GPSC

Water Efficiency Management Programs 2024

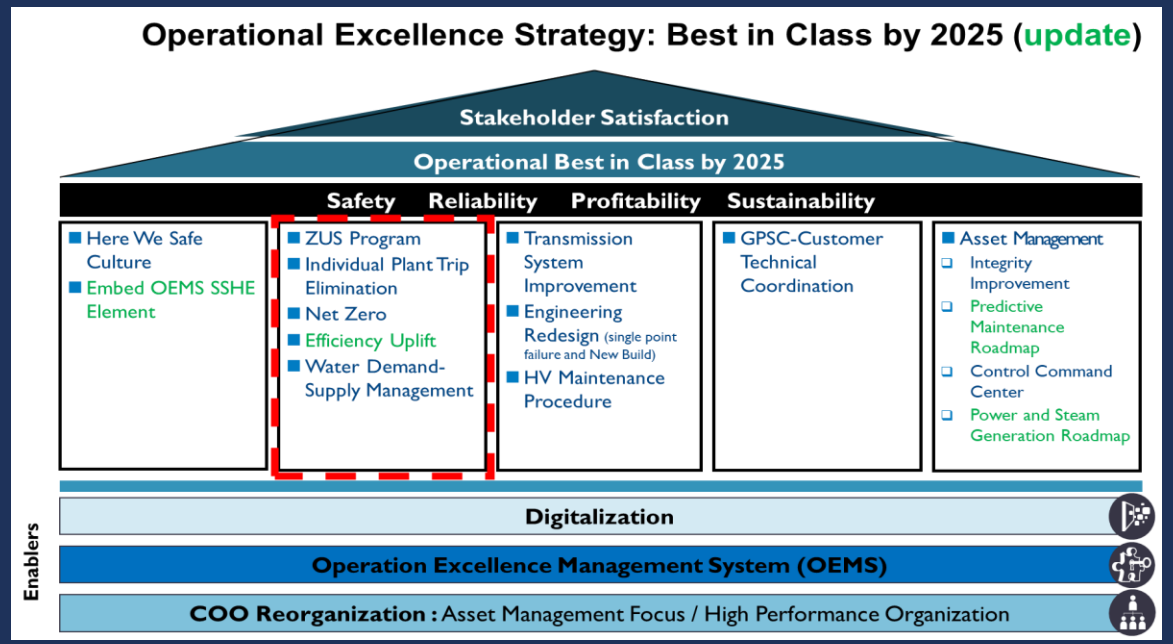
Content: GPSC Water Efficiency Management Programs 2024

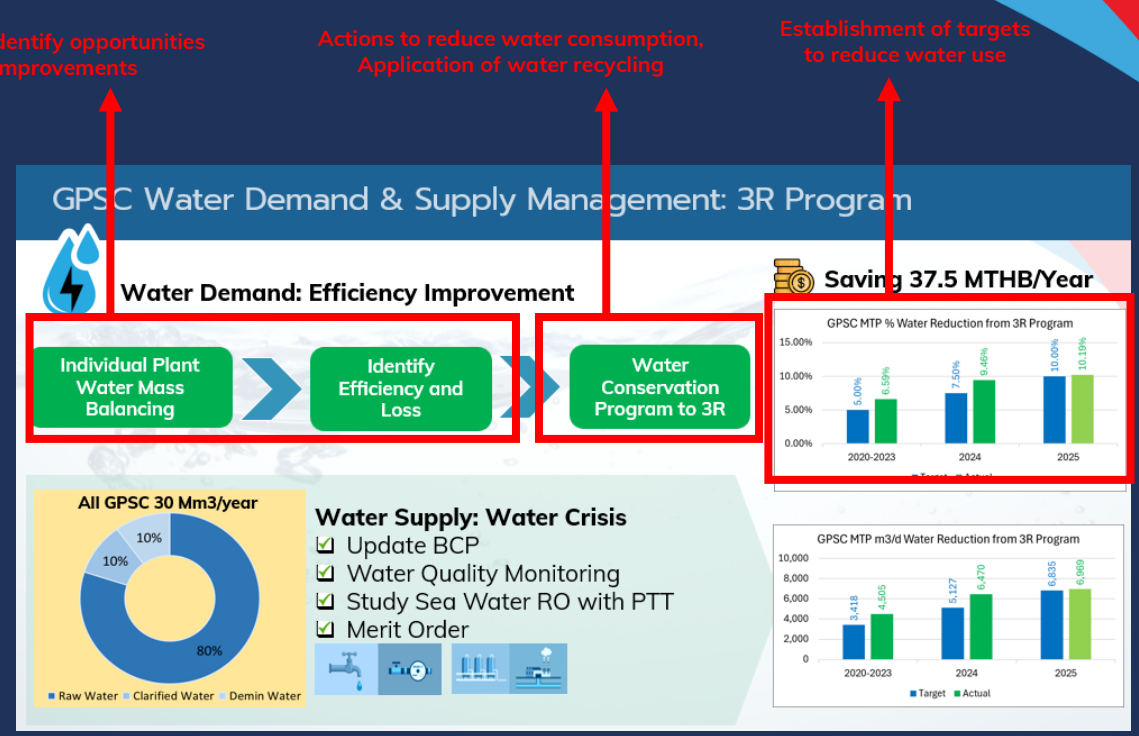
Introduction

Water is essential to develop and maintain successful and healthy economies and for human health and well-being. through the GPSC Water Efficiency Management Program, various processes for water management are conducted, including identification of opportunities to continually improve water efficiency performance, water use review, water use indicators measurement and monitor, and reduction or reuse of water in operations, etc.

