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Press Release

Electric Power Development Co., Ltd.

Water Turbine Runner Replacement Increases Output of Okutadami Power Station Unit 3

Further Increase in Capacity at Japan's Largest General Hydroelectric Power Station

Electric Power Development Co., Ltd. (J-POWER, headquartered in Chuo-ku, Tokyo; President and CEO: Hitoshi Kanno) has replaced the water turbine runner of Unit 3 at the Okutadami Power Station (Hinoemata-mura, Minamiaizu-gun, Fukushima Prefecture).

This upgrade increased generator output by 6,000 kW from 120,000 kW to 126,000 kW, bringing the power station's maximum capacity to 566,000 kW* (Units 1 and 2: 120,000 kW each, Unit 3: 126,000 kW, Unit 4: 200,000 kW).

* The largest output of any general hydroelectric power station in Japan

At Unit 3 of the Okutadami Power Station, J-POWER used computer-based technology to create a three-dimensional simulation of the water flow inside the turbine to develop a turbine runner with an optimized blade shape. The resulting improvement in energy conversion efficiency of the water turbine generator enabled the 6,000 kW increase in generator output without altering the permitted water usage conditions (turbine head and maximum flow rate). J-POWER will continue to upgrade turbine runners, generators and other equipment at other units and hydroelectric power stations in order to raise power generation efficiency and increase hydropower energy output.

J-POWER will continue to promote ongoing innovation and technological development to enhance power generation efficiency, while conducting new construction at undeveloped sites, comprehensive renovation of aging core facilities and other activities as it works to expand renewable energy and achieve carbon neutrality as stated in [J-POWER BLUE MISSION 2050](#).



Okutadami Dam



Installation of water turbine runner

1. Overview of Okutadami Power Station (After Unit 3 Water Turbine Runner Replacement)

Location	Hinoemata-mura, Minamiaizu-gun, Fukushima Prefecture
Capacity	566,000 kW
Maximum water consumption	387.0 m ³ /s (total of units 1 through 4)
Dam	Okutadami Dam (crest length: 480 m, height: 157 m)
Start of operation	December 1960 (Unit 4 added in June 2003)

2. Map

