

# 145 MW OF OFFSHORE WIND POWER FOR NORTHERN JAPAN

A contract for two offshore wind parks in Japan has been won by Marubeni Corporation. The site is off the coast of Akita Prefecture, in the northern part of Honshu, Japan's largest island. The 65 MW site is near the Akita port and will have 13 5 MW turbines. An 80 MW park will have 16 5 MW turbines, and will be located near Noshiro port. Both parks should be operating in 2021.



Image Credit: 103momo, Wiki Commons

Each of the ports is considered to be a major port for Japan. According to one **source**, a 1 MW turbine located offshore can power about 400 homes, when there is adequate wind. (Offshore winds tend to blow more consistently, so the number of homes an offshore turbine can provide power to typically is greater than the number of homes that can be powered by land turbines.) If the 1 MW per 400 homes estimate is an accurate figure, the Akita offshore wind farms will provide enough electricity for approximately 58,000 homes.

Obayashi Corp, Akita Bank, Eco Power Co, and Hokuto Bank will be collaborating with Marubeni.

It has been **estimated** that Japan has over 750 GW of wind power potential: 168 GW for onshore wind and over 600 GW for offshore. Less than one percent of Japan's energy is currently produced by wind power.

Some barriers to expanding wind power in Japan have been a fishing industry that has not wanted to share open ocean space with the wind industry. The waters off the coast of Japan tend to be deeper, so installing wind turbines has some technical challenges, and then there are **typhoons** and tsunamis which are threats to them.

For potential onshore wind farms, the proposed sites tend to be in **rural** areas where grid connections are generally not as strong, so transmitting electricity to metropolitan areas is harder.

Still, Japan has a strong technology and engineering culture, so some of these hurdles can be overcome.

Akita prefecture has about one million residents and is known for its natural beauty, including Japan's deepest lake. Many **tourists** visit this region every year.

Recently, it was reported that 42 MW of geothermal power will be developed in Akita Prefecture as well, so when the wind parks are operational, that will be an increase of 187 MW of renewable energy. **Solar** is also growing in Japan, so perhaps wind will begin to catch up fairly soon.

Source: <http://cleantechnica.com/2015/02/14/145-mw-offshore-wind-power-northern-japan/>