

Appendix B Air Quality and Greenhouse Gas Emissions Modeling

Appendices

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Air Quality and Greenhouse Gas Appendix

Assumptions Worksheet

CalEEMod Inputs- Westside Area Plan, Operations

Name: Westside Area Plan, Operations
Project Number: COLA-28
County/Air Basin: Los Angeles - South Coast AQMD
Climate Zone: 11
Land Use Setting: Urban
Operational Year: 2028
Utility Company: Los Angeles DWP
Air Basin: South Coast Air Basin
Air District: South Coast AQMD
SRA: 2 - Northwest Coastal LA County

New Population	15,704
New Households	6,489
New Employment	610
New Retail Square Feet	244,000

Proposed Project			
Project Components	Units	SQFT	Acres
New Housing Units (Multifamily)	6,757	6,486,720	108.98
New Retail		244,000	5.59

CalEEMod Land Use Inputs

Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Land Use Square Feet
Residential	Apartments High Rise	6,757	1000 sqft	108.98	6,486,720
Retail	Regional Shopping Center	244	1000 sqft	5.60	244,000
				114.59	

Los Angeles Department of Water and Power Carbon Intensity Factors

Source: CalEEMod

CO ₂ :	690.40	pounds per megawatt hour	RPS Year:	2045
CH ₄ :	0.0489	pound per megawatt hour		
N ₂ O:	0.0069	pound per megawatt hour		

Trips: Modeled with EMFAC

Source: Fehr & Peers

	Daily VMT
Project Net Increase	241,488

Notes

1 Average Daily VMT multiplied by 347 days per year to approximate annual VMT.

Fireplaces

*No woodstoves

Land Use	# Wood	# Gas	# Propane	# No Fireplace	Hours/Day	Days/Year ¹
Fireplaces	0	6,757	0	0	3	25

Notes

¹ Assumes all homes have one fireplace.

Architectural Coating

	Percent Painted	
Interior Painted:	100%	
Exterior Painted:	100%	
Rule 1113		
Interior Paint VOC content:	100	grams per liter
Exterior Paing VOC content:	100	grams per liter

Structures	Land Use Square Feet	CalEEMod Factor ²	Total Paintable Surface		
			Area	Paintable Interior Area ¹	Paintable Exterior Area ¹
New Housing Units (Multifamily)	6,486,720	2.7	17,514,144	13,135,608	4,378,536
New Retail	244,000	2.0	488,000	366,000	122,000
			488,000	13,501,608	4,500,536

Notes

¹ CalEEMod methodology calculates the paintable interior and exterior areas by multiplying the total paintable surface area by 75 and 25 percent, respectively.

² The program assumes the total surface for painting equals 2.7 times the floor square footage for residential and 2 times that for nonresidential square footage defined by the user.

Electricity (Buildings)

Default CalEEMod Energy Use

Land Use Subtype	Total Annual Electricity Consumption (kWh/year)	Total Annual Natural Gas Consumption (kBTU/year)	Title-24 Electricity Energy Intensity (kWhr/size/year)*	Title-24 Natural Gas Energy Intensity (KBTU/size/year)*	Nontitle-24 Electricity Energy Intensity (kWhr/size/year)	Nontitle-24 Natural Gas Energy Intensity (KBTU/size/year)
New Housing Units (Multifamily)	22,186,566.76	67,065,650.24	5,564,836.38	56,192,445.85	16,621,730.38	10,873,204.39
New Retail	2,429,394.65	1,201,490.72	1,567,387.81	282,516.80	862,006.84	918,973.92

Water Use - CalEEMod Defaults¹

	Indoor (gal/year)	Outdoor (gal/year)	Total
New Housing Units (Multifamily)	251,859,066.60	0.00	251,859,066.60
New Retail	18,073,695.24	0.00	18,073,695.24

Notes

¹ Assumes 100% aerobic treatment.

Solid Waste - CalEEMod Defaults

Land Use	Total Solid Waste (lb/day) ¹	Total Solid Waste (tons/yr)
New Housing Units (Multifamily)	0.25	3,926.00
New Retail	1.05	256.20

Emissions Worksheet

Regional Operation Emissions Worksheet

¹ CalEEMod, Version 2022.1

Net Increase

Summer

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Mobile	13.76	86.21	468.07	2.05	42.18	17.31
Area	197.00	116.00	444.00	0.73	9.25	9.21
Energy	1.01	17.30	7.48	0.11	1.39	1.39
Total	211.77	219.51	919.55	2.89	52.82	27.91

Winter

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
	13.76	86.21	468.07	2.05	42.18	17.31
Mobile						
Area	162.00	112.00	47.70	0.72	9.06	9.06
Energy	1.01	17.30	7.48	0.11	1.39	1.39
Total	176.77	215.51	523.25	2.88	52.63	27.76

Max Daily

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Mobile	14	86	468	2	42	17
Area	197	116	444	1	9	9
Energy	1	17	7	0	1	1
Total	212	220	920	3	53	28

Regional Thresholds (lb/day)

Regional Thresholds (lb/day)	55	55	550	150	150	55
Exceeds Thresholds?	Yes	Yes	Yes	No	No	No

GHG Emissions - Westside Area Plan

Net Increase

	MTCO ₂ e/Year	
	Operations	%
Mobile	39,854	72%
Area	1,737	3%
Energy	11,378	21%
Water	744	1%
Solid Waste	1,305	2%
Refrigerants	8	0%
	55,026	100%
Service Population	16,314	New residents and employees.
MTCO₂e/SP	3.4	

Notes

MTCO₂e=metric tons of carbon dioxide equivalent.

On-road transportation sources modeled with EMFAC 2021

Non-transportation sources modeled with CalEEMod, Version 2022.1

Unincorporated County On-Road Emissions - With and Without the Westside Area Plan

Source: EMFAC2021, Web Database. Los Angeles County (South Coast Air Basin) Sub Area. Based on the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4) Global Warming Potentials (GWPs)

Note: MTons = metric tons; CO₂e = carbon dioxide-equivalent. Includes Pavley + California Advanced Clean Car Standards, the Low Carbon Fuel Standard (LCFS), on-road diesel fleet rules, and the Smartway/Phase I Heavy Duty Vehicle Greenhouse Gas Regulation.

Criteria Air Pollutant Emissions						
	lbs/day					
	ROG	NO_x	CO	SO_x	PM10	PM2.5
Existing (2023)	69	394	2,327	8	127	54
Future (2045) - No Project	41	256	1,386	6	125	51
Future (2045) - With Project	55	342	1,854	8	167	69
Net Change from No Project	14	86	468	2	42	17
Net Change from Existing	-14	-52.29275225	-472.4401556	-0.247687964	39.77345553	14.81218322

GHG EMISSIONS				
	MTons/year			
	CO₂	CH₄	N₂O	CO₂e
Existing (2023)	1	6	6	1,874
Future (2045) - No Project	98,967	3	64	118,045
Future (2045) - With Project	132,377	4	85	157,899
Net Change from No Project	33,410	1	22	39,854
Net Change from Existing	132,376	-2	80	156,025

Note: MTons = metric tons; CO₂e = carbon dioxide-equivalent.

Table: Origin-Destination VMT of Westside Planning Area

Fehr & Peers, January 2024

Year	Westside Planning Area	Population	Employment	SP	Passenger Vehicle VMT					Truck VMT					Total OD VMT	VMT per Service Pop
					I-X	X-I	I-I	TOTAL	% PV	I-X	X-I	I-I	TOTAL	% T		
2045	Future No Project	1,217,884	972,259	2,190,143	20,796,954	21,775,388	4,952,499	47,524,841	93%	1,771,070	1,794,557	122,270	3,687,896	7%	51,212,737	23.38
2045	Future With Project	1,233,588	972,869	2,206,457	20,863,829	21,866,217	5,021,150	47,751,196	93%	1,778,124	1,801,796	123,109	3,703,029	7%	51,454,225	23.32
Net Increase		15,704	610	16,314	66,876	90,829	68,651	226,356		7,054	7,239	840	15,133		241,488	14.8

Note:
 The numbers represent OD VMT estimated based on 2045 model run outputs using SCAG 2016 RTP/SCS model for the city and unincorporated areas.
 VMT estimates include 100% of Internal-External (I-X), External-Internal (X-I), and Internal-Internal (I-I) trips and trip lengths.

Table: Socio-Economic Data By Unincorporated Community in Westside

Unincorporated Communities with Growth

		<i>Ladera Heights/ViewPark - Windsor Hills</i>			<i>West Fox Hills</i>		
Metrics		2045 No Project	2045 With Project (Area Plan Buildout)	Change (2045 With Project VS No Project)	2045 No Project	2045 With Project (Area Plan Buildout)	Change (2045 With Project VS No Project)
Socioeconomic Data	Households	8,079	14,365	6,286	223	426	203
	Population	19,585	34,796	15,211	437	930	493
	Employment	4,546	5,156	610	141	141	0
	Service Population	24,131	39,952	15,821	578	1,071	493

Other Unincorporated Communities

		<i>West Los Angeles</i>			<i>Marina and Ballona</i>		
Metrics		2045 No Project	2045 With Project (Area Plan Buildout)	Change (2045 With Project VS No Project)	2045 No Project	2045 With Project (Area Plan Buildout)	Change (2045 With Project VS No Project)
Socioeconomic Data	Households	85	85	0	6,565	6,565	0
	Population	978	978	0	11,061	11,061	0
	Employment	4,728	4,728	0	6,314	6,314	0
	Service Population	5,706	5,706	0	17,375	17,375	0

TOTAL

		<i>ALL UNINCORPORATED</i>		
Metrics		2045 No Project	2045 With Project (Area Plan Buildout)	Change (2045 With Project VS No Project)
Socioeconomic Data	Households	14,952	21,441	6,489
	Population	32,061	47,765	15,704
	Employment	15,729	16,339	610
	Service Population	47,790	64,104	16,314

VMT with and without the Westside Area Plan

Source: Fehr and Peers 2024

	Daily VMT			Total Daily VMT	%	Service Population	VMT/SP	With RTAC
	IX	XI	II					
No Project (City + Unincorporated)	22,568,023	23,569,945	5,074,769	51,212,737		2,190,143	23.4	28,143,753
Passenger Vehicles	20,796,954	21,775,388	4,952,499	47,524,841	92.8%			26,238,670
Trucks	1,771,070	1,794,557	122,270	3,687,896	7.2%			1,905,083
With Project (City + Unincorporated)	22,641,953	23,668,013	5,144,259	51,454,225		2,206,457	23.3	28,299,242
Passenger Vehicles	20,863,829	21,866,217	5,021,150	47,751,196	92.8%			26,386,173
Trucks	1,778,124	1,801,796	123,109	3,703,029	7.2%			1,913,069
No Project (Unincorporated Only)				1,117,487		47,790	23.4	
Passenger Vehicles				1,037,015	92.8%			
Trucks				80,472	7.2%			
With Project (Unincorporated Only)				1,494,895		64,104	23.3	
Passenger Vehicles				1,387,311	92.8%			
Trucks				107,584	7.2%			

Notes: Total may not add to 100% due to rounding.

VMT for the unincorporated area only forecasted based on VMT per service population in the SCAG model.

IX = Internal-External

XI = External- Internal

II = Internal-Internal

Modeling of vehicle miles traveled (VMT) provided by Fehr and Peers is based on the Southern California Association of Government's (SCAG) subregional traffic model. VMT from passenger vehicles and trucks that have an origin or destination in the City using a transportation origin-destination methodology. For accounting purposes, there are three types of trips:

- » Vehicle trips that originated and terminated within the Plan Area (Internal-Internal, I-I).
- » Vehicle trips that either originated or terminated (but not both) within the City (Internal-External or External-Internal, I-X and X-I).
- » Vehicle trips that neither originated nor terminated within the City. These trips are commonly called pass-through trips (External-External, X-X). These trips are not counted towards the project's VMT or emissions.

Year 2023: Criteria Air Pollutants (Existing)

Source: EMFAC2021 Version 1.0.3. Emission Rates. Los Angeles County - South Coast Air Basin

¹ Based on data provided Fehr & Peers.

EMFAC Default		Project	
Passenger Vehicles	Trucks	Passenger Vehicles	Trucks
92.25%	7.75%	92.80%	7.20%

Daily VMT		lbs/day							
1,117,487									
Vehicle Type	Fuel Type	Percent of VMT	Adjusted Percent for Westside Area Plan	ROG	NOx	CO	SOx	PM10	PM2.5
All Other Buses	Diesel	0.05%	0.05%	0.01	1.65	0.10	0.01	0.18	0.08
LDA	Gasoline	53.00%	53.32%	13.70	47.73	901.85	3.50	60.99	25.35
LDA	Diesel	0.51%	0.51%	0.24	0.81	3.53	0.02	0.67	0.32
LDA	Electricity	1.35%	1.36%	0.00	0.00	0.00	0.00	1.50	0.59
LDT1	Gasoline	6.16%	6.20%	4.56	16.09	200.16	0.47	7.21	3.06
LDT1	Diesel	0.00%	0.00%	0.01	0.05	0.06	0.00	0.01	0.01
LDT1	Electricity	0.07%	0.07%	0.00	0.00	0.00	0.00	0.08	0.03
LDT2	Gasoline	18.50%	18.61%	8.41	34.76	437.41	1.51	21.35	8.90
LDT2	Diesel	0.14%	0.14%	0.08	0.16	0.69	0.01	0.18	0.08
LDT2	Electricity	0.21%	0.21%	0.00	0.00	0.00	0.00	0.23	0.09
LHD1	Gasoline	1.35%	1.25%	0.98	5.63	23.61	0.24	2.65	1.11
LHD1	Diesel	1.03%	0.95%	1.44	24.29	7.19	0.10	2.36	1.11
LHD2	Gasoline	0.22%	0.21%	0.11	0.93	2.72	0.05	0.50	0.21
LHD2	Diesel	0.40%	0.37%	0.56	9.12	2.76	0.04	1.06	0.50
MCY	Gasoline	0.45%	0.45%	28.87	12.58	209.75	0.02	0.20	0.09
MDV	Gasoline	11.44%	11.51%	7.02	28.14	317.32	1.15	13.23	5.53
MDV	Diesel	0.29%	0.29%	0.11	0.30	1.96	0.03	0.36	0.16
MDV	Electricity	0.12%	0.12%	0.00	0.00	0.00	0.00	0.13	0.05
MH	Gasoline	0.07%	0.06%	0.07	0.45	1.88	0.03	0.22	0.09
MH	Diesel	0.02%	0.02%	0.03	1.71	0.13	0.00	0.11	0.07
Motor Coach	Diesel	0.03%	0.03%	0.01	1.57	0.14	0.01	0.12	0.06
OBUS	Gasoline	0.06%	0.05%	0.07	0.56	1.77	0.02	0.19	0.08
PTO	Diesel	0.03%	0.03%	0.02	2.66	0.25	0.01	0.00	0.00
SBUS	Gasoline	0.02%	0.02%	0.02	0.18	0.50	0.00	0.36	0.15
SBUS	Diesel	0.04%	0.04%	0.10	5.84	0.28	0.01	0.71	0.32
T6 Ag	Diesel	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
T6 CAIRP heavy	Diesel	0.02%	0.02%	0.00	0.46	0.03	0.00	0.07	0.03
T6 CAIRP small	Diesel	0.00%	0.00%	0.00	0.07	0.00	0.00	0.01	0.00
T6 instate construction heavy	Diesel	0.06%	0.06%	0.02	2.13	0.12	0.01	0.21	0.09
T6 instate construction small	Diesel	0.16%	0.14%	0.03	4.27	0.27	0.03	0.53	0.23
T6 instate heavy	Diesel	0.52%	0.48%	0.08	13.54	0.87	0.10	1.77	0.78

Year 2023: Criteria Air Pollutants (Existing)

Source: EMFAC2021 Version 1.0.3. Emission Rates. Los Angeles County - South Coast Air Basin

¹ Based on data provided Fehr & Peers.

