

Appendix H

Fuel Consumption Calculations

Instructions: Input EMFAC data into input categories below. Use project-specific vehicle mix from CalEEMod.

EMFAC2014 (v1.0.7) Emissions Inventory

Region Type: County

Region: Sacramento

Calendar Year: 2036

Season: Annual

Vehicle Classification: EMFAC2007 Categories

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

Region	CalYr	VehClass	Class	MdlYr	Speed	Fuel	Population	VMT (mi/day)	Trips	Fuel_Consumption (1000 gal/day)	Fuel (gal/day)	mi/gal
Sacramento	2036	HHDT	Truck	Aggregated	Aggregated	GAS	78.47299	9344.149874	1570.088	1.855399393	1855.399393	5.036193236
Sacramento	2036	HHDT	Truck	Aggregated	Aggregated	DSL	12577.03	1167734.986	0	191.0641693	191064.1693	6.111742407
Sacramento	2036	LDA	Passenger	Aggregated	Aggregated	GAS	659784.1	21782805.69	4157303	523.4241726	523424.1726	41.61597196
Sacramento	2036	LDA	Passenger	Aggregated	Aggregated	DSL	8872.656	298487.5681	56294.66	5.5466332	5546.6332	53.81418914
Sacramento	2036	LDA	Passenger	Aggregated	Aggregated	ELEC	105729.1	3720411.639	676297.8	0	0	#DIV/0!
Sacramento	2036	LDT1	Truck	Aggregated	Aggregated	GAS	44312.88	1509805.469	274159.2	39.77108132	39771.08132	37.96239425
Sacramento	2036	LDT1	Truck	Aggregated	Aggregated	DSL	38.78393	1021.672339	212.3906	0.024115585	24.115585	42.36564607
Sacramento	2036	LDT1	Truck	Aggregated	Aggregated	ELEC	24.80728	749.2540533	145.3795	0	0	#DIV/0!
Sacramento	2036	LDT2	Truck	Aggregated	Aggregated	GAS	274465.5	9471111.058	1719640	287.262852	287262.852	32.97019086
Sacramento	2036	LDT2	Truck	Aggregated	Aggregated	DSL	586.2352	20612.03075	3707.569	0.481255149	481.255149	42.82973552
Sacramento	2036	LHDT1	Truck	Aggregated	Aggregated	GAS	6003.125	175144.6211	89437.61	17.16264849	17162.64849	10.20498795
Sacramento	2036	LHDT1	Truck	Aggregated	Aggregated	DSL	9057.954	289479.0027	113937.7	15.18820823	15188.20823	19.05945707
Sacramento	2036	LHDT2	Truck	Aggregated	Aggregated	GAS	1517.63	55601.0751	22610.42	5.950887365	5950.887365	9.343325069
Sacramento	2036	LHDT2	Truck	Aggregated	Aggregated	DSL	3706.015	136618.1534	46617.01	7.902826509	7902.826509	17.287252
Sacramento	2036	MCY	Passenger	Aggregated	Aggregated	GAS	39534.96	239927.7405	79062.01	6.463315225	6463.315225	37.12146664
Sacramento	2036	MDV	Truck	Aggregated	Aggregated	GAS	145271.8	4526866.966	883945.9	184.2089747	184208.9747	24.57462767
Sacramento	2036	MDV	Truck	Aggregated	Aggregated	DSL	3717.704	124283.3266	23394.38	3.800189357	3800.189357	32.70450889
Sacramento	2036	MH	Other	Aggregated	Aggregated	GAS	2276.979	19475.40271	227.789	2.804111507	2804.111507	6.945302518
Sacramento	2036	MH	Other	Aggregated	Aggregated	DSL	643.1399	5495.428215	64.31399	0.554439202	554.439202	9.911687693
Sacramento	2036	MHDT	Truck	Aggregated	Aggregated	GAS	1510.083	71241.97426	30213.74	10.69287857	10692.87857	6.662562732
Sacramento	2036	MHDT	Truck	Aggregated	Aggregated	DSL	19517.86	763854.8826	0	89.05409772	89054.09772	8.577425432
Sacramento	2036	OBUS	Bus	Aggregated	Aggregated	GAS	755.6866	37732.41944	15119.78	5.559352311	5559.352311	6.78719702
Sacramento	2036	OBUS	Bus	Aggregated	Aggregated	DSL	641.4504	44754.99267	0	6.37480551	6374.80551	7.020605193
Sacramento	2036	SBUS	Bus	Aggregated	Aggregated	GAS	231.586	10400.96132	926.3441	0.857785854	857.785854	12.12535888
Sacramento	2036	SBUS	Bus	Aggregated	Aggregated	DSL	440.5753	16140.60635	0	2.149187637	2149.187637	7.510096407
Sacramento	2036	UBUS	Bus	Aggregated	Aggregated	GAS	220.2617	29381.04965	881.0468	5.671570821	5671.570821	5.180407788
Sacramento	2036	UBUS	Bus	Aggregated	Aggregated	DSL	229.5186	30602.15526	918.0743	5.608263462	5608.263462	5.456618696

