Environmental Performance

ESG metrics	GRI STANDARD / SASB	Material Aspects	Unit	2022	2023	2024	2025
E2.2C	GRI 302-1 TC-TL-130a.1.	**Energy consumption within the organization**					
	(1+2-3)	Net energy consumption within the organization	Megajoules	17,881,017.72	19,259,679.46	18,793,173.12	16,484,885.49
			Kilowatt-hours	4,966,949.37	5,349,910.96	5,220,325.87	4,579,134.86
	(1+2)	Total energy consumption within the organization	Megajoules	17,881,017.72	19,259,679.46	18,793,173.12	16,484,885.49
			Kilowatt-hours	4,966,949.37	5,349,910.96	5,220,325.87	4,579,134.86
	Ratio	Ratio of renewable energy use in total energy use	%	2.1%	2.0%	2.1%	2.1%
		Ratio of non-renewable energy use in total energy use	%	98%	98%	98%	98%
	1	Total Non - Renewable Energy Consumption	Megajoules	17,501,775.72	18,876,815.86	18,405,575.09	16,130,960.41
			Kilowatt-hours	4,861,604.37	5,243,559.96	5,112,659.75	4,480,822.34
		Total stationary combustion	Megajoules	70,873.32	125,649.00	91,013.58	139,816.38
			Kilowatt-hours	19,687.03	34,902.50	25,281.55	38,837.88
		- Total liquid fuel	Megajoules	70,873.32	125,649.00	91,013.58	139,816.38
		- Benzene (Gasoline)	Litres	0.00	0.00	0.00	0.00
		- Diesel fuel	Litres	1,946.00	3,450.00	2,499.00	3,839.00
		Total mobile combustion	Megajoules	1,245,136.80	1,505,221.78	1,746,294.07	1,369,130.02
			Kilowatt-hours	345,871.33	418,117.16	485,081.69	380,313.89
		- Total liquid fuel	Megajoules	1,245,136.80	1,505,221.78	1,746,294.07	1,369,130.02
		- Benzene (Gasoline)	Litres	8,467.32	7,573.74	10,150.00	9,511.69
		- Diesel fuel	Litres	26,869.45	34,783.10	39,175.51	29,371.28
		Total electricity purchased from non-renewable energy sources	Megajoules	16,185,765.60	17,245,945.08	16,568,267.44	14,622,014.02
			Kilowatt-hours	4,496,046.00	4,790,540.30	4,602,296.51	4,061,670.56
		- Headquarters - Bangkok (Office)	kWh	175,746.00	336,020.30	359,096.51	264,690.56
		- Thaicom Satellite Station, Ladlumkaew district, Pathum Thani	Kilowatt-hours	4,320,300.00	4,454,520.00	4,243,200.00	3,796,980.00
		- Thaicom Satellite Station – Nonthaburi	Kilowatt-hours	N/A	N/A	N/A	N/A
E2.3C	2	Total Renewable energy consumption within the organization	Megajoules	379,242.00	382,863.60	387,598.03	353,925.07
			Kilowatt-hours	105,345.00	106,351.00	107,666.12	98,312.52
		Total electricity purchased from renewable energy sources					
		- Purchased electricity from renewable energy (Solar energy source)	Megajoules	0.00	0.00	0.00	0.00
			Kilowatt-hours	0.00	0.00	0.00	0.00
		Self-generated electricity from renewable energy sources					
		- Self-generated electricity from solar panel	Megajoules	379,242.00	382,863.60	387,598.03	353,925.07
			Kilowatt-hours	105,345.00	106,351.00	107,666.12	98,312.52
	3	Total energy sold	Megajoules	0.00	0.00	0.00	0.00
			Kilowatt-hours	0.00	0.00	0.00	0.00
		- Non- renewable energy sold (electricity)	Megajoules	0.00	0.00	0.00	0.00
			Kilowatt-hours	0.00	0.00	0.00	0.00
		- Renewable energy sold (electricity)	Megajoules	0.00	0.00	0.00	0.00
			Kilowatt-hours	0.00	0.00	0.00	0.00
E2.5R	GRI302-3	**Energy Intensity**					
		Total energy usage per area	Mwh/square metre	0.66	0.72	0.70	0.60
		World Average Accepted Levels of PUE Refer to : Demystifying PUE metric. A guide to use PUE as an operational metric https://shorturl.at/oz248	1.2	1.5	2.0	2.5	3.0
			Very Efficient	Efficient	Typical	Inefficient	Very Inefficient
		Power Usage Effectiveness: PUE	-	N/A	1.77	1.78	1.77
ICT-E1.2	GRI302-3	- Total Facility Power	Kilowatt-hours	N/A	3,864,718.86	3,721,001.02	3,354,958.01
		- IT Load	Kilowatt-hours	N/A	2,186,817.96	2,090,719.61	1,895,094.15

