



APPENDIX IV.E
Energy Calculations

Table 1. Summary of Energy Use During Construction

Fuel Type	Quantity
Diesel	
Off-Road Construction Equipment	156,812 Gallons
On-Road Motor Vehicles	444,270 Gallons
Total	601,083 Gallons
Gasoline	
On-Site Construction Equipment	0 Gallons
Off-Site Motor Vehicles	167,306 Gallons
Total	167,306 Gallons
Total Transportation	768,388 Gallons
Electricity	

Table 2. Summary of Annual Energy Use During Operation		
Source	Units	Buildout
Electricity		
Apartments	kWh/yr	597,175
Other Non-Asphalt Surface	kWh/yr	0
Parking Lot	kWh/yr	60,069
Single Family Housing	kWh/yr	569,047
Water Conveyance	kWh/yr	294,866
Total	kWh/yr	1,521,158
Natural Gas		
Apartments	kBTU/yr	2,412,520
Other Non-Asphalt Surface	kBTU/yr	0
Parking Lot	kBTU/yr	0
Single Family Housing	kBTU/yr	1,886,410
Total	kBTU/yr	4,298,930
Transportation/On-Site Sources		
Diesel	gallons	33,296
Gasoline	gallons	195,813
Total	gallons	229,110

Table 3. Water by Land Use				
Land Use	Units	Indoor/Outdoor Use	Indoor Use	Outdoor Use
Buildout	Mgal	14.72481/9.28304	14.72481	9.28304

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 Los Angeles County - Los Angeles-South Coast

Indoor Water Factor	0.013021 kWh/gallon (supply, treat, distribute, wastewater treatment)
Outdoor Water Factor	0.01111 kWh/gallon (supply, treat, and distribute)

Notes:

Electricity and Natural Gas for the Proposed Project is total operational usage.
Electricity, natural gas, and mobile usage was calculated from CalEEMod in **Appendix G** of the EIR.

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)
Site Clearing	Rubber Tired Dozers	3	8	247	0.4	5	593
Site Clearing	Tractors/Loaders/Backhoes	4	8	97	0.37	5	287
Bioremediation	Rubber Tired Dozers	3	8	247	0.4	169	20,037
Bioremediation	Tractors/Loaders/Backhoes	4	8	97	0.37	169	9,705
Grading	Excavators	2	8	158	0.38	66	3,170
Grading	Graders	1	8	187	0.41	66	2,024
Grading	Rubber Tired Dozers	1	8	247	0.4	66	2,608
Grading	Scrapers	2	8	367	0.48	66	9,301
Grading	Tractors/Loaders/Backhoes	2	8	97	0.37	66	1,895
Building Construction	Cranes	1	7	231	0.29	66	1,547
Building Construction	Forklifts	3	8	89	0.2	152	3,247
Building Construction	Generator Sets	1	8	84	0.74	152	3,779
Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37	152	5,728
Building Construction	Welders	1	8	46	0.45	740	6,127
Utility Installation/Street	Pavers	2	8	130	0.42	740	32,323
Utility Installation/Street	Paving Equipment	2	8	132	0.36	740	28,132
Utility Installation/Street	Rollers	2	8	80	0.38	740	17,997
Architectural Coating	Air Compressors	1	6	78	0.48	740	8,312
Sub-Total							156,812

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

Long Beach River Park	Days	Daily Trips		Total			Trip Length (Miles)			Total Length (Miles)			Fuel Consumption (Gallons)	
		Worker	Vendor	Worker Trips	Vendor Trips	Haul Trips	Worker	Vendor	Hauling	Worker	Vendor	Hauling	Gasoline	Diesel
Site Clearing	5	18	0	90	0	0	14.7	6.9	20	1,323	0	0	52	40
Bioremediation	169	18	0	3,042	0	9,000	14.7	6.9	60	44,717	0	540,000	1,764	90,221
Grading	66	20	0	1,320	0	13,000	14.7	6.9	60	19,404	0	780,000	766	128,948
Utility Installation	152	15	0	2,280	0	0	14.7	6.9	20	33,516	0	0	1,322	1,018
Construction	740	374	117	276,760	86,580	0	14.7	6.9	20	4,068,372	597,402	0	160,530	221,834
Architectural Coating	66	75	0	4,950	0	0	14.7	6.9	20	72,765	0	0	2,871	2,209
Total	1198	520	117	288,442	86,580	22,000	n/a	n/a	n/a	4,240,097	597,402	1,320,000	167,306	444,270
												Total	167,306	444,270

