

SUSTAINABILITY PERFORMANCE DATA : ENVIRONMENT



ESG Data: Environment							
#	GRI		Required Data	Unit	2023	2024	2025
	GRI Standards Title	GRI Standards					
Energy							
Energy [1]							
Topic : Total Energy Consumption <u>within</u> the organization							
Reporting coverage (% of total of power plants) (Exclude Solar power plants)					80.00%	75.00%	75.00%
1	Energy 2016	302-1 Energy consumption within the organization	Total Energy Consumption within the organization	GJ	7,397,622.1	7,638,054.1	7,505,273.8
			MWh	2,054,911.5	2,121,698.7	2,084,815.0	
2			Total Cost of Fuel Consumption	THB	2,429,996,929.9	2,287,587,110.9	2,057,086,791.7
Electricity							
Electricity [2]							
Reporting coverage (% of total of power plants) (Exclude Solar power plants)					66.67%	62.50%	62.50%
3	N/A	N/A	Total Electricity Consumption	kWh	31,005,179.4	33,052,524.1	32,190,722.8
4			- Electricity purchased (From Non-renewable fuel)	kWh	1,301,160.0	1,499,460.0	1,072,160.5
5			- Electricity purchased or self-generated (From Renewable fuels)		29,704,019.4	31,553,064.1	31,118,562.3
Topic: Cost of Electricity Consumption [3]							
6	N/A	N/A	Total Cost of Electricity Consumption	THB	17,174,903.0	14,286,407.1	14,010,747.0
Water							
Water [4]							
Topic: Water Withdrawal							
Reporting coverage (% of total of power plants) (Exclude Solar power plants)					80.00%	75.00%	75.00%
7	Water and Effluents 2018	303-3 Water withdrawal	Total water withdrawal from all areas	Million Litres	4,831.70	5,350.91	5,605.06
8			Surface water	Million Litres	3,826.50	4,185.84	4,254.85
8.1			- Fresh water (≤1,000 mg/L TDS)	Million Litres	3,826.5	4,185.8	4,254.9
8.2			- Other water (>1,000 mg/L TDS)	Million Litres	0.0	0.0	0.0
9			Ground Water	Million Litres	0.00	0.00	4.00
9.1			- Fresh water (≤1,000 mg/L TDS)	Million Litres	0.0	0.0	4.0
9.2			- Other water (>1,000 mg/L TDS)	Million Litres	0.0	0.0	0.0
10			Seawater	Million Litres	0.00	0.00	0.00
10.1			- Fresh water (≤1,000 mg/L TDS)	Million Litres	0.0	0.0	0.0
10.2			- Other water (>1,000 mg/L TDS)	Million Litres	0.0	0.0	0.0
11			Produced Water	Million Litres	0.00	0.00	0.00
11.1			- Fresh water (≤1,000 mg/L TDS)	Million Litres	0.0	0.0	0.0
11.2			- Other water (>1,000 mg/L TDS)	Million Litres	0.0	0.0	0.0
12			Third-party water: Municipal water suppliers or other water utilities	Million Litres	899.47	1,017.92	1,217.62
12.1			- Fresh water (≤1,000 mg/L TDS)	Million Litres	899.5	1,017.9	1,217.6
12.2			- Other water (>1,000 mg/L TDS)	Million Litres	0.0	0.0	0.0
13			Harvested Rainwater	Million Litres	105.7	147.2	128.6
14			External Wastewater	Million Litres	0.0	0.0	0.0
15			Used quarry water collected in the quarry	Million Litres	0.0	0.0	0.0
16			Total water withdrawal from all area with water stress	Million Litres	274.27	198.52	184.51
17			Surface water	Million Litres	274.27	198.52	184.51
17.1			- Fresh water (≤1,000 mg/L TDS)	Million Litres	274.3	198.5	184.5
17.2			- Other water (>1,000 mg/L TDS)	Million Litres	0.0	0.0	0.0
18			Ground Water	Million Litres	0.00	0.00	0.00
18.1			- Fresh water (≤1,000 mg/L TDS)	Million Litres	0.0	0.0	0.0
18.2			- Other water (>1,000 mg/L TDS)	Million Litres	0.0	0.0	0.0
19			Seawater	Million Litres	0.00	0.00	0.00
19.1			- Fresh water (≤1,000 mg/L TDS)	Million Litres	0.0	0.0	0.0
19.2			- Other water (>1,000 mg/L TDS)	Million Litres	0.0	0.0	0.0
20			Produced Water	Million Litres	0.00	0.00	0.00
20.1			- Fresh water (≤1,000 mg/L TDS)	Million Litres	0.0	0.0	0.0
20.2			- Other water (>1,000 mg/L TDS)	Million Litres	0.0	0.0	0.0
21			Third-party water: Municipal water suppliers or other water utilities	Million Litres	0.00	0.00	0.00
21.1			- Fresh water (≤1,000 mg/L TDS)	Million Litres	0.0	0.0	0.0
21.2			- Other water (>1,000 mg/L TDS)	Million Litres	0.0	0.0	0.0
22			Harvested Rainwater	Million Litres	0.0	0.0	0.0
23			External Wastewater	Million Litres	0.0	0.0	0.0
24			Used quarry water collected in the quarry	Million Litres	0.0	0.0	0.0

