

Performance Summary

ECONOMIC PERFORMANCE

GRI Standard	Performance	Unit	2021	2022	2023	2024
P201-1	Direct economic value generated and distributed					
	Direct economic value generated					
	Revenue	Million Baht	2,498.16	2,598.84	4,161.91	3,869.60
	Economic value distributed					
	Operating cost	Million Baht	1,421.21	1,564.01	1,663.88	1,744.64
	Employee wages and benefits		128.73	182.27	212.39	226.39
	Annual dividend payment		965.81	841.50	612.00	965.81
	Payment to the government		44.54	50.72	70.74	57.41
	Social investment		12.61	16.28	10.12	9.47
Economic value retained	Million Baht	74.74	55.94	1,592.78	865.88	
205-2	Anti-Corruption					
	Communication and training on anti-corruption policy to governance body members					
	Number of governance body members	%	100	100	100	100
	Total amount of political contributions					
	Total amount of political contributions	Baht	0	0	0	0
	Communication and training on anti-corruption policy to employees					
	Number of employees	%	100	100	100	100
205-3	Communication on anti-corruption policy to business partners					
	Number of business partners	%	100	100	100	100
	Confirmed incidents of corruption					
	Total number of confirmed incidents of corruption	Case	0	0	0	0
	Number of employees who dismissed due to corruption	Person	0	0	0	0
	Total number of confirmed incidents when contracts with business partners were terminated or not renewed due to violations related to corruption	Case	0	0	0	0
	Public legal cases regarding corruption	Case	0	0	0	0
	Anti-competitive practice					
	Total amount of fines and settlements	Baht	0	0	0	0
	Total amount of fines and settlements	% of revenues	0	0	0	0
	Corruption and Bribery Cases					
	Total number of confirmed incidents of corruption	Case	0	0	0	0
	Employees who were dismissed due to corruption	Person	0	0	0	0
	Business partners who were terminated or not renewed due to corruption	Number	0	0	0	0
	Public legal cases regarding corruption (public investigations, prosecution or close cases)	Case	0	0	0	0
	Cost of fines related to corruption					
	Cost of fines	Baht	0	0	0	0
	Provisions for fines and settlements specified for ESG issues in audited accounts					
	Provisions for fines	Baht	0	0	0	0
	Violations of Business Ethics					
Violations received from grievance mechanisms specified by the company	Case	0	0	0	0	
Violations that are in the process of being resolved	Case	0	0	0	0	
Violations that have been resolved	Case	0	0	0	0	
Confirmed incidents of Discrimination or Harassment						
Total number of confirmed incidents of Discrimination or Harassment	Case	0	0	0	0	
Confirmed incidents of Conflicts of Interest						
Total number of confirmed incidents of Conflicts of Interest	Case	0	0	0	0	
Confirmed incidents of Conflicts of Money Laundering or Insider trading						

GRI Standard	Performance	Unit	2021	2022	2023	2024
205-3	Total number of confirmed incidents of Money Laundering or Insider trading	Case	0	0	0	0
	Written/Digital Acknowledgement of codes of conduct (%)					
	Employees	%	100	100	100	100
	Contractors/ Suppliers/ Service Providers		100	100	100	100
	Subsidiaries		100	100	100	100
	Joint Ventures (including stakes above 10%)		100	100	100	100
	Training Provided					
	Employees	%	100	100	100	100
	Contractors/ Suppliers/ Service Providers		100	100	100	100
	Subsidiaries		100	100	100	100
Joint Ventures (including stakes above 10%)	100		100	100	100	
206-1	Legal actions for anti-competitive behavior, anti-trust and monopoly practices	Case	0	0	0	0

Supply Chain Management

GRI Standard	Performance	Unit	2021	2022	2023	2024
308-1	Supplier Environment Assessment					
	New suppliers that were screened using environmental criteria					
	New suppliers	Number	0	4	0	3
	New suppliers that were screened using environmental criteria	Number	0	4	0	3
		%	N/A	100	0	100
308-2	Negative environmental impacts in the supply chain and actions taken					
	Total number of suppliers assessed for environmental impacts	Number	16	14	12	12
	Suppliers identified as having significant actual and potential negative environmental impacts.	Number	0	0	0	0
		Percentage	0	0	0	0
414-1	Supplier Social Assessment					
	New suppliers that were screened using social criteria					
	New suppliers	Number	0	4	0	3
	New suppliers that were screened using social criteria	Number	0	4	0	3
Percentage		N/A	100	N/A	100	
414-2	Negative social impacts in the supply chain and actions taken					
	Total number of suppliers assessed for social impacts	Number	16	14	12	12
	Suppliers identified as having significant actual and potential negative social impacts.	Number	0	0	0	0
		Percentage	0	0	0	0
S&P CSA	Total tier 1 suppliers					
	Absolute number of suppliers	Number	N/A	N/A	292	246
	Share of total procurement spent	%	N/A	N/A	100	100
	Critical tier 1 suppliers					
	Absolute number of suppliers	Number	N/A	N/A	12	12
	Share of total procurement spent	%	N/A	N/A	79.08	80.42
	Critical non-tier 1 suppliers					
	Absolute number of suppliers	Number	N/A	N/A	2	2
	Supply chain risk exposure					
	Tier 1 supplier assessed (for sustainability risks) in the last 3 years	Number	N/A	N/A	292	246
		%	N/A	N/A	100	100
	Tier 1 suppliers classified as high-risk	Number	N/A	N/A	0	0
		%	N/A	N/A	0	0
	Critical non-tier 1 suppliers assessed (for sustainability risks) in the last 3 years	Number	N/A	N/A	12	12
		Number	N/A	N/A	0	0
	Supplier Risk Management Measures					

GRI Standard	Performance	Unit	2021	2022	2023	2024
S&P CSA	Critical suppliers assessed annually	%	N/A	N/A	100	100
	Suppliers with high sustainability risk					
	Suppliers with high sustainability risk assessed (ongoing sustainability monitoring) annually	%	N/A	N/A	0	0
	Percentage of current suppliers with high sustainability risk which have corrective action plans	%	N/A	N/A	100	100
	Percentage of current high sustainability risk suppliers with corrective action plans that have improved their ESG performance within 12 months of the plan's launch	%	N/A	N/A	100	100
	Supplier Screening					
	Total number of Tier-1 suppliers	Number		N/A	292	246
	Total number of significant suppliers in Tier-1			N/A	39	47
	% of total spend on significant suppliers in Tier-1	%		N/A	87.11	80.42
	Total number of significant suppliers in non Tier-1	Number		N/A	2	2
	Total number of significant suppliers (Tier-1 and non Tier-1)			N/A	41	49
	Supplier Assessment					
	Total number of suppliers assessed via desk assessments/on-site assessments	Number		N/A	41	49
	% of significant suppliers assessed			N/A	100	100
	Target of significant suppliers assessed for FY2024	%		100		
	Number of suppliers assessed with substantial actual/potential negative impacts	Number		0	0	0
	% of suppliers with substantial actual/potential negative impacts with agreed corrective action/improvement plan	%		0	0	0
	Number of suppliers with substantial actual/potential negative impacts that were terminated	Number		0	0	0
	Corrective action plan support					
	Total number of suppliers supported in corrective action plan implementation	Number		0	0	0
	% of suppliers assessed with substantial actual/potential negative impacts supported in corrective action plan implementation	%		0	0	0
	Target of suppliers supported in corrective action plan for FY2024	%		100		
	Capacity building programs					
	Total number of suppliers in capacity building programs			0	41	47
	% of significant suppliers in capacity building programs	%		0	100	100
	Target of suppliers in capacity building programs for FY2024	Number		100		
	Supply Chain KPIs					
	KPI 1: % of Acknowledgement of Supplier Code of Conduct	Target: % Target Year: NA				
	% of Acknowledgement of Supplier Code of Conduct	%	N/A	N/A	100	100
	KPI 2: % of New Supplier Screening using Pre-Questionnaire Form	Target: % Target Year: N/A				
	% of New Supplier Screening using Pre-Questionnaire Form	%	N/A	N/A	100	100
	KPI 3: % of Existing Supplier ESG Performance Evaluation	Target: % Target Year: N/A				
	% of Existing Supplier ESG Performance Evaluation	%	N/A	N/A	100	100

Customer Relationship Management

GRI Standard	Performance	Unit	2021	2022	2023	2024
S&P CSA	Satisfaction Measurement					
	Satisfied Respondents (as % of % of satisfied respondents out of total number of respondents to survey)	%	95.34	97.08	96.61	98.1
		Target: 60% Target Year: 2024				
Data coverage (% of customers/consumers surveyed)	%	48.83	64.66	56.26	61.29	

Customer Privacy

GRI Standard	Performance	Unit	2021	2022	2023	2024
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data					
	Total number of substantiated complaints received concerning breaches of customer privacy	Number	0	0	0	0
	Complaints received from outside parties and substantiated by the organization	Incident	0	0	0	0
	Complaints from regulatory bodies	Incident	0	0	0	0
	Total number of identified leaks, thefts, of losses of customer data	Incident	0	0	0	0

Information Security/ Cybersecurity

GRI Standard	Performance	Unit	2021	2022	2023	2024
S&P CSA	Information Security/ Cybersecurity breach cases					
	Total number of information security breaches	Incident	0	0	0	0
	Total number of clients, customers and employees affected by the breaches	Incident	0	0	0	0

ENVIRONMENT PERFORMANCE

Waste

GRI Standard	Performance	Unit	2021	2022	2023	2024
306-3	Waste composition					
	Total Waste	Tons	5,645.76	5,830.58	7,698.84	11,404.66
	Hazardous waste		7.02	7.34	3.85	2.38
	Non-hazardous waste		5,638.74	5,823.24	7,694.99	11,402.28
	Total Waste and Waste-to-Revenue Ratio	(Ton/ MB Revenue)	NA	2.24	1.85	2.30
	Target year 2025 Total Waste and Waste-to-Revenue Ratio	(Ton/ MB Revenue)	2.00			
	Data coverage	% of Revenue	100	100	100	100
306-4	Hazardous waste diverted from disposal by recovery option					
	Total	Tons	7.02	7.34	3.85	2.38
	- Preparation for reuse		0	0	0	0
	- Recycling		0	0	1.60	1.22
	- On-site storage		7.02	7.34	2.25	1.16
	Total Hazardous Waste-to-Revenue Ratio	(Ton/ MB Revenue)	0.001	0.001	0.003	0.003
	Target year 2025 Total Hazardous Waste-to-Revenue Ratio	(Ton/ MB Revenue)	0			
	Data coverage	% of Revenue	100	100	100	100
	Non-hazardous waste diverted from disposal by recovery option					
	Total	Tons	5,638.74	5,823.24	7,694.99	11,402.28
	- Preparation for reuse		0	0	0	0
	- Recycling		4,319.12	3,957.87	6,631.99	4,645.32
	- On-site storage		1,319.62	1,865.37	1,063.00	6,756.96
	Total Hazardous Waste-to-Revenue Ratio	(Ton/ MB Revenue)	1.46	1.85	2.24	2.26
	Target year 2025 Target Total Non-hazardous Waste and Waste-to-Revenue Ratio	(Ton/ MB Revenue)	2			
	Data coverage	% of Revenue	100	100	100	100
	S&P CSA	Total waste recycled / reused	Tons	0	0	1.60
Total waste disposed		Tons	1,960.10	5,376.82	6,633.59	4,646.54
Total waste landfilled		Tons	1,939.16	1,418.95	1.60	1.22
Total incineration (with energy recovery)			0	0	0	0
Total incineration (without energy recovery)			0	0	0	0
Total waste recycled / reused			23.94	3,957.87	6,631.99	4,645.32
Total waste with unknown disposal method			0	0	0	0
Data coverage			% of Revenue	100	100	100

