



APPENDIX B

Energy Calculations

Table 1. Summary of Energy Use During Construction

Fuel Type	Quantity
Diesel	
Off-Road Construction Equipment	31,681 Gallons
On-Road Motor Vehicles	41,104 Gallons
Total	72,786 Gallons
Gasoline	
Off-Road Construction Equipment	0 Gallons
On-Road Motor Vehicles	20,551 Gallons
Total	20,551 Gallons
Electricity	
Total	61.4 kWh

Table 2. Summary of Annual Energy Use During Operation			
Source	Units	Existing	Buildout
Electricity			
Self-Storage	kWh/yr	383,734	1,426,549
General Office	kWh/yr	0	-
Parking	kWh/yr	38,159	63,493
Water Conveyance	kWh/yr	247061.2743	911,028
Total Electricity	kWh/yr	668,954	2,401,070
Natural Gas			
General Office	kBTU/yr	0	0
Parking	kBTU/yr	0	0
Self-Storage	kBTU/yr	1,299,349	-
Total Natural Gas	kBTU/yr	1299349	-
Transportation/On-Site Sources			
Diesel	gallons	5,897	6,961
Gasoline	gallons	34,085	38,914
Total	gallons	39,982	45,876

Table 3. Water by Land Use							
Land Use	Units	Existing			Buildout		
		Indoor/Outdoor	Indoor Use	Outdoor Use	Indoor/Outdoor Use	Indoor Use	Outdoor Use
Buildout	Mgal	18.974063/0	18.974063	0	69.813877/.178393	69.813877	0.178393

Water and Wastewater Electricity Intensity (kWh/gallon)

Supply Water	0.009727
Treat Water	0.000111
Distribute Water	0.001272
Wastewater Treatment	0.001911

Source: CalEEMod User's Guide, Appendix D, Table 9.2

Indoor Water Factor	0.013021
Outdoor Water Factor	0.01111

Notes:

Electricity and Natural Gas for the Proposed Project is total operational usage. Electricity, natural gas, and mobile usage was calculated from CalEEMod. Indoor water factor used for entire Project Site for conservative analysis.

Table 4. Off-Road Equipment Fuel Usage During Construction

Phase Name	Off-road Equipment Type	Amount	Hours per Day	Horsepower	Load Factor	Number of Days	Diesel Fuel Usage (Gallons per Project)
Demolition	Concrete/Industrial Saws	1	8	33	0.73	20	193
Demolition	Rubber Tired Dozers	1	8	367	0.4	20	1,174
Demolition	Tractors/Loaders/Backhoes	3	8	84	0.37	20	746
Grading	Graders	1	8	148	0.41	30	728
Grading	Rubber Tired Dozers	1	8	367	0.4	30	1,762
Grading	Tractors/Loaders/Backhoes	2	7	84	0.37	30	653
Building Construction	Cranes	1	8	367	0.29	270	11,494
Building Construction	Forklifts	2	7	82	0.2	270	3,100
Building Construction	Generator Sets	1	8	14	0.74	270	1,119
Building Construction	Tractors/Loaders/Backhoes	1	6	84	0.37	270	2,517
Building Construction	Welders	3	8	46	0.45	270	6,707
Architectural Coating	Air Compressors	1	6	37	0.48	45	240
Paving	Cement and Mortar Mixers	1	8	10	0.56	24	54
Paving	Pavers	1	8	81	0.42	24	327
Paving	Paving Equipment	1	8	89	0.36	24	308
Paving	Rollers	2	8	36	0.38	24	263
Paving	Tractors/Loaders/Backhoes	1	8	84	0.37	24	298
Project Total							31,681

Notes:

Equipment assumptions from CalEEMod.

Fuel usage estimate of 0.05 gallons per horsepower-hour is from the SCAQMD CEQA Air Quality Handbook, Table A9-3 E.

Table 5. On-Road Vehicle Fuel Usage During Construction (Peak Days)

Phase	Number of Days	Daily Trips			Total Trips			Trip Length (Miles)			Total Length (Miles)			Fuel Consumption (Gallons)	
		Worker	Vendor	Hauling	Worker Trips	Vendor Trips	Haul Trips	Worker	Vendor	Hauling	Worker	Vendor	Hauling	Gasoline	Diesel
Demolition	20	13	0	58	260	0	1,160	15	7	20	3,822	0	23,200	136	3,826
Grading	30	10	0	42	300	0	1,260	15	7	24	4,410	0	30,618	156	5,031
Building Construction	270	138	54	0	37,260	14,580	0	15	7	0	547,722	100,602	0	19,426	31,584
Paving	24	15	0	0	360	0	0	15	7	20	5,292	0	0	188	149
Architectural Coatings	45	27.5	0	0	1,238	0	0	15	7	20	18,191	0	0	645	514
Total	-	203.5	54	100	39,418	14,580	2,420	n/a	n/a	n/a	579,437	100,602	53,818	20,551	41,104

Fuel Efficiency		
Class	Gas	DSL
Workers	28.20	35.42
Vendor/Haul Trucks	0	6.24

Notes:

Fuel efficiency calculated in **Table 6: EMFAC2021 Results - Construction.**

Table 6. EMFAC2021 Results - Construction

Vehicle Class	Fuel	VMT (miles per day)	Fuel (1,000 gal per day)	Fuel Efficiency (miles per gallon)	Fuel	VMT (miles per day)	Fuel (1,000 gal per day)	Fuel Efficiency (miles per gallon)
LDA	GAS	127,411,269	4,134.43	30.82	DSL	201,834	4.80	42.05
LDT1	GAS	11,091,280	432.90	25.62	DSL	916	0.04	24.09
LDT2	GAS	69,171,014	2,709.66	25.53	DSL	241,831	7.22	33.50
Average (LDA, LDT1, LDT2)				28.20				35.42
T7 Tractor Construction	DSL	20,432	3.27	6.24				

Construction Worker Fleet Mix

LDA	50%
LDT1	25%
LDT2	25%

Vendor and Delivery/Haul Truck Fleet Mix

HHDT	100%
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Source: EMFAC2021 (v1.0.1) Emissions Inventory

Region Type: County

Region: Los Angeles

Calendar Year: 2027

Season: Annual

Vehicle Classification: EMFAC202x Categories

Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption.