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ESG Data: Environment									
#	GRI		Required Data	Unit	2023	2024	2025		
	GRI Standards Title	GRI Standards							
Topic: Water Discharge									
Reporting coverage (% of total of power plants) (Exclude Solar power plants)					80.00%	75.00%	75.00%		
25	Water and Effluents 2018	303-4 Water discharge	Total water discharge to all areas (by destination)	Million Litres	33.58	34.31	31.39		
25.1			- Surface water	Million Litres	33.6	34.3	31.4		
25.2			- Ground water	Million Litres	0.0	0.0	0.0		
25.3			- Seawater	Million Litres	0.0	0.0	0.0		
25.4			- Third-party water / Off-site Water Treatment	Million Litres	0.0	0.0	0.0		
26			Total water discharge to all areas	Million Litres	44.59	44.59	44.59		
26.1			- Fresh water (≤1,000 mg/L TDS)	Million Litres	44.6	44.6	44.6		
26.2			- Other water (>1,000 mg/L TDS)	Million Litres	0.0	0.0	0.0		
27			Total water discharge to all areas with water stress	Million Litres	0.00	0.00	0.00		
27.1			- Fresh water (≤1,000 mg/L TDS)	Million Litres	0.0	0.0	0.0		
27.2			- Other water (>1,000 mg/L TDS)	Million Litres	0.0	0.0	0.0		
28			Total Recycled water returned to internal process	Million Litres	777.5	329.7	316.1		
Topic: Water Consumption									
Reporting coverage (% of total of power plants) (Exclude Solar power plants)					80.00%	75.00%	75.00%		
29	Water and Effluents 2018	303-5 Water consumption	Total water consumption from all areas (Total water withdrawal - Total water discharge)	Million Litres	4,798.12	5,316.60	5,573.67		
				Cubic meters	4,798,121.30	5,316,602.25	5,573,669.08		
30			Total water consumption from all ares with water stress areas	Million Litres	274.27	198.52	184.51		
Topic: Cost of Water Usage									
31	N/A	N/A	Total Cost of total water usage	THB	8,490,140.11	9,616,912.56	9,700,941.37		
GHG Emissions									
GHG Emissions [5]									
Reporting coverage (% of total of power plants) (Exclude Solar power plants)					6.67%	93.75%	N/A		
Topic: Direct Greenhouse Gas Emissions (Scope 1)									
33	Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Total direct GHG emissions (scope 1)	Metric tonnes CO ₂ equivalent	44,892.59	61,317.0	N/A		
Topic: Indirect Greenhouse Gas Emissions (Scope 2)									
34	Emissions 2016	305-2 Energy indirect (Scope 2) GHG emissions	Total indirect GHG emissions (scope 2)	Metric tonnes CO ₂ equivalent	4,789.41	42,130.0	N/A		
Topic: Indirect Greenhouse Gas Emissions (Scope 3)									
35	Emissions 2016	305-3 Other indirect (Scope 3) GHG emissions	Total other indirect (Scope 3) GHG emissions	Metric tonnes CO ₂ equivalent	5.67	2,196.0	N/A		
Emissions									
Emissions [6]									
Reporting coverage (% of total of power plants) (Exclude Solar power plants)					73.33%	68.75%	68.75%		
Topic: NOx Emissions									
36	Emissions 2016	305-7 NOx, SOx, and other significant air emissions	NOx emissions	Metric tonnes	1,253.3	1,790.3	1,273.4		
Topic: SOx Emissions									
37	Emissions 2016	305-7 NOx, SOx, and other significant air emissions	SOx emissions	Metric tonnes	250.5	87.0	33.2		
Topic: VOC Emissions									
38	Emissions 2016	305-7 NOx, SOx, and other significant air emissions	VOC emissions	Metric tonnes	N/A	N/A	N/A		
Topic: TSP									
39	Emissions 2016	305-7 NOx, SOx, and other significant air emissions	TSP (Total Suspended Particulate)	Metric tonnes	446.4	547.0	353.2		