Raw Material

GRI Standard	Performance	Unit	2021	2022	2023	2024
FTSE RUSSELL	Raw material used					
	Total Raw Material	Tons	81,501.91	82,033.25	90,265.50	94,810.73
	- Non-renewable materials used by freshwater withdrawal		74,550.97	74,775.54	82,804.05	86,961.42
	- Renewable materials used by wastewater		6,950.94	7,257.71	7,461.45	7,849.31

Energy

GRI Standard	Performance	Unit	2021	2022	2023	2024
302-1	Energy consumption within the organization					
	Energy consumption from non-renewable sources					
	Total non-renewable energy consumption	MWh	29,618.02	29,326.46	32,793.39	37,639.24
	Diesel/ Petrol/ Gasoline	MWh	56.9	1,113	1,503	1,694
	Grid electricity consumption	MWh	29,561.2	28,213.70	31,290.41	35,945.12
	Total non-renewable energy consumption intensity ratio	MWh/THB mm	11.9	7.58	7.88	9.73
	Target 2024	MWh	31,809			
	Energy consumption from renewable source Scope					
	Total renewable energy consumption	MWh	491.46	1,681.69	1,598.26	1,159.72
	Solar power	MWh	491.46	1,681.69	1,598.26	1,159.72
	Percentage of electricity from renewable sources (wind, water, solar, biogas) used in buildings in portfolio	%	1.66	5.15	5.40	3.33
	Total energy consumption					
	Total	MWh	30,109.48	31,008.15	34,391.65	38,798.96
	Data coverage for Energy Consumption					
	Data coverage	% of revenue	100	100	100	100
	Type of energy consumption					
	Electricity	MWh	29,561.20	28,213.70	31,290.41	35,945.12
	Heating		56.90	1,112.76	1,502.98	1,694.12
	Cooling		-	-	-	-
	Steam		-	-	-	-
	Energy usage data on properties					
	WHA Utilities and Power	MWh	30,109.48	31,008.15	34,391.65	38,798.96
	Type of energy sold					
	Electricity	MWh	52,767.61	72,135.23	112,921.00	157,354.76
	Heating		-	-	-	-
	Cooling		-	-	-	-
	Steam		-	-	-	-
302-2	Energy consumption outside of the organization					
	Total energy consumption	MWh	56.90	61.70	68.90	83.56
302-3	Energy intensity					
	Energy intensity ratio	MWh/THB mm	11.83	13.21	7.49	9.31
	Energy intensity ratio	MWh/ton production	N/A	N/A	N/A	N/A
FTSE RUSSELL	Electricity production by energy type					
	Solar	MWh	52,767.61	72,135.23	112,921.00	157,354.76
	Wind		NA	NA	NA	NA

GRI Standard	Performance	Unit	2021	2022	2023	2024
	Hydro		51,255.00	52,745.48	50,490.00	54,396.60
	Geothermal		NA	NA	NA	NA
	Biomass		NA	NA	NA	NA
	Oil		NA	NA	NA	NA
	Gas		NA	NA	NA	NA
	CCGT		1,686,200.23	1,637,723.02	1,636,740.36	1,632,657.42
	Nuclear		NA	NA	NA	NA
	Waste-to-energy		1,039.45	803.61	400.13	558.55
	Coal power plant		1,530,550.00	1,648,150.00	70,700.00	1,396,252.91
	Total Renewable		105,062.06	125,684.32	163,811.13	212,309.91
	Total Non-Renewable		3,216,750.23	3,285,873.02	1,707,440.36	3,028,910.33

GHG Emission

GRI Standard	Performance	Unit	2021	2022	2023	2024
305-1	Scope 1 emissions					
	Total scope 1 emissions	ton CO ₂ e	274	356	415	447
	Data coverage	% of Revenue	100	100	100	100
	Scope 1 Biogenic CO₂ emissions					
	Total Scope 1 Biogenic CO ₂ emissions	ton CO ₂ e	22.24	26.57	29.56	40
	Data Coverage	% of Revenue	100	100	100	100
305-2	Scope 2 emissions					
	Market-based	ton CO ₂ e	13,458	12,083	12,944	16,185
	Location -based	ton CO ₂ e			15,038	17,068
	Data coverage	% of Revenue	100	100	100	100
305-3	Scope 3 emissions					
	Scope 3	ton CO ₂ e	2,166,414	2,086,915	2,162,538	2,153,900
	Data coverage	% of Revenue	100	100	100	100
FTSE RUSSELL	Total Emission					
	Scope 1 + Scope 3	ton CO ₂ e	2,166,688	2,087,271	2,162,953	2,170,084
	Scope 1 + Scope 2 + Scope 3	ton CO ₂ e	2,180,146	2,099,354	2,175,897	2,170,532
	Scope 3 Category					
	Purchased Goods and Services		2,988.64	13,490.11	16,163.30	39,401.87
	Capital Goods		NA	NA	78,049.64	9,002.26
	Fuel-and-energy-related activities (not included in Scope 1 or 2)		2,656.97	2,881.30	3,082.27	3,884.79
	Upstream transportation and distribution		NA	NA	2,310.91	135.68
	Waste generated in operations		14,674.42	6,249.38	3,404.09	2,520.92
	Business travel		NA	NA	NA	NA
	Employee commuting		1,279	1,375	390.82	424.26
	Upstream leased assets		NA	NA	NA	NA
	Downstream transportation and distribution	ton CO ₂ e	NA	NA	NA	NA
	Processing of sold products		NA	NA	NA	NA
	Use of sold products		NA	NA	NA	NA
	End of life treatment of sold products		1,343	1,343	11,343.11	667.23
	Downstream leased assets		NA	NA	NA	NA
	Franchises		NA	NA	NA	NA
	Investments		2,047,794	2,047,794	2,047,794	2,097,862
	Other upstream		NA	NA	NA	NA
	Other downstream		NA	NA	NA	NA
	Data coverage	% of Revenue	100	100	NA	100
	GHG emissions per megawatt-hr					
	GHG emissions per megawatt-hr	ton CO ₂ e/MWh	0.67	0.64	1.27	0.71

GRI Standard	Performance	Unit	2021	2022	2023	2024
305-4	GHG emissions intensity ratio					
	Scope 1	Tons CO2e/THBMM	0.11	0.14	0.10	0.12
	Scope 2		5.39	4.65	3.11	4.18
305-4	Scope 3	Tons CO2e/THBMM	867.20	803.02	519.60	556.62
	Total Scope 1 + Scope 2 + Scope 3		872.70	807.80	522.81	560.92
305-5	Scope 1 emissions reduction					
	Total scope 1 emissions	ton CO2e	286	82	0	0
	Scope 2 emissions reduction					
	Total scope 2 emissions	ton CO2e	96	1,375	861	579.74

Note: Scope 1 emissions data are from diesel used in power generator and Company's vehicles.
Scope 2 emissions data are from electricity used in water production and wastewater treatment plants.

Water and Effluents

GRI Standard	Performance	Unit	2021	2022	2023	2024
303-3	Water withdrawal by source					
	Total Fresh water withdrawal (fresh water + wastewater)	MI	96,217.58	96,785.22	104,245.97	111,406.39
	Total freshwater withdrawal		74,550.97	74,775.54	82,804.05	86,961.42
	- Fresh surface water		8,254.60	9,696.35	8,589.54	8,932.00
	- Fresh groundwater		0	0	0	0
	- Third party water		66,296.37	65,079.19	74,214.51	78,029.42
	- Used quarry water collected in the quarry		N/A	N/A	N/A	N/A
	- External wastewater		21,666.61	22,009.68	21,441.92	24,444.97
	- Harvested rainwater		N/A	9,696.35	8,589.54	8,932.00
	- Sea water		N/A	9,696.35	8,589.54	8,932.00
	Wastewater withdrawal		21,666.61	22,009.68	21,441.92	24,444.97
	Total water withdrawal from area with water stress		N/A	96,785.22	104,245.97	111,406.39
	Total freshwater withdrawal from area with water stress		N/A	74,775.54	82,804.05	86,961.42
	- Fresh surface water		N/A	9,696.35	8,589.54	8,932.00
	- Third party water		N/A	65,079.19	74,214.51	78,029.42
	Wastewater withdrawal from area with water stress		N/A	22,009.68	21,441.92	24,444.97
	Percentage of water withdrawal from area with water stress		%	100	100	100
Data coverage	% of Revenue		100	100	100	100
303-4	Water discharge by destination					
	Total water discharge	MI	90,723.13	94,542.29	97,513.00	106,649.18
	- Surface water		12,207.64	12,087.68	11,637.57	19,342.38
	- Seawater		2,180.59	2,460.56	1,962.10	2,377.28
	- Water products sale		76,334.91	79,994.06	83,913.34	84,928.93
	- Subsurface / well		12,207.64	12,087.68	11,637.57	19,342.98
	- Off-site water treatment		14,388.23	14,548.24	13,599.67	21,720.26
	Total water discharge (exclude salt water)		88,542.54	92,081.74	95,550.91	104,271.91
	Total water discharge from area with water stress		N/A	94,542.29	97,513.00	106,649.18
	- Surface water		N/A	12,087.68	11,637.57	19,342.98

