Appendix E

Energy Resources Calculations

Beatrice Street
Draft EIR
Appendix E
Energy Analysis Spreadsheets

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Beatrice Street

Summary of Energy Use During Construction

Electricty		
Water Consumption	1,483	kWh
Temporary Power (lighting, tools)	11,995	kWh
Electric Equipment (Dewatering)	14,303	kWh
Total:	**27,782**	kWh
Gasoline		
On Road	29,626	Gallons
Off Road	0	Gallons
Total:	**29,626**	Gallons
Diesel		
On Road	103,320	Gallons
Off Road	31,533	Gallons
Total:	**134,852**	Gallons
Total Mobile	**164,478**	

Summary of Energy Use During Operations

	Baseline (Buildout)	Buildout	Project (Buildout - Baseline (Buildout))	MXD Reduction	Units
Electricity					
Electricity (building)	1,802,382	7,126,790	5,324,408		kWh/year
Electricity (water)	224,884	488,994	264,110		kWh/year
EV Charging	0	265,373	265,373		kWh/year
Miscellaneous	0	9,122	9,122		kWh/year
Electricity Total	**2,027,266**	**7,890,279**	**5,863,013**		**kWh/year**
Natural Gas	**2,123,097**	**1,908,926**	-214,171		**cu ft/year**
Mobile					
Gasoline	137,280	380,213	242,933	(46,446)	Gallons/year
Diesel	22,196	61,473	39,278	(130,456)	Gallons/year
Mobile Total	**159,476**	**441,687**	282,211	(176,903)	**Gallons/year**

Construction Electricity Usage

Caterpillar 40-C4.4 Generator[a]

Peak Power Rating - Prime (kW)	36
Typical Load	70%
Average Output (kW)	25.2
Hours per Day	2
Average Daily Output (kWh)	50.4
Building Construction Phase Duration (days)	238
Total Construction (kWh)	11,995
Total Construction (MWh)	12.0

[a]https://www.albancat.com/content/uploads/2014/06/40-C4.4-Spec-Sheet.pdf

Calculation of Diesel Usage During Cosnstruciton (Offroad Equipment):

Phase Name	Off Road Equipment Type	Units	Hours	HP	Load Factor	Avg. Daily Factor	Number of Days	Diesel Fuel Usage	
Demolition	Concrete/Industrial Saws	1	8	33	0.73	0.6	20	116	
Demolition	Excavators	1	8	158	0.38	0.6	20	288	
Demolition	Rubber Tired Dozers	1	8	367	0.4	0.6	20	705	
Demolition	Rubber Tired Loaders	1	8	150	0.36	0.6	20	259	
Demolition	Tractors/Loaders/Backhoes	1	8	84	0.37	0.6	20	149	
Demolition	Welders	2	8	46	0.45	0.6	20	199	
Site Preparation	Rubber Tired Dozers	1	8	367	0.4	0.6	10	352	
Site Preparation	Rubber Tired Loaders	1	8	150	0.36	0.6	10	130	
Site Preparation	Tractors/Loaders/Backhoes	1	8	84	0.37	0.6	10	75	
Site Preparation	Bore/Drill Rig	1	8	83	0.5	0.6	10	100	
Grading	Excavators	1	8	158	0.38	0.6	58	836	
Grading	Graders	1	8	148	0.41	0.6	58	845	
Grading	Rubber Tired Dozers	1	8	367	0.4	0.6	58	2,043	
Grading	Rubber Tired Loaders	1	8	150	0.36	0.6	58	752	
Grading	Sweepers/Scrubbers	1	8	36	0.46	0.6	58	231	
Grading	Tractors/Loaders/Backhoes	1	8	84	0.37	0.6	58	433	
Foundation/Concrete Pour	Cement and Mortar Mixers	1	8	10	0.56	0.6	65	87	
Foundation/Concrete Pour	Cranes	1	8	367	0.29	0.6	65	1,660	
Foundation/Concrete Pour	Pumps	4	8	11	0.74	0.6	65	508	
Foundation/Concrete Pour	Tractors/Loaders/Backhoes	1	8	84	0.37	0.6	65	485	
Foundation/Concrete Pour	Welders	2	8	46	0.45	0.6	65	646	
Building Construction	Forklifts	2	8	82	0.2	0.6	238	1,874	
Building Construction	Cranes	1	8	367	0.29	0.6	238	6,079	
Building Construction	Aerial Lifts	1	8	46	0.31	0.6	238	815	
Building Construction	Air Compressors	1	8	37	0.48	0.6	238	1,014	
Building Construction	Cement and Mortar Mixers	1	8	10	0.56	0.6	238	320	
Building Construction	Crawler Tractors	1	8	87	0.43	0.6	238	2,137	
Building Construction	Dumpers/Tenders	1	8	16	0.38	0.6	238	347	
Building Construction	Generator Sets	1	8	14	0.74	0.6	238	592	
Building Construction	Pumps	1	8	11	0.74	0.6	238	465	
Building Construction	Sweepers/Scrubbers	1	8	36	0.46	0.6	238	946	
Building Construction	Tractors/Loaders/Backhoes	1	8	84	0.37	0.6	238	1,775	
Building Construction	Welders	3	8	46	0.45	0.6	238	3,547	
Paving	Paving Equipment	1	8	89	0.36	0.6	25	192	
Paving	Rollers	1	8	36	0.38	0.6	25	82	
Paving	Trenchers	1	8	40	0.5	0.6	25	120	
							Total Diesel Usage for Construction (Offr	**31,532.5**	**gallons of diesel fuel**