Fuel Efficiency	Gas	DSL
Workers	25.34	32.94
Vendor/Haul Trucks	0	6.08

Notes:
 Fuel efficiency calculated in **Table 10: EMFAC2017 Results - Construction.**

Table 6. Water Usage for Control of Fugitive Dust During Construction			
Phase Name	Total Acres Graded	Gallons for Project	Electricity (kWh)
Project	198.0	597,960	5,816.4

Notes: Total acres graded derived from CalEEMod output sheets (See **Appendix G** of the DEIR)

Water Usage

3,020 gallons per acre

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

Supply Water Electricity Intensity

0.009727 kWh/gallons (CalEEMod default for South Coast Air Basin)

Table 7. 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	138,838,027	4,986.05	27.85	DSL	316,148	8.02	39.42
LDT1	GAS	11,907,335	510.94	23.30	DSL	3,072	0.13	22.99
LDT2	GAS	62,593,839	2,797.09	22.38	DSL	193,960	6.48	29.92
Average (LDA, LDT1, LDT2)				25.34				32.94
T7 Tractor Construction	DSL	1,077,587	177.33	6.08				

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: 2022

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	Population	VMT	Trips	Fuel_Consumption
Los Angeles	2022	LDA	Aggregate	Aggregate	Gasoline	3492277.169	138838026.7	16264993.39	4986.046816
Los Angeles	2022	LDA	Aggregate	Aggregate	Diesel	10357.29807	316148.2722	43006.78456	8.020640208
Los Angeles	2022	LDA	Aggregate	Aggregate	Electricity	129031.0732	5819893.983	648902.8796	0
Los Angeles	2022	LDT1	Aggregate	Aggregate	Gasoline	328948.7381	11907335.41	1447067.581	510.9358458
Los Angeles	2022	LDT1	Aggregate	Aggregate	Diesel	149.5877364	3072.109989	443.4756692	0.133633956
Los Angeles	2022	LDT1	Aggregate	Aggregate	Electricity	647.8473208	21405.18557	2933.429236	0
Los Angeles	2022	LDT2	Aggregate	Aggregate	Gasoline	1526623.58	62593838.94	7170946.416	2797.090572
Los Angeles	2022	LDT2	Aggregate	Aggregate	Diesel	4420.301882	193960.0266	21413.93106	6.482557453
Los Angeles	2022	LDT2	Aggregate	Aggregate	Electricity	4424.045184	165721.4735	22798.91937	0
Los Angeles	2022	T7 Tractor Class	Aggregate	Aggregate	Diesel	13053.33208	1077586.705	189664.9152	177.3300745
									8486.04014
									8486040.14
		Gas	8294.073234	8294073.234	3027336730			3,097,404,651.09	
		Diesel	14.63683162	14636.83162	5342443.54				
		Electricity	0	0	0				

Table 8. On road Vehicles - Operational				
Scenario	Annual VMT	Fuel Consumption (gal)		
		Gasoline	Diesel	Total
Project VMT	5,679,736	195,813	33,296	229,110

Table 9. Fuel Consumption Summary		
Fuel	Fuel Efficiency (MPG)	%Fleet
GAS	25.4	87.7%
DSL	8.9	5.2%

Notes:

Percent fleet based on VMT from EMFAC2017 as shown in

Table 10: EMFAC2021 Emissions Inventory-Operations

Annual VMT obtained from the CalEEMod Output files in

Appendix G.

*Fuel efficiency based on calculations in **Table 10:***

EMFAC2021 Emissions Inventory-Operations, from

EMFAC2017.

