

Survey Year	Count of Equipment ^[1]	Percent Electric ^[1]	OFFROAD Method	CARB Factors Method	MOU Fleet Performance
			NO _x ^{[2][3]} (short tons)	NO _x ^{[2][4]} (short tons)	NO _x + HC ^{[1][5]} (g/bhp-hr)
2017	2,592	40.4%	184.93	181.86	2.24
2018					
2019					
2020	3,029	34.2%	179.97	150.25	1.52
2021	3,156	31.7%	--	156.62	1.52
2022					
2023					
2023				Performance Target:	1.80
2024					
2025					
2026					
2027					
2028					
2029					
2030					
2031					
2031				Performance Target:	1.00
2032					

Notes:

[1] Low-use and <25 horsepower non-electric equipment **excluded**

[2] All reported equipment, including low-use and <25 hp equipment **included**

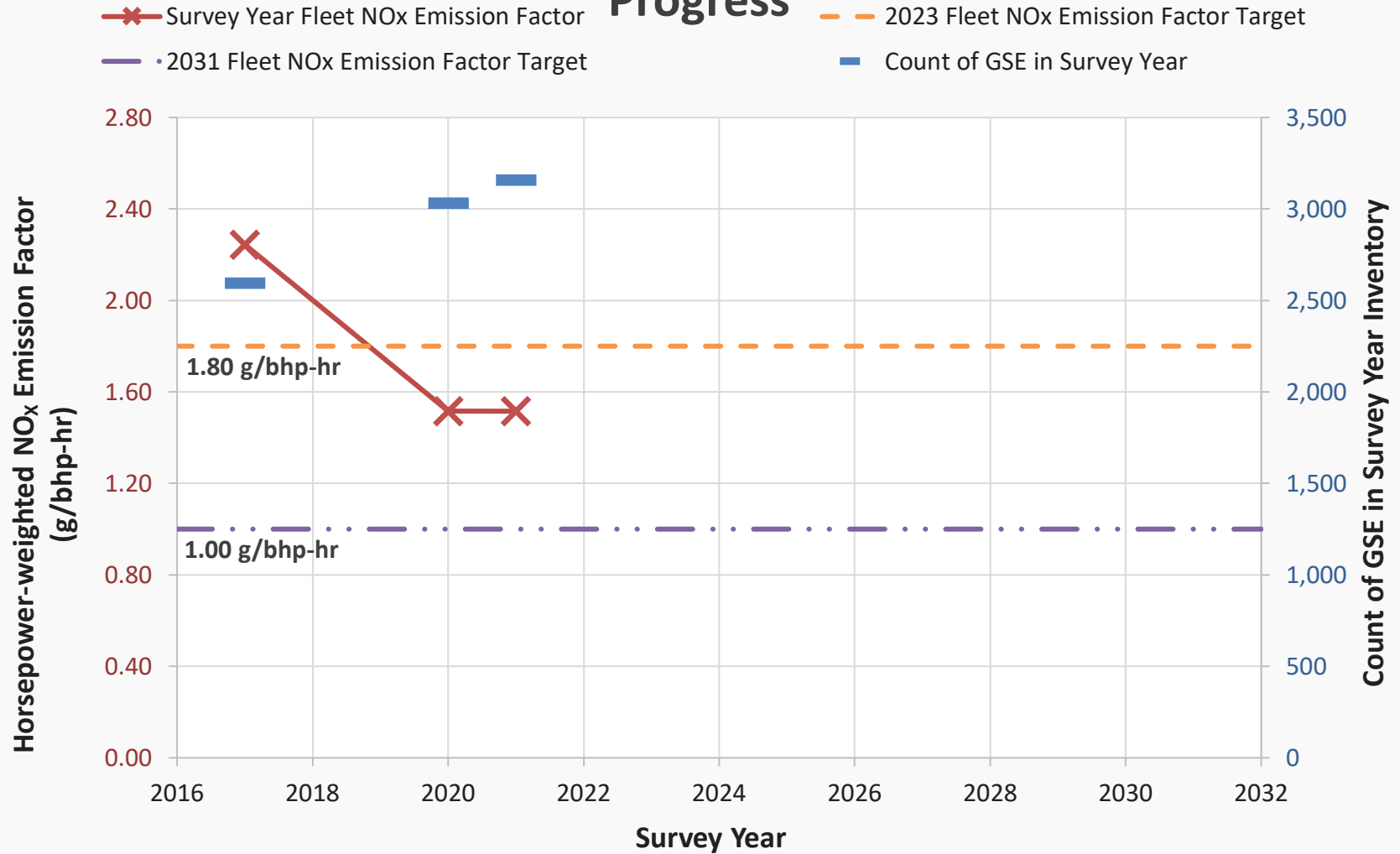
[3] Emission factors back-calculated from OFFROAD2017 outputs (outdated LSI emission factors).