gallons of diesel fuel per horsepower-hour=	0.05

Notes: Equipment assumptions are provide in the CalEEMod output files and fuel usage estimate of 0.05 gallons of diesel fuel per horsepower-hour is from the SCAQMD CEQA Air Quality Handbook, Table A9-3E.

EMFAC2021 Emissions Inventory
Region Type: County
Region: Los Angeles
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2011 Categories

Region	Veh_Class	Fuel	Speed (miles/hr)	Population (vehicles)	VMT (miles/day)	Trips (trips/day)	Fuel_Gas (1000 gallons/day)	Fuel_DSL (1000 gallons/day)	Miles per Gallon
South Coast	LDA	Gasoline	Aggregate	3,388,823	134,787,726	15,748,887	4,682	0	28.8
South Coast	LDT1	Gasoline	Aggregate	318,253	11,637,173	1,401,220	483	0	24.1
South Coast	LDT2	Gasoline	Aggregate	1,590,817	65,943,414	7,487,016	2,819	0	23.4
						Construction Worker Trip (Composite LDA/LDT1/LDT2):			**26.3**
South Coast	HHDT	Diesel	Aggregate	53,754	6,853,263	838,229	0	1133.1	**6.0**

Notes: Consistent with CalEEMod, a construction worker trip is assumed to be a composite of 50% LDA , 25% for LDT1, and 25% for LDT2. Used EMFAC 2011 Categories for construciton as EMFAC2011 has specific categories for vehicle class T7.

Calculation of Gasoline and Diesel Usage During Construction (Onroad Vehicles):

Phase Name	Daily Worker Trips	Daily Vendor Trips	Daily Haul Trips	Days	Total Worker Trips	Total Vendor Trips	Total Haul Trips	Trip Length (miles)			Total Length (miles)			Avg. Daily Factor	Gallons of Fuel	
								Worker	Vendor	Haul	Worker	Vendor	Haul	(worker and vendor)	Gasoline	Diesel
Demolition	24	0	38	20	480	0	760	18.5	10.2	36.8	8880	0	27968	0.6	202.9	4,624.4
Site Preparation	8	20	0	10	80	200	0	18.5	10.2	36.8	1480	2040	0	0.6	33.8	202.4
Grading	16	0	150	58	928	0	8700	18.5	10.2	36.8	17168	0	320160	0.6	392.2	52,936.7
Foundation/Concrete Pour	40	300	0	65	2600	19500	0	18.5	10.2	36.8	48100	198900	0	0.6	1,098.9	19,732.2
Building Construction	260	100	0	238	61880	23800	0	18.5	10.2	36.8	1144780	242760	0	0.6	26,153.8	24,083.4
Paving	48	20	0	21	1008	420	0	18.5	10.2	36.8	18648	4284	0	0.6	426.0	425.0
Architectural Coating	48	20	0	65	3120	1300	0	18.5	10.2	36.8	57720	13260	0	0.6	1,318.7	1,315.5
														Total:	**29,626.4**	**103,319.6**

Worker Miles per gallon=	26.26	gasoline
Vedor/Haul miles per gallon=	6.05	diesel

Notes: Consistent with CalEEMod worker vehicles are assumed to be gasoline and 50% LDA, 25%LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy Duty Trucks (T7)

Water Usage for Control of Fugitive Dust during Construction:

Phase	Days	Average Daily Acreage Distrubed	Gallons Per Year	Electricity (kWhr)
Demolition	20	0.5	30,200	294
Site Preparation	10	0.5	15,100	147
Grading	58	0.5	87,580	852
Foundation/Concrete Pour	65	0.1	19,630	191
Building Construction	238	0	0	0
Paving	21	0	0	0
Architectural Coating	65	0	0	0
		Total:	**152,510**	**1,483**

Water application rate=	3020	gal/acre/day
kWhr equivalent=	0.01	kWhr

Notes: 1) Gallons per year of water usage for dust control is calculated based on a minimum control efficiency of 66% (three times daily) with an application rate of 3,020 gal/acre/day (Air & Waste Management Association Air Pollution Engineering Manual (1992 Edition)) and average of 26 construction days per month.
2) CalEEMod Default: Each gallon of delivered potable water in Southern California is associated with 0.009727 kWhr of electricity).