Table 10. EMFAC2021 Emissions Inventory - Operations				
Fuel	VMT (miles/day)	Fuel Consumption (1,000 gal/day)	Fuel Efficiency (miles per gallon)	Fuel Percentage
GAS	253,547,733	9,967	25.4	87.7
DSL	15,132,427	1,706	8.9	5.2
Electricity	13,023,573	0	#DIV/0!	4.5
Plug-In Hybrid	6,562,702	110	59.8	2.3
Natural Gas	911,388	213	4.3	0.3

Note: Fuel percentage based on VMT.

Fuel efficiency calculated using fuel consumption and VMT from EMFAC2017.

Buildout

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, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HTSK and RUNLS, g/vehicle/day for IDLEX, RESTL and DIURN

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel Population	VMT	Trips	Fuel_Consumption	
Los Angeles	2027	All Other Buses	Aggregate	Aggregate	Diesel	1599.016922	83424.00229	14231.251	8.76495021
Los Angeles	2027	LDA	Aggregate	Aggregate	Diesel	6767.856667	201833.5552	28082.931	4.82830454
Los Angeles	2027	LDT1	Aggregate	Aggregate	Diesel	46.31412876	915.8440894	129.76935	0.03809507
Los Angeles	2027	LDT2	Aggregate	Aggregate	Diesel	5724.008731	241831.3231	27452.658	7.47119922
Los Angeles	2027	LHD1	Aggregate	Aggregate	Diesel	66210.8642	2872082.695	832849.38	138.132154
Los Angeles	2027	LHD2	Aggregate	Aggregate	Diesel	30543.23938	1291571.379	384195.53	73.2478107
Los Angeles	2027	MDV	Aggregate	Aggregate	Diesel	11636.58936	445305.215	54488.968	18.3114222
Los Angeles	2027	MH	Aggregate	Aggregate	Diesel	6106.799638	64332.90122	610.67996	6.45264657
Los Angeles	2027	Motor Coach	Aggregate	Aggregate	Diesel	699.24111	87406.95341	16068.561	15.2977372
Los Angeles	2027	PTO	Aggregate	Aggregate	Diesel	0	112257.5491	0	21.8148666
Los Angeles	2027	SBUS	Aggregate	Aggregate	Diesel	1772.30207	36021.23954	25662.934	4.83470287
Los Angeles	2027	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	34.60765146	2268.198197	795.28383	0.23990863
Los Angeles	2027	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	45.27788876	3122.416846	1040.4859	0.33095857
Los Angeles	2027	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	161.5787872	8052.427316	3713.0805	0.83994292
Los Angeles	2027	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	259.8750677	51646.87365	5971.9291	4.95383819
Los Angeles	2027	T6 Instate Delivery	Aggregate	Aggregate	Diesel	4000.037015	133383.8523	57080.528	14.8465754
Los Angeles	2027	T6 Instate Delivery	Aggregate	Aggregate	Diesel	4132.493968	137978.7395	58970.689	15.4836341

