

APPENDIX 5.6 GP-1: ENERGY MODELING

Modeling Inputs

	Baseline Year 2023				Proposed GP Year 2048				Change from Baseline Year			
	City	BIG	Remaining SOI	Total	City	BIG	Remaining SOI	Total	City	BIG	Remaining SOI	Total
Households	8,769	108	3,109	11,986	15,170	0	3,144	18,314	6,401	(108)	35	6,328
Non-Residential Square Footage	10,157,592	0	913,999	11,071,591	16,592,514	9,000,000	820,275	26,412,789	6,434,922	9,000,000	(93,724)	15,341,198
Population	24,867	325	9,110	34,302	43,618	0	9,215	52,833	18,751	(325)	105	18,531
Employment	13,560	0	764	14,324	19,098	5,373	764	25,235	5,538	5,373	0	10,911
Service Population	38,427	325	9,874	48,626	62,716	5,373	9,979	78,068	24,289	5,048	105	29,442

Growth Rates from Baseline	Existing - City	Existing - BIG	Existing - City+BIG	Existing - SOI	2048 - City	2048 - BIG	2048 - City+BIG	2048 - City+SOI	2048 - SOI	2048 - Combined
Housing Growth Rate	1.00	1.00	1.00	1.00	1.73	(1.00)	1.71	1.54	1.01	1.53
Non-Residential Sq Ft Growth Rate	1.00	0	1.00	1.00	1.63		2.52	1.57	0.90	2.39
Population Growth Rate	1.00	1.00	1.00	1.00	1.75	(1.00)	1.73	1.55	1.01	1.54
Employment Growth Rate	1.00	0	1.00	1.00	1.41		1.80	1.39	1.00	1.76
Service Population Growth Rate	1.00	1.00	1.00	1.00	1.63	15.53	1.76	1.51	1.01	1.61

	City+BIG+SOI	Proposed GP
ELECTRICITY ¹	2023	2048
City & BIG		
Residential Electricity (kWh) (City & BIG)	58,919,082	100,687,448
Nonresidential Electricity (kWh) (City)	74,133,529	121,097,758
Nonresidential Electricity (kWh) (BIG) ²	0	84,378,000
Remaining SOI		
Residential Electricity (kWh)	20,889,432	21,124,597
Nonresidential Electricity (kWh)	6,670,673	5,986,643
Total Electricity (kWh)	160,612,715	333,274,446
NATURAL GAS ¹	2023	2048
City & BIG		
Residential Natural Gas (Therms) (City & BIG)	2,861,769	4,890,508
Nonresidential Natural Gas (Therms) (City)	1,927,933	3,149,295
Transportation (Therms)	275,650	275,650
CNG (Therms)	193,628	193,628
Other (Therms)	214,886	214,886
Remaining SOI		
Residential Natural Gas (Therms)	1,014,624	1,026,047
Nonresidential Natural Gas (Therms)	173,479	155,690
Total Natural Gas (Therms)	6,661,970	9,905,704

Sources:

¹ Non-BIG project energy use generally utilizes a five-year (2019-2023) average annual electricity and natural gas consumption based on data provided by Southern California Edison (SCE) Southwest Gas, respectively. Forecasts in energy are based on the change in population for residential energy use and employment for non-residential energy use.

Electricity and Natural Gas Use Consumption for City of Barstow+SOI

Southern California Edison Electricity Use

	Annual KWH					Average 2019-2023 Annual
	2019	2020	2021	2022	2023	KWH
Residential	53,811,718	60,538,633	61,934,930	61,573,410	56,736,719	58,919,082
Commercial + Industrial	73,621,198	69,094,806	73,348,512	76,796,597	77,806,532	74,133,529

Southwest Gas Natural Gas Use

	Annual Therms					Average 2019-2023 Annual
	2019	2020	2021	2022	2023	Therms
Residential	3,048,505	2,949,346	2,614,839	2,762,414	2,933,743	2,861,769
Commercial/Industrial	1,955,906	1,770,364	2,021,743	1,795,750	2,095,903	1,927,933
Transportation ¹	368,867	494,055	164,465	160,413	190,452	275,650
CNG ²				60,508	326,747	193,628
Other ³	119,492	121,140	131,456	127,506	574,837	214,886

¹ Customers that procure their own gas, and it is delivered to the customer on Southwest Gas' system

² Defined as 'Natural Gas for Motor Vehicles'

³ Defined as 'SML Electric Power Generation Gas Srvc * Electric Generation' & 'Military'

Sphere of Influence (SOI) and Planning Area Outside City and SOI

Area	Households	Nonresidential
		SqFt
City	8,769	10,157,592
SOI	3,109	913,999

Electricity*

Residential Annual KWH/Household:	6,719	kWH/household
Non-Residential Annual KWH/Sqft:	7.30	kWH/SqFt

* Annual use divided by residents/employees within the City of Barstow boundaries.

Area	Residential	Commercial + Industrial
	Annual kWH	Annual kWH
SOI	20,889,432	6,670,673

Natural Gas*

Residential Annual Therms/Household:	326	therm/household
Non-Residential Annual Therms/SqFt:	0.19	therm/SqFt

* Annual use divided by residents/employees within the City of Barstow boundaries.

Area	Residential	Commercial + Industrial
	Annual Therms	Annual Therms
SOI	1,014,624	173,479

Disclaimer. The 15/15 Rule is intended to protect customer confidentiality by reducing the possibility of identifying customers through the release of usage information. The utilities apply the 15/15 Rule in releasing aggregated customer information. The rule was initially implemented by the California Public Utilities Commission during Direct Access proceedings in 1997 and was adopted through D. 97-10-031. The 15/15 rule requires that any aggregated information provided by the Utilities must be made up of at least 15 customers, and a customer's load must be less than 15% of an assigned category. If the number of customers in the compiled data is below 15, or if a single customer's load is more than 15% of the total data, categories (e.g., rate classes) must be combined before the information is released. The rule further requires that if the 15/15 rule is triggered for a second time after the data has been screened once already using the 15/15 rule, then the customer is dropped from the information provided.

Operation-Related Annual Vehicle Fuel/Energy Usage Summary

Existing - Baseline Year 2023												
Year	VTMT	Gas Gallons	Miles/Gal	VTMT	Diesel Gallons	Miles/Gal	VTMT	CNG Gallons	Miles/Gal	VTMT	Electricity kWh	Miles/kWh
Existing Baseline	386,159,753	15,646,576	24.68	63,480,237	9,709,560	6.54	2,765,769	500,384	5.53	12,422,540	4,528,277	2.74
Existing - Year 2048												
Year	VTMT	Gas Gallons	Miles/Gal	VTMT	Diesel Gallons	Miles/Gal	VTMT	CNG Gallons	Miles/Gal	VTMT	Electricity kWh	Miles/kWh
Existing Year 2048	333,290,058	10,379,619	32.11	76,434,342	9,663,234	7.91	1,639,574	223,587	7.33	53,464,325	12,756,657	4.19
Proposed Project (GP 2048)												
Year	VTMT	Gas Gallons	Miles/Gal	VTMT	Diesel Gallons	Miles/Gal	VTMT	CNG Gallons	Miles/Gal	VTMT	Electricity kWh	Miles/kWh
Proposed Project	541,710,832	16,870,447	32.11	124,232,062	15,706,075	7.91	2,664,870	363,406	7.33	86,897,894	20,733,949	4.19
Net Change												
Year	VTMT	Gas Gallons	Miles/Gal	VTMT	Diesel Gallons	Miles/Gal	VTMT	CNG Gallons	Miles/Gal	VTMT	Electricity kWh	Miles/kWh
From Existing Baseline	155,551,079	1,223,871	7.43	60,751,824	5,996,515	1.37	-100,899	-136,978	1.81	74,475,355	16,205,672	1.45
From Existing 2048	208,420,774	6,490,828	0.00	47,797,720	6,042,841	0.00	1,025,297	139,819	0.00	33,433,569	7,977,292	0.00

Notes

* VMT based on VMT data provided by Fehr & Peers.

** Fuel consumption rates based on data obtained from EMFAC2021 Web Database, Version 1.0.2. <https://arb.ca.gov/emfac/emissions-inventory/ac1904f619dde9381b90bd72b3a629ed18799ae4>

***VMT per year based on a conversion of VMT x 347 days per year to account for less travel on weekend, consistent with CARB statewide GHG emissions inventory methodology. California Air Resources Board. 2008, October. Climate Change Proposed Scoping Plan: A Framework for Change.