Remarks

1. The boundary of this energy performance Reporting of Thaicom Public Company Limited for the Fiscal Year 2022 - 2025 covers the following areas.
   2.1. Headquarters - Bangkok (Office)
   2.2. Thaicom Teleport and DTH Center – Lat Lum Kaeo
2. The energy conversion was calculated by multiplying fuel volumes with the conversion factor provided by the Department of Alternative Energy Development and Efficiency (DEDE).
3. The Power Usage Effectiveness (PUE) is the ratio of Total Facility Power to IT Load, used to measure the energy efficiency of a data center. In 2023, Thaicom Public Company Limited commenced the reporting of PUE data, marking the first year of a continued reporting practice in subsequent years.

ESG metrics	GRI STANDARD / SASB	Material Aspects	Unit	2022	2023	2024	2025
E3.2C	GRI303-3	**Total water withdrawal (1 Megalitres = 1,000 Cubic metres)**					
		Water withdrawal by source					
		Total water withdrawal from all areas	Megalitres	3.83	3.20	3.58	3.58
		Surface water - Freshwater (≤1,000 mg/L Total Dissolved Solids)	Megalitres	3.83	3.20	3.58	3.58
		Surface water - Other water (>1,000 mg/L Total Dissolved Solids)	Megalitres	0.00	0.00	0.00	0.00
		- Third-party water (Municipal water supply) **Headquarters - Bangkok** (Office)	Megalitres	**0.079**	**0.120**	**0.123**	**0.244**
		- Freshwater (≤1,000 mg/L Total Dissolved Solids)	Megalitres	0.079	0.120	0.123	0.244
		- Other water (>1,000 mg/L Total Dissolved Solids)	Megalitres	0.000	0.000	0.000	0.000
		- Third-party water (Municipal water supply) Thaicom Satellite Station, Ladlumkaew district, Pathum Thani	Megalitres	**3.75**	**3.08**	**3.46**	**3.34**
		- Freshwater (≤1,000 mg/L Total Dissolved Solids)	Megalitres	3.75	3.08	3.46	3.34
		- Other water (>1,000 mg/L Total Dissolved Solids)	Megalitres	0.00	0.00	0.00	0.00
		- Third-party water (Municipal water supply) **Thaicom Satellite Station – Nonthaburi**	Megalitres	**N/A**	**N/A**	**N/A**	**N/A**
		- Freshwater (≤1,000 mg/L Total Dissolved Solids)	Megalitres	N/A	N/A	N/A	N/A
		- Other water (>1,000 mg/L Total Dissolved Solids)	Megalitres	N/A	N/A	N/A	N/A
	GRI303-3 Water Stress and Riverine flood risk	**Water stress level in the area (%)** **Refer to: https://www.wri.org/aqueduct/tools**	LOW (< 10%)	Low to medium (10-20%)	Medium to high (20-40%)	High (40-80%)	Extremely high (>80%)
		- Headquarters - Bangkok (Office)	High (40-80%)				
		- Thaicom Satellite Station, Ladlumkaew district, Pathum Thani	High (40-80%)				
		- Thaicom Satellite Station – Nonthaburi	High (40-80%)				
	GRI303-3 Operation Basin Risk	- Headquarters - Bangkok (Office)	Very Low risk (1.78)				
		- Thaicom Satellite Station, Ladlumkaew district, Pathum Thani	Very Low risk (1.78)				
		- Thaicom Satellite Station – Nonthaburi	Very Low risk (1.78)				
		Remarks: - Water stress refers to a condition of freshwater scarcity, measures the ratio of water demand to available renewable surface and groundwater supplies within water cycle. Total water demand includes usage for domestic, industrial, irrigation, and livestock purposes. (Source: World Resource Institute: WRI) - Thaicom Public Company Limited operates its business within Bangkok and Pathum Thani Province, these areas are classified as facing water stress and high riverine flood risk (High 40-80%) according to assessments conducted using the Aqueduct Water Risk Atlas tool by the World Resources Institute (WRI). Nevertheless, Thaicom's internal water usage aims primarily for consumption and health purposes which the evaluation of operational risks due to water scarcity using the WWF Water Risk Filter indicated a very low risk level of 1.78 (Very low risk: 1.0 - 1.8).					

