

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	3,167	31.6%	--	156.62	1.52
2022	3,348	32.2%	--	130.19	1.16
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**

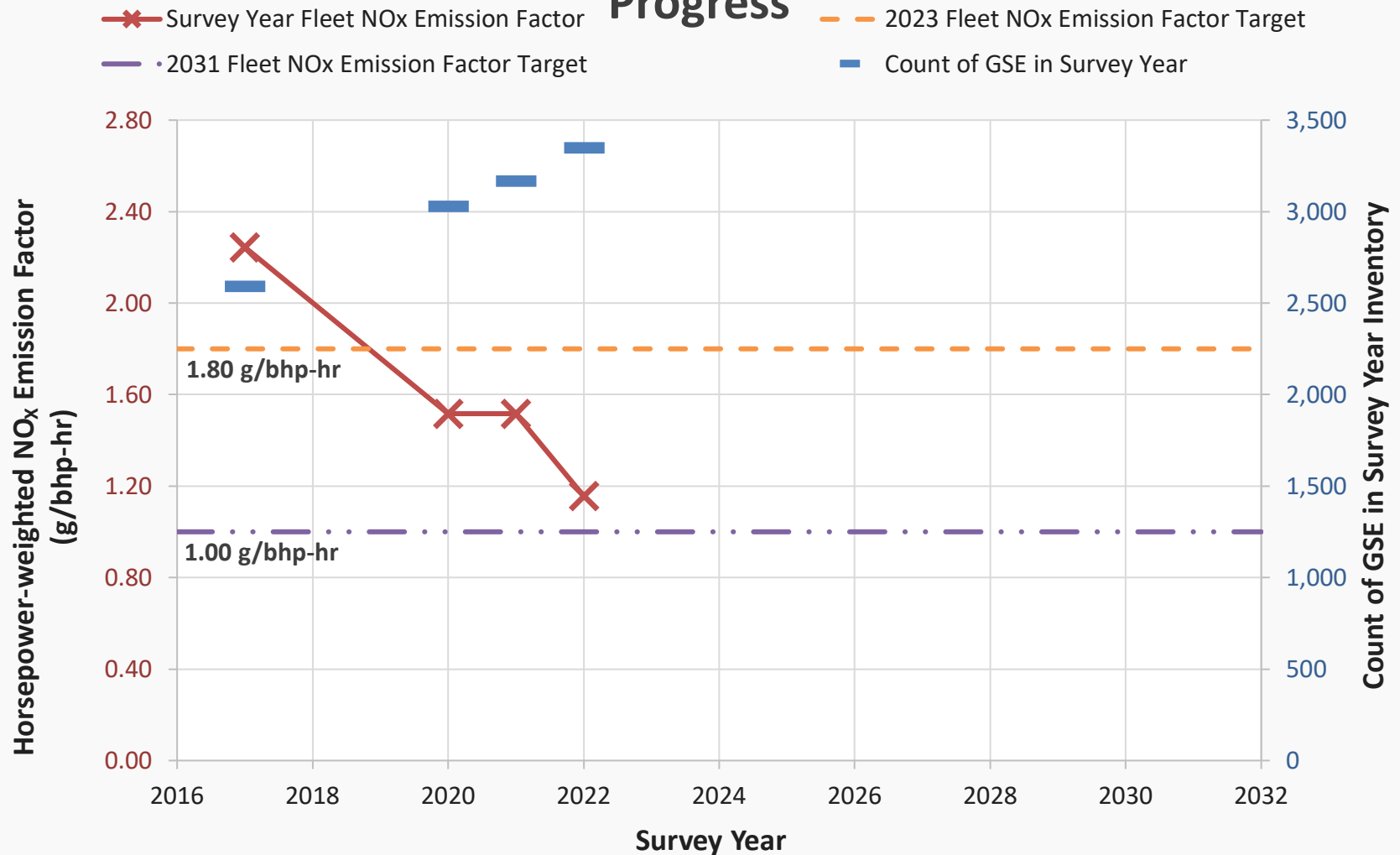
[3] Emission factors back-calculated from OFFROAD2017 outputs (outdated LSI emission factors).