Beatrice Street - Existing Operations Buildout Year
Los Angeles-South Coast County, Annual

Land Use Details

Land Uses	*Size*	*Metric*	*Lot Acreage*	*Floor Surface Area*	*Population*
General Office Building	110.953	1000sqft	2.54713035	110953	0
Parking Lot	40	1000sqft	0.91827363	0	0

Trip Summary Information

Land Uses	*Average Daily Trip Rate*			*Annual VMT*
	Weekday	*Saturday*	*Sunday*	
Total	**1,098.00**	**1,098.00**	**1,098.00**	**3,577,365**

Gasoline and Diesel Usage

	Buildout Year		Existing (Baseline) Year	
	Gasoline	*Diesel*	*Gasoline*	*Diesel*
Miles/Gallon	24.7	8.6	22.7	7.7
% Fleet Mix	94.6%	5.4%	94.9%	5.1%
Total (Gallons):	**137,280**	**22,196**	**149,555**	**23,831**

Energy by Land Use - Natural Gas

Land Uses	*kBTU/yr*	cu ft/year
General Office Building	2,229,252	2,123,097
Parking Lot	0	0
Total	**2,229,252**	**2,123,097**

Energy by Land Use - Electricity

Land Uses	*kWH/yr*
General Office Building	1,767,342
Parking Lot	35,040
Total	1,802,382

Water Detail

Land Uses	*Indoor Use (Mgal)*	*Outdoor Use (Mgal)*	*Electricity Use (kWh/yr)*
General Office Building	20.020	0.251	224,884
Parking Lot	0.000	0.000	0
Total	20.020	0.251	**224,884**

Notes: Indoor water results in 0.0111 kWhr of electricity usage per gallon from delivery, treatment, and distribution of water within Southern California (CalEEMod). Outdoor water results in 0.009727 kWhr of electricity usage per gallon from delivery and distribution of water within Southern California (CalEEMod).

Beatrice Street - Buildout Operations Without Project Features
Los Angeles-South Coast County, Annual

Land Use Details

Land Uses	*Size*	*Metric*	*Lot Acreage*	*Floor Surface Area*	*Population*
General Office Building	196.1	1000sqft	2.37	196100	651
General Office Building (Existing Building)	87.881	1000sqft	2.14	87881	0
High Turnover (Sit Down Restaurant)	3.4	1000sqft	0	3400	
Enclosed Parking with Elevator	811	Space	0	324400	

Trip Summary Information

Land Uses	*Average Daily Trip Rate*			*Annual VMT*
	Weekday	*Saturday*	*Sunday*	
Total	3,465	3,465	3,465	11,118,265

Gasoline and Diesel Usage

	Gasoline	*Diesel*
Miles/Gallon	24.7	8.6
% Fleet Mix	94.6%	5.4%
Total (Gallons):	**426,660**	**68,983**

Note: Fleet mix is 92.3% gasoline @ 30.6 miles/gallon and 7.7% diesel @ 12.1 miles/gallon.

Energy by Land Use - Natural Gas

Land Uses	*kBTU/yr*	cu ft/year
General Office Building	0	0
General Office Building (Existing Building)	1,765,693	1,681,612
High Turnover (Sit Down Restaurant)	238,680	227,314
Enclosed Parking with Elevator	0	0
Total	2,004,373	**1,908,926**

Energy by Land Use - Electricity

Land Uses	*kWH/yr*
General Office Building	4,354,940
General Office Building (Existing Building)	1,399,834
High Turnover (Sit Down Restaurant)	174,515
Enclosed Parking with Elevator	1,197,500
Total	**7,126,790**

Water Detail (Unmitigated)

Land Uses	*Indoor Use (Mgal)*	*Outdoor Use (Mgal)*	*Electricity Use (kWh/yr)*
General Office Building	27.883	0.350	313,215
General Office Building (Existing Building)	14.995	0.000	166,605
High Turnover (Sit Down Restaurant)	0.826	0.000	9,173
Enclosed Parking with Elevator	0.000	0.000	0
Total	43.70	0.35	**488,994**

Notes: Indoor water results in 0.0111 kWhr of electricity usage per gallon from delivery, treatment, and distribution of water within Southern California (CalEEMod). Outdoor water results in 0.009727 kWhr of electricity usage per gallon from delivery and distribution of water within Southern California (CalEEMod).

