

2.4 Water

Water Efficiency Management Program

EGAT implements a range of measures to reduce water consumption across its power generation operations under a circular economy framework, with a focus on reduction, reuse, and recycling of water resources. The Phra Nakhon South Power Plant implements measures to reduce water consumption through a structured water management approach. Key actions include the application of the SBP Water Balance and Water Management Model to monitor water use, reduction of water losses in the distribution system (from 9,399 to 5,331 m³/month), and optimization of demineralized (Demin) water usage (from 300 to 200 m³/day). In addition, energy consumption associated with water production is reduced by minimizing process losses. These actions are supported by KPIs tracking water reduction against baseline, as well as reductions in tap water, Demin water, and related energy use.

EGAT conducts water use assessments to identify opportunities for improving water efficiency across its operations. As part of this process, baseline analyses were performed to evaluate key water streams, including boiler blowdown, reverse osmosis (RO) reject, and treated wastewater from holding ponds. These assessments identified inefficiencies in the management of water resources and highlighted opportunities for reuse and reduction.

EGAT conducts forward-looking assessments of future water availability to support power generation planning under climate variability and drought conditions, including evaluation of water quantities under extreme scenarios such as Super El Niño, integration of reservoir inflow forecasts, historical hydrological data, and seasonal outlooks to estimate usable water, and

Sustainability Performance Information

continuous monitoring of reservoir storage and inflows; these assessments are further supported by real-time monitoring and forecasting tools through EGAT's Water Intelligence System (<https://water.egat.co.th/>), which provides dam-level water quantity forecasts and trend analysis, and are used to inform drought preparedness plans, power plant operational adjustments, and water management strategies as documented in internal plans and contingency frameworks.

In addition, EGAT has developed a water balance framework and an in-house water management model to systematically monitor water consumption and support data-driven decision-making. These tools integrate operational data from multiple processes to enhance visibility of water flows and enable the identification of potential efficiency improvement measures.

EGAT has promoted employee awareness of water efficiency and circular economy practices through internal knowledge-sharing activities and communication initiatives. These efforts support the integration of water management practices into daily operations.

Performance – Water Consumption

Water	Unit	FY2022	FY2023	FY2024	FY2025
A. Water withdrawal (excluding saltwater)	Million cubic meters	107.56	124.60	140.32	144.18
B. Water discharge (excluding saltwater)	Million cubic meters	43.10	55.63	73.93	63.31

Sustainability Performance Information

Total net freshwater consumption	Million cubic meters	64.46	68.97	66.39	80.87
----------------------------------	----------------------	-------	-------	-------	-------

Water consumption in areas with water stress (e.g. <1700 m ³ /(person*year))	Unit	FY2022	FY2023	FY2024	FY2025
Total net freshwater consumption in water-stressed areas (Total water withdrawals – Total water discharges)	Million cubic meters	43.17	66.74	63.55	92.00

Production plants	Number
Number of production plants in last financial year in water-stressed areas (e.g. <1700 m ³ /(person*year))	13
Total number of production plants in last financial year	24
Percentage of production plants in the last financial year in water-stressed areas (e.g. <1700 m ³ /(person*year))	54.17