GRI Standard	Performance	Unit	2021	2022	2023	2024	
	- Seawater		N/A	2,460.56	1,962.10	2,377.28	
	- Water products sale		N/A	79,994.06	83,913.34	84,928.93	
	Percentage of water discharge from area with water stress	%	100	100	100	100	
	Data coverage	% of Revenue	100	100	100	100	
	Water Consumption	MI	5,494.45	2,242.93	6,732.97	4,757.20	
	Water discharge by category						
	Freshwater (\leq 1,000 mg/L Total Dissolved Solids)	MI	88,542.54	92,081.74	95,550.91	104,271.91	
	Other water (\leq 1,000 mg/L Total Dissolved Solids)		2,180.59	2,460.56	1,962.10	2,377.28	
	Discharge: Water returned to the source of extraction at similar or higher quality as raw water extracted	MI	14,388.23	14,548.24	13,599.67	21,720.26	
	FTSE RUSSELL	Water supply data by the Water Utility					
Water supply data by the Water Utility		MI	76,334.91	79,994.06	83,913.34	84,928.93	
Raw Water			22,385.10	25,665.32	31,922.33	31,916.66	
Premium Clarified Water			4,392.16	5,263.26	5,794.20	5,353.36	
Industrial Water			49,557.65	49,065.32	46,196.81	47,658.92	
Data coverage		% of Revenue	100	100	100	100	
Power generation water withdrawal / consumption intensity							
Water withdrawal intensity per unit of electricity generated		m ³ /MWh	3.17	3.51	3.24	3.13	
Water consumption intensity per unit of electricity generated	m ³ /MWh	0.19	0.08	0.22	0.14		

Effluents quality

GRI Standard	Performance	Unit	Standard	2021	2022	2023	2024
306-1	Water discharge by quality and location*						
	WHA CIE1						
	Biochemical Oxygen Demand (BOD)	mg/L	≤ 20	8.50	7.00	5.60	12.1
	Chemical Oxygen Demand (COD)	mg/L	≤ 120	37.64	38.00	39.50	35.00
	Suspended Solid (SS)	mg/L	≤ 50	7.43	8.08	6.17	11.00
	WHA CIE 2						
	Biochemical Oxygen Demand (BOD)	mg/L	≤ 20	3.83	5.00	4.75	<2.00
	Chemical Oxygen Demand (COD)	mg/L	≤ 120	33.25	23.00	33.75	51.00
	Suspended Solid (SS)	mg/L	≤ 50	13.83	10.83	15.00	40.00
	ESIE Phase 1						
	Biochemical Oxygen Demand (BOD)	mg/L	≤ 20	6.4	3	2.9	2.8
	Chemical Oxygen Demand (COD)	mg/L	≤ 120	51.25	43	50.8	39.00
	Suspended Solid (SS)	mg/L	≤ 50	7.5	5.4	5	<5.00
	ESIE Phase 2B						
	Biochemical Oxygen Demand (BOD)	mg/L	≤ 20	4.6	7	7	3.20
	Chemical Oxygen Demand (COD)	mg/L	≤ 120	30	36	42	25.00
	Suspended Solid (SS)	mg/L	≤ 50	10	14	18	6.00
	WHA ESIE 1 Phase 1						
	Biochemical Oxygen Demand (BOD)	mg/L	≤ 20	4.3	9	7.70	2.00
	Chemical Oxygen Demand (COD)	mg/L	≤ 120	31.67	42	58.60	64.00
	Suspended Solid (SS)	mg/L	≤ 50	10	11.92	15.50	20.00
	WHA ESIE 1 Phase 3						
	Biochemical Oxygen Demand (BOD)	mg/L	≤ 20	5.8	7	5.80	15.50
	Chemical Oxygen Demand (COD)	mg/L	≤ 120	38.70	39	41.20	44.00
	Suspended Solid (SS)	mg/L	≤ 50	6.8	7.8	12.0	7.00
	WHA ESIE 2						
	Biochemical Oxygen Demand (BOD)	mg/L	≤ 20	4.7	5	6.1	12.00
	Chemical Oxygen Demand (COD)	mg/L	≤ 120	41.45	51	51.8	66.00
	Suspended Solid (SS)	mg/L	≤ 50	15.45	21.5	19.4	30.00
	WHA ESIE 4						
	Biochemical Oxygen Demand (BOD)	mg/L	≤ 20	4.8	6	6.8	2.00
	Chemical Oxygen Demand (COD)	mg/L	≤ 120	34.1	38	49.1	29.00
	Suspended Solid (SS)	mg/L	≤ 50	17.5	19.2	20	<5.00
	WHA EIE						
	Biochemical Oxygen Demand (BOD)	mg/L	≤ 20	4.00	3	3	2.00
	Chemical Oxygen Demand (COD)	mg/L	≤ 120	42.58	38	42.4	2.00
	Suspended Solid (SS)	mg/L	≤ 50	11.6	24.25	21.7	6.00
	WHA RIL						
	Biochemical Oxygen Demand (BOD)	mg/L	≤ 20	7.83	8	9.6	19.40
	Chemical Oxygen Demand (COD)	mg/L	≤ 120	37.16	39	47.6	70.00
	Suspended Solid (SS)	mg/L	≤ 50	10.83	13.58	17.8	28.00
	WHA SIL						
Biochemical Oxygen Demand (BOD)	mg/L	≤ 20	3	3	3	2.80	
Chemical Oxygen Demand (COD)	mg/L	≤ 120	35	28	38	39.00	
Suspended Solid (SS)	mg/L	≤ 50	10.6	9.8	8.3	15.00	

Note: WHAUP is responsible for water discharge quality of all WHA Industrial Estates, therefore, the data are reported by industrial estate locations.

Note: NA = Not applicable; Na = Not analyzed; ND = Not detected

Air Emission

GRI Standard	Performance	Unit	Standard	2021	2022	2023	2024
SET ESG RATING/ FTSE RUSSELL	Ambient air quality monitoring by industrial estate operation*						
	WHA ESIE						
	Location 1: Chompon Chao Phraya Temple						
	NOx	ppm	≤ 0.17	0.004-0.011	0.0139-0.0344	0.0045-0.0050	0.0100-0.0197
	SOx	mg/m ³	≤ 0.3	0.0185-0.0204	0.0021-0.0024	0.005-0.010	0.0026-0.0049
	Volatile organic compounds (VOC)	Kilograms	-	NA	NA	NA	NA
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	0.065-0.080	0.019-0.035	0.018-0.034	0.017-0.042
	Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	-	-	-	-
	Location 2: Klong Gram Temple						
	NOx	ppm	≤ 0.17	** 0.006-0.008	0.0143-0.0268	0.0106-0.0138	0.0087-0.0239
	SOx	mg/m ³	≤ 0.3	**0.0217-0.0253	0.0018-0.0027	0.003-0.005	0.0108-0.0174
	Volatile organic compounds (VOC)	Kilograms	-	NA	NA	NA	NA
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.051-0.092	0.017-0.035	0.020-0.042	0.028-0.055
	Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	-	-	-	-
	Location 3: Ras Asadaram Temple						
	NOx	ppm	≤ 0.17	** 0.006-0.010	0.0136-0.0320	0.0021-0.0029	0.0107-0.0205
	SOx	mg/m ³	≤ 0.3	**0.0124-0.0146	0.0026-0.0029	0.007-0.029	0.0122-0.0169
	Volatile organic compounds (VOC)	Kilograms	-	NA	NA	NA	NA
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	** 0.114-0.236	0.037-0.096	0.041-0.081	0.062-0.177
	Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	-	-	-	-
	Location 4: Ban Wang Ta Pin						
	NOx	ppm	≤ 0.17	** 0.003-0.007	0.0132-0.0310	0.0051-0.0061	0.0137-0.0189
	SOx	mg/m ³	≤ 0.3	**0.0088-0.0096	0.0016-0.0028	0.004-0.008	0.0057-0.0073
	Volatile organic compounds (VOC)	Kilograms	-	NA	NA	NA	NA
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.059-0.282	0.018-0.100	0.031-0.099	0.041-0.090
	Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	-	-	-	-
	Location 5: Ban Map Lang School						
	NOx	ppm	≤ 0.17	**0.007-0.012	0.0119-0.0248	0.0023-0.0031	0.0080-0.0162
	SOx	mg/m ³	≤ 0.3	**0.0060-0.0067	0.0023-0.0030	0.004-0.012	0.0012-0.0020
	Volatile organic compounds (VOC)	Kilograms	-	NA	NA	NA	NA
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.065-0.077	0.018-0.044	0.014-0.041	0.027-0.046
	Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	-	-	-	-
	Location 6: Sri Sattanaram Monk Center						
	NOx	ppm	≤ 0.17	**0.005-0.011	0.0145-0.0312	0.0014-0.0028	0.0086-0.0199
	SOx	mg/m ³	≤ 0.3	**0.0045-0.0060	0.0022-0.0030	<0.001-0.008	0.0017-0.0026
	Volatile organic compounds (VOC)	Kilograms	-	NA	NA	NA	NA
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.056-0.078	0.018-0.039	0.014-0.026	0.019-0.039
	Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	-	-	-	-
	WHA ESIE1						
	Location 1: Eastern Sugar Company Community School						
	NOx	ppm	≤ 0.17	** 0.001-0.030	0.0086-0.0333	0.014-0.060	0.0045-0.0096
	SOx	mg/m ³	≤ 0.12	**0.0045-0.0060	0.0019-0.0031	0.0081-0.0176	0.0037-0.0044
Volatile organic compounds (VOC)	Kilograms	-	NA	NA	NA	NA	
Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.030-0.231	0.033-0.079	0.044-0.224	0.054-0.137	
Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	**0.011-0.120	0.019-0.079	0.023-0.103	0.023-0.047	
Location 2: Surasak School							
NOx	ppm	≤ 0.17	**0.004-0.065	0.0047-0.0171	0.004-0.017	0.0066-0.0091	
SOx	mg/m ³	≤ 0.12	** 0.0003-0.0052	0.0018-0.0065	0.007-0.028	0.0037-0.0155	

