



Uetsu Main Line (Michikawa-Shimohama)  
JR Akita Shimohama Wind Power Station  
Generated power : approx. 2-MW  
(Started operation December 2016)

Regional Power Generation Facilities Leveraging Favorable Wind Conditions

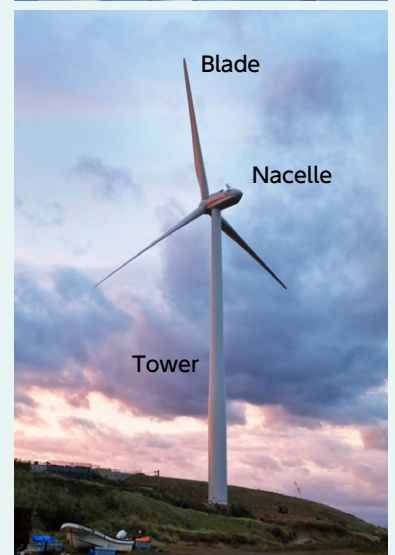
# JR Akita Shimohama Wind Power Station Begins Operation

JR East is aiming to create environmentally friendly energy and support regions through the introduction of renewable energy facilities. On December 1, 2016, our first-ever wind power generation facility, the JR Akita Shimohama Wind Power Station, began operation.

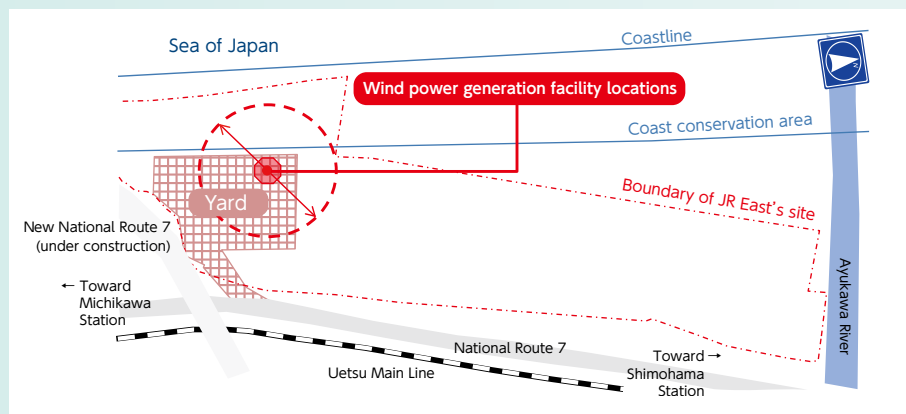
## ◎Overview of JR Akita Shimohama Wind Power Station

### Key Specifications

- Name JR Akita Shimohama Wind Power Station
- Location Uetsu Main Line between Michikawa and Shimohama (approx. 1.5 km south of Shimohama Station)
- Wind turbine type Hitachi HTW2.0-86
- Tower height 78[m]
- Blade diameter 86[m]
- Generator rated power 1,990[kW]
- Estimated annual output 5,800[MWh] (equivalent to the use by 1,600 standard households)

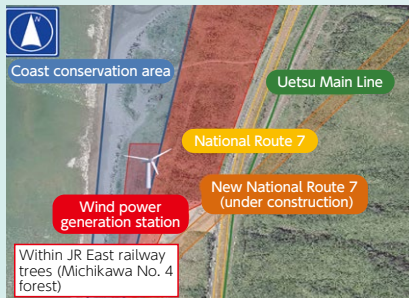


Photograph : Toru Nagao



## ◎JR East's first wind power project

Since there was no precedent for a wind power generation facility occupying the skies above the coast conservation area in Akita Prefecture, we worked together with the prefecture to develop the project. The prefectural government formulated a supplement to its operating guidelines relating to approval of wind power generation facility installation in the coast conservation area, which enabled us to construct the facility.



Map of the construction area

In order to build the wind power generation facility, extremely heavy items like the blades were transported using public roads, requiring us to complete various procedures under the Road Act. Furthermore, other procedures were required under the Electricity Business Act, Coast Act, Landscape Act, Radio Act, Civil Aeronautics Act, and others, so we had to spend considerable time on discussions with relevant organizations. However, the facility has now begun operation.



Transportation of blades, which required procedures under the Road Act

Ensuring safe operation of our first-ever large-scale wind power generation facility was our number-one priority. With this in mind, it was necessary to establish a maintenance approach suited to the facility. To achieve this, we formed a wind power generation facility management and operation research committee featuring external experts, then established a safety-oriented operating framework based on their recommendations.



The wind power generation facility management and operation research committee

## ◎Contributing to the region

We are involved in Akita City's Next-Generation Energy Park Plan and have made efforts to enhance Akita City residents' understanding of renewable energy by arranging tours of wind power generation facilities, creating promotional materials, and so forth.



Akita Next-Generation Energy Park pamphlet

### VOICE



#### Hiroshi Ariya

Executive Officer and General Manager, Daiichi Kensetsu Corporation Akita Branch Office (formerly JR East Akita General Affairs Division)

I mainly supervised discussions with relevant authorities such as Akita Prefecture and Akita City, local organizations, broadcast associations, and so forth. I am proud to have been involved in building JR East's first-ever wind power generation station and in establishing the required expertise and facility management skills, from planning through construction, which was highly rewarding work.



#### Kentaro Seo

Manager, Urawa Electrical Power Maintenance Center, Omiya Electrical Power Technology Center, Omiya Branch Office (formerly Renewable Energy Building Project, Tohoku Construction Office)

I mainly supervised design and construction of the power generation facilities. There were some difficult circumstances during the construction phase, such as a typhoon approaching during the busiest period of the work, so I'm left speechless by the sense of accomplishment I feel upon seeing the power generation facilities I design get completed with the Sea of Japan in the background.



#### Toshitaka Shimizu

Planning and Construction Group, Power Section, Facilities Div. Akita Branch Office

The aim of this power generation station is to reduce CO<sub>2</sub> as well as supporting the local region. Since it started operation, it has been visited by many people, both from inside and outside JR East. We hope to continue enhancing environmental awareness in future through initiatives such as creating educational materials that are easy to understand for the children who will lead the next generation.



#### Mitsugu Otsuki

Manager, Akita Service Center, Akita Branch Office, Total Electric Management Service Co., Ltd. (TEMS)

It is extremely rewarding to be involved in maintenance of the wind power generation station, which was a new experience for everyone at TEMS. The facility is located in a harsh environment, with severe snowstorms and lightning occurring often during winter, but we are steadily gaining more experience with the aim of ensuring proper maintenance.