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Trips	Fuel_Consumption
Los Angeles	2027	LDA	Aggregate	Aggregate	Gasoline	3252972.868	127411268.6	15084514.27	4134.430858
Los Angeles	2027	LDA	Aggregate	Aggregate	Diesel	6767.856667	201833.5552	28082.93066	4.799534652
Los Angeles	2027	LDA	Aggregate	Aggregate	Electricity	229680.9803	10815622.08	1134018.91	0
Los Angeles	2027	LDT1	Aggregate	Aggregate	Gasoline	305004.155	11091280.07	1345171.474	432.899059
Los Angeles	2027	LDT1	Aggregate	Aggregate	Diesel	46.31412876	915.8440894	129.7693513	0.03801334
Los Angeles	2027	LDT1	Aggregate	Aggregate	Electricity	1549.983911	70978.90608	7540.376469	0
Los Angeles	2027	LDT2	Aggregate	Aggregate	Gasoline	1690654.952	69171014.47	7955024.046	2709.655332
Los Angeles	2027	LDT2	Aggregate	Aggregate	Diesel	5724.008731	241831.3231	27452.65775	7.218911638
Los Angeles	2027	T7 Utility Class 8	Aggregate	Aggregate	Diesel	478.6528847	20432.22894	6126.756924	3.27444108
									7292.316149
									7292316.149
		Gas		7276.985249	7276985.249	2656099616	35,378,625.00		
		Diesel		15.33090071	15330.90071	5595778.759	10,548,851.00	2,661,695,394.53	
							45,927,476.00		

Table 7. Water Usage for Control of Fugitive Dust During Construction			
Phase Name	Total Acres	Gallons for Project	Electricity (kWh)
Project	2.1	6,312	61.4

Notes:

Total acres graded based on CalEEMod output sheets.

Water Usage

3,020 gallons per acre per day

Source: Air & Waste Management Association, Air Pollution Engineering Manual, 1992 Edition

Supply Water Electricity Intensity

0.009727 kWh/gallons (CalEEMod default)

Table 8. On road Vehicles - Operational

Scenario	Annual VMT	Fuel Efficiency (miles/gal)			Fleet Percentage			Fuel Consumption (gallons)		Total Fuel Consumption
		Diesel	Gasoline	Hybrid	Diesel	Gasoline	Hybrid	Diesel	Gasoline/Hybrid	
Existing	1,000,000	8.9	26.0	59.8	5%	88%	2%	5,897	34,085	39,982
Project Buildout	1,193,887	9.1	26.9	61.4	5%	87%	2%	6,961	38,914	45,876

Notes:

Percent fleet and fuel efficiency based on **Table 9: EMFAC2021 Emissions Inventory-Operations**

Annual VMT obtained from the CalEEMod Output files.

Table 9. EMFAC2021 Emissions Inventory - Operations

Fuel	VMT (miles/day)	Fuel Consumption (1,000 gal/day)	Fuel Efficiency (miles per gallon)	Fuel Percentage
Existing				
Diesel	15,132,427	1,705.2	8.9	5.2%
Electricity	13,023,573	0.0	#DIV/0!	4.5%
Gasoline	253,547,733	9,746.9	26.0	87.7%
Natural Gas	911,388	213.3	4.3	0.3%
Hybrid	6,562,702	109.7	59.8	2.3%
Project				
Diesel	15,389,338	1,693.5	9.1	5%
Electricity	15,469,722	0.0	#DIV/0!	5%
Gasoline	251,575,396	9,350.7	26.9	87%
Natura Gas	882,319	197.0	4.5	0%
Hybrid	7,126,043	116.1	61.4	2%

Note: Fuel percentage based on VMT.

Fuel efficiency calculated using fuel consumption and VMT from EMFAC2021.

EMFAC Data - Existing Year

Source: EMFAC2021 (v1.0.1) Emissions Inventory

Region Type: County

Region: Los Angeles

Calendar Year: 2027

Season: Annual

Vehicle Classification: EMFAC202x Categories

Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption.