Los Angeles	2027 T6 Instate Delivery	Aggregate	Aggregate	Diesel	12639.67179	421463.6594	180368.12	47.1206759
Los Angeles	2027 T6 Instate Delivery	Aggregate	Aggregate	Diesel	3268.308085	172252.9767	46638.756	18.9499509
Los Angeles	2027 T6 Instate Other Cl	Aggregate	Aggregate	Diesel	5099.705469	207967.5087	58952.595	23.192584
Los Angeles	2027 T6 Instate Other Cl	Aggregate	Aggregate	Diesel	11502.9852	480858.8337	132974.51	53.8843158
Los Angeles	2027 T6 Instate Other Cl	Aggregate	Aggregate	Diesel	10301.14964	427663.9117	119081.29	47.7938442
Los Angeles	2027 T6 Instate Other Cl	Aggregate	Aggregate	Diesel	5008.558032	216408.428	57898.931	23.831845
Los Angeles	2027 T6 Instate Tractor C	Aggregate	Aggregate	Diesel	141.9746149	7032.876064	1641.2265	0.77955262
Los Angeles	2027 T6 Instate Tractor C	Aggregate	Aggregate	Diesel	1911.830955	106054.6059	22100.766	10.9899353
Los Angeles	2027 T6 OOS Class 4	Aggregate	Aggregate	Diesel	20.6737132	1350.783705	475.08193	0.13913331
Los Angeles	2027 T6 OOS Class 5	Aggregate	Aggregate	Diesel	26.87629762	1853.032341	617.61732	0.19160302
Los Angeles	2027 T6 OOS Class 6	Aggregate	Aggregate	Diesel	97.26491803	4842.026522	2235.1478	0.48899667
Los Angeles	2027 T6 OOS Class 7	Aggregate	Aggregate	Diesel	139.5714825	35207.55382	3207.3527	3.32810136
Los Angeles	2027 T6 Public Class 4	Aggregate	Aggregate	Diesel	688.5913442	24252.79223	3532.4736	2.80232293
Los Angeles	2027 T6 Public Class 5	Aggregate	Aggregate	Diesel	476.464627	16866.16999	2444.2635	1.97077333
Los Angeles	2027 T6 Public Class 6	Aggregate	Aggregate	Diesel	569.4379486	20244.3948	2921.2167	2.3496698
Los Angeles	2027 T6 Public Class 7	Aggregate	Aggregate	Diesel	2500.018482	111487.6798	12825.095	12.680367
Los Angeles	2027 T6 Utility Class 5	Aggregate	Aggregate	Diesel	625.1887561	25099.75563	8002.4161	2.67827815
Los Angeles	2027 T6 Utility Class 6	Aggregate	Aggregate	Diesel	118.0723739	4726.797244	1511.3264	0.50256885
Los Angeles	2027 T6 Utility Class 7	Aggregate	Aggregate	Diesel	132.3013351	6532.222049	1693.4571	0.68911917
Los Angeles	2027 T7 CAIRP Class 8	Aggregate	Aggregate	Diesel	7231.334465	1461343.126	166176.07	224.917371
