



Environmental Performance

2021

Airports of Thailand PCL

Energy Consumption



Energy Consumption

		Unit	2018	2019	2020	2021
Total Energy consumption		MWh	661,376	688,310	545,363	457,268
Non-renewable	Total	MWh	661,376	688,310	545,051	456,973
	- Electricity	MWh	569,745	594,497	467,946	389,510
	- Cooling	MWh	91,631	93,813	77,105	67,463
Renewable	Electricity from solar cells	MWh	0	0	312	294
Energy intensity		kWh per passenger	4.74	4.85	7.51	22.85*
Costs of energy consumption		THB	2,557,724,241	2,500,597,104	2,095,776,063	1,644,828,104

Note: Reported data covers all 6 airports.

* The increased intensity was due to COVID-19 impact

GHG Emissions

	Unit	2018	2019	2020	2021
Direct GHG emissions (Scope 1)	tCO2e	3,149.74	3,291.37	3,202.10	2,499.25
Indirect GHG emissions from electricity (Scope 2) – Market Based	tCO2e	228,739.73	214,710.81	171,166.09	178,974.37
Indirect GHG emissions from electricity (Scope 2) – Location Based	tCO2e	228,739.73	214,710.81	171,322.06	179,121.51
Total GHG Emission (Scope 1+2 Market Based)	tCO2e	231,889.47	218,002.18	174,368.19	181,473.62

Remark - Data is based on calendar year
 - Data in covers 6 airports (100%).

GHG Emissions Reduction Targets

AOT has set a corporate carbon reduction target on average of 2% per year (intensity per passenger). A reduction of 16% in 2023 compared to the 2015 level.

Moreover, AOT is in process of Net Zero Target setting in alignment with the pledge from the Government of Thailand – to be carbon neutral in 2050 and net zero in 2065.

Water consumption



Water Consumption

	Unit	2018	2019	2020	2021
Total municipal water withdrawal	Thousand cubic meters	10,299	10,133	8,822	5,823
Total fresh surface water withdrawal	Thousand cubic meters	0	0	343	85
Total groundwater withdrawal	Thousand cubic meters	301	348	366	309
Treated water discharge	Thousand cubic meters	4,315	3,992	2,934	1,463
Total net fresh water consumption	Thousand cubic meters	6,285	6,490	5,889	4,755
Water withdrawal intensity	Cubic meter per passenger	0.076	0.074	0.121	0.311*

Note: Reported data covers all 6 airports

* The increased intensity was due to COVID-19 impact

Solid Waste



Solid Waste

	Unit	2018	2019	2020	2021
Total waste generated	Metric tonnes	31,853	35,620	26,260	19,340
Total waste used/recycled/sold	Metric tonnes	3,055	2,763	1,599	770
Total waste disposed	Metric tonnes	28,798	33,015	24,661	16,976
- Waste landfilled	Metric tonnes	23,188	27,651	8,493	2,115
- Waste incinerated with energy recovery	Metric tonnes	0	0	13,364	14,505
- Waste incinerated without energy recovery	Metric tonnes	5,610	5,364	268	349
- Waste otherwise disposed, please specify: Special disposal by contractor	Metric tonnes	0	0	2,536	7
Waste disposal intensity	kg per passenger	0.21	0.23	0.34	0.85*

Note: Reported data covers all 6 airports

* The increased intensity was due to COVID-19 impact

Return on Environmental Investments



Return on Environmental Investments

Environmental Investments	Unit	2018	2019	2020	2021
Capital Investments	THB	672,624,750	65,155,360	44,095,885	29,389,322
Operating Expenses	THB	82,268,000	22,992,932	41,696,333	17,303,877
Total Expenses	THB	754,892,750	88,148,292	85,792,218	46,693,199
Savings, cost avoidance, income, tax incentives, etc.	THB	13,083,143	16,283,331	29,218,001	25,846,780

Note: Reported data covers all 6 airports

Environmental Violations



Environmental Violations

Environmental Violations	Unit	2018	2019	2020	2021
Environmental violations of legal obligations/regulations	Case	0	0	0	0
Significant fines and amount of penalty paid (THB)	THB	0	0	0	0
Non-monetary sanctions	Case	0	0	0	0
Case brought through dispute resolution mechanisms	Case	0	0	0	0

Note: Reported data covers all 6 airports

Biodiversity Exposure & Assessment



Locations	Area (Rai)	Ares (Ha)	Sites undergone biodiversity impact assessment	Sites with exposure to critical biodiversity areas	Critical biodiversity areas					Management Plan in Place
					National Park	Alliance for Zero Extinction (AZE)	UNESCO World Heritage Sites	Ramsar Wetland Sites	MAB	
BKK	22,000	3,520	Yes	-	-	-	-	-	-	Yes
DMK+ Head Office	3,839	614	Yes	-	-	-	-	-	-	Yes
CNX	1,605	257	Yes	Yes	Doi Suthep-Pui National Park	-	-	-	-	Yes
HKT	1,382	221	Yes	Yes	Sirinath National Park	-	-	-	-	Yes
HDY	2,970	475	-	-	-	-	-	-	-	-
CEI	3,042	487	Yes	-	-	-	-	-	-	Yes
Total	34,838	5,574	5 Locations (5,099 ha)	2 Locations (478 ha)						5 Locations (5,099 ha)

Remark: Sites with exposure to critical biodiversity areas refers to sites in close proximity (0-2 km) to critical biodiversity areas