Region	CalYr	VehClass	MdIYr	Speed	Fuel	Total VMT	Fuel Consumption
Los Angeles		2027 All Other Buses	Aggregate	Aggregate	Diesel	83424.00229	8.764950211
Los Angeles		2027 LDA	Aggregate	Aggregate	Diesel	201833.5552	4.799534652
Los Angeles		2027 LDT1	Aggregate	Aggregate	Diesel	915.8440894	0.03801334
Los Angeles		2027 LDT2	Aggregate	Aggregate	Diesel	241831.3231	7.218911638
Los Angeles		2027 LHD1	Aggregate	Aggregate	Diesel	2872082.695	138.1321537
Los Angeles		2027 LHD2	Aggregate	Aggregate	Diesel	1291571.379	73.24781074
Los Angeles		2027 MDV	Aggregate	Aggregate	Diesel	445305.215	17.8304804
Los Angeles		2027 MH	Aggregate	Aggregate	Diesel	64332.90122	6.45264657
Los Angeles		2027 Motor Coach	Aggregate	Aggregate	Diesel	87406.95341	15.29773716
Los Angeles		2027 PTO	Aggregate	Aggregate	Diesel	112257.5491	21.81486661
Los Angeles		2027 SBUS	Aggregate	Aggregate	Diesel	36021.23954	4.834702869
Los Angeles		2027 T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	2268.198197	0.239908628

Los Angeles	2027 T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	3122.416846	0.330958571
Los Angeles	2027 T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	8052.427316	0.839942919
Los Angeles	2027 T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	51646.87365	4.953838186
Los Angeles	2027 T6 Instate Delivery Class	Aggregate	Aggregate	Diesel	133383.8523	14.84657539
Los Angeles	2027 T6 Instate Delivery Class	Aggregate	Aggregate	Diesel	137978.7395	15.48363414
Los Angeles	2027 T6 Instate Delivery Class	Aggregate	Aggregate	Diesel	421463.6594	47.12067593
Los Angeles	2027 T6 Instate Delivery Class	Aggregate	Aggregate	Diesel	172252.9767	18.94995092
Los Angeles	2027 T6 Instate Other Class 4	Aggregate	Aggregate	Diesel	207967.5087	23.19258404
Los Angeles	2027 T6 Instate Other Class 5	Aggregate	Aggregate	Diesel	480858.8337	53.88431583
Los Angeles	2027 T6 Instate Other Class 6	Aggregate	Aggregate	Diesel	427663.9117	47.79384417
Los Angeles	2027 T6 Instate Other Class 7	Aggregate	Aggregate	Diesel	216408.428	23.83184503
Los Angeles	2027 T6 Instate Tractor Class 6	Aggregate	Aggregate	Diesel	7032.876064	0.77955262
Los Angeles	2027 T6 Instate Tractor Class 7	Aggregate	Aggregate	Diesel	106054.6059	10.98993529
Los Angeles	2027 T6 OOS Class 4	Aggregate	Aggregate	Diesel	1350.783705	0.139133306
Los Angeles	2027 T6 OOS Class 5	Aggregate	Aggregate	Diesel	1853.032341	0.191603022
Los Angeles	2027 T6 OOS Class 6	Aggregate	Aggregate	Diesel	4842.026522	0.488996667
Los Angeles	2027 T6 OOS Class 7	Aggregate	Aggregate	Diesel	35207.55382	3.328101359
Los Angeles	2027 T6 Public Class 4	Aggregate	Aggregate	Diesel	24252.79223	2.80232293
Los Angeles	2027 T6 Public Class 5	Aggregate	Aggregate	Diesel	16866.16999	1.97077333
Los Angeles	2027 T6 Public Class 6	Aggregate	Aggregate	Diesel	20244.3948	2.349669797
Los Angeles	2027 T6 Public Class 7	Aggregate	Aggregate	Diesel	111487.6798	12.68036696
Los Angeles	2027 T6 Utility Class 5	Aggregate	Aggregate	Diesel	25099.75563	2.678278146
Los Angeles	2027 T6 Utility Class 6	Aggregate	Aggregate	Diesel	4726.797244	0.50256885
Los Angeles	2027 T6 Utility Class 7	Aggregate	Aggregate	Diesel	6532.222049	0.689119173
Los Angeles	2027 T7 CAIRP Class 8	Aggregate	Aggregate	Diesel	1461343.126	224.9173708
Los Angeles	2027 T7 NNOOS Class 8	Aggregate	Aggregate	Diesel	1791228.38	263.1970574
Los Angeles	2027 T7 NOOS Class 8	Aggregate	Aggregate	Diesel	650414.1816	98.7386578
Los Angeles	2027 T7 POAK Class 8	Aggregate	Aggregate	Diesel	116.5885753	0.02089984
Los Angeles	2027 T7 POLA Class 8	Aggregate	Aggregate	Diesel	1267216.636	211.3438149
Los Angeles	2027 T7 Public Class 8	Aggregate	Aggregate	Diesel	134380.0474	23.09700753
Los Angeles	2027 T7 Single Concrete/Trans	Aggregate	Aggregate	Diesel	49502.86701	7.907435591
Los Angeles	2027 T7 Single Dump Class 8	Aggregate	Aggregate	Diesel	120679.5656	19.87538019
Los Angeles	2027 T7 Single Other Class 8	Aggregate	Aggregate	Diesel	355342.9743	58.02104103
Los Angeles	2027 T7 SWCV Class 8	Aggregate	Aggregate	Diesel	54850.03474	20.83488606
Los Angeles	2027 T7 Tractor Class 8	Aggregate	Aggregate	Diesel	1158955.776	184.0888626
Los Angeles	2027 T7 Utility Class 8	Aggregate	Aggregate	Diesel	20432.22894	3.27444108
Los Angeles	2027 UBUS	Aggregate	Aggregate	Diesel	2363.510755	0.41301156
Los Angeles	2027 LDA	Aggregate	Aggregate	Electricity	10815622.08	0
Los Angeles	2027 LDT1	Aggregate	Aggregate	Electricity	70978.90608	0
Los Angeles	2027 LDT2	Aggregate	Aggregate	Electricity	738345.5679	0
Los Angeles	2027 LHD1	Aggregate	Aggregate	Electricity	297512.9743	0
Los Angeles	2027 LHD2	Aggregate	Aggregate	Electricity	73479.90172	0