ESG metrics	GRI STANDARD / SASB	Material Aspects	Unit	2022	2023	2024	2025
E3.2C	GRI303-3	**Total third-party water withdrawal from all areas in water stress areas**	Megalitres	3.83	3.20	3.58	3.58
		Surface water - Freshwater (≤1,000 mg/L Total Dissolved Solids)	Megalitres	3.83	3.20	3.58	3.58
		Surface water - Other water (>1,000 mg/L Total Dissolved Solids)	Megalitres	0.00	0.00	0.00	0.00
		- Third-party water (Municipal water supply) Headquarters - Bangkok (Office)	Megalitres	**0.08**	**0.12**	**0.12**	**0.24**
		- Freshwater (≤1,000 mg/L Total Dissolved Solids)	Megalitres	0.079	0.120	0.123	0.244
		- Other water (>1,000 mg/L Total Dissolved Solids)	Megalitres	0.000	0.000	0.000	0.000
		- Third-party water (Municipal water supply) Thaicom Satellite Station, Ladlumkaew district, Pathum Thani	Megalitres	**3.75**	**3.08**	**3.46**	**3.34**
		- Freshwater (≤1,000 mg/L Total Dissolved Solids)	Megalitres	3.75	3.08	3.46	3.34
		- Other water (>1,000 mg/L Total Dissolved Solids)	Megalitres	0.00	0.00	0.00	0.00
		- Third-party water (Municipal water supply) Thaicom Satellite Station – Nonthaburi	Megalitres	**N/A**	**N/A**	**N/A**	**N/A**
		- Freshwater (≤1,000 mg/L Total Dissolved Solids)	Megalitres	N/A	N/A	N/A	N/A
		- Other water (>1,000 mg/L Total Dissolved Solids)	Megalitres	N/A	N/A	N/A	N/A
E3.5R	GRI303-4	**Water discharge**					
		Total water discharge to all areas (A+B+C)	Megalitres	**3.08**	**2.58**	**2.89**	**2.91**
		Remarks: - Water discharge to third-parthy water (Municipal wastewater treatment plants) is treated according to Ministry of Natural Resources and Environment: Standards for Controlling Wastewater Discharge from Community Wastewater Treatment Systems.https://www.pcd.go.th/laws/4508/ - Ministry of Natural Resources and Environment Pollution Control Department of Thailand has announced the standard values for controlling the discharge of wastewater from community wastewater treatment systems as follows. *Water Index* / *Standard* *pH*: 5.5 *Biochemical Oxygen Demand*: 20 mg/litre *Suspended Solids*: 30 mg/litre *Oil and Grease*: 5 mg/litre *Total Nitrogen*: 20 mg/litre *Total Phosphorus*: 2 mg/litre - Water discharge before being sent to the natural water well within the premises of Thaicom Teleport and DTH Center – Lat Lum Kaeo, enters the treatment process according to the standards for controlling wastewater discharge from buildings. This is based on: The Building Effluent Standards. 1. Notification of the Ministry of Natural Resources and Environment on effluent standards from buildings of certain types and size as per the Announcement B.E. 2567 (Reference: Ministry of Natural Resources and Environment Announcement on Establishing Standards for Controlling Wastewater Discharge from Certain Types and Sizes of Buildings B.E. 2567). https://www.pcd.go.th/laws/32973/					
		A. Water discharge volume: Headquarters - Bangkok (Office)	Megalitres	**0.08**	**0.12**	**0.12**	**0.24**
		- Surface water	Megalitres	0.00	0.00	0.00	0.00
		- Groundwater	Megalitres	0.00	0.00	0.00	0.00
		- Seawater	Megalitres	0.00	0.00	0.00	0.00
		- Third-party water treatment plant	Megalitres	0.08	0.12	0.12	0.24
		Water treatment level : Headquarters - Bangkok (Office) **Level of treatment:** Activated Sludge System	Megalitres	**0.08**	**0.12**	**0.12**	**0.24**
		- Third-party water (Municipal wastewater treatment plants)	Megalitres	0.08	0.12	0.12	0.24
		- Percentage of treated wastewater before discharge	Megalitres	100%	100%	100%	100%
		- Total freshwater discharge (Freshwater (≤1,000 mg/L Total Dissolved Solids))	Megalitres	0.079	0.120	0.123	0.244
		- Total other water discharge (Other water (>1,000 mg/L Total Dissolved Solids))	Megalitres	0.00	0.00	0.00	0.00