Existing Baseline Year 2023: VMT

Vehicle type	Fleet percent	VMT
LDA	48.82%	226,942,884
LDT1	3.47%	16,108,851
LDT2	18.44%	85,699,445
MDV	14.03%	65,207,414
LHD1	1.05%	4,882,279
LHD2	0.29%	1,324,914
MHD	1.01%	4,705,792
HHD	11.92%	55,416,222
OBUS	0.09%	418,578
UBUS	0.16%	737,199
MCY	0.32%	1,469,647
SBUS	0.14%	648,241
MH	0.09%	415,664
All Other Buses	0.04%	172,663
Motor Coach	0.02%	101,564
PTO	0.12%	576,940
	100%	464,828,299

Vehicle type	Gas percent	Diesel percent	CNG percent	Electricity percent
LDA	94.88%	0.22%	0.00%	4.90%
LDT1	99.79%	0.02%	0.00%	0.19%
LDT2	98.92%	0.30%	0.00%	0.79%
MDV	97.67%	1.46%	0.00%	0.87%
LHD1	56.87%	43.13%	0.00%	0.00%
LHD2	31.45%	68.55%	0.00%	0.00%
MHD	15.08%	83.90%	0.99%	0.03%
HHD	0.01%	96.41%	3.54%	0.04%
OBUS	60.42%	36.12%	3.46%	0.00%
UBUS	17.71%	1.18%	80.99%	0.11%
MCY	100.00%	0.00%	0.00%	0.00%
SBUS	37.68%	43.52%	18.77%	0.02%
MH	72.10%	27.90%	0.00%	0.00%
All Other Buses	0.00%	86.12%	13.88%	0.00%
Motor Coach	0.00%	100.00%	0.00%	0.00%
PTO	0.00%	99.96%	0.00%	0.04%

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Vehicle type	Gasoline			Diesel			CNG			Electricity		
	VMT	mpg	Gallons	VMT	mpg	Gallons	VMT	mpg	Gallons	VMT	m/kWh	kWh
LDA	215,319,484	29.01	7,421,934	496,421	41.87	11,856	0	0	0	11,126,979	2.75	4,043,109
LDT1	16,074,857	23.92	671,904	2,722	23.82	114	0	0	0	31,273	2.78	11,239
LDT2	84,771,220	23.44	3,616,054	253,915	31.97	7,942	0	0	0	674,311	2.93	230,354
MDV	63,689,145	19.01	3,349,696	953,140	23.19	41,107	0	0	0	565,129	2.83	199,795
LHD1	2,776,620	13.00	213,659	2,105,659	20.41	103,180	0	0	0	0	0.00	0
LHD2	416,679	11.67	35,699	908,236	16.97	53,519	0	0	0	0	0.00	0
MHD	709,416	5.12	138,545	3,948,358	8.98	439,766	46,761	8.62	5,422	1,257	0.95	1,317
HHD	5,246	3.59	1,463	53,426,777	6.04	8,850,779	1,961,782	6.11	320,991	22,416	0.56	40,207
OBUS	252,896	5.03	50,317	151,201	0.00	0	14,481	0	0	0	0.00	0
UBUS	130,584	5.78	22,611	8,735	9.37	933	597,086	4.18	142,755	794	0.50	1,593
MCY	1,469,647	41.26	35,622	0	0.00	0	0	0	0	0	0.00	0
SBUS	244,268	9.00	27,142	282,142	7.48	37,713	121,691	4.27	28,516	139	0.86	161
MH	299,692	4.84	61,929	115,973	10.35	11,205	0	0	0	0	0.00	0
All Other Buses	0	0	0	148,695	9.52	15,614	23,968	8.87	2,701	0	0.00	0
Motor Coach	0	0	0	101,564	5.56	18,279	0	0	0	0	0.00	0
PTO	0	0	0	576,699	4.91	117,552	0	0	0	241	0.48	500
	386,159,753		15,646,576	63,480,237		9,709,560	2,765,769		500,384	12,422,540		4,528,277

Existing Year 2048: VMT

Vehicle type	Fleet percent	VMT
LDA	43.13%	200,493,457
LDT1	2.42%	11,238,976
LDT2	20.48%	95,217,522
MDV	12.50%	58,080,608
LHD1	1.33%	6,200,827
LHD2	0.34%	1,589,989
MHD	1.48%	6,885,372
HHD	17.49%	81,307,672
OBUS	0.05%	221,259
UBUS	0.18%	853,431
MCY	0.24%	1,130,774
SBUS	0.10%	461,336
MH	0.04%	182,387
All Other Buses	0.03%	143,221
Motor Coach	0.02%	84,386
PTO	0.16%	737,082
	100%	464,828,299

Vehicle type	Gas percent	Diesel percent	CNG percent	Electricity percent
LDA	86.58%	0.05%	0.00%	13.37%
LDT1	95.62%	0.00%	0.00%	4.38%
LDT2	95.42%	0.36%	0.00%	4.22%
MDV	93.29%	1.01%	0.00%	5.71%
LHD1	31.21%	21.21%	0.00%	47.58%
LHD2	14.62%	39.90%	0.00%	45.48%
MHD	4.12%	46.47%	0.64%	48.77%
HHD	0.00%	85.41%	1.75%	12.83%
OBUS	21.60%	44.89%	5.82%	27.70%
UBUS	8.55%	0.00%	8.18%	83.26%
MCY	100.00%	0.00%	0.00%	0.00%
SBUS	22.33%	19.76%	13.04%	44.87%
MH	63.65%	36.35%	0.00%	0.00%
All Other Buses	0.00%	81.78%	18.22%	0.00%
Motor Coach	0.00%	100.00%	0.00%	0.00%
PTO	0.00%	47.65%	0.00%	52.35%

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Vehicle type	Gasoline			Diesel			CNG			Electricity		
	VMT	mpg	Gallons	VMT	mpg	Gallons	VMT	mpg	Gallons	VMT	m/kWh	kWh
LDA	173,581,612	36.78	4,720,010	99,621	55.40	1,798	0	0.00	0	26,812,225	2.69	9,952,780
LDT1	10,746,678	31.91	336,820	126	29.75	4	0	0.00	0	492,171	2.78	177,021
LDT2	90,855,724	30.81	2,949,346	343,314	40.19	8,541	0	0.00	0	4,018,484	2.81	1,427,561
MDV	54,182,168	25.48	2,126,811	583,955	30.62	19,073	0	0.00	0	3,314,486	2.76	1,199,294
LHD1	1,935,100	17.30	111,852	1,315,248	21.92	60,014	0	0.00	0	2,950,480	1.77	0
LHD2	232,499	15.37	15,123	634,362	18.65	34,018	0	0.00	0	723,128	1.77	0
MHD	283,507	6.07	46,725	3,199,659	10.22	313,098	44,316	8.82	5,026	3,357,891	0.95	0
HHD	2,126	5.27	403	69,448,558	7.61	9,125,564	1,426,264	7.19	198,257	10,430,724	0.56	0
OBUS	47,787	5.89	8,117	99,328	0.00	0	12,866	0.00	0	61,278	0.94	0
UBUS	72,993	15.88	4,595	0	0.00	0	69,851	14.23	4,908	710,586	0.49	0
MCY	1,130,774	43.87	25,778	0	0.00	0	0	0.00	0	0	0.00	0
SBUS	102,998	10.17	10,131	91,139	8.30	10,984	60,175	4.71	12,771	207,023	0.86	0
MH	116,091	4.86	23,907	66,295	10.25	6,468	0	0.00	0	0	0.00	0
All Other Buses	0	0	0	117,119	10.54	11,114	26,102	10	2,624	0	0.00	0
Motor Coach	0	0	0	84,386	6.49	12,999	0	0	0	0	0.00	0
PTO	0	0	0	351,232	5.90	59,557	0	0	0	385,849	0.48	0
	333,290,058		10,379,619	76,434,342		9,663,234	1,639,574		223,587	53,464,325		12,756,657

Proposed Project Year 2048 (General Plan 2048): VMT

Vehicle type	Fleet percent	VMT
LDA	43.13%	325,870,739
LDT1	2.42%	18,267,197
LDT2	20.48%	154,761,181
MDV	12.50%	94,400,940
LHD1	1.33%	10,078,475
LHD2	0.34%	2,584,279
MHD	1.48%	11,191,095
HHD	17.49%	132,152,897
OBUS	0.05%	359,622
UBUS	0.18%	1,387,118
MCY	0.24%	1,837,897
SBUS	0.10%	749,829
MH	0.04%	296,441
All Other Buses	0.03%	232,783
Motor Coach	0.02%	137,156
PTO	0.16%	1,198,011
	100%	755,505,659