Los Angeles	2027 MDV	Aggregate	Aggregate	Electricity	782316.1854	0
Los Angeles	2027 OBUS	Aggregate	Aggregate	Electricity	3735.991554	0
Los Angeles	2027 PTO	Aggregate	Aggregate	Electricity	3876.617742	0
Los Angeles	2027 SBUS	Aggregate	Aggregate	Electricity	2446.382687	0
Los Angeles	2027 T6 CAIRP Class 4	Aggregate	Aggregate	Electricity	97.95566576	0
Los Angeles	2027 T6 CAIRP Class 5	Aggregate	Aggregate	Electricity	123.5207632	0
Los Angeles	2027 T6 CAIRP Class 6	Aggregate	Aggregate	Electricity	429.3005235	0
Los Angeles	2027 T6 CAIRP Class 7	Aggregate	Aggregate	Electricity	1522.633227	0
Los Angeles	2027 T6 Instate Delivery Class	Aggregate	Aggregate	Electricity	4041.410019	0
Los Angeles	2027 T6 Instate Delivery Class	Aggregate	Aggregate	Electricity	3768.173612	0
Los Angeles	2027 T6 Instate Delivery Class	Aggregate	Aggregate	Electricity	11664.8192	0
Los Angeles	2027 T6 Instate Delivery Class	Aggregate	Aggregate	Electricity	1642.154837	0
Los Angeles	2027 T6 Instate Other Class 4	Aggregate	Aggregate	Electricity	6774.118711	0
Los Angeles	2027 T6 Instate Other Class 5	Aggregate	Aggregate	Electricity	13586.76919	0
Los Angeles	2027 T6 Instate Other Class 6	Aggregate	Aggregate	Electricity	12622.69757	0
Los Angeles	2027 T6 Instate Other Class 7	Aggregate	Aggregate	Electricity	5486.562757	0
Los Angeles	2027 T6 Instate Tractor Class 6	Aggregate	Aggregate	Electricity	186.3454196	0
Los Angeles	2027 T6 Instate Tractor Class 7	Aggregate	Aggregate	Electricity	1478.611999	0
Los Angeles	2027 T6 Public Class 4	Aggregate	Aggregate	Electricity	727.9908151	0
Los Angeles	2027 T6 Public Class 5	Aggregate	Aggregate	Electricity	499.4450996	0
Los Angeles	2027 T6 Public Class 6	Aggregate	Aggregate	Electricity	697.4319403	0
Los Angeles	2027 T6 Public Class 7	Aggregate	Aggregate	Electricity	4067.839199	0
Los Angeles	2027 T6 Utility Class 5	Aggregate	Aggregate	Electricity	1236.402624	0
Los Angeles	2027 T6 Utility Class 6	Aggregate	Aggregate	Electricity	236.2406543	0
Los Angeles	2027 T6 Utility Class 7	Aggregate	Aggregate	Electricity	370.487864	0
Los Angeles	2027 T6TS	Aggregate	Aggregate	Electricity	24882.63713	0
Los Angeles	2027 T7 CAIRP Class 8	Aggregate	Aggregate	Electricity	48822.78284	0
Los Angeles	2027 T7 POLA Class 8	Aggregate	Aggregate	Electricity	8568.349567	0
Los Angeles	2027 T7 Public Class 8	Aggregate	Aggregate	Electricity	5340.486187	0
Los Angeles	2027 T7 Single Concrete/Trans	Aggregate	Aggregate	Electricity	2920.944436	0
Los Angeles	2027 T7 Single Dump Class 8	Aggregate	Aggregate	Electricity	4146.136655	0
Los Angeles	2027 T7 Single Other Class 8	Aggregate	Aggregate	Electricity	12456.34073	0
Los Angeles	2027 T7 SWCV Class 8	Aggregate	Aggregate	Electricity	4260.847326	0
Los Angeles	2027 T7 Tractor Class 8	Aggregate	Aggregate	Electricity	20228.65158	0
Los Angeles	2027 T7 Utility Class 8	Aggregate	Aggregate	Electricity	476.0672767	0
Los Angeles	2027 T7IS	Aggregate	Aggregate	Electricity	68.96399047	0
Los Angeles	2027 UBUS	Aggregate	Aggregate	Electricity	31825.61134	0
Los Angeles	2027 LDA	Aggregate	Aggregate	Gasoline	127411268.6	4134.430858
Los Angeles	2027 LDT1	Aggregate	Aggregate	Gasoline	11091280.07	432.899059
Los Angeles	2027 LDT2	Aggregate	Aggregate	Gasoline	69171014.47	2709.655332
Los Angeles	2027 LHD1	Aggregate	Aggregate	Gasoline	5037761.844	349.8702448
Los Angeles	2027 LHD2	Aggregate	Aggregate	Gasoline	708229.2229	56.57443148