In addition, GPSC provides training on the Water Efficiency Management Program to all employee and engagement with external stakeholder to raise awareness on water as the essential for all activities and life.

Introduction





In order to ensure the constructive water management, GPSC has established governance structure and system from the top executives to operation level as well as well defined water strategy, target, and action plan which not only covers the use of water in all activities but also expands to the opportunities of water business to secure company resilience in the future term as well as appoints the functional team lead to responsible in the task and defines the reporting line to follow up each progression in timely basis.

With focusing on water effiency improvement, the processes including plant water mess balancing, effiency and loss identification, and water conservation program to 3Rs (reduce, reuse, recycle) are implemented to maximize the water effiency.

Water use assessment to identify opportunities for water efficiency improvements

GPSC systematically monitors the use of water inside the organization. It is a process to identify activities and functions which have significant use of water and impact on water quality. The activities and functions will be considered as potential for water efficiency improvement.

INPUT	ACTIVITY	WASTEWATER GENERATED	ASSESSMENT APPROACH
Water from outside suppliers Water from natural sources, such as sea water	• Cooling process • Steam production process • Mineral water production system • Condensate water quality improvement unit	• Sea water through a "Once through cooling system" • Wastewater from production processes	• Seawater temperature checking in the cooling system prior to releasing this back into the sea. The GPSC group has installed a seawater temperature measurement device, which will work continuously to constantly display this value in the control room of the power plant. An aquatic breeding project in collaboration with fishery groups and local scholars was also conducted. • Water quality check on a monthly basis in accordance with the measures listed in the EIA and EHIA reports.
Tap water	Office services	• Graywater and blackwater	• Preparation of a record regarding the water use and wastewater treatment, by first party on a monthly basis.

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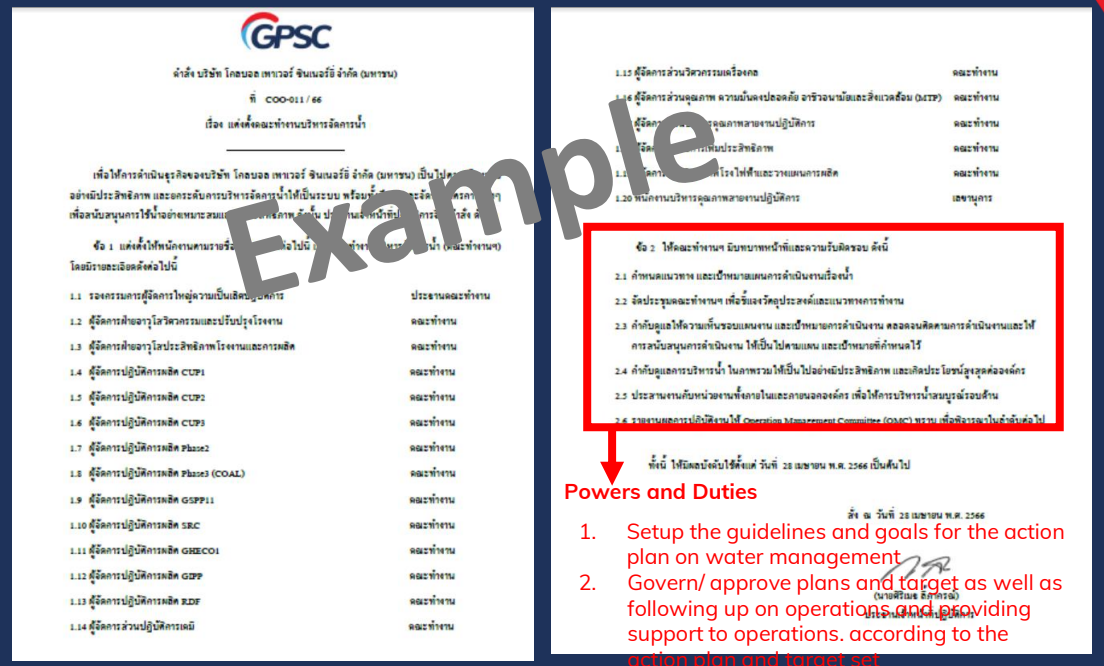
Water use assessment to identify opportunities for water efficiency improvements

Water Management within GPSC

GPSC conducts site-level water use assessments under its ISO 14001-certified EMS to identify opportunities for improving water efficiency. These assessments have led to 3Rs initiatives such as condensate reuse, boiler wastewater recovery, and cooling water recycling.
A key project resulting from this assessment is the **cooling return line installation at CUP2**, reducing service water consumption by **157,680 m³/year**.

To ensure effective implementation and governance, GPSC has established the **Water Management Working Team**, responsible for setting targets, approving action plans, monitoring progress, and coordinating with internal and external stakeholders.
Additionally, GPSC participates in PTT Group's strategic water planning, including the development of the **Self-Rely / Water Secure Portion indicator**, which promotes long-term water efficiency and reduced dependency on public water sources.