Project VMT (mi/yr)	47,608,853	From CalEEMod output
Project Mobile Emissions (MT/yr)	14,776	From CalEEMod output

	Gas (gal)	Diesel (gal)
Passenger	566,018	5,925
Truck	584,746	328,115
Bus	12,994	15,182
Other	3,026	598
Total	1,166,783	349,820

CO2_RUNEX (tons/day)	CO2 (lb/day)	% of vehicle class EMFAC	% vehicle class CalEEMod	% vehicle class project	VMT by project vehicle class (mi/yr)	Gallons of fuel
16.59246886	33,185	0.007938421	0.026318	0.000208923	9946.601871	1975.023873
1990.661794	3,981,324	0.992061579	0.026318	0.026109077	1243023.191	203382.7849
4698.34077	9,396,682	0.844239006	0.578893	0.488724051	23267591.49	559102.4406
61.62925778	123,259	0.011568521	0.578893	0.006696936	318833.4367	5924.709483
0	0	0.144192473	0.578893	0.083472013	3974006.812	0
357.2881739	714,576	0.998828424	0.033999	0.033959168	1616757.018	42588.38384
0.267950941	536	0.000675899	0.033999	2.29799E-05	1094.04553	25.823884
0	0	0.000495677	0.033999	1.68525E-05	802.3296867	0
2582.057239	5,164,114	0.997828421	0.21284	0.212377801	10111063.51	306672.8838
5.347279435	10,695	0.002171579	0.21284	0.000462199	22004.76277	513.7730247
154.2357704	308,472	0.376960215	0.010628	0.004006333	190736.9267	18690.55873
167.4805113	334,961	0.623039785	0.010628	0.006621667	315249.963	16540.3433
53.9294546	107,859	0.289258653	0.004325	0.001251044	59560.75436	6374.685021
86.99217775	173,984	0.710741347	0.004325	0.003073956	146347.5349	8465.633221
45.54226875	91,085	1	0.005392	0.005392	256706.9354	6915.32309
1649.017151	3,298,034	0.973279013	0.104491	0.101698897	4841767.854	197023.0402
42.22432619	84,449	0.026720987	0.104491	0.002792103	132928.8049	4064.540621
26.30372442	52,607	0.779926097	0.000566	0.000441438	21016.365	3025.982661
6.160435573	12,321	0.220073903	0.000566	0.000124562	5930.245803	598.3083796
95.5323637	191,065	0.085309834	0.018736	0.001598365	76096.32673	11421.47996
975.8979506	1,951,796	0.914690166	0.018736	0.017137635	815903.1431	95122.14936
50.55768279	101,115	0.457432455	0.001852	0.000847165	40332.54952	5942.445666
68.62972086	137,259	0.542567545	0.001852	0.001004835	47839.04624	6814.091509
7.268729376	14,537	0.391874416	0.000598	0.000234341	11156.70149	920.113095
22.20145177	44,403	0.608125584	0.000598	0.000363659	17313.39261	2305.348916
52.8572398	105,714	0.489821271	0.001362	0.000667137	31761.60693	6131.101687
62.31403846	124,628	0.510178729	0.001362	0.000694863	33081.65086	6062.66494

Gasoline Sum	1,166,783
Diesel Sum	349,820