Taiwan International Ports Corporation, Ltd.

TIPC

2024

ESG Report

Appendices

Sustainability Information Disclosure

Environmental Protection Information

Environmental Protection Information

Detailed information is provided in the "ESG Report" on the TIPC Sustainability website.

Energy Consumption

Quantitative indicator	Unit	2022	2023	2024
Electricity usage	kWh	41,937,673	43,771,988	50,947,5226
	GJ	150,976	157,579	182,876
Renewable energy (Self-generated solar power)	kWh	0	0	2,337,598
	GJ	0	0	8,415.35
Gasoline consumption	L	90,585.6	85,353.8	78,598.7
	GJ	2,956	2,786	2,565
Diesel fuel consumption	L	807,184.7	724,924.9	612,046.4
	GJ	28,369	25,478	21,511
Total energy consumption	GJ	182,301	185,843	215,367.35
Annual operation revenue	Ten thousand NT$	2,370,335	2,377,073	2,489,068
Energy intensity	GJ/ten thousand NT$	0.08	0.08	0.09

Note:

1. The conversion factor for electricity is 1 kWh = 0.0036 GJ.
2. The conversion factors for fuel heat values are sourced from the Environmental Protection Administration's Gas Emission Factor Management Table 6.0.4 version. Gasoline: 7,800 kcal/L; Diesel: 8,400 kcal/L; Natural gas: 8,000 kcal/m^3; 1kcal=4.184KJ
3. The total energy consumption in 2024 increased by 11% compared to 2023, mainly due to the commencement of operations at the Kaohsiung Port Cruise Terminal, an increase in the number of cruise ship calls and passengers, expanded use of shore power, ongoing port construction, and activation of new equipment, all of which drove up electricity demand.
4. Since the company has not yet established a specific target for renewable energy procurement from 2023, the actual procurement has been assessed based on the current electricity consumption of the headquarters, therefore the amount of transferred renewable energy currently only covers the headquarters' usage.

Water Consumption

Year	2022	2023	2024
Water intake (million liter)	1,277.800	1,232.800	1485.6
Water displacement (million liter)	1,022.240	986.24	1188.5
Water consumption (million liter)	255.560	246.56	297.12
Operation revenue (million NT$)	23,703.35	23,770.73	24,890.68
Water intensity	0.54	0.52	0.60

Note:

1. The data for tap water consumption is sourced from the headquarter and branch offices, based on the total annual water fee settlement data, converted at a rate of NT$ 11 per unit.
2. Water intake does not include surface runoff water used for flushing or irrigation, as well as the use of recycled water,According to Article 14, Item 2 of the 'Regulations for Management and the Fee Rates for the Usage of the Wastewater Treatment System of Service Centers of Industrial Zones Under the Jurisdiction of Ministry of Economic Affairs', 80% of the water intake (1,485.6) is used as the basis for calculating wastewater discharge volume.
3. Water intensity = Water consumption / Organizational metric = Million liters / Revenue (in million NT$).

Water-saving measures (Use of recycled water)	
Su'ao Port	Su'ao Port has set up Su'ao mountain spring water pumping facility next to Yishan Road and introduced spring water for watering, sprinkling and handling dust control in the port. The amount of spring water used by Su'ao Port was 253,313 metric tons.
Taipei Port	The Water Resource Recovery Center established at the Taipei Port South Wharf obtained its discharge permit in May 2024. Currently, only the port police and fire services building is connected to the system, and water usage by commercial tenants has not yet been included. The total discharge volume was 7,804 metric tons (as of December 2024).
Taichung Port	Taichung Branch plans to develop a Intelligent Energy Management System and smart integrated management platform to build integrated smart water meters and other systems to achieve the goal of intelligent energy management in the port area. The branch utilizes the cooling discharge water from Dragon Steel Corporation and installs pressurized water supply facilities to provide port operators and construction units with water for sprinkler use on roads, cargo loading and unloading and suppression of dust from construction projects, so as to realize the goal of sustainable utilization of water resources. The amount of water withdrawn in 2024 was approximately 91,414 tons.
Kaohsiung Port	Wastewater from Kaohsiung Port enters the wastewater treatment facility and is discharged into the receiving water body through primary sedimentation, coagulation, aeration, filtration, activated carbon adsorption, disinfection, etc. after meeting the discharge standards. In 2024, the wastewater influent treatment capacity was 4,395.3 metric tons in total, of which 3,031.9 metric tons are discharged and 1,363.4 metric tons of reclaimed water are recycled for watering use to achieve the purpose of water conservation.
Anping Port	The Water Recycling Center of Tainan City Government has a reclaimed water intake pipeline in Anping Port, which can be used by port operators to clean the quay floor or sprinkle water during cargo handling operations to avoid dust emission, with a capacity of 6,045 metric tons.
Hualien Port	Reclaimed water is used for dust suppression in the cargo loading and unloading areas, sand and gravel stockpiling, and contamination control to improve the port environmental quality. In addition, in conjunction with the Smart Grid Project, the water resource allocation system is strengthened to make flexible use of surface water, and increase the overall tap water conservation rate, with a total of 93,294.7metric tons of surface water being used (collected) in 2024.

GHG Inventory Statistics

Greenhouse Gas Emission			
			Unit: Metric tons of CO_2e
	2022	2023	2024
Scope 1: Direct GHG emission	5,896.53	2,514.96	2,313.56
Scope 2: Indirect GHG emission	20,759.15	21,667.13	24,149.13
Total emission=Scope 1 + Scope 2 + Scope 3	26,655.6800	24,182.0900	26,462.6900

Greenhouse Gas Emission			
			Unit: Metric tons of CO_2e
Annual operation revenue (NT$)	2,370,335	2,377,073	2,489,068
Scope 1 + Scope 2 GHG emission intensity	0.01	0.01	0.01

Note:

1. Greenhouse gas (GHG) emission intensity (metric tons CO_2e/organization-specific metric) = total emissions /revenue (million NT$).
2. The data has been updated based on the preliminary internal inventory results of Scope 1 and Scope 2 greenhouse gas (GHG) emissions for 2023 and 2024, which will be completed and third-party verified in 2025.
3. In 2024, Scope 3 (other indirect GHG emissions) amounted to 993,595.75 metric tons of CO_2e. Inventory items include business travel, employee commuting, visitor travel (by vehicles and vessels), purchased goods, disposal of solid and liquid waste, and downstream leased assets.
4. Scope 2 emissions are primarily from electricity consumption. The increase in Scope 2 emissions in 2024 compared to 2023 is mainly due to a higher number of vessel arrivals at Keelung Port, which led to increased on-site operational activities and electricity usage.
5. The company's official vehicles use ethanol-blended gasoline (provided by CNPC, Taiwan, containing 3% bioethanol).
6. GHG inventory is conducted using the operational control approach, with 2020 as the base year. Emission factors are based on the Environmental Protection Administration (now Ministry of Environment) GHG Emission Factor Management Table Version 6.0.4. Global Warming Potential (GWP) values are adopted from the IPCC Sixth Assessment Report (AR6). No carbon offset projects have been used.
7. Grid emission factor in 2022: 0.495 kg CO_2e/kWh; Grid emission factor in 2023: 0.494 kg CO_2e/kWh; Grid emission factor in 2022: 0.474 kg CO_2e/kWh

Waste Disposal

Waste Disposal in Kaohsiung Port in 2024		
Item		**Clearance volume (metric tons)**
General industrial waste	Incineration	1,019.16
	Recycling	94.7
Hazardous industrial waste		0
Total		1,113.86

Taiwan International Ports Corporation, Ltd.