ESG metrics	GRI STANDARD / SASB	Material Aspects	Unit	2022	2023	2024	2025
E3.5R	GRI303-4	**B. Water discharge volume :** Thaicom Satellite Station, Ladlumkaew district, Pathum Thani * Calculated the volume of wastewater that has been treated and is discharged into the natural reservoir, based on an average wastewater generation rate of 80% of the water used. (Reference: Ministry of Natural Resources and Environment: Standards for Controlling Wastewater Discharge from Community Wastewater Treatment Systems.)	Megalitres	**3.00**	**2.46**	**2.76**	**2.67**
		- Surface water	Megalitres	3.00	2.46	2.76	2.67
		- Groundwater	Megalitres	0.00	0.00	0.00	0.00
		- Seawater	Megalitres	0.00	0.00	0.00	0.00
		- Third-party water treatment plant	Megalitres	0.00	0.00	0.00	0.00
		Water treatment level: Thaicom Satellite Station, Ladlumkaew district, Pathum Thani **Level of treatment:** Septic Anaerobic Filter Tank *Calculated the volume of wastewater that has been treated and is discharged into the natural reservoir, based on an average wastewater generation rate of 80% of the water used. (Reference: Ministry of Natural Resources and Environment: Standards for Controlling Wastewater Discharge from Community Wastewater Treatment Systems.)	**Megalitres**	**3.00**	**2.46**	**2.76**	**2.67**
		- On-site (Wastewater was treated before being discharged into the natural reservoir)	Megalitres	3.00	2.46	2.76	2.67
		- Percentage of treated wastewater before discharge	Megalitres	100%	100%	100%	100%
		- Total freshwater discharge (Freshwater (≤1,000 mg/L Total Dissolved Solids))	Megalitres	3.00	2.46	2.76	2.67
		- Total other water discharge (Other water (>1,000 mg/L Total Dissolved Solids))	Megalitres	0.00	0.00	0.00	0.00
		Wastewater quality assessment after treated:Thaicom Satellite Station, Ladlumkaew district, Pathum Thani (Submitted for inspection: Department of Health, Ministry of Public Health) *Control standards referenced from: Standard values for Type A building effluent standards, and criteria for controlling wastewater discharge from certain types and sizes of buildings, as specified in the Notification of the Ministry of Natural Resources and Environment on effluent standards for buildings of certain types and sizes, under the Act B.E. 2567 (2024).* https://www.pcd.go.th/laws/32973/					
		- pH *(control standard not exceeding 5.5 - 9.0)*	pH at 25°C	7.3	8.6	8.9	7.4
		- Biochemical Oxygen Demand *(control standard not exceeding 20 mg/litre)*	mg/litre	1.0	<1.0	2.0	11.3
		- Total Suspended Solid: TSS) *(control standard not exceeding 30 mg/litre)*	mg/litre	8.0	12.0	22.0	16.0
		- Total Dissolved Solids: TDS *(control standard not exceeding 1,000 mg/litre)*	mg/litre	533	538	503	316
		- Total Keldahl Nitrogen : TKN *(control standard not exceeding 35 mg/litre)*	mg/litre	2.0	1.7	0.8	<4
		- Oil and Grease *(control standard not exceeding 20 mg/litre)*	mg/litre	1.1	1.0	0.9	2.8
		C. Water discharge volume: Thaicom Satellite Station – Nonthaburi * Calculated the volume of wastewater that has been treated and is discharged into the natural reservoir, based on an average wastewater generation rate of 80% of the water used. (Reference: Ministry of Natural Resources and Environment: Standards for Controlling Wastewater Discharge from Community Wastewater Treatment Systems.)	Megalitres	**N/A**	**N/A**	**N/A**	**N/A**
		- Surface water	Megalitres	N/A	N/A	N/A	N/A
		- Groundwater	Megalitres	N/A	N/A	N/A	N/A
		- Seawater	Megalitres	N/A	N/A	N/A	N/A
		- Third-party water treatment plant	Megalitres	N/A	N/A	N/A	N/A
E3.5R		**Water treatment level:** Thaicom Satellite Station – Nonthaburi **Level of treatment:** Oxidation Ditch Type Activated Sludge System for Community Wastewater Treatment *Calculated the volume of wastewater that has been treated and is discharged into the natural reservoir, based on an average wastewater generation rate of 80% of the water used. (Reference: Ministry of Natural Resources and Environment: Standards for Controlling Wastewater Discharge from Community Wastewater Treatment Systems.)	Megalitres	**N/A**	**N/A**	**N/A**	**N/A**
		- Third-party water (Municipal wastewater treatment plants)	Megalitres	N/A	N/A	N/A	N/A
		- Percentage of treated wastewater before discharge	Megalitres	N/A	N/A	N/A	N/A

