Our Commitment

02 Striving for environment- and earth-friendly business management

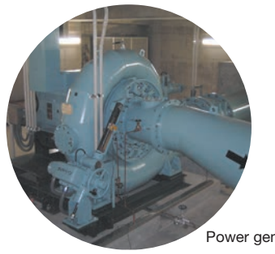
Environmental activities

Promoting various initiatives to maintain environment-friendly water development and protect nature

Solar power generation panels

Solar power generation

Osaka City introduced a solar power generation system with an output capacity of 150 kW in 1998 and a system with an output capacity of 250 kW in 2010 at the Kunijima Purification Plant, with the aim of contributing to the conservation of the global environment and promoting technology innovation, as well as to secure a power source for emergency water supply activity. The generated electricity is used for water purification treatment, part of which is stored in batteries so as to be available for the operation of emergency water supply pumps in the event of a long-time power failure due to a large-scale disaster. In fiscal 2015 and 2016, the solar power generation systems, with a total output capacity of 35 kW, were introduced at four waterworks centers in the city. The yearly output capacity of solar power generation by the Osaka Municipal Water Works Bureau is approximately 490,000 kW per hour (as of fiscal 2016), which is equivalent to the amount of power consumed by 108 general households.



Power generation facility

Hydroelectric power generation

Osaka City introduced at the Nagai Distribution Plant a hydroelectric power generation system of an output capacity of 253 kW that utilizes the pressure of water flowing into the service reservoir in fiscal 2004 to make effective use of unused energy. The total yearly output is approximately 1,870,000 kW per hour (as of fiscal 2016), which is equivalent to the amount of power consumed by 405 general households. The generated power is used partly for the operation of distribution pumps, helping to reduce consumption of commercial power. In fiscal 2013, the Izuo Water Plant introduced a hydroelectric power generation system with an output capacity of 110 kW. The total yearly output is approximately 560,000 kW per hour (as of fiscal 2016), which is equivalent to the amount of power consumed by 122 general households. The electricity generated at the Izuo Distribution Plant is all sold.

Sludge facility

Sludge reuse

Sediment generated in the purification process is recycled for use for backfill soil. The Bureau is also working with the private sector to promote new initiatives.

Kunijima Purification Plant Administration Building

The Kunijima Purification Plant Administration Building is designed to be environmentally friendly and features rooftop gardening, cooling with cool tubes, and energy conservation by cooling heat pumps with water spraying. The surrounding roads are paved with water retaining material.

Environmental accounting

The Bureau identifies and assesses in monetary or material terms the costs and effects of its environmental preservation initiatives. The results have been published since 2003 to promote customers' greater understanding of the Bureau's environmental conservation activities.

Industrial water supply system

The over-pumping of underground water for industrial use was a major cause of land subsidence in the western part of Osaka City around the 1930s. The municipal government therefore launched a program of constructing new industrial waterworks to replace the pumping of underground water to prevent further land subsidence. With the completion of the industrial waterworks system, the pumping of underground water was made illegal in December 1968, which almost successfully prevented further land subsidence. The industrial waterworks system has been continuously playing an important role in supporting industrial activities to this day.

Collapsed road due to land subsidence