

**BESS PORTFOLIO OPPORTUNITY IN JAPAN**

**Vector Renewables** has received a selling mandate from the developer, VdP Capital Japan, for their BESS portfolio under development in Japan.

The process will be managed by Vector Renewables, which has been entrusted with performing the Technical Due Diligence and Financial Model Assessment of the portfolio. The details of the projects that comprised the portfolio, its status, location and characteristics are shown in the present document.

The Japanese energy storage market is witnessing the emergence of various players ranging from established utilities to innovative startups. Key stakeholders include energy companies specializing in renewables, technology providers offering advanced storage solutions, and project developers with a focus on integrating storage into their initiatives.

While the current grid-connected installed capacity as of March 2025 stays at only 0.23 GW, it is expected to grow to around 10GW by 2030, a quite ambitious target that has been initially supported by the government through the Long Term Decarbonization Auction (LTDA).

Figure 1 shows the installation capacity against the application in the period between 2023 and 2030 in the Japanese market. The dark blue and light blue bar represents the 10% and 20%, respectively, of actual anticipated installation GWh against the total application to the utility company.

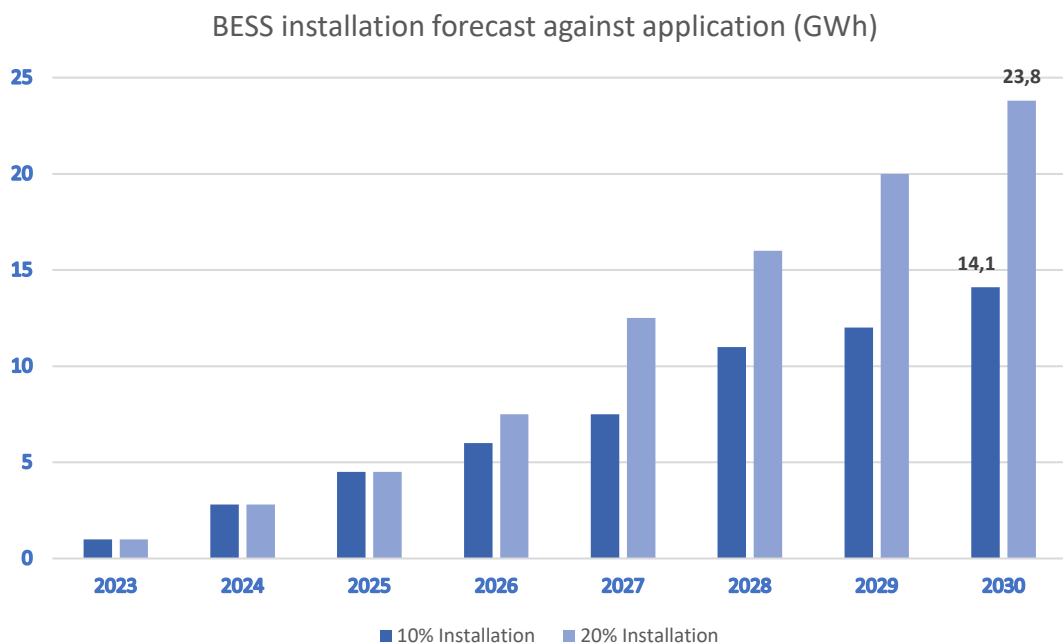


Figure 1. BESS Battery forecast in Japan Market by application Source: Enecho.METI, VR

The actual installation of BESS at regional area in Japan as per Figure 2 shows that most of the cases concentrated to two regions.

In Hokkaido prefecture, there are 2.75GW worth of applications on grid connection and 450MW with PPA signed. The Kyushu region has more applications of 3.65GW but with lesser PPA signed at 260MW.