ESG Data: Environment							
#	GRI		Required Data	Unit	2023	2024	2025
	GRI Standards Title	GRI Standards					
Waste							
Waste [7]							
Reporting coverage (% of total of power plants) (Exclude Solar power plants)					73.33%	68.75%	68.75%
Topic: Waste Generated							
40	Waste 2020	306-3 Waste generated	Total waste generated (A+B)	Metric tonnes	137,504.9	105,643.0	97,399.3
				Kilograms	137,504,880.7	105,642,986.8	97,399,281.6
41			A. Total non-hazardous waste generated (A=A1+A2)	Metric tonnes	137,379.5	105,602.3	97,368.4
				Kilograms	137,379,518.0	105,602,342.0	97,368,388.0
42			B. Total hazardous waste generated (B=B1+B2)	Metric tonnes	125.36	40.64	30.89
				Kilograms	125,362.7	40,644.8	30,893.6
Biodiversity							
Biodiversity [8]							
Reporting coverage (% of total of power plants) (Exclude Solar power plants)					46.67%	43.75%	43.75%
43	Biodiverisity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Total area of operational sites	Rai	484.1	484.1	484.1
				Hectares	77.45	77.45	77.45
44				The site conducts an assessment of biodiversity risks.	Yes/No	Partially conducted; remaining sites are under assessment.	
Spills & Environmental Compliance							
Spills & Environmental Compliance							
Topic: Significant Spills [9]							
Reporting coverage (% of total of power plants) (Exclude Solar power plants)					100.00%	68.75%	75.00%
45	Effluents and Waste 2016	306-3 Significant spills	Number of significant spills	Number	0.0	0.0	0.0
46			Total volume of significant spills	Liters	0.0	0.0	0.0
Topic: Environmental Compliance [9]							
Reporting coverage (% of total of power plants) (Exclude Solar power plants)					100.00%	68.75%	75.00%
47	Environmental Compliance 2016	307-1 Non-compliance with environmental laws and regulations	Environmental violations of legal obligations/regulations	Case	0.0	0.0	0.0
48			Significant fines and amount of penalty paid	THB	0.0	0.0	0.0
49			Total number of Non-monetary sanctions	Case	0.0	0.0	0.0
50			Total case brought through dispute resolution mechanisms	Case	0.0	0.0	0.0
Topic: Certification [10]							
51	N/A	N/A	Sites with Certified ISO 140001 - Biomass Powerplant	Numbers	12	12	12
				% of total Biomass	100%	100%	100%
			- MSW Power Plant	Numbers	2	2	2
				% of total MSW	100%	100%	100%
			- Natural Gas Power Plant	Numbers	1	1	1
				% of total Natural Gas	100%	100%	100%
			- Hybrid	Numbers	-	0	0
				% of total Hybrid	-	0%	0%

Reporting Coverage:

[1] The presented data included the power plants of Ban Beung ("ACP1"), Bo Ploy ("ACP3"), Khlong Khlung ("ACP4"), Sri Chiang Mai ("ALCP1"), Sirindhorn ("ALCP2"), Ta Nee ("AAPP1"), Chok Chai ("AAPP2"), Nam Phong ("AAP1"), Thoen ("ABA1"), Muang Korat ("AAE1"), Koh Khanun ("AAA1"),and MSW Krabi ("ALCP6").

[2] The presented data included the power plants of Ban Beung ("ACP1"), Sri Chiang Mai ("ALCP1"), Sirindhorn ("ALCP2"), Ta Nee ("AAPP1"), Chok Chai ("AAPP2"), Nam Phong ("AAP1"), Thoen ("ABA1"), Muang Korat ("AAE1"), Koh Khanun ("AAA1"), and MSW Krabi ("ALCP6").

[3] The presented data included the power plants of Ban Beung ("ACP1"), Sirindhorn ("ALCP2"), Ta Nee ("AAPP1"), Chok Chai ("AAPP2"), Nam Phong ("AAP1"), Koh Khanun ("AAA1"), and MSW Krabi ("ALCP6").