Los Angeles	2027 MCY	Aggregate	Aggregate	Gasoline	1042272.874	25.05705665
Los Angeles	2027 MDV	Aggregate	Aggregate	Gasoline	37949923.61	1826.109785
Los Angeles	2027 MH	Aggregate	Aggregate	Gasoline	151088.1543	31.20274731
Los Angeles	2027 OBUS	Aggregate	Aggregate	Gasoline	127437.7026	24.57312959
Los Angeles	2027 SBUS	Aggregate	Aggregate	Gasoline	69457.45034	7.62436157
Los Angeles	2027 T6TS	Aggregate	Aggregate	Gasoline	755094.268	141.8040251
Los Angeles	2027 T7IS	Aggregate	Aggregate	Gasoline	2421.965475	0.556322256
Los Angeles	2027 UBUS	Aggregate	Aggregate	Gasoline	30482.51385	6.572380998
Los Angeles	2027 All Other Buses	Aggregate	Aggregate	Natural Gas	21245.71448	2.376925334
Los Angeles	2027 SBUS	Aggregate	Aggregate	Natural Gas	40919.73285	9.610828943
Los Angeles	2027 T6 CAIRP Class 7	Aggregate	Aggregate	Natural Gas	32.17726185	0.003246369
Los Angeles	2027 T6 Instate Delivery Class	Aggregate	Aggregate	Natural Gas	645.082511	0.079834993
Los Angeles	2027 T6 Instate Delivery Class	Aggregate	Aggregate	Natural Gas	546.2966609	0.067027106
Los Angeles	2027 T6 Instate Delivery Class	Aggregate	Aggregate	Natural Gas	1753.399963	0.215695072
Los Angeles	2027 T6 Instate Delivery Class	Aggregate	Aggregate	Natural Gas	4983.764769	0.60454696
Los Angeles	2027 T6 Instate Other Class 4	Aggregate	Aggregate	Natural Gas	907.3102169	0.110677059
Los Angeles	2027 T6 Instate Other Class 5	Aggregate	Aggregate	Natural Gas	1798.223466	0.21574268
Los Angeles	2027 T6 Instate Other Class 6	Aggregate	Aggregate	Natural Gas	1659.939786	0.200213413
Los Angeles	2027 T6 Instate Other Class 7	Aggregate	Aggregate	Natural Gas	6103.107776	0.748581047
Los Angeles	2027 T6 Instate Tractor Class 6	Aggregate	Aggregate	Natural Gas	28.60080124	0.003365072
Los Angeles	2027 T6 Instate Tractor Class 7	Aggregate	Aggregate	Natural Gas	3024.443345	0.361627657
Los Angeles	2027 T6 Public Class 4	Aggregate	Aggregate	Natural Gas	3353.676866	0.421112025
Los Angeles	2027 T6 Public Class 5	Aggregate	Aggregate	Natural Gas	2837.944423	0.357291412
Los Angeles	2027 T6 Public Class 6	Aggregate	Aggregate	Natural Gas	2922.766354	0.369600371
Los Angeles	2027 T6 Public Class 7	Aggregate	Aggregate	Natural Gas	16256.416	1.973891804
Los Angeles	2027 T6 Utility Class 5	Aggregate	Aggregate	Natural Gas	143.0820427	0.016448796
Los Angeles	2027 T6 Utility Class 6	Aggregate	Aggregate	Natural Gas	41.00250779	0.004746278
Los Angeles	2027 T6 Utility Class 7	Aggregate	Aggregate	Natural Gas	59.57251744	0.006802385
Los Angeles	2027 T7 CAIRP Class 8	Aggregate	Aggregate	Natural Gas	5363.522063	0.945161653
Los Angeles	2027 T7 POLA Class 8	Aggregate	Aggregate	Natural Gas	17349.06479	2.976305488
Los Angeles	2027 T7 Public Class 8	Aggregate	Aggregate	Natural Gas	71431.23448	11.90110333
Los Angeles	2027 T7 Single Concrete/Trans	Aggregate	Aggregate	Natural Gas	4396.182107	0.741871114
Los Angeles	2027 T7 Single Dump Class 8	Aggregate	Aggregate	Natural Gas	8413.603436	1.501792924
Los Angeles	2027 T7 Single Other Class 8	Aggregate	Aggregate	Natural Gas	27016.26338	4.69745999
Los Angeles	2027 T7 SWCV Class 8	Aggregate	Aggregate	Natural Gas	226593.4217	35.97328877
Los Angeles	2027 T7 Tractor Class 8	Aggregate	Aggregate	Natural Gas	37782.20015	6.848190847
Los Angeles	2027 UBUS	Aggregate	Aggregate	Natural Gas	403779.9741	129.9728402
Los Angeles	2027 LDA	Aggregate	Aggregate	Plug-in Hybrid	4923346.584	83.21568159
Los Angeles	2027 LDT1	Aggregate	Aggregate	Plug-in Hybrid	56404.18241	0.868134182
Los Angeles	2027 LDT2	Aggregate	Aggregate	Plug-in Hybrid	1009103.518	16.24849001
Los Angeles	2027 MDV	Aggregate	Aggregate	Plug-in Hybrid	573848.1029	9.409633431

Fuel Type	VMT Sum	Fuel Sum
Diesel	15132427.09	1705.220169
Electricity	13023573.33	0
Gasoline	253547732.7	9746.929733
Natural Gas	911387.7207	213.3062191
Hybrid	6562702.387	109.7419392

EMFAC Data - Buildout Year

Source: EMFAC2021 (v1.0.1) Emissions Inventory

Region Type: County

Region: Los Angeles

Calendar Year: 2029

Season: Annual

Vehicle Classification: EMFAC202x Categories

Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption.