Appointment of the GPSC's Water Management Working Team



Water use assessment to identify opportunities for water efficiency improvements

Example of water use assessment by plants

Water use assessment to identify opportunities for water efficiency improvements by plant

Example of water efficiency report
(water consumption per MWh production)

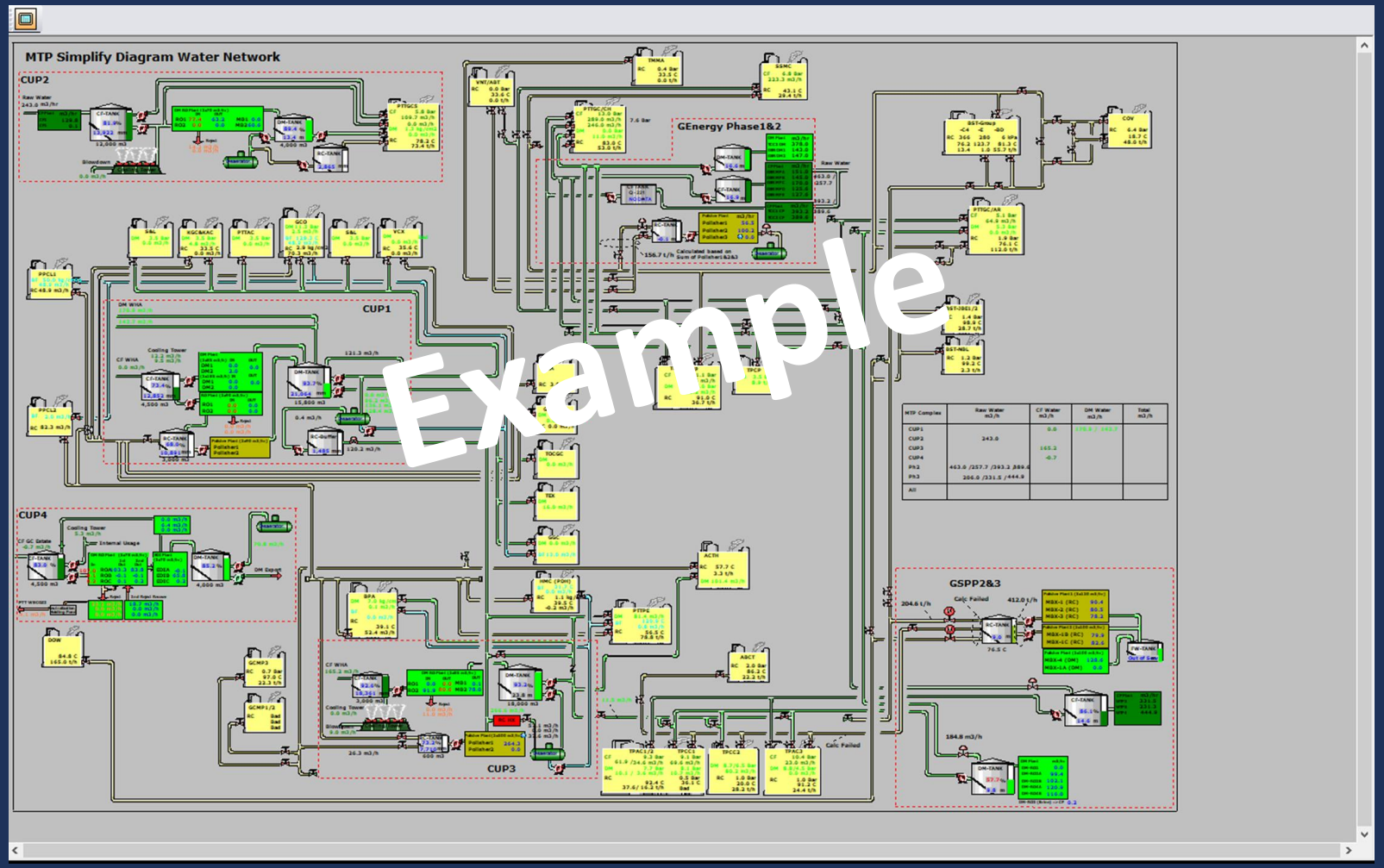
GPSC Water Summary Power Plant Water Index		Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
CUP134 Water Consumption	m3	215,933	245,024	209,833	289,595	207,402	202,927	128,668	146,573	196,800	202,814	123,802	184,318	197,229	228,675	228,227
CUP134 Production	MWheq	237,975	232,099	249,679	253,185	240,461	231,604	267,344	266,488	279,571	294,646	285,271	271,119	240,520	241,639	260,106
CUP134 Water Index	**m3/MWheq**	**0.9074**	**1.0557**	**0.8404**	**1.1438**	**0.8625**	**0.8762**	**0.4813**	**0.5500**	**0.7039**	**0.6883**	**0.4340**	**0.6798**	**0.8200**	**0.9463**	**0.8774**
CUP2 Water Consumption	m3	126,582	107,964	107,711	106,031	101,473	113,679	110,945	110,646	102,499	103,007	101,749	91,551	99,533	107,173	117,302
CUP2 Production	MWheq	82,375	77,211	80,012	73,274	61,558	74,640	75,582	78,666	76,995	77,418	80,276	74,668	81,151	78,487	80,117
CUP2 Water Index	**m3/MWheq**	**1.5367**	**1.3983**	**1.3462**	**1.4470**	**1.6484**	**1.5230**	**1.4679**	**1.4065**	**1.3312**	**1.3305**	**1.2675**	**1.2261**	**1.2265**	**1.3655**	**1.4641**
Ph2 Water Consumption	m3	74,759	52,256	61,397	55,913	105,806	109,676	84,850	97,[illegible]	78,942	58,321	128,020	121,538	157,587	225,694	227,835
Ph2 Production	MWheq	184,315	142,259	168,195	162,669	150,355	149,189	170,308	168,[illegible]	179,[illegible]	183,918	186,535	178,760	175,895	159,533	184,055
Ph2 Water Index	**m3/MWheq**	**0.4056**	**0.3673**	**0.3650**	**0.3437**	**0.7037**	**0.7351**	**0.4982**	**0.57[illegible]**	**[illegible]98**	**0.3171**	**0.6863**	**0.6799**	**0.8959**	**1.4147**	**1.2379**
Ph3 Water Consumption	m3	333,488	318,323	324,348	222,739	227,274	257,199	233,500	230,93[illegible]	[illegible]	[illegible]4,480	184,466	247,468	252,115	241,493	208,879
Ph3 Production	MWheq	592,933	597,363	577,627	638,959	589,935	626,369	6[illegible]	[illegible]3,37[illegible]	5[illegible]87	562,439	542,601	533,475	547,476	457,800	505,463
Ph3 Water Index	**m3/MWheq**	**0.5624**	**0.5329**	**0.5615**	**0.3486**	**0.3853**	**0.[illegible]20**	**0.[illegible]**	**0.[illegible]859**	**0.[illegible]**	**0.4169**	**0.3400**	**0.4639**	**0.4605**	**0.5275**	**0.4132**
GSPP11 Water Consumption	m3	137,574	152,910	187,819	155,979	[illegible]	[illegible]0,470	169,[illegible]9	[illegible]015	172,533	147,352	172,654	171,372	182,465	190,997	184,899
GSPP11 Production	MWheq	110,797	103,167	132,798	[illegible]	[illegible]78	[illegible]2,833	127,[illegible]	[illegible]078	137,252	141,968	140,512	139,229	141,166	135,120	131,895