Beatrice Street - Buildout Operations
Los Angeles-South Coast County, Annual

Land Use Details

Land Uses	*Size*	*Metric*	*Lot Acreage*	*Floor Surface Area*	*Population*
General Office Building	196.1	1000sqft	2.37	196100	
General Office Building (Existing Building)	87.881	1000sqft	2.14	87881	
High Turnover (Sit Down Restaurant)	3.4	1000sqft	0	3400	
Enclosed Parking with Elevator	811	Space	0	324400	

Trip Summary Information

Land Uses	*Average Daily Trip Rate*			*Unitigated*
	Weekday	*Saturday*	*Sunday*	
Total	3,147	3,147	3,147	9,907,925
			Net:	6,330,560

Mitigated Gasoline and Diesel Usage

	Gasoline	*Diesel*
Miles/Gallon	24.7	8.6
% Fleet Mix	94.6%	5.4%
Total (Gallons):	**380,213**	**61,473**

Note: Fleet mix is 92.3% gasoline @ 30.6 miles/gallon and 7.7% diesel @ 12.1 miles/gallon.

Energy by Land Use - Natural Gas (Unmitigated)

Land Uses	*kBTU/yr*	cu ft/year
General Office Building	0	0
General Office Building (Existing Building)	1,765,693	1,681,612
High Turnover (Sit Down Restaurant)	238,680	227,314
Enclosed Parking with Elevator	0	0
Total	2,004,373	**1,908,926**

Energy by Land Use - Electricity (Unmitigated)

Land Uses	*kWH/yr*
General Office Building	4,354,940
General Office Building (Existing Building)	1,399,834
High Turnover (Sit Down Restaurant)	174,515
Enclosed Parking with Elevator	1,197,500
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General Office Building (Existing Building)	14.995	0.000	166,605
High Turnover (Sit Down Restaurant)	0.826	0.000	9,173
Enclosed Parking with Elevator	0.000	0.000	0
Total	43.70	0.35	**488,994**

Notes: Indoor water results in 0.0111 kWhr of electricity usage per gallon from delivery, treatment, and distribution of water within Southern California (CalEEMod). Outdoor water results in 0.009727 kWhr ofelectricity usage per gallon from delivery and distribution of water within Southern California (CalEEMod). The City of Los Angeles Green Building Code (Chapter IX, Article 9, of the LAMC) requires newly constructed non-residential and high-rise residential buildings to reduce indoor water use by at least 20 percent by: (1) using water saving fixtures or flow restrictions; and/or (2) demonstrating a 20 percent reduction in baseline water use. No reduction was applied to Elysian apartments.

Beatrice Street

All Electric Calculation for New Buildings

CAPCOA Consumption Rat[a]

	Natural Gas (Therm/yr/KSF)								Electricity (kWh/yr/KSF)						
Building Type	**Water Heater**	**Primary Heat**	**Cooking**	**Dryer**	**Cooling**	**Misc**	**Refrig.**		**Water Heater**	**Primary Heat**	**Cooking**	**Dryer**	**Cooling**	**Misc**	**Refrig.**
General Office	20	119	1	0	18	43	1		46	396	9		3103	2714	11
High Turnover (Sit Down Restaurant)	90	37	702	0	48	67	4		35	268	1279		3254	8965	6236

[a] California Air Pollution Control Officers Association (CAPCOA) Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity. Appendix C. Table E-15. December 2021.

Project Energy Demand

		Natural Gas (Therm/yr/KSF)								Electricity (kWh/yr/KSF)							
Project Uses	**Amount (DU/KSF)**	**Water Heater**	**Primary Heat**	**Cooking**	**Dryer**	**Cooling**	**Misc**	**Refrig.**	**Total**	**Water Heater**	**Primary Heat**	**Cooking**	**Dryer**	**Cooling**	**Misc**	**Refrig.**	**Total**
General Office	196.1	3,922	23,336	196	0	3,530	8,432	196	**39,612**	9,021	77,656	1,765	0	608,498	532,215	2,157	**1,231,312**
High Turnover (Sit Down Restaurant)	3.4	306	126	2,387	0	163	228	14	**3,223**	119	911	0	0	11,064	30,481	21,202	**63,777**
Total		4,228	23,462	2,583	0	3,693	8,660	210	42,835	9,140	78,567	1,765	0	619,562	562,696	23,360	**1,295,089**

Electricity Increase

Title 24 (All - Electric)	707,268
Non Title 24 (All-Electric)	587,821

CalEEMod Adjustments

Default Values

	Total Elec	Total Natural Gas	T24 Elec	T24 Natural Gas	NT24 Elec	NT24 Natural Gas
General Office Building	3,123,628	3,940,014	2,276,831	3,077,404	846,797	862,609
General Office Building (Exisitng to Remain)	1,399,834	1,765,693	1,020,348	1,379,120	379,487	386,573
High Turnover (Sit Down Restaurant)	110,738	322,081	53,014	59,184	57,724	262,897
Enclosed Parking with Elevator	1,197,500	0	1,135,864	0	61,636	0

