

# **Appendix 6-2**

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## Energy Worksheets

### Construction Transportation Energy Worksheet

Emission Source	Emissions (MTCO <sub>2</sub> ) <sup>1</sup>	
	Diesel-Powered	Gasoline-Powered
<b>Demolition (2024)</b>		
Off-Road	17.4	--
Vendor	0.00	--
Hauling	12.0	--
Worker	--	0.94
<b>Site Preparation (2024)</b>		
Off-Road	13.6	--
Vendor	0.00	--
Hauling	0.00	--
Worker	--	0.62
<b>Grading (2024)</b>		
Off-Road	22.3	--
Vendor	0.00	--
Hauling	0.00	--
Worker	--	1.25
<b>Building Construction (2025)</b>		
Off-Road	213	--
Vendor	54.5	--
Hauling	0.00	--
Worker	--	140
<b>Building Construction (2026)</b>		
Off-Road	214	--
Vendor	53.7	--
Hauling	0.00	--
Worker	--	137
<b>Building Construction (2027)</b>		
Off-Road	163	--
Vendor	40.2	--
Hauling	0.00	--
Worker	--	103
<b>Paving (2027)</b>		
Off-Road	20.3	--
Vendor	0.00	--
Hauling	0.00	--
Worker	--	3.30
<b>Architectural Coating (2027)</b>		
Off-Road	4.13	--
Vendor	0.00	--
Hauling	0.00	--
Worker	--	7.02
<i>Total Emissions in MTCO<sub>2</sub></i>		828.13
<i>Total Emissions in pounds CO<sub>2</sub></i> <sup>2</sup>		1,826,027
<b>Total Fuel Consumption</b> <sup>3</sup>		<b>82,476 gallons</b>
		<b>44,227 gallons</b>
<p>MTCO<sub>2</sub> = metric tons of carbon dioxide</p> <p>1 MTCO<sub>2</sub> emissions for each phase of construction taken from the CalEEMod output sheets prepared for the Project.</p> <p>2 1 MT of CO<sub>2</sub> = 2,205 pounds of CO<sub>2</sub>.</p> <p>3 Diesel fuel has a CO<sub>2</sub> factor of 22.14 pounds of CO<sub>2</sub> per 1 gallon of diesel fuel. Gasoline has a CO<sub>2</sub> factor of 19.6 pounds of CO<sub>2</sub> per 1 gallon of gasoline. Source: U.S. Energy Information Administration, Environment Carbon Dioxide Emissions Coefficients, Release date: February 2, 2016.</p>		