GSPP11 Water Index	**m3/MWheq**	**1.24[illegible]**	**1.4822**	**1.4[illegible]**	**1.159[illegible]**	**1[illegible]5**	**[illegible]1935**	**1.2[illegible]**	**1.2118**	**1.2571**	**1.0379**	**1.2287**	**1.2309**	**1.2926**	**1.4135**	**1.4019**
GHECO1 Water Consumption	m3	4,8[illegible]	3,645	[illegible]2[illegible]3	[illegible]	48[illegible]5	[illegible]279	55,2[illegible]	55,137	50,806	52,435	53,587	52,424	54,341	37,442	57,696
GHECO1 Production	MWheq	[illegible]	0	[illegible]0	[illegible],893	[illegible]360	492,526	478,780	489,429	7,569	0	0	416,014	485,043	477,286	310,675
GHECO1 Water Index	**m3/MWheq**	**N/A**	**N/A**	**[illegible]**	**[illegible]**	**0.1351**	**0.1122**	**0.1153**	**0.1127**	**6.7128**	**N/A**	**N/A**	**0.1260**	**0.1120**	**0.0784**	**0.1857**
GIPP Water Consumption	m3	34,811	30,566	[illegible]2,75[illegible]	10,729	49,388	85,582	51,306	37,397	101,913	15,819	16,873	2,425	2,136	16,598	4,830
GIPP Production	MWheq	29,222	[illegible]	53,348	3,134	38,104	79,460	37,995	30,522	96,151	11,054	16,696	0	1,317	8,830	16
GIPP Water Index	**m3/MWheq**	**1.1913**	**1.4401**	**1.3638**	**3.4235**	**1.2961**	**1.0770**	**1.3503**	**1.2253**	**1.0599**	**1.4310**	**1.0106**	**N/A**	**1.6220**	**1.8797**	**307.6433**
SRC Water Consumption	m3	12,427	20,572	13,899	17,411	8,970	83,555	217,918	305,654	132,396	1,310	1,200	1,867	-372	10,164	35,265
SRC Production	MWheq	0	0	0	0	0	45,133	147,775	218,445	74,168	0	0	0	0	0	19,363
SRC Water Index	**m3/MWheq**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**1.8513**	**1.4747**	**1.3992**	**1.7851**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**1.8212**
RDF Water Consumption	m3	5,258	30,268	12,713	35,409	15,343	32,427	22,656	21,163	11,274	22,785	21,802	19,042	17,276	33,153	35,173
RDF Production	MWheq	169	4,260	4,710	5,010	2,143	4,961	3,573	3,908	1,708	4,454	4,398	3,306	2,590	5,509	5,766
RDF Water Index	**m3/MWheq**	**31.0977**	**7.1055**	**2.6991**	**7.0671**	**7.1590**	**6.5361**	**6.3409**	**5.4157**	**6.6018**	**5.1155**	**4.9574**	**5.7605**	**6.6696**	**6.0176**	**6.0997**
Glow Energy Solar Farm Water Consumption	m3	75	62	75	109	247	159	174	164	95	8	7	17	26	24	15
Glow Energy Solar Farm Production	MWheq	155	182	203	191	202	210	222	159	167	139	178	141	163	190	198
Glow Energy Solar Farm Water Index	**m3/MWheq**	**0.4832**	**0.3407**	**0.3703**	**0.5719**	**1.2206**	**0.7569**	**0.7835**	**1.0338**	**0.5698**	**0.0575**	**0.0392**	**0.1206**	**0.1597**	**0.1264**	**0.0758**
Total Water Consumption	m3	940,422	931,260	990,503	909,108	895,897	1,078,366	1,047,893	1,160,674	1,105,560	815,537	782,351	872,963	945,034	1,058,236	1,064,934
Total Production	MWheq	1,237,940	1,177,765	1,266,572	1,621,796	1,572,434	1,846,926	1,920,315	2,000,749	1,402,546	1,276,037	1,256,467	1,616,712	1,675,321	1,564,395	1,497,654
Total Water Index	**m3/MWheq**	**0.7597**	**0.7907**	**0.7820**	**0.5606**	**0.5698**	**0.5839**	**0.5457**	**0.5801**	**0.7883**	**0.6391**	**0.6227**	**0.5400**	**0.5641**	**0.6765**	**0.7111**