Adjusted Values

	Total Elec	Total Natural Gas	T24 Elec	T24 Natural Gas	NT24 Elec	NT24 Natural Gas
General Office Building	4,354,940	0	2,972,006	0	1,382,934	0
General Office Building (Exisitng to Remain)	1,399,834	1,765,693	1,020,348	1,379,120	379,487	386,573
High Turnover (Sit Down Restaurant)	174,515	238,680	65,108	0	109,408	238,680
Enclosed Parking with Elevator	1,197,500	0	1,135,864	0	61,636	0

EMFAC2021 Emissions Inventory
Region Type: County
Region: Los Angeles
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2007 Categories

Region	CalYr	Season	Veh_Class	Fuel	MdYr	Speed (miles/hr)	Population (vehicles)	VMT (miles/day)	Trips (trips/day)	Fuel_Gas (1000 gallons/day)	Fuel_DSL (1000 gallons/day)
Los Angeles	2025	Annual	HHDT	Diesel	Aggregated	Aggregated	55,408	6,966,404	865,912	0.00	1,135.88
Los Angeles	2025	Annual	HHDT	Gasoline	Aggregated	Aggregated	38	2,751	761	0.66	0.00
Los Angeles	2025	Annual	LDA	Diesel	Aggregated	Aggregated	8,389	246,778	34,378	0.00	6.07
Los Angeles	2025	Annual	LDA	Gasoline	Aggregated	Aggregated	3,337,440	132,004,234	15,494,312	4,510.33	0.00
Los Angeles	2025	Annual	LDT1	Diesel	Aggregated	Aggregated	111	2,176	310	0.00	0.09
Los Angeles	2025	Annual	LDT1	Gasoline	Aggregated	Aggregated	313,469	11,445,443	1,380,698	467.87	0.00
Los Angeles	2025	Annual	LDT2	Diesel	Aggregated	Aggregated	5,271	227,599	25,410	0.00	7.24
Los Angeles	2025	Annual	LDT2	Gasoline	Aggregated	Aggregated	1,623,397	67,107,095	7,642,462	2,812.39	0.00
Los Angeles	2025	Annual	LHDT1	Diesel	Aggregated	Aggregated	60,973	2,684,491	766,959	0.00	130.34
Los Angeles	2025	Annual	LHDT1	Gasoline	Aggregated	Aggregated	126,376	5,050,031	1,882,815	365.06	0.00
Los Angeles	2025	Annual	LHDT2	Diesel	Aggregated	Aggregated	27,705	1,195,933	348,499	0.00	68.74
Los Angeles	2025	Annual	LHDT2	Gasoline	Aggregated	Aggregated	19,234	720,176	286,558	59.76	0.00
Los Angeles	2025	Annual	MCY	Gasoline	Aggregated	Aggregated	154,401	1,011,349	308,802	24.45	0.00
Los Angeles	2025	Annual	MDV	Diesel	Aggregated	Aggregated	11,358	442,895	53,411	0.00	18.74
Los Angeles	2025	Annual	MDV	Gasoline	Aggregated	Aggregated	972,359	37,248,308	4,511,661	1,916.15	0.00
Los Angeles	2025	Annual	MH	Diesel	Aggregated	Aggregated	5,805	61,012	581	0.00	6.12
Los Angeles	2025	Annual	MH	Gasoline	Aggregated	Aggregated	15,450	154,666	1,546	31.92	0.00
Los Angeles	2025	Annual	MHDT	Diesel	Aggregated	Aggregated	62,118	2,609,688	763,133	0.00	291.43
Los Angeles	2025	Annual	MHDT	Gasoline	Aggregated	Aggregated	14,499	795,156	290,096	152.44	0.00
Los Angeles	2025	Annual	OBUS	Diesel	Aggregated	Aggregated	2,200	170,394	28,675	0.00	24.49
Los Angeles	2025	Annual	OBUS	Gasoline	Aggregated	Aggregated	3,624	141,503	72,519	27.83	0.00
Los Angeles	2025	Annual	SBUS	Diesel	Aggregated	Aggregated	1,909	38,926	27,639	0.00	5.27
Los Angeles	2025	Annual	SBUS	Gasoline	Aggregated	Aggregated	1,459	67,167	5,836	7.44	0.00
Los Angeles	2025	Annual	UBUS	Diesel	Aggregated	Aggregated	36	5,947	143	0.00	0.93
Los Angeles	2025	Annual	UBUS	Gasoline	Aggregated	Aggregated	434	30,652	1,738	6.64	0.00
Los Angeles	2025	Annual	LDA	Plug-in Hybrid	Aggregated	Aggregated	100,470	2,231,834	415,445	81.26	0.00
Los Angeles	2025	Annual	LDT1	Plug-in Hybrid	Aggregated	Aggregated	686	15,058	2,836	0.55	0.00
Los Angeles	2025	Annual	LDT2	Plug-in Hybrid	Aggregated	Aggregated	16,562	364,783	68,482	13.39	0.00
Los Angeles	2025	Annual	MDV	Plug-in Hybrid	Aggregated	Aggregated	9,911	203,077	40,982	7.56	0.00

