

## Sameura Hydroelectric Power Station Increases Output Boost Achieved Through Upgrades to Turbine and Main Transformer

Electric Power Development Co., Ltd. (J-POWER, headquartered in Chuo-ku, Tokyo; President and CEO: Hitoshi Kanno) has increased the maximum output of the Sameura Hydroelectric Power Station (Motoyama Town, Nagaoka District, Kochi Prefecture) from 42,000 kW to 43,200 kW through upgrades to the station's water turbine and main transformer.

As part of this project, J-POWER introduced a new turbine runner with an optimized blade shape, developed using computer-based technology that simulates the three-dimensional flow of water inside the turbine. The capacity of the main transformer was also increased from 44,000 kVA to 46,000 kVA. As a result, the energy conversion efficiency of the water turbine generator has been improved, enabling a 1,200 kW increase in generating output without altering the permitted water usage conditions, including turbine head and maximum water intake.

J-POWER will continue to enhance power generation efficiency through ongoing innovation and technological development, while promoting new construction at undeveloped sites and comprehensive renovation of aging core facilities. Through these efforts, the J-POWER Group is working to expand its renewable energy business and achieve carbon neutrality, as stated in [J-POWER "BLUE MISSION 2050"](#).



Sameura Hydroelectric Power Station (exterior view)



Installation of water turbine runner

### 1. Overview of Sameura Hydroelectric Power Station

Location	Motoyama Town, Nagaoka District, Kochi Prefecture
Capacity	42,000 kW → 43,200 kW
Maximum water intake	65 m <sup>3</sup> /s
Dam	Sameura Dam (crest length: 400 m; height: 106 m; total storage capacity: 316 million m <sup>3</sup> )
Dam operator	Japan Water Agency
Start of operation	February 1972

### 2. Map

