

Next Energy and Resources Co. Ltd.

Creating new market segment as total solution provider in the flourishing solar energy market in Japan

<http://www.nextenergy.jp/>

Next Energy and Resources Co. Ltd. 4753-1 Nakazawa, Komagane City Nagano Prefecture 399-4231 JAPAN	Founded in No. of employees State of Ownership Primary stock exchange	2003 30 Private N/A
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September 2011: In the current double-digit growth of the solar energy industry, Next Energy and Resources (Next Energy) is providing total solution services by leveraging its wide-ranging competence from installation and diagnostic inspection of various solar modules, smart use of secondhand modules, to fables module business.

The company is actively looking for innovative technologies and products which will add value to its system integration operations. Venture Valuation (VV) interviewed Mr. Atsushi Ito, founder and CEO.



VV: How do you position Next Energy in the solar energy industry?

Ito: The distribution channel in Japan's solar energy industry is currently dominated by major solar module manufacturers. End users are limited to systems that each manufacturer offers. There are business opportunities for independent system solution providers who are able to design systems and select components to satisfy end users' needs and make the most of power efficiency.

We are growing in this new market segment. Since our inception in 2003, we have developed our technical and commercial know-how in a variety of fields: quality verification and evaluation of various different modules, a diagnostic inspection service, system installation for both business and residence, off grid system installation, and rental service for small solar systems.

Furthermore, our partnerships with Osaka Gas, a major energy supplier, and West Holdings, Japan's biggest residential system integrator, strengthens our positioning in the market. It is a great asset for a small company like Next Energy.

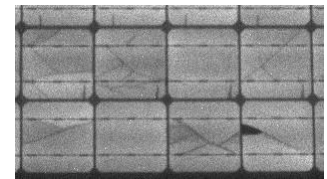
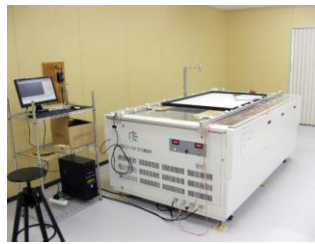
VV: Next Energy is also active in maximizing the use of pre-owned solar panels.

Ito: As far as I know, we are the only company in the world that is involved in reusing secondhand solar modules. Japan introduced solar energy in the 1970's during the oil shock. When solar system users renovate or reconstruct buildings, the old panels are scrapped or replaced with the latest models although they still work well. Most panels are generally guaranteed for 20 years. There are quantities of scrapped but still useful solar panels. We believe it is our social responsibility to recycle them, or find ways to reuse them. It is an untapped niche market in the

solar energy industry.

According to NEDO (New Energy and Industrial Development Organization), a research body funded by the Japanese government, the panels whose total power capacity is 5,000kW were discarded by 2010. NEDO estimates that panels representing 5,000 to 10,000kW will be thrown away per year from 2011 to 2015, 10,000 to 100,000kW per year from 2016 to 2020, 100,000 to 300,000kW per year from 2021 to 2025, and 300,000 to 1million kW (1GW) per year from 2026 to 2030.

So far we have received around 30,000 secondhand modules manufactured by different companies. Those modules are thoroughly examined one by one using a photovoltaic panel simulator and inspected for micro-cracks. (see photos below)



90% of the used modules aged 20 years or older are perfectly reusable, which means that they keep over 80% of the initial efficiency. Technically they will last 40 to 50 years. We attach our quality warranty to each reusable module and price it accordingly. For individual users, online purchase is available through our website. The price is unquestionably lower than new products.

This business has strengthened our competitive advantage. We enter in our database detailed information on each used module such as date of production, manufacturer, previous owner, quality data, and degradation status and so on. Our database is a great knowledge management tool for developing business activities. For instance, in 2009 we started a fabless module business; we design good quality and reasonably priced modules and have them manufactured in China.

VV: Last August the Japanese parliament passed a renewable energy bill that provides a guaranteed feed-in tariff (FIT).

Ito: We are going to take advantage of this considerable opportunity. The Renewable Energy Bill requires electric power companies to purchase power derived from renewable energy. The FIT rates for each different energy source will be implemented on July 1st, 2012.

It seems that electricity from nonresidential solar system is expected to receive a higher FIT rate than all other renewable energy sources. The current nonresidential solar system segment is less than 20% of the total solar energy market. Japan's solar system market is expected to grow to 1,300 billion JPY (approx. 17 billion USD) in 2020 from 677 billion JPY (approx. 8.8 billion USD) in 2010.

VV: What partners are you looking for?

Ito: We are eager to work with companies providing innovative technologies and products which add value to our system integration operations. Last month we met

with some companies in Germany to explore business opportunities. Japan's solar energy industry is a great investment in the future.

VV Comments after the interview:

Next Energy has set a goal of supplying solar systems generating 1 million kW (1 GW) by 2031, the equivalent to power capacity of a new nuclear reactor. In the current circumstance, specifically after the disastrous accident in Fukushima-Daiichi nuclear plant in Japan, Next Energy's vision is well considered and is becoming quite realistic.

Japan has targeted using 28GW from solar energy by 2020, almost six times the estimated annual solar power in 2011 (according to PV Magazine, 4.8GW will be the cumulative installed photovoltaic capacity by the end of 2011). Meanwhile, there is concern that the Renewal Energy Bill may hurt Japanese solar module makers more than it supports their growth due to manufacturing capacity and declining price. For their competitors from Asia, Europe and North America, Japan may become attractive market.

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