Los Angeles	2027 T7 NNOOS Class 8	Aggregate	Aggregate	Diesel	6573.68892	1791228.38	151063.37	263.197057
Los Angeles	2027 T7 NOOS Class 8	Aggregate	Aggregate	Diesel	2821.745846	650414.1816	64843.72	98.7386578
Los Angeles	2027 T7 POAK Class 8	Aggregate	Aggregate	Diesel	1.413150415	116.5885753	23.119141	0.02089984
Los Angeles	2027 T7 POLA Class 8	Aggregate	Aggregate	Diesel	9885.566451	1267216.636	161727.87	211.343815
Los Angeles	2027 T7 Public Class 8	Aggregate	Aggregate	Diesel	3348.608117	134380.0474	17178.36	23.0970075
Los Angeles	2027 T7 Single Concrete	Aggregate	Aggregate	Diesel	733.1076141	49502.86701	6905.8737	7.90743559
Los Angeles	2027 T7 Single Dump Cla	Aggregate	Aggregate	Diesel	2236.85898	120679.5656	21071.212	19.8753802
Los Angeles	2027 T7 Single Other Cla	Aggregate	Aggregate	Diesel	7022.543842	355342.9743	66152.363	58.021041
Los Angeles	2027 T7 SWCV Class 8	Aggregate	Aggregate	Diesel	846.3010337	54850.03474	3892.9848	20.8348861
Los Angeles	2027 T7 Tractor Class 8	Aggregate	Aggregate	Diesel	16727.3708	1158955.776	243048.7	184.088863
Los Angeles	2027 T7 Utility Class 8	Aggregate	Aggregate	Diesel	478.6528847	20432.22894	6126.7569	3.27444108
Los Angeles	2027 UBUS	Aggregate	Aggregate	Diesel	14.34866314	2363.510755	57.394653	0.41301156
Los Angeles	2027 LDA	Aggregate	Aggregate	Electri	229680.9803	10815622.08	1134018.9	0
Los Angeles	2027 LDT1	Aggregate	Aggregate	Electri	1549.983911	70978.90608	7540.3765	0
Los Angeles	2027 LDT2	Aggregate	Aggregate	Electri	21158.47599	738345.5679	106810.17	0
Los Angeles	2027 LHD1	Aggregate	Aggregate	Electri	4598.803585	297512.9743	64288.212	0
Los Angeles	2027 LHD2	Aggregate	Aggregate	Electri	1193.887611	73479.90172	15836.567	0
Los Angeles	2027 MDV	Aggregate	Aggregate	Electri	22470.3464	782316.1854	113352.33	0
Los Angeles	2027 OBUS	Aggregate	Aggregate	Electri	51.74958778	3735.991554	1035.4058	0
Los Angeles	2027 PTO	Aggregate	Aggregate	Electri	0	3876.617742	0	0
Los Angeles	2027 SBUS	Aggregate	Aggregate	Electri	78.00496061	2446.382687	866.99974	0
Los Angeles	2027 T6 CAIRP Class 4	Aggregate	Aggregate	Electri	1.222265497	97.95566576	28.087661	0
Los Angeles	2027 T6 CAIRP Class 5	Aggregate	Aggregate	Electri	1.435775181	123.5207632	32.994114	0