Region	CalYr	VehClass	MdYr	Speed	Fuel	Total VMT	Fuel Consumption
Los Angeles	2029	All Other Buses	Aggregate	Aggregate	Diesel	83164.63604	8.564129026
Los Angeles	2029	LDA	Aggregate	Aggregate	Diesel	162798.7789	3.733083712
Los Angeles	2029	LDT1	Aggregate	Aggregate	Diesel	320.2134033	0.01268751
Los Angeles	2029	LDT2	Aggregate	Aggregate	Diesel	253165.0349	7.319260641
Los Angeles	2029	LHD1	Aggregate	Aggregate	Diesel	2966019.412	141.7444184
Los Angeles	2029	LHD2	Aggregate	Aggregate	Diesel	1344062.273	75.52416578
Los Angeles	2029	MDV	Aggregate	Aggregate	Diesel	445485.5485	17.23517228
Los Angeles	2029	MH	Aggregate	Aggregate	Diesel	67007.32239	6.726638106
Los Angeles	2029	Motor Coach	Aggregate	Aggregate	Diesel	88365.83016	15.10936894
Los Angeles	2029	PTO	Aggregate	Aggregate	Diesel	110614.5804	21.00593863
Los Angeles	2029	SBUS	Aggregate	Aggregate	Diesel	32734.5164	4.352209919
Los Angeles	2029	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	2202.651274	0.229943923
Los Angeles	2029	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	3039.578699	0.318164745
Los Angeles	2029	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	7775.415525	0.802352895
Los Angeles	2029	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	51432.29101	4.803315336
Los Angeles	2029	T6 Instate Delivery Class	Aggregate	Aggregate	Diesel	131652.8924	14.51650628
Los Angeles	2029	T6 Instate Delivery Class	Aggregate	Aggregate	Diesel	136336.533	15.15656437
Los Angeles	2029	T6 Instate Delivery Class	Aggregate	Aggregate	Diesel	416387.6694	46.13621069
Los Angeles	2029	T6 Instate Delivery Class	Aggregate	Aggregate	Diesel	174709.8005	19.21646988
Los Angeles	2029	T6 Instate Other Class 4	Aggregate	Aggregate	Diesel	204158.5218	22.52732214
Los Angeles	2029	T6 Instate Other Class 5	Aggregate	Aggregate	Diesel	472879.6394	52.42420904
Los Angeles	2029	T6 Instate Other Class 6	Aggregate	Aggregate	Diesel	420431.7792	46.49790199
Los Angeles	2029	T6 Instate Other Class 7	Aggregate	Aggregate	Diesel	215530.2119	23.66980149

Los Angeles	2029 T6 Instate Tractor Class 6	Aggregate	Aggregate	Diesel	6871.905011	0.751790994
Los Angeles	2029 T6 Instate Tractor Class 7	Aggregate	Aggregate	Diesel	107441.2702	11.04365944
Los Angeles	2029 T6 OOS Class 4	Aggregate	Aggregate	Diesel	1389.357837	0.138928766
Los Angeles	2029 T6 OOS Class 5	Aggregate	Aggregate	Diesel	1905.949113	0.191516886
Los Angeles	2029 T6 OOS Class 6	Aggregate	Aggregate	Diesel	4980.299562	0.488940288
Los Angeles	2029 T6 OOS Class 7	Aggregate	Aggregate	Diesel	36212.97076	3.306210878
Los Angeles	2029 T6 Public Class 4	Aggregate	Aggregate	Diesel	23269.72139	2.664298342
Los Angeles	2029 T6 Public Class 5	Aggregate	Aggregate	Diesel	16249.66104	1.878452177
Los Angeles	2029 T6 Public Class 6	Aggregate	Aggregate	Diesel	19449.78052	2.224517319
Los Angeles	2029 T6 Public Class 7	Aggregate	Aggregate	Diesel	106694.4453	11.97515177
Los Angeles	2029 T6 Utility Class 5	Aggregate	Aggregate	Diesel	23615.0036	2.496905207
Los Angeles	2029 T6 Utility Class 6	Aggregate	Aggregate	Diesel	4450.245041	0.469099011
Los Angeles	2029 T6 Utility Class 7	Aggregate	Aggregate	Diesel	6113.435334	0.638980367
Los Angeles	2029 T7 CAIRP Class 8	Aggregate	Aggregate	Diesel	1466156.912	217.8590237
Los Angeles	2029 T7 NNOOS Class 8	Aggregate	Aggregate	Diesel	1858084.204	260.2362978
Los Angeles	2029 T7 NOOS Class 8	Aggregate	Aggregate	Diesel	674690.2463	97.86816737
Los Angeles	2029 T7 POAK Class 8	Aggregate	Aggregate	Diesel	120.0878232	0.021319501
Los Angeles	2029 T7 POLA Class 8	Aggregate	Aggregate	Diesel	1351992.998	222.5507821
Los Angeles	2029 T7 Public Class 8	Aggregate	Aggregate	Diesel	123583.3265	20.99940454
Los Angeles	2029 T7 Single Concrete/Trans	Aggregate	Aggregate	Diesel	46901.50511	7.349742048
Los Angeles	2029 T7 Single Dump Class 8	Aggregate	Aggregate	Diesel	116932.0281	19.04913085
Los Angeles	2029 T7 Single Other Class 8	Aggregate	Aggregate	Diesel	353854.1673	57.19843831
Los Angeles	2029 T7 SWCV Class 8	Aggregate	Aggregate	Diesel	44711.16613	16.92874903
Los Angeles	2029 T7 Tractor Class 8	Aggregate	Aggregate	Diesel	1182135.487	184.1778059
Los Angeles	2029 T7 Utility Class 8	Aggregate	Aggregate	Diesel	19804.11431	3.147035208
Los Angeles	2029 UBUS	Aggregate	Aggregate	Diesel	1453.054197	0.255142159
Los Angeles	2029 LDA	Aggregate	Aggregate	Electricity	12003116.9	0
Los Angeles	2029 LDT1	Aggregate	Aggregate	Electricity	104831.5894	0
Los Angeles	2029 LDT2	Aggregate	Aggregate	Electricity	991097.1014	0
Los Angeles	2029 LHD1	Aggregate	Aggregate	Electricity	636708.704	0
Los Angeles	2029 LHD2	Aggregate	Aggregate	Electricity	158295.9513	0
Los Angeles	2029 MDV	Aggregate	Aggregate	Electricity	1007016.934	0
Los Angeles	2029 OBUS	Aggregate	Aggregate	Electricity	8435.460003	0
Los Angeles	2029 PTO	Aggregate	Aggregate	Electricity	8795.870373	0
Los Angeles	2029 SBUS	Aggregate	Aggregate	Electricity	5794.458245	0
Los Angeles	2029 T6 CAIRP Class 4	Aggregate	Aggregate	Electricity	231.0724967	0
Los Angeles	2029 T6 CAIRP Class 5	Aggregate	Aggregate	Electricity	299.052674	0
Los Angeles	2029 T6 CAIRP Class 6	Aggregate	Aggregate	Electricity	948.5237704	0
Los Angeles	2029 T6 CAIRP Class 7	Aggregate	Aggregate	Electricity	3258.661059	0
Los Angeles	2029 T6 Instate Delivery Class	Aggregate	Aggregate	Electricity	9659.124514	0
Los Angeles	2029 T6 Instate Delivery Class	Aggregate	Aggregate	Electricity	9406.356764	0
Los Angeles	2029 T6 Instate Delivery Class	Aggregate	Aggregate	Electricity	28962.84814	0