Example

Example of water efficiency monitoring report
(water consumption per MWh production)

Water use assessment to identify opportunities for water efficiency improvements

Example of water use assessment by plants



Example of real-time water effiency monitoring for water use assessment

Water use assessment to identify opportunities for water efficiency improvements

Water Management outside GPSC

Example of GPSC's Representation in PTT Group Water Management Task Force

In addition to site-level water assessments, GPSC also contributes to **PTT Group's strategic water risk management** through the development of the **Self-Rely / Water Secure Portion** indicator in 2024. This metric evaluates the proportion of water sources that are under direct control of the Group, including:

- **Desalinated water from seawater**
- **Water from 3Rs initiatives** (Reduce, Reuse, Recycle)
- **Backup surface water reserves**
- **Groundwater sources**

This indicator is applied in both **normal operations and crisis scenarios**, helping GPSC and PTT Group enhance long-term water security and reduce reliance on public water supply.

GPSC also demonstrates its commitment to responsible water governance by **registering as a certified water user organization** under Thailand's **Water Resources Act B.E. 2561 (2018)**. Through this participation, GPSC contributes to **basin-level water planning** and is eligible to engage in key activities such as: Reviewing water allocation priorities, Participating in drought and flood risk planning, Contributing to basin-level master plans, Recommending cross-basin water transfer decisions to the National Water Resources Committee
This role complements GPSC's internal assessments and further strengthens its position as a responsible industrial water user in Thailand's evolving water resource management framework.

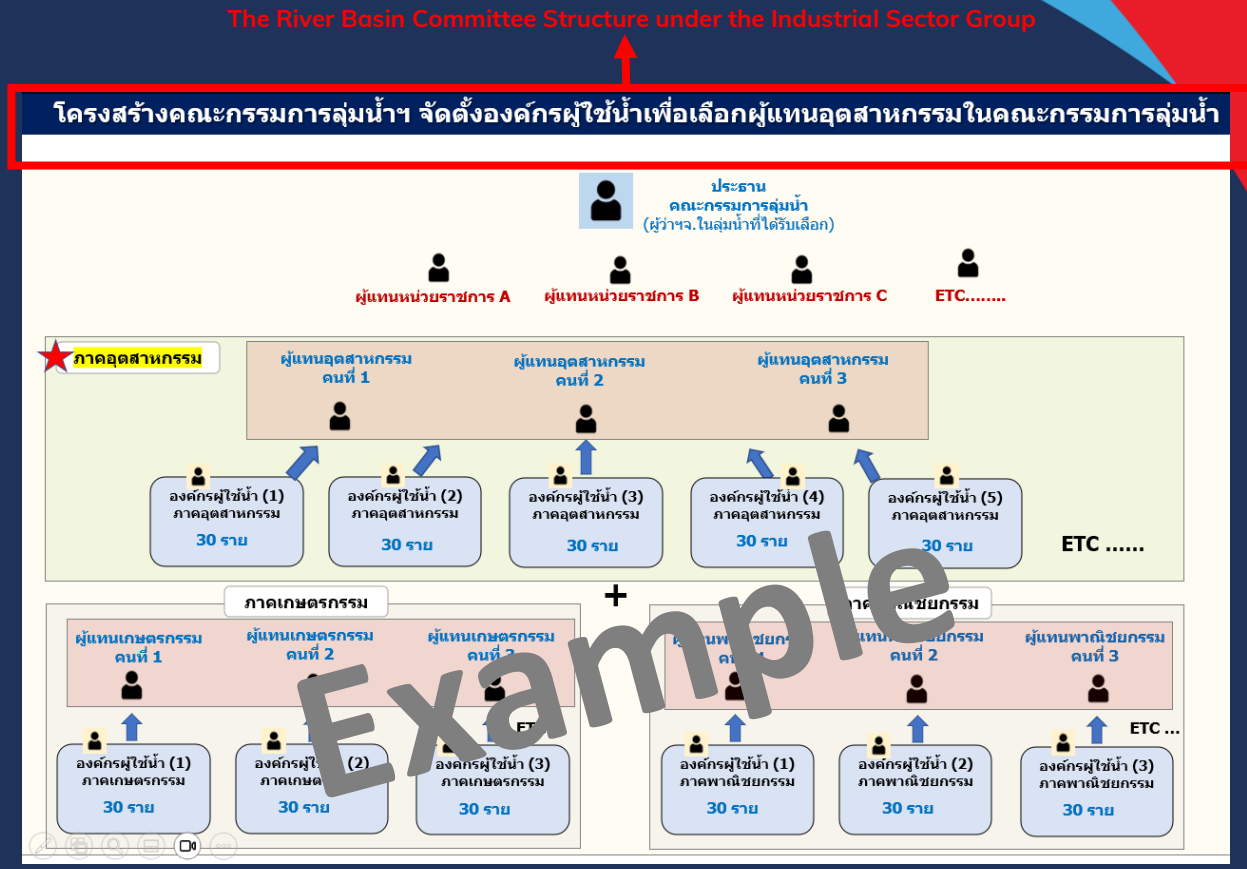
Example of GPSC participates in the PTT Group's registered water user organization under the national basin-level governance framework for the 2025–2036 cycle.

