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Key ESG Data

Environmental Data

	2022		2021		2020	
Energy¹	Megawatt hours	Terajoules	Megawatt hours	Terajoules	Megawatt hours	Terajoules
Natural gas	1,928,000	6,941	1,712,000	6,163	1,686,000	6,070
Jet kerosene	861,000	3,100	804,000	2,894	544,000	1,958
Fuel oil #2	127,000	457	153,000	551	149,000	536
Motor gasoline	24,000	86	21,000	76	21,000	76
Propane	11,000	40	10,000	36	12,000	43
Liquefied petroleum gas	2,000	7	1,000	4	–	–
Total nonrenewable fuels	2,953,000	10,631	2,701,000	9,724	2,412,000	8,683
Sustainable aviation fuel	9,000	32	4,000	14	2,000	7
Total renewable fuels	9,000	32	4,000	14	2,000	7
Purchased nonrenewable electricity	1,350,000	4,860	1,482,000	5,335	1,686,000	6,070
Purchased renewable electricity²	720,000	2,592	574,000	2,066	392,000	1,411
Total purchased electricity	2,070,000	7,452	2,056,000	7,402	2,078,000	7,481
Total energy use	5,033,000	18,119	4,761,000	17,410	4,492,000	16,171

1. Data represents 100% of the company.
2. Renewable electricity data excludes any renewable energy that is part of the grid by default, in alignment with SASB and other frameworks. Notably, Boeing operates in a number of grids that rely significantly on renewable sources.
• Boeing did not sell any electricity, heating or cooling energy.

Emissions¹	Tons CO ₂ e	Metric tons CO ₂ e	Tons CO ₂ e	Metric tons CO ₂ e	Tons CO ₂ e	Metric tons CO ₂ e
Scope 1 GHG ^{2,3}	708,000	642,000	675,000	612,000	611,000	554,000
Scope 2 GHG — location-based ^{2,3}	859,000	779,000	830,000	753,000	840,000	762,000
Scope 2 GHG — market-based ^{2,3}	442,000	401,000	493,000	447,000	580,000	526,000
Scope 3 GHG — business travel	205,000	186,000	97,000	88,000	101,000	92,000
Scope 3 GHG — use of sold products (Commercial Airplanes) ^{3,6}	400,000,000	363,000,000	306,000,000	278,000,000	246,000,000	223,000,000
Scope 3 GHG — use of sold products (Defense, Space & Security) ^{3,6}	24,000,000	22,000,000	24,000,000	22,000,000	22,000,000	20,000,000
Total calculated GHG excluding sold products	1,355,000	1,229,000	1,264,000	1,147,000	1,292,000	1,172,000
Core metrics sites GHG — location-based ⁴	724,000	657,000	702,000	637,000	713,000	647,000
Core metrics sites GHG — market-based ⁴	323,000	293,000	376,000	341,000	452,000	410,000
GHG Intensity ⁵	\$0.00002		\$0.00002		\$0.00002	

1. Emissions (Enterprise Scope 1, Scope 2, and Scope 3 Categories 6 and 11) data is verified by an accredited independent third party to the level of limited assurance, see [assurance statements](#).
2. Scope 1 and Scope 2 data represents 100% of the company.
3. For Scopes 1, 2 and 3, we calculate emissions from CO₂, CH₄, N₂O, HFCs, PFCs, SF₆ and NF₃ for this data set.
4. Core metrics sites data represents emissions of CO₂, CH₄ and N₂O where we track a subset of emissions from natural gas combustion and purchased electricity associated with sites that represent the majority (70%) of Boeing operations.
5. GHG intensity includes Scope 1 and Scope 2 (market-based) GHG (CO₂, CH₄, N₂O, HFCs, PFCs, SF₆ and NF₃).
6. Use of sold products emissions are based on estimated lifetime emissions of Boeing Commercial Airplanes and Boeing Defense Services product deliveries in 2022, including direct emissions from combustion of fuel (335M tonnes) and indirect emissions from production of fuel (50M tonnes).