Eco-friendly water supply and use of natural energy

Small-scale Hydropower Generation System

Features

- Generates electricity from the power of water that runs and falls naturally, thus not generating CO_2 that may cause global warming.
- Reduces 201 tons CO_2 annually.

Overview (Technical principles, actions, etc.)

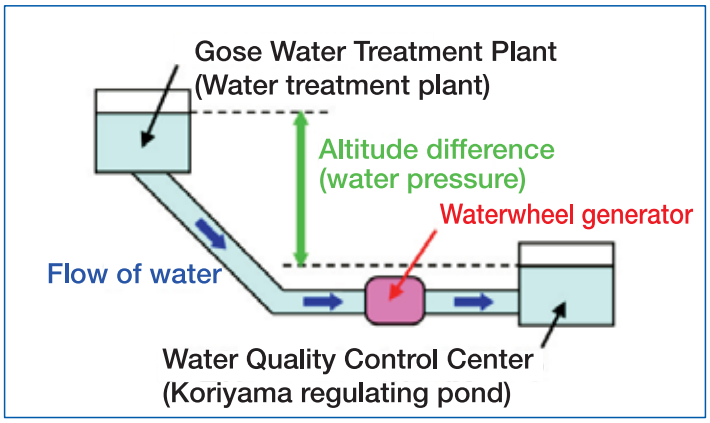
1. Tap Water and Global Warming

Water supply is a service that involves a high environmental load, because the service uses a large quantity of electric energy for the purification and transmission of water. Therefore, the introduction of new energy and energy-saving measures are important action assignments of the service.
Furthermore, the prevention of global warming and the maintenance of a good natural environment that produces clean water are indispensable to the stable supply of safe and good tap water at low cost.

2. Introduction of Small-scale Hydropower Generation System

Nara Prefecture established the motto "Stop Global Warming" in March 2001, and has been making arrangements to suppress the emission of greenhouse gas.
Based on this motto, the Nara Prefectural Waterworks Bureau established an environmental countermeasure support project, and introduced a small-scale hydropower generation system into the Water Quality Control Center in April 1997. The small-scale hydropower generation system converts the power of water that runs and falls naturally into electric power, thus not generating CO_2 that may cause global warming.
This system is regarded as a good example of the local introduction of new energy, and has been designated as one of the 100 selections of new energy applications by the New Energy and Industrial Technology Development Organization (NEDO) and the Ministry of Economy, Trade and Industry.

Small-scale hydropower generation system (Hydropower generator)



Small-scale hydropower generation system

Introductory Track Record and Effects

Power supply to the Water Quality Control Center from the small-scale hydropower generation system.

Reduces approximately 670,000 kWh a year = Covers the power consumption of 181 general households and approximately 15% of the power consumption of the Water Quality Control Center.

CO_2 emissions suppressed by the small-scale hydropower generation system

Reduces approximately 201 tons of CO_2 a year, equivalent to a reduction of 162 kiloliters of oil (810 drums of oils) = As effective as the CO_2 absorption of a forest with an area of 80 hectares.

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