Water use assessment to identify opportunities for water efficiency improvements

Water Management outside GPSC

GPSC manages external water by actively participating in the PTT Group Water Management Task Force, which holds meetings on water situations from the survey and analysis of the water situation model, and consequently formulates a water management plan, guidelines for monitoring water management targets, risk reduction, and assessment of impacts of water use in all operating areas. We finally communicate with responsible business units for efficient implementation of plans. The PTT Group Water Management Task Force also participates in the Water Management Working Group of the Eastern Region of Rayong. The working group, made up of governmental agencies and representatives of the private sector, monitors, assesses, analyzes the water situation and maps out measures to promptly reduce risks and impacts.

GPSC also leverages the Aqueduct Water Risk Atlas of the World Resources Institute (WRI) to identify water stress areas and determine the guidelines for the management of water sources outside all operating areas.



Example of GPSC's Representation in Water management Outside GPSC

https://gpsc.listedcompany.com/misc/one-report/gpsc-one-report-2024-en.pdf

Actions to reduce water consumption

Following the water use assessment to pinpoint areas for reduction, GPSC prioritizes water management approaches across the operations and offices. This approach includes all measures focused on reducing the amount of water required for business activities and operations regarding equipment, systems or processes at facility/site level to those concerning employees/staff in office functions.

The water management performance of all operations and offices is closely monitored to ensure ongoing effectiveness. The below table shows water management approaches in operations and office services.

INPUT	ACTIVITY	WASTEWATER GENERATED	MANAGEMENT APPROACH
Water from outside suppliers	• Cooling process • Steam production process • Mineral water production system • Condensate water quality improvement unit	• Sea water through a "Once through cooling system" • Wastewater from production processes	• Regular inspection of the seawater pumping point to ensure the seawater pumping equipment and the aquaculture net to be in good working order. • Reuse the effluent from the sludge dewatering system directly. • Reuse wastewater (RO Reject) in the industrial water production system. • Water from the coal yard and other wastewater are treated and collected in the pond before being recycled to spray onto coal piles to remove coal dust.
Water from natural sources, such as sea water			
Tap water	Office services	• Graywater and blackwater	• 3Rs (Reduce, Reuse, Recycle) • Monitor and fix leaks • Encouraging and training for water-conscious behavior

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Actions to improve wastewater quality

GPSC emphasizes wastewater quality before discharging into water basis to comply with relevant regulations and avoid conflict with stakeholders. There are various measures implemented at facility level to improve the quality of wastewater/discharge water at the source (e.g., process improvements) and to monitor effluent (periodic sampling).

The wastewater quality of all operations and offices is closely monitored. The below table shows water management approaches in operations and office services.

INPUT	ACTIVITY	WASTEWATER GENERATED	MANAGEMENT APPROACH
Water from outside suppliers	• Cooling process • Steam production process • Mineral water production system • Condensate water quality improvement unit	• Sea water through a "Once through cooling system" • Wastewater from production processes	• Install a device to measure the temperature and residual chlorine of sea water after cooling to be careful not to exceed the standard of wastewater from the production process. • Treat to achieve standard values and pass the criteria to then release back into natural water sources.
Water from natural sources, such as sea waste			
Tap water	Office services	• Graywater and blackwater	• Install grease traps • Promote employee awareness • Monitor and maintain the wastewater treatment system

 https://www.gpscgroup.com/en/sustainability/environmental/environmental-management

Establishment of targets to reduce water use

GPSC has established specific, measurable, and time-bound targets to reduce water use at both the company and plant levels. For example, 5.00% Water Saving of Normal Daily Water Consumption for MTP Area. These targets were derived based on peer benchmarking, operational data, and cost/stakeholder analysis. Progress is monitored quarterly through GPSC's water efficiency dashboard. All targets and progress are integrated into GPSC's environmental KPIs and reported to the Water Management Working Team.

Reduce Water use target by plant

Example of quantified target by plant to reduce water use per production

GPSC Water Index (m3/MWheq Net)

Plant	2022 Full Year	2023 Full Year	2024 Full Year	2025 Full Year Target L1	2025 Actual Q1	2025 Actual Q2	2025 Actual Q3	2025 Actual Q4	KPI2024 Full Year Target L1 (+5% of L3)	Full Year Target L2	Full Year Target L3	Full Year Target L4	Full Year Target L5 (-5% of L3)
CUP134	0.927	0.712	0.746	0.75	0.670				0.835	0.8	0.7	0.775	0.756
CUP2	1.485	1.577	1.386	1.48	1.568				1.5	1.5	1.483	1.446	1.409
Glow MTP Ph2	1.009	0.496	0.708	0.73	0.480				0.7	0.75	0.7	0.719	0.701
Glow MTP Ph3	0.527	0.500	0.415	0.48	0.619				0.5	0.493	0.481	0.469	0.457
Glow SPP11	1.577	1.501	1.237	1.5	1.572				1.5	1.474	1.438	1.402	1.366
GHECO1	0.094	0.156	0.134	0.12	0.1				0.13	0.131	0.128	0.125	0.122
Glow IPP	1.277	1.286	1.214	1.3	1.4				1.322	1.290	1.259	1.227	1.196
SRC	1.076	1.001	1.535	1.5	1.5				1.264	1.234	1.204	1.174	1.144
RDF	8.571	7.947	6.075	7.9	5.860				7.907	7.719	7.531	7.343	7.154
Glow Energy Solar Farm	0.337	0.432	0.484	0.47	0.268				0.439	0.428	0.418	0.407	0.397
Total	**0.744**	**0.748**	**0.617**	**0.70**	**0.727**				**0.738**	**0.720**	**0.703**	**0.685**	**0.668**

Example

Note:
1) Excluded Sea Water Consumption
2) Excluded Water Export to Industrial Customers
3) CUP1 CF import meter read error, so applied 30% addition for correction factor. [Fixed as of Jun 2024]
4) Excluded Water Consumption during EGAT dispatched reserve shutdown for IPP Business.
5) 2025 Target is averaged 2022-2024.