EMFAC Default		Project	
Passenger Vehicles	Trucks	Passenger Vehicles	Trucks
92.25%	7.75%	92.80%	7.20%

Daily VMT		lbs/day							
1,117,487									
Vehicle Type	Fuel Type	Percent of VMT	Adjusted Percent for Westside Area Plan	ROG	NOx	CO	SOx	PM10	PM2.5
T6 instate small	Diesel	0.70%	0.65%	0.12	18.58	1.19	0.14	2.40	1.05
T6 OOS heavy	Diesel	0.01%	0.01%	0.00	0.27	0.02	0.00	0.04	0.02
T6 OOS small	Diesel	0.00%	0.00%	0.00	0.04	0.00	0.00	0.01	0.00
T6 Public	Diesel	0.02%	0.02%	0.02	2.39	0.08	0.01	0.09	0.05
T6 utility	Diesel	0.01%	0.01%	0.00	0.11	0.01	0.00	0.02	0.01
T6TS	Gasoline	0.28%	0.26%	0.35	2.51	8.83	0.11	0.93	0.39
T7 Ag	Diesel	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
T7 CAIRP	Diesel	0.39%	0.36%	0.16	21.64	1.80	0.11	1.04	0.48
T7 CAIRP construction	Diesel	0.04%	0.04%	0.02	2.40	0.20	0.01	0.12	0.05
T7 NNOOS	Diesel	0.47%	0.44%	0.18	22.26	1.96	0.12	1.22	0.55
T7 NOOS	Diesel	0.15%	0.14%	0.06	8.51	0.71	0.04	0.41	0.19
T7 POLA	Diesel	0.40%	0.37%	0.23	30.43	2.96	0.13	1.08	0.50
T7 Public	Diesel	0.04%	0.04%	0.07	7.20	0.29	0.01	0.13	0.07
T7 Single	Diesel	0.14%	0.13%	0.05	5.75	0.51	0.04	0.35	0.15
T7 single construction	Diesel	0.11%	0.10%	0.05	5.45	0.44	0.03	0.28	0.12
T7 SWCV	Diesel	0.02%	0.02%	0.00	7.94	0.01	0.02	0.05	0.02
T7 SWCV	Natural Gas	0.04%	0.04%	0.29	2.61	12.52	0.00	0.10	0.04
T7 tractor	Diesel	0.59%	0.55%	0.24	32.87	2.69	0.17	1.58	0.73
T7 tractor construction	Diesel	0.09%	0.08%	0.04	5.50	0.43	0.03	0.24	0.11
T7 utility	Diesel	0.00%	0.00%	0.00	0.10	0.01	0.00	0.01	0.00
T7IS	Gasoline	0.00%	0.00%	0.02	0.18	1.56	0.00	0.00	0.00
UBUS	Gasoline	0.01%	0.01%	0.01	0.07	0.10	0.01	0.04	0.02
UBUS	Diesel	0.00%	0.00%	0.00	0.01	0.00	0.00	0.00	0.00
UBUS	Electricity	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
UBUS	Natural Gas	0.16%	0.14%	0.32	1.72	175.06	0.00	0.00	0.00
		100.00%	100.00%	69	394	2,327	8	127	54

Year 2045: Criteria Air Pollutants (Future - No Project)

Source: EMFAC2021 Version 1.0.3. Emission Rates. Los Angeles County - South Coast Air Basin

¹ Based on data provided Fehr & Peers.

EMFAC Default		Project	
Passenger Vehicles	Trucks	Passenger Vehicle	Trucks
90.68%	9.32%	92.80%	7.20%

Daily VMT		1,117,487 lbs/day							
Vehicle Type	Fuel Type	Percent of VMT	Adjusted Percent for Westside Area Plan	ROG	NOx	CO	SOx	PM10	PM2.5
All Other Buses	Diesel	0.07%	0.05%	0.01	1.93	0.11	0.01	0.20	0.09
LDA	Gasoline	48.02%	49.14%	2.52	21.09	512.51	2.45	54.95	22.20
LDA	Diesel	0.60%	0.61%	0.10	0.15	3.29	0.02	0.69	0.28
LDA	Electricity	3.24%	3.31%	0.00	0.00	0.00	0.00	3.65	1.45
LDT1	Gasoline	6.72%	6.87%	0.40	3.29	73.27	0.40	7.70	3.12
LDT1	Diesel	0.00%	0.00%	0.00	0.00	0.01	0.00	0.00	0.00
LDT1	Electricity	0.27%	0.27%	0.00	0.00	0.00	0.00	0.30	0.12
LDT2	Gasoline	18.54%	18.98%	1.43	8.48	230.47	1.08	21.23	8.59
LDT2	Diesel	0.19%	0.20%	0.11	0.18	1.11	0.01	0.24	0.11
LDT2	Electricity	0.61%	0.62%	0.00	0.00	0.00	0.00	0.68	0.27
LHD1	Gasoline	1.24%	0.96%	0.08	2.21	2.87	0.15	2.02	0.85
LHD1	Diesel	1.43%	1.11%	1.16	1.65	5.44	0.10	2.56	1.12
LHD2	Gasoline	0.22%	0.17%	0.01	0.43	0.51	0.03	0.41	0.17
LHD2	Diesel	0.56%	0.43%	0.46	1.05	2.22	0.04	1.22	0.57
MCY	Gasoline	0.49%	0.50%	31.45	13.88	216.71	0.03	0.23	0.11
MDV	Gasoline	11.18%	11.44%	1.00	5.78	142.78	0.80	12.80	5.18
MDV	Diesel	0.40%	0.41%	0.08	0.12	2.51	0.03	0.47	0.19
MDV	Electricity	0.44%	0.45%	0.00	0.00	0.00	0.00	0.50	0.20
MH	Gasoline	0.07%	0.05%	0.01	0.24	0.22	0.02	0.19	0.08
MH	Diesel	0.03%	0.02%	0.03	1.20	0.08	0.00	0.09	0.04
Motor Coach	Diesel	0.04%	0.03%	0.01	1.45	0.13	0.01	0.12	0.06
OBUS	Gasoline	0.05%	0.04%	0.01	0.34	0.22	0.01	0.13	0.05
PTO	Diesel	0.03%	0.02%	0.02	2.74	0.24	0.01	0.00	0.00
SBUS	Gasoline	0.04%	0.03%	0.01	0.09	0.14	0.00	0.51	0.22
SBUS	Diesel	0.04%	0.03%	0.01	1.57	0.11	0.01	0.64	0.28
T6 Ag	Diesel	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
T6 CAIRP heavy	Diesel	0.02%	0.02%	0.00	0.47	0.03	0.00	0.07	0.03
T6 CAIRP small	Diesel	0.00%	0.00%	0.00	0.07	0.00	0.00	0.01	0.00
T6 instate construction heavy	Diesel	0.05%	0.04%	0.01	1.38	0.08	0.01	0.14	0.06
T6 instate construction small	Diesel	0.13%	0.10%	0.02	2.92	0.19	0.02	0.37	0.16
T6 instate heavy	Diesel	0.69%	0.53%	0.10	16.76	1.05	0.09	1.97	0.87

Year 2045: Criteria Air Pollutants (Future - No Project)

Source: EMFAC2021 Version 1.0.3. Emission Rates. Los Angeles County - South Coast Air Basin

¹ Based on data provided Fehr & Peers.

EMFAC Default		Project	
Passenger Vehicles	Trucks	Passenger Vehicle	Trucks
90.68%	9.32%	92.80%	7.20%

Daily VMT		lbs/day							
1,117,487									
Vehicle Type	Fuel Type	Percent of VMT	Adjusted Percent for Westside Area Plan	ROG	NOx	CO	SOx	PM10	PM2.5
T6 instate small	Diesel	0.90%	0.70%	0.13	20.37	1.32	0.12	2.57	1.13
T6 OOS heavy	Diesel	0.01%	0.01%	0.00	0.27	0.02	0.00	0.04	0.02
T6 OOS small	Diesel	0.00%	0.00%	0.00	0.04	0.00	0.00	0.01	0.00
T6 Public	Diesel	0.03%	0.02%	0.00	0.50	0.04	0.00	0.08	0.03
T6 utility	Diesel	0.01%	0.01%	0.00	0.10	0.01	0.00	0.02	0.01
T6TS	Gasoline	0.29%	0.22%	0.05	0.47	1.03	0.07	0.79	0.33
T7 CAIRP	Diesel	0.47%	0.36%	0.15	19.69	1.73	0.08	1.02	0.46
T7 CAIRP construction	Diesel	0.04%	0.03%	0.01	1.54	0.13	0.01	0.08	0.04
T7 NNOOS	Diesel	0.57%	0.44%	0.18	21.88	1.98	0.09	1.22	0.54
T7 NOOS	Diesel	0.18%	0.14%	0.06	7.75	0.68	0.03	0.40	0.18
T7 POLA	Diesel	0.83%	0.64%	0.38	48.74	4.93	0.16	1.84	0.84
T7 Public	Diesel	0.04%	0.03%	0.01	1.47	0.13	0.01	0.09	0.04
T7 Single	Diesel	0.15%	0.12%	0.05	5.48	0.51	0.03	0.33	0.14
T7 single construction	Diesel	0.09%	0.07%	0.03	3.13	0.29	0.02	0.19	0.08
T7 SWCV	Diesel	0.00%	0.00%	0.00	0.32	0.00	0.00	0.00	0.00
T7 SWCV	Natural Gas	0.07%	0.05%	0.10	0.75	19.14	0.00	0.13	0.05
T7 tractor	Diesel	0.67%	0.52%	0.22	28.64	2.51	0.11	1.48	0.67
T7 tractor construction	Diesel	0.07%	0.06%	0.03	3.30	0.28	0.01	0.16	0.08
T7 utility	Diesel	0.00%	0.00%	0.00	0.08	0.01	0.00	0.01	0.00
T7IS	Gasoline	0.00%	0.00%	0.02	0.16	1.58	0.00	0.00	0.00
UBUS	Gasoline	0.01%	0.01%	0.00	0.07	0.08	0.00	0.03	0.01
UBUS	Diesel	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
UBUS	Natural Gas	0.16%	0.13%	0.28	1.51	153.50	0.00	0.33	0.13
		100.00%	100.00%	41	256	1,386	6	125	51

Year 2045: Criteria Air Pollutants (Future - With Project)

Source: EMFAC2021 Version 1.0.3. Los Angeles County - South Coast Air Basin

¹ Based on data provided Fehr & Peers.

EMFAC Default		Project	
Passenger Vehicles	Trucks	Passenger Vehicles	Trucks
90.68%	9.32%	92.80%	7.20%

Daily VMT		lbs/day							
1,494,895									
Vehicle Type	Fuel Type	Percent of VMT	Adjusted Percent for Westside Area Plan	ROG	NOx	CO	SOx	PM10	PM2.5
All Other Buses	Diesel	0.07%	0.05%	0.01	2.59	0.15	0.01	0.27	0.12
LDA	Gasoline	48.02%	49.14%	3.37	28.22	685.64	3.27	73.51	29.71
LDA	Diesel	0.60%	0.61%	0.13	0.20	4.40	0.03	0.92	0.37
LDA	Electricity	3.24%	3.31%	0.00	0.00	0.00	0.00	4.88	1.94
LDT1	Gasoline	6.72%	6.87%	0.53	4.41	98.02	0.53	10.30	4.17
LDT1	Diesel	0.00%	0.00%	0.00	0.00	0.01	0.00	0.00	0.00
LDT1	Electricity	0.27%	0.27%	0.00	0.00	0.00	0.00	0.40	0.16
LDT2	Gasoline	18.54%	18.98%	1.92	11.34	308.32	1.45	28.40	11.48
LDT2	Diesel	0.19%	0.20%	0.14	0.24	1.49	0.01	0.32	0.14
LDT2	Electricity	0.61%	0.62%	0.00	0.00	0.00	0.00	0.92	0.36
LHD1	Gasoline	1.24%	0.95%	0.11	2.95	3.83	0.21	2.70	1.13
LHD1	Diesel	1.43%	1.11%	1.55	2.21	7.28	0.13	3.42	1.49
LHD2	Gasoline	0.22%	0.17%	0.02	0.58	0.68	0.04	0.55	0.23
LHD2	Diesel	0.56%	0.43%	0.62	1.40	2.97	0.06	1.63	0.76
MCY	Gasoline	0.49%	0.50%	42.08	18.57	289.91	0.04	0.30	0.14
MDV	Gasoline	11.18%	11.44%	1.34	7.74	191.00	1.06	17.13	6.93
MDV	Diesel	0.40%	0.41%	0.10	0.16	3.36	0.04	0.62	0.25
MDV	Electricity	0.44%	0.45%	0.00	0.00	0.00	0.00	0.67	0.27
MH	Gasoline	0.07%	0.05%	0.02	0.32	0.29	0.02	0.25	0.10
MH	Diesel	0.03%	0.02%	0.03	1.60	0.10	0.01	0.12	0.06
Motor Coach	Diesel	0.04%	0.03%	0.02	1.94	0.18	0.01	0.16	0.07
OBUS	Gasoline	0.05%	0.04%	0.01	0.45	0.30	0.02	0.17	0.07
PTO	Diesel	0.03%	0.02%	0.02	3.66	0.32	0.01	0.00	0.00
SBUS	Gasoline	0.04%	0.03%	0.01	0.12	0.19	0.01	0.68	0.29
SBUS	Diesel	0.04%	0.03%	0.01	2.10	0.14	0.01	0.86	0.37
T6 Ag	Diesel	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
T6 CAIRP heavy	Diesel	0.02%	0.02%	0.00	0.63	0.04	0.00	0.09	0.04
T6 CAIRP small	Diesel	0.00%	0.00%	0.00	0.09	0.01	0.00	0.01	0.01
T6 instate construction heavy	Diesel	0.05%	0.04%	0.01	1.85	0.11	0.01	0.19	0.09
T6 instate construction small	Diesel	0.13%	0.10%	0.02	3.90	0.25	0.02	0.49	0.21
T6 instate heavy	Diesel	0.69%	0.53%	0.13	22.41	1.40	0.12	2.63	1.16

Year 2045: Criteria Air Pollutants (Future - With Project)

Source: EMFAC2021 Version 1.0.3. Los Angeles County - South Coast Air Basin

¹ Based on data provided Fehr & Peers.

