

## 5 Countermeasures for improving revenue earning water ratio

We have been promoting the following activities for purposes of making effective use of water resources and reducing expenses as the countermeasures for improving the revenue earning water ratio.

Changes of revenue earning water ratio (Unit: %)

FY	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Plan	88.2	88.3	88.2	88.4	88.6	90.2	90.5	90.8	91.1	91.4	91.7
Actual	87.3	86.6	87.6	88.0	89.2	90.4	90.0	90.4	90.6	90.2	-

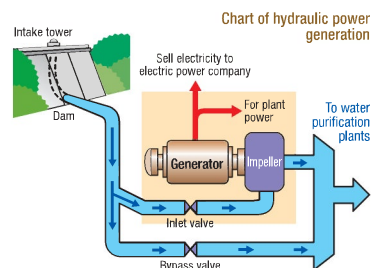
- (1) Early detection and immediate repair by leakage survey.
- (2) Replacement and renewal of old pipes.
- (3) Appropriate water pressure management by use of distribution blocks and pressure reducing valves.
- (4) Efficient leakage survey by the analysis of data from distribution management system.

## 6 Created clean energy by hydraulic power and solar power

To effectively utilize clean hydraulic energy produced from water supply facilities, hydraulic power plants have been operating, making use of water intake drop of dams.

The surplus electricity generated in Masubuchi and Aburagi hydraulic power plants and in Maruyama small hydraulic power plant has been sold to an electric power company, while all the electricity generated in Tonda and Ano hydraulic power plants has been consumed within Honjo and Ano water purification plants.

In addition, photovoltaic power plants to make use of solar energy were constructed to promote effective use of new clean energy.



Ainoshima Solar Power Plant



Murasaki River Solar Power Plant

Hydraulic power generator

Item	Masubuchi Power Plant	Aburagi Power Plant	Tonda Power Plant	Ano Power Plant	Maruyama small hydraulic power plant
Max. output [kW]	520	780	68	340	9
Yearly available power [kWh]	2,140,000	3,350,000	360,000	1,320,000	6,000
Start of operation	Apr. 1994	Apr. 1996	Apr. 1998	Apr. 2007	Aug. 2014

Solar power generation plant

Item	Ainoshima Solar Power Plant	Murasaki River Solar Power Plant	Solar power plant in Okura, Komine, Hinomine and Futajima	Solar power plant in Sasao and Horigoshi	Solar power plant in Maruyama and Einomaru	Solar power plant in Sarayama and Kogumano	No.2 solar power plant in YamanoKami	No.2 solar power plant in Hata
Max. output [kW]	12.7	150	9.5	9.7	9.5	20.3	21	31.5
Yearly available power [kWh]	14,000	168,000	9,000	9,000	9,000	20,000	20,000	29,000
Start of operation	Oct. 1998	Apr. 1999	Feb. 2010	Feb. 2011	Mar. 2012	Oct. 2013	Sept. 2014	Sept. 2014

## 7 Financial conditions

### 1. Outline of water utility finances

In FY2018, we made efforts in maintaining and strengthening of infrastructure and promotion of new cooperation among areas as well as building-up of sound and stable business management by steady implementation of projects based on the "Medium-Term Management for Water Utility and Sewer System", which was drawn up in April 2016.

With regard to the projects, we have especially focused on "crisis-management measures in case of disaster, etc.," "life elongation and renewal of aged water pipes," "supplying safe, secure, and tasty water," "reduction of environmental burden," water and sewage services contributing to both inside and outside Japan."

Additionally, we have promoted the new regional collaboration and began operation and maintenance of water facilities in Munakata region, and pricing in the area, based on the newly signed comprehensive subcontracting agreement of water utility with the region.

In the financial aspects, the fund balance on a single-year basis was 240.65 million yen in minus. Also, a fund surplus of 8,026.70 million yen including a reserve fund for improvement of construction was secured on a cumulative basis, which shows that a stable business operation is being continued.

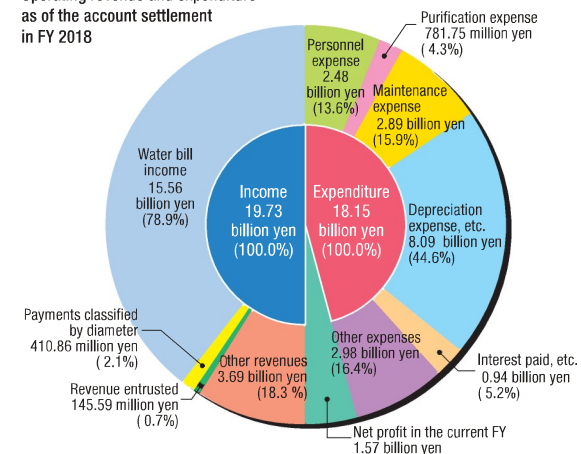
### 2. Account settlement in FY 2018 (including tax)

#### (1) Operating revenue and expenditure

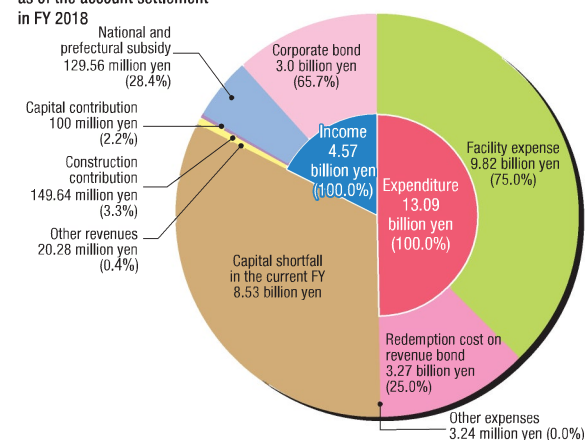
Revenues consisted of operating revenue of 17,147.19 million yen (including a water bill income of 15,561.99 million yen), a non-operating revenue of 2,573.30 million yen and an extraordinary profit of 7.30 million yen, totaling 19,727.79 million yen.

On the other hand, expenditures consisted of an operating expense of 15,786.30 million yen, a non-operating expense of 2,311.06 million yen and an extraordinary loss of 57.50 million yen, totaling 18,154.86 million yen. All in all, a profit of 1,572.93 million yen was gained in FY2018.

Operating revenue and expenditure as of the account settlement in FY 2018



Capital revenue and expenditure as of the account settlement in FY 2018



#### (2) Capital revenue and expenditure

A corporate bond of 3.00 billion yen, a national and prefectural subsidy of 1,295.61 million yen, a contribution to capital of 100 million yen, etc. were recorded as revenue, which resulted in 4,565.53 million yen in total. On the other hand, regarding expenditures, a facility expense of 9,822.27 million yen, a redemption cost on a revenue bond of 3,267.48 million yen, etc. were recorded, which amounted to 13,092.99 million yen in total. Consequently, a capital shortfall of 8,527.46 million yen was recorded as the balance of revenue and expenditure.

#### (3) Fund balance

As a result of compensation of the capital shortfall 8,527.46 million yen by the reserved fund of profit and loss account, etc., the single-year fund balance became 240.65 million yen in minus, and the cumulative fund surplus in FY2018 counted 6,036.55 million yen.