Example of water use assessment by plants

GPSC Group Water 3R Program

	Normal Daily Water Consumption for MTP Area	m3/d
Total Target	5.00% Water Saving of Normal Daily Water Consumption for MTP Area	m3/d
	10.00% Water Saving of Normal Daily Water Consumption for MTP Area	m3/d

2. Set quantifiable targets

		68,354
		3,418
		6,835

Item No.	ID	Area	Plant	Project	Eng. Unit	Project Stage	Remark	2024 Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Water Saving per Day	Water Saving per Month	Water Saving per Year
					Day	L1-L5		31	29	31	30	31	30	31			
			Total Actual	Water Saving of Normal Daily Water Consumption for All Area	m3			592,124	559,764	600,085	583,614	627,995	685,545	682,940	7,965	238,944	2,883,297
			Total Actual	5.86% Water Saving of Normal Daily Water Consumption for MTP Area	m3			296,062	279,882	300,042	291,807	313,998	342,772	341,470	7,420	222,613	2,685,702
1	WR-CU1-24-01	MTP	CUP1	educe steam denox 10% by increase ammonia injection instead(Based on 2*4=8 m3/h)	m3	L5									189	5,681	69,120
2	WR-CU1-24-02	MTP	CUP1	educe continuous blow down 90% by increase chemical feed instead(Based on 2*6=12 m3/h)	m3	L5										5,113	62,208
3	WR-CU1-24-03	MTP	CUP1	educe cooling blow down 50% by increase chemical feed instead (Based on 2.12 m3/h)	m3	L5										753	9,158
4	WR-CU1-24-04	MTP	CUP1	ecycle sampling TOC to cooling basin	m3	L5										182	2,213
5	WR-CU1-24-05	MTP	CUP1	un RO-After Mix Bed for reducing TOC<300ppb for AVT by reusing RO-water reject 100% assume 0*2 train=60m3/h	m3	L5	Start as of Jul 24								1,420	42,608	518,400
6	WR-CU2-24-06	MTP	CUP2	ooling Blowdown to Water Spray Blowdown Tank	m3	L5	Project Phase1 and Phase2	14,400	14,880	14,400	14,880	14,880	14,400	14,880	463	13,894	166,730
7	WR-CU2-24-07	MTP	CUP2	FESO Improved Demin Water throughput of Mixed Bed	m3	L5		639	658	660	413	715	509	654	19	564	6,771
8	WR-CU2-24-08	MTP	CUP2	ecovery Cleaning Water from Sludge Disposal by Improvement Filter Press System	m3	L5		20	42	19	35	29	30	22	1	28	337
9	WR-CU2-24-09	MTP	CUP2	1. Identify high-potential sites	m3	L5						4,821	4,666	4,821	159	4,769	57,232
10	WR-CU2-24-10	MTP	CUP2		m3	L5	Synergy project just reduce to 7 m3/h, so no information from 7 to 9								96	2,880	35,040
11	WR-CU2-24-11	MTP	CUP2	educe 2xHRSG Continuous Blowdown from 2 t/h to 1 t/h	m3	L5									48	1,440	17,520
12	WR-CU2-24-12	MTP	CUP2	educe AB21 Continuous Blowdown from 1 t/h to 0.5 t/h	m3	L5									12	360	4,380
13	WR-CU2-24-13	MTP	CUP2	ew Brine-RO, Water saving 10 m3/hr	m3	L4	Usage water from Holding pond 20 m3/hr. supply to new Brine-RO project and get to RO permeate 10								240	7,200	87,600
14	WR-CU3-24-14	MTP	CUP3	ecrease STG31 Cooling Flow with Saving Water 15.073 m3/h when run low load	m3	L5						8,971	8,682	8,971	289	8,682	105,632
15	WR-CU3-24-15	MTP	CUP3	crease cycle MIXED POLISHER	m3	L5									8	247	2,961
16	WR-CU3-24-16	MTP	CUP3	UP3 Saving kilowatt of Cooling tower unit (STG-31)	m3	L5									60	1,799	21,583
17	WR-CU4-24-17	MTP	CUP4	aving Service Water during Test Running Fire Water Pump	m3	L5		1,796	1,796	2,245	1,796	1,796	2,245	1,796	65	1,942	23,306
18	WR-CU4-24-18	MTP	CUP4	djust Angle of Cooling Fan	m3	L5		79	74	79	77	79	66	79	19	559	6,706
19	WR-CU4-24-19	MTP	CUP4	se Retention Water for Watering Plants	m3	L5		360	360	360	180	360	390	390	13	378	4,537
20	WR-CU4-24-20	MTP	CUP4	educe Blowdown Water of HRSG and Save CF Quenching	m3	L5		9,620	8,999	9,620	9,310	9,620	7,446	9,620	274	8,217	98,605

3. Monitor monthly progress

In setting its water efficiency targets, **GPSC follows a structured process**:

1. **Identify high-potential sites** where operational characteristics indicate significant opportunities for water reduction.
2. **Set quantifiable targets** for each selected site, aligned with industry benchmarks and GPSC's long-term water strategy.
3. **Monitor monthly progress** through a digital dashboard and site-level performance reports, with oversight by the Water Management Working Team. This process ensures that water reduction efforts are data-driven, prioritized, and continually improved over time.