ESG metrics	GRI STANDARD / SASB	Material Aspects	Unit	2022	2023	2024	2025
		- Total freshwater discharge (Freshwater (≤1,000 mg/L Total Dissolved Solids))	Megalitres	N/A	N/A	N/A	N/A
		- Total other water discharge (Other water (>1,000 mg/L Total Dissolved Solids))	Megalitres	N/A	N/A	N/A	N/A
		Wastewater quality assessment after treated:Thaicom Satellite Station – Nonthaburi (Submitted for inspection: Department of Health, Ministry of Public Health) *Control standards referenced from: Standard values for Type A building effluent standards, and criteria for controlling wastewater discharge from certain types and sizes of buildings, as specified in the Notification of the Ministry of Natural Resources and Environment on effluent standards for buildings of certain types and sizes, under the Act B.E. 2567 (2024).* https://www.pcd.go.th/laws/32973/					
E3.5R	GRI303-4	- pH *(control standard not exceeding 5.5 - 9.0)*	pH at 25°C	N/A	N/A	N/A	N/A
		- Biochemical Oxygen Demand *(control standard not exceeding 20 mg/litre)*	mg/litre	N/A	N/A	N/A	N/A
		- Total Suspended Solid: TSS) *(control standard not exceeding 30 mg/litre)*	mg/litre	N/A	N/A	N/A	N/A
		- Total Dissolved Solids: TDS *(control standard not exceeding 1,000 mg/litre)*	mg/litre	N/A	N/A	N/A	N/A
		- Total Keldahl Nitrogen : TKN *(control standard not exceeding 35 mg/litre)*	mg/litre	N/A	N/A	N/A	N/A
		- Oil and Grease *(control standard not exceeding 20 mg/litre)*	mg/litre	N/A	N/A	N/A	N/A
		Total water discharge in water stress areas	Megalitres	**3.08**	**2.58**	**2.89**	**2.91**
		- Total freshwater discharge (Freshwater (≤1,000 mg/L Total Dissolved Solids))	Megalitres	3.08	2.58	2.89	2.91
		- Total other water discharge (Other water (>1,000 mg/L Total Dissolved Solids))	Megalitres	0.00	0.00	0.00	0.00
E3.2C	GRI303-5	Net water consumption (Total water withdrawal - Total amount of discharged water in all areas)					
		- Total water consumption	Megalitres	0.75	0.62	0.69	0.67
		- Total water consumption in water stress areas	Megalitres	0.75	0.62	0.69	0.67
E3.4R	-	Water Intensity (water withdrawal / number of employees)					
		The ratio of water consumption per total employees	Cubic meters /person	11.60	10.02	11.01	12.01
		Remarks: - The World Health Organization (WHO) specifies that the basic amount of water necessary for good health ranges from 50 to 100 liters per person per day (equivalent to 18.25 – 36.50 cubic meters per person per year) https://shorturl.at/hqyI2 - The Environmental Protection Agency (EPA) recommends a range of 10-25 gallons of water per person per work shift, equivalent to 37.85 – 94.63 liters per person per work shift (equivalent to 13.8 – 34.5 cubic meters per person per year), which the lower value is used when the facility has only toilets. The higher value is used when the facility has toilets, showers, and full kitchen services (food preparation and dishwashing). https://shorturl.at/ozEIK					