EMFAC Default		Project	
Passenger Vehicles	Trucks	Passenger Vehicle	Trucks
90.68%	9.32%	92.80%	7.20%

Daily VMT		1,494,895		lbs/day						
Vehicle Type	Fuel Type	Percent of VMT	Adjusted Percent for Westside Area Plan	ROG	NOx	CO	SOx	PM10	PM2.5	
T6 instate small	Diesel	0.90%	0.70%	0.17	27.23	1.76	0.16	3.44	1.51	
T6 OOS heavy	Diesel	0.01%	0.01%	0.00	0.36	0.02	0.00	0.05	0.02	
T6 OOS small	Diesel	0.00%	0.00%	0.00	0.05	0.00	0.00	0.01	0.00	
T6 Public	Diesel	0.03%	0.02%	0.01	0.67	0.05	0.01	0.11	0.05	
T6 utility	Diesel	0.01%	0.01%	0.00	0.13	0.01	0.00	0.02	0.01	
T6TS	Gasoline	0.29%	0.22%	0.07	0.62	1.38	0.10	1.06	0.44	
T7 CAIRP	Diesel	0.47%	0.36%	0.21	26.32	2.31	0.10	1.37	0.62	
T7 CAIRP construction	Diesel	0.04%	0.03%	0.02	2.06	0.18	0.01	0.11	0.05	
T7 NNOOS	Diesel	0.57%	0.44%	0.24	29.25	2.64	0.12	1.64	0.73	
T7 NOOS	Diesel	0.18%	0.14%	0.08	10.36	0.91	0.04	0.54	0.24	
T7 POLA	Diesel	0.83%	0.64%	0.51	65.17	6.59	0.22	2.45	1.13	
T7 Public	Diesel	0.04%	0.03%	0.02	1.96	0.17	0.01	0.12	0.05	
T7 Single	Diesel	0.15%	0.12%	0.06	7.32	0.68	0.04	0.44	0.19	
T7 single construction	Diesel	0.09%	0.07%	0.03	4.19	0.39	0.02	0.25	0.11	
T7 SWCV	Diesel	0.00%	0.00%	0.00	0.43	0.00	0.00	0.00	0.00	
T7 SWCV	Natural Gas	0.07%	0.05%	0.13	1.01	25.59	0.00	0.18	0.07	
T7 tractor	Diesel	0.67%	0.52%	0.30	38.29	3.35	0.15	1.98	0.90	
T7 tractor construction	Diesel	0.07%	0.06%	0.03	4.42	0.38	0.02	0.22	0.10	
T7 utility	Diesel	0.00%	0.00%	0.00	0.11	0.01	0.00	0.01	0.00	
T7IS	Gasoline	0.00%	0.00%	0.02	0.21	2.11	0.00	0.01	0.00	
UBUS	Gasoline	0.01%	0.01%	0.01	0.09	0.11	0.00	0.04	0.02	
UBUS	Diesel	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	
UBUS	Natural Gas	0.16%	0.13%	0.38	2.02	205.21	0.00	0.44	0.17	
		100.00%	100.00%	55	342	1,854	8	167	69	

Year 2023

GHG Emissions (Existing)

Source: EMFAC2021 Version 1.0.3. Los Angeles County - South Coast Air Basin

¹ Based on data provided Fehr & Peers.

² Adjusted Daily vehicles miles traveled (VMT) multiplied by 347 days/year to account for reduced traffic on weekends and holidays. This assumption is consistent with the California Air Resources Board's (CARB) methodology within the 2008 Climate Change Scoping Plan Measure Documentation Supplement.

EMFAC Default		Project					
Passenger Vehicles	92.25%	Trucks	7.75%	Passenger Vehicle	92.80%	Trucks	7.20%

Annual VMT	CO ₂ (Pavley)			CH ₄			N ₂ O		
	AR4 GWP	AR4 GWP	AR4 GWP	AR4 GWP	AR4 GWP	AR4 GWP	AR4 GWP	AR4 GWP	AR4 GWP
387,768,047	1	25	298						

Vehicle Type	Fuel Type	Percent of VMT	Adjusted Percent for Westside Area Plan	CO ₂	CH ₄	N ₂ O	CO ₂ e
All Other Buses	Diesel	0.05%	0.05%	0	0.00	0.03	8
LDA	Gasoline	53.00%	53.32%	0	0.57	0.89	280
LDA	Diesel	0.51%	0.51%	0	0.00	0.07	19
LDA	Electricity	1.35%	1.36%	0	0.00	0.00	0
LDT1	Gasoline	6.16%	6.20%	0	0.16	0.19	61
LDT1	Diesel	0.00%	0.00%	0	0.00	0.00	0
LDT1	Electricity	0.07%	0.07%	0	0.00	0.00	0
LDT2	Gasoline	18.50%	18.61%	0	0.32	0.46	146
LDT2	Diesel	0.14%	0.14%	0	0.00	0.03	7
LDT2	Electricity	0.21%	0.21%	0	0.00	0.00	0
LHD1	Gasoline	1.35%	1.25%	0	0.03	0.05	17
LHD1	Diesel	1.03%	0.95%	0	0.01	0.27	80
LHD2	Gasoline	0.22%	0.21%	0	0.00	0.01	3
LHD2	Diesel	0.40%	0.37%	0	0.00	0.11	34
MCY	Gasoline	0.45%	0.45%	0	0.66	0.11	51
MDV	Gasoline	11.44%	11.51%	0	0.26	0.35	112
MDV	Diesel	0.29%	0.29%	0	0.00	0.07	20
MDV	Electricity	0.12%	0.12%	0	0.00	0.00	0
MH	Gasoline	0.07%	0.06%	0	0.00	0.00	2
MH	Diesel	0.02%	0.02%	0	0.00	0.01	4
Motor Coach	Diesel	0.03%	0.03%	0	0.00	0.03	8
OBUS	Gasoline	0.06%	0.05%	0	0.00	0.00	1
PTO	Diesel	0.03%	0.03%	0	0.00	0.03	9
SBUS	Gasoline	0.02%	0.02%	0	0.00	0.00	1
SBUS	Diesel	0.04%	0.04%	0	0.00	0.03	8
T6 Ag	Diesel	0.00%	0.00%	0	0.00	0.00	0
T6 CAIRP heavy	Diesel	0.02%	0.02%	0	0.00	0.01	3
T6 CAIRP small	Diesel	0.00%	0.00%	0	0.00	0.00	0
T6 instate construction heavy	Diesel	0.06%	0.06%	0	0.00	0.03	10

Year 2023

GHG Emissions (Existing)

Source: EMFAC2021 Version 1.0.3. Los Angeles County - South Coast Air Basin

¹ Based on data provided Fehr & Peers.

² Adjusted Daily vehicles miles traveled (VMT) multiplied by 347 days/year to account for reduced traffic on weekends and holidays. This assumption is consistent with the California Air Resources Board's (CARB) methodology within the 2008 Climate Change Scoping Plan Measure Documentation Supplement.

EMFAC Default		Project					
Passenger Vehicles	92.25%	Trucks	7.75%	Passenger Vehicle	92.80%	Trucks	7.20%

Annual VMT	CO ₂ (Pavley)			CH ₄			N ₂ O		
	AR4 GWP	AR4 GWP	AR4 GWP	AR4 GWP	AR4 GWP	AR4 GWP	AR4 GWP	AR4 GWP	
387,768,047	1	25	298						

Vehicle Type	Fuel Type	Percent of VMT	Adjusted Percent for Westside Area Plan	CO ₂	CH ₄	N ₂ O	CO ₂ e	
T6 instate construction small	Diesel	0.16%	0.14%	0	0.00	0.08	25	
T6 instate heavy	Diesel	0.52%	0.48%	0	0.00	0.26	77	
T6 instate small	Diesel	0.70%	0.65%	0	0.00	0.37	110	
T6 OOS heavy	Diesel	0.01%	0.01%	0	0.00	0.01	2	
T6 OOS small	Diesel	0.00%	0.00%	0	0.00	0.00	0	
T6 Public	Diesel	0.02%	0.02%	0	0.00	0.01	4	
T6 utility	Diesel	0.01%	0.01%	0	0.00	0.00	1	
T6TS	Gasoline	0.28%	0.26%	0	0.01	0.02	6	
T7 Ag	Diesel	0.00%	0.00%	0	0.00	0.00	0	
T7 CAIRP	Diesel	0.39%	0.36%	0	0.00	0.28	84	
T7 CAIRP construction	Diesel	0.04%	0.04%	0	0.00	0.03	10	
T7 NNOOS	Diesel	0.47%	0.44%	0	0.00	0.32	95	
T7 NOOS	Diesel	0.15%	0.14%	0	0.00	0.11	33	
T7 POLA	Diesel	0.40%	0.37%	0	0.00	0.34	103	
T7 Public	Diesel	0.04%	0.04%	0	0.00	0.04	11	
T7 Single	Diesel	0.14%	0.13%	0	0.00	0.11	32	
T7 single construction	Diesel	0.11%	0.10%	0	0.00	0.08	25	
T7 SWCV	Diesel	0.02%	0.02%	0	0.00	0.05	15	
T7 SWCV	Natural Gas	0.04%	0.04%	0	0.72	0.10	48	
T7 tractor	Diesel	0.59%	0.55%	0	0.00	0.44	130	
T7 tractor construction	Diesel	0.09%	0.08%	0	0.00	0.07	21	
T7 utility	Diesel	0.00%	0.00%	0	0.00	0.00	1	
T7IS	Gasoline	0.00%	0.00%	0	0.00	0.00	0	
UBUS	Gasoline	0.01%	0.01%	0	0.00	0.00	0	
UBUS	Diesel	0.00%	0.00%	0	0.00	0.00	0	
UBUS	Electricity	0.00%	0.00%	0	0.00	0.00	0	
UBUS	Natural Gas	0.16%	0.14%	0	3.55	0.23	157	
		100.00%	100.00%	0.00	1	6.33	5.75	1,874

Year 2045

GHG Emissions (Future - No Project)

Source: EMFAC2021 Version 1.0.3. Los Angeles County - South Coast Air Basin

¹ Based on data provided Fehr & Peers.

² Adjusted Daily vehicles miles traveled (VMT) multiplied by 347 days/year to account for reduced traffic on weekends and holidays. This assumption is consistent with the California Air Resources Board's (CARB) methodology within the 2008 Climate Change Scoping Plan Measure Documentation Supplement.

EMFAC Default		Project					
Passenger Vehicles	90.68%	Trucks	9.32%	Passenger Vehic Trucks	92.80%		7.20%

				CO ₂ (Pavley)	CH ₄	N ₂ O		
				AR4 GWP	AR4 GWP	AR4 GWP		
Annual VMT	387,768,047			1	25	298		

Vehicle Type	Fuel Type	Percent of VMT	Adjusted Percent for Westside Area Plan	CO ₂	CH ₄	N ₂ O	CO ₂ e
All Other Buses	Diesel	0.07%	0.05%	167	0.00	0.03	177
LDA	Gasoline	48.02%	49.14%	38,899	1.47	31.33	48,273
LDA	Diesel	0.60%	0.61%	393	0.02	0.39	510
LDA	Electricity	3.24%	3.31%	0	0.10	2.11	632
LDT1	Gasoline	6.72%	6.87%	6,312	0.21	4.38	7,623
LDT1	Diesel	0.00%	0.00%	1	0.00	0.00	1
LDT1	Electricity	0.27%	0.27%	0	0.01	0.17	52
LDT2	Gasoline	18.54%	18.98%	17,223	0.57	12.10	20,843
LDT2	Diesel	0.19%	0.20%	168	0.01	0.13	205
LDT2	Electricity	0.61%	0.62%	0	0.02	0.40	118
LHD1	Gasoline	1.24%	0.96%	2,442	0.03	0.61	2,624
LHD1	Diesel	1.43%	1.11%	1,628	0.03	0.71	1,839
LHD2	Gasoline	0.22%	0.17%	494	0.01	0.11	526
LHD2	Diesel	0.56%	0.43%	706	0.01	0.28	789
MCY	Gasoline	0.49%	0.50%	435	0.01	0.32	530
MDV	Gasoline	11.18%	11.44%	12,648	0.34	7.29	14,829
MDV	Diesel	0.40%	0.41%	455	0.01	0.26	534
MDV	Electricity	0.44%	0.45%	0	0.01	0.29	87
MH	Gasoline	0.07%	0.05%	274	0.00	0.03	284
MH	Diesel	0.03%	0.02%	70	0.00	0.01	75
Motor Coach	Diesel	0.04%	0.03%	136	0.00	0.02	142
OBUS	Gasoline	0.05%	0.04%	188	0.00	0.02	195
PTO	Diesel	0.03%	0.02%	141	0.00	0.02	145
SBUS	Gasoline	0.04%	0.03%	75	0.00	0.02	80
SBUS	Diesel	0.04%	0.03%	118	0.00	0.02	125
T6 Ag	Diesel	0.00%	0.00%	0	0.00	0.00	0
T6 CAIRP heavy	Diesel	0.02%	0.02%	47	0.00	0.01	51
T6 CAIRP small	Diesel	0.00%	0.00%	7	0.00	0.00	8
T6 instate construction heavy	Diesel	0.05%	0.04%	119	0.00	0.02	127

Year 2045

GHG Emissions (Future - No Project)

Source: EMFAC2021 Version 1.0.3. Los Angeles County - South Coast Air Basin

¹ Based on data provided Fehr & Peers.

² Adjusted Daily vehicles miles traveled (VMT) multiplied by 347 days/year to account for reduced traffic on weekends and holidays. This assumption is consistent with the California Air Resources Board's (CARB) methodology within the 2008 Climate Change Scoping Plan Measure Documentation Supplement.

