



Appendix H

Energy Documentation

Construction Fuel Consumption

On-Site Diesel ¹ (off-road construction Equipment)	MTCO ₂ e	Gallons of Fuel ⁴	San Bernardino County Fuel (Start of Construction)	Percent
Demolition	0	11		
Site Preparation	20	2,019		
Grading	101	9,944		
Construction/Installation	156	15,408		
Architectural Coating	6	624		
Total	284	28,006	279,150,963	0.0100%

Off-Site Diesel ¹ (on-road construction trips)				
Demolition	0	11		
Site Preparation	38	3,728		
Grading	52	5,162		
Construction/Installation	108	10,606		
Architectural Coating	0	0		
Total	198	19,508	279,150,963	0.0070%

Off-Site Gasoline ²				
Demolition	19	2,140		
Site Preparation	32	3,583		
Grading	40	4,505		
Construction/Installation	69	7,861		
Architectural Coating	0	0		
Total	159	18,089	859,496,394	0.0021%

Total Diesel Fuel		47,514	281,589,849	0.0169%
Total Gasoline Fuel		18,089	828,612,797	0.0022%
Total Construction Fuel	642	65,603		

Construction Phase ³	Demolition			Site Preparation			Grading		
	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)
2025	23.4	0.1	18.9	20.5	37.8	31.6	91.4	46.1	34.4
2026							9.6	6.3	5.3
Total	23	0	19	20	38	32	101	52	40

Construction Phase ³	Construction/Installation, PV Vendor Trips ⁵			Paving					
	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)
2025	24.4	0.6	1.5	3.9	0.8	0.5			
2026	132.0	107.1	67.7	1.4	0.0	12.3			
Total	156	108	69	5	1	13	0	0	0

Notes:

¹ Fuel used for off-road, hauling, and vendor trips assumed to be diesel.

² Fuel used for worker trips assumed to be gasoline.

³ MTCO₂e rates from CalEEMod (3.0 Construction Details).

⁴ For CO₂e emissions, see Chapter 13 (page 94); Conversion Ratios: Climate Registry, General Reporting Protocol, 2016.

⁵ Construction/Installation vendor trips include PV panel deliveries.

Construction Water Energy

Water Energy Intensity ¹	2,701	kWh/MG
Total Construction Water ²	4.24	million gallons
Construction Water Energy	11,452	kWh
San Bernardino County Annual Energy (GWh)	10,327,755,820	kWh
Percentage of County	0.000001	

Notes:

¹ Water energy intensity factor for county subarea per CalEEMod User Guide, Appendix D, page D-343.

² Total Construction Water based on applicant input.

Electricity/Natural Gas Energy

	Mitigated Project Annual Energy	San Bernardino County Annual Energy ³	Percentage Increase
Electricity (kWh/yr)	0	10,327,755,820	0.0000000%
Natural Gas (kBTU/yr)	0	0	NA
Natural Gas (therms/yr)	0	0	NA

Land Use	Electricity ¹ (kWh/yr)		Natural Gas ² (kBTU/yr)	
	Unmitigated	Mitigated	Unmitigated	Mitigated
	0	0	0	0
Total Energy	0	0	0	0

Notes:

- ¹ Electricity use per CalEEMod (5.3 Energy by Land Use).
- ² Natural Gas use per CalEEMod (5.2 Natural Gas by Land Use).
- ³ County total energy values from California Energy Commission energy reports available through ecdms.energy.ca.gov. (year 2020)

Operational Water Energy

Mitigated Indoor	0.00	million gallons
Indoor Energy Intensity Factor ¹	2,701	kWh/MG
Mitigated Outdoor	0.10	million gallons
Outdoor Energy Intensity Factor ²	3,472	kWh/MG
Operational Water Energy	347	kWh
San Bernardino County Annual Energy (GWh)	10,327,755,820	kWh
Percentage Increase	0.00000003	

Notes:

¹ Indoor water energy intensity factor for county subarea per CalEEMod User Guide, Appendix D, page D-343. Factor includes supply

² Outdoor water energy intensity factor for county subarea per CalEEMod User Guide, Appendix D, page D-343. Factor includes supply

³ Operational water use values per CalEEMod (7.2 Water by Land Use).

Operational Fuel

Vehicle Type	Annual VMT ¹	MPG ²	Annual Fuel (Gallons)	Fuel Type	San Bernardino County Gallons ³	RS Percent
Passenger Cars	0	21.6	0	Gas	281,589,849	0.00000%
Light/Medium Trucks	0	17.2	0	Diesel	828,612,797	0.00000%
Heavy Trucks/Other	410	6.1	67	Diesel	828,612,797	0.00001%
Trucks Total			67		828,612,797	0.00001%
Total	410					

Notes:

¹ Total annual operational VMT based on mitigated annual VMT from CalEEMod (4.2 Trip Summary Information).

² Average fuel economy derived from Department of Transportation.

³ Total annual county fuel per EMFAC 2021 model of projected operational fuel usage.