

J-POWER Conducts Japan's First Co-Firing Test Using the Energy Crop "Erianthus" at Its Thermal Power Plant

A New Initiative Toward Carbon Neutrality Using Domestically Grown Biomass Fuel

Electric Power Development Co., Ltd. ("J-POWER," Headquarters in Chuo-ku, Tokyo; President and CEO: Hitoshi Kanno) has conducted a co-firing test using Erianthus (a herbaceous energy crop¹ cultivated on idle farmland) at one of J-POWER's thermal power plants. This marks the first attempt in Japan² to use Erianthus in the co-firing of an existing thermal facility.

1. Herbaceous energy crops are plants with soft, grass-like stems. They are used as biomass fuel for power generation. They are characterized by rapid growth, short harvesting cycles, and the ability to be cultivated under a wide range of land conditions.
2. Compiled by J-POWER, based on publicly available information.

As part of its efforts to achieve carbon neutrality, J-POWER is engaged in the utilization and development of biomass fuels. This includes trial cultivation of Erianthus on idle farmland in Nagomi Town, Kumamoto Prefecture, as well as research on fuel production at the J-POWER Wakamatsu Research Institute (Kitakyushu City, Fukuoka Prefecture).

Erianthus is a perennial grass crop that is drought-resistant, requires minimal fertilizer and labor to cultivate, and has a high yield of approximately 30 tons per hectare per year—roughly twice that of woody biomass. It is suitable for cultivation in regions south of the Kanto area. In Japan, the National Agriculture and Food Research Organization (NARO)³ began screening and trial cultivation of various energy crops in 2006, and Erianthus was ultimately selected as one of the candidate crops.

3. NARO: National Agriculture and Food Research Organization, with the Kyushu-Okinawa Agricultural Research Center located in Koshi City, Kumamoto Prefecture.

This research project examines the entire biomass fuel supply chain—from cultivation and harvesting to transportation and utilization. As part of this initiative, a co-firing test was conducted at a J-POWER thermal power plant using pelletized Erianthus blended with coal.

Based on the results of this test, J-POWER will continue its research toward the practical application of Erianthus as a biomass fuel.

To realize carbon neutrality as set forth in the "[J-POWER BLUE MISSION 2050](#)," the J-POWER Group will continue its efforts to reduce the carbon intensity of thermal power generation.

(1) Erianthus under cultivation



(2) Erianthus chips



(3) Erianthus pellets



(4) Map of the Erianthus cultivation site

