Wholesale Electric Power Business Hydroelectric Power

Share of Hydroelectric Power Generation Capacity in Japan

(As of March 31, 2011)



Source: Reports issued by the Agency for Natural Resources and Energy

Average Generation Capacity



Source: Reports issued by the Agency for Natural Resources and Energy

Performance Highlights

In fiscal 2010, the water supply rate increased to 106% from the previous year's 96%. As a result, electricity sales volume rose 11% year on year, to 10.2 billion kWh. However, operating revenues declined 1% year on year, to ¥108.9 billion, primarily owing to rate revisions that took effect from September 2009.

For fiscal 2011, we are projecting a 7% year-on-year decline in electricity sales volume, to 9.5 billion kWh, based on an average water supply rate of 100%, as in normal years.

Overview of Operations

Currently, J-POWER owns and operates 59 hydroelectric power plants throughout Japan. Their total capacity of 8,570 MW represents 20% of Japan's total hydroelectric power capacity, making J-POWER Japan's second-ranked company. The Company focuses on large-scale, conventional hydroelectric power plants—those built at water systems endowed with an abundant volume of water—as well as on pumped-storage hydroelectric power plants, a salient feature of which is their high capacity. These facilities are capable of responding rapidly to power demand fluctuations. They are thus utilized as an energy source with superior output adjustment functions that have the peak demand capacity to meet the intra-day and intra-seasonal supply-demand balancing requirements of Japan's power grid.

Most of the rates for conventional-type facilities and 100% of the rates for facilities of the pumped-storage type are fixed rates. J-POWER sells hydroelectric power to EPCOs under the terms of supply contracts based on costs calculated by the plant or water system, for each type of plant, securing the income needed for business operations and recovering investment capital. (For more details please refer to Rate Structure for Domestic Wholesale Electric Power Business on page 35.)

Outlook

In spite of the limited number of sites suitable for their development in Japan at the present time, J-POWER possesses several large-scale hydroelectric power stations that were developed in a bid to solve postwar power shortages. Hydroelectric power represents a valuable national asset that utilizes Japan's water resources and a source of renewable energy. Operating hydroelectric power stations for many years after they come online, J-POWER engages in activities to improve their efficiency and reliability and endeavors to effectively utilize and stably supply hydroelectric power by upgrading key facilities to the latest standards.



Okukiyotsu Power Plant (Niigata Prefecture)



Sakuma Power Plant (Shizuoka Prefecture)

J-POWER's Major Hydroelectric Power Plants in Japan (As of March 31, 2011)

Power Plants	Beginning of Operation	Location	Maximum Capacity (kW)	Туре
Shimogo	1988	Fukushima Prefecture	1,000,000	Dam conduit type, genuine pumped storage
Okutadami	1960	Fukushima Prefecture	560,000	Dam conduit type
Otori	1963	Fukushima Prefecture	182,000	Dam type
Tagokura	1959	Fukushima Prefecture	395,000	Dam type
Tadami	1989	Fukushima Prefecture	65,000	Dam type
Taki	1961	Fukushima Prefecture	92,000	Dam type
Kuromatagawa No. 1	1958	Niigata Prefecture	61,500	Dam conduit type
Okukiyotsu	1978	Niigata Prefecture	1,000,000	Dam conduit type, genuine pumped storage
Okukiyotsu No. 2	1996	Niigata Prefecture	600,000	Dam conduit type, genuine pumped storage
Numappara	1973	Tochigi Prefecture	675,000	Dam conduit type, genuine pumped storage
Misakubo	1969	Shizuoka Prefecture	50,000	Dam conduit type
Shintoyone	1972	Aichi Prefecture	1,125,000	Dam conduit type, genuine pumped storage
Sakuma	1956	Shizuoka Prefecture	350,000	Dam conduit type
Miboro	1961	Gifu Prefecture	215,000	Dam conduit type
Miboro No. 2	1963	Gifu Prefecture	59,200	Dam conduit type
Nagano	1968	Fukui Prefecture	220,000	Dam type, mixed pumped storage
Yugami	1968	Fukui Prefecture	54,000	Dam conduit type
Tedorigawa No. 1	1979	Ishikawa Prefecture	250,000	Dam conduit type
Totsugawa No. 1	1960	Nara Prefecture	75,000	Dam conduit type
Totsugawa No. 2	1962	Wakayama Prefecture	58,000	Dam conduit type
Ikehara	1964	Nara Prefecture	350,000	Dam type, mixed pumped storage
Nanairo	1965	Wakayama Prefecture	82,000	Dam conduit type
Futamata	1963	Kochi Prefecture	72,100	Dam conduit type
Sendaigawa No. 1	1965	Kagoshima Prefecture	120,000	Dam type

Note: Includes power plants with maximum output of 50,000 kW or more