EMFAC Default		Project					
Passenger Vehicles	90.68%	Trucks	9.32%	Passenger Vehic Trucks	92.80%		7.20%

				CO ₂ (Pavley)	CH ₄	N ₂ O		
				AR4 GWP	AR4 GWP	AR4 GWP		
Annual VMT	387,768,047			1	25	298		

Vehicle Type	Fuel Type	Percent of VMT	Adjusted Percent for Westside Area Plan	CO ₂	CH ₄	N ₂ O	CO ₂ e	
T6 instate construction small	Diesel	0.13%	0.10%	289	0.00	0.06	308	
T6 instate heavy	Diesel	0.69%	0.53%	1,447	0.02	0.34	1,549	
T6 instate small	Diesel	0.90%	0.70%	2,022	0.02	0.45	2,156	
T6 OOS heavy	Diesel	0.01%	0.01%	27	0.00	0.01	29	
T6 OOS small	Diesel	0.00%	0.00%	4	0.00	0.00	5	
T6 Public	Diesel	0.03%	0.02%	64	0.00	0.01	68	
T6 utility	Diesel	0.01%	0.01%	14	0.00	0.00	15	
T6TS	Gasoline	0.29%	0.22%	1,156	0.01	0.14	1,199	
T7 CAIRP	Diesel	0.47%	0.36%	1,277	0.01	0.23	1,345	
T7 CAIRP construction	Diesel	0.04%	0.03%	110	0.00	0.02	115	
T7 NNOOS	Diesel	0.57%	0.44%	1,557	0.01	0.28	1,640	
T7 NOOS	Diesel	0.18%	0.14%	502	0.00	0.09	529	
T7 POLA	Diesel	0.83%	0.64%	2,685	0.02	0.41	2,807	
T7 Public	Diesel	0.04%	0.03%	144	0.00	0.02	150	
T7 Single	Diesel	0.15%	0.12%	498	0.00	0.08	521	
T7 single construction	Diesel	0.09%	0.07%	286	0.00	0.04	299	
T7 SWCV	Diesel	0.00%	0.00%	16	0.00	0.00	16	
T7 SWCV	Natural Gas	0.07%	0.05%	537	0.00	0.03	548	
T7 tractor	Diesel	0.67%	0.52%	1,890	0.02	0.33	1,990	
T7 tractor construction	Diesel	0.07%	0.06%	231	0.00	0.04	242	
T7 utility	Diesel	0.00%	0.00%	10	0.00	0.00	11	
T7IS	Gasoline	0.00%	0.00%	13	0.00	0.00	13	
UBUS	Gasoline	0.01%	0.01%	58	0.00	0.01	60	
UBUS	Diesel	0.00%	0.00%	0	0.00	0.00	0	
UBUS	Natural Gas	0.16%	0.13%	983	0.00	0.08	1,007	
		100.00%	100.00%	0.00	98,967	3.00	63.77	118,045

Year 2045

GHG Emissions (Future - With Project)

Source: EMFAC2021 Version 1.0.3. Los Angeles County - South Coast Air Basin

¹ Based on data provided Fehr & Peers.

² Adjusted Daily vehicles miles traveled (VMT) multiplied by 347 days/year to account for reduced traffic on weekends and holidays. This assumption is consistent with the California Air Resources Board's (CARB) methodology within the 2008 Climate Change Scoping Plan Measure Documentation Supplement.

EMFAC Default		Project					
Passenger Vehicles	Trucks	Passenger Vehicle	Trucks	CO ₂ (Pavley)	CH ₄	N ₂ O	
90.68%	9.32%	92.80%	7.20%	AR4 GWP	AR4 GWP	AR4 GWP	
Annual VMT 518,728,583				1	25	298	
Vehicle Type	Fuel Type	Percent of VMT	Adjusted Percent for Westside Area Plan	CO ₂	CH ₄	N ₂ O	CO ₂ e
All Other Buses	Diesel	0.07%	0.05%	223	0.00	0.05	237
LDA	Gasoline	48.02%	49.14%	52,038	1.97	41.92	64,579
LDA	Diesel	0.60%	0.61%	526	0.02	0.52	682
LDA	Electricity	3.24%	3.31%	0	0.13	2.82	845
LDT1	Gasoline	6.72%	6.87%	8,444	0.28	5.86	10,198
LDT1	Diesel	0.00%	0.00%	2	0.00	0.00	2
LDT1	Electricity	0.27%	0.27%	0	0.01	0.23	70
LDT2	Gasoline	18.54%	18.98%	23,040	0.76	16.19	27,883
LDT2	Diesel	0.19%	0.20%	224	0.01	0.17	274
LDT2	Electricity	0.61%	0.62%	0	0.02	0.53	158
LHD1	Gasoline	1.24%	0.95%	3,265	0.04	0.81	3,508
LHD1	Diesel	1.43%	1.11%	2,177	0.04	0.94	2,459
LHD2	Gasoline	0.22%	0.17%	661	0.01	0.14	704
LHD2	Diesel	0.56%	0.43%	944	0.02	0.37	1,054
MCY	Gasoline	0.49%	0.50%	582	0.02	0.43	709
MDV	Gasoline	11.18%	11.44%	16,920	0.46	9.76	19,839
MDV	Diesel	0.40%	0.41%	609	0.02	0.35	714
MDV	Electricity	0.44%	0.45%	0	0.02	0.39	116
MH	Gasoline	0.07%	0.05%	366	0.00	0.04	380
MH	Diesel	0.03%	0.02%	94	0.00	0.02	100
Motor Coach	Diesel	0.04%	0.03%	182	0.00	0.03	190
OBUS	Gasoline	0.05%	0.04%	251	0.00	0.03	260
PTO	Diesel	0.03%	0.02%	188	0.00	0.02	194
SBUS	Gasoline	0.04%	0.03%	100	0.00	0.02	107
SBUS	Diesel	0.04%	0.03%	158	0.00	0.03	167
T6 Ag	Diesel	0.00%	0.00%	0	0.00	0.00	0
T6 CAIRP heavy	Diesel	0.02%	0.02%	63	0.00	0.02	68
T6 CAIRP small	Diesel	0.00%	0.00%	10	0.00	0.00	10
T6 instate construction heavy	Diesel	0.05%	0.04%	159	0.00	0.03	169

Year 2045

GHG Emissions (Future - With Project)

Source: EMFAC2021 Version 1.0.3. Los Angeles County - South Coast Air Basin

¹ Based on data provided Fehr & Peers.

² Adjusted Daily vehicles miles traveled (VMT) multiplied by 347 days/year to account for reduced traffic on weekends and holidays. This assumption is consistent with the California Air Resources Board's (CARB) methodology within the 2008 Climate Change Scoping Plan Measure Documentation Supplement.

EMFAC Default		Project						
Passenger Vehicles	Trucks	Passenger Vehicle	Trucks	CO ₂ (Pavley)	CH ₄	N ₂ O		
90.68%	9.32%	92.80%	7.20%	AR4 GWP	AR4 GWP	AR4 GWP		
Annual VMT 518,728,583				1	25	298		
Vehicle Type	Fuel Type	Percent of VMT	Adjusted Percent for Westside Area Plan	CO ₂	CH ₄	N ₂ O	CO ₂ e	
T6 instate construction small	Diesel	0.13%	0.10%	386	0.00	0.09	412	
T6 instate heavy	Diesel	0.69%	0.53%	1,935	0.02	0.45	2,070	
T6 instate small	Diesel	0.90%	0.70%	2,704	0.03	0.60	2,882	
T6 OOS heavy	Diesel	0.01%	0.01%	37	0.00	0.01	39	
T6 OOS small	Diesel	0.00%	0.00%	6	0.00	0.00	6	
T6 Public	Diesel	0.03%	0.02%	86	0.00	0.02	91	
T6 utility	Diesel	0.01%	0.01%	19	0.00	0.00	21	
T6TS	Gasoline	0.29%	0.22%	1,545	0.01	0.19	1,602	
T7 CAIRP	Diesel	0.47%	0.36%	1,707	0.01	0.31	1,798	
T7 CAIRP construction	Diesel	0.04%	0.03%	147	0.00	0.02	154	
T7 NNOOS	Diesel	0.57%	0.44%	2,081	0.02	0.37	2,193	
T7 NOOS	Diesel	0.18%	0.14%	671	0.01	0.12	707	
T7 POLA	Diesel	0.83%	0.64%	3,590	0.03	0.54	3,752	
T7 Public	Diesel	0.04%	0.03%	193	0.00	0.03	201	
T7 Single	Diesel	0.15%	0.12%	666	0.00	0.10	696	
T7 single construction	Diesel	0.09%	0.07%	382	0.00	0.06	400	
T7 SWCV	Diesel	0.00%	0.00%	22	0.00	0.00	22	
T7 SWCV	Natural Gas	0.07%	0.05%	718	0.00	0.05	732	
T7 tractor	Diesel	0.67%	0.52%	2,527	0.02	0.44	2,660	
T7 tractor construction	Diesel	0.07%	0.06%	309	0.00	0.05	323	
T7 utility	Diesel	0.00%	0.00%	14	0.00	0.00	15	
T7IS	Gasoline	0.00%	0.00%	17	0.00	0.00	17	
UBUS	Gasoline	0.01%	0.01%	77	0.00	0.01	80	
UBUS	Diesel	0.00%	0.00%	0	0.00	0.00	0	
UBUS	Natural Gas	0.16%	0.13%	1,314	0.01	0.11	1,346	
		100.00%	100.00%	0.00	132,377	4.01	85.31	157,899

Region	Country	Year	Vehicle Category	Fuel	Benzin																					Dizel														Gazyağ																			
					Benzin_0							Benzin_1							Benzin_2							Dizel_0							Dizel_1							Gazyağ_0							Gazyağ_1												
					ROG_BAR	MOL_BAR	CO_BAR	SO2_BAR	METAN	METAN_W	NOx	ROG_BAR	MOL_BAR	CO_BAR	SO2_BAR	METAN	METAN_W	NOx	ROG_BAR	MOL_BAR	CO_BAR	SO2_BAR	METAN	METAN_W	NOx	ROG_BAR	MOL_BAR	CO_BAR	SO2_BAR	METAN	METAN_W	NOx	ROG_BAR	MOL_BAR	CO_BAR	SO2_BAR	METAN	METAN_W	NOx	ROG_BAR	MOL_BAR	CO_BAR	SO2_BAR	METAN	METAN_W	NOx													
Almanya (GC)	Almanya	2007	1115898	1204820	1081213	1006425	0.014	0.103404	0.10320	0.10335	0.09999	0.09791	0.09584	0.09377	0.09170	0.08963	0.08756	0.08549	0.08342	0.08135	0.07928	0.07721	0.07514	0.07307	0.07100	0.06893	0.06686	0.06479	0.06272	0.06065	0.05858	0.05651	0.05444	0.05237	0.05030	0.04823	0.04616	0.04409	0.04202	0.03995	0.03788	0.03581	0.03374	0.03167	0.02960	0.02753	0.02546	0.02339	0.02132	0.01925	0.01718	0.01511	0.01304	0.01097	0.00890	0.00683	0.00476	0.00269	0.00062

Main data table with columns: Region, Year, Country, and various economic indicators. The table is organized into sections for 'Africa', 'Asia', 'Europe', 'Latin America', and 'Middle East'. Each section contains a list of countries with their corresponding values for the specified indicators.

CalEEMod Outputs

Westside Area Plan Custom Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Westside Area Plan
Operational Year	2045
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	20.2
Location	34.02909630651288, -118.42599944852739
County	Los Angeles-South Coast
City	Los Angeles
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4455
EDFZ	16
Electric Utility	Los Angeles Department of Water & Power
Gas Utility	Southern California Gas
App Version	2022.1.1.22

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Apartments High Rise	6,757	Dwelling Unit	109	6,486,720	0.00	0.00	15,704	—

Regional Shopping Center	244	1000sqft	5.60	244,000	0.00	0.00	—	—
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1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	52.2	198	133	451	0.84	10.6	0.00	10.6	10.6	0.00	10.6	2,829	215,259	218,088	235	2.08	47.6	224,638
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	15.1	163	129	55.2	0.83	10.5	0.00	10.5	10.5	0.00	10.5	2,829	214,190	217,019	235	2.07	47.6	223,565
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	28.3	181	27.4	282	0.17	2.14	0.00	2.14	2.11	0.00	2.11	2,829	82,392	85,222	233	1.83	47.6	91,633
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.16	33.1	5.00	51.4	0.03	0.39	0.00	0.39	0.39	0.00	0.39	468	13,641	14,109	38.5	0.30	7.89	15,171

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	50.2	197	116	444	0.73	9.25	—	9.25	9.21	—	9.21	0.00	143,343	143,343	2.72	0.28	—	143,494
Energy	2.02	1.01	17.3	7.48	0.11	1.39	—	1.39	1.39	—	1.39	—	68,440	68,440	5.23	0.51	—	68,722
Water	—	—	—	—	—	—	—	—	—	—	—	577	3,476	4,053	2.23	1.29	—	4,494
Waste	—	—	—	—	—	—	—	—	—	—	—	2,252	0.00	2,252	225	0.00	—	7,880
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	47.6	47.6
Total	52.2	198	133	451	0.84	10.6	0.00	10.6	10.6	0.00	10.6	2,829	215,259	218,088	235	2.08	47.6	224,638
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	13.1	162	112	47.7	0.72	9.06	—	9.06	9.06	—	9.06	0.00	142,275	142,275	2.68	0.27	—	142,421
Energy	2.02	1.01	17.3	7.48	0.11	1.39	—	1.39	1.39	—	1.39	—	68,440	68,440	5.23	0.51	—	68,722
Water	—	—	—	—	—	—	—	—	—	—	—	577	3,476	4,053	2.23	1.29	—	4,494
Waste	—	—	—	—	—	—	—	—	—	—	—	2,252	0.00	2,252	225	0.00	—	7,880
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	47.6	47.6
Total	15.1	163	129	55.2	0.83	10.5	0.00	10.5	10.5	0.00	10.5	2,829	214,190	217,019	235	2.07	47.6	223,565
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	26.3	180	10.2	274	0.06	0.75	—	0.75	0.72	—	0.72	0.00	10,477	10,477	0.21	0.02	—	10,489
Energy	2.02	1.01	17.3	7.48	0.11	1.39	—	1.39	1.39	—	1.39	—	68,440	68,440	5.23	0.51	—	68,722
Water	—	—	—	—	—	—	—	—	—	—	—	577	3,476	4,053	2.23	1.29	—	4,494
Waste	—	—	—	—	—	—	—	—	—	—	—	2,252	0.00	2,252	225	0.00	—	7,880
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	47.6	47.6
Total	28.3	181	27.4	282	0.17	2.14	0.00	2.14	2.11	0.00	2.11	2,829	82,392	85,222	233	1.83	47.6	91,633