Vehicle type	Gas percent	Diesel percent	CNG percent	Electricity percent
LDA	86.58%	0.05%	0.00%	13.37%
LDT1	95.62%	0.00%	0.00%	4.38%
LDT2	95.42%	0.36%	0.00%	4.22%
MDV	93.29%	1.01%	0.00%	5.71%
LHD1	31.21%	21.21%	0.00%	47.58%
LHD2	14.62%	39.90%	0.00%	45.48%
MHD	4.12%	46.47%	0.64%	48.77%
HHD	0.00%	85.41%	1.75%	12.83%
OBUS	21.60%	44.89%	5.82%	27.70%
UBUS	8.55%	0.00%	8.18%	83.26%
MCY	100.00%	0.00%	0.00%	0.00%
SBUS	22.33%	19.76%	13.04%	44.87%
MH	63.65%	36.35%	0.00%	0.00%
All Other Buses	0.00%	81.78%	18.22%	0.00%
Motor Coach	0.00%	100.00%	0.00%	0.00%
PTO	0.00%	47.65%	0.00%	52.35%

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Vehicle type	Gasoline			Diesel			CNG			Electricity		
	VMT	mpg	Gallons	VMT	mpg	Gallons	VMT	mpg	Gallons	VMT	m/kWh	kWh
LDA	282,129,746	36.78	7,671,638	161,918	55.40	2,923	0	0	0	43,579,076	2.69	16,176,686
LDT1	17,467,044	31.91	547,447	205	29.75	7	0	0	0	799,947	2.78	287,721
LDT2	147,671,761	30.81	4,793,700	558,003	40.19	13,883	0	0	0	6,531,417	2.81	2,320,277
MDV	88,064,635	25.48	3,456,799	949,127	30.62	31,000	0	0	0	5,387,178	2.76	1,949,265
LHD1	3,145,202	17.30	181,798	2,137,730	21.92	97,544	0	0	0	4,795,543	1.77	0
LHD2	377,892	15.37	24,581	1,031,057	18.65	55,290	0	0	0	1,175,331	1.77	0
MHD	460,796	6.07	75,944	5,200,545	10.22	508,892	72,029	8.82	8,169	5,457,726	0.95	0
HHD	3,456	5.27	656	112,877,763	7.61	14,832,176	2,318,168	7.19	322,237	16,953,510	0.56	0
OBUS	77,670	5.89	13,194	161,441	0.00	0	20,912	0	0	99,598	0.94	0
UBUS	118,639	15.88	7,469	0	0.00	0	113,532	14.23	7,976	1,154,947	0.49	0
MCY	1,837,897	43.87	41,898	0	0.00	0	0	0	0	0	0.00	0
SBUS	167,408	10.17	16,467	148,133	8.30	17,853	97,804	4.71	20,758	336,484	0.86	0
MH	188,688	4.86	38,857	107,753	10.25	10,513	0	0	0	0	0.00	0
All Other Buses	0	0	0	190,358	10.54	18,065	42,425	9.95	4,265	0	0.00	0
Motor Coach	0	0	0	137,156	6.49	21,128	0	0	0	0	0.00	0
PTO	0	0	0	570,873	5.90	96,801	0	0	0	627,138	0.48	0
	541,710,832		16,870,447	124,232,062		15,706,075	2,664,870		363,406	86,897,894		20,733,949

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	11,954	1,255	9.52	1,927	217	8.87	0	0	0.00
LDA	33,557,062	1,156,692	29.01	77,366	1,848	41.87	0	0	0.00	1,734,115	630,110	2.75
LDT1	2,505,231	104,715	23.92	424	18	23.82	0	0	0.00	4,874	1,752	2.78
LDT2	13,211,406	563,554	23.44	39,572	1,238	31.97	0	0	0.00	105,090	35,900	2.93
LHD1	1,119,164	86,119	13.00	848,722	41,589	20.41	0	0	0.00	0	0	0.00
LHD2	167,949	14,389	11.67	366,080	21,572	16.97	0	0	0.00	0	0	0.00
MCY	229,041	5,552	41.26	0	0	0.00	0	0	0.00	0	0	0.00
MDV	9,925,811	522,043	19.01	148,545	6,406	23.19	0	0	0.00	88,074	31,138	2.83
MH	60,515	12,505	4.84	23,418	2,263	10.35	0	0	0.00	0	0	0.00
Motor coach	0	0	0.00	8,165	1,469	5.56	0	0	0.00	0	0	0.00
OBUS	33,649	6,695	5.03	0	0	0.00	0	0	0.00	0	0	0.00
PTO	0	0	0.00	46,361	9,450	4.91	0	0	0.00	19	40	0.48
SBUS	19,637	2,182	9.00	22,681	3,032	7.48	9,783	2,292	4.27	11	13	0.86
T6	143,249	27,976	5.12	797,273	88,800	8.98	9,442	1,095	8.62	254	266	0.95
T7	422	118	3.59	4,294,976	711,514	6.04	157,708	25,804	6.11	1,802	3,232	0.56
UBUS	10,498	1,818	5.78	702	75	9.37	48,000	11,476	4.18	64	128	0.50
Total	60,983,634	2,504,356	24.35	6,686,239	890,528	7.51	226,859	40,885	5.55	1,934,303	702,578	2.75