Los Angeles	2027 T6 CAIRP Class 6	Aggregate	Aggregate	Electri	7.630464405	429.3005235	175.34807	0
Los Angeles	2027 T6 CAIRP Class 7	Aggregate	Aggregate	Electri	7.115264417	1522.633227	163.50878	0
Los Angeles	2027 T6 Instate Delivery	Aggregate	Aggregate	Electri	100.5360688	4041.410019	1434.6497	0
Los Angeles	2027 T6 Instate Delivery	Aggregate	Aggregate	Electri	93.38022108	3768.173612	1332.5358	0
Los Angeles	2027 T6 Instate Delivery	Aggregate	Aggregate	Electri	291.6806703	11664.8192	4162.2832	0
Los Angeles	2027 T6 Instate Delivery	Aggregate	Aggregate	Electri	33.01066542	1642.154837	471.0622	0
Los Angeles	2027 T6 Instate Other Cl:	Aggregate	Aggregate	Electri	142.1769588	6774.118711	1643.5656	0
Los Angeles	2027 T6 Instate Other Cl:	Aggregate	Aggregate	Electri	285.1452088	13586.76919	3296.2786	0
Los Angeles	2027 T6 Instate Other Cl:	Aggregate	Aggregate	Electri	266.5536512	12622.69757	3081.3602	0
Los Angeles	2027 T6 Instate Other Cl:	Aggregate	Aggregate	Electri	80.0156309	5486.562757	924.98069	0
Los Angeles	2027 T6 Instate Tractor C	Aggregate	Aggregate	Electri	2.847940551	186.3454196	32.922193	0
Los Angeles	2027 T6 Instate Tractor C	Aggregate	Aggregate	Electri	17.99649276	1478.611999	208.03946	0
Los Angeles	2027 T6 Public Class 4	Aggregate	Aggregate	Electri	16.83139742	727.9908151	86.345069	0
Los Angeles	2027 T6 Public Class 5	Aggregate	Aggregate	Electri	11.56462132	499.4450996	59.326507	0
Los Angeles	2027 T6 Public Class 6	Aggregate	Aggregate	Electri	16.4302615	697.4319403	84.287242	0
Los Angeles	2027 T6 Public Class 7	Aggregate	Aggregate	Electri	63.7553043	4067.839199	327.06471	0
Los Angeles	2027 T6 Utility Class 5	Aggregate	Aggregate	Electri	28.53760369	1236.402624	365.28133	0
Los Angeles	2027 T6 Utility Class 6	Aggregate	Aggregate	Electri	5.452556976	236.2406543	69.792729	0
Los Angeles	2027 T6 Utility Class 7	Aggregate	Aggregate	Electri	6.165369824	370.487864	78.916734	0
Los Angeles	2027 T6TS	Aggregate	Aggregate	Electri	269.6368437	24882.63713	5394.894	0
Los Angeles	2027 T7 CAIRP Class 8	Aggregate	Aggregate	Electri	238.7201498	48822.78284	5485.789	0
Los Angeles	2027 T7 POLA Class 8	Aggregate	Aggregate	Electri	74.80036509	8568.349567	1223.734	0
Los Angeles	2027 T7 Public Class 8	Aggregate	Aggregate	Electri	86.10902569	5340.486187	441.7393	0
Los Angeles	2027 T7 Single Concrete	Aggregate	Aggregate	Electri	36.28286603	2920.944436	341.7846	0
Los Angeles	2027 T7 Single Dump Cla	Aggregate	Aggregate	Electri	50.64055067	4146.136655	477.03399	0
Los Angeles	2027 T7 Single Other Cla	Aggregate	Aggregate	Electri	187.3928449	12456.34073	1765.2406	0
Los Angeles	2027 T7 SWCV Class 8	Aggregate	Aggregate	Electri	68.37791303	4260.847326	314.5384	0
Los Angeles	2027 T7 Tractor Class 8	Aggregate	Aggregate	Electri	254.7330007	20228.65158	3701.2705	0
Los Angeles	2027 T7 Utility Class 8	Aggregate	Aggregate	Electri	7.674151463	476.0672767	98.229139	0
Los Angeles	2027 T7IS	Aggregate	Aggregate	Electri	0.239778834	68.96399047	4.7974949	0
Los Angeles	2027 UBUS	Aggregate	Aggregate	Electri	330.0255695	31825.61134	1320.1023	0
Los Angeles	2027 LDA	Aggregate	Aggregate	Gasoli	3252972.868	127411268.6	15084514	4209.3111
Los Angeles	2027 LDT1	Aggregate	Aggregate	Gasoli	305004.155	11091280.07	1345171.5	439.060316
Los Angeles	2027 LDT2	Aggregate	Aggregate	Gasoli	1690654.952	69171014.47	7955024	2794.49519
Los Angeles	2027 LHD1	Aggregate	Aggregate	Gasoli	126122.2747	5037761.844	1879034	349.870245
Los Angeles	2027 LHD2	Aggregate	Aggregate	Gasoli	18986.19599	708229.2229	282866.03	56.5744315
Los Angeles	2027 MCY	Aggregate	Aggregate	Gasoli	160831.8787	1042272.874	321663.76	25.0570567
Los Angeles	2027 MDV	Aggregate	Aggregate	Gasoli	995506.8199	37949923.61	4626267.5	1880.52244
Los Angeles	2027 MH	Aggregate	Aggregate	Gasoli	14694.27766	151088.1543	1470.0155	31.2027473
Los Angeles	2027 OBUS	Aggregate	Aggregate	Gasoli	3402.812669	127437.7026	68083.476	24.5731296
Los Angeles	2027 SBUS	Aggregate	Aggregate	Gasoli	1518.749108	69457.45034	6074.9964	7.62436157
Los Angeles	2027 T6TS	Aggregate	Aggregate	Gasoli	13816.7581	755094.268	276445.7	141.804025
Los Angeles	2027 T7IS	Aggregate	Aggregate	Gasoli	28.51963201	2421.965475	570.6208	0.55632226

