

TOKYO STEPS UP EXPANSION OF RENEWABLE ENERGY USAGE



Toward the 2020 Tokyo Olympic Games, Tokyo Metropolitan Government's (TMG) proposes its basic philosophy as "Tokyo 2020: Giving priority to the Environment". The TMG is working on specific environmental measures in preparation for the Olympics. In this article, we will report the TMG's efforts to expand the use of renewable energy.

In the Tokyo Metropolitan Environmental Master Plan issued in 2008, the TMG mentioned its goal to increase the rate of renewable energy in Tokyo's total energy consumption to around 20 percent by 2020. In this context, Tokyo has been actively working to expand the use of renewable energy, mainly solar energy.

Specifically, the introduction of photovoltaic (PV) power generation has been significantly expanding in Tokyo, partly due to subsidy systems for the purchase of solar panels, which had been implemented for four years beginning in fiscal 2009. Furthermore, as Tokyo still has much potential for the introduction of PV power generation, TMG has revealed the Tokyo Solar Potential Map, the first map of its kind in Japan, to inform building owners of the solar power potential of each building. It has also set up a scheme that enables citizens to receive a low-interest "solar loan" from designated financial institutions so that they can install solar panels at a low initial cost.

The TMG has also started efforts to expand the use of solar heat, which has not been actively used when compared with PV power, by implementing a subsidiary project for housing supply enterprises, and by conducting a "heat by heat" campaign to raise citizen interest and understanding. Through this campaign, the TMG has encouraged the use of heat from renewable energy, such as solar heat and geothermal heat, for relatively low-temperature heating for hot-water supply, heaters, etc.

Of Tokyo's total electricity consumption in fiscal 2012, electric power from renewables--which includes those produced in other regions and purchased through "green power certificates"--accounted for about six percent.

If the TMG does not take any measures to expand the use of renewable energy, it will attain the 20 percent target in 2033, according to a projection of the rate of renewable energy use in Tokyo among the nationwide increase in renewables based on the national model.

The TMG considered that it would need to increase efforts to attain the 20 percent target earlier by increasing both the supply and demand of renewable energy, and thus established an exploratory committee to expand the use of renewable energy in Tokyo on June 3, 2014. As part of this committee, private enterprises and academic experts consider concrete measures to expand the use of renewable energy both in and out of Tokyo, as well as multilateral approaches for the promotion of developing new technologies, such as the use of algae. The results will be reflected in Tokyo's Long-Term Vision, which will be issued at the end of 2014.



In the regular press conference on May 23, 2014, Tokyo Governor Yoichi Masuzoe announced the establishment of the committee, and also called for intensified efforts to expand the use of renewable energy toward the 2020 Tokyo Olympic Games, citing the Morigasaki Water Reclamation Center, a large sewage treatment center located in Ota Ward under the jurisdiction of TMG's Waterworks Bureau, as an example.

This center annually produces 20 million kilowatt-hours (kWh) of electricity by using methane gas generated during the process of sewage treatment, 800,000 kWh from a micro-hydroelectric generation that uses falling treated sewage, and one million kWh from PV power generation. Overall, the center covers 21.8 percent of the electricity used for business purposes with sewage and sunlight.

Masuzoe says, "Efforts like what the Morigasaki Water Reclamation is doing should be made throughout Tokyo. Whether there are nuclear power plants or not, we need to make such efforts. We will take such drastic measures before the Tokyo Olympics." We have great hopes for the future expansion of renewable energy use in Tokyo.

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