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: County

Region: San Bernardino

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
San Bernardino	2023	All Other Buses	Aggregate	Aggregate	Diesel	222.656341	11953.57409	11953.57409	0	1981.64143	1.25520232	0
San Bernardino	2023	All Other Buses	Aggregate	Aggregate	Natural Gas	31.52138873	1926.773124	1926.773124	0	280.54036	0.217103483	0
San Bernardino	2023	LDA	Aggregate	Aggregate	Gasoline	773664.0019	33073440.07	33073440.07	0	3594279.08	1140.883797	0
San Bernardino	2023	LDA	Aggregate	Aggregate	Diesel	2221.377014	77366.16142	77366.16142	0	9541.62073	1.847726849	0
San Bernardino	2023	LDA	Aggregate	Aggregate	Electricity	27031.11036	1265339.001	0	1265339	136160.713	0	488525.2886
San Bernardino	2023	LDA	Aggregate	Aggregate	Plug-in Hybrid	18746.83605	952397.5179	483621.5765	468775.9	77518.1671	15.80803813	141584.3061
San Bernardino	2023	LDT1	Aggregate	Aggregate	Gasoline	73981.30063	2503906.499	2503906.499	0	318282.967	104.6712544	0
San Bernardino	2023	LDT1	Aggregate	Aggregate	Diesel	29.71832479	424.1576698	424.1576698	0	86.2862925	0.01780751	0
San Bernardino	2023	LDT1	Aggregate	Aggregate	Electricity	77.71161154	3326.268317	0	3326.268	378.615027	0	1284.214102
San Bernardino	2023	LDT1	Aggregate	Aggregate	Plug-in Hybrid	54.94776125	2871.629963	1324.12026	1547.51	227.208993	0.043540622	467.3940535
San Bernardino	2023	LDT2	Aggregate	Aggregate	Gasoline	323145.0561	13160212.62	13160212.62	0	1508164.1	561.8657302	0
San Bernardino	2023	LDT2	Aggregate	Aggregate	Diesel	896.7674867	39572.03037	39572.03037	0	4322.63389	1.237774667	0
San Bernardino	2023	LDT2	Aggregate	Aggregate	Electricity	1343.40021	49491.30666	0	49491.31	6899.92193	0	19107.72911
San Bernardino	2023	LDT2	Aggregate	Aggregate	Plug-in Hybrid	2108.13437	106791.6185	51193.09113	55598.53	8717.13562	1.688238145	16792.41237
San Bernardino	2023	LHD1	Aggregate	Aggregate	Gasoline	30742.28663	1119163.828	1119163.828	0	458014.265	86.11879912	0
San Bernardino	2023	LHD1	Aggregate	Aggregate	Diesel	22607.19394	848721.5839	848721.5839	0	284370.06	41.58863815	0
San Bernardino	2023	LHD2	Aggregate	Aggregate	Gasoline	4697.68606	167949.3596	167949.3596	0	69988.5227	14.38919799	0
San Bernardino	2023	LHD2	Aggregate	Aggregate	Diesel	9499.536898	366079.7752	366079.7752	0	119492.224	21.57177622	0
San Bernardino	2023	MCY	Aggregate	Aggregate	Gasoline	38986.64673	229041.1938	229041.1938	0	77973.2935	5.551584934	0
San Bernardino	2023	MDV	Aggregate	Aggregate	Gasoline	253317.4035	9891874.816	9891874.816	0	1155344.45	520.9107777	0
San Bernardino	2023	MDV	Aggregate	Aggregate	Diesel	3646.574745	148544.7897	148544.7897	0	16970.7743	6.406466936	0
San Bernardino	2023	MDV	Aggregate	Aggregate	Electricity	1465.716124	53973.57473	0	53973.57	7527.12993	0	20838.25453
San Bernardino	2023	MDV	Aggregate	Aggregate	Plug-in Hybrid	1377.549241	68036.95295	33936.49545	34100.46	5696.16611	1.131954474	10299.35452
San Bernardino	2023	MH	Aggregate	Aggregate	Gasoline	6909.279036	60515.3412	60515.3412	0	691.204275	12.50493715	0
San Bernardino	2023	MH	Aggregate	Aggregate	Diesel	2637.934116	23417.80413	23417.80413	0	263.793412	2.262588826	0
San Bernardino	2023	Motor Coach	Aggregate	Aggregate	Diesel	57.3060662	8164.764662	8164.764662	0	1316.8934	1.469481493	0
San Bernardino	2023	OBUS	Aggregate	Aggregate	Gasoline	666.2914555	33649.48994	33649.48994	0	13331.1594	6.694992779	0
San Bernardino	2023	PTO	Aggregate	Aggregate	Diesel	0	46360.77365	46360.77365	0	0	9.450006478	0
San Bernardino	2023	PTO	Aggregate	Aggregate	Electricity	0	19.39456415	0	19.39456	0	0	40.17620363
San Bernardino	2023	SBUS	Aggregate	Aggregate	Gasoline	388.3617737	19636.70454	19636.70454	0	1553.44709	2.181978718	0
San Bernardino	2023	SBUS	Aggregate	Aggregate	Diesel	1003.003083	22681.40583	22681.40583	0	14523.4846	3.031729808	0
San Bernardino	2023	SBUS	Aggregate	Aggregate	Electricity	0.964270564	11.21044559	0	11.21045	13.9626378	0	12.96265328
San Bernardino	2023	SBUS	Aggregate	Aggregate	Natural Gas	385.616886	9782.748834	9782.748834	0	5583.73251	2.292434033	0
San Bernardino	2023	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	24.73394452	1683.968714	1683.968714	0	568.386045	0.188073139	0
San Bernardino	2023	T6 CAIRP Class 4	Aggregate	Aggregate	Electricity	0.030880397	1.152802154	0	1.152802	0.70963153	0	1.226328668
San Bernardino	2023	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	33.17069706	2310.339711	2310.339711	0	762.262618	0.257687289	0
San Bernardino	2023	T6 CAIRP Class 5	Aggregate	Aggregate	Electricity	0.034763817	1.343984093	0	1.343984	0.79887252	0	1.429699052
San Bernardino	2023	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	105.0316089	6033.225731	6033.225731	0	2413.62637	0.663643235	0
San Bernardino	2023	T6 CAIRP Class 6	Aggregate	Aggregate	Electricity	0.244796382	7.2699017	0	7.269902	5.62542086	0	7.733010757
San Bernardino	2023	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	181.0769538	37859.39009	37859.39009	0	4161.1484	3.907659612	0
San Bernardino	2023	T6 CAIRP Class 7	Aggregate	Aggregate	Electricity	0.205148235	21.6817882	0	21.68179	4.71430645	0	23.05838207
San Bernardino	2023	T6 CAIRP Class 7	Aggregate	Aggregate	Natural Gas	0.039592125	7.969929852	7.969929852	0	0.90982703	0.000788078	0
San Bernardino	2023	T6 Instate Delivery Class 4	Aggregate	Aggregate	Diesel	676.8252854	23257.57524	23257.57524	0	9658.29682	2.620869145	0
San Bernardino	2023	T6 Instate Delivery Class 4	Aggregate	Aggregate	Electricity	0.471436105	8.546030639	0	8.546031	6.72739322	0	8.925848153
San Bernardino	2023	T6 Instate Delivery Class 4	Aggregate	Aggregate	Natural Gas	1.978889558	70.3491556	70.3491556	0	28.238754	0.008366604	0
San Bernardino	2023	T6 Instate Delivery Class 5	Aggregate	Aggregate	Diesel	772.035393	27153.67902	27153.67902	0	11016.9451	3.10418211	0
San Bernardino	2023	T6 Instate Delivery Class 5	Aggregate	Aggregate	Electricity	0.47237451	8.581609816	0	8.58161	6.74078425	0	8.956182015
San Bernardino	2023	T6 Instate Delivery Class 5	Aggregate	Aggregate	Natural Gas	1.80227656	64.97713172	64.97713172	0	25.7184865	0.007610142	0
San Bernardino	2023	T6 Instate Delivery Class 6	Aggregate	Aggregate	Diesel	3159.553227	110002.8613	110002.8613	0	45086.8245	12.40790155	0
San Bernardino	2023	T6 Instate Delivery Class 6	Aggregate	Aggregate	Electricity	2.496249852	45.6023521	0	45.60235	35.6214854	0	47.60035035
San Bernardino	2023	T6 Instate Delivery Class 6	Aggregate	Aggregate	Natural Gas	8.444187357	297.1273614	297.1273614	0	120.498554	0.034942965	0
San Bernardino	2023	T6 Instate Delivery Class 7	Aggregate	Aggregate	Diesel	577.7383294	31990.11841	31990.11841	0	8244.32596	3.501060162	0
San Bernardino	2023	T6 Instate Delivery Class 7	Aggregate	Aggregate	Electricity	0.31638642	6.8466798	0	6.84668	4.51483422	0	7.136863714
San Bernardino	2023	T6 Instate Delivery Class 7	Aggregate	Aggregate	Natural Gas	14.08605543	785.3214228	785.3214228	0	201.008011	0.089349521	0
San Bernardino	2023	T6 Instate Other Class 4	Aggregate	Aggregate	Diesel	1452.87149	60774.54297	60774.54297	0	16795.1944	6.878477338	0
San Bernardino	2023	T6 Instate Other Class 4	Aggregate	Aggregate	Electricity	0.340941577	7.06091336	0	7.060913	3.94128463	0	7.431854268
San Bernardino	2023	T6 Instate Other Class 4	Aggregate	Aggregate	Natural Gas	3.522133037	155.2509584	155.2509584	0	40.7158579	0.018419939	0
San Bernardino	2023	T6 Instate Other Class 5	Aggregate	Aggregate	Diesel	3350.885602	148926.3514	148926.3514	0	38736.2376	16.92264783	0
San Bernardino	2023	T6 Instate Other Class 5	Aggregate	Aggregate	Electricity	1.950492144	40.64447486	0	40.64447	22.5476892	0	42.51859908
San Bernardino	2023	T6 Instate Other Class 5	Aggregate	Aggregate	Natural Gas	7.534832489	334.4288405	334.4288405	0	87.1026636	0.038840243	0
San Bernardino	2023	T6 Instate Other Class 6	Aggregate	Aggregate	Diesel	2943.199145	127856.71	127856.71	0	34023.3821	14.40943206	0
San Bernardino	2023	T6 Instate Other Class 6	Aggregate	Aggregate	Electricity	2.544774327	53.24568601	0	53.24569	29.4175912	0	55.71903955
San Bernardino	2023	T6 Instate Other Class 6	Aggregate	Aggregate	Natural Gas	6.412845021	279.4676181	279.4676181	0	74.1324884	0.032603226	0
San Bernardino	2023	T6 Instate Other Class 7	Aggregate	Aggregate	Diesel	1656.90495	82994.59236	82994.59236	0	19153.8212	9.171939601	0
San Bernardino	2023	T6 Instate Other Class 7	Aggregate	Aggregate	Electricity	0.951784083	29.98812928	0	29.98813	11.002624	0	31.34015663
San Bernardino	2023	T6 Instate Other Class 7	Aggregate	Aggregate	Natural Gas	41.71056126	2156.618818	2156.618818	0	482.174088	0.249418591	0
San Bernardino	2023	T6 Instate Tractor Class 6	Aggregate	Aggregate	Diesel	29.03736849	1519.012406	1519.012406	0	335.67198	0.168947666	0
San Bernardino	2023	T6 Instate Tractor Class 6	Aggregate	Aggregate	Electricity	0.008469972	0.243579576	0	0.24358	0.09791288	0	0.254068483
San Bernardino	2023	T6 Instate Tractor Class 6	Aggregate	Aggregate	Natural Gas	0.066211071	3.757538993	3.757538993	0	0.76539998	0.000428767	0
San Bernardino	2023	T6 Instate Tractor Class 7	Aggregate	Aggregate	Diesel	901.0312479	56024.80486	56024.80486	0	10415.9212	5.891575428	0
San Bernardino	2023	T6 Instate Tractor Class 7	Aggregate	Aggregate	Electricity	0.268600073	9.76671752	0	9.766718	3.10501684	0	10.20381013
San Bernardino	2023	T6 Instate Tractor Class 7	Aggregate	Aggregate	Natural Gas	20.794859	1321.559317	1321.559317	0	240.38857	0.148781904	0
San Bernardino	2023	T6 OOS Class 4	Aggregate	Aggregate	Diesel	14.17308961	956.3940377	956.3940377	0	325.697599	0.10671882	0
San Bernardino	2023	T6 OOS Class 5	Aggregate	Aggregate	Diesel	18.92735508	1312.000637	1312.000637	0	434.95062	0.1462569	0
San Bernardino	2023	T6 OOS Class 6	Aggregate	Aggregate	Diesel	60.12512315	3428.295202	3428.295202	0	1381.67533	0.37667014	0

