

Promoting Wind Power Business with Multifaceted Support System Ensures Future Continuity of Commitment to Local Community

Progress on wind power generation is happening at various locations around Japan in an effort to create a sustainable society. One place where such work is underway is in Akita Prefecture where the wind blows strongly all year round. The Kazenomatsubara Wind Power Station located at Noshiro City in the northwest of the prefecture currently operates 17 turbines. Hitachi Power Solutions has been involved with this wind farm since the initial business planning stage, providing total support encompassing surveying the surrounding area, building a relationship with the local community, finance, equipment maintenance, and the training of maintenance staff. We have supplied extensive experience and advanced technical capabilities to serve as a partner to work with the plant operator to ensure that their strong commitment to creating and sustaining local business is carried forward into the future.



Challenges

Solutions

1 To create a renewable energy business for the region that also receives buy-in from the community, with an environmental assessment undertaken to consider factors such as scenic value and nature.

Support for getting a business up and running that encompasses not only planning, engineering, procurement, and construction, but also works alongside local companies from the preparatory stages of getting buy-in from the community.

2 To utilize regional characteristics and local capital to establish a business that returns benefits to the community, with local companies playing a central role.

Putting in place the steps needed to create a wind farm business by and for the local community, including assistance with regulatory and financing arrangements.

3 A lack of the expertise and maintenance staff needed to perform electrical maintenance, work that requires advanced skills in areas such as wind turbines, power plants, and transmission lines.

Support for human resource development at the service center training facility, including a long-term service agreement that offers the confidence of full support.

Project Background

Harnessing the winds of Noshiro for new business! Community fund provides extra boost

Headquartered in Noshiro City, Akita Prefecture, OHMORI CORPORATION is a company with deep local roots now approaching its third quarter-century. Its motto is “love for our hometown and dedication to the community”. The company started planning for its wind power business in 2011 out of a desire to help create a sustainable society and foster local industry. Its choice of business partner at this time was Hitachi Power Solutions, a company that it had first dealt with in 2000 when contracted to build foundations for a wind farm construction project. Looking back over why they wanted to get into the wind power business and the deciding factors behind their choice of Hitachi Power Solutions, Senior Managing Director Mr. Hiromasa Ohmori who led the project said the following.

“The wind in Noshiro City is very strong. While we used to think of the wind as an irritation, after meeting Hitachi Power Solutions and talking to them about it, I saw the opportunity to use wind power to benefit the community by transforming this wind into clean energy. Our expertise lies in construction, however, and we lacked knowledge of power generation and electricity, not to mention the maintenance know-how needed to keep wind turbines running reliably. What we needed was a business partner that could offer all-round support. This led me to look favorably on Hitachi

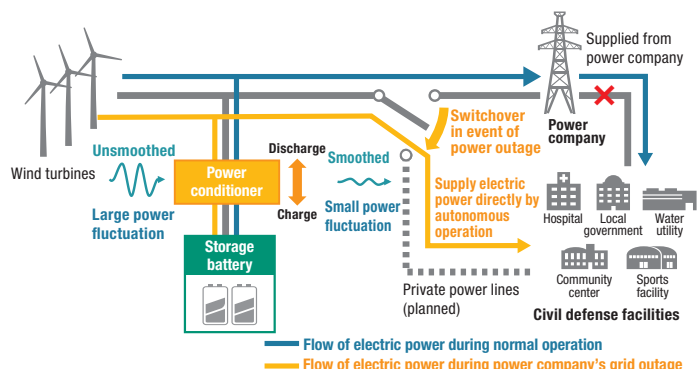
Power Solutions, which not only has technical capabilities built up over many years, but also provides attentive service, being available for consultation right from the early engineering and procurement phases of construction. They also shared our philosophy of local development and left me confident that they would be able to stick with us and keep the business operating over many decades.”

This was the beginning of a wind power business utilizing local wind and local capital that could give back to the community, which is to say, a practical realization of their ideal of “love for our hometown and dedication to the community”. One demonstration of this attitude is the community fund. As Mr. Ohmori commented, “When we established a fund limited to Noshiro City residents and asked for contributions, we received responses from many more people than expected, giving us a strong sense of people’s approval and faith in the wind turbines. Hearing people talk about how they can relate to the turbines and see them as their own made me appreciate how deeply rooted in the community they had become.” Being able to help the wind farm operator and community create a future together is a great delight to Hitachi Power Solutions and a source of motivation.