GRI Standard	Performance	Unit	Standard	2021	2022	2023	2024	
SET ESG RATING	Volatile organic compounds (VOC)	Kilograms	-	NA	NA	NA	NA	
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	** 0.021-0.251	0.027-0.050	0.024-0.150	0.044-0.094	
	Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	**0.010-0.093	0.011-0.035	0.013-0.074	0.010-0.047	
	Location 3: Weather Station							
	NO _x	ppm	≤ 0.17	**0.011-0.018	0.0016-0.0230	0.014-0.042	0.0070-0.0220	
	SO _x	mg/m ³	≤ 0.12	**0.002-0.013	0.0012-0.0065	0.001-0.009	0.0026-0.0039	
	Volatile organic compounds (VOC)	Kilograms	-	NA	NA	NA	NA	
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.020-0.087	0.027-0.050	0.035-0.148	0.023-0.065	
	Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	**0.018-0.042	0.018-0.070	0.016-0.026	0.011-0.040	
	Location 4: Klong Gram Temple							
	NO _x	ppm	≤ 0.17	** 0.002-0.015	0.0038-0.0148	0.010-0.032	0.0101-0.0129	
	SO _x	mg/m ³	≤ 0.12	** 0.005-0.023	0.0016-0.0020	0.015-0.031	0.0068-0.0099	
	Volatile organic compounds (VOC)	Kilograms	-	NA	NA	NA	NA	
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	** 0.024-0.082	0.031-0.089	0.029-0.049	0.041-0.129	
	Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	**0.010-0.044	0.019-0.045	0.021-0.03	0.012-0.052	
	Location 5: Ban Tai Sun							
	NO _x	ppm	≤ 0.17	** 0.009-0.033	0.0082-0.0188	0.021-0.042	0.0061-0.0104	
	SO _x	mg/m ³	≤ 0.12	**0.0047-0.012	0.0016-0.0024	0.001-0.002	0.0029-0.0046	
	Volatile organic compounds (VOC)	Kilograms	-	NA	NA	NA	NA	
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.019-0.052	0.034-0.073	0.016-0.023	0.030-0.075	
	Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	**0.013-0.044	0.012-0.037	0.010-0.018	0.019-0.048	
	Location 6: Khao Kan Song Temple							
	NO _x	ppm	≤ 0.17	** 0.003-0.023	0.0025-0.0097	0.007-0.055	0.0084-0.0170	
	SO _x	mg/m ³	≤ 0.12	** 0.007-0.021	0.0018-0.0027	0.028-0.049	0.0054-0.0128	
	Volatile organic compounds (VOC)	Kilograms	-	NA	NA	NA	NA	
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	** 0.023-0.097	0.032-0.088	0.027-0.105	0.033-0.084	
	Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	** 0.017-0.050	0.019-0.033	0.019-0.05	0.026-0.055	
	Location 7: Ta Kien Ku Temple							
	NO _x	ppm	≤ 0.17	** 0.002-0.010	0.0030-0.0098	0.004-0.012	0.0016-0.0178	
	SO _x	mg/m ³	≤ 0.12	** 0.0003-0.006	0.0016-0.0027	0.013-0.022	0.0077-0.0084	
Volatile organic compounds (VOC)	Kilograms	-	NA	NA	NA	NA		
Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	** 0.018-0.062	0.019-0.068	0.019-0.046	0.035-0.125		
Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	** 0.010-0.043	0.009-0.033	0.011-0.023	0.011-0.045		
Location 8: Ban Som								
NO _x	ppm	≤ 0.17	**0.002-0.020	0.0019-0.0095	0.004-0.007	0.0052-0.0113		
SO _x	mg/m ³	≤ 0.12	**0.0004-0.007	0.0019-0.0026	0.009-0.019	0.0037-0.0042		
Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	** 0.014-0.102	0.025-0.051	0.017-0.027	0.0310-0.0690		
Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	** 0.005-0.038	0.012-0.039	0.033-0.085	0.018-0.045		
WHA ESIE 2								
Location 1: Ban Map Lam Bid School								
NO _x	ppm	≤ 0.17	** <0.001-0.015	0.0063-0.0090	0.008-0.020	0.0017-0.0135		
SO _x	mg/m ³	≤ 0.30	** 0.003-0.008	0.0063-0.0076	0.0055-0.0126	0.0016-0.0050		
Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	** 0.024-0.039	0.023-0.048	0.029-0.063	0.016-0.064		
Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	**0.015-0.023	0.012-0.024	0.010-0.035	0.011-0.021		

GRI Standard	Performance	Unit	Standard	2021	2022	2023	2024
SET ESG RATING	Location 2: Industrial estate area						
	NOx	ppm	≤ 0.17	**0.004-0.010	0.0089-0.0122	0.003-0.008	0.0068-0.0142
	SOx	mg/m ³	≤ 0.30	**0.002-0.003	0.0066-0.0079	0.0010-0.0016	0.0032-0.0095
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.017-0.030	0.026-0.050	0.022-0.036	0.024-0.046
	Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	**0.010-0.018	0.014-0.032	0.008-0.028	0.016-0.031
	Location 3: Ban Map Lam Bid Moo. 7						
	NOx	ppm	≤ 0.17	**0.003-0.010	0.0087-0.0108	0.005-0.014	0.0021-0.0192
	SOx	mg/m ³	≤ 0.30	**0.008-0.009	0.0068-0.0076	0.0016-0.0050	0.0019-0.0055
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.025-0.039	0.018-0.041	0.021-0.080	0.024-0.045
	Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	**0.014-0.024	0.008-0.024	0.015-0.032	0.012-0.024
	Location 4: Khao Kan Song Moo. 3						
	NOx	ppm	≤ 0.17	**0.002-0.009	0.0087-0.0109	0.007-0.013	0.0011-0.0095
	SOx	mg/m ³	≤ 0.30	**0.005-0.011	0.0063-0.0081	0.0039-0.0181	0.0035-0.0060
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.033-0.093	0.028-0.045	0.023-0.056	0.026-0.050
	Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	**0.029-0.048	0.009-0.020	0.013-0.032	0.008-0.027
	Location 5: Chong Lom Temple						
	NOx	ppm	≤ 0.17	**0.003-0.010	0.0078-0.0108	0.002-0.008	0.0012-0.0094
	SOx	mg/m ³	≤ 0.30	**0.008-0.012	0.0090-0.0113	0.0013-0.0026	0.0058-0.0072
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.018-0.047	0.021-0.071	0.019-0.081	0.022-0.083
	Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	**0.008-0.013	0.008-0.027	0.013-0.045	0.012-0.046
	Location 6: Ban Map Kla Moo. 4						
	NOx	ppm	≤ 0.17	**0.007-0.009	0.0090-0.0113	0.008-0.024	0.0017-0.0040
	SOx	mg/m ³	≤ 0.30	**0.006-0.015	0.0066-0.0076	0.0013-0.0045	0.0016-0.0050
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.031-0.077	0.036-0.220	0.057-0.139	0.029-0.073
	Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	**0.014-0.029	0.012-0.102	0.034-0.102	0.013-0.027
	WHA ESIE 3						
	Location 1: Ban Ta Jam School						
	NOx	ppm	≤ 0.17	-	0.0074-0.0229	<0.001-0.070	0.0010-0.0260
	SOx	mg/m ³	≤ 0.30	-	0.0017-0.0033	0.0254-0.1492	0.0022-0.0035
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	***0.210-0.790	0.041-0.092	0.110-0.280	0.024-0.040
	Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	***0.071-0.175	0.019-0.042	0.035-0.116	0.015-0.027
	Location 2: Ta Jam Sub-District Hospital						
	NOx	ppm	≤ 0.17	-	0.0061-0.0206	<0.001-0.017	0.0015-0.0103
	SOx	mg/m ³	≤ 0.30	-	0.0017-0.0032	0.0072-0.0089	0.0067-0.0071
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	***0.039-0.061	0.023-0.061	0.046-0.074	0.040-0.085
	Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	***0.021-0.046	0.013-0.041	0.026-0.051	0.016-0.035
	Location 3: Huay Mara Sub-District Hospital						
	NOx	ppm	≤ 0.17	-	0.0088-0.0184	<0.001-0.008	0.0028-0.0157
	SOx	mg/m ³	≤ 0.30	-	0.0017-0.0032	0.0081-0.0098	0.0043-0.0050
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	***0.043-0.129	0.032-0.090	0.032-0.073	0.029-0.041
	Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	***0.021-0.052	0.022-0.080	0.015-0.028	0.017-0.032
	Location 4: Ban Meun Jit Sub-District Hospital						
NOx	ppm	≤ 0.17	-	0.0083-0.0216	<0.001-0.006	0.0001-0.0041	
SOx	mg/m ³	≤ 0.30	-	0.0016-0.0033	0.0079-0.0097	0.0096-0.0101	
Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	***0.043-0.056	0.039-0.071	0.019-0.057	0.028-0.048	
Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	***0.020-0.030	0.020-0.045	0.013-0.039	0.011-0.024	
Location 5: Raweng School							
NOx	ppm	≤ 0.17	-	0.0073-0.0221	<0.001-0.008	0.0013-0.0099	
SOx	mg/m ³	≤ 0.30	-	0.0018-0.0034	0.0092-0.0121	0.0012-0.0014	

