

American Airlines 2019 Environmental Data

Performance Tables

Environmental Performance	2019		2018		2017		2016	
Greenhouse Gas Emissions	Mainline	Regional	Mainline	Regional	Mainline	Regional	Mainline	Regional
Total absolute emissions (thousands of metric tons of CO₂e)								
Scope 1 (jet fuel, natural gas, diesel, gasoline, propane, refrigerants)	36,280	4,061	36,037	4,239	35,391	3,671	35,553	3,360
Scope 2 location-based (purchased electricity)	278	18	306	22	310	16	326	15
Scope 2 market-based (purchased electricity)	259	15	306	22	310	16	326	15
Scope 3 (categories 1,2,3,5,6,7,8,9, and 15)	14,243	7,799	15,569	9,212				
Emissions intensity								
GHG intensity (Scope 1 emissions from jet fuel per 1,000 RTMs)	1.52	3.21	1.53	3.28	1.49	2.93	1.54	2.91
GHG intensity (Scope 1 emissions from jet fuel per million dollars of revenue)	893		899		911		964	
Other Air Emissions								
Aircraft emissions								
Nitrous oxide (NOx) (metric tons from landing/take-off cycle)	17,262	2,621	16,864	2,390	16,686	2,279	17,006	2,283
Hydro carbons (HC) (metric tons from landing/take-off cycle)	820	279	841	246	896	177	1,031	191
Carbon monoxide (CO) (metric tons from landing/take-off cycle)	8,160	3,374	8,006	3,140	7,986	2,912	8,334	3,016
Sulfur content of Jet Fuel	998	134	992	116	974	101	979	92
Ground emissions (metric tons)								
Ozone-depleting substances	1.2	-	14.5	-	7.4	-	14.6	-
Carbon monoxide (CO) (from reporting facilities)			39.5	-				
Nitrous oxide (NOx) (from reporting facilities)			58.9	-				
Sulfur oxide (SOx) (from reporting facilities)			1.5	-				
Volatile organic compounds (VOC) (from reporting facilities)			91.3	-				
Particulate Matter (PM) (from reporting facilities)			11.5	-				
Energy								
Jet fuel consumption (millions of gallons) ¹	3,666	491	3,644	428	3,579	371	3,596	339
Direct energy from jet fuel (millions of gigajoules)	521.3	69.8	518.2	60.8	509.0	52.7	511.3	48.1
Electricity consumption (MWhs)	663,123	39,526	638,424	40,222	658,916	29,777	679,761	24,210
Energy from electricity (millions of gigajoules)	2.4	0.1	2.3	0.1	2.4	0.1	2.4	0.1
Direct purchase of renewable electricity (million gigajoules) ²	0.16	0.02	0.09	0.01	0.07	0.01	-	-
Direct + indirect purchase of renewable electricity (million gigajoules) ³	0.77	0.04	0.63	0.02	0.35	0.01		
Direct purchase of renewable electricity (MWhs)	46,777	6,780	24,530	3,606	18,790	3,369	-	-
Direct + indirect purchase of renewable electricity (MWhs) ³	171,950	3,866	152,604	1,442	78,701	79	55,521	-
Energy intensity								
Energy intensity - jet fuel (gigajoules per million ton miles)	21.9	46.5	22.2	47.5	22.3	45.8	23.0	45.9
Energy intensity - electricity (gigajoules per ton miles)	0.10	0.09	0.10	0.11	0.10	0.09	0.11	0.08

Waste								
Hazardous waste (tons)	849	52	742	41	732	44	757	42
Water								
Water use for AA major facilities, excluding airports (millions of gallons) ⁴	495		457		430		467	
Noise								
Percent of aircraft certified as, or meeting, Chapter 3 noise limits	100%	100%	100%	100%	100%	100%	100%	
Percent of aircraft certified as, or meeting, Chapter 4 noise limits	100%	100%	97%	100%	95%	100%	94%	
Percent of aircraft certified as, or meeting, Chapter 5 noise limits	12%	46%	10%	53%	8%	50%		
Environmental compliance								
Number of environmental notices of violation	5		9		7		9	
Amount of environmental fines and penalties (thousands of dollars)	\$6.5		\$4.8		\$4.8		\$54.7	
Spills recorded (1 gallon or greater)	357	72	341	77	370	74		

¹ Regional jet fuel consumption represents jet fuel from owned regional airlines Envoy, PSA and Piedmont.

² Amounts from 2016 to 2018 were restated to reflect the year in which RECs were retired rather than when electricity was purchased.

³ Indirect purchases represent electricity purchased for American's facilities indirectly through airport authorities.

⁴ From municipal water supplies.