

ENERGY EFFICIENCY BENCHMARKING WASTE WATER TREATMENT PLANTS AND SUB-METERING GUIDANCE

Project outcomes contribute to the following UN Sustainable Development Goals:



For more information about the water industry's contribution to the UN SDGs see [Global Goals for Local Communities: Urban water advancing the UN Sustainable Development Goals](#)

Background

Electricity is often one of the top three operational costs for a water utility. The energy consumed at WWTPs typically accounts for at least half of the total used to deliver all water and wastewater services. Opportunities for reducing electricity input exist for some WWTPs through efficiencies within the treatment processes or alternative treatment processes. Reducing energy use will lead to reduced costs with flow on benefits to customers as well as reduced greenhouse gas emissions. Benchmarking is the process of comparing business performance metrics (specific indicators) against industry best practice.

The project also:

- provided each utility with a site by site analysis of the performance of their WWTP plant types against best practice target and guide values,
- provided a means for utilities to track their WWTP energy performance over time, and
- included a Sub-metering Guidance and Standards Paper.

Outcomes and Benefits

The outcomes of the project include:

- an industry standard data collection template tailored to meet future needs,
- industry guidelines for sub-metering to assist industry to compare plant processes using a consistent framework,



- case studies of the top performing WWTPs, and
- guidance that has the potential to provide insights into underlying causes of energy use, efficiencies and opportunities for efficiency improvement and/or energy saving.

Availability

This project was completed in November 2017. It was funded by the following utilities:

Barwon Water
Cairns Regional Council
Central Highlands Water
City West Water
Coliban Water
East Gippsland
Gippsland Water
Gold Coast City Council
Goulburn Valley Water
GWMWater

Hunter Water
Icon Water
Logan City Council
Lower Murray Water
Melbourne Water
MidCoast City Council
North East Water
Queensland Urban Utilities
SA Water
South East Water

South Gippsland Water
Sydney Water
Taswater
Townsville City Council
Unitywater
Wannon Water
Water Corporation
Watercare NZ
Western Water

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