GRI Standard	Performance	Unit	Standard	2021	2022	2023	2024
SET ESG RATING	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	*** 0.037-0.093	0.026-0.060	0.029-0.047	0.030-0.058
	PM10	mg/m ³	< 0.12	*** 0.020-0.041	0.011-0.028	0.018-0.039	0.013-0.029
	Location 6: Chaloevraj Temple						
	NOx	ppm	≤ 0.17	-	0.0065-0.0194	<0.001-0.005	0.0002-0.0157
	SOx	mg/m ³	≤ 0.30	-	0.0017-0.0035	0.0087-0.0118	0.0017-0.0023
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	*** 0.028-0.050	0.031-0.059	0.030-0.063	0.022-0.069
	PM10	mg/m ³	< 0.12	***0.013-0.024	0.020-0.048	0.021-0.044	0.017-0.035
	WHA ESIE 4						
	Location 1: Ban Nikom Sans Ton Eng-main road						
	NOx	ppm	≤ 0.17	** 0.003-0.009	0.0012-0.0109	0.002-0.009	0.0066-0.0150
	SOx	mg/m ³	≤ 0.30	**0.0113-0.0162	0.0008-0.0052	0.0034-0.0064	0.0070-0.0090
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.022-0.036	0.023-0.055	0.014-0.035	0.031-0.047
	Total Suspended Particulate matter10 (PM10)	mg/m ³	< 0.12	**0.028-0.042	0.010-0.031	0.031-0.063	0.017-0.028
	Location 2: Ban Nong Mapring						
	NOx	ppm	≤ 0.17	** 0.005-0.010	0.0010-0.0093	0.003-0.026	0.0044-0.0163
	SOx	mg/m ³	≤ 0.30	**0.0034-0.0063	0.0015-0.0050	0.0027-0.0037	0.0025-0.0048
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.020-0.029	0.025-0.047	0.019-0.040	0.033-0.049
	Total Suspended Particulate matter10 (PM10)	mg/m ³	< 0.12	**0.028-0.038	0.012-0.032	0.032-0.074	0.016-0.027
	Location 3: Mae Nam Ku Temple						
	NOx	ppm	≤ 0.17	**0.005-0.016	0.0030-0.0158	0.002-0.012	0.0041-0.0169
	SOx	mg/m ³	≤ 0.30	**0.0031-0.0042	0.0017-0.0062	0.0043-0.0052	0.0086-0.0133
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.020-0.032	0.019-0.038	0.018-0.047	0.029-0.053
	Total Suspended Particulate matter10 (PM10)	mg/m ³	< 0.12	**0.028-0.040	0.008-0.028	0.036-0.096	0.014-0.033
	Location 4: Ban Mae Nam Ku						
	NOx	ppm	≤ 0.17	**0.008-0.016	0.0027-0.0125	0.012-0.028	0.0114-0.0177
	SOx	mg/m ³	≤ 0.30	**0.0068-0.0168	0.0012-0.0077	0.0048-0.0085	0.0114-0.0152
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.025-0.037	0.021-0.033	0.028-0.057	0.039-0.057
	Total Suspended Particulate matter10 (PM10)	mg/m ³	< 0.12	**0.043-0.077	0.009-0.011	0.059-0.174	0.020-0.035
	WHA CIE1						
	Location 1: Resident and commercial area within the industrial estate						
	NOx	ppm	≤ 0.17	**<0.001-0.028	0.0045-0.0129	0.010-0.011	0.001-0.021
	SOx	mg/m ³	≤ 0.30	**0.0026-0.0079	0.0019-0.0066	0.0128-0.0130	0.0070-0.0076
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	** 0.183-0.257	0.043-0.064	0.083-0.094	0.069-0.110
	Total Suspended Particulate matter10 (PM10)	mg/m ³	< 0.12	-	-	-	-
	Location 2: Bo Win School						
	NOx	ppm	≤ 0.17	** <0.001-0.033	0.0015-0.0091	0.005-0.007	<0.001-0.006
	SOx	mg/m ³	≤ 0.30	**0.0055-0.0086	0.0011-0.0075	0.0104-0.0156	0.0059-0.0069
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.132-0.161	0.021-0.026	0.071-0.128	0.039-0.057
	Total Suspended Particulate matter10 (PM10)	mg/m ³	< 0.12	-	-	-	-
	Location 3: Pan Saded Nok Temple						
	NOx	ppm	≤ 0.17	**0.0060-0.0580	0.0041-0.0111	0.009-0.013	0.003-0.018
	SOx	mg/m ³	≤ 0.30	**0.0037-0.0081	0.0010-0.0055	0.0327-0.0369	0.0320-0.0385
Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.157-0.167	0.026-0.032	0.066-0.082	0.039-0.065	
Total Suspended Particulate matter10 (PM10)	mg/m ³	< 0.12	-	-	-	-	
WHA CIE2							
Location 1: Hoobbon Sub-District Hospital							
NOx	ppm	≤ 0.17	** <0.001-0.032	0.0041-0.0142	0.007-0.009	0.0065-0.0159	
SOx	mg/m ³	≤ 0.30	**0.0026-0.0037	0.0008-0.0058	0.0041-0.0056	0.0074-0.0096	
Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.044-0.064	0.038-0.068	0.066-0.084	0.033-0.057	

GRI Standard	Performance	Unit	Standard	2021	2022	2023	2024	
SET ESG RATING	Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	**0.031-0.057	0.018-0.041	0.038-0.046	0.016-0.033	
	Location 2: Khao Hin Lad Temple							
	NOx	ppm	≤ 0.17	**<0.001-0.007	0.0026-0.0100	0.004-0.008	0.0126-0.0211	
	SOx	mg/m ³	≤ 0.30	**0.0037-0.0217	0.0010-0.0076	0.0042-0.0059	0.0074-0.0094	
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.041-0.082	0.029-0.057	0.036-0.085	0.027-0.043	
	Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	**0.030-0.057	0.016-0.042	0.028-0.039	0.014-0.025	
	Location 3: Khao Kan Song Moo.3 Community							
	NOx	ppm	≤ 0.17	** <0.001-0.008	0.0016-0.0151	0.008-0.011	0.0080-0.0282	
	SOx	mg/m ³	≤ 0.30	**0.0003-0.0058	0.0010-0.0050	0.0025-0.0031	0.0032-0.0037	
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	** 0.080-0.135	0.031-0.066	0.048-0.068	0.025-0.050	
	Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	** 0.045-0.069	0.015-0.044	0.026-0.033	0.012-0.026	
	Location 4: Siri Anusorn Community							
	NOx	ppm	≤ 0.17	** <0.001-0.035	0.0036-0.0153	0.011-0.015	0.0067-0.0253	
	SOx	mg/m ³	≤ 0.30	**0.0173-0.0212	0.0010-0.0093	0.0018-0.0036	0.0047-0.0066	
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	** 0.048-0.096	0.034-0.085	0.064-0.101	0.027-0.131	
	Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	** 0.028-0.048	0.019-0.041	0.037-0.046	0.015-0.038	
	WHA EIE							
	Location 1: WHA EIE office							
	NOx	ppm	≤ 0.17	<0.001-0.018	0.0015-0.0087	<0.001-0.042	0.0031-0.0315	
	SOx	mg/m ³	≤ 0.30	0.0004-0.0014	0.0050-0.0060	0.0063-0.0085	0.0039-0.0061	
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	0.016-0.029	0.016-0.049	0.045-0.081	0.031-0.102	
	Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	0.020-0.047	0.035-0.086	0.093-0.128	0.018-0.050	
	Location 2: Nong Fab Temple							
	NOx	ppm	≤ 0.17	** <0.001-0.033	0.0012-0.0088	<0.001-0.006	0.0045-0.0331	
	SOx	mg/m ³	≤ 0.30	**0.0046-0.0059	0.0042-0.0052	0.0059-0.0091	0.0047-0.0052	
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	** 0.023-0.042	0.030-0.045	0.065-0.092	0.025-0.085	
	Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	** 0.038-0.065	0.052-0.081	0.106-0.138	0.012-0.035	
	Location 3: Map Chalud Temple							
	NOx	ppm	≤ 0.17	**<0.001-0.017	0.0018-0.0117	<0.001-0.015	0.0026-0.0181	
	SOx	mg/m ³	≤ 0.30	**0.0014-0.0026	0.0047-0.0052	0.0060-0.0062	0.0049-0.0057	
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.02-0.072	0.014-0.028	0.044-0.067	0.032-0.096	
	Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	**0.035-0.101	0.057-0.090	0.094-0.146	0.021-0.059	
	WHA RIL							
	Location 1: WHA RIL office							
	NOx	ppm	≤ 0.17	**<0.001-0.041	0.0060-0.0173	0.002-0.019	0.0021-0.0091	
	SOx	mg/m ³	≤ 0.30	** 0.002-0.006	0.0009-0.0032	0.002-0.021	0.0032-0.0039	
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	** 0.013-0.039	0.024-0.052	0.010-0.030	0.039-0.054	
	PM ₁₀	mg/m ³	< 0.12	** 0.023-0.061	0.040-0.078	0.030-0.066	0.021-0.032	
	Location 2: Ban Sam Yak Community							
	NOx	ppm	≤ 0.17	** <0.001-0.026	0.0009-0.0032	0.004-0.011	0.0004-0.0097	
	SOx	mg/m ³	≤ 0.30	**<0.001-0.009	0.0011-0.0034	0.004-0.011	0.0026-0.0047	
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.018-0.048	0.028-0.071	0.014-0.035	0.030-0.041	
Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	**0.030-0.066	0.034-0.061	0.025-0.057	0.023-0.033		
Location 3: Nong La Lok Community								
NOx	ppm	≤ 0.17	**<0.001-0.008	0.0024-0.0153	0.001-0.029	0.0006-0.0128		
SOx	mg/m ³	≤ 0.30	**0.003-0.008	0.0011-0.0031	0.004-0.010	0.0073-0.0087		
Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.015-0.031	0.018-0.052	0.020-0.034	0.027-0.040		
Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	**0.031-0.054	0.028-0.071	0.040-0.089	0.020-0.032		
Location 4: Ban Klong Nam Yen Community								

GRI Standard	Performance	Unit	Standard	2021	2022	2023	2024	
SET ESG RATING	NOx	ppm	≤ 0.17	**<0.001-0.032	0.0061-0.0145	0.001-0.009	0.0020-0.0070	
	SOx	mg/m ³	≤ 0.30	**0.001-0.008	0.0009-0.0032	0.003-0.014	0.0026-0.0046	
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.014-0.088	0.022-0.047	0.014-0.035	0.033-0.052	
	Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	**0.031-0.125	0.033-0.066	0.032-0.056	0.020-0.027	
	WHA SIL							
	Location 1: WHA SIL office							
	NOx	ppm	≤ 0.17	**<0.001-0.020	0.0075-0.0132	0.003-0.040	0.0024-0.0624	
	SOx	mg/m ³	≤ 0.30	**0.002-0.003	0.0016-0.0045	<0.001-0.008	0.0010-0.0012	
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.016-0.021	0.030-0.147	0.040-0.063	0.052-0.099	
	Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	**0.030-0.038	0.019-0.054	0.083-0.111	0.030-0.061	
	Location 2: Nong Pla Mo School							
	NOx	ppm	≤ 0.17	** 0.002-0.018	0.0031-0.0056	0.002-0.029	0.0016-0.0200	
	SOx	mg/m ³	≤ 0.30	** 0.002-0.005	0.0016-0.0035	<0.001-0.003	0.0008-0.0010	
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	** 0.026-0.053	0.030-0.051	0.049-0.082	0.045-0.119*	
	Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	** 0.058-0.141	0.014-0.035	0.101-0.167	0.025-0.070*	
	Location 3: Bua Loi Klang School							
	NOx	ppm	≤ 0.17	** 0.003-0.017	0.0038-0.0070	<0.001-0.032	0.0012-0.0134	
	SOx	mg/m ³	≤ 0.30	**0.001-0.005	0.0016-0.0034	<0.001-0.002	0.0002-0.0011	
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	**0.014-0.023	0.031-0.055	0.024-0.053	0.046-0.079	
	Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	**0.043-0.063	0.019-0.029	0.052-0.096	0.026-0.045	
	Location 4: Ban Mai Tung Din Khor School							
	NOx	ppm	≤ 0.17	** 0.001-0.017	0.0050-0.0104	0.002-0.029	0.0028-0.0288	
	SOx	mg/m ³	≤ 0.30	** 0.002-0.005	0.0016-0.0038	0.001-0.009	0.0005-0.0006	
	Total Suspended Particulate (TSP)	mg/m ³	≤ 0.33	** 0.017-0.026	0.030-0.068	0.031-0.056	0.053-0.102	
Total Suspended Particulate matter ₁₀ (PM ₁₀)	mg/m ³	< 0.12	** 0.034-0.060	0.016-0.031	0.067-0.101	0.019-0.062		

Note: **Data from WHAID, ***Data from WHAUP

Biodiversity

GRI Standard	Performance	Unit	2021	2022	2023	2024
304-1	Number of industrial estates located near protected areas	Operation	2	2	2	2
	Number of industrial estates located near high biodiversity value area		2	2	2	2
	Number of industrial estates that conducts biodiversity value assessment		3	4	4	4
	Number of industrial estates required biodiversity management plan		3	4	4	4
	Number of industrial estates implemented biodiversity management plan		3	4	4	4
S&P CSA	Biodiversity Exposure & Assessment					
	Total number of sites and the total area used for operational activities	Number	11	11	11	11
		Area (Hectares)	7,200.3056	7,200.3056	7,200.3056	7,200.3056
	Total number of sites and total area for operational activities that have conducted biodiversity impact assessments in the past 5 years	Number	11	11	11	11
		Area (Hectares)	7,200.3056	7,200.3056	7,200.3056	7,200.3056
	Total number of sites and total area of sites assessed in past 5 years are in close proximity to critical biodiversity	Number	2	2	2	2
		Area (Hectares)	1,532.39	1,532.39	1,532.39	1,532.39
Total number of sites, in close proximity to critical biodiversity, that have biodiversity management plan	Number	2	2	2	2	
	Area (Hectares)	1,532.39	1,532.39	1,532.39	1,532.39	

Note: WHAUP is operated within WHA Industrial Estates, therefore, the data are reported by the number of industrial estates.

