

Highlight 9

Providing CO₂-free transportation services



JR Akita Shimohama Wind Power Generation Station



Objectives

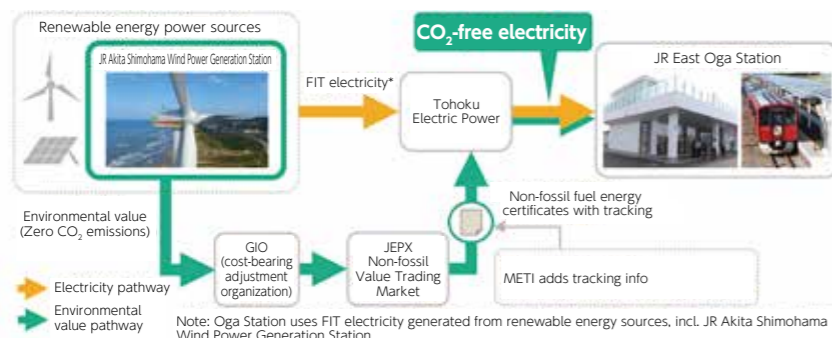
The JR East Group consumes 5.8 billion kWh of electricity each year, enough to power 1.6 million average homes. In response to the Paris Agreement—a new international framework for combatting global climate change and global warming from 2020 onward—we are taking action to reduce the energy needs of our business operations and thus contribute to the realization of a sustainable society.

Our efforts involve developing and utilizing renewable energy sources, particularly in the Tohoku region. Our goal is to reduce to zero the CO₂ emissions associated with our train operations in Tohoku.

CO₂-free power from JR Akita Shimohama Wind Power Generation Station

On July 1, 2019, we switched the power supply of Oga Station to CO₂-free electricity from JR Akita Shimohama Wind Power Generation Station. By utilizing the non-fossil fuel energy certificate*¹ system, which certifies the environmental value (i.e., absence of CO₂ emissions) of electricity generated from renewable energy, we have effectively reduced Oga Station's carbon footprint to zero.

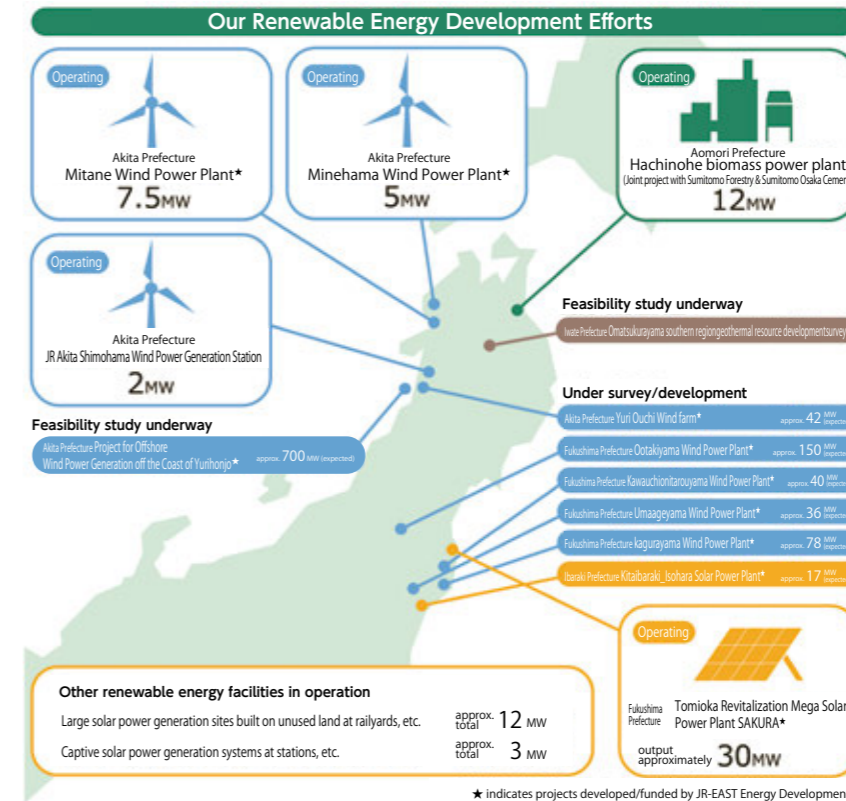
Specifically, Tohoku Electric Power Company, which buys the FIT electricity*² produced by JR Akita Shimohama Wind Power Generation Station, procures non-fossil fuel energy certificates that come with that power station's tracking information (information identifying the power plant from which the environmental value originated) and bundles them with the FIT electricity supplied to Oga Station. Because we purchase this electricity, the power used by Oga Station is deemed CO₂-free electricity from JR Akita Shimohama Wind Power Generation Station.



*1 Non-fossil fuel energy certificate: An instrument that determines and documents the environmental value of electricity derived from renewable energy or another non-CO₂-emitting energy source. Electricity bundled with these certificates can be treated as electricity generated without any CO₂ emissions. The customary approach is to use certificates with tracking information; these certificates include tracking information on the type of power source, the power plant's location, and so forth in order to identify the power plant that provided the environmental value.
 *2 FIT electricity: Electricity generated from renewable energy covered by the Feed-in Tariff Scheme for Renewable Energy (FIT). Without a non-fossil fuel energy certificate, FIT electricity is treated the same as electricity from CO₂-emitting sources, such as thermal power plants.

Making Tohoku area train operations CO₂-free

We are proactively developing renewable energy sources—wind, solar, and geothermal—for our electricity needs in mainly Tohoku, particularly through wind power generation projects led by JR-EAST Energy Development Co., Ltd. By supplying our trains with CO₂-free electricity backed by non-fossil fuel energy certificates that attest to the renewable energy sources we developed, we will provide our customers with eco-friendly sustainable CO₂-free transportation services. Through these efforts we will strive to reduce to zero the CO₂ emissions associated with our train operations in Tohoku.



VOICE

Expanding the deployment of renewable energy



Manager, JR-EAST Energy Development Co., Ltd.

Our company develops power sources and operates power plants, with a focus on expanding the use of renewable energy and revitalizing local communities. We plan to begin operating a large-scale wind power plant in Fukushima Prefecture in 2023. We hope to make it a symbol of Fukushima's post-disaster recovery. We are also conducting studies for establishing offshore wind power generation. In this and other ways, we seek to deploy renewable energy sources that can contribute to the further growth of the JR East Group.

Achieving CO₂-free power



Renewable Energy Promotion Project, Electrical & Signal Network System Dept., East Japan Railway Company

Most of the large-scale renewable energy power stations that we have established are connected to the nationwide power grid so that the electricity they produce can be transmitted to power companies. In exploring how we could use this system to supply our railways with environmentally friendly electricity, we came up with an arrangement that, with the support of a power company, enabled us to achieve a CO₂-free power supply. This arrangement uses non-fossil fuel energy certificates, a new mechanism created as part of Japan's electrical power reforms. Going forward, we will continue to seize new trends and changes in our world as opportunities to introduce environmentally friendly technologies and systems that help to realize a sustainable society.

See page p.99-103 for a related article