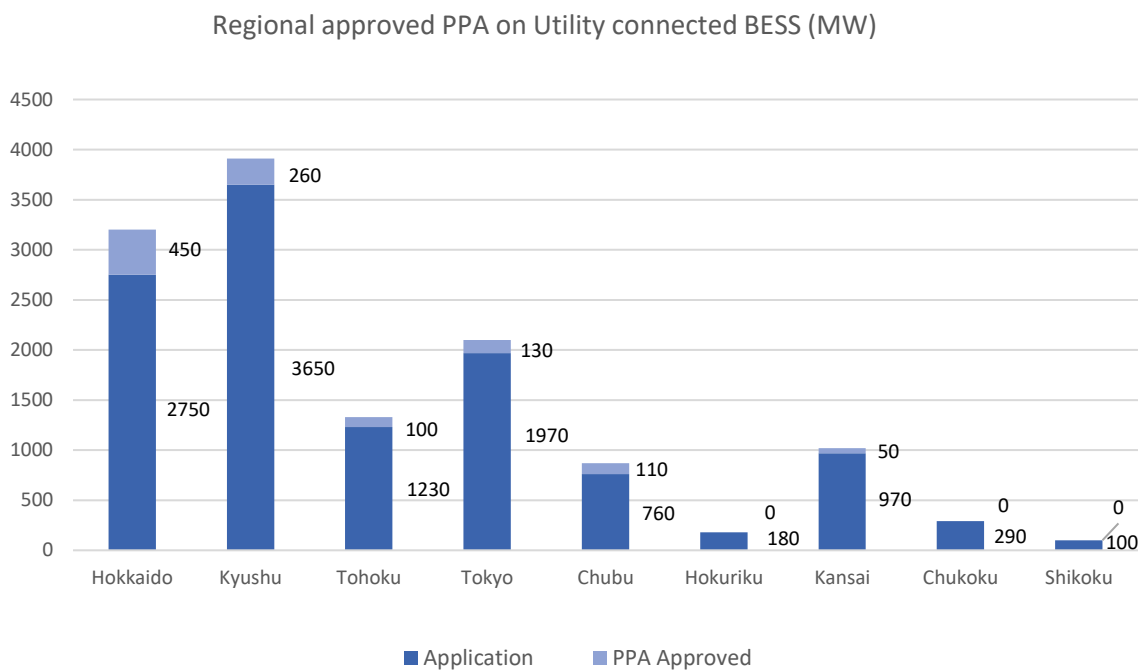


Figure 2. BESS installation in Japan Source: Enecho.METI, VR

The developer, VdP Capital Japan, belonging to Premier Group, is a company founded in 2006 in Zaragoza, Spain, working on energy from greenfield development to Ready to Build. The Group started working on photovoltaic projects in Europe and expanded into wind energy and batteries, with over 18 years of experience of development across 10 countries in Europe, Asia and the Americas.

Premier Group incorporates its subsidiary in Japan back in 2012, working on the development of solar projects during the FIT era, and moving towards solar PPA and BESS projects in recent years.

The current opportunity comprises 3 projects in advanced stage of development and located across the Japanese archipelago.

Project	Capacity
Aomori Hachinohe	15 MW
Hokkaido Bibai	30 MW

The details of the projects of the portfolio, localization and current stage of development can be found in the following pages.

## Hokkaido Project

### Key information

Project name	Hokkaido Bibai
Localization	Bibai City, Hokkaido Prefecture
Power installed in batteries	30 MW
Connection Point	Powerline 66kV
Utility	Hokkaido Electric Power
Distance to connection point	0.4 km
Connection point status	<b>Obtained</b>
Land agreement status	<b>Obtained</b>
Capacity	91.44 MW/h
Type of land	Field
Site surface	3,183 m <sup>2</sup>



## Aomori Hashikami Hachinohe Project

### Key information

Project name	Aomori Hashikami
Localization	Hachinohe City, Aomori Prefecture
Power installed in batteries	15 MW
Connection Point	Powerline 66kV
Utility	Tohoku Electric Power
Distance to connection point	0.1 km
Connection point status	<b>Obtained</b>
Land agreement status	<b>Obtained</b>
Capacity	127.5 MW/h
Type of land	Field
Site surface	6,484 m <sup>2</sup>



Project Name	Available surface	Grid connection status	Grid connection cost and duration	Local Permits	Land acquisition status
Aomori Hashikami	1.8 Ha (land plot)	September 24, 2025 Grid connection agreement	136.65 MJPY (5% deposit paid) 42 months	National Land Use Planning Act: accepted. Agricultural Land Act: Converted from farmland. Soil contamination Act: tbc. Tree Cutting Notification, Fire prevention Act.	Sales Contract signed. Payment by June 30, 2026.
Hokkaido Bibai	0.584 Ha (land plot)	December 23, 2025 Grid connection agreement	414.1 MJPY 30 months	National Land Use Planning Act, Landscape ordinance, Soil contamination Act: tbc. Fire prevention Act.	Purchase application submitted. A deposit of 1 million yen paid.