[4] The presented data included the power plants of Ban Beung ("ACP1"), Bo Ploy ("ACP3"), Khlong Khlung ("ACP4"), Sri Chiang Mai ("ALCP1"), Sirindhorn ("ALCP2"), Ta Nee ("AAPP1"), Chok Chai ("AAPP2"), Nam Phong ("AAP1"), Thoen ("ABA1"), Koh Khanun ("AAA1"), MSW Khon Kaen ("ALCP3"), and MSW Krabi ("ALCP6").

[5] This data has not been verified by the third party yet.

- In 2023; The presented data included the power plants of Bo Ploy ("ACP3")
- In 2024; The presented data included the power plants of Ban Bueng ("ACP1"), Phon Thong ("ACP2"), Bo Ploy ("ACP3"), Khlong Khlung ("ACP4"), Sri Chiang Mai ("ALCP1"), Sirindhorn ("ALCP2"),Ta Nee ("AAPP1"), Chok Chai ("AAPP2"), Nam Phong ("AAP1"), Thoen ("ABA1"), Mueng Buriram ("ACES1"), Don Mon ("ABE1"), Muang Korat ("AAE1"), MSW Khon Kaen ("ALCP3"), and MSW Krabi ("ALCP6").
- In 2025; N/A

[6] The presented data included the power plants of Ban Beung ("ACP1"), Bo Ploy ("ACP3"), Sri Chiang Mai ("ALCP1"), Ta Nee ("AAPP1"), Chok Chai ("AAPP2"), Nam Phong ("AAP1"), Thoen ("ABA1"), Muang Korat ("AAE1"), Koh Khanun ("AAA1"), MSW Khon Kaen ("ALCP3"), and MSW Krabi ("ALCP6").

[7] The presented data included the power plants of Khlong Khlung ("ACP4"), Sri Chiang Mai ("ALCP1"), Sirindhorn ("ALCP2"), Ta Nee ("AAPP1"), Chok Chai ("AAPP2"), Nam Phong ("AAP1"), Thoen ("ABA1"), Muang Korat ("AAE1"), Koh Khanun ("AAA1"), MSW Khon Kaen ("ALCP3"), and MSW Krabi ("ALCP6").

[8] The presented data included the power plants of Sri Chiang Mai ("ALCP1"), Sirindhorn ("ALCP2"), Chok Chai ("AAPP2"), Nam Phong ("AAP1"), Muang Korat ("AAE1"), Koh Khanun ("AAA1"), and MSW Krabi ("ALCP6").

[9] Reporting coverage:

- In 2023, the presented data included the power plants of Ban Beung ("ACP1"), Phon Thong ("ACP2"), Bo Ploy ("ACP3"), Khlong Khlung ("ACP4"), Sri Chiang Mai ("ALCP1"), Sirindhorn ("ALCP2"), Ta Nee ("AAPP1"), Chok Chai ("AAPP2"), Nam Phong ("AAP1"), Thoen ("ABA1"), Don Mon ("ABE1"), Muang Korat ("AAE1"), Koh Khanun ("AAA1"), MSW Khon Kaen ("ALCP3"), and MSW Krabi ("ALCP6").
- In 2024, the presented data included the power plants of Ban Beung ("ACP1"), Bo Ploy ("ACP3"), Sri Chiang Mai ("ALCP1"), Sirindhorn ("ALCP2"), Ta Nee ("AAPP1"), Chok Chai ("AAPP2"), Nam Phong ("AAP1"), Thoen ("ABA1"), Muang Korat ("AAE1"), Koh Khanun ("AAA1"), and MSW Krabi ("ALCP6").
- In 2025, the presented data included the power plants of Ban Beung ("ACP1"), Bo Ploy ("ACP3"), Sri Chiang Mai ("ALCP1"), Sirindhorn ("ALCP2"), Ta Nee ("AAPP1"), Chok Chai ("AAPP2"), Nam Phong ("AAP1"), Thoen ("ABA1"), Muang Korat ("AAE1"), Koh Khanun ("AAA1"), MSW Khon Kaen ("ALCP3"), and MSW Krabi ("ALCP6").

[10] The presented data included the power plants of Ban Beung ("ACP1"), Phon Thong ("ACP2"), Bo Ploy ("ACP3"), Khlong Khlung ("ACP4"), Sri Chiang Mai ("ALCP1"), Sirindhorn ("ALCP2"), Ta Nee ("AAPP1"), Chok Chai ("AAPP2"), Nam Phong ("AAP1"), Thoen ("ABA1"), Don Mon ("ABE1"), Muang Korat ("AAE1"), Koh Khanun ("AAA1"), MSW Khon Kaen ("ALCP3"), MSW Krabi ("ALCP6"), and SPP Khlong Khlung.