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	4.80	32.9	1.85	50.1	0.01	0.14	—	0.14	0.13	—	0.13	0.00	1,735	1,735	0.04	< 0.005	—	1,737
Energy	0.37	0.18	3.15	1.36	0.02	0.25	—	0.25	0.25	—	0.25	—	11,331	11,331	0.87	0.08	—	11,378
Water	—	—	—	—	—	—	—	—	—	—	—	95.5	575	671	0.37	0.21	—	744
Waste	—	—	—	—	—	—	—	—	—	—	—	373	0.00	373	37.3	0.00	—	1,305
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.89	7.89
Total	5.16	33.1	5.00	51.4	0.03	0.39	0.00	0.39	0.39	0.00	0.39	468	13,641	14,109	38.5	0.30	7.89	15,171

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	—	41,966	41,966	2.97	0.42	—	42,165
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	4,595	4,595	0.33	0.05	—	4,617

Total	—	—	—	—	—	—	—	—	—	—	—	—	46,561	46,561	3.30	0.47	—	46,782
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	—	41,966	41,966	2.97	0.42	—	42,165
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	4,595	4,595	0.33	0.05	—	4,617
Total	—	—	—	—	—	—	—	—	—	—	—	—	46,561	46,561	3.30	0.47	—	46,782
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	—	6,948	6,948	0.49	0.07	—	6,981
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	761	761	0.05	0.01	—	764
Total	—	—	—	—	—	—	—	—	—	—	—	—	7,709	7,709	0.55	0.08	—	7,745

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	1.98	0.99	16.9	7.21	0.11	1.37	—	1.37	1.37	—	1.37	—	21,494	21,494	1.90	0.04	—	21,553
Regional Shopping Center	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	385	385	0.03	< 0.005	—	386
Total	2.02	1.01	17.3	7.48	0.11	1.39	—	1.39	1.39	—	1.39	—	21,879	21,879	1.94	0.04	—	21,939

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	1.98	0.99	16.9	7.21	0.11	1.37	—	1.37	1.37	—	1.37	—	21,494	21,494	1.90	0.04	—	21,553
Regional Shopping Center	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	385	385	0.03	< 0.005	—	386
Total	2.02	1.01	17.3	7.48	0.11	1.39	—	1.39	1.39	—	1.39	—	21,879	21,879	1.94	0.04	—	21,939
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	0.36	0.18	3.09	1.32	0.02	0.25	—	0.25	0.25	—	0.25	—	3,559	3,559	0.31	0.01	—	3,568
Regional Shopping Center	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	63.8	63.8	0.01	< 0.005	—	63.9
Total	0.37	0.18	3.15	1.36	0.02	0.25	—	0.25	0.25	—	0.25	—	3,622	3,622	0.32	0.01	—	3,632

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	13.1	6.56	112	47.7	0.72	9.06	—	9.06	9.06	—	9.06	0.00	142,275	142,275	2.68	0.27	—	142,421
Consumer Products	—	144	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	—	11.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	37.1	35.0	3.63	396	0.02	0.19	—	0.19	0.14	—	0.14	—	1,069	1,069	0.04	0.01	—	1,072
Total	50.2	197	116	444	0.73	9.25	—	9.25	9.21	—	9.21	0.00	143,343	143,343	2.72	0.28	—	143,494
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	13.1	6.56	112	47.7	0.72	9.06	—	9.06	9.06	—	9.06	0.00	142,275	142,275	2.68	0.27	—	142,421
Consumer Products	—	144	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	11.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	13.1	162	112	47.7	0.72	9.06	—	9.06	9.06	—	9.06	0.00	142,275	142,275	2.68	0.27	—	142,421
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.16	0.08	1.40	0.60	0.01	0.11	—	0.11	0.11	—	0.11	0.00	1,613	1,613	0.03	< 0.005	—	1,615
Consumer Products	—	26.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	2.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	4.63	4.38	0.45	49.5	< 0.005	0.02	—	0.02	0.02	—	0.02	—	121	121	0.01	< 0.005	—	122
Total	4.80	32.9	1.85	50.1	0.01	0.14	—	0.14	0.13	—	0.13	0.00	1,735	1,735	0.04	< 0.005	—	1,737

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	538	3,243	3,781	2.08	1.21	—	4,193
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	38.6	233	271	0.15	0.09	—	301
Total	—	—	—	—	—	—	—	—	—	—	—	577	3,476	4,053	2.23	1.29	—	4,494
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	538	3,243	3,781	2.08	1.21	—	4,193
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	38.6	233	271	0.15	0.09	—	301
Total	—	—	—	—	—	—	—	—	—	—	—	577	3,476	4,053	2.23	1.29	—	4,494
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	89.1	537	626	0.34	0.20	—	694
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	6.39	38.5	44.9	0.02	0.01	—	49.8
Total	—	—	—	—	—	—	—	—	—	—	—	95.5	575	671	0.37	0.21	—	744

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	2,114	0.00	2,114	211	0.00	—	7,397
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	138	0.00	138	13.8	0.00	—	483
Total	—	—	—	—	—	—	—	—	—	—	—	2,252	0.00	2,252	225	0.00	—	7,880
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	2,114	0.00	2,114	211	0.00	—	7,397
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	138	0.00	138	13.8	0.00	—	483
Total	—	—	—	—	—	—	—	—	—	—	—	2,252	0.00	2,252	225	0.00	—	7,880
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	350	0.00	350	35.0	0.00	—	1,225
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	22.9	0.00	22.9	2.28	0.00	—	80.0
Total	—	—	—	—	—	—	—	—	—	—	—	373	0.00	373	37.3	0.00	—	1,305

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	46.5	46.5
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.17	1.17
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	47.6	47.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	46.5	46.5
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.17	1.17
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	47.6	47.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.69	7.69
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.19	0.19
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.89	7.89

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments High Rise	—
Wood Fireplaces	0
Gas Fireplaces	6757
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	0
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
13135608	4,378,536	366,000	122,000	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments High Rise	22,186,567	690	0.0489	0.0069	67,065,650
Regional Shopping Center	2,429,395	690	0.0489	0.0069	1,201,491

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments High Rise	251,859,067	0.00
Regional Shopping Center	18,073,695	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments High Rise	3,923	—
Regional Shopping Center	256	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments High Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments High Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Regional Shopping Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Regional Shopping Center	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
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8. User Changes to Default Data

Screen	Justification
Land Use	Adjusted to match population increase from project description
Operations: Hearths	assumes no woodburning fireplaces to be installed. assumes all homes have one fireplace
Operations: Water and Waste Water	assumes 100% aerobic treatment for most conservative estimates

Energy Calculations

Operation-Related Vehicle Fuel/Energy Usage

PROJECT LAND USE COMMUTE

Vehicle Type	Gas			Diesel			CNG			Electricity		
	VMT	Gallons	Mile/Gal	VMT	Gallons	Mile/Gal	VMT	Gallons	Mile/Gal	VMT	kWh	Mile/kWh
Existing (2023)	352,956,165	14,596,275	24.18	19,084,376	2,286,493	8.35	1,187,486	266,407	4.46	14,540,021	5,325,542	2.73
Future (2045) - No Project	326,088,022	10,418,821	31.30	14,706,298	1,532,697	9.60	446,710	48,958	9.12	46,527,017	16,174,727	2.88
Future (2045) - With Project	436,217,421	13,937,559	31.30	19,673,042	2,050,334	9.60	597,577	65,492	9.12	62,240,543	21,637,402	2.88
Net Change from Existing 2023	83,261,257	(658,716)	7.12	588,666	(236,159)	1.25	(589,909)	(200,915)	4.67	47,700,522	16,311,859	0.15
Net Change from No Project 2045	110,129,399	3,518,738	0	4,966,744	517,636	0	150,867	16,534	0	15,713,525	5,462,675	0

Existing (2023)

Vehicle type	Fleet percent	VMT	
	All Vehicles	All Vehicles	Total
HHD	2.35%	9,120,798	9,120,798
LDA	55.18%	213,979,158	213,979,158
LDT1	6.27%	24,317,815	24,317,815
LDT2	18.97%	73,542,342	73,542,342
LHD1	2.20%	8,550,153	8,550,153
LHD2	0.58%	2,238,534	2,238,534
MCY	0.45%	1,750,408	1,750,408
MDV	11.93%	46,254,641	46,254,641
MH	0.08%	326,644	326,644
MHD	1.72%	6,660,471	6,660,471
OBUS	0.05%	203,544	203,544
SBUS	0.06%	216,588	216,588
UBUS	0.16%	606,953	606,953
	100.00%	387,768,047	387,768,047

PROPOSED CONDITIONS

Vehicle type	Gas percent	Diesel percent	CNG percent	Electricity percent
LDA	93.61%	0.19%	0.00%	6.20%
LDT1	99.67%	0.02%	0.00%	0.31%
LDT2	98.80%	0.32%	0.00%	0.88%
MDV	97.65%	1.15%	0.00%	1.20%
LHD1	67.85%	32.15%	0.00%	0.00%
LHD2	41.02%	58.98%	0.00%	0.00%
MHD	24.49%	74.29%	1.21%	0.02%
HHD	0.05%	94.71%	5.20%	0.04%
OBUS	45.14%	49.10%	5.76%	0.00%
UBUS	6.89%	0.28%	92.30%	0.53%
MCY	100.00%	0.00%	0.00%	0.00%
SBUS	45.96%	25.87%	28.15%	0.01%
MH	73.61%	26.39%	0.00%	0.00%

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<< Motor coach, all other buses, and OBUS (<https://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf>)

PROPOSED CONDITIONS

Vehicle type	VMT	Gasoline		VMT	Diesel		VMT	CNG		VMT	Electricity	
		mpg	Gallons		mpg	Gallons		mpg	Gallons		m/kWh	kWh
LDA	200,308,370	28.38	7,057,563	414,440	39.58	10,471	0	0.00	0	13,256,348	2.72	4,871,893
LDT1	24,237,291	23.74	1,020,982	5,582	22.95	243	0	0.00	0	74,942	2.73	27,423
LDT2	72,663,154	23.10	3,145,271	233,431	30.71	7,602	0	0.00	0	645,757	2.92	221,195
MDV	45,167,829	18.83	2,398,405	531,674	23.06	23,059	0	0.00	0	555,137	2.79	199,022
LHD1	5,801,594	13.13	441,735	2,748,559	20.24	135,787	0	0.00	0	0	0.00	0
LHD2	918,281	11.50	79,864	1,320,252	17.02	77,584	0	0.00	0	0	0.00	0
MHD	1,631,192	5.09	320,167	4,947,840	8.87	557,928	80,270	8.09	0	1,169	0.00	0
HHD	4,371	3.95	1,106	8,638,726	5.98	1,443,876	474,306	5.75	82,454	3,395	0.57	6,009
OBUS	91,887	4.99	18,401	99,936	7.34	13,608	11,720	8.61	0	0	0.00	0
UBUS	41,791	4.58	9,129	1,702	5.85	0	560,219	3.05	183,953	3,241	0.48	0
MCY	1,750,408	40.95	42,748	0	0.00	0	0	0.00	0	0	0.00	0
SBUS	99,555	8.90	11,180	56,030	7.30	7,678	60,971	4.16	0	32	0.86	0
MH	240,441	4.84	49,724	86,202	9.96	8,657	0	0.00	0	0	0.00	0
	352,956,165		14,596,275	19,084,376		2,286,493	1,187,486		266,407	14,540,021		5,325,542

Future (2045) - No Project

Vehicle type	Fleet percent	VMT	
		All Vehicles	Total
HHD	2.52%	9,764,517	9,764,517
LDA	53.06%	205,743,782	205,743,782
LDT1	7.15%	27,714,329	27,714,329
LDT2	19.79%	76,746,195	76,746,195
LHD1	2.06%	7,998,783	7,998,783
LHD2	0.60%	2,335,131	2,335,131
MCY	0.50%	1,932,171	1,932,171
MDV	12.30%	47,707,886	47,707,886
MH	0.08%	292,379	292,379
MHD	1.71%	6,623,407	6,623,407
OBUS	0.04%	139,450	139,450
SBUS	0.06%	240,164	240,164
UBUS	0.14%	529,853	529,853
	100.00%	387,768,047	387,768,047

PROPOSED CONDITIONS

Vehicle type	Gas percent	Diesel percent	CNG percent	Electricity percent
LDA	85.70%	0.05%	0.00%	14.25%
LDT1	95.77%	0.00%	0.00%	4.23%
LDT2	95.43%	0.36%	0.00%	4.21%
MDV	93.06%	0.99%	0.00%	5.96%
LHD1	31.68%	23.43%	0.00%	44.89%
LHD2	16.03%	40.45%	0.00%	43.52%
MHD	7.01%	43.57%	0.88%	48.53%
HHD	0.01%	81.38%	3.30%	15.30%
OBUS	15.63%	59.29%	8.02%	17.06%
UBUS	1.79%	0.00%	0.61%	97.60%
MCY	100.00%	0.00%	0.00%	0.00%
SBUS	31.55%	7.70%	21.34%	39.41%
MH	64.76%	35.24%	0.00%	0.00%

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PROPOSED CONDITIONS

Vehicle type	Gasoline			Diesel			CNG			Electricity		
	VMT	mpg	Gallons	VMT	mpg	Gallons	VMT	mpg	Gallons	VMT	m/kWh	kWh
LDA	176,313,880	35.71	4,937,195	102,327	52.80	1,938	0	0.00	0	29,327,575	2.69	10,913,972
LDT1	26,541,104	30.75	863,225	302	28.38	11	0	0.00	0	1,172,922	2.78	422,427
LDT2	73,236,043	29.83	2,454,890	275,816	38.31	7,199	0	0.00	0	3,234,336	2.81	1,150,358
MDV	44,394,582	24.55	1,808,275	471,929	29.45	16,026	0	0.00	0	2,841,376	2.75	1,032,221
LHD1	2,533,919	16.41	154,394	1,874,290	21.51	87,147	0	0.00	0	3,590,574	1.78	0
LHD2	374,406	14.59	25,663	944,446	18.41	51,304	0	0.00	0	1,016,279	1.78	0
MHD	464,596	5.98	77,743	2,886,124	9.92	290,797	58,452	8.31	0	3,214,236	0.00	0
HHD	932	5.27	177	7,946,846	7.53	1,055,628	322,583	6.62	48,723	1,494,156	0.56	2,655,749
OBUS	21,795	5.74	3,798	82,677	8.22	10,058	11,184	9.68	0	23,794	0.00	0
UBUS	9,487	15.20	624	0	0.00	0	3,248	13.81	235	517,118	0.48	0
MCY	1,932,171	41.87	46,143	0	0.00	0	0	0.00	0	0	0.00	0
SBUS	75,773	10.00	7,576	18,495	8.32	2,222	51,243	4.64	0	94,653	0.86	0
MH	189,334	4.84	39,118	103,045	9.94	10,368	0	0.00	0	0	0.00	0
	326,088,022		10,418,821	14,706,298		1,532,697	446,710		48,958	46,527,017		16,174,727