Environmental Compliance

GRI Standard	Performance	Unit	2021	2022	2023	2024
307-1	Non-compliance with environmental laws and regulations					
	Total number of violations of legal obligations/regulations	Cases	0	0	0	0
	- Significant fines	Baht	0	0	0	0
	- Non-monetary sanctions	Cases	0	0	0	0
	- Case brought through dispute resolution mechanisms	Cases	0	0	0	0

Environmental Certificate

GRI Standard	Performance	Unit	2021	2022	2023	2024
FTSE RUSSELL	Sites covered by recognized environmental management systems					
	ISO14001 or EMAS	%	100	100	100	100
	ISO 9001	%	100	100	100	100

SOCIAL PERFORMANCE

Employment

GRI Standard	Performance	Unit	2021		2022		2023		2024		
			Male	Female	Male	Female	Male	Female	Male	Female	
2-7	Total number of employee	Person	152		182		198		216		
			121	31	142	40	161	37	171	45	
	Thailand		121	31	140	37	155	35	163	42	
	Vietnam	NA	NA	2	3	6	2	8	3		
	Total employee by age group										
	Below 30 years old	Person	38	12	34	14	37	13	40	13	
		%	31.40	38.71	23.94	35.00	22.98	35.14	23.39	28.89	
	30-50 years old	Person	70	18	93	24	105	23	114	31	
		%	57.85	58.06	65.49	60.00	65.22	62.16	66.67	68.89	
	Over 50 years old	Person	13	1	15	2	19	1	17	1	
		%	10.74	3.23	10.56	5.00	11.80	2.70	9.94	2.22	
	Total employee by level										
	All Management position										
	Thailand	Person	22	10	29	9	31	12	37	15	
	Vietnam		NA	NA	0	3	2	2	3	3	
	Total number of managements		22	10	29	12	33	14	40	18	
				32		41		47		58	
	Top management										
	Thailand	Person	6	1	7	1	7	0	5	0	
	Vietnam		NA	NA	0	0	0	0	0	0	
	Total top management		6	1	7	1	7	0	5	0	
				7		8		7		5	
Middle management											
Thailand	Person	9	8	16	6	17	6	24	9		
Vietnam		NA	NA	0	3	1	2	2	3		
Total middle management		9	8	16	9	18	8	26	12		
			17		25		26		38		
Junior management											
Thailand	Person	7	1	6	2	7	6	8	6		

GRI Standard	Performance	Unit	2021		2022		2023		2024		
			Male	Female	Male	Female	Male	Female	Male	Female	
2-7	Vietnam		NA	NA	0	0	1	0	1	0	
	Total junior management		7	1	6	2	8	6	9	6	
				8		8		14		15	
	Staff										
	Thailand	Person		99	21	111	28	120	20	126	27
	Vietnam			NA	NA	2	0	4	0	5	0
	Total staff			99	21	111	28	124	20	131	27
				120		141		144		158	
	Total employee by employment type										
	Permanent employee by region										
	Thailand	Person		121	31	139	34	151	35	161	42
	Vietnam			NA	NA	2	3	6	2	8	3
	Total permanent employee			121	31	141	37	157	37	169	45
				152		178		194		214	
	Temporary employee by region										
	Thailand	Person		0	0	1	3	4	0	2	0
	Vietnam			0	0	0	0	0	0	0	0
	Total temporary employee			0	0	1	3	4	0	2	0
				0		4		4		2	
	Non-guaranteed hours employee by region										
Thailand	Person		0	0	0	0	0	0	0	0	
Vietnam			0	0	0	0	0	0	0	0	
Total non-guaranteed hours employee			0								
			0		0		0		0		
Full-time employee by region											
Thailand	Person		121	31	140	37	155	35	163	42	
Vietnam			NA	NA	2	3	6	2	8	3	
Total full-time employee			121	31	142	40	161	37	171	45	
			152		182		198		216		
Part-time employee by region											
Thailand	Person		0	0	0	0	0	0	0	0	
Vietnam			0	0	0	0	0	0	0	0	
Total part-time employee			0								
			0		0		0		0		

GRI Standard	Performance	Unit	2021		2022		2023		2024	
			Male	Female	Male	Female	Male	Female	Male	Female
401-1	New employee hires									
	Total number of new employee hires	Person	24	7	29	11	31	7	22	11
			31		40		38		33	
	New hire rate	% of total employee	20.39		21.98		19.19		15.28	
	Open positions filled by internal candidate (internal hires)	%	NA		NA		1.72		1.72	
	Average Hiring Cost/ FTE	Baht	NA		NA		21,750		21,750	
	New employee hires by region									
	Thailand	Person	24	7	27	8	27	7	19	10
		% of total employee	15.79	4.61	14.84	4.40	13.64	3.54	8.80	4.63
	Vietnam	Person	NA	NA	2	3	4	0	3	1
		% of total employee	NA	NA	1.10	1.65	2.02	0.00	1.39	0.46
	New employee hires by nationality									
	Thai	Person	NA	NA	NA	NA	28	7	19	10
		% of total employee	NA	NA	NA	NA	14.14	3.54	8.80	4.63
	Vietnamese	Person	NA	NA	NA	NA	3	0	3	1
		% of total employee	NA	NA	NA	NA	1.52	0.00	1.39	0.46
	American	Person	NA	NA	NA	NA	0	0	0	0
		% of total employee	NA	NA	NA	NA	0.00	0.00	0.00	0.00
	Canadian	Person	NA	NA	NA	NA	0	0	0	0
		% of total employee	NA	NA	NA	NA	0.00	0.00	0.00	0.00
	French	Person	NA	NA	NA	NA	0	0	0	0
		% of total employee	NA	NA	NA	NA	0.00	0.00	0.00	0.00
	Japanese	Person	NA	NA	NA	NA	0	0	0	0
		% of total employee	NA	NA	NA	NA	0.00	0.00	0.00	0.00
	New employee by management level									
	Top Management									
	Thailand	Person	NA	NA	NA	NA	0	0	0	0
% of total employee		NA	NA	NA	NA	0.00	0.00	0.00	0.00	
Vietnam	Person	NA	NA	NA	NA	0	0	0	0	
	% of total employee	NA	NA	NA	NA	0.00	0.00	0.00	0.00	
Middle Management										
Thailand	Person	NA	NA	NA	NA	9	0	4	2	
	% of total employee	NA	NA	NA	NA	4.55	0.00	1.85	0.93	
Vietnam	Person	NA	NA	NA	NA	1	2	1	1	
	% of total employee	NA	NA	NA	NA	0.51	1.01	0.46	0.46	
Junior Management										
Thailand	Person	NA	NA	NA	NA	0	2	1	1	
	% of total employee	NA	NA	NA	NA	0.00	1.01	0.46	0.46	
Vietnam	Person	NA	NA	NA	NA	1	0	0	0	
	% of total employee	NA	NA	NA	NA	0.51	0.00	0.00	0.00	
New employee hires by age										
Below 30 years old	Person	12	5	12	6	12	3	10	2	
	% of total employee	7.89	3.29	6.59	3.30	6.06	1.52	4.63	0.93	

GRI Standard	Performance	Unit	2021		2022		2023		2024		
			Male	Female	Male	Female	Male	Female	Male	Female	
401-1	Thailand	Person	12	5	10	6	11	3	8	2	
	Vietnam		NA	NA	2	0	1	0	2	0	
	30-50 years old	Person	12	2	16	5	19	4	12	9	
		% of total employee	7.89	1.32	8.79	2.75	9.60	2.02	5.56	4.17	
	Thailand	Person	12	2	16	2	16	4	11	8	
	Vietnam		NA	NA	0	3	3	0	1	1	
	Over 50 years old	Person	0	0	1	0	0	0	0	0	
		% of total employee	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.00	
	Thailand	Person	0	0	1	0	0	0	0	0	
	Vietnam		NA	NA	0	0	0	0	0	0	
	Turnover rate										
	Total employee turnover	Person	4	1	7	4	12	4	11	3	
			5		11		16		14		
	Dismissal of Employee	Person	0	0	0	0	0	0	0	0	
	Voluntary leave	Person	4	1	7	4	12	4	11	3	
	Turnover rate	% of total employee	3.29		6.04		8.08		6.48		
	Voluntary employee turnover	% of total employee	3.29		6.04		8.08		6.48		
	Data coverage (as % of all FTEs globally)	%	100		100		100		100		
	Employee turnover by region										
	Thailand	Person	4	1	6	4	12	3	10	3	
		% of total employee	2.63	0.66	3.30	2.20	6.06	1.52	4.63	1.39	
	Vietnam	Person	NA	NA	1	0	0	1	1	0	
		% of total employee	NA	NA	0.55	0.00	0.00	0.51	0.46	0.00	
	Employee turnover by age										
	Below 30 years old	Person	3	1	2	2	5	1	3	1	
		% of total employee	1.97	0.66	1.10	1.10	2.53	0.51	1.39	0.46	
	Thailand	Person	3	1	2	2	5	1	3	1	
	Vietnam		0	0	0	0	0	0	0	0	
30-50 years old	Person	1	0	4	2	6	3	8	2		
	% of total employee	0.66	0.00	2.20	1.10	3.03	1.52	3.70	0.93		
Thailand	Person	1	0	3	2	6	2	7	2		
Vietnam		0	0	1	0	0	1	1	0		
Over 50 years old	Person	0	0	1	0	1	0	0	0		
	% of total employee	0.00	0.00	0.55	0.00	0.51	0.00	0.00	0.00		
Thailand	Person	0	0	1	0	1	0	0	0		
Vietnam		0	0	0	0	0	0	0	0		
Turnover by management level											
Top Management											
Thailand	Person	NA	NA	NA	NA	1	0	1	0		
	% of total employee	NA	NA	NA	NA	0.51	0.00	0.46	0.00		
Vietnam	Person	NA	NA	NA	NA	0	0	0	0		
	% of total employee	NA	NA	NA	NA	0.00	0.00	0.00	0.00		
Middle Management											
Thailand	Person	NA	NA	NA	NA	4	0	1	1		
	% of total employee	NA	NA	NA	NA	2.02	0.00	0.46	0.46		
Vietnam	Person	NA	NA	NA	NA	0	1	0	0		
	% of total employee	NA	NA	NA	NA	0.00	0.51	0.00	0.00		

