Environmental Performance

2020

Airports of Thailand PCL

2020 Environmental Performance Data Coverage

Topics	Suvarnabhumi Airport (BKK)	Don Mueang International Airport (DMK)	Chiang Mai International Airport (CNX)	Hat Yai International Airport (HDY)	Phuket International Airport (HKT)	Mae Fah Luang - Chiang Rai International Airport (CEI)	Percentage of Revenue Generation
Electricity Consumption	✓	✓	✓	✓	✓	✓	100%
GHG Emissions	✓	✓	✓	✓	✓	✓	100%
Water Consumption	✓	✓	✓	✓	✓	✓	100%
Solid Waste	✓	✓	✓	✓	✓	✓	100%

Energy Consumption

Energy Consumption

		Unit	2017	2018	2019	2020
Total Energy consumption		MWh	667,167	661,376	688,310	545,363
Non-renewable	Electricity	MWh	571,775	569,745	594,497	467,946
	Cooling	MWh	95,392	91,631	93,813	77,105
Renewable	Electricity from solar cells	MWh	-	-	-	312
Energy intensity		kWh per passenger	5.16	4.74	4.85	7.51
Costs of energy consumption		THB	2,454,467,557	2,557,724,241	2,500,597,104	2,095,776,063

Note: Reported data covers all 6 airports.

Electricity Consumption Targets

Electricity Consumption Targets

Locations	Intensity Target
Suvarnabhumi Airport	Reduce electricity consumption per passenger by 18% in 2020 compared to the 2011 level
Don Mueang International Airport Chiang Mai International Airport Hat Yai International Airport Mah Fah Luang - Chiang Rai International Airport	Reduce electricity consumption per passenger by 20% in 2023 compared to the 2013 level equalling an average decrease of 2% per annum

Note: Phuket International Airport's target is under revision

GHG Emissions

GHG Emissions

	Unit	2016	2017	2018	2019
Direct GHG emissions (Scope 1)	tCO2e	2,755.94	2,684.55	3,149.73	3,184.23
Indirect GHG emissions from electricity (Scope 2)	tCO2e	211,570.34	213,385.60	228,811.11	215,566.37
Total GHG Emission (Scope 1+2)	tCO2e	214,326.28	216,070.15	231,960.84	218,750.60
Emission intensity	kgCO2e per passenger	2.01	1.86	1.65	1.53

Remark - Data for Carbon Footprint calculation is based on calendar year

- Data in 2018 - 2019 covers 6 airports (100%). Data in 2015-2017 covers 5 airports (HKT excluded).
- Note: Large increase in 2016 scope 2 emission is due to scope expansion to include cooling water of BKK.
- Data in 2020 is under process of verification, thus, not reported here due to a different reporting timeline of AOT's GHG data.

GHG Emission Reduction Targets

GHG Emissions Reduction Targets

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

Locations	Intensity Target
Suvarnabhumi Airport	Reduce CO2 Emission per passenger by 10% in 2020 compared to the 2015 level
Don Mueang International Airport Chiang Mai International Airport Hat Yai International Airport Mah Fah Luang - Chiang Rai International Airport	Reduce CO2 Emission per passenger by 20% in 2023 compared to the 2013 level equalling an average decrease of 2% per annum
Phuket International Airport	Reduce CO2 Emission per passenger by 10% in 2023 compared to the 2018 level equalling an average decrease of 2% per annum

Water consumption

Water Consumption

	Unit	2017	2018	2019	2020
Total municipal water withdrawal	Thousand cubic meters	9,000	10,299	10,133	8,822
Total fresh surface water (lakes, rivers, etc.) and groundwater withdrawal	Thousand cubic meters	474	301	348	709
Treated water discharge	Thousand cubic meters	4,611	4,315	3,992	2,934
Total net fresh water consumption	Thousand cubic meters	4,863	6,285	6,490	5,889
Water withdrawal intensity	Cubic meter per passenger	0.073	0.076	0.074	0.121

Note: Reported data covers all 6 airports

Solid Waste

Solid Waste

	Unit	2017	2018	2019	2020
Total waste generated	Metric tonnes	30,932.00	31,852.56	35,619.59	26,259.58
Total waste used/recycled/sold	Metric tonnes	2,581.47	3,055.08	2,762.65	1,599.06
Total waste disposed	Metric tonnes	28,351	28,798	32,857	24,661
Waste disposal intensity	kg per passenger	0.22	0.21	0.23	0.34

Note: Reported data covers all 6 airports

Return on Environmental Investments

Return on Environmental Investments

Environmental Investments	Unit	2017	2018	2019	2020
Capital Investments	THB	316,686,586	672,624,750	65,155,360	44,095,885
Operating Expenses	THB	72,296,534	82,268,000	22,992,932	41,696,333
Total Expenses	THB	388,983,120	709,351,611	88,148,292	85,792,218
Savings, cost avoidance, income, tax incentives, etc.	THB	90,270,795	13,083,143	16,283,331	29,218,001

Note: Reported data covers all 6 airports