

Appendix D

Energy Calculations

Operational Transportation Energy Worksheet

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: County

Region: Los Angeles

Calendar Year: 2028

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/year for CVMT and EVMT, trips/year for Trips, kWh/year for Energy Consumption, tons/year for Emissions, 1000 gallons/year for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Total VMT	Fuel Consumption	MPG
Los Angeles	2028	HHDT	Aggregate	Aggregate	Diesel	2267715671	353660.2787	6.41212997
Los Angeles	2028	LDA	Aggregate	Aggregate	Diesel	62910887.49	1467.713407	42.863196
Los Angeles	2028	LDT1	Aggregate	Aggregate	Diesel	202950.7433	8.137443802	24.9403557
Los Angeles	2028	LDT2	Aggregate	Aggregate	Diesel	85983722.31	2523.701824	34.070476
Los Angeles	2028	LHDT1	Aggregate	Aggregate	Diesel	957946941.3	45912.72566	20.8645191
Los Angeles	2028	LHDT2	Aggregate	Aggregate	Diesel	432576604.7	24410.26827	17.7210918
Los Angeles	2028	MDV	Aggregate	Aggregate	Diesel	154571521.8	6079.706077	25.4241767
Los Angeles	2028	MH	Aggregate	Aggregate	Diesel	21491576.28	2156.574048	9.96561018
Los Angeles	2028	MHDT	Aggregate	Aggregate	Diesel	817336458.6	90062.44416	9.0752196
Los Angeles	2028	OBUS	Aggregate	Aggregate	Diesel	49975152.76	6967.188602	7.17292951
Los Angeles	2028	SBUS	Aggregate	Aggregate	Diesel	11250903.55	1503.232491	7.48447337
Los Angeles	2028	UBUS	Aggregate	Aggregate	Diesel	475148.7223	83.43148591	5.69507683
Total:							534,835,402	

Los Angeles	2028	HHDT	Aggregate	Aggregate	Gasoline	752420.012	169.09896	4.44958391
Los Angeles	2028	LDA	Aggregate	Aggregate	Gasoline	43521276493	1387261.252	31.372084
Los Angeles	2028	LDT1	Aggregate	Aggregate	Gasoline	3795645353	145604.5091	26.0681855
Los Angeles	2028	LDT2	Aggregate	Aggregate	Gasoline	24323170631	934535.9826	26.0270028
Los Angeles	2028	LHDT1	Aggregate	Aggregate	Gasoline	1634444221	111732.2994	14.6282161
Los Angeles	2028	LHDT2	Aggregate	Aggregate	Gasoline	228304219.1	17953.25702	12.7165906
Los Angeles	2028	MCY	Aggregate	Aggregate	Gasoline	366002018.7	8781.231893	41.6800311
Los Angeles	2028	MDV	Aggregate	Aggregate	Gasoline	13283482856	626299.1475	21.2094858
Los Angeles	2028	MH	Aggregate	Aggregate	Gasoline	48875882.5	10092.41617	4.84283264
Los Angeles	2028	MHDT	Aggregate	Aggregate	Gasoline	239196298.8	44478.53106	5.37779223
Los Angeles	2028	OBUS	Aggregate	Aggregate	Gasoline	39451009.15	7539.364776	5.23267017
Los Angeles	2028	SBUS	Aggregate	Aggregate	Gasoline	22998678.89	2515.31649	9.14345331
Los Angeles	2028	UBUS	Aggregate	Aggregate	Gasoline	9955275.885	2142.346508	4.64690275
Total:							3,299,104,753	

Los Angeles	2028	HHDT	Aggregate	Aggregate	Electricity	52637168.01	0	
Los Angeles	2028	LDA	Aggregate	Aggregate	Electricity	3962533730	0	
Los Angeles	2028	LDT1	Aggregate	Aggregate	Electricity	30112636.85	0	
Los Angeles	2028	LDT2	Aggregate	Aggregate	Electricity	298904253.1	0	
Los Angeles	2028	LHDT1	Aggregate	Aggregate	Electricity	147420263.4	0	
Los Angeles	2028	LHDT2	Aggregate	Aggregate	Electricity	36530507.98	0	
Los Angeles	2028	MDV	Aggregate	Aggregate	Electricity	310562026.8	0	
Los Angeles	2028	MHDT	Aggregate	Aggregate	Electricity	48479766.59	0	
Los Angeles	2028	OBUS	Aggregate	Aggregate	Electricity	1882788.776	0	
Los Angeles	2028	SBUS	Aggregate	Aggregate	Electricity	1268119.563	0	
Los Angeles	2028	UBUS	Aggregate	Aggregate	Electricity	16454818.76	0	
Los Angeles	2028	HHDT	Aggregate	Aggregate	Natural Gas	126741619.9	20688.86334	
Los Angeles	2028	MHDT	Aggregate	Aggregate	Natural Gas	14968313.5	1830.565698	
Los Angeles	2028	OBUS	Aggregate	Aggregate	Natural Gas	6289307.86	696.0509957	
Los Angeles	2028	SBUS	Aggregate	Aggregate	Natural Gas	13644524.7	3190.485545	
Los Angeles	2028	UBUS	Aggregate	Aggregate	Natural Gas	126605762.1	40418.74643	
Los Angeles	2028	LDA	Aggregate	Aggregate	Plug-in Hybrid	1747238458	29128.73196	
Los Angeles	2028	LDT1	Aggregate	Aggregate	Plug-in Hybrid	23963866.7	366.066144	
Los Angeles	2028	LDT2	Aggregate	Aggregate	Plug-in Hybrid	386556132.6	6158.411445	
Los Angeles	2028	MDV	Aggregate	Aggregate	Plug-in Hybrid	221017287.7	3579.103701	

Total VMT	Diesel VMT	Gasoline VMT	Average Diesel MPG*	Average Gasoline MPG*
99,949,804,249	4,862,437,539	87,513,555,356	12	28
Percent of Total	4.86	87.56		

* weighted by percentage of VMT for each vehicle category