Application of water recycling

Water Recycling Initiative: Cooling Return Line Installation for Main Steam Blowdown Tank
Project Name: *Install Line Cooling Return for Water Spray – Main Blowdown Tank (Efficiency Uplift)*
Location: Central Utility Plant 2 (CUP2), GPSC

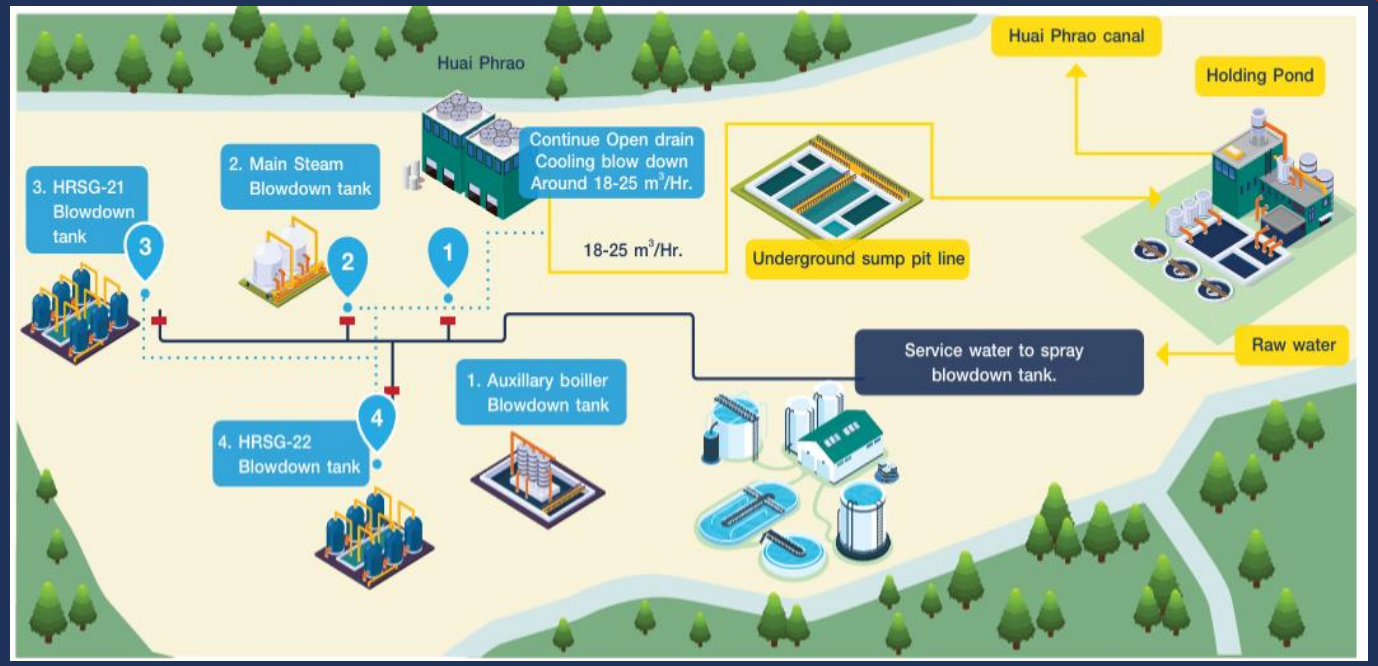
Objective:
To reduce the use of service water by redirecting **cooling water return** to lower the temperature of the **main steam blowdown tank** prior to discharge into the underground sump pit. This initiative enhances **water efficiency**, **reduces freshwater dependency**, and supports **GPSC's water crisis mitigation program**.

Action Taken:
A new pipeline was installed to **tie in cooling water return** in place of service water for temperature control at the blowdown tank. The system was applied across three areas:

- Main blowdown: 5 m³/h saving
- AB21 blowdown: 3 m³/h saving
- HRSG blowdown: 10 m³/h saving

Project Highlights (CUP2) :

- **Water Saved:** 18 m³/hour → 157,680 m³/year
- **Electricity Saved:** 0.589 kW → THB 22,659/year
- **Total Cost Savings:** THB 3.48 million/year
- **CO_2 Reduction:** 1,017 kg/year
- **Investment Cost:** THB 1.3 million
- **Payback Period:** 0.4 years



Example of Cooling Water Return System and Blowdown Tank Configuration at CUP2

Awareness training provided to employees on water efficiency management programs

In 2024, GPSC promoted employee awareness on water efficiency through both online and on-site knowledge-sharing events.

In May, GPSC joined the “One on One Online Sharing: Strengthen Water Efficiency,” where GC experts provided technical knowledge on increasing cooling water cycles and reducing blowdown through advanced water chemistry controls.

Additionally, in September, GPSC employees participated in the **“CoP #1/2567: Cooling Tower Optimization and Recent Technology”** held on-site at NPC S&E in Rayong. The event featured industry experts and cooling tower solution providers who shared best practices and recent innovations in optimizing cooling tower performance, reducing energy use, and minimizing water loss.

These programs strengthen GPSC’s technical capacity and promote the practical implementation of water-saving solutions across operations, in alignment with the company’s water efficiency strategy.

THANK YOU