San Bernardino	2023 T6 OOS Class 7	Aggregate	Aggregate	Diesel	97.52134363	24927.96917	24927.96917	0	2241.04048	2.558917013	0
San Bernardino	2023 T6 Public Class 4	Aggregate	Aggregate	Diesel	133.3233063	4456.001792	4456.001792	0	683.948562	0.522666761	0
San Bernardino	2023 T6 Public Class 4	Aggregate	Aggregate	Electricity	0.013982079	0.2535745	0	0.253575	0.07172806	0	0.267459183
San Bernardino	2023 T6 Public Class 4	Aggregate	Aggregate	Natural Gas	6.843326907	286.8787668	286.8787668	0	35.106267	0.033933359	0
San Bernardino	2023 T6 Public Class 5	Aggregate	Aggregate	Diesel	217.6178776	8092.571894	8092.571894	0	1116.37971	0.947317643	0
San Bernardino	2023 T6 Public Class 5	Aggregate	Aggregate	Electricity	0.021791974	0.39517033	0	0.39517	0.11179282	0	0.416138536
San Bernardino	2023 T6 Public Class 5	Aggregate	Aggregate	Natural Gas	32.61926492	1337.176004	1337.176004	0	167.336829	0.159716462	0
San Bernardino	2023 T6 Public Class 6	Aggregate	Aggregate	Diesel	184.9334714	6369.364246	6369.364246	0	948.708708	0.746990759	0
San Bernardino	2023 T6 Public Class 6	Aggregate	Aggregate	Electricity	0.117792974	2.140857559	0	2.140858	0.60427796	0	2.253743316
San Bernardino	2023 T6 Public Class 6	Aggregate	Aggregate	Natural Gas	15.52056539	639.6821361	639.6821361	0	79.6205005	0.076782586	0
San Bernardino	2023 T6 Public Class 7	Aggregate	Aggregate	Diesel	396.7143607	17621.61967	17621.61967	0	2035.14467	2.036326169	0
San Bernardino	2023 T6 Public Class 7	Aggregate	Aggregate	Electricity	0.247197265	7.102210623	0	7.102211	1.26812197	0	7.474506484
San Bernardino	2023 T6 Public Class 7	Aggregate	Aggregate	Natural Gas	28.58932855	1624.488497	1624.488497	0	146.663255	0.186284885	0
San Bernardino	2023 T6 Utility Class 5	Aggregate	Aggregate	Diesel	198.5746051	8087.619138	8087.619138	0	2541.75495	0.87341369	0
San Bernardino	2023 T6 Utility Class 5	Aggregate	Aggregate	Natural Gas	0.99975748	40.21489943	40.21489943	0	12.7968957	0.004490539	0
San Bernardino	2023 T6 Utility Class 6	Aggregate	Aggregate	Diesel	37.60920657	1521.277254	1521.277254	0	481.397844	0.163579222	0
San Bernardino	2023 T6 Utility Class 6	Aggregate	Aggregate	Natural Gas	0.371604316	14.71885023	14.71885023	0	4.75653524	0.001636814	0
San Bernardino	2023 T6 Utility Class 7	Aggregate	Aggregate	Diesel	42.7270714	2112.878611	2112.878611	0	546.906514	0.22687741	0
San Bernardino	2023 T6 Utility Class 7	Aggregate	Aggregate	Electricity	0.069596252	1.986264214	0	1.986264	0.89083203	0	2.087956427
San Bernardino	2023 T6 Utility Class 7	Aggregate	Aggregate	Natural Gas	0.497437522	22.21592806	22.21592806	0	6.36720028	0.002438242	0
San Bernardino	2023 T6T5	Aggregate	Aggregate	Gasoline	2420.649225	143249.0074	143249.0074	0	48432.3497	27.97582873	0
San Bernardino	2023 T7 CAIRP Class 8	Aggregate	Aggregate	Diesel	6023.254895	1254697.268	1254697.268	0	138414.397	205.8533089	0
San Bernardino	2023 T7 CAIRP Class 8	Aggregate	Aggregate	Electricity	13.70528232	1462.609869	0	1462.61	314.947388	0	2626.501618
San Bernardino	2023 T7 CAIRP Class 8	Aggregate	Aggregate	Natural Gas	8.157941619	1690.404779	1690.404779	0	187.469498	0.295476198	0
San Bernardino	2023 T7 NNOOS Class 8	Aggregate	Aggregate	Diesel	5409.053854	1487277.347	1487277.347	0	124300.058	242.0742714	0
San Bernardino	2023 T7 NOOS Class 8	Aggregate	Aggregate	Diesel	2261.26429	540221.5512	540221.5512	0	51963.8534	88.81843073	0
San Bernardino	2023 T7 POLA Class 8	Aggregate	Aggregate	Diesel	2369.205706	311937.4902	311937.4902	0	38760.2054	52.02862392	0
San Bernardino	2023 T7 POLA Class 8	Aggregate	Aggregate	Electricity	0.655503324	36.08078136	0	36.08078	10.7240344	0	64.38766559
San Bernardino	2023 T7 POLA Class 8	Aggregate	Aggregate	Natural Gas	24.55798621	3199.901714	3199.901714	0	401.768654	0.555386912	0
San Bernardino	2023 T7 Public Class 8	Aggregate	Aggregate	Diesel	858.932311	34988.20811	34988.20811	0	4406.32276	6.047895871	0
San Bernardino	2023 T7 Public Class 8	Aggregate	Aggregate	Electricity	0.492223955	14.13684561	0	14.13685	2.52510889	0	25.25693898
San Bernardino	2023 T7 Public Class 8	Aggregate	Aggregate	Natural Gas	207.7979798	10846.53568	10846.53568	0	1066.00364	1.753831425	0
San Bernardino	2023 T7 Single Concrete/Transit	Aggregate	Aggregate	Diesel	435.0409379	30610.56726	30610.56726	0	4098.08564	5.129480267	0
San Bernardino	2023 T7 Single Concrete/Transit	Aggregate	Aggregate	Electricity	0.349477187	13.27935559	0	13.27936	3.2920751	0	23.67235108
San Bernardino	2023 T7 Single Concrete/Transit	Aggregate	Aggregate	Natural Gas	34.52324353	2513.577084	2513.577084	0	325.208954	0.410364411	0
San Bernardino	2023 T7 Single Dump Class 8	Aggregate	Aggregate	Diesel	821.0764978	48991.20688	48991.20688	0	7734.54061	8.260081192	0
San Bernardino	2023 T7 Single Dump Class 8	Aggregate	Aggregate	Natural Gas	46.11250066	2942.184511	2942.184511	0	434.379756	0.51387522	0
San Bernardino	2023 T7 Single Other Class 8	Aggregate	Aggregate	Diesel	2389.086925	138901.8726	138901.8726	0	22505.1988	23.13657565	0
San Bernardino	2023 T7 Single Other Class 8	Aggregate	Aggregate	Electricity	2.566859298	84.3955461	0	84.39555	24.1798146	0	150.532995
San Bernardino	2023 T7 Single Other Class 8	Aggregate	Aggregate	Natural Gas	154.8861707	9522.714528	9522.714528	0	1459.02773	1.605939941	0
San Bernardino	2023 T7 SWCV Class 8	Aggregate	Aggregate	Diesel	543.4323817	35276.10976	35276.10976	0	2499.78896	12.92590003	0
San Bernardino	2023 T7 SWCV Class 8	Aggregate	Aggregate	Electricity	0.933068228	25.24015862	0	25.24016	4.29211385	0	44.90539316
San Bernardino	2023 T7 SWCV Class 8	Aggregate	Aggregate	Natural Gas	1802.754848	116639.5274	116639.5274	0	8292.6723	18.84841273	0
San Bernardino	2023 T7 Tractor Class 8	Aggregate	Aggregate	Diesel	4976.679984	405658.6311	405658.6311	0	72311.1602	66.19692331	0
San Bernardino	2023 T7 Tractor Class 8	Aggregate	Aggregate	Electricity	3.862078122	165.0426974	0	165.0427	56.1159951	0	294.8078828
San Bernardino	2023 T7 Tractor Class 8	Aggregate	Aggregate	Natural Gas	124.5441548	10352.75426	10352.75426	0	1809.62657	1.821128441	0
San Bernardino	2023 T7 Utility Class 8	Aggregate	Aggregate	Diesel	138.4752374	6416.145766	6416.145766	0	1772.48304	1.042296584	0
San Bernardino	2023 T7 Utility Class 8	Aggregate	Aggregate	Electricity	0.043141292	1.229371602	0	1.229372	0.55220854	0	2.194045652
San Bernardino	2023 T7IS	Aggregate	Aggregate	Gasoline	10.84594146	421.7604268	421.7604268	0	217.005597	0.117638541	0
San Bernardino	2023 UBUS	Aggregate	Aggregate	Gasoline	109.6721187	10497.61376	10497.61376	0	438.688475	1.817674085	0
San Bernardino	2023 UBUS	Aggregate	Aggregate	Diesel	7.115525397	702.2238272	702.2238272	0	28.4621016	0.074968082	0
San Bernardino	2023 UBUS	Aggregate	Aggregate	Electricity	0.629848604	63.86888806	0	63.86889	2.51939442	0	128.0781413
San Bernardino	2023 UBUS	Aggregate	Aggregate	Natural Gas	353.3969516	47999.71962	47999.71962	0	1413.58781	11.47603787	0