Future (2045) - With Project

Vehicle type	Fleet percent	VMT	
		All Vehicles	Total
HHD	2.52%	13,062,278	13,062,278
LDA	53.06%	275,229,435	275,229,435
LDT1	7.15%	37,074,263	37,074,263
LDT2	19.79%	102,665,615	102,665,615
LHD1	2.06%	10,700,204	10,700,204
LHD2	0.60%	3,123,772	3,123,772
MCY	0.50%	2,584,721	2,584,721
MDV	12.30%	63,820,225	63,820,225
MH	0.08%	391,124	391,124
MHD	1.71%	8,860,324	8,860,324
OBUS	0.04%	186,547	186,547
SBUS	0.06%	321,274	321,274
UBUS	0.14%	708,800	708,800
	100.00%	518,728,583	518,728,583

PROPOSED CONDITIONS

Vehicle type	Gas percent	Diesel percent	CNG percent	Electricity percent
LDA	85.70%	0.05%	0.00%	14.25%
LDT1	95.77%	0.00%	0.00%	4.23%
LDT2	95.43%	0.36%	0.00%	4.21%
MDV	93.06%	0.99%	0.00%	5.96%
LHD1	31.68%	23.43%	0.00%	44.89%
LHD2	16.03%	40.45%	0.00%	43.52%
MHD	7.01%	43.57%	0.88%	48.53%
HHD	0.01%	81.38%	3.30%	15.30%
OBUS	15.63%	59.29%	8.02%	17.06%
UBUS	1.79%	0.00%	0.61%	97.60%
MCY	100.00%	0.00%	0.00%	0.00%
SBUS	31.55%	7.70%	21.34%	39.41%
MH	64.76%	35.24%	0.00%	0.00%

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PROPOSED CONDITIONS

Vehicle type	VMT	Gasoline		VMT	Diesel		VMT	CNG		VMT	Electricity	
		mpg	Gallons		mpg	Gallons		mpg	Gallons		m/kWh	kWh
LDA	235,860,200	35.71	6,604,629	136,886	52.80	2,592	0	0.00	0	39,232,350	2.69	14,599,937
LDT1	35,504,806	30.75	1,154,762	405	28.38	14	0	0.00	0	1,569,052	2.78	565,093
LDT2	97,969,982	29.83	3,283,978	368,968	38.31	9,630	0	0.00	0	4,326,665	2.81	1,538,867
MDV	59,387,922	24.55	2,418,982	631,313	29.45	21,439	0	0.00	0	3,800,991	2.75	1,380,832
LHD1	3,389,697	16.41	206,537	2,507,292	21.51	116,579	0	0.00	0	4,803,215	1.78	0
LHD2	500,854	14.59	34,330	1,263,412	18.41	68,631	0	0.00	0	1,359,506	1.78	0
MHD	621,503	5.98	103,998	3,860,851	9.92	389,007	78,193	8.31	0	4,299,776	0.00	0
HHD	1,247	5.27	236	10,630,727	7.53	1,412,144	431,528	6.62	65,178	1,998,775	0.56	3,552,673
OBUS	29,156	5.74	5,081	110,600	8.22	13,454	14,961	9.68	0	31,830	0.00	0
UBUS	12,692	15.20	835	0	0.00	0	4,345	13.81	315	691,764	0.48	0
MCY	2,584,721	41.87	61,727	0	0.00	0	0	0.00	0	0	0.00	0
SBUS	101,364	10.00	10,134	24,742	8.32	2,973	68,549	4.64	0	126,620	0.86	0
MH	253,278	4.84	52,329	137,846	9.94	13,870	0	0.00	0	0	0.00	0
	436,217,421		13,937,559	19,673,042		2,050,334	597,577		65,492	62,240,543		21,637,402

EMFAC Fuel Usage: Year 2023

Vehicle type	GAS			DSL			NG			ELEC		
	VMT/day	Gallons/day	Miles/gallon	VMT/day	Gallons/day	Miles/gallon	VMT/day	Gallons/day	Miles/gallon	VMT/day	kWh/day	Miles/kWh
All other buses	0	0	0.00	82,728	8,978	9.21	19,541	2,271	8.61	0	0	0.00
LDA	135,140,035	4,761,455	28.38	279,606	7,064	39.58	0	0	0.00	8,943,527	3,286,871	2.72
LDT1	11,506,129	484,689	23.74	2,650	115	22.95	0	0	0.00	35,577	13,019	2.73
LDT2	63,471,961	2,747,424	23.10	203,904	6,640	30.71	0	0	0.00	564,075	193,216	2.92
LHD1	4,875,651	371,234	13.13	2,309,885	114,116	20.24	0	0	0.00	0	0	0.00
LHD2	707,424	61,525	11.50	1,017,094	59,769	17.02	0	0	0.00	0	0	0.00
MCY	942,493	23,017	40.95	0	0	0.00	0	0	0.00	0	0	0.00
MDV	35,435,034	1,881,595	18.83	417,109	18,090	23.06	0	0	0.00	435,516	156,136	2.79
MH	150,959	31,219	4.84	54,121	5,435	9.96	0	0	0.00	0	0	0.00
Motor coach	0	0	0.00	83,894	15,253	5.50	0	0	0.00	0	0	0.00
OBUS	153,202	30,680	4.99	0	0	0.00	0	0	0.00	0	0	0.00
PTO	0	0	0.00	105,926	21,634	4.90	0	0	0.00	49	101	0.48
SBUS	59,009	6,627	8.90	33,210	4,551	7.30	36,139	8,685	4.16	19	22	0.86
T6	818,409	160,636	5.09	2,482,453	279,926	8.87	40,273	4,978	8.09	586	613	0.96
T7	3,231	818	3.95	6,385,711	1,067,307	5.98	350,605	60,950	5.75	2,510	4,442	0.57
UBUS	31,153	6,805	4.58	1,269	217	5.85	417,623	137,130	3.05	2,416	5,071	0.48
Total	253,294,692	10,567,724	23.97	13,459,561	1,609,097	8.36	864,182	214,013	4.04	9,984,275	3,659,491	2.73

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: Los Angeles (SC)

Calendar Year: 2023

Season: Annual

Vehicle Classification: EMFAC202x Categories

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

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Fuel Consumption	Energy Consumption
Los Angeles (SC)	2023	All Other Buses	Aggregate	Aggregate	Diesel	1475.194739	82728.49796	82728.49796	0	13129.23318	8.978276931	0
Los Angeles (SC)	2023	All Other Buses	Aggregate	Aggregate	Natural Gas	319.8885181	19541.02621	19541.02621	0	2847.007811	2.270823151	0
Los Angeles (SC)	2023	LDA	Aggregate	Aggregate	Gasoline	3363325.814	133132108	133132108	0	15650234.76	4688.007701	0
Los Angeles (SC)	2023	LDA	Aggregate	Aggregate	Diesel	9465.936918	279606.0153	279606.0153	0	38923.81519	7.064261604	0
Los Angeles (SC)	2023	LDA	Aggregate	Aggregate	Electricity	149786.3595	6967760.765	0	6967760.765	750975.1138	0	2690130.736
Los Angeles (SC)	2023	LDA	Aggregate	Aggregate	Plug-in Hybrid	84855.73206	3983693.819	2007927.363	1975766.456	350878.4521	73.44775691	596740.3568
Los Angeles (SC)	2023	LDT1	Aggregate	Aggregate	Gasoline	316618.4734	11498860.94	11498860.94	0	1394223.797	484.4224711	0
Los Angeles (SC)	2023	LDT1	Aggregate	Aggregate	Diesel	130.6972397	2649.862279	2649.862279	0	380.5267117	0.115446626	0
Los Angeles (SC)	2023	LDT1	Aggregate	Aggregate	Electricity	737.9430578	27045.91094	0	27045.91094	3402.440206	0	10441.95384
Los Angeles (SC)	2023	LDT1	Aggregate	Aggregate	Plug-in Hybrid	305.3619056	15799.36792	7268.198583	8531.16934	1262.67148	0.266803592	2576.66741
Los Angeles (SC)	2023	LDT2	Aggregate	Aggregate	Gasoline	1534013.272	63204640.7	63204640.7	0	7216719.715	2737.584197	0
Los Angeles (SC)	2023	LDT2	Aggregate	Aggregate	Diesel	4672.025415	203904.1794	203904.1794	0	22591.39192	6.6400753	0
Los Angeles (SC)	2023	LDT2	Aggregate	Aggregate	Electricity	7316.504913	271839.3938	0	271839.3938	37572.13556	0	104952.4421
Los Angeles (SC)	2023	LDT2	Aggregate	Aggregate	Plug-in Hybrid	11176.08817	559555.6037	267320.0773	292235.5263	46213.1246	9.840078762	88263.83897
Los Angeles (SC)	2023	LHD1	Aggregate	Aggregate	Gasoline	123582.2629	4875651.462	4875651.462	0	1841191.58	371.233764	0
Los Angeles (SC)	2023	LHD1	Aggregate	Aggregate	Diesel	52370.85258	2309885.271	2309885.271	0	658759.4429	114.1155095	0
Los Angeles (SC)	2023	LHD2	Aggregate	Aggregate	Gasoline	18992.20879	707424.2091	707424.2091	0	282955.6126	61.52516871	0
Los Angeles (SC)	2023	LHD2	Aggregate	Aggregate	Diesel	23383.97043	1017094.138	1017094.138	0	294140.931	59.76930672	0
Los Angeles (SC)	2023	MCY	Aggregate	Aggregate	Gasoline	143314.4155	942493.4885	942493.4885	0	286628.8309	23.0171675	0
Los Angeles (SC)	2023	MDV	Aggregate	Aggregate	Gasoline	930000.0312	35296866.04	35296866.04	0	4305992.452	1876.436347	0
Los Angeles (SC)	2023	MDV	Aggregate	Aggregate	Diesel	10587.09868	417108.5847	417108.5847	0	50133.20648	18.09042921	0
Los Angeles (SC)	2023	MDV	Aggregate	Aggregate	Electricity	7870.579333	292645.8028	0	292645.8028	40427.05271	0	112985.4333
Los Angeles (SC)	2023	MDV	Aggregate	Aggregate	Plug-in Hybrid	6232.488765	281038.1518	138168.2151	142869.9367	25771.34105	5.15879783	43150.9791
Los Angeles (SC)	2023	MH	Aggregate	Aggregate	Gasoline	15543.05122	150959.242	150959.242	0	1554.926844	31.21883005	0
Los Angeles (SC)	2023	MH	Aggregate	Aggregate	Diesel	5175.528798	54121.46359	54121.46359	0	517.5528798	5.43523898	0
Los Angeles (SC)	2023	Motor Coach	Aggregate	Aggregate	Diesel	588.8834422	83893.72533	83893.72533	0	13531.43846	15.25330866	0
Los Angeles (SC)	2023	OBUS	Aggregate	Aggregate	Gasoline	3808.788003	153201.689	153201.689	0	76206.23037	30.6795829	0
Los Angeles (SC)	2023	PTO	Aggregate	Aggregate	Diesel	0	105925.7735	105925.7735	0	0	21.63440519	0
Los Angeles (SC)	2023	PTO	Aggregate	Aggregate	Electricity	0	48.8251688	0	48.8251688	0	0	101.1422535
Los Angeles (SC)	2023	SBUS	Aggregate	Aggregate	Gasoline	1333.830023	59008.65529	59008.65529	0	5335.320093	6.626552175	0
Los Angeles (SC)	2023	SBUS	Aggregate	Aggregate	Diesel	1641.865076	33210.41415	33210.41415	0	23774.2063	4.55703273	0
Los Angeles (SC)	2023	SBUS	Aggregate	Aggregate	Electricity	1.644084418	19.09632517	0	19.09632517	23.80634238	0	22.08110642
Los Angeles (SC)	2023	SBUS	Aggregate	Aggregate	Natural Gas	1447.068317	36139.19841	36139.19841	0	20953.54924	8.685035105	0
Los Angeles (SC)	2023	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	26.65154111	1790.703118	1790.703118	0	612.4524148	0.196586528	0
Los Angeles (SC)	2023	T6 CAIRP Class 4	Aggregate	Aggregate	Electricity	0.033161573	1.223583518	0	1.223583518	0.76205295	0	1.282388103
Los Angeles (SC)	2023	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	35.75830225	2456.776702	2456.776702	0	821.7257857	0.269374438	0
Los Angeles (SC)	2023	T6 CAIRP Class 5	Aggregate	Aggregate	Electricity	0.037301746	1.424502151	0	1.424502151	0.857194116	0	1.492962747
Los Angeles (SC)	2023	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	112.9342461	6415.644096	6415.644096	0	2595.228976	0.693277012	0
Los Angeles (SC)	2023	T6 CAIRP Class 6	Aggregate	Aggregate	Electricity	0.261949426	7.705978424	0	7.705978424	6.019597799	0	8.07632246
Los Angeles (SC)	2023	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	194.6886565	40229.91644	40229.91644	0	4473.945327	4.09381301	0