Remarks

1. The boundary of this water performance Reporting of Thaicom Public Company Limited for the Fiscal Year 2022 - 2025 covers the following areas.
   1.1. Headquarters - Bangkok (Office)
   1.2. Thaicom Teleport and DTH Center – Lat Lum Kaeo
2. Total volume of water withdrawal by sources (third-party) was collected from water invoices.
3. The source of Total Dissolved Solids (TDS) measurements was obtained from the following water tools websites;
   - Metropolitan Waterworks Authority : Real-time raw water quality monitoring station, Department of Water Resource, Metropolitan Waterworks Authority http://rwc.mwa.co.th/page/info/
   - Provincial Waterworks Authority : Raw Water Monitoring Station Project, Provincial Waterworks Authority https://tele-wrd.pwa.co.th/web/?view=more&type=lab&site1=R2-PT-PT-02&date1=2023-01-1&date2=2023-12-31&page=1

ESG metrics	GRI STANDARD / SASB	Material Aspects	Unit	2022	2023	2024	2025
	GRI305-1	**Organizational Greenhouse Gas Inventory** (tCO2e = ton carbon dioxide equivalent)					
		Direct emissions from business operations (Scope 1)			Base year		
		Direct emissions from sources owned or controlled by the company (Scope 1)	tCO2e	**170**	**308**	**175**	**188**
		- Carbon dioxide (CO_2)	tCO2e	96.24	122.34	123.59	102.00
		- Fossil fuels (Fossil CH_4)	tCO2e	0.32	0.34	0.38	0.28
		- Methane (CH_4)	tCO2e	42.68	28.12	29.15	28.19
		- Nitrous oxide(N_2O)	tCO2e	1.59	1.87	2.11	1.32
		- Fugitive emissions from refrigeration leakage (HFCs)	tCO2e	29.07	155.22	19.66	56.03
	Separately report	- Fugitive emissions from refrigeration leakag (R22)	tCO2e	245.66	437.36	205.92	193.01
		- Fugitive emissions from Fire extinguishers (HCFCs)	tCO2e	-	1.61	1.45	1.45
		- Biogenic CO_2 from the combustion of the biofuel [12]	tCO2e	N/A	N/A	9.39	11.64
	GRI305-2	**Indirect emisions from purchased electricity (Scope 2)**					
		Indirect emisions from purchased electricity (Scope 2)	**tCO2e**	**2,248**	**2,395**	**2,301**	**2,030**
		Indirect emisions from purchased electricity at Thaicom Satellite Station, Ladlumkaew district, Pathum Thani	tCO2e	**2,159.72**	**2,226.65**	**2,121.02**	**1,897.97**
		- Carbon dioxide (CO_2)	tCO2e	2,140.44	2,206.77	2,102.08	1,881.02
		- Fossil fuels (Fossil CH_4)	tCO2e	0.00	0.00	0.00	0.00
		- Methane (CH_4)	tCO2e	7.38	7.61	7.25	6.49
		- Nitrous oxide(N_2O)	tCO2e	11.91	12.28	11.69	10.46
		Indirect emisions from purchased electricity at Headquarters - Bangkok (Office)	tCO2e	**87.85**	**167.96**	**179.50**	**132.31**
		- Carbon dioxide (CO_2)	tCO2e	87.06	166.46	177.90	131.13
		- Fossil fuels (Fossil CH_4)	tCO2e	0.00	0.00	0.00	0.00
		- Methane (CH_4 from Septic tank)	tCO2e	0.30	0.57	0.61	0.45
		- Nitrous oxide(N_2O)	tCO2e	0.48	0.93	0.99	0.73
E5.2C		**Total Direct and indirect emissions (Scope 1+2)**					
		Total Direct and indirect emissions (Scope 1+2)	tCO2e	2,417	2,703	2,475	2,218
	GRI305-3	**Indirect emissions, downstream sources not owned or controlled by the company (Scope 3)**					
		Upstream	tCO2e	491	473	454	401
		- Purchased goods and services (Category 1)	tCO2e	5.40	N/A [10]	N/A [10]	N/A [10]
		- Fuel- related emissions (Category 3)	tCO2e	76.07	N/A [10]	N/A [10]	N/A [10]
		- Energy-related emissions (Category 3)	tCO2e	409.14	472.83	454.25	400.89
E5.5R		**Total Direct and indirect emissions (Scope 1+2+3)**					
		Total Direct and indirect emissions Scope 1+2+3	tCO2e	2,909	3,176	2,931	2,620
E5.6R	GRI305-4	**Greenhouse gas emission intensity**					
		The ratio of GHG emissions per unit operation areas	tCO2e/sq.m	0.324	0.362	0.331	0.291
		The ratio of GHG emissions per revenue from sales and services (Satellite business services and Internet service and media)	tCO2e/million THB	0.8123	0.9173	1.0228	0.8105