					MPG	Gallons Per Mile
Totals	273,245,526.88		10,485.71	1,695.34	**22.4**	0.04
Total (GAS)	258,593,283.58	0.95			**24.7**	0.04
Total (DSL)	14,652,243.31	0.05			**8.6**	0.12

Baseline Year
Calendar Year: 2020
Season: Annual
Vehicle Classification: EMFAC2007 Categories

Region	CalYr	Season	Veh_Class	Fuel	MdYr	Speed (miles/hr)	Population (vehicles)	VMT (miles/day)	Trips (trips/day)	Fuel_Gas (1000 gallons/day)	Fuel_DSL (1000 gallons/day)
Los Angeles	2020	Annual	HHDT	Diesel	Aggregated	Aggregated	47,736	6,352,475	728,351	0.00	1,102.34
Los Angeles	2020	Annual	HHDT	Gasoline	Aggregated	Aggregated	92	3,748	1,842	1.02	0.00
Los Angeles	2020	Annual	LDA	Diesel	Aggregated	Aggregated	11,529	313,084	48,724	0.00	8.04
Los Angeles	2020	Annual	LDA	Gasoline	Aggregated	Aggregated	3,637,727	124,096,471	17,009,055	4,598.00	0.00
Los Angeles	2020	Annual	LDT1	Diesel	Aggregated	Aggregated	182	3,275	560	0.00	0.14
Los Angeles	2020	Annual	LDT1	Gasoline	Aggregated	Aggregated	343,549	10,540,008	1,512,768	466.76	0.00
Los Angeles	2020	Annual	LDT2	Diesel	Aggregated	Aggregated	3,772	142,778	18,363	0.00	4.91
Los Angeles	2020	Annual	LDT2	Gasoline	Aggregated	Aggregated	1,481,732	51,213,926	6,944,580	2,398.46	0.00
Los Angeles	2020	Annual	LHDT1	Diesel	Aggregated	Aggregated	44,901	1,546,369	564,802	0.00	78.18
Los Angeles	2020	Annual	LHDT1	Gasoline	Aggregated	Aggregated	126,918	4,049,875	1,890,889	337.29	0.00
Los Angeles	2020	Annual	LHDT2	Diesel	Aggregated	Aggregated	19,310	667,544	242,898	0.00	40.75
Los Angeles	2020	Annual	LHDT2	Gasoline	Aggregated	Aggregated	19,532	603,287	291,005	56.50	0.00
Los Angeles	2020	Annual	MCY	Gasoline	Aggregated	Aggregated	136,942	744,096	273,884	18.80	0.00
Los Angeles	2020	Annual	MDV	Diesel	Aggregated	Aggregated	10,152	351,164	48,615	0.00	15.90
Los Angeles	2020	Annual	MDV	Gasoline	Aggregated	Aggregated	922,976	29,263,401	4,249,151	1,674.28	0.00
Los Angeles	2020	Annual	MH	Diesel	Aggregated	Aggregated	4,987	42,558	499	0.00	4.26
Los Angeles	2020	Annual	MH	Gasoline	Aggregated	Aggregated	18,847	145,009	1,886	30.03	0.00
Los Angeles	2020	Annual	MHDT	Diesel	Aggregated	Aggregated	59,970	2,478,513	730,201	0.00	281.28
Los Angeles	2020	Annual	MHDT	Gasoline	Aggregated	Aggregated	16,708	762,245	334,303	155.28	0.00
Los Angeles	2020	Annual	OBUS	Diesel	Aggregated	Aggregated	2,167	168,256	27,840	0.00	24.45
Los Angeles	2020	Annual	OBUS	Gasoline	Aggregated	Aggregated	4,235	156,940	84,726	32.31	0.00
Los Angeles	2020	Annual	SBUS	Diesel	Aggregated	Aggregated	2,125	44,917	30,773	0.00	6.17
Los Angeles	2020	Annual	SBUS	Gasoline	Aggregated	Aggregated	1,269	49,633	5,076	5.71	0.00
Los Angeles	2020	Annual	UBUS	Diesel	Aggregated	Aggregated	46	7,324	186	0.00	1.19
Los Angeles	2020	Annual	UBUS	Gasoline	Aggregated	Aggregated	436	30,964	1,744	6.79	0.00
Los Angeles	2020	Annual	LDA	Plug-in Hybrid	Aggregated	Aggregated	63,370	1,395,708	262,035	51.09	0.00
Los Angeles	2020	Annual	LDT1	Plug-in Hybrid	Aggregated	Aggregated	23	542	96	0.02	0.00
Los Angeles	2020	Annual	LDT2	Plug-in Hybrid	Aggregated	Aggregated	3,480	80,231	14,389	2.96	0.00
Los Angeles	2020	Annual	MDV	Plug-in Hybrid	Aggregated	Aggregated	3,283	69,332	13,577	2.60	0.00