**Operational Transportation Energy Worksheet**

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: County

Region: Los Angeles

Calendar Year: 2027

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	2027	HHDT	Aggregate	Aggregate	Diesel	2239136626	354785.0971	6.31124769	
Los Angeles	2027	LDA	Aggregate	Aggregate	Diesel	70036243.65	1665.438524	42.0527342	
Los Angeles	2027	LDT1	Aggregate	Aggregate	Diesel	317797.899	13.19062895	24.0927025	
Los Angeles	2027	LDT2	Aggregate	Aggregate	Diesel	83915469.12	2504.962338	33.4996929	
Los Angeles	2027	LHDT1	Aggregate	Aggregate	Diesel	939171041.2	45169.21424	20.792282	
Los Angeles	2027	LHDT2	Aggregate	Aggregate	Diesel	422343840.8	23952.03411	17.6329008	
Los Angeles	2027	MDV	Aggregate	Aggregate	Diesel	154520909.6	6187.176699	24.9743812	
Los Angeles	2027	MH	Aggregate	Aggregate	Diesel	21036858.7	2110.015429	9.97000231	
Los Angeles	2027	MHDT	Aggregate	Aggregate	Diesel	820128977	90810.2505	9.03123791	
Los Angeles	2027	OBUS	Aggregate	Aggregate	Diesel	49882639.07	7026.304713	7.09941301	
Los Angeles	2027	SBUS	Aggregate	Aggregate	Diesel	11778945.33	1580.947838	7.45055912	
Los Angeles	2027	UBUS	Aggregate	Aggregate	Diesel	772868.0169	135.0547802	5.72262615	
<b>Total:</b>							<b>535,939,687</b>		
Los Angeles	2027	HHDT	Aggregate	Aggregate	Gasoline	791982.7104	181.9173778	4.35352972	
Los Angeles	2027	LDA	Aggregate	Aggregate	Gasoline	44211710201	1434647.508	30.817124	
Los Angeles	2027	LDT1	Aggregate	Aggregate	Gasoline	3848674184	150215.9735	25.6209383	
Los Angeles	2027	LDT2	Aggregate	Aggregate	Gasoline	24002342021	940250.4001	25.5276063	
Los Angeles	2027	LHDT1	Aggregate	Aggregate	Gasoline	1647348123	114407.5701	14.3989434	
Los Angeles	2027	LHDT2	Aggregate	Aggregate	Gasoline	231590955.9	18499.83909	12.5185389	
Los Angeles	2027	MCY	Aggregate	Aggregate	Gasoline	361668687.4	8694.798658	41.5959819	
Los Angeles	2027	MDV	Aggregate	Aggregate	Gasoline	13168623492	633660.0953	20.7818412	
Los Angeles	2027	MH	Aggregate	Aggregate	Gasoline	49405826.47	10203.29837	4.84214268	
Los Angeles	2027	MHDT	Aggregate	Aggregate	Gasoline	246915825.6	46369.9162	5.32491421	
Los Angeles	2027	OBUS	Aggregate	Aggregate	Gasoline	41672128.76	8035.413377	5.18605911	
Los Angeles	2027	SBUS	Aggregate	Aggregate	Gasoline	22712586.26	2493.166233	9.10993658	
Los Angeles	2027	UBUS	Aggregate	Aggregate	Gasoline	9967782.029	2149.168586	4.63797121	
<b>Total:</b>							<b>3,369,809,065</b>		
Los Angeles	2027	HHDT	Aggregate	Aggregate	Electricity	34684885.22		0	
Los Angeles	2027	LDA	Aggregate	Aggregate	Electricity	3753020861		0	
Los Angeles	2027	LDT1	Aggregate	Aggregate	Electricity	24629680.41		0	
Los Angeles	2027	LDT2	Aggregate	Aggregate	Electricity	256205912.1		0	
Los Angeles	2027	LHDT1	Aggregate	Aggregate	Electricity	97286742.59		0	
Los Angeles	2027	LHDT2	Aggregate	Aggregate	Electricity	24027927.86		0	
Los Angeles	2027	MDV	Aggregate	Aggregate	Electricity	271463716.4		0	
Los Angeles	2027	MHDT	Aggregate	Aggregate	Electricity	30370026.79		0	
Los Angeles	2027	OBUS	Aggregate	Aggregate	Electricity	1221669.238		0	
Los Angeles	2027	SBUS	Aggregate	Aggregate	Electricity	799967.1385		0	
Los Angeles	2027	UBUS	Aggregate	Aggregate	Electricity	10406974.91		0	
Los Angeles	2027	HHDT	Aggregate	Aggregate	Natural Gas	124283793.5	20462.57432		
Los Angeles	2027	MHDT	Aggregate	Aggregate	Natural Gas	14694203.87	1797.260555		
Los Angeles	2027	OBUS	Aggregate	Aggregate	Natural Gas	6203748.628	694.0621975		
Los Angeles	2027	SBUS	Aggregate	Aggregate	Natural Gas	13380752.64	3142.741064		
Los Angeles	2027	UBUS	Aggregate	Aggregate	Natural Gas	132036051.5	42501.11876		
Los Angeles	2027	LDA	Aggregate	Aggregate	Plug-in Hybr	1708401265	28875.84151		
Los Angeles	2027	LDT1	Aggregate	Aggregate	Plug-in Hybr	19572251.29	301.2425611		
Los Angeles	2027	LDT2	Aggregate	Aggregate	Plug-in Hybr	350158920.6	5638.226032		
Los Angeles	2027	MDV	Aggregate	Aggregate	Plug-in Hybr	199125291.7	3265.142801		

Total VMT	Diesel VMT	Gasoline VMT	Average Diesel MPG*	Average Gasoline MPG*
99,728,440,655	4,813,042,217	87,843,423,797	12	27
Percent of Total	4.83	88.08		

\* weighted by percentage of VMT for each vehicle category