GRI Standard	Performance	Unit	2021		2022		2023		2024	
			Male	Female	Male	Female	Male	Female	Male	Female
	Junior/ Low level Management									
	Thailand	Person	NA	NA	NA	NA	0	0	0	0
		% of total employee	NA	NA	NA	NA	0.00	0.00	0.00	0.00
	Vietnam	Person	NA	NA	NA	NA	0	0	0	0
% of total employee		NA	NA	NA	NA	0.00	0.00	0.00	0.00	
401-3	Parental leave									
	Employees that were entitled to parental leave	Person	-	31	-	36		37	171	45
	Total employees that took parental leave		-	0	-	0		0	1	0
	Total employees that returned to work in the reporting period after parental leave ended		-	0	-	0		0	1	0
	Total employees that returned to work after parental leave ended that were still employed 12 months after their return to work		-	0	-	0		0	1	0
	Total return to work rate	%	-	-	-	-	-	-	100	0
Total retention rate	%	-	-	-	-	-	-	100	0	
404-1	Employee training									
	Total number of training hours provided to employees	Hours	2,463.00		3,870.79		4,396.50		7,764.21	
			3,144.93	725.86	3,454.50	942.00	4,222.00	1,116.50	6,362.63	1,401.58
	Average hours of training and development	Hours/FTE/Year	25.47		24.16		26.96		35.95	
			25.99	23.41	24.33	23.55	26.22	30.18	37.21	31.15
	Average days of training and development	Baht	1.06		1.01		1.12		1.50	
			1.08	0.98	1.01	0.98	1.09	1.26	1.55	1.30
	Average amount spent on FTE on training and development	Baht	NA		6,022.81		11,057.90		5,543.44	
			NA	NA	5,118.09	9,234.56	10,938.28	11,578.42	6,333.18	2,542.43
	Average hours of training by employee category									
	Number of executives	Person	7		8		7		5	
	Number of training hours provided to executives	Hours	240.88		254.00		144.00		195.00	
	Average hours of training for top management	Hours/FTE/Year	34.41		31.75		20.57		39.00	
	Number of middle management	Person	17		25		26		38	
	Number of training hours provided to middle management	Hours	485.67		1,048.50		852.50		1,670.43	
	Average hours of training for middle management	Hours/FTE/Year	28.57		41.94		32.79		43.96	
	Number of junior management	Person	8		8		14		15	
	Number of training hours provided to junior management	Hours	291.46		232.00		332.00		300.00	
	Average hours of training for junior management	Hours/FTE/Year	36.46		29		23.71		20.00	
Number of staff	Person	120		141		144		158		
Number of training hours provided to staffs	Hours	2,852.78		2,862.00		4,010.00		5,598.78		
Average hours of training for staff	Hours/FTE/Year	23.77		20.30		27.85		35.44		
Average hours of training by age group										
Below 30 years old	Hours/FTE/Year	NA	NA	NA	NA	26.35	28.27	29.64	19.73	
30-50 years old		NA	NA	NA	NA	24.70	22.90	39.70	35.05	
Over 50 years old		NA	NA	NA	NA	29.11	45.50	38.29	58.50	

GRI Standard	Performance	Unit	2021		2022		2023		2024	
			Male	Female	Male	Female	Male	Female	Male	Female
	Average hours of training by training type									
	In-house training	Hours/FTE/Year	NA	NA	27.24	33.00	23.85	28.51	34.16	30.35
	Public training		NA	NA	3.22	0.00	2.38	1.66	3.05	0.80
	Average hours of training by nationality									
	Thai	Hours/FTE/Year	NA	NA	24.41	25.67	26.50	30.40	38.25	32.25
	Others		NA	NA	24.41	25.67	26.22	30.18	15.94	15.67
	Human Capital Return on Investment									
Human Capital Return on Investment (Normalized Basis)	Times	22.6		17.2		19.7		19.1		
Human Capital Return on Investment (Reported Basis)	Times	NA		NA		NA		NA		
404-3	Number of employees receiving regular performance and career development reviews									
	Total number of employees receiving regular performance and career development reviews by gender	Person	121	31	142	40	157	37	169	45
		%	100	100	100	100	97.52	100	98.83	100.00
	Performance review by employee category									
	Total number of executives who received regular performance and career development reviews	Person	7		8		7		5	
		%	100.00		100.00		100.00		100.00	
	Total number of middle managements who received regular performance and career development reviews	Person	17		25		26		38	
		%	100.00		100.00		100.00		100.00	
	Total number of junior managements who received regular performance and career development reviews	Person	8		8		14		15	
		%	100.00		100.00		100.00		100.00	
	Total number of staff who received regular performance and career development reviews	Person	120		141		144		158	
		%	100.00		100.00		100.00		100	
	Trend of Employee Engagement									
	Employee Engagement	% of actively engaged employee	69		72		70		70	
	Employee Engagement Target 2024		76							
Data Coverage	% of total employee	94		100		99		99		
Data Coverage Target 2024		100								

Labor Practice Indicators

GRI Standard	Performance	Unit	2021		2022		2023		2024		
			Male	Female	Male	Female	Male	Female	Male	Female	
405-1	Total number of governance bodies members	Person	2	0	3	0	3	0	3	0	
	Diversity of governance bodies by gender	%	100	0	100	0	100	0	100	0	
	Diversity of governance bodies by age group										
	Below 30 years old	Person		0		0		0		0	
		% governance body		0.00		0.00		0.00		0.00	
	30-50 years old	Person		1		2		2		2	
		% governance body		50.00		66.67		66.67		66.67	
	Over 50 years old	Person		1		1		1		1	
		% governance body		50.00		33.33		33.33		33.33	
	Diversity of total workforce by age group										
	Below 30 years old	Person		38		12		34		14	
		% of total employee		31.40		38.71		23.94		35.00	
	30-50 years old	Person		70		18		93		24	
		% of total employee		57.85		58.06		65.49		60.00	
	Over 50 years old	Person		13		1		15		2	
		% of total employee		10.74		3.23		10.56		5.00	
	Diversity of employees by gender										
	Top management	Person		6		1		7		1	
		% of management employee		3.95		0.66		3.85		0.55	
	Middle management	Person		9		8		16		9	
		% of management employee		5.92		5.26		8.79		4.95	
Junior management	Persons		7		1		6		2		
	% of management employee		4.61		0.66		3.30		1.10		
Staff	Person		99		21		113		28		
	% of management employee		65.13		13.82		62.09		15.38		
Diversity of employee-by-employee category											
Top management											
Below 30 years old	Person		0		0		0		0		
	% of management employee		0.00		0.00		0.00		0.00		
30-50 years old	Person		4		5		5		5		
	% of management employee		12.50		12.20		12.20		71.43		
Over 50 years old	Person		3		3		3		2		
	% of management employee		9.38		7.32		7.32		28.57		

GRI Standard	Performance	Unit	2021		2022		2023		2024	
			Male	Female	Male	Female	Male	Female	Male	Female
	Total of top management	Person	7		8		7		5	
	Middle management									
	Below 30 years old	Person	1		0		0		0	
		% of management employee	3.13		0.00		0.00		0.00	
	30-50 years old	Person	15		23		21		35	
		% of management employee	46.88		56.10		80.77		92.11	
	Over 50 years old	Person	1		2		2		3	
		% of management employee	3.13		4.88		7.69		7.89	
	Total of middle management	Person	17		25		23		38	
	Junior management									
	Below 30 years old	Person	0		0		0		0	
		% of management employee	0.00		0.00		0.00		0.00	
	30-50 years old	Person	7		7		12		14	
		% of management employee	21.88		17.07		85.71		93.33	
	Over 50 years old	Person	1		1		1		1	
		% of management employee	3.13		2.44		7.14		6.67	
	Total of junior management	Person	8		8		13		15	
	Staff									
	Below 30 years old	Person	49		48		47		53	
		% of total employee	32.24		26.37		23.74		24.54	
	30-50 years old	Person	62		82		82		92	
		% of total employee	40.79		45.05		41.41		42.59	
	Over 50 years old	Person	9		11		14		13	
		% of total employee	5.92		6.04		7.07		6.02	
	Total of staff	Person	120		141		143		158	
	Employees with disabilities									
	Total	Person	NA	NA	NA	NA	0	0	0	0
		% of total employee	NA	NA	NA	NA	0.00	0.00	0.00	0.00
	Share of women in total workforce									
	Share of women in total workforce	Person	0	NA	0	NA	0	23	0	45
		% of total workforce	0	NA	0	NA	0	11.62	0	20.83
	Target 2024	%	15							
	Share of women in all management positions, including junior, middle and top management	Person	0	NA	0	NA	0	12	0	18
		% of total management positions	0	NA	0	NA	0	25.53	0	31.03
	Target 2024	%	30							
		Person	0	NA	0	NA	0	6	0	6