[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	765	928	578	1,077	3,348
Overall Fleet Percent	22.8%	27.7%	17.3%	32.2%	--
A/C Tug Narrow Body	153	0	5	91	249
Air Conditioner	25	13	0	11	49
Air Start Unit	27	0	0	0	27
Baggage Tug	41	282	157	326	806
Belt Loader	27	103	5	190	325
Bobtail	11	60	0	0	71
Cargo Loader	172	2	0	13	187
Cargo Tractor	4	137	17	130	288
Cart	2	12	0	156	170
Catering Truck	51	29	0	0	80
Forklift	17	22	375	78	492
Fuel Truck	24	1	0	0	25
Generator	2	1	0	0	3
Ground Power Unit	121	1	0	15	137
Hydrant Truck	14	10	0	0	24
Lav Cart	2	2	0	9	13
Lav Truck	13	26	0	0	39
Lift	38	29	15	55	137
Passenger Stand	8	15	0	2	25
Service Truck	12	171	0	0	183
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	3,400	162	3,562	1,117	46.0	735.6	130.19	5.284	4.568	50,159	0.1487
Overall Fleet Percent	95.5%	4.5%	--	31.4%	--	--	--	--	--	--	--
A/C Tug Narrow Body	249	6	255	91	1.4	11.5	12.8	0.470	0.433	4,029	0.0190
Air Conditioner	49	0	49	11	0.2	7.2	1.4	0.105	0.086	1,271	0.0048
Air Start Unit	27	9	36	0	0.0	0.5	0.6	0.022	0.020	257	0.0012
Baggage Tug	806	7	813	327	18.2	305.8	42.1	1.557	1.354	14,703	0.0310
Belt Loader	327	3	330	190	3.4	49.7	7.0	0.326	0.269	2,957	0.0093
Bobtail	71	2	73	0	0.4	17.0	1.2	0.211	0.162	2,387	0.0076
Cargo Loader	187	6	193	13	0.9	12.5	8.2	0.337	0.308	2,217	0.0104
Cargo Tractor	288	1	289	130	10.9	185.2	22.7	0.561	0.451	6,490	0.0178
Cart	188	7	195	158	0.2	0.7	0.1	0.005	0.004	57	0.0002
Catering Truck	80	7	87	0	0.1	0.6	1.2	0.139	0.121	862	0.0035
Forklift	492	26	518	78	3.9	52.2	6.5	0.364	0.354	3,857	0.0020
Fuel Truck	25	54	79	35	0.0	0.2	0.3	0.009	0.009	101	0.0005
Generator	32	2	34	0	0.3	1.6	0.8	0.037	0.034	176	0.0008
Ground Power Unit	137	9	146	15	1.1	15.3	8.0	0.367	0.336	3,719	0.0178
Hydrant Truck	24	0	24	0	0.6	28.6	4.9	0.203	0.162	2,121	0.0070
Lav Cart	13	4	17	9	0.0	0.1	0.0	0.001	0.000	6	0.0000
Lav Truck	39	2	41	0	0.8	14.8	1.9	0.150	0.123	1,229	0.0041
Lift	137	6	143	56	2.4	21.6	7.1	0.118	0.104	943	0.0027
Passenger Stand	28	3	31	2	0.1	0.8	0.2	0.012	0.009	104	0.0004
Service Truck	183	6	189	0	0.7	8.0	2.8	0.278	0.218	2,537	0.0083
Sweeper	8	2	10	2	0.3	1.4	0.4	0.004	0.004	58	0.0001
Water Truck	10	0	10	0	0.0	0.3	0.0	0.007	0.005	79	0.0002

	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	3,400	162	3,562	46.0	735.6	130.2	5.284	4.568	50,159	0.1487
Overall Fleet Percent	95.5%	4.5%	--	--	--	--	--	--	--	--
Diesel	793	78	871	6.2	49.2	49.8	2.246	2.066	13,051	0.0632
<i>Tier 4</i>	416	28	444	1.4	26.4	12.3	0.402	0.370	7,406	0.0358
<i>Tier 4i</i>	65	6	71	0.5	5.4	5.1	0.197	0.181	1,468	0.0071
<i>Tier 3</i>	69	10	79	0.9	5.8	8.4	0.436	0.402	1,511	0.0073
<i>Tier 2</i>	35	10	45	0.4	2.6	4.6	0.188	0.173	576	0.0028
<i>Tier 1</i>	82	9	91	2.4	6.8	12.0	0.643	0.592	1,017	0.0049
<i>Tier 0</i>	8	2	10	0.3	0.8	1.9	0.123	0.113	109	0.0005
<i>On-Road</i>	118	13	131	0.3	1.3	5.5	0.256	0.236	963	0.0047
Gasoline	952	18	970	26.5	481.1	44.5	2.194	1.657	27,394	0.0855
<i>Pre-2010</i>	215	10	225	19.9	171.3	32.6	0.482	0.364	6,037	0.0189
<i>2010 and Newer</i>	737	8	745	6.6	309.8	12.0	1.711	1.293	21,357	0.0667
LPG	578	26	604	13.2	205.3	35.8	0.844	0.844	9,714	0.0000
<i>Pre-2010</i>	109	15	124	8.3	76.8	32.5	0.244	0.244	2,804	0.0000
<i>2010 and Newer</i>	469	11	480	4.9	128.5	3.4	0.601	0.601	6,910	0.0000
Electric	1077	40	1117	0.0	0.0	0.0	0.0	0.0	0.0	0.0