Los Angeles	2029 T6 Instate Delivery Class	Aggregate	Aggregate	Electricity	4269.251536	0
Los Angeles	2029 T6 Instate Other Class 4	Aggregate	Aggregate	Electricity	16634.41963	0
Los Angeles	2029 T6 Instate Other Class 5	Aggregate	Aggregate	Electricity	35456.41868	0
Los Angeles	2029 T6 Instate Other Class 6	Aggregate	Aggregate	Electricity	32240.29091	0
Los Angeles	2029 T6 Instate Other Class 7	Aggregate	Aggregate	Electricity	13012.17344	0
Los Angeles	2029 T6 Instate Tractor Class 6	Aggregate	Aggregate	Electricity	549.8307581	0
Los Angeles	2029 T6 Instate Tractor Class 7	Aggregate	Aggregate	Electricity	3261.129547	0
Los Angeles	2029 T6 Public Class 4	Aggregate	Aggregate	Electricity	1661.300155	0
Los Angeles	2029 T6 Public Class 5	Aggregate	Aggregate	Electricity	1141.701033	0
Los Angeles	2029 T6 Public Class 6	Aggregate	Aggregate	Electricity	1425.005329	0
Los Angeles	2029 T6 Public Class 7	Aggregate	Aggregate	Electricity	8745.819602	0
Los Angeles	2029 T6 Utility Class 5	Aggregate	Aggregate	Electricity	2791.229242	0
Los Angeles	2029 T6 Utility Class 6	Aggregate	Aggregate	Electricity	531.2370292	0
Los Angeles	2029 T6 Utility Class 7	Aggregate	Aggregate	Electricity	815.5291464	0
Los Angeles	2029 T6TS	Aggregate	Aggregate	Electricity	56226.5277	0
Los Angeles	2029 T7 CAIRP Class 8	Aggregate	Aggregate	Electricity	100720.501	0
Los Angeles	2029 T7 POLA Class 8	Aggregate	Aggregate	Electricity	21629.63295	0
Los Angeles	2029 T7 Public Class 8	Aggregate	Aggregate	Electricity	12344.0622	0
Los Angeles	2029 T7 Single Concrete/Trans	Aggregate	Aggregate	Electricity	6435.219871	0
Los Angeles	2029 T7 Single Dump Class 8	Aggregate	Aggregate	Electricity	9248.633949	0
Los Angeles	2029 T7 Single Other Class 8	Aggregate	Aggregate	Electricity	28613.90753	0
Los Angeles	2029 T7 SWCV Class 8	Aggregate	Aggregate	Electricity	9880.297561	0
Los Angeles	2029 T7 Tractor Class 8	Aggregate	Aggregate	Electricity	42610.73429	0
Los Angeles	2029 T7 Utility Class 8	Aggregate	Aggregate	Electricity	1151.784011	0
Los Angeles	2029 T7IS	Aggregate	Aggregate	Electricity	157.1304237	0
Los Angeles	2029 UBUS	Aggregate	Aggregate	Electricity	81309.73213	0
Los Angeles	2029 LDA	Aggregate	Aggregate	Gasoline	123546648.8	3872.867221
Los Angeles	2029 LDT1	Aggregate	Aggregate	Gasoline	10793530.85	407.2091636
Los Angeles	2029 LDT2	Aggregate	Aggregate	Gasoline	70903010.38	2677.28614
Los Angeles	2029 LHD1	Aggregate	Aggregate	Gasoline	4933698.072	332.4993752
Los Angeles	2029 LHD2	Aggregate	Aggregate	Gasoline	685895.2278	53.17904017
Los Angeles	2029 MCY	Aggregate	Aggregate	Gasoline	1065913.75	25.53388145
Los Angeles	2029 MDV	Aggregate	Aggregate	Gasoline	38576342.04	1785.430149
Los Angeles	2029 MH	Aggregate	Aggregate	Gasoline	147795.4502	30.51321789
Los Angeles	2029 OBUS	Aggregate	Aggregate	Gasoline	113787.0691	21.56349003
Los Angeles	2029 SBUS	Aggregate	Aggregate	Gasoline	71006.96903	7.740870974
Los Angeles	2029 T6TS	Aggregate	Aggregate	Gasoline	705189.2872	129.9130722
Los Angeles	2029 T7IS	Aggregate	Aggregate	Gasoline	2196.415553	0.482968539
Los Angeles	2029 UBUS	Aggregate	Aggregate	Gasoline	30381.3794	6.527771424
Los Angeles	2029 All Other Buses	Aggregate	Aggregate	Natural Gas	21743.38319	2.385185427
Los Angeles	2029 SBUS	Aggregate	Aggregate	Natural Gas	42306.21862	9.85669561
Los Angeles	2029 T6 CAIRP Class 7	Aggregate	Aggregate	Natural Gas	30.00474509	0.00299601