Los Angeles (SC)	2023 T7 Single Dump Class 8	Aggregate	Aggregate	Diesel	1911.450598	113250.6944	113250.6944	0	18005.86463	18.94944797	0
Los Angeles (SC)	2023 T7 Single Dump Class 8	Aggregate	Aggregate	Electricity	0.247062018	9.340586715	0	9.340586715	2.327324209	0	16.48565667
Los Angeles (SC)	2023 T7 Single Dump Class 8	Aggregate	Aggregate	Natural Gas	122.3673668	7866.104109	7866.104109	0	1152.700595	1.456328892	0
Los Angeles (SC)	2023 T7 Single Other Class 8	Aggregate	Aggregate	Diesel	5784.088097	333857.5575	333857.5575	0	54486.10988	55.53194181	0
Los Angeles (SC)	2023 T7 Single Other Class 8	Aggregate	Aggregate	Electricity	6.077680923	198.4680162	0	198.4680162	57.2517543	0	350.2858734
Los Angeles (SC)	2023 T7 Single Other Class 8	Aggregate	Aggregate	Natural Gas	407.8227126	24928.84292	24928.84292	0	3841.689952	4.443684618	0
Los Angeles (SC)	2023 T7 SWCV Class 8	Aggregate	Aggregate	Diesel	1297.387966	84243.13249	84243.13249	0	5967.984645	32.37980749	0
Los Angeles (SC)	2023 T7 SWCV Class 8	Aggregate	Aggregate	Electricity	1.953624666	52.85602879	0	52.85602879	8.986673466	0	93.16567108
Los Angeles (SC)	2023 T7 SWCV Class 8	Aggregate	Aggregate	Natural Gas	3075.004889	198827.1073	198827.1073	0	14145.02249	33.98816564	0
Los Angeles (SC)	2023 T7 Tractor Class 8	Aggregate	Aggregate	Diesel	13527.62233	1083164.637	1083164.637	0	196556.3525	177.142381	0
Los Angeles (SC)	2023 T7 Tractor Class 8	Aggregate	Aggregate	Electricity	10.90088667	457.1278569	0	457.1278569	158.3898834	0	809.5023946
Los Angeles (SC)	2023 T7 Tractor Class 8	Aggregate	Aggregate	Natural Gas	440.9972137	36390.67059	36390.67059	0	6407.689516	6.644899225	0
Los Angeles (SC)	2023 T7 Utility Class 8	Aggregate	Aggregate	Diesel	449.6908764	20667.97054	20667.97054	0	5756.043217	3.355504004	0
Los Angeles (SC)	2023 T7 Utility Class 8	Aggregate	Aggregate	Electricity	0.125388186	3.572630519	0	3.572630519	1.604968777	0	6.316977807
Los Angeles (SC)	2023 T7IS	Aggregate	Aggregate	Gasoline	52.44057302	3231.284725	3231.284725	0	1049.230985	0.817685124	0
Los Angeles (SC)	2023 UBUS	Aggregate	Aggregate	Gasoline	438.7257597	31153.4128	31153.4128	0	1754.903039	6.805144169	0
Los Angeles (SC)	2023 UBUS	Aggregate	Aggregate	Diesel	9.742965344	1269.074735	1269.074735	0	38.97186138	0.216797099	0
Los Angeles (SC)	2023 UBUS	Aggregate	Aggregate	Electricity	53.5307883	2415.769471	0	2415.769471	214.1231532	0	5070.782408
Los Angeles (SC)	2023 UBUS	Aggregate	Aggregate	Natural Gas	3880.598718	417623.3217	417623.3217	0	15522.39487	137.1303086	0

EMFAC Fuel Usage: Year 2045

Vehicle type	GAS			DSL			NG			ELEC		
	VMT/day	Gallons/day	Miles/gallon	VMT/day	Gallons/day	Miles/gallon	VMT/day	Gallons/day	Miles/gallon	VMT/day	kWh/day	Miles/kWh
All other buses	0	0	0.00	78,419	7,571	10.36	23,381	2,416	9.68	0	0	0.00
LDA	108,117,528	3,027,540	35.71	62,748	1,188	52.80	0	0	0.00	17,983,978	6,692,562	2.69
LDT1	9,370,264	304,759	30.75	107	4	28.38	0	0	0.00	414,097	149,137	2.78
LDT2	72,406,574	2,427,086	29.83	272,693	7,118	38.31	0	0	0.00	3,197,704	1,137,329	2.81
LHD1	3,031,543	184,715	16.41	2,242,373	104,262	21.51	0	0	0.00	4,295,710	2,409,511	1.78
LHD2	412,342	28,263	14.59	1,040,139	56,502	18.41	0	0	0.00	1,119,250	628,137	1.78
MCY	1,104,114	26,368	41.87	0	0	0.00	0	0	0.00	0	0	0.00
MDV	39,650,934	1,615,057	24.55	421,502	14,314	29.45	0	0	0.00	2,537,769	921,926	2.75
MH	136,858	28,276	4.84	74,485	7,494	9.94	0	0	0.00	0	0	0.00
Motor coach	0	0	0.00	94,426	14,650	6.45	0	0	0.00	0	0	0.00
OBUS	45,564	7,940	5.74	0	0	0.00	0	0	0.00	49,743	52,362	0.95
PTO	0	0	0.00	86,774	14,880	5.83	0	0	0.00	83,559	173,095	0.48
SBUS	42,808	4,280	10.00	10,449	1,255	8.32	28,949	6,233	4.64	53,474	61,832	0.86
T6	324,385	54,281	5.98	2,015,120	203,037	9.92	40,812	4,914	8.31	2,244,211	2,354,184	0.95
T7	1,109	210	5.27	9,452,790	1,255,671	7.53	383,713	57,956	6.62	1,777,301	3,159,019	0.56
UBUS	11,850	780	15.20	0	0	0.00	4,057	294	13.81	645,880	1,357,376	0.48
Total	234,655,872	7,709,555	30.44	15,852,024	1,687,947	9.39	480,913	71,813	6.70	34,402,677	19,096,470	1.80

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: Los Angeles (SC)

Calendar Year: 2045

Season: Annual

Vehicle Classification: EMFAC202x Categories

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

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Fuel Consumption	Energy Consumption
Los Angeles (SC)	2045	All Other Buses	Aggregate	Aggregate	Diesel	1566.468058	78418.78404	78418.78404	0	13941.56572	7.570922049	0
Los Angeles (SC)	2045	All Other Buses	Aggregate	Aggregate	Natural Gas	454.7827908	23381.39909	23381.39909	0	4047.566838	2.415885198	0
Los Angeles (SC)	2045	LDA	Aggregate	Aggregate	Gasoline	2814427.421	106056173.9	106056173.9	0	13143318.46	2951.51673	0
Los Angeles (SC)	2045	LDA	Aggregate	Aggregate	Diesel	1795.526224	62747.89427	62747.89427	0	8123.381643	1.188300724	0
Los Angeles (SC)	2045	LDA	Aggregate	Aggregate	Electricity	382921.1284	15000880.37	0	15000880.37	1809533.524	0	5791577.913
Los Angeles (SC)	2045	LDA	Aggregate	Aggregate	Plug-in Hybrid	131778.1697	5044452.052	2061354.261	2983097.791	544902.7317	76.0231063	900984.4436
Los Angeles (SC)	2045	LDT1	Aggregate	Aggregate	Gasoline	259917.9196	9282487.489	9282487.489	0	1174745.943	301.5005572	0
Los Angeles (SC)	2045	LDT1	Aggregate	Aggregate	Diesel	2.866037182	106.770131	106.770131	0	13.32570258	0.003761626	0
Los Angeles (SC)	2045	LDT1	Aggregate	Aggregate	Electricity	7356.239999	286332.4888	0	286332.4888	34703.58093	0	110547.973
Los Angeles (SC)	2045	LDT1	Aggregate	Aggregate	Plug-in Hybrid	5623.180904	215540.5053	87776.13273	127764.3726	23251.85304	3.2588151	38588.64852
Los Angeles (SC)	2045	LDT2	Aggregate	Aggregate	Gasoline	1911088.049	71609426.54	71609426.54	0	8875043.956	2397.396819	0
Los Angeles (SC)	2045	LDT2	Aggregate	Aggregate	Diesel	7230.623887	272692.5905	272692.5905	0	33745.09251	7.117588956	0
Los Angeles (SC)	2045	LDT2	Aggregate	Aggregate	Electricity	74994.05199	2040708.166	0	2040708.166	355121.4823	0	787881.7808
Los Angeles (SC)	2045	LDT2	Aggregate	Aggregate	Plug-in Hybrid	51509.8284	1954142.793	797147.1766	1156995.616	212993.1404	29.68925089	349447.1601
Los Angeles (SC)	2045	LHD1	Aggregate	Aggregate	Gasoline	87404.51141	3031542.972	3031542.972	0	1302196.987	184.7146186	0
Los Angeles (SC)	2045	LHD1	Aggregate	Aggregate	Diesel	65755.33342	2242372.95	2242372.95	0	827119.3742	104.261678	0
Los Angeles (SC)	2045	LHD1	Aggregate	Aggregate	Electricity	100267.979	4295709.801	0	4295709.801	1397011.162	0	2409510.804
Los Angeles (SC)	2045	LHD2	Aggregate	Aggregate	Gasoline	12503.63157	412342.2107	412342.2107	0	186285.48	28.26292289	0
Los Angeles (SC)	2045	LHD2	Aggregate	Aggregate	Diesel	31657.6563	1040139.044	1040139.044	0	398213.4909	56.50203115	0
Los Angeles (SC)	2045	LHD2	Aggregate	Aggregate	Electricity	27262.50846	1119250.442	0	1119250.442	360788.2671	0	628136.8075
Los Angeles (SC)	2045	MCY	Aggregate	Aggregate	Gasoline	198119.7994	1104113.555	1104113.555	0	396239.5989	26.36792342	0
Los Angeles (SC)	2045	MDV	Aggregate	Aggregate	Gasoline	1110676.861	39175764.64	39175764.64	0	5117549.392	1597.072111	0
Los Angeles (SC)	2045	MDV	Aggregate	Aggregate	Diesel	11954.31847	421502.098	421502.098	0	55150.53789	14.31385935	0
Los Angeles (SC)	2045	MDV	Aggregate	Aggregate	Electricity	68822.17417	1849363.86	0	1849363.86	324417.6345	0	714007.0862
Los Angeles (SC)	2045	MDV	Aggregate	Aggregate	Plug-in Hybrid	32590.38838	1163574.075	475168.9692	688405.1058	134761.2559	17.98530859	207918.8597
Los Angeles (SC)	2045	MH	Aggregate	Aggregate	Gasoline	12978.671	136858.188	136858.188	0	1298.386246	0	0
Los Angeles (SC)	2045	MH	Aggregate	Aggregate	Diesel	7803.790392	74484.82661	74484.82661	0	780.3790392	7.494474774	0
Los Angeles (SC)	2045	Motor Coach	Aggregate	Aggregate	Diesel	743.5206953	94426.05915	94426.05915	0	17086.10558	14.65019655	0
Los Angeles (SC)	2045	OBUS	Aggregate	Aggregate	Gasoline	1725.048415	45564.26637	45564.26637	0	34514.76868	7.939901316	0
Los Angeles (SC)	2045	OBUS	Aggregate	Aggregate	Electricity	934.8738575	49743.45942	0	49743.45942	18704.95614	0	52361.56604
Los Angeles (SC)	2045	PTO	Aggregate	Aggregate	Diesel	0	86774.24943	86774.24943	0	0	14.88001556	0
Los Angeles (SC)	2045	PTO	Aggregate	Aggregate	Electricity	0	83559.42403	0	83559.42403	0	0	173094.9151
Los Angeles (SC)	2045	SBUS	Aggregate	Aggregate	Gasoline	1037.720981	42807.76107	42807.76107	0	4150.883924	4.279963527	0
Los Angeles (SC)	2045	SBUS	Aggregate	Aggregate	Diesel	501.0257817	10448.90789	10448.90789	0	7254.853319	1.255499589	0
Los Angeles (SC)	2045	SBUS	Aggregate	Aggregate	Electricity	1771.16981	53473.8869	0	53473.8869	19653.63794	0	61831.92721
Los Angeles (SC)	2045	SBUS	Aggregate	Aggregate	Natural Gas	1405.553761	28949.4656	28949.4656	0	20352.41846	6.233357512	0
Los Angeles (SC)	2045	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	16.76691609	1205.894994	1205.894994	0	385.3037316	0.11782607	0
Los Angeles (SC)	2045	T6 CAIRP Class 4	Aggregate	Aggregate	Electricity	22.11208233	1700.405894	0	1700.405894	508.135652	0	1787.047553