Remarks

1. Thaicom Public Company Limited disclosed its greenhouse gas (GHG) inventory, verified by a third party and registered with the Thailand Greenhouse Gas Management Organization (TGO).
2. The boundary of Greenhouse Gas (GHG) inventory of Thaicom Public Company Limited for the Fiscal Year 2022 - 2025 covers the following areas:
   2.1 Headquarters - Bangkok (Office)
   2.2 Thaicom Teleport and DTH Center – Lat Lum Kaeo
3. The Greenhouse Gas (GHG) inventory includes Scope 1, Scope 2, and Scope 3 emissions were calculated using the "Greenhouse Gas Inventory (AR5) Version 4 (TCFO_R_01 Version 04: 21/2/2020)" calculation tool provided by Thailand Greenhouse Gas Management Organization (TGO), based on 2006 IPCC Guidelines for National Greenhouse Gas Inventories guidelines.
4. The calculation of Direct emissions Scope 1 uses the emission factors from the database of the TGO, referencing the latest IPCC report. This includes greenhouse gas emission factors and reference data sources used in the calculations, as well as the Global Warming Potential (GWP) values.
5. The calculation of Indirect emissions Scope 2 uses emission factors for electricity consumption from the database of the TGO, referencing the Thai National Life Cycle Inventory (LCI) Database, TIIS-MTEC-NSTDA (Thai National LCI Database, TIISMTEC-NSTDA, AR5 (with TGO electricity 2016-2018)).
6. The calculation of Other indirect emissions Scope 3 uses emission factors from the database of the TGO, referencing the Thai National LCI Database,TIIS-MTEC-NSTDA
7. In 2022, the other indirect emissions Scope 3 reporting consists of 2 categories:
   Category 1: Purchased Goods and Services; quantity of A4 paper used in the office.
   Category 3: Fuel- and energy-related activities; acquisition of fuel and electricity consumption.
8. In 2023, the other indirect emissions Scope 3 reporting consists of 1 category, based on the assessment of other indirect greenhouse gas emissions sources (Type 3) Annex 12 in the "Guidance on Other indirect emissions Scope 3" of Thailand Greenhouse Gas Management Organization (TGO), and the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. This category includes:
   * *Category 3: Fuel- and energy-related activities; acquisition of electricity consumption.*

   In 2023, a new significant scope 3 assessment was conducted, referencing the assessment of other indirect greenhouse gas emissions sources (Type 3) Annex 12 in the "Guidance on Other indirect emissions Scope 3" of Thailand Greenhouse Gas Management Organization (TGO). This assessment considered factors such as Source of GHG, Size, Level of influence, Risk or opportunity, Sector Guidance, Outsourcing, and Employee engagement, with a threshold set at ≥ 2.5 points to be considered as a significant emission source, which was included in the assessment scope.
9. The calculation of Greenhouse Gas Intensity (GHG Intensity) was calculated from Direct emissions Scope 1 and Indirect emissions Scope 2.
10. Since 2024, the reporting of Scope 1 greenhouse gas emissions and separate reports for energy from Gasohol 91/95 and Diesel B7/B10 fuels have been revised to include the calculation of greenhouse gas emissions resulting from the combustion of the biofuel portion. This includes the reporting of biogenic carbon dioxide (Biogenic CO_2) in the separate report.

