This proficiency extends to developing and executing large-scale solar projects, even in the most demanding terrains.

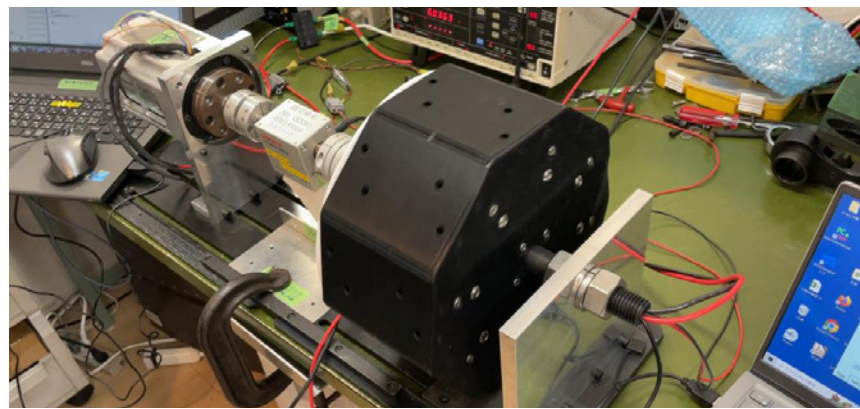
This is crucial as the identification of solar project sites has become increasingly challenging in Japan due to the decline in the feed-in tariff (FIT). The government policy guarantees a fixed, above-market price for electricity produced from renewable sources, aimed to boost investment in renewable energy technologies and decrease the country's reliance on fossil fuels.

While the high FIT in 2013 at 42 yen led to the rapid development and use of prime solar locations, the subsequent reductions have made it challenging for companies to find and invest in new locations. As the FIT has been reduced over time, the financial incentive for developing solar projects has also diminished. Many available sites now lie in less-than-ideal regions

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Tomotaka Takasaki,
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for solar development, like rocky terrains, heat-intensive zones, or forested regions that would require clearing.

To resolve this challenge, hokutai investigates the ground conditions of prospective sites. This involves detailed research to detect any past illegal dumping of industrial waste, as discovering these disposals post-development can lead to serious regulatory consequences. Identifying and addressing the issues beforehand also ensures solar projects comply with environmental and land-use laws, avoiding potential fines or shutdowns. This proactive approach strengthens the project's financial viability and effectively counters the challenge of finding suitable locations.

That's not all; hokutai assures investors that every project is free from hidden complications. This commitment is evident in its rigorous assessment processes using advanced tools and techniques. Each aspect of the project, from the mounting systems and solar modules to the inverters, undergoes thorough scrutiny to help projects be risk-free.

Project Execution with Skillful Negotiation

Negotiation is another critical aspect of project development, where developers often need to engage with landowners, local communities, and government authorities. This could involve discussions about land use rights, compensation for landowners, and obtaining necessary permits and approvals.

hokutai approaches these negotiations with a deep understanding of local concerns. Its exceptional negotiation

skills translate to mutually beneficial agreements where concerned parties are assured about the project's safety and benefits.

After securing the necessary approvals, hokutai delves into the design phase, creates a foundational plan that explains the construction methods and timelines, and provides accurate power generation forecasts and electricity sales revenue. This detailed planning ensures clients experience a smooth project execution.

When it comes to construction, hokutai manages everything, from laying the foundation to overseeing electrical work. Even after a project's completion, it remains diligent, adhering to the updated FIT Law. Its expert team carries out routine inspections, guaranteeing the prolonged performance and optimal efficiency of the solar installations.

A noteworthy incident from some years ago underscores hokutai's expertise. A project met strong resistance from local residents and faced significant hurdles until hokutai stepped in. It took over the project and initiated a series of negotiations with the dissenting neighbors. Despite initial resistance, hokutai's empathetic and persistent approach eventually turned the tide, transformed opposition into support, and an agreement was reached, which the previous companies had already given up on.

Making the Most of Every Square Foot

While ground-mounted solar installations remain hokutai's primary domain, the company recognizes the untapped potential



of rooftop solar solutions. Given the inherent challenges associated with ground-mounted systems, like the need for vast land areas, its expansion to factory roofs is a strategic, space-smart move to harness underutilized spaces.

"Using idle land, agricultural land, and factory roofs, we aim to promote the widespread adoption of solar power generation and achieve electricity self-sufficiency," says Takasaki.



Our capability to oversee the entire engineering, procurement, and construction (EPC) process allows us to create solar projects from scratch and offer them as turnkey solutions to investors

Assuring Seamless Entry for Foreign Investors

Japan's solar energy market can be enticing to foreign investors due to various government incentives. At the same time, it can be challenging, with complex regulatory barriers. With hokutai as a trusted guide, these challenges become surmountable. It conducts due diligence, ensures no stone is left unturned in identifying potential pitfalls, and offers immediate solutions for even the slightest irregularities.

While Japan offers many lucrative investment opportunities, it often comes with complexities. Whether the need is for substantial upfront capital or acquisition processes, hokutai is ready to provide valuable insights and hands-on support.

Investors can confidently venture into Japan's renewable sector, armed with the expertise of a seasoned partner who guarantees seamless integration into the market and well-informed investment choices.

Beyond the Solar Frontier

The company is channeling significant investments into the hydroelectric, wind, and geothermal energy sectors, with a particular focus on technological advancements.

Underscoring the importance of enhancing efficiency, reducing size and conserving resources, hokutai has turned

its attention to small-scale power generation. It has invested in the development of brushless motor-type, small generators to efficiently harness hydro, wind and tidal energy while maintaining a small footprint.

In its current business model, hokutai has succeeded in developing a wind power generator that can store power in a battery even with a breeze of 1.2m/s. These versatile devices can be strategically positioned in various locations, such as atop hills or on flat ground, offering a flexible and highly efficient method of generating power.

hokutai has evolved its in-house capabilities with the establishment of the Geotechnical and Geological Investigation Department. Previously focused on surface soil testing for solar power plant development, this department expanded its expertise. Incorporating advanced geophysical and resource exploration techniques used in geothermal and mineral resource sectors, hokutai is now equipped to conduct comprehensive in-house assessments. This enhancement empowers it to undertake thorough surveys and evaluations for a wide range of energy resources besides solar.



All these accomplishments cement hokutai's position as a luminary in the Japanese energy market, marked by its expansive portfolio, innovative approach, and commitment to sustainable progress. It is not just adapting to the changing energy landscape but actively shaping it with a robust foundation in solar and a discerning vision that spans diverse renewable energy sectors.

By seamlessly integrating innovative technologies and comprehensive in-house expertise, hokutai is driving Japan closer to its sustainable, energy-efficient future.

Through its broad array of mega solar projects, it consistently pushes boundaries, setting new benchmarks for an environmentally robust future. **EB**