[4] Emission factors provided by CARB July 2021 based on certified engine standards (LSI) and 2017 ORDAS model (ORD).

[5] Calculated as an engine standard-based horsepower-weighted factor consistent with the methodology employed throughout the development of the **SCAQMD and City of Los Angeles Department of Airports 2019 MOU**.

Los Angeles International Airport GSE Program

Progress



	Count of Equipment [excluding <25hp non-electric and low-use equipment]				
	Diesel	Gasoline	LPG	Electric	Total
Overall Fleet	755	898	503	1,000	3,156
Overall Fleet Percent	23.9%	28.5%	15.9%	31.7%	--
A/C Tug Narrow Body	149	0	5	87	241
Air Conditioner	24	13	0	12	49
Air Start Unit	26	0	0	0	26
Baggage Tug	41	247	142	297	727
Belt Loader	27	102	2	172	303
Bobtail	12	58	0	0	70
Cargo Loader	163	0	0	12	175
Cargo Tractor	6	140	18	134	298
Cart	7	10	0	155	172
Catering Truck	51	35	0	0	86
Forklift	20	36	317	58	431
Fuel Truck	22	1	0	0	23
Generator	3	1	0	0	4
Ground Power Unit	107	1	0	15	123
Hydrant Truck	14	10	0	0	24
Lav Cart	2	2	0	6	10
Lav Truck	14	24	0	0	38
Lift	40	28	14	50	132
Passenger Stand	9	12	0	1	22
Service Truck	17	166	1	0	184
Sweeper	1	2	4	1	8
Water Truck	0	10	0	0	10