					MPG	Gallons Per Mile
Totals	235,323,671.31		9,837.89	1,567.62	**20.6**	0.05
Total (GAS)	223,205,415.10	0.95			**22.7**	0.04
Total (DSL)	12,118,256.20	0.05			**7.7**	0.13

Peak Electricity Demand Calculations

Electrical Load Factor Equation

$$f_{Load} = \frac{\text{Average load}}{\text{Maximum load in given time period}}$$

Load Factor (%)[1] **52%**

Project Electricity Demand (Operational)

Annual Demand	Baseline (Existing)	Project	Net Increase
Building (MWh)	1,802	7,392	5,590
Water (MWh)	225	489	264
Misc. (MWh)	0	265	265
Total (MWh)	2,027	8,147	6,119
Average Daily Demand			
Building (kWh)	4,938	20,253	15,314
Water (kWh)	616	1,340	724
Misc. (MWh)	0	727	727
Total (kWh)	5,554	22,319	16,765
Average Load			
Building (kW)	206	844	638
Water (kW)	26	56	30
Misc. (MWh)	0	30	30
Total (kW)	231	930	699

Peak Load Calculation

Peak Load (kW)	421	1,709	1,288
Systemwide Peak Load (MW)	5,646	5,646	5,646
Percent of Peak			0.023%

[1]2017 Report: System Efficiency of California's Electric Grid. California Public Utilities Comn 2017. Page 11, Figure 6. Visual estimate.

EMFAC Emission inventories for County

EMFAC2021 (v1.0.1) Emissions Inventory
Region Type: County
Region: Los Angeles
Calendar Year: **2024** (Construction Start Year)
Season: Annual
Vehicle Classification: EMFAC2011 Categories

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Fuel_Gasoline (1000 gallons/day)	Fuel_DSL (1000 gallons/day)
Los Angeles	2024	HHDT	Aggregatec	Aggregatec	Diesel	0.00	1133.15
Los Angeles	2024	HHDT	Aggregatec	Aggregatec	Gasoline	0.73	0.00
Los Angeles	2024	LDA	Aggregatec	Aggregatec	Diesel	0.00	6.72
Los Angeles	2024	LDA	Aggregatec	Aggregatec	Gasoline	4681.69	0.00
Los Angeles	2024	LDT1	Aggregatec	Aggregatec	Diesel	0.00	0.11
Los Angeles	2024	LDT1	Aggregatec	Aggregatec	Gasoline	483.30	0.00
Los Angeles	2024	LDT2	Aggregatec	Aggregatec	Diesel	0.00	7.06
Los Angeles	2024	LDT2	Aggregatec	Aggregatec	Gasoline	2819.14	0.00
Los Angeles	2024	LHDT1	Aggregatec	Aggregatec	Diesel	0.00	125.04
Los Angeles	2024	LHDT1	Aggregatec	Aggregatec	Gasoline	372.61	0.00
Los Angeles	2024	LHDT2	Aggregatec	Aggregatec	Diesel	0.00	65.75
Los Angeles	2024	LHDT2	Aggregatec	Aggregatec	Gasoline	61.32	0.00
Los Angeles	2024	MCY	Aggregatec	Aggregatec	Gasoline	24.08	0.00
Los Angeles	2024	MDV	Aggregatec	Aggregatec	Diesel	0.00	18.90
Los Angeles	2024	MDV	Aggregatec	Aggregatec	Gasoline	1933.82	0.00
Los Angeles	2024	MH	Aggregatec	Aggregatec	Diesel	0.00	5.92
Los Angeles	2024	MH	Aggregatec	Aggregatec	Gasoline	32.40	0.00
Los Angeles	2024	MHDT	Aggregatec	Aggregatec	Diesel	0.00	290.83
Los Angeles	2024	MHDT	Aggregatec	Aggregatec	Gasoline	158.20	0.00
Los Angeles	2024	OBUS	Aggregatec	Aggregatec	Diesel	0.00	24.69
Los Angeles	2024	OBUS	Aggregatec	Aggregatec	Gasoline	29.68	0.00
Los Angeles	2024	SBUS	Aggregatec	Aggregatec	Diesel	0.00	5.46
Los Angeles	2024	SBUS	Aggregatec	Aggregatec	Gasoline	7.33	0.00
Los Angeles	2024	UBUS	Aggregatec	Aggregatec	Diesel	0.00	0.98
Los Angeles	2024	UBUS	Aggregatec	Aggregatec	Gasoline	6.75	0.00
Los Angeles	2024	LDA	Aggregatec	Aggregatec	Plug-in Hybrid	78.58	0.00
Los Angeles	2024	LDT1	Aggregatec	Aggregatec	Plug-in Hybrid	0.40	0.00
Los Angeles	2024	LDT2	Aggregatec	Aggregatec	Plug-in Hybrid	11.72	0.00
Los Angeles	2024	MDV	Aggregatec	Aggregatec	Plug-in Hybrid	6.42	0.00
						3,908,489,119	614,882,113
					Fuel Usage for Project Construction	29,626	134,852
					Percentage of County for Construction	0.0008%	0.022%

EMFAC Emission inventories for County

EMFAC2021 (v1.0.1) Emissions Inventory
Region Type: County
Region: Los Angeles
Calendar Year: **2026** (Operational Start Year)
Season: Annual
Vehicle Classification: EMFAC2011 Categories

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Fuel_Gasoline (1000 gallons/day)	Fuel_DSL (1000 gallons/day)
Los Angeles	2026	HHDT	Aggregatec	Aggregatec	Diesel	0.00	1137.39
Los Angeles	2026	HHDT	Aggregatec	Aggregatec	Gasoline	0.60	0.00
Los Angeles	2026	LDA	Aggregatec	Aggregatec	Diesel	0.00	5.43
Los Angeles	2026	LDA	Aggregatec	Aggregatec	Gasoline	4348.93	0.00
Los Angeles	2026	LDT1	Aggregatec	Aggregatec	Diesel	0.00	0.08
Los Angeles	2026	LDT1	Aggregatec	Aggregatec	Gasoline	452.49	0.00
Los Angeles	2026	LDT2	Aggregatec	Aggregatec	Diesel	0.00	7.36
Los Angeles	2026	LDT2	Aggregatec	Aggregatec	Gasoline	2800.01	0.00
Los Angeles	2026	LHDT1	Aggregatec	Aggregatec	Diesel	0.00	134.85
Los Angeles	2026	LHDT1	Aggregatec	Aggregatec	Gasoline	358.04	0.00
Los Angeles	2026	LHDT2	Aggregatec	Aggregatec	Diesel	0.00	71.32
Los Angeles	2026	LHDT2	Aggregatec	Aggregatec	Gasoline	58.26	0.00
Los Angeles	2026	MCY	Aggregatec	Aggregatec	Gasoline	24.78	0.00
Los Angeles	2026	MDV	Aggregatec	Aggregatec	Diesel	0.00	18.51
Los Angeles	2026	MDV	Aggregatec	Aggregatec	Gasoline	1895.54	0.00
Los Angeles	2026	MH	Aggregatec	Aggregatec	Diesel	0.00	6.30
Los Angeles	2026	MH	Aggregatec	Aggregatec	Gasoline	31.54	0.00
Los Angeles	2026	MHDT	Aggregatec	Aggregatec	Diesel	0.00	291.63
Los Angeles	2026	MHDT	Aggregatec	Aggregatec	Gasoline	147.17	0.00
Los Angeles	2026	OBUS	Aggregatec	Aggregatec	Diesel	0.00	24.28
Los Angeles	2026	OBUS	Aggregatec	Aggregatec	Gasoline	26.17	0.00
Los Angeles	2026	SBUS	Aggregatec	Aggregatec	Diesel	0.00	5.06
Los Angeles	2026	SBUS	Aggregatec	Aggregatec	Gasoline	7.54	0.00
Los Angeles	2026	UBUS	Aggregatec	Aggregatec	Diesel	0.00	0.93
Los Angeles	2026	UBUS	Aggregatec	Aggregatec	Gasoline	6.65	0.00
Los Angeles	2026	LDA	Aggregatec	Aggregatec	Plug-in Hybrid	82.30	0.00
Los Angeles	2026	LDT1	Aggregatec	Aggregatec	Plug-in Hybrid	0.70	0.00
Los Angeles	2026	LDT2	Aggregatec	Aggregatec	Plug-in Hybrid	14.79	0.00
Los Angeles	2026	MDV	Aggregatec	Aggregatec	Plug-in Hybrid	8.49	0.00

	3,707,562,992	621,640,500
Net Fuel Usage for Project Operation	242,933	39,278
Percentage of County for Operation	0.0066%	0.0063%