EMFAC Fuel Usage: Year 2048

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	12,965	1,230	10.54	2,889	291	9.95	0	0	0.00
LDA	33,844,594	920,298	36.78	19,424	351	55.40	0	0	0.00	5,227,794	1,940,573	2.69
LDT1	2,095,366	65,672	31.91	25	1	29.75	0	0	0.00	95,963	34,515	2.78
LDT2	17,714,867	575,057	30.81	66,939	1,665	40.19	0	0	0.00	783,516	278,343	2.81
LHD1	640,185	37,004	17.30	435,121	19,854	21.92	0	0	0.00	976,101	550,976	1.77
LHD2	76,917	5,003	15.37	209,865	11,254	18.65	0	0	0.00	239,231	135,159	1.77
MCY	220,476	5,026	43.87	0	0	0.00	0	0	0.00	0	0	0.00
MDV	10,564,330	414,681	25.48	113,858	3,719	30.62	0	0	0.00	646,252	233,836	2.76
MH	27,852	5,736	4.86	15,905	1,552	10.25	0	0	0.00	0	0	0.00
Motor coach	0	0	0.00	9,341	1,439	6.49	0	0	0.00	0	0	0.00
OBUS	10,732	1,823	5.89	0	0	0.00	0	0	0.00	13,762	14,676	0.94
PTO	0	0	0.00	38,881	6,593	5.90	0	0	0.00	42,713	88,481	0.48
SBUS	11,402	1,122	10.17	10,089	1,216	8.30	6,661	1,414	4.71	22,917	26,499	0.86
T6	68,018	11,210	6.07	767,654	75,118	10.22	10,632	1,206	8.82	805,617	845,899	0.95
T7	235	45	5.27	7,687,907	1,010,194	7.61	157,886	21,947	7.19	1,154,674	2,071,284	0.56
UBUS	8,080	509	15.88	0	0	0.00	7,732	543	14.23	78,661	158,919	0.49
Total	65,283,055	2,043,186	31.95	9,387,974	1,134,185	8.28	185,802	25,400	7.31	10,087,200	6,379,160	1.58