Los Angeles	2027 UBUS	Aggregate	Aggregate	Gasoli	433.2360292	30482.51385	1732.9441	6.572381
Los Angeles	2027 All Other Buses	Aggregate	Aggregate	Natura	371.9283173	21245.71448	3310.162	2.37692533
Los Angeles	2027 SBUS	Aggregate	Aggregate	Natura	1708.611277	40919.73285	24740.691	9.61082894
Los Angeles	2027 T6 CAIRP Class 7	Aggregate	Aggregate	Natura	0.167659967	32.17726185	3.852826	0.00324637
Los Angeles	2027 T6 Instate Delivery	Aggregate	Aggregate	Natura	18.19775735	645.082511	259.682	0.07983499
Los Angeles	2027 T6 Instate Delivery	Aggregate	Aggregate	Natura	15.27601059	546.2966609	217.98867	0.06702711
Los Angeles	2027 T6 Instate Delivery	Aggregate	Aggregate	Natura	49.43933653	1753.399963	705.49933	0.21569507
Los Angeles	2027 T6 Instate Delivery	Aggregate	Aggregate	Natura	94.04121512	4983.764769	1341.9681	0.60454696
Los Angeles	2027 T6 Instate Other Cl:	Aggregate	Aggregate	Natura	20.83994616	907.3102169	240.90978	0.11067706
Los Angeles	2027 T6 Instate Other Cl:	Aggregate	Aggregate	Natura	40.82877355	1798.223466	471.98062	0.21574268
Los Angeles	2027 T6 Instate Other Cl:	Aggregate	Aggregate	Natura	38.1123987	1659.939786	440.57933	0.20021341
Los Angeles	2027 T6 Instate Other Cl:	Aggregate	Aggregate	Natura	140.9717614	6103.107776	1629.6336	0.74858105
Los Angeles	2027 T6 Instate Tractor C	Aggregate	Aggregate	Natura	0.515269272	28.60080124	5.9565128	0.00336507
Los Angeles	2027 T6 Instate Tractor C	Aggregate	Aggregate	Natura	54.3880399	3024.443345	628.72574	0.36162766
Los Angeles	2027 T6 Public Class 4	Aggregate	Aggregate	Natura	84.72943634	3353.676866	434.66201	0.42111202
Los Angeles	2027 T6 Public Class 5	Aggregate	Aggregate	Natura	72.7760379	2837.944423	373.34107	0.35729141
Los Angeles	2027 T6 Public Class 6	Aggregate	Aggregate	Natura	74.88565752	2922.766354	384.16342	0.36960037
Los Angeles	2027 T6 Public Class 7	Aggregate	Aggregate	Natura	329.9255356	16256.416	1692.518	1.9738918
Los Angeles	2027 T6 Utility Class 5	Aggregate	Aggregate	Natura	3.609944863	143.0820427	46.207294	0.0164488
Los Angeles	2027 T6 Utility Class 6	Aggregate	Aggregate	Natura	1.076959192	41.00250779	13.785078	0.00474628
Los Angeles	2027 T6 Utility Class 7	Aggregate	Aggregate	Natura	1.369799296	59.57251744	17.533431	0.00680239
Los Angeles	2027 T7 CAIRP Class 8	Aggregate	Aggregate	Natura	26.80345057	5363.522063	615.94329	0.94516165
Los Angeles	2027 T7 POLA Class 8	Aggregate	Aggregate	Natura	136.2655063	17349.06479	2229.3037	2.97630549
Los Angeles	2027 T7 Public Class 8	Aggregate	Aggregate	Natura	1511.503038	71431.23448	7754.0106	11.9011033
Los Angeles	2027 T7 Single Concrete,	Aggregate	Aggregate	Natura	64.66218769	4396.182107	609.11781	0.74187111
Los Angeles	2027 T7 Single Dump Cla	Aggregate	Aggregate	Natura	144.8671028	8413.603436	1364.6481	1.50179292
Los Angeles	2027 T7 Single Other Cla	Aggregate	Aggregate	Natura	511.7075537	27016.26338	4820.2852	4.69745999
Los Angeles	2027 T7 SWCV Class 8	Aggregate	Aggregate	Natura	3498.687043	226593.4217	16093.96	35.9732888
Los Angeles	2027 T7 Tractor Class 8	Aggregate	Aggregate	Natura	541.4080611	37782.20015	7866.6591	6.84819085
Los Angeles	2027 UBUS	Aggregate	Aggregate	Natura	3736.110098	403779.9741	14944.44	129.97284
Los Angeles	2027 LDA	Aggregate	Aggregate	Plug-in	110193.3003	4923346.584	455649.3	83.1648873
Los Angeles	2027 LDT1	Aggregate	Aggregate	Plug-in	1149.988113	56404.18241	4755.2008	0.86770891
Los Angeles	2027 LDT2	Aggregate	Aggregate	Plug-in	21587.09609	1009103.518	89262.642	16.2560593
Los Angeles	2027 MDV	Aggregate	Aggregate	Plug-in	13207.36346	573848.1029	54612.448	9.42069852

	VMT Sum	Fuel Sum	Fuel Sum/Year
Diesel	15132427.09	1705.982251	622,683,521
Gas	253547732.7	9967.223739	3,638,036,665
Electricity	13023573.33	0	-
Plug-In Hybrid	6562702.387	109.7093541	40,043,914
Natural Gas	911387.7207	213.3062191	77,856,770
			4,378,620,870