	Fleet Inventory Equipment Count [including <25hp non-electric and low-use equipment]				Fleet Inventory Annual Emissions [including <25hp non-electric and low-use equipment]						
	In-Use (any fuel)	Low-Use (any fuel)	Total (any fuel)	Electric	ROG (short tons)	CO (short tons)	NO _x (short tons)	PM ₁₀ (short tons)	PM _{2.5} (short tons)	CO _{2e} (metric tons)	SO _x (short tons)
Overall Fleet	3,228	201	3,429	1,046	50.6	773.6	156.62	5.769	4.974	52,253	0.1586
Overall Fleet Percent	94.1%	5.9%	--	30.5%	--	--	--	--	--	--	--
A/C Tug Narrow Body	241	12	253	87	1.4	11.3	13.3	0.508	0.468	3,872	0.0182
Air Conditioner	49	0	49	12	0.2	6.4	1.3	0.102	0.084	1,201	0.0046
Air Start Unit	26	6	32	0	0.0	0.4	0.6	0.023	0.021	235	0.0011
Baggage Tug	727	30	757	301	18.5	292.1	46.4	1.468	1.278	13,502	0.0288
Belt Loader	333	16	349	173	4.6	57.2	10.5	0.341	0.279	3,121	0.0102
Bobtail	70	1	71	0	1.2	28.7	3.8	0.307	0.240	3,671	0.0123
Cargo Loader	175	13	188	12	0.9	10.9	8.8	0.371	0.341	1,989	0.0096
Cargo Tractor	298	0	298	134	12.0	205.3	27.4	0.670	0.536	7,819	0.0218
Cart	194	5	199	160	0.2	0.6	0.2	0.005	0.004	57	0.0002
Catering Truck	86	4	90	0	0.4	5.0	3.7	0.156	0.133	1,064	0.0041
Forklift	431	21	452	58	3.3	48.5	6.0	0.370	0.354	3,738	0.0028
Fuel Truck	23	55	78	35	0.0	0.1	0.2	0.009	0.008	61	0.0003
Generator	23	0	23	0	0.2	1.4	0.6	0.025	0.023	122	0.0005
Ground Power Unit	123	9	132	15	1.3	13.5	10.4	0.474	0.435	3,455	0.0165
Hydrant Truck	24	0	24	0	0.8	40.4	5.5	0.268	0.211	2,971	0.0096
Lav Cart	11	2	13	6	0.0	0.1	0.0	0.001	0.000	6	0.0000
Lav Truck	38	2	40	0	0.7	11.9	3.6	0.198	0.170	1,291	0.0048
Lift	132	10	142	51	2.4	20.4	6.9	0.137	0.121	895	0.0026
Passenger Stand	22	4	26	1	0.1	0.6	0.2	0.013	0.011	90	0.0003
Service Truck	184	9	193	0	2.0	16.8	6.6	0.311	0.247	2,945	0.0097
Sweeper	8	1	9	1	0.3	1.4	0.4	0.004	0.004	58	0.0001
Water Truck	10	1	11	0	0.0	0.7	0.2	0.008	0.006	91	0.0003

	Fleet Inventory Equipment Count (including <25hp non-electric and low-use equipment)			Fleet Inventory Annual Emissions (including <25hp non-electric and low-use equipment)						
	In-Use (any fuel)	Low-Use (any fuel)	Total (any fuel)	ROG (short tons)	CO (short tons)	NO _x (short tons)	PM ₁₀ (short tons)	PM _{2.5} (short tons)	CO _{2e} (metric tons)	SO _x (short tons)
Overall Fleet	3,228	201	3,429	50.6	773.6	156.6	5.769	4.974	52,253	0.1586
Overall Fleet Percent	94.1%	5.9%	--	--	--	--	--	--	--	--
Diesel	783	79	862	7.1	49.3	58.6	2.607	2.398	13,339	0.0646
<i>Tier 4</i>	362	30	392	1.2	22.5	11.5	0.380	0.350	6,768	0.0328
<i>Tier 4i</i>	67	2	69	0.6	5.6	5.2	0.205	0.188	1,553	0.0075
<i>Tier 3</i>	85	3	88	1.1	7.2	10.0	0.535	0.492	1,823	0.0088
<i>Tier 2</i>	47	7	54	0.6	3.5	6.5	0.259	0.238	788	0.0038
<i>Tier 1</i>	99	6	105	2.8	7.8	15.7	0.769	0.708	1,310	0.0063
<i>Tier 0</i>	12	5	17	0.5	1.4	3.2	0.210	0.193	183	0.0009
<i>On-Road</i>	111	26	137	0.3	1.4	6.6	0.250	0.230	915	0.0044
Gasoline	942	50	992	31.8	542.4	64.7	2.396	1.810	30,105	0.0940
<i>Pre-2010</i>	253	19	272	25.0	237.6	52.2	0.608	0.459	7,649	0.0239
<i>2010 and Newer</i>	689	31	720	6.7	304.8	12.4	1.788	1.351	22,456	0.0701
LPG	503	26	529	11.7	181.9	33.3	0.766	0.766	8,809	0.0000
<i>Pre-2010</i>	100	23	123	7.7	72.7	30.7	0.227	0.227	2,611	0.0000
<i>2010 and Newer</i>	403	3	406	4.0	109.2	2.6	0.539	0.539	6,199	0.0000
Electric	1000	46	1046	0.0	0.0	0.0	0.0	0.0	0.0	0.0