Los Angeles	2029 T6 Instate Delivery Class	Aggregate	Aggregate	Natural Gas	701.1823971	0.086331013
Los Angeles	2029 T6 Instate Delivery Class	Aggregate	Aggregate	Natural Gas	613.7662666	0.0749433
Los Angeles	2029 T6 Instate Delivery Class	Aggregate	Aggregate	Natural Gas	1950.218979	0.238640792
Los Angeles	2029 T6 Instate Delivery Class	Aggregate	Aggregate	Natural Gas	5008.062674	0.607893358
Los Angeles	2029 T6 Instate Other Class 4	Aggregate	Aggregate	Natural Gas	1014.251283	0.122576557
Los Angeles	2029 T6 Instate Other Class 5	Aggregate	Aggregate	Natural Gas	2078.930299	0.24765287
Los Angeles	2029 T6 Instate Other Class 6	Aggregate	Aggregate	Natural Gas	1895.081599	0.226732286
Los Angeles	2029 T6 Instate Other Class 7	Aggregate	Aggregate	Natural Gas	5966.621398	0.734727524
Los Angeles	2029 T6 Instate Tractor Class 6	Aggregate	Aggregate	Natural Gas	33.0615117	0.003854642
Los Angeles	2029 T6 Instate Tractor Class 7	Aggregate	Aggregate	Natural Gas	3012.440377	0.359969035
Los Angeles	2029 T6 Public Class 4	Aggregate	Aggregate	Natural Gas	3467.94767	0.435458908
Los Angeles	2029 T6 Public Class 5	Aggregate	Aggregate	Natural Gas	2858.195066	0.360091764
Los Angeles	2029 T6 Public Class 6	Aggregate	Aggregate	Natural Gas	3044.139978	0.383815246
Los Angeles	2029 T6 Public Class 7	Aggregate	Aggregate	Natural Gas	16671.76746	2.029517224
Los Angeles	2029 T6 Utility Class 5	Aggregate	Aggregate	Natural Gas	133.2929763	0.015206406
Los Angeles	2029 T6 Utility Class 6	Aggregate	Aggregate	Natural Gas	33.95107793	0.003908262
Los Angeles	2029 T6 Utility Class 7	Aggregate	Aggregate	Natural Gas	49.16903955	0.005575092
Los Angeles	2029 T7 CAIRP Class 8	Aggregate	Aggregate	Natural Gas	5217.651743	0.900017701
Los Angeles	2029 T7 POLA Class 8	Aggregate	Aggregate	Natural Gas	22802.24105	3.78744443
Los Angeles	2029 T7 Public Class 8	Aggregate	Aggregate	Natural Gas	75705.11045	12.52883229
Los Angeles	2029 T7 Single Concrete/Trans	Aggregate	Aggregate	Natural Gas	4010.60898	0.667099811
Los Angeles	2029 T7 Single Dump Class 8	Aggregate	Aggregate	Natural Gas	8295.223743	1.462372952
Los Angeles	2029 T7 Single Other Class 8	Aggregate	Aggregate	Natural Gas	27083.60372	4.688972794
Los Angeles	2029 T7 SWCV Class 8	Aggregate	Aggregate	Natural Gas	231763.3055	35.97926949
Los Angeles	2029 T7 Tractor Class 8	Aggregate	Aggregate	Natural Gas	37642.48011	6.789994071
Los Angeles	2029 UBUS	Aggregate	Aggregate	Natural Gas	357187.1323	112.0257114
Los Angeles	2029 LDA	Aggregate	Aggregate	Plug-in Hybrid	5125186.802	84.37979552
Los Angeles	2029 LDT1	Aggregate	Aggregate	Plug-in Hybrid	82876.7312	1.259242324
Los Angeles	2029 LDT2	Aggregate	Aggregate	Plug-in Hybrid	1218915.991	19.24957028
Los Angeles	2029 MDV	Aggregate	Aggregate	Plug-in Hybrid	699063.505	11.21042717

Fuel Type	VMT Sum	Fuel Sum
Diesel	15389338.47	1693.535326
Electricity	15469722.11	0
Gasoline	251575395.7	9350.746361

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Natural Gas	882319.0443	197.0114862
Hybrid	7126043.029	116.0990353