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: County

Region: San Bernardino

Calendar Year: 2048

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
San Bernardino	2048	All Other Buses	Aggregate	Aggregate	Diesel	265.2292391	12964.96688	12964.96688	0	2360.54023	1.230351294	0
San Bernardino	2048	All Other Buses	Aggregate	Aggregate	Natural Gas	55.25985878	2889.461178	2889.461178	0	491.812743	0.290514587	0
San Bernardino	2048	LDA	Aggregate	Aggregate	Gasoline	784024.7146	33207587.5	33207587.5	0	3644074.53	899.2163848	0
San Bernardino	2048	LDA	Aggregate	Aggregate	Diesel	493.3813676	19423.85165	19423.85165	0	2223.19519	0.350599719	0
San Bernardino	2048	LDA	Aggregate	Aggregate	Electricity	107899.5833	4302340.957	0	4302340.957	506330.36	0	1661058.701
San Bernardino	2048	LDA	Aggregate	Aggregate	Plug-in Hybrid	36849.0999	1562459.269	637006.485	925452.7844	152371.028	21.08178035	279514.3238
San Bernardino	2048	LDT1	Aggregate	Aggregate	Gasoline	55602.24668	2074673.968	2074673.968	0	251048.144	64.98105299	0
San Bernardino	2048	LDT1	Aggregate	Aggregate	Diesel	0.633180532	24.59719148	24.59719148	0	2.92090931	0.00082683	0
San Bernardino	2048	LDT1	Aggregate	Aggregate	Electricity	1669.464487	65812.41517	0	65812.41517	7805.27312	0	25409.02405
San Bernardino	2048	LDT1	Aggregate	Aggregate	Plug-in Hybrid	1276.074297	50841.96976	20691.81644	30150.15332	5276.56722	0.691341258	9106.244921
San Bernardino	2048	LDT2	Aggregate	Aggregate	Gasoline	447786.6742	17517230.03	17517230.03	0	2067078.43	568.4324535	0
San Bernardino	2048	LDT2	Aggregate	Aggregate	Diesel	1699.521967	66938.70326	66938.70326	0	7877.68709	1.665387187	0
San Bernardino	2048	LDT2	Aggregate	Aggregate	Electricity	17960.3367	496091.4782	0	496091.4782	84333.4441	0	191532.2553
San Bernardino	2048	LDT2	Aggregate	Aggregate	Plug-in Hybrid	12245.33971	485060.9784	197636.5006	287424.4778	50634.4797	6.625026022	86810.75893
San Bernardino	2048	LHD1	Aggregate	Aggregate	Gasoline	17840.43512	640184.8206	640184.8206	0	265795.901	37.00384876	0
San Bernardino	2048	LHD1	Aggregate	Aggregate	Diesel	12667.57349	435120.5745	435120.5745	0	159342.139	19.85439491	0
San Bernardino	2048	LHD1	Aggregate	Aggregate	Electricity	22815.03097	976100.7038	0	976100.7038	319341.316	0	550976.2433
San Bernardino	2048	LHD2	Aggregate	Aggregate	Gasoline	2241.056374	76917.29523	76917.29523	0	33388.4008	5.003197415	0
San Bernardino	2048	LHD2	Aggregate	Aggregate	Diesel	6525.428101	209864.6679	209864.6679	0	82081.6765	11.25399634	0
San Bernardino	2048	LHD2	Aggregate	Aggregate	Electricity	5777.905611	239230.7343	0	239230.7343	76450.5257	0	135159.0426
San Bernardino	2048	MCY	Aggregate	Aggregate	Gasoline	39376.12159	220476.1207	220476.1207	0	78752.2432	5.026108343	0
San Bernardino	2048	MDV	Aggregate	Aggregate	Gasoline	268749.8694	10436022.14	10436022.14	0	1227390.98	410.3219328	0
San Bernardino	2048	MDV	Aggregate	Aggregate	Diesel	2984.811497	113858.2896	113858.2896	0	13504.6435	3.718798569	0
San Bernardino	2048	MDV	Aggregate	Aggregate	Electricity	16902.30914	459814.5286	0	459814.5286	78944.5247	0	177526.3586
San Bernardino	2048	MDV	Aggregate	Aggregate	Plug-in Hybrid	7981.952742	314745.4202	128308.1815	186437.2387	33005.3746	4.359474075	56309.6028
San Bernardino	2048	MH	Aggregate	Aggregate	Gasoline	2616.196038	27852.33505	27852.33505	0	261.724252	5.735692031	0
San Bernardino	2048	MH	Aggregate	Aggregate	Diesel	1711.620756	15905.41537	15905.41537	0	171.162076	1.551897088	0
San Bernardino	2048	Motor Coach	Aggregate	Aggregate	Diesel	73.88427637	9341.43561	9341.43561	0	1697.86067	1.438975001	0
San Bernardino	2048	OBUS	Aggregate	Aggregate	Gasoline	271.6778025	10731.66769	10731.66769	0	5435.72947	1.822979579	0
San Bernardino	2048	PTO	Aggregate	Aggregate	Electricity	192.3388998	13761.55728	0	13761.55728	3848.31671	0	14675.6982
San Bernardino	2048	PTO	Aggregate	Aggregate	Diesel	0	38881.19474	38881.19474	0	0	6.592963577	0
San Bernardino	2048	PTO	Aggregate	Aggregate	Electricity	0	42713.24895	0	42713.24895	0	0	88481.29683
San Bernardino	2048	SBUS	Aggregate	Aggregate	Gasoline	214.0945878	11401.85088	11401.85088	0	856.378351	1.12150832	0
San Bernardino	2048	SBUS	Aggregate	Aggregate	Diesel	494.3159808	10089.0703	10089.0703	0	7157.6954	1.215922196	0
San Bernardino	2048	SBUS	Aggregate	Aggregate	Electricity	767.3546818	22917.31896	0	22917.31896	9789.27101	0	26499.32668
San Bernardino	2048	SBUS	Aggregate	Aggregate	Natural Gas	326.7493895	6661.282633	6661.282633	0	4731.33116	1.413781254	0
San Bernardino	2048	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	17.37608292	1278.714874	1278.714874	0	399.302386	0.126476573	0
San Bernardino	2048	T6 CAIRP Class 4	Aggregate	Aggregate	Electricity	25.14540968	1929.792829	0	1929.792829	577.841515	0	2056.317051
San Bernardino	2048	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	21.33105664	1755.555859	1755.555859	0	490.187682	0.173543169	0
San Bernardino	2048	T6 CAIRP Class 5	Aggregate	Aggregate	Electricity	30.81213296	2645.939745	0	2645.939745	708.062815	0	2819.417183
San Bernardino	2048	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	97.17716193	4578.212658	4578.212658	0	2233.13118	0.454374238	0
San Bernardino	2048	T6 CAIRP Class 6	Aggregate	Aggregate	Electricity	141.1320919	6923.021281	0	6923.021281	3243.21547	0	7376.920386
San Bernardino	2048	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	265.2397845	54419.579	54419.579	0	6095.21025	4.737267468	0
San Bernardino	2048	T6 CAIRP Class 7	Aggregate	Aggregate	Electricity	83.52137957	17713.98159	0	17713.98159	1919.3213	0	18875.38281
San Bernardino	2048	T6 CAIRP Class 7	Aggregate	Aggregate	Natural Gas	0.038959579	7.992019211	7.992019211	0	0.89529113	0.000742905	0
San Bernardino	2048	T6 Instate Delivery Class 4	Aggregate	Aggregate	Diesel	591.2269453	19594.2694	19594.2694	0	8436.80851	1.989556766	0
San Bernardino	2048	T6 Instate Delivery Class 4	Aggregate	Aggregate	Electricity	707.5901995	24701.91805	0	24701.91805	10097.3121	0	25864.15431
San Bernardino	2048	T6 Instate Delivery Class 4	Aggregate	Aggregate	Natural Gas	4.093726267	136.9554491	136.9554491	0	58.4174738	0.015679999	0
San Bernardino	2048	T6 Instate Delivery Class 5	Aggregate	Aggregate	Diesel	687.6089865	22841.38339	22841.38339	0	9812.18024	2.319048892	0
San Bernardino	2048	T6 Instate Delivery Class 5	Aggregate	Aggregate	Electricity	824.4100357	28835.17314	0	28835.17314	11764.3312	0	30165.65724
San Bernardino	2048	T6 Instate Delivery Class 5	Aggregate	Aggregate	Natural Gas	4.914160543	164.6912836	164.6912836	0	70.125071	0.01883946	0
San Bernardino	2048	T6 Instate Delivery Class 6	Aggregate	Aggregate	Diesel	2780.306879	92611.65616	92611.65616	0	39674.9792	9.398354357	0
San Bernardino	2048	T6 Instate Delivery Class 6	Aggregate	Aggregate	Electricity	3332.907028	116832.1212	0	116832.1212	47560.5833	0	122276.8138
San Bernardino	2048	T6 Instate Delivery Class 6	Aggregate	Aggregate	Natural Gas	19.61120315	656.6074028	656.6074028	0	279.851869	0.075117193	0
San Bernardino	2048	T6 Instate Delivery Class 7	Aggregate	Aggregate	Diesel	703.1619728	35666.66929	35666.66929	0	10034.1214	3.604357021	0
San Bernardino	2048	T6 Instate Delivery Class 7	Aggregate	Aggregate	Electricity	489.614268	25974.06822	0	25974.06822	6986.7956	0	27188.55567
San Bernardino	2048	T6 Instate Delivery Class 7	Aggregate	Aggregate	Natural Gas	15.34029937	777.4429231	777.4429231	0	218.906072	0.085909963	0
San Bernardino	2048	T6 Instate Other Class 4	Aggregate	Aggregate	Diesel	1267.821988	49998.30346	49998.30346	0	14656.0222	5.056980901	0
San Bernardino	2048	T6 Instate Other Class 4	Aggregate	Aggregate	Electricity	1515.647015	65719.70141	0	65719.70141	17520.8795	0	69013.86379
San Bernardino	2048	T6 Instate Other Class 4	Aggregate	Aggregate	Natural Gas	7.716830845	307.080767	307.080767	0	89.2065646	0.034504865	0
San Bernardino	2048	T6 Instate Other Class 5	Aggregate	Aggregate	Diesel	3103.798699	122434.2127	122434.2127	0	35879.913	12.36802633	0
San Bernardino	2048	T6 Instate Other Class 5	Aggregate	Aggregate	Electricity	3710.110969	161024.3453	0	161024.3453	42888.8828	0	168819.4947
San Bernardino	2048	T6 Instate Other Class 5	Aggregate	Aggregate	Natural Gas	20.39076371	814.5741108	814.5741108	0	235.717228	0.091417531	0
San Bernardino	2048	T6 Instate Other Class 6	Aggregate	Aggregate	Diesel	2669.15074	105210.2582	105210.2582	0	30855.3825	10.6253389	0
San Bernardino	2048	T6 Instate Other Class 6	Aggregate	Aggregate	Electricity	3188.657027	138166.8884	0	138166.8884	36860.8752	0	144862.2124
San Bernardino	2048	T6 Instate Other Class 6	Aggregate	Aggregate	Natural Gas	17.49311427	698.2795802	698.2795802	0	202.220401	0.07836585	0
San Bernardino	2048	T6 Instate Other Class 7	Aggregate	Aggregate	Diesel	2118.145335	86115.15445	86115.15445	0	24485.7601	8.731748931	0
San Bernardino	2048	T6 Instate Other Class 7	Aggregate	Aggregate	Electricity	1417.794094	74300.6479	0	74300.6479	16389.6997	0	77903.57507
San Bernardino	2048	T6 Instate Other Class 7	Aggregate	Aggregate	Natural Gas	44.83621877	1771.037934	1771.037934	0	518.306689	0.201484233	0
San Bernardino	2048	T6 Instate Tractor Class 6	Aggregate	Aggregate	Diesel	25.65996075	1232.894867	1232.894867	0	296.629146	0.123558923	0
San Bernardino	2048	T6 Instate Tractor Class 6	Aggregate	Aggregate	Electricity	30.52617426	1659.089084	0	1659.089084	352.882574	0	1740.963214
San Bernardino	2048	T6 Instate Tractor Class 6	Aggregate	Aggregate	Natural Gas	0.160307184	7.866641962	7.866641962	0	1.85315105	0.000861681	0
San Bernardino	2048	T6 Instate Tractor Class 7	Aggregate	Aggregate	Diesel	1460.886957	85302.10376	85302.10376	0	16887.8532	7.723349829	0
San Bernardino	2048	T6 Instate Tractor Class 7	Aggregate	Aggregate	Electricity	326.2692805	22154.27631	0	22154.27631	3771.67288	0	23214.78313
San Bernardino	2048	T6 Instate Tractor Class 7	Aggregate	Aggregate	Natural Gas	30.08890608	1750.929949	1750.929949	0	347.827754	0.185879988	0
San Bernardino	2048	T6 OOS Class 4	Aggregate	Aggregate	Diesel	24.51247231	1820.994871	1820.994871	0	563.296614	0.169162456	0
San Bernardino	2048	T6 OOS Class 5	Aggregate	Aggregate	Diesel	30.10814663	2498.077505	2498.077505	0	691.88521	0.231991106	0