OHMORI CORPORATION
Senior Managing Director

Mr. Hiromasa Ohmori



Wind power generation system with emergency supply capability

Project Outcomes

Establishing human resource development with local industry as well as track record of reliable electricity sales

While maintenance of the turbines, power plant, transmission lines, and other infrastructure is vital to the reliable long-term operation of a wind power business, this work requires a high level of skill. Ms. Seika Onuma of the Engineering Promotion Department explains how the maintenance capabilities of Hitachi Power Solutions have helped keep the wind farm running reliably to date.

"We can feel confident about maintenance because our contract covers long-term service agreement. The installation of remote monitoring systems enables routine monitoring not only from our headquarters in Noshiro, but also from the branch office in Akita. Even if a problem does occur, the arrangements are in place to ensure it is dealt with promptly."



OHMORI CORPORATION
Assistant Manager,
Engineering Promotion Department

Ms. Seika Onuma

We had an incident when lightning struck a power line. Although it was very concerning, we were able to overcome the problem together thanks to the comprehensive maintenance program and guidance from Hitachi Power Solutions."

Meanwhile, the number of employees at the energy service division established by the company to handle maintenance when the wind power business was first launched has grown from three to more than ten.

As Mr. Ohmori said, "I want to train the staff who represent the future of the energy service division so that we will be able to continue taking on more wind power work. For example, we run a course in wind energy and offer field trips to the wind farm to get pupils from the local vocational high school and elsewhere interested in wind turbines and the wind power business, activities that lead to employment opportunities. We are also building up knowledge of wind turbine maintenance by regularly sending staff to Hitachi Power Solutions to jointly build up their experience."

The business has operated successfully not only by earning the trust of the community, but also through human resource development and the establishment of sound maintenance practices. Both the amount of electricity generated and the sales revenue earned have consistently exceeded budget since operation first commenced. Kazenomatsubara Wind Power Station is providing a favorable wind behind the future of Noshiro City and the global environment.

Future Plans

Use of storage batteries for emergency power and plans for geographically expansive wind power business

One technology that can expand the possibilities of wind power in the future is that of storage batteries. Having one of the largest lead-acid storage battery installations in Japan, Kazenomatsubara Wind Power Station has even received requests for visits from overseas.

Ms. Onuma expressed her desire to contribute to the community by explaining that, "The wind farm is equipped with systems that can operate autonomously, powered by the storage batteries and wind turbines even if the external power fails due to a disaster. For example, electricity can be provided to a disaster site free of charge provided transmission is available. It should be possible to establish the ability to continue supplying electricity as long as the wind in Noshiro keeps blowing. We hope to be of even more use to the community in the future by entering into an agreement with Noshiro City on disaster response." (See front page diagram of wind power generation system with emergency supply capability.)

OHMORI CORPORATION is also planning a further wind power development that will be approximately two-and-a-half times larger than Kazenomatsubara

Wind Power Station.

"The project will span Noshiro City and the neighboring town of Happo," explains Mr. Ohmori who is actively involved in coordinating the project. "Its capacity of 96,600kW compares to 39,100kW for Kazenomatsubara Wind Power Station. For those of us who were born and raised here, wind power represents a dynamic initiative for revitalizing the area. If this flows through to the local training of engineers and the passing on of the project to the next generation, it will go beyond being just a business and enter the realm of social development."

Recognizing this sentiment, Hitachi Power Solutions intends to continue supporting the business through a partnership of trust built on people and technology.



User's Profile



OHMORI CORPORATION

Noshiro City headquarters

48-1 Kitanishiyama Kawatogawa, Noshiro City,
Akita Prefecture, 016-0171 Japan
TEL: +81-185-54-3358

Established: October 1, 1946
Capital: 48 million yen

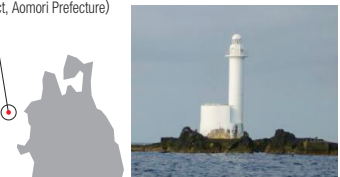
Business activities:

Civil engineering, turnkey construction projects, marine engineering, landscaping, slope construction, paving, and other construction-related work.
Also the sale of wind-generated electric power.

Established in 1946 as OHMORI-GUMI in Hachimori, Happo in the Yamamoto District of Akita Prefecture. Since then, the company has participated in a wide range of construction work to support and protect the community, including work on ports, river management, roads, and tunnels. The company boasts a leading record in Akita Prefecture and is highly regarded for being well-equipped and technically capable.

Kyuroku-jima lighthouse (Fukaura, Nishitsugaru District, Aomori Prefecture)

Construction by OHMORI CORPORATION began in 1958 in a harsh natural environment. The lighthouse successfully commenced operation in the following year. It symbolizes the foundations of OHMORI GROUP that has overcome difficulties to build up wisdom and experience.



Photograph courtesy of Japan Coast Guard website https://www.kaiho.mlit.go.jp/e/index_e.html

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