ESG metrics	GRI STANDARD / SASB	Material Aspects	Unit	2022	2023	2024	2025
E4.2C	GRI 306-3 (HW+NHW)	**Waste Generated**					
		(* HW - Hazardous waste, NHW - Non-hazardous waste)					
		Total weight of waste generated [1and 2]	metric tons/year	**5.38**	**10.37**	**24.90**	**17.82**
		Total waste intensity	metric tons/person	**0.02**	**0.03**	**0.08**	**0.06**
		- Total weight of hazardous waste generated (HW)	metric tons	3.62	7.23	11.13	0.00
		- Hazardous waste intensity (HW)	metric tons/person	0.01	0.02	0.03	0.00
		- Total weight of Non-hazardous waste generated (NHW)	metric tons	1.76	3.15	13.77	17.82
		- Non-hazardous waste intensity (NHW)	metric tons/person	0.01	0.01	0.04	0.06
		Diversion and disposal rate (%)(*Waste diverted or disposal divided by the total amount of waste)					
		- Waste **diverted** from disposal by reuse and recycling	%	100.00%	91.03%	52.50%	20.18%
		- Waste **diverted** from disposal by other recovery operations	%	0.00%	0.00%	0.00%	0.00%
		- Waste **directed** to disposal by other disposal operations	%	0.00%	0.00%	0.00%	0.00%
		- Waste **directed** to disposal by Landfilling	%	0.00%	8.97%	47.50%	79.82%
E4.4R	GRI 306-4	**Waste diverted from disposal** *(off-site)*					
		Hazardous waste diverted from disposal (HW)	metric tons	**3.62**	**7.23**	**11.13**	**0.00**
		- Recycling	metric tons	3.62	7.23	11.13	0.00
		- Reuse	metric tons	0.00	0.00	0.00	0.00
		- Other recovery operations (.....)	metric tons	0.00	0.00	0.00	0.00
E4.4R	GRI 306-4	**Non-hazardous waste diverted from disposal (NHW)**	metric tons	**1.76**	**2.22**	**1.94**	**3.60**
		- Recycling	metric tons	1.76	2.22	1.94	3.60
		- Reuse	metric tons	0.00	0.00	0.00	0.00
		- Other recovery operations (.....)	metric tons	0.00	0.00	0.00	0.00
	GRI 306-5	**Waste directed to disposal** *(off-site)*					
		Hazardous waste directed to disposal (HW)	metric tons	**0.00**	**0.00**	**0.00**	**0.00**
		- Landfilling	metric tons	0.00	0.00	0.00	0.00
		- Incineration (without energy recovery)	metric tons	0.00	0.00	0.00	0.00
		- Other disposal operations (.....)	metric tons	0.00	0.00	0.00	0.00
		Non- hazardous waste directed to disposal (NHW)	metric tons	**N/A**	**0.93**	**11.83**	**14.22**
		- Landfilling	metric tons	N/A	0.93	11.83	14.22
		- Incineration (without energy recovery)	metric tons	N/A	0.00	0.00	0.00
		- Other disposal operations (.....)	metric tons	N/A	0.00	0.00	0.00

Remarks

1. The boundary of Waste Management Reporting of Thaicom Public Company Limited for the Fiscal Year 2022 - 2025 covers the following areas.

   1.1. Headquarters - Bangkok (Office)

   1.2. Thaicom Teleport and DTH Center – Lat Lum Kaeo

2. In 2023, Thaicom began recording municipal waste data, the data reported in the "non-hazardous waste generated directed to disposal" in 2023 represents the quantity of solid waste generated over a two-month period in 2023 (specifically, from November to December 2023). The company will start recording municipal waste data for the full year in the year 2024 onwards.