San Bernardino	2048 T6 OOS Class 6	Aggregate	Aggregate	Diesel	136.9150862	6527.54799	6527.54799	0	3146.30868	0.608022414	0
San Bernardino	2048 T6 OOS Class 7	Aggregate	Aggregate	Diesel	168.7558734	47463.39082	47463.39082	0	3878.00997	3.947184492	0
San Bernardino	2048 T6 Public Class 4	Aggregate	Aggregate	Diesel	67.83443295	2333.652951	2333.652951	0	347.990641	0.247496996	0
San Bernardino	2048 T6 Public Class 4	Aggregate	Aggregate	Electricity	70.30072982	2719.565056	0	2719.565056	360.642744	0	2868.414546
San Bernardino	2048 T6 Public Class 4	Aggregate	Aggregate	Natural Gas	10.54393879	364.4907662	364.4907662	0	54.090406	0.043560976	0
San Bernardino	2048 T6 Public Class 5	Aggregate	Aggregate	Diesel	133.948494	4600.410708	4600.410708	0	687.155774	0.4900049	0
San Bernardino	2048 T6 Public Class 5	Aggregate	Aggregate	Electricity	139.1296949	5372.287876	0	5372.287876	713.735335	0	5659.34435
San Bernardino	2048 T6 Public Class 5	Aggregate	Aggregate	Natural Gas	23.43360647	798.6115655	798.6115655	0	120.214401	0.096141729	0
San Bernardino	2048 T6 Public Class 6	Aggregate	Aggregate	Diesel	100.3803513	3442.961671	3442.961671	0	514.951202	0.365360795	0
San Bernardino	2048 T6 Public Class 6	Aggregate	Aggregate	Electricity	103.4797339	3987.503717	0	3987.503717	530.851035	0	4200.67885
San Bernardino	2048 T6 Public Class 6	Aggregate	Aggregate	Natural Gas	16.86295475	577.861923	577.861923	0	86.5069579	0.069478511	0
San Bernardino	2048 T6 Public Class 7	Aggregate	Aggregate	Diesel	253.3446752	10609.78289	10609.78289	0	1299.65818	1.095930054	0
San Bernardino	2048 T6 Public Class 7	Aggregate	Aggregate	Electricity	203.6834193	9609.344113	0	9609.344113	1044.89594	0	10121.77433
San Bernardino	2048 T6 Public Class 7	Aggregate	Aggregate	Natural Gas	42.27460197	1772.299732	1772.299732	0	216.868708	0.205197477	0
San Bernardino	2048 T6 Utility Class 5	Aggregate	Aggregate	Diesel	91.82259512	3670.281144	3670.281144	0	1175.32922	0.36654772	0
San Bernardino	2048 T6 Utility Class 5	Aggregate	Aggregate	Electricity	136.7544209	5595.952132	0	5595.952132	1750.45659	0	5889.990205
San Bernardino	2048 T6 Utility Class 5	Aggregate	Aggregate	Natural Gas	0.439107986	17.55177754	17.55177754	0	5.62058223	0.001877407	0
San Bernardino	2048 T6 Utility Class 6	Aggregate	Aggregate	Diesel	17.35387053	693.6394642	693.6394642	0	222.129543	0.069273736	0
San Bernardino	2048 T6 Utility Class 6	Aggregate	Aggregate	Electricity	25.84219915	1057.490905	0	1057.490905	330.780149	0	1113.056532
San Bernardino	2048 T6 Utility Class 6	Aggregate	Aggregate	Natural Gas	0.08298854	3.31707711	3.31707711	0	1.06225332	0.000354809	0
San Bernardino	2048 T6 Utility Class 7	Aggregate	Aggregate	Diesel	19.3024048	954.3862469	954.3862469	0	247.070781	0.094766466	0
San Bernardino	2048 T6 Utility Class 7	Aggregate	Aggregate	Electricity	28.75440493	1482.068923	0	1482.068923	368.056383	0	1559.943951
San Bernardino	2048 T6 Utility Class 7	Aggregate	Aggregate	Natural Gas	0.092307307	4.56401488	4.56401488	0	1.18153354	0.000478491	0
San Bernardino	2048 T6TS	Aggregate	Aggregate	Gasoline	1145.842476	68018.24253	68018.24253	0	22926.0163	11.21008467	0
San Bernardino	2048 T6TS	Aggregate	Aggregate	Electricity	1116.398557	87211.43809	0	87211.43809	22336.9023	0	92307.46249
San Bernardino	2048 T7 CAIRP Class 8	Aggregate	Aggregate	Diesel	9731.050052	2062522.437	2062522.437	0	223619.53	276.9461087	0
San Bernardino	2048 T7 CAIRP Class 8	Aggregate	Aggregate	Electricity	2754.075654	603973.1956	0	603973.1956	63288.6585	0	1086739.952
San Bernardino	2048 T7 CAIRP Class 8	Aggregate	Aggregate	Natural Gas	11.23292541	2380.486361	2380.486361	0	258.132626	0.374460374	0
San Bernardino	2048 T7 NNOOS Class 8	Aggregate	Aggregate	Diesel	10861.75752	3155668.883	3155668.883	0	249603.188	402.7945448	0
San Bernardino	2048 T7 NOOS Class 8	Aggregate	Aggregate	Diesel	4668.949093	1146228.941	1146228.941	0	107922.45	147.9626455	0
San Bernardino	2048 T7 POLA Class 8	Aggregate	Aggregate	Diesel	2199.359685	406638.6091	406638.6091	0	35981.5244	55.66420086	0
San Bernardino	2048 T7 POLA Class 8	Aggregate	Aggregate	Electricity	431.3244847	78936.66439	0	78936.66439	7056.46857	0	141164.4285
San Bernardino	2048 T7 POLA Class 8	Aggregate	Aggregate	Natural Gas	89.9512721	16629.72309	16629.72309	0	1471.60281	2.32519901	0
San Bernardino	2048 T7 Public Class 8	Aggregate	Aggregate	Diesel	353.8623133	13747.89724	13747.89724	0	1815.31367	2.121104113	0
San Bernardino	2048 T7 Public Class 8	Aggregate	Aggregate	Electricity	493.8114226	22754.56547	0	22754.56547	2533.2526	0	40680.23967
San Bernardino	2048 T7 Public Class 8	Aggregate	Aggregate	Natural Gas	382.7140098	15867.10472	15867.10472	0	1963.32287	2.421099738	0
San Bernardino	2048 T7 Single Concrete/Transit	Aggregate	Aggregate	Diesel	220.9469299	14650.50352	14650.50352	0	2081.32008	2.129204274	0
San Bernardino	2048 T7 Single Concrete/Transit	Aggregate	Aggregate	Electricity	307.9370589	21629.10538	0	21629.10538	2900.76709	0	38666.58669
San Bernardino	2048 T7 Single Concrete/Transit	Aggregate	Aggregate	Natural Gas	15.70566987	1046.157725	1046.157725	0	147.94741	0.157382953	0
San Bernardino	2048 T7 Single Dump Class 8	Aggregate	Aggregate	Diesel	562.7126886	27776.19699	27776.19699	0	5300.75353	4.179210966	0
San Bernardino	2048 T7 Single Dump Class 8	Aggregate	Aggregate	Electricity	469.1552101	28814.33275	0	28814.33275	4419.44208	0	51533.00777
San Bernardino	2048 T7 Single Dump Class 8	Aggregate	Aggregate	Natural Gas	38.49755137	1906.885881	1906.885881	0	362.646934	0.302235014	0
San Bernardino	2048 T7 Single Other Class 8	Aggregate	Aggregate	Diesel	3189.467911	140239.5067	140239.5067	0	30044.7877	21.01066918	0
San Bernardino	2048 T7 Single Other Class 8	Aggregate	Aggregate	Electricity	3133.93651	164669.0212	0	164669.0212	29521.6819	0	294306.6566
San Bernardino	2048 T7 Single Other Class 8	Aggregate	Aggregate	Natural Gas	235.4696031	10194.21765	10194.21765	0	2218.12366	1.636208125	0
San Bernardino	2048 T7 SWCV Class 8	Aggregate	Aggregate	Diesel	38.23007198	2479.87439	2479.87439	0	175.858331	0.795784793	0
San Bernardino	2048 T7 SWCV Class 8	Aggregate	Aggregate	Electricity	1184.030728	76516.96565	0	76516.96565	5446.54135	0	136426.1279
San Bernardino	2048 T7 SWCV Class 8	Aggregate	Aggregate	Natural Gas	1458.934279	94553.26443	94553.26443	0	6711.09768	12.27955006	0
San Bernardino	2048 T7 Tractor Class 8	Aggregate	Aggregate	Diesel	10736.78879	714005.4576	714005.4576	0	156005.541	96.00588364	0
San Bernardino	2048 T7 Tractor Class 8	Aggregate	Aggregate	Electricity	2120.797254	153719.0034	0	153719.0034	30815.1841	0	275218.917
San Bernardino	2048 T7 Tractor Class 8	Aggregate	Aggregate	Natural Gas	231.2707004	15308.55648	15308.55648	0	3360.36328	2.450832541	0
San Bernardino	2048 T7 Utility Class 8	Aggregate	Aggregate	Diesel	96.12764438	3949.041316	3949.041316	0	1230.43385	0.58428519	0
San Bernardino	2048 T7 Utility Class 8	Aggregate	Aggregate	Electricity	72.83612437	3381.021172	0	3381.021172	932.302392	0	6045.86178
San Bernardino	2048 T7IS	Aggregate	Aggregate	Gasoline	1.595263456	235.3489501	235.3489501	0	31.9180312	0.044660259	0
San Bernardino	2048 T7IS	Aggregate	Aggregate	Electricity	1.513073628	280.0989077	0	280.0989077	30.2735772	0	502.2716045
San Bernardino	2048 UBUS	Aggregate	Aggregate	Gasoline	82.9424204	8080.261284	8080.261284	0	331.769682	0.508696753	0
San Bernardino	2048 UBUS	Aggregate	Aggregate	Electricity	568.9797148	78661.41934	0	78661.41934	2275.91886	0	158918.7606
San Bernardino	2048 UBUS	Aggregate	Aggregate	Natural Gas	98.62181118	7732.493288	7732.493288	0	394.487245	0.543264725	0