Los Angeles (SC)	2045 T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	20.62259728	1657.217467	1657.217467	0	473.9072855	0.161865363	0
Los Angeles (SC)	2045 T6 CAIRP Class 5	Aggregate	Aggregate	Electricity	27.08509357	2329.704729	0	2329.704729	622.4154503	0	2448.411376
Los Angeles (SC)	2045 T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	93.41587666	4309.279838	4309.279838	0	2146.696846	0.422314229	0
Los Angeles (SC)	2045 T6 CAIRP Class 6	Aggregate	Aggregate	Electricity	124.1931978	6108.661928	0	6108.661928	2853.959686	0	6419.919729
Los Angeles (SC)	2045 T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	243.9203254	49585.03027	49585.03027	0	5605.289078	4.257422587	0
Los Angeles (SC)	2045 T6 CAIRP Class 7	Aggregate	Aggregate	Electricity	74.36047885	15728.93292	0	15728.93292	1708.803804	0	16530.37735
Los Angeles (SC)	2045 T6 CAIRP Class 7	Aggregate	Aggregate	Natural Gas	0.16061549	32.63336028	32.63336028	0	3.690943962	0.003145191	0
Los Angeles (SC)	2045 T6 Instate Delivery Class 4	Aggregate	Aggregate	Diesel	3004.158813	98933.70774	98933.70774	0	42869.34627	10.12555932	0
Los Angeles (SC)	2045 T6 Instate Delivery Class 4	Aggregate	Aggregate	Electricity	3047.545235	108313.2221	0	108313.2221	43488.4705	0	113612.5888
Los Angeles (SC)	2045 T6 Instate Delivery Class 4	Aggregate	Aggregate	Natural Gas	22.75230286	753.8204767	753.8204767	0	324.6753618	0.09088905	0
Los Angeles (SC)	2045 T6 Instate Delivery Class 5	Aggregate	Aggregate	Diesel	3112.352681	102544.4436	102544.4436	0	44413.27275	10.51257728	0
Los Angeles (SC)	2045 T6 Instate Delivery Class 5	Aggregate	Aggregate	Electricity	3161.53139	112433.117	0	112433.117	45115.05293	0	117934.0549
Los Angeles (SC)	2045 T6 Instate Delivery Class 5	Aggregate	Aggregate	Natural Gas	22.91705129	762.6309168	762.6309168	0	327.0263219	0.091785549	0
Los Angeles (SC)	2045 T6 Instate Delivery Class 6	Aggregate	Aggregate	Diesel	9524.698853	313749.7916	313749.7916	0	135917.4526	32.14847043	0
Los Angeles (SC)	2045 T6 Instate Delivery Class 6	Aggregate	Aggregate	Electricity	9678.455775	343835.7519	0	343835.7519	138111.5639	0	360658.3677
Los Angeles (SC)	2045 T6 Instate Delivery Class 6	Aggregate	Aggregate	Natural Gas	70.46508782	2342.770124	2342.770124	0	1005.536803	0.282031477	0
Los Angeles (SC)	2045 T6 Instate Delivery Class 7	Aggregate	Aggregate	Diesel	3252.973597	164782.7139	164782.7139	0	46419.93324	16.94119614	0
Los Angeles (SC)	2045 T6 Instate Delivery Class 7	Aggregate	Aggregate	Electricity	1876.236637	101504.7949	0	101504.7949	26773.89682	0	106471.0503
Los Angeles (SC)	2045 T6 Instate Delivery Class 7	Aggregate	Aggregate	Natural Gas	82.87967629	4163.06291	4163.06291	0	1182.692981	0.489227895	0
Los Angeles (SC)	2045 T6 Instate Other Class 4	Aggregate	Aggregate	Diesel	3769.430844	146070.7844	146070.7844	0	43574.62056	14.8478022	0
Los Angeles (SC)	2045 T6 Instate Other Class 4	Aggregate	Aggregate	Electricity	3823.254057	169030.7607	0	169030.7607	44196.8169	0	177255.4703
Los Angeles (SC)	2045 T6 Instate Other Class 4	Aggregate	Aggregate	Natural Gas	28.39685652	1119.764959	1119.764959	0	328.2676613	0.132138341	0
Los Angeles (SC)	2045 T6 Instate Other Class 5	Aggregate	Aggregate	Diesel	8799.764316	340809.6285	340809.6285	0	101725.2755	34.67159388	0
Los Angeles (SC)	2045 T6 Instate Other Class 5	Aggregate	Aggregate	Electricity	8899.70149	393852.0052	0	393852.0052	102880.5492	0	413016.0815
Los Angeles (SC)	2045 T6 Instate Other Class 5	Aggregate	Aggregate	Natural Gas	64.95899981	2578.426767	2578.426767	0	750.9260377	0.303589665	0
Los Angeles (SC)	2045 T6 Instate Other Class 6	Aggregate	Aggregate	Diesel	7802.170106	302177.7993	302177.7993	0	90193.08642	30.73312517	0
Los Angeles (SC)	2045 T6 Instate Other Class 6	Aggregate	Aggregate	Electricity	7897.507276	349196.0061	0	349196.0061	91295.18411	0	366187.2079
Los Angeles (SC)	2045 T6 Instate Other Class 6	Aggregate	Aggregate	Natural Gas	57.76174883	2290.404128	2290.404128	0	667.7258165	0.269776667	0
Los Angeles (SC)	2045 T6 Instate Other Class 7	Aggregate	Aggregate	Diesel	4792.55537	189097.6113	189097.6113	0	55401.94007	19.44535004	0
Los Angeles (SC)	2045 T6 Instate Other Class 7	Aggregate	Aggregate	Electricity	2580.627749	142396.248	0	142396.248	29832.05678	0	149324.9738
Los Angeles (SC)	2045 T6 Instate Other Class 7	Aggregate	Aggregate	Natural Gas	121.3724083	4630.783333	4630.783333	0	1403.06504	0.556982203	0
Los Angeles (SC)	2045 T6 Instate Tractor Class 6	Aggregate	Aggregate	Diesel	104.7851826	4927.040487	4927.040487	0	1211.316711	0.49720176	0
Los Angeles (SC)	2045 T6 Instate Tractor Class 6	Aggregate	Aggregate	Electricity	105.2205584	5945.306083	0	5945.306083	1216.349655	0	6234.59317
Los Angeles (SC)	2045 T6 Instate Tractor Class 6	Aggregate	Aggregate	Natural Gas	0.771429788	37.25973603	37.25973603	0	8.917728348	0.00429197	0
Los Angeles (SC)	2045 T6 Instate Tractor Class 7	Aggregate	Aggregate	Diesel	2215.437144	128697.0652	128697.0652	0	25610.45339	11.85072257	0
Los Angeles (SC)	2045 T6 Instate Tractor Class 7	Aggregate	Aggregate	Electricity	432.1693691	30736.34614	0	30736.34614	4995.877907	0	32231.91725
Los Angeles (SC)	2045 T6 Instate Tractor Class 7	Aggregate	Aggregate	Natural Gas	55.01520117	3129.250917	3129.250917	0	635.9757256	0.353143683	0
Los Angeles (SC)	2045 T6 OOS Class 4	Aggregate	Aggregate	Diesel	22.50323242	1654.417109	1654.417109	0	517.124281	0.15165611	0
Los Angeles (SC)	2045 T6 OOS Class 5	Aggregate	Aggregate	Diesel	27.67960795	2269.56277	2269.56277	0	636.0773906	0.208045092	0
Los Angeles (SC)	2045 T6 OOS Class 6	Aggregate	Aggregate	Diesel	125.3254073	5930.432451	5930.432451	0	2879.977859	0.544707905	0
Los Angeles (SC)	2045 T6 OOS Class 7	Aggregate	Aggregate	Diesel	154.5231194	43121.61834	43121.61834	0	3550.941284	3.537957889	0
Los Angeles (SC)	2045 T6 Public Class 4	Aggregate	Aggregate	Diesel	383.0423523	12932.02653	12932.02653	0	1965.007267	1.384703017	0
Los Angeles (SC)	2045 T6 Public Class 4	Aggregate	Aggregate	Electricity	314.5461205	12412.40536	0	12412.40536	1613.621598	0	13033.75997
Los Angeles (SC)	2045 T6 Public Class 4	Aggregate	Aggregate	Natural Gas	71.35166567	2425.377196	2425.377196	0	366.0340449	0.305479533	0
Los Angeles (SC)	2045 T6 Public Class 5	Aggregate	Aggregate	Diesel	266.1683131	8998.12313	8998.12313	0	1365.443446	0.966879679	0
Los Angeles (SC)	2045 T6 Public Class 5	Aggregate	Aggregate	Electricity	220.184689	8692.910786	0	8692.910786	1129.547454	0	9128.070614
Los Angeles (SC)	2045 T6 Public Class 5	Aggregate	Aggregate	Natural Gas	52.49556274	1770.094123	1770.094123	0	269.3022369	0.22344445	0
Los Angeles (SC)	2045 T6 Public Class 6	Aggregate	Aggregate	Diesel	318.8432592	10751.32038	10751.32038	0	1635.66592	1.148696286	0
Los Angeles (SC)	2045 T6 Public Class 6	Aggregate	Aggregate	Electricity	260.7693153	10276.41854	0	10276.41854	1337.746588	0	10790.84744
Los Angeles (SC)	2045 T6 Public Class 6	Aggregate	Aggregate	Natural Gas	61.7428765	2082.759753	2082.759753	0	316.7409564	0.263253549	0
Los Angeles (SC)	2045 T6 Public Class 7	Aggregate	Aggregate	Diesel	1587.418027	65313.8692	65313.8692	0	8143.454478	6.807995573	0
Los Angeles (SC)	2045 T6 Public Class 7	Aggregate	Aggregate	Electricity	1052.116997	50838.2427	0	50838.2427	5397.360196	0	53383.16252
Los Angeles (SC)	2045 T6 Public Class 7	Aggregate	Aggregate	Natural Gas	306.0171353	12603.26168	12603.26168	0	1569.867904	1.53480043	0
Los Angeles (SC)	2045 T6 Utility Class 5	Aggregate	Aggregate	Diesel	272.8435329	10774.34306	10774.34306	0	3492.397222	1.074087146	0
Los Angeles (SC)	2045 T6 Utility Class 5	Aggregate	Aggregate	Electricity	369.9967895	15222.93515	0	15222.93515	4735.958905	0	15984.98252
Los Angeles (SC)	2045 T6 Utility Class 5	Aggregate	Aggregate	Natural Gas	1.56838004	61.9339019	61.9339019	0	20.07526451	0.006911932	0
Los Angeles (SC)	2045 T6 Utility Class 6	Aggregate	Aggregate	Diesel	51.60297992	2037.04718	2037.04718	0	660.518143	0.203085985	0
Los Angeles (SC)	2045 T6 Utility Class 6	Aggregate	Aggregate	Electricity	69.89844136	2875.906891	0	2875.906891	894.7000494	0	3019.87238
Los Angeles (SC)	2045 T6 Utility Class 6	Aggregate	Aggregate	Natural Gas	0.296628191	11.70951022	11.70951022	0	3.79684085	0.001306872	0
Los Angeles (SC)	2045 T6 Utility Class 7	Aggregate	Aggregate	Diesel	57.48714477	2789.493591	2789.493591	0	735.8354531	0.276439256	0
Los Angeles (SC)	2045 T6 Utility Class 7	Aggregate	Aggregate	Electricity	78.02190766	4046.314529	0	4046.314529	998.6804181	0	4248.869643
Los Angeles (SC)	2045 T6 Utility Class 7	Aggregate	Aggregate	Natural Gas	0.330451997	16.03478016	16.03478016	0	4.229785565	0.001756044	0
Los Angeles (SC)	2045 T6T5	Aggregate	Aggregate	Gasoline	6921.078713	324385.2908	324385.2908	0	138476.9429	54.28060005	0
Los Angeles (SC)	2045 T6T5	Aggregate	Aggregate	Electricity	5343.718637	356734.8832	0	356734.8832	106917.1225	0	374482.6668
Los Angeles (SC)	2045 T7 CAIRP Class 8	Aggregate	Aggregate	Diesel	9020.673007	1899530.61	1899530.61	0	207295.0657	253.5777357	0
Los Angeles (SC)	2045 T7 CAIRP Class 8	Aggregate	Aggregate	Electricity	2537.220482	554014.3214	0	554014.3214	58305.32668	0	985470.2506
Los Angeles (SC)	2045 T7 CAIRP Class 8	Aggregate	Aggregate	Natural Gas	33.00739418	6950.252201	6950.252201	0	758.5099182	1.133146284	0
Los Angeles (SC)	2045 T7 NNOOS Class 8	Aggregate	Aggregate	Diesel	10008.80315	2907927.726	2907927.726	0	230002.2965	368.8921792	0
Los Angeles (SC)	2045 T7 NNOOS Class 8	Aggregate	Aggregate	Diesel	4310.903217	1055871.545	1055871.545	0	99064.55593	135.4635023	0

Los Angeles (SC)	2045 T7 POLA Class 8	Aggregate	Aggregate	Diesel	8727.226923	1431143.222	1431143.222	0	142777.4325	196.8024176	0
Los Angeles (SC)	2045 T7 POLA Class 8	Aggregate	Aggregate	Electricity	1618.980179	262322.0942	0	262322.0942	26486.51572	0	466327.2853
Los Angeles (SC)	2045 T7 POLA Class 8	Aggregate	Aggregate	Natural Gas	344.0521319	56408.31138	56408.31138	0	5628.692878	8.348610361	0
Los Angeles (SC)	2045 T7 Public Class 8	Aggregate	Aggregate	Diesel	1430.027159	54353.37354	54353.37354	0	7336.039327	8.565370548	0
Los Angeles (SC)	2045 T7 Public Class 8	Aggregate	Aggregate	Electricity	1681.661047	79286.44298	0	79286.44298	8626.921172	0	140895.9109
Los Angeles (SC)	2045 T7 Public Class 8	Aggregate	Aggregate	Natural Gas	1808.901459	73800.96255	73800.96255	0	9279.664484	11.79578563	0
Los Angeles (SC)	2045 T7 Single Concrete/Transit Mix Cl	Aggregate	Aggregate	Diesel	364.7792526	23918.43081	23918.43081	0	3436.220559	3.46728724	0
Los Angeles (SC)	2045 T7 Single Concrete/Transit Mix Cl	Aggregate	Aggregate	Electricity	471.0305918	33752.44234	0	33752.44234	4437.108175	0	59922.16493
Los Angeles (SC)	2045 T7 Single Concrete/Transit Mix Cl	Aggregate	Aggregate	Natural Gas	28.59819273	1871.008791	1871.008791	0	269.3949755	0.295219349	0
Los Angeles (SC)	2045 T7 Single Dump Class 8	Aggregate	Aggregate	Diesel	1403.39651	67774.6051	67774.6051	0	13219.99513	10.24972474	0
Los Angeles (SC)	2045 T7 Single Dump Class 8	Aggregate	Aggregate	Electricity	955.5042281	61518.7199	0	61518.7199	9000.849829	0	109216.8336
Los Angeles (SC)	2045 T7 Single Dump Class 8	Aggregate	Aggregate	Natural Gas	108.7554405	5264.757947	5264.757947	0	1024.47625	0.880789546	0
Los Angeles (SC)	2045 T7 Single Other Class 8	Aggregate	Aggregate	Diesel	7414.149175	313674.3614	313674.3614	0	69841.28523	47.28566913	0
Los Angeles (SC)	2045 T7 Single Other Class 8	Aggregate	Aggregate	Electricity	6008.913264	325550.7993	0	325550.7993	56603.96295	0	577964.3586
Los Angeles (SC)	2045 T7 Single Other Class 8	Aggregate	Aggregate	Natural Gas	579.5456046	24509.30081	24509.30081	0	5459.319596	4.135811774	0
Los Angeles (SC)	2045 T7 SWCV Class 8	Aggregate	Aggregate	Diesel	80.07580593	5198.37118	5198.37118	0	368.3487073	1.940209144	0
Los Angeles (SC)	2045 T7 SWCV Class 8	Aggregate	Aggregate	Electricity	1682.144066	108674.3056	0	108674.3056	7737.862703	0	192734.1782
Los Angeles (SC)	2045 T7 SWCV Class 8	Aggregate	Aggregate	Natural Gas	2591.062411	167951.0946	167951.0946	0	11918.88709	23.51793672	0
Los Angeles (SC)	2045 T7 Tractor Class 8	Aggregate	Aggregate	Diesel	26211.34763	1681420.433	1681420.433	0	380850.8811	227.6425796	0
Los Angeles (SC)	2045 T7 Tractor Class 8	Aggregate	Aggregate	Electricity	4797.875464	342436.2956	0	342436.2956	69713.1305	0	609172.9963
Los Angeles (SC)	2045 T7 Tractor Class 8	Aggregate	Aggregate	Natural Gas	735.3069311	46957.15715	46957.15715	0	10684.00971	7.848229578	0
Los Angeles (SC)	2045 T7 Utility Class 8	Aggregate	Aggregate	Diesel	295.6355721	11977.31597	11977.31597	0	3784.135322	1.784564589	0
Los Angeles (SC)	2045 T7 Utility Class 8	Aggregate	Aggregate	Electricity	181.0304523	8599.360194	0	8599.360194	2317.18979	0	15281.48624
Los Angeles (SC)	2045 T7IS	Aggregate	Aggregate	Gasoline	9.692067137	1108.506875	1108.506875	0	193.9188793	0.210279495	0
Los Angeles (SC)	2045 T7IS	Aggregate	Aggregate	Electricity	7.136562826	1146.354944	0	1146.354944	142.788349	0	2033.90996
Los Angeles (SC)	2045 UBUS	Aggregate	Aggregate	Gasoline	204.0812423	11849.73521	11849.73521	0	816.3249694	0.779784021	0
Los Angeles (SC)	2045 UBUS	Aggregate	Aggregate	Electricity	6147.779423	645879.5614	0	645879.5614	24591.11769	0	1357376.332
Los Angeles (SC)	2045 UBUS	Aggregate	Aggregate	Natural Gas	58.26445875	4057.036256	4057.036256	0	233.057835	0.293783032	0