GRI Standard	Performance	Unit	2021		2022		2023		2024	
			Male	Female	Male	Female	Male	Female	Male	Female
	Share of women in junior management positions, i.e. first level of management	% of total junior management positions	0	NA	0	NA	0	42.86	0	40.00
	Target 2024	%	45							
	Share of women in top management positions, i.e. maximum two levels away from the CEO or comparable positions	Person	0	NA	0	NA	0	0	0	0
		% of total top management positions	0	NA	0	NA	0	0.00	0	0.00
	Target 2024	%	NA							
	Share of women in management positions in revenue-generating functions (e.g. sales)	Person	0	NA	0	NA	0	8	0	6
		% of all such managers (i.e. excluding support functions such as HR, IT, Legal etc.)	0	NA	0	NA	0	32.00	0	31.58
	Target 2024	%	35							
	Share of women in STEM-related positions	Person	0	NA	0	NA	0	13	0	8
		% of total STEM positions	0	NA	0	NA	0	46.43	0	23.53
	Target 2024	%	N/A							
Breakdown based on Nationality: Thailand										
Share in total workforce	Person	NA	NA	NA	NA	155	35	163	42	
	% of total employee	NA	NA	NA	NA	78.28	17.68	75.46	19.44	
Share in all management positions, including junior, middle and senior management	Person	NA	NA	NA	NA	31	12	37	15	
	% of total management workforce	NA	NA	NA	NA	65.96	25.53	63.79	25.86	
Breakdown based on Nationality: Others										
Share in total workforce (American)	Person	NA	NA	NA	NA	0	0	0	0	
	% of total workforce	NA	NA	NA	NA	0.00	0.00	0.00	0.00	
Share in all management positions, including junior, middle and senior management (American)	Person	NA	NA	NA	NA	0	0	0	0	
	% of total management workforce	NA	NA	NA	NA	0.00	0.00	0.00	0.00	
Share in total workforce (Canadian)	Person	NA	NA	NA	NA	1	0	0	0	
Share in all management positions, including junior, middle and senior management (Canadian)	% of total workforce	NA	NA	NA	NA	0.51	0.00	0.00	0.00	
	Person	NA	NA	NA	NA	1	0.00	0	0	
	% of total management workforce	NA	NA	NA	NA	2.13	0.00	0.00	0.00	
Share in total workforce (French)	Person	NA	NA	NA	NA	0	0	1	0	
	% of total workforce	NA	NA	NA	NA	0.00	0.00	0.46	0.00	
Share in all management positions, including junior, middle and senior management (French)	Person	NA	NA	NA	NA	0	0.00	1	0	
	% of total management workforce	NA	NA	NA	NA	0.00	0.00	1.72	0.00	
Share in total workforce (Vietnamese)	Person	NA	NA	NA	NA	5	2	7	3	
	% of total workforce	NA	NA	NA	NA	2.53	1.01	3.24	1.39	
	Person	NA	NA	NA	NA	1.00	2	2	3	

GRI Standard	Performance	Unit	2021		2022		2023		2024	
			Male	Female	Male	Female	Male	Female	Male	Female
	Share in all management positions, including junior, middle and senior management (Vietnamese)	% of total management workforce	NA	NA	NA	NA	2.13	4.26	3.45	5.17
	Share in total workforce (Japanese)	Person	NA	NA	NA	NA	0	0	0	0
		% of total workforce	NA	NA	NA	NA	0.00	0.00	0.00	0.00
	Share in all management positions, including junior, middle and senior management (Japanese)	Person	NA	NA	NA	NA	0	0	0	0
		% of management workforce	NA	NA	NA	NA	0.00	0.00	0.00	0.00
405-2	Ratio of basic salary and remuneration of women to men									
	Average pay for female to male executives	-	NA	NA	NA	NA	0.00	0.00	0.00	0.00
	Average pay for female to male management	-	NA	NA	NA	NA	1.02	0.99	1.02	0.99
	Average pay for female to male non-management	-	NA	NA	NA	NA	1.36	1.06	1.36	1.06
	Equal pay analysis									
	Executive level (base salary only)	Average Baht/Person	261,000	220,000	293,000	228,000	400,000	-	433,400	0
	Executive level (base salary + other cash incentives)		NA	NA	NA	NA	600,000	-	668,000	0
	Management level (base salary only)		61,000	81,000	90,000	90,500	91,000	84,200	83,100	81,100
	Management level (base salary + other cash incentives)		NA	NA	NA	NA	114,844	116,973	117,300	116,400
	Non-Management level (base salary only)		22,400	29,000	19,000	27,600	19,000	32,000	23,000	32,500
	Non-Management level (base salary + other cash incentives)		NA	NA	NA	NA	33,000	45,000	44,200	46,800

Collective Bargaining Agreements

GRI Standard	Performance	Unit	2021	2022	2023	2024
2-30	Freedom of Association					
	Percentage of total employees covered by collective bargaining agreements	% of total employee	100	100	100	100

Human Rights

GRI Standard	Performance	Unit	2021	2022	2023	2024
412-1	Operations that have been subjected to human rights review or impact assessments					
	Human Rights Assessment in Own Operations (including Joint Ventures with management control)					
	A. % of total assessed in Own Operation	Sites	11	11	11	14
		% of Sites	100	100	100	100
	B. % of total assessed (of A.) where risks have been identified	Sites	11	11	11	14
		% of Sites	100	100	100	100
	C. % of total assessed (of B.) with mitigation actions taken	Sites	11	11	11	14
		% of Sites	100	100	100	100
	Human Rights Assessment in Contractors and Tier-1 Suppliers					
	A. % of total assessed in Contractors and Tier-1 Suppliers	Contractors and Tier-1 Suppliers	-	-	292	246
		% of Contractors and Tier-1 Suppliers	-	-	100	100
	B. % of total assessed (of A.) where risks have been identified	Contractors and Tier-1 Suppliers	-	-	0	0
		% of Contractors and Tier-1 Suppliers	-	-	0	0
	C. % of total assessed (of B.) with mitigation actions taken	Contractors and Tier-1 Suppliers	-	-	0	0
		% of Contractors and Tier-1 Suppliers	-	-	0	0
	Human Rights Assessment in Joint Ventures (including stakes above 10%, and without management control)					
	A. % of total assessed in Contractors and Tier-1 Suppliers	Joint Ventures	NA	NA	NA	NA
		% of Joint Ventures	NA	NA	NA	NA
	B. % of total assessed (of A.) where risks have been identified	Joint Ventures	NA	NA	NA	NA
		% of Joint Ventures	NA	NA	NA	NA
	C. % of total assessed (of B.) with mitigation actions taken	Joint Ventures	NA	NA	NA	NA
		% of Joint Ventures	NA	NA	NA	NA

GRI Standard	Performance	Unit	2021	2022	2023	2024
412-2	Employee training in human rights policies or procedures					
	Total number of hours in the reporting period devoted to training on human rights policies or procedures concerning aspects of human rights that are relevant to operations.	Hours	16	38	35	30
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening					
	Total number of significant investment agreements and contracts	Number	NA	NA	NA	NA
	and percentage	%	NA	NA	NA	NA

Community Development

GRI Standard	Performance	Unit	2021	2022	2023	2024
413-1	Operations with community engagement					
	Total number of Operation Site	Operation unit	10	11	12	12
	- Operation involved with local community engagement	Operation unit	10	11	12	12
		%	100	100	100	100
	- Operation involved with social impact assessment	Operation unit	10	11	12	12
		%	100	100	100	100
	- Operation with environmental impact assessments and ongoing monitoring	Operation unit	10	11	12	12
		%	100	100	100	100
	- Operation involved with public disclosure of results of environmental and social impact assessments	Operation unit	10	11	12	12
		%	100	100	100	100
	- Operation involved with local community development programs based on local communities' needs	Operation unit	10	11	12	12
		%	100	100	100	100
	- Operation involved with broad-based local community consultation committees and processes that include vulnerable groups	Operation unit	10	11	12	12
		%	100	100	100	100
	- Operation involved with works councils, occupational health and safety committees	Operation unit	10	11	12	12
		%	100	100	100	100
	Type of Philanthropic Activities					
	Total type of philanthropic activities	% of total costs	100	100	100	100
	A) Charitable donations	% of total costs	31	26	20	16
	B) Community investment	% of total costs	28	26	21	25
C) Community initiatives	% of total costs	41	48	59	59	
Philanthropic Contributions						
Total amount of Cash contributions	Million Baht	14.47	6.89	4.25	2.91	
Total amount of Time: employee volunteering during paid working hours	Million Baht	2.37	3.93	5.61	7.28	
Total amount of In-kind giving: product or services donations, projects/partnerships or similar	Million Baht	0.00	33.28	12.83	17.83	
Total amount of Management overheads	Million Baht	1.11	1.07	2.13	1.71	

Occupational Health and Safety

GRI Standard	Performance	Unit	2021	2022	2023	2024
403-8	Number of worker who are covered by an occupational health and safety management system					
	employees and workers who are not employees but whose work and/or workplace is controlled by the organization, who are covered by such a system;	%	100	100	100	100
	employees and workers who are not employees but whose work and/or workplace is controlled by the organization, who are covered by such a system that has been internally audited		100	100	100	100
	employees and workers who are not employees but whose work and/or workplace is controlled by the organization, who are covered by such a system that has been audited or certified by an external party		-	-	-	-
403-9	The number of hours worked					
	Employee	Hours	320,746	444,553	511,938	541,054
	Contractor		391,993	695,813	885,540	921,218
	Lost time injury frequency rate (LTIFR)					
	Employee	Case per 1,000,000 hours worked	1.17	0	0	0
	Data coverage	% of employee	100	100	100	100
	Contractor	Case per 1,000,000 hours worked	0	0	0	0
	Data coverage	% of employee	100	100	100	100
	Number of high consequences work related injuries					
	Employee	Case per 1,000,000 hours worked	1.17	0	0	0
	Contractor		0	0	0	0
	Number of recordable work-related injuries					
	Employee	Case	1	0	1	0
	Contractor		1	1	1	3
	Fatalities as a result of work-related injury					
	Employee	Person	0	0	0	0
	Data Coverage	% of employee	100	100	100	100
	Contractor	Person	0	0	0	0
	Data Coverage	% of contractor	100	100	100	100
	Absentee rate as a result of work-related injury					
	Employee	% of total days scheduled	1	0	0	0
	Target 2024	% of total days scheduled	0			
	Data Coverage	% of employee	100	100	100	100
	Absentee rate					
	Employee	% of total days scheduled	0.99	1.25	1.71	1.70
	Target 2024	% of total days scheduled	1.60			
	Data Coverage	% of employee	100	100	100	100

GRI Standard	Performance	Unit	2021	2022	2023	2024
403-10	Fatalities as a result of work-related ill health					
	Employee	Person	0	0	0	0
	Contractor		0	0	0	0
	Number of recordable work-related ill health					
	Employee	Case	0	0	0	0
	Contractor		0	0	0	0

OHSMS training

GRI Standard	Performance	Unit	2021	2022	2023	2024
FTSE RUSSELL	Safety training					
	Staff trained on safety	Person	46	72	58	174
	Staff trained (General training which includes safety)	Person	34	38	42	193