### Aomori Hashikami Project

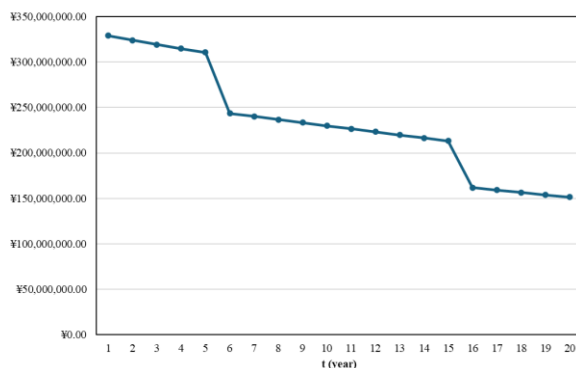
#### Model Assumptions (JPY)

CAPEX	
Storage system (per MWh)	26,723,000
Power line	112,280,000
Substation	345,476,000
Civil works	166,411,000
Additional cost by seismic risk	83,206,000
OPEX	
Storage system (per MWh)	605,000
Software (per MWh)	8,637,000
Land cost	27,580,000

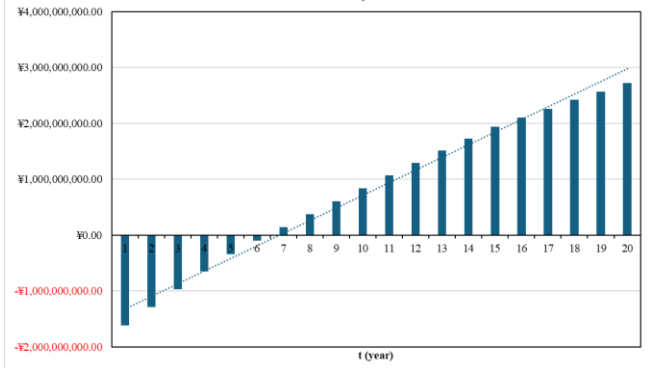
#### Key Metrics

- **Gross IRR: 13.11%**
- **Net IRR: 10.26%**
- **Payback Period: 7 years**

Forecasted Annual Net Cash Flows



Financial Metric: Payback Period



### Key Highlights

- **Conservative Approach:** The model currently assumes 50% participation in the arbitrage market assuming a curve of prices for 2025 to be replicated onwards, and 50% in ancillary services. Currently, ancillary services seems to provide greater profit. One iteration could be shift to 30/70% ratios in favor of ancillary services. This is mainly due to reforms planned by METI and OCCTO for high renewable penetration.
- **Adaptability:** Includes seismic risks and realistic degradation.
- **Bankability:** Early positive cash flows, recovering investment in 7 years, gross IRR of 13.11% and net IRR (after taxes) of 10.26%; subsidizable by METI (up to 800 MW in 2025), attracting investment (4.15B USD Japanese BESS market by 2030).
- **Strategic Market:** Aomori leverages strong renewable curtailment presence. Japan is projected to install a total of 10 GW BESS by 2030, with favorable policies.

The developer will prioritize a partner that would consider the following points in the transaction:

- Acquisition of the whole portfolio instead of single projects
- Agile discussion that will lead to a closing within the next few months
- Preference to exit before any EPC works are involved
- For tax wise reasons, acquisition of the company that owns the projects

### Next steps

Vector Renewables will provide the following information and support to the potential buyers:

- Detailed Technical Red flag analysis of the projects, focusing on land agreement status and connection point to the grid.
- Detailed Red flag analysis on the financial models provided by the developer
- Assistance in the introduction and meetings with the developer
- Support during the Due Diligence process and its Q&A



**Vector Renewables** is an international renewable energy consulting company based in **Madrid, Spain**. We are involved in all phases of a project cycle, from planning and engineering, to managing and financing.

Since 2015, Vector Renewables is part of **Nadara** (before Falck Renewables), an Italian-based corporation which activities include the development, financing, construction and operation of renewable energy plants. From 2022, Nadara and Vector Renewables became part of **Infrastructure Investment Fund (IIF)** run by J.P. Morgan.

In APAC region, **Vector Renewables** has offices in **Tokyo and Manila**, with a team of experienced and multilingual professionals supporting projects in **solar, onshore/offshore wind, BESS and biomass technology**. Among our clients we have major Japanese and Global banks, international investments funds and developers.

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