



# PHOTOVOLTAIC (SOLAR ENERGY) Phase II



BUSINESS SERVICES

DECEMBER 15, 2020



# Phase II Solar

## SCOPE OF WORK PROPOSED



Utility & Summer of Construction	School Name	PV Size (kW-DC)	Annual Production (kWh)
APU Summer '22	Anaheim Hills ES	108.0	183,378
APU Summer '22	Canyon HS Rooftop - ALT	595.2	1,011,419
APU Summer '22	El Rancho Charter MS	331.2	563,707
APU Summer '22	Running Springs ES	202.0	343,972
SCE, Summer '21	Cerro Villa ES	136.8	232,548
SCE, Summer '21	Serrano ES	108.0	181,982
SCE, Summer '21	Sycamore ES - ALT	88.8	152,520
SCE, Summer '21	Villa Park HS	662.4	1,095,360
<b>TOTAL</b>		<b>2,232.4 kW</b>	<b>3,764,886 kWh</b>

# Anaheim Hills ES | SOLAR PROFILE

Design Parameters: DSA Precheck Solar Carport

Proposed PV Size (kW)	Annual kWh	Proposed Utility Rate	Utility	Account	Meter	Volts; Amps
126.8	219,280	GS 2	APU	10813700	00681W420DKS	277/480V; 1000A

Meter Location



# Canyon HