Appendix D

Energy Calculations

TCV 2050 Project

Draft EIR
Appendix D
Energy Analysis Spreadsheets

- Appendix D: Energy Analysis
    - Energy Consumption Summary
        - Project
        - Project with Max Energy Scenario
    - Construction Energy Usage
        - On-site Power
        - Off-Road Equipment
        - On-Road Fuel Usage Rates
        - On-Road Vehicles
        - Construction Water Usage
    - Operational Energy Usage
        - Energy Calculations
        - On-Road Fuel Usage Rates
        - Peak Electricity Demand Calculations
        - Total County Fuel Consumption

Television City

Summary of Energy Use During Construction

Electricty		
Water Consumption	52,024	kWh
Temporary Power (lighting, tools)	61,236	kWh
Total:	**113,260**	kWh
Gasoline		
On Road	274,297	Gallons
Off Road	0	Gallons
Total:	**274,297**	Gallons
Diesel		
On Road	636,191	Gallons
Off Road	144,126	Gallons
Total:	**780,317**	Gallons
Total Mobile	**1,054,613**	

Summary of Energy Use During Operations

	Baseline (Buildout)	Buildout Without Project Features/MXD	Buildout With Project Features/MXD and TDM		Percent Reduction due to Project Features	Project Without Project Features - Baseline (Buildout)	Project (Buildout - Baseline (Buildout)
Electricity							
Electricity (building)	11,153,546	27,779,880	25,336,807	kWh/year	-9%	16,626,334	14,183,261
Electricity (water)	2,060,869	5,451,446	5,451,446	kWh/year	0%	3,390,577	3,390,577
EV Chargers	29,064	1,283,665	1,283,665	kWh/year		1,254,601	1,254,601
Solar	-1,617,000	0	-2,000,000			1,617,000	(383,000)
Electricity Total	**11,626,479**	**34,514,991**	**30,071,918**	**kWh/year**	**-13%**	**22,888,512**	**18,445,439**
Natural Gas							
Natural Gas (building)	5,733,265	19,388,120	19,388,120			**13,654,855**	**13,654,855**
Natural Gas Total	**5,733,265**	**19,388,120**	**19,388,120**	**cu ft/year**	**0%**	**13,654,855**	**13,654,855**
Fuel							
Gasoline (Mobile)	295,828	1,349,694	841,089	Gallons/year	-38%	1,053,866	545,262
Diesel (Mobile)	49,087	223,957	139,564	Gallons/year	-38%	174,870	90,476
Stationary (Generators) Diesel	8,759	13,353	13,353	Gallons/year		4,594	4,594
Total Diesel	57,846	237,311	152,917	Gallons/year		179,464	95,071
Fuel Total	**353,674**	**1,587,005**	**994,006**	**Gallons/year**	**-37%**	**1,233,330**	**640,333**
							635,738

Television City (Maximum Demand Scenarios)

Summary of Energy Use During Construction

Electricty		
Water Consumption	52,024	kWh
Temporary Power (lighting, tools)	61,236	kWh
Total:	**113,260**	kWh
Gasoline		
On Road	274,297	Gallons
Off Road	0	Gallons
Total:	**274,297**	Gallons
Diesel		
On Road	636,191	Gallons
Off Road	144,126	Gallons
Total:	**780,317**	Gallons
Total Mobile	**1,054,613**	

Summary of Maximum Demand Scenario During Operations

	Baseline (Buildout)	Buildout Without Project Features/MXD	Buildout With Project Features/MXD and TDM		Percent Reduction due to Project Features	Project Without Project Features - Baseline (Buildout)	Project (Buildout - Baseline (Buildout)
Electricity							
Electricity (building)	11,153,546	27,606,880	25,320,307	kWh/year	-8%	16,453,334	14,166,761
Electricity (water)	2,060,869	5,451,446	5,451,446	kWh/year	0%	3,390,577	3,390,577
EV Chargers	29,064	1,283,665	1,283,665	kWh/year		1,254,601	1,254,601
Solar	-1,617,000	0	-2,000,000			1,617,000	(383,000)
Electricity Total	**11,626,479**	**34,341,991**	**30,055,418**	**kWh/year**	**-12%**	**22,715,512**	**18,428,939**
Natural Gas							
Natural Gas (building)	5,733,265	20,256,120	20,256,120			**14,522,855**	**14,522,855**
Natural Gas Total	**5,733,265**	**20,256,120**	**20,256,120**	**cu ft/year**	**0%**	**14,522,855**	**14,522,855**
Fuel							
Gasoline (Mobile)	295,828	1,023,059	945,303	Gallons/year	-8%	727,232	649,476
Diesel (Mobile)	49,087	169,758	156,856	Gallons/year	-8%	120,671	107,769
Stationary (Generators) Diesel	8,759	13,353	13,353	Gallons/year		4,594	4,594
Total Diesel	57,846	183,112	170,209	Gallons/year		125,265	112,363
Fuel Total	**353,674**	**1,206,171**	**1,115,513**	**Gallons/year**	**-8%**	**852,497**	**761,839**
							757,245

Note: This land use mix generates higher electricity demand prior to PDFs, but once PDFs are applied, the demand is less than the conceptual development program.

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
Number of Unts	3
Average Daily Output (kWh)	151.2
Building Construction Phase Duration (days)	405
Total Construction (kWh)	61,236
Total Construction (MWh)	61.2

[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	2	8	81	0.73	0.6	65	1,845	
Demolition	Excavators	4	8	158	0.38	0.6	65	3,746	
Demolition	Other Construction Equipment	1	8	172	0.42	0.6	65	1,127	
Demolition	Rubber Tired Dozers	2	8	247	0.4	0.6	65	3,083	
Excavation/Foundations	Bore/Drill Rigs	6	8	221	0.5	0.6	185	29,437	
Excavation/Foundations	Cranes	2	8	231	0.29	0.6	185	5,949	
Excavation/Foundations	Excavators	3	8	158	0.38	0.6	185	7,997	
Excavation/Foundations	Graders	0	8	187	0.41	0.6	185	0	
Excavation/Foundations	Other Construction Equipment	2	8	172	0.42	0.6	185	6,415	
Excavation/Foundations	Pumps	4	8	84	0.74	0.6	185	11,040	
Excavation/Foundations	Rubber Tired Dozers	3	8	247	0.4	0.6	185	13,160	
Excavation/Foundations	Rubber Tired Loaders	2	8	203	0.36	0.6	185	6,490	
Excavation/Foundations	Tractors/Loaders/Backhoes	3	8	97	0.37	0.6	185	4,781	
Excavation/Foundations	Welders	2	8	46	0.45	0.6	185	1,838	
Mat Foundation	Plate Compactors	6	8	8	0.43	0.6	5	25	
Mat Foundation	Pumps	6	8	84	0.74	0.6	5	448	
Mat Foundation	Rubber Tired Dozers	0	8	247	0.4	0.6	5	0	
Mat Foundation	Tractors/Loaders/Backhoes	0	8	97	0.37	0.6	5	0	
Structure/Enclosure	Cranes	0	7	231	0.29	0.6	235	0	
Structure/Enclosure	Forklifts	2	8	89	0.2	0.6	235	2,008	
Structure/Enclosure	Other Construction Equipment	4	8	172	0.42	0.6	235	16,297	
Structure/Enclosure	Pumps	2	8	84	0.74	0.6	235	7,012	
Structure/Enclosure	Tractors/Loaders/Backhoes	1	8	97	0.37	0.6	235	2,024	
Architectural Coating/Finishing	Air Compressors	6	8	78	0.48	0.6	260	14,018	
Architectural Coating/Finishing	Forklifts	2	8	89	0.2	0.6	260	2,221	
Paving/Landscape	Pavers	0	8	130	0.42	0.6	21	0	
Paving/Landscape	Paving Equipment	1	8	132	0.36	0.6	21	240	
Paving/Landscape	Rollers	1	8	80	0.38	0.6	21	153	
Paving/Landscape	Skid Steer Loaders	2	8	65	0.37	0.6	21	242	
Paving/Landscape	Trenchers	1	8	78	0.5	0.6	21	197	
						Total Diesel Usage for Construction (Offr		**144,126.0**	**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: 2023
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	3,441,157	137,073,184	16,009,115	4,845	0	28.3
South Coast	LDT1	Gasoline	Aggregate	323,318	11,785,010	1,422,834	498	0	23.7
South Coast	LDT2	Gasoline	Aggregate	1,558,893	64,432,894	7,331,380	2,817	0	22.9
						Construction Worker Trip (Composite LDA/LDT1/LDT2):			**25.8**
South Coast	HHDT	Diesel	Aggregate	51,746	6,735,516	804,221	0	1127.8	**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 Woker Trips	Daily Vendor 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	100	80	65	6500	5200	0	14.7	32	20	95550	166400	0	0.6	2,223.7	16,717.3
Excavation/Foundations	490	640	185	90650	118400	8572	14.7	32	145	1332555	3788800	1242940	0.6	31,011.5	588,757.6
Mat Foundation	100	1000	5	500	5000	0	14.7	6.9	20	7350	34500	0	0.6	171.1	3,466.0
Structure/Enclosure	1350	100	235	317250	23500	0	14.7	6.9	20	4663575	162150	0	0.6	108,531.6	16,290.3
Architectural Coating/Finishing	1480	60	260	384800	15600	0	14.7	6.9	20	5656560	107640	0	0.6	131,640.5	10,814.0
Paving/Landscape	100	10	21	2100	210	0	14.7	6.9	20	30870	1449	0	0.6	718.4	145.6
													Total:	**274,296.6**	**636,190.7**

Worker Miles per gallon=	25.78	gasoline
Vedor/Haul miles per gallon=	5.97	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	65	5.0	981,500	9,547
Excavation/Foundations	185	5.0	2,793,500	27,172
Mat Foundation	5	1.0	15,100	147
Structure/Enclosure	235	1.0	709,700	6,903
Architectural Coating/Finishing	260	1.0	785,200	7,638
Paving/Landscape	21	1.0	63,420	617
		Total:	**5,348,420**	**52,024**

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).

Land Use	Floor Area		Demand Rate (KWh/sf/yr)	Natural Gas Usage (KBTU/sf/yr)	Rate LU Category	Rate Source	Indoor Water Usage (Mgal)	Outdoor Water Usage (Mgal)	Electricity from Water Usage (KWh/yr)	Total Demand (Building) (KWh/yr)	Total Demand with 25% Reduction in Lighting LEED and Solar (KWh/yr)	Total Natural Gas Demand (KBtu/yr)
Existing Uses												
Sound Stages	95,540	sf	15.22	12.44	Sound Stages	CalEEMod 2020	22	-	245,482	1,454,119	NA	1,188,518
Production Support	325,450	sf	13.07	1.63	Strip Mall	CalEEMod 2020	75	-	836,217	4,253,632	NA	530,484
Production Office	163,090	sf	15.24	12.44	General Office Building	CalEEMod 2020	29	18	489,585	2,485,492	NA	2,028,840
General Office	159,600	sf	15.24	12.44	General Office Building	CalEEMod 2020	29	18	489,585	2,432,304	NA	1,985,424
Parking Lot	600,000	sf	0.88	0.00	Enclosed PS with Elevator	CalEEMod 2020	-	-	-	528,000	NA	0
SubTotal	**743,680**	sf							**2,060,869**	**11,153,546**	**0**	**5,733,265**
Solar Array						2019 Output				-1,617,000	NA	NA
EV Chargers										29,064	0	NA
TOTAL										**9,536,546**		**5,733,265**
									Total Electricity from Water and Building (KWh/yr):	**11,597,415**		

-Demand rates are based on CalEEMod default historical data with Sound Stages as Industrial Park.
-Water usage rates are from CalEEMod output files. 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).

Land Use	Floor Area		Demand Rate (KWh/sf/yr)	Natural Gas Usage (KBTU/sf/yr)	Rate LU Category	Rate Source	Indoor Water Usage (Mgal)	Outdoor Water Usage (Mgal)	Electricity from Water Usage (KWh/yr)	Total Demand (KWh/yr)	Total Demand with 25% Reduction in Lighting LEED and Solar (KWh/yr)	Total Natural Gas Demand (KBtu/yr)	
Conceptual Land Use Program													
Sound Stages	350,000	sf	11.34	10.31	Sound Stages	MBS (2017-2018 average demand)	81	-	899,297	3,969,000	3,969,000	3,608,500	No reduction for lighting as the source is MBS.
Production Support	104,000	sf	13.07	1.63	Strip Mall	CalEEMod 2020	24	-	267,220	1,359,280	1,196,520	169,520	
Production Office	700,000	sf	12.50	10.31	General Office Building	CalEEMod 2020	124	76	2,124,078	8,750,000	8,090,250	7,217,000	
General Office	700,000	sf	12.50	10.31	General Office Building	CalEEMod 2020	124	76	2,124,078	8,750,000	8,090,250	7,217,000	
Retail*	15,000	sf	13.07	1.63	Strip Mall	CalEEMod 2020	1	1	18,969	196,050	172,575	24,450	
Restaurant*	5,000	sf	43.27	230.33	Restaurant	CalEEMod 2020	2	0	17,805	216,350	206,512	1,151,650	
Enclosed Parking Structure	1,040,000	sf	2.35	0.00	Enclosed PS with Elevator	CalEEMod 2020				2,444,000	1,989,000	0	
Unenclosed Parking Structure	1,080,000	sf	1.94	0.00	Unenclosed PS with Elevator	CalEEMod 2020				2,095,200	1,622,700	0	
SubTotal	**1,874,000**								**5,451,446**	**27,779,880**	**25,336,807**	**19,388,120**	
Solar Array					To Be Determined					0	-2,000,000	NA	
EV Chargers										1,283,665	1,283,665	NA	
TOTAL										**29,063,545**	**24,620,472**	**19,388,120**	
									Total Electricity from Water and Building (KWh/yr):	**34,514,991**	**30,071,918**		

-Assumes 5k of permitted retail may be developed as ancillary restaurant/commissary uses.
-Water usage rates are from CalEEMod output files. 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).

Land Use	Floor Area		Demand Rate (KWh/sf/yr)	Natural Gas Usage (KBTU/sf/yr)	Rate LU Category	Rate Source	Indoor Water Usage (Mgal)	Outdoor Water Usage (Mgal)	Electricity from Water Usage (KWh/yr)	Total Demand (KWh/yr)	with 25% Reduction in Lighting LEED and Solar (KWh/yr)	Total Natural Gas Demand (KBtu/yr)			
Land Use Exchange--Max Electricity Demand Scenario													**LU Exchange Limitations**		
Sound Stages	450,000	sf	11.34	10.31	Sound Stages	MBS (2017-2018 average demand)	104	-	1,156,238	5,103,000	5,103,000	4,639,500	Max 450K	no cap	No reduction for lighting as the source is MBS.
Production Support	450,000	sf	13.07	1.63	Strip Mall	CalEEMod 2020	104	-	1,156,238	5,881,500	5,177,250	733,500	No limit	no cap	
Production Office	477,000	sf	12.50	10.31	General Office Building	CalEEMod 2020	85	52	1,447,407	5,962,500	5,512,950	4,917,870	Max 700k		
General Office	477,000	sf	12.50	10.31	General Office Building	CalEEMod 2020	85	52	1,447,407	5,962,500	5,512,950	4,917,870	Max 700k		
Retail*	15,000	sf	13.07	1.63	Strip Mall	CalEEMod 2020	1	1	18,969	196,050	172,575	24,450	Max 20k incl restaurant		
Restaurant*	5,000	sf	43.27	230.33	Restaurant	CalEEMod 2020	2	0	17,805	216,350	206,512	1,151,650	(technically no cap on restaurant but thus far all analyses assume max of 5k per discussion with Francis)		
Enclosed Parking Structure	1,040,000	sf	2.35	0.00	Enclosed PS with Elevator	CalEEMod 2020				2,444,000	1,989,000	0			
Unenclosed Parking Structure	1,080,000	sf	1.94	0.00	Unenclosed PS with Elevator	CalEEMod 2020				2,095,200	1,622,700	0			
SubTotal	**1,874,000**								**5,244,066**	**27,861,100**	**25,296,937**	**16,384,840**	Max 1.874M sf and 1.75 FAR		
Solar Array					To Be Determined					0	-2,000,000	NA			
EV Chargers										1,283,665	1,283,665	NA			
TOTAL										**29,144,765**	**24,580,602**	**16,384,840**			
									Total Electricity from Water and Building (KWh/yr):	**34,388,831**	**29,824,668**				

-Assumes 5k of permitted retail may be developed as ancillary restaurant/commissary uses.
-Water usage rates are from CalEEMod output files. 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).

Land Use	Floor Area		Demand Rate (KWh/sf/yr)	Natural Gas Usage (KBTU/sf/yr)	Rate LU Category	Rate Source	Indoor Water Usage (Mgal)	Outdoor Water Usage (Mgal)	Electricity from Water Usage (KWh/yr)	Total Demand (KWh/yr)	Total Demand with 25% Reduction in Lighting LEED and Solar (KWh/yr)	Total Natural Gas Demand (KBtu/yr)	
Land Use Exchange--Max VMT/Natural Gas Usage Scenario													
Sound Stages	450,000	sf	11.34	10.31	Sound Stages	MBS (2017-2018 average demand)	104	-	1,156,238	5,103,000	5,103,000	4,639,500	No reduction for lighting as the source is MBS.
Production Support	4,000	sf	13.07	1.63	Strip Mall	CalEEMod 2020	1	-	10,278	52,280	46,020	6,520	
Production Office	700,000	sf	12.50	10.31	General Office Building	CalEEMod 2020	124	76	2,124,078	8,750,000	8,090,250	7,217,000	
General Office	700,000	sf	12.50	10.31	General Office Building	CalEEMod 2020	124	76	2,124,078	8,750,000	8,090,250	7,217,000	
Retail*	15,000	sf	13.07	1.63	Strip Mall	CalEEMod 2020	1	1	18,969	196,050	172,575	24,450	
Restaurant*	5,000	sf	43.27	230.33	Restaurant	CalEEMod 2020	2	0	17,805	216,350	206,512	1,151,650	
Enclosed Parking Structure	1,040,000	sf	2.35	0.00	Enclosed PS with Elevator	CalEEMod 2020				2,444,000	1,989,000	0	
Unenclosed Parking Structure	1,080,000	sf	1.94	0.00	Unenclosed PS with Elevator	CalEEMod 2020				2,095,200	1,622,700	0	
SubTotal	**1,874,000**								**5,451,446**	**27,606,880**	**25,320,307**	**20,256,120**	
Solar Array					To Be Determined					0	-2,000,000	NA	
EV Chargers										1,283,665	1,283,665	NA	
TOTAL										**28,890,545**	**24,603,972**	**20,256,120**	
									Total Electricity from Water and Building (KWh/yr):	**34,341,991**	**30,055,418**		

-Assumes 5k of permitted retail may be developed as ancillary restaurant/commissary uses.
-Water usage rates are from CalEEMod output files. 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).

Television City (Fuel Usage)

		Gasoline			Diesel			
Land Use	**Annual VMT**	**Miles/Gallon**	**%Fleet**	**Annual Gallons**	**Miles/Gallon**	**%Fleet**	**Annual Gallons**	**Total Annual Fuel Usage**
Existing Uses	7,847,050	23.1	95%	323,479	8.0	5%	46,987	370,466
Existing Uses (Buildout Year)	7,847,050	25.1	95%	295,828	8.8	5%	49,087	344,915
Project No MXD	35,801,626	25.1	95%	1,349,694	8.8	5%	223,957	1,573,651
Project With No TDM	26,870,089	25.1	95%	1,012,982	8.8	5%	168,086	1,181,068
Project TDM	22,310,515	25.1	95%	841,089	8.8	5%	139,564	980,653
Max Electricity Scenario No TDM	23,412,889	25.1	95%	882,648	8.8	5%	146,460	1,029,108
Max Electricity Scenario TDM	21,634,536	25.1	95%	815,605	8.8	5%	135,335	950,940
Max VMT and Natural Gas Scenario No TDM	27,137,407	25.1	95%	1,023,059	8.8	5%	169,758	1,192,818
Max VMT and Natural Gas Scenario TDM	25,074,870	25.1	95%	945,303	8.8	5%	156,856	1,102,159

-Assumes 5k of permitted retail may be developed as ancillary restaurant/commissary uses.
-Water usage rates are from CalEEMod output files. 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).

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
Building (MWh)	11,154	25,337
Water (MWh)	2,061	5,451
EV Chargers (MWh)	29	1,284
PV (MWh)	-1,617	-2,000
Total (MWh)	11,626	30,072
Average Daily Demand		
Building (kWh)	30,558	69,416
Water (kWh)	5,646	14,935
EV Chargers (MWh)	80	3,517
PV (MWh)	-4,430	-5,479
Total (kWh)	31,853	82,389
Average Load		
Building (kW)	1,273	2,892
Water (kW)	235	622
EV Chargers (MWh)	3	147
PV (MWh)	-185	-228
Total (kW)	1,327	3,433

Peak Load Calculation

Peak Load (kW)[2]	2,503	6,103
Systemwide Peak Load (MW)		5,820
Percent of Peak		0.105%

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

[2] Peak Load is conservatively calculated without any reductions from removal of existing uses.

EMFAC Emission inventories for County

EMFAC2021 (v1.0.1) Emissions Inventory
Region Type: County
Region: Los Angeles
Calendar Year: **2023** (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	2023	HHDT	Aggregatec	Aggregatec	Diesel	0.00	1127.80
Los Angeles	2023	HHDT	Aggregatec	Aggregatec	Gasoline	0.82	0.00
Los Angeles	2023	LDA	Aggregatec	Aggregatec	Diesel	0.00	7.39
Los Angeles	2023	LDA	Aggregatec	Aggregatec	Gasoline	4845.08	0.00
Los Angeles	2023	LDT1	Aggregatec	Aggregatec	Diesel	0.00	0.12
Los Angeles	2023	LDT1	Aggregatec	Aggregatec	Gasoline	497.89	0.00
Los Angeles	2023	LDT2	Aggregatec	Aggregatec	Diesel	0.00	6.82
Los Angeles	2023	LDT2	Aggregatec	Aggregatec	Gasoline	2816.72	0.00
Los Angeles	2023	LHDT1	Aggregatec	Aggregatec	Diesel	0.00	118.37
Los Angeles	2023	LHDT1	Aggregatec	Aggregatec	Gasoline	379.01	0.00
Los Angeles	2023	LHDT2	Aggregatec	Aggregatec	Diesel	0.00	62.09
Los Angeles	2023	LHDT2	Aggregatec	Aggregatec	Gasoline	62.66	0.00
Los Angeles	2023	MCY	Aggregatec	Aggregatec	Gasoline	23.59	0.00
Los Angeles	2023	MDV	Aggregatec	Aggregatec	Diesel	0.00	18.92
Los Angeles	2023	MDV	Aggregatec	Aggregatec	Gasoline	1944.85	0.00
Los Angeles	2023	MH	Aggregatec	Aggregatec	Diesel	0.00	5.69
Los Angeles	2023	MH	Aggregatec	Aggregatec	Gasoline	32.88	0.00
Los Angeles	2023	MHDT	Aggregatec	Aggregatec	Diesel	0.00	288.96
Los Angeles	2023	MHDT	Aggregatec	Aggregatec	Gasoline	163.55	0.00
Los Angeles	2023	OBUS	Aggregatec	Aggregatec	Diesel	0.00	24.73
Los Angeles	2023	OBUS	Aggregatec	Aggregatec	Gasoline	31.50	0.00
Los Angeles	2023	SBUS	Aggregatec	Aggregatec	Diesel	0.00	5.64
Los Angeles	2023	SBUS	Aggregatec	Aggregatec	Gasoline	7.17	0.00
Los Angeles	2023	UBUS	Aggregatec	Aggregatec	Diesel	0.00	1.18
Los Angeles	2023	UBUS	Aggregatec	Aggregatec	Gasoline	6.81	0.00
Los Angeles	2023	LDA	Aggregatec	Aggregatec	Plug-in Hybrid	75.01	0.00
Los Angeles	2023	LDT1	Aggregatec	Aggregatec	Plug-in Hybrid	0.27	0.00
Los Angeles	2023	LDT2	Aggregatec	Aggregatec	Plug-in Hybrid	9.96	0.00
Los Angeles	2023	MDV	Aggregatec	Aggregatec	Plug-in Hybrid	5.25	0.00
						3,979,596,395	608,715,539
					Fuel Usage for Project Construction	274,297	780,317
					Percentage of County for Construction	0.0069%	0.128%

EMFAC Emission inventories for County

EMFAC2014 (v1.0.7) 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	545,262	90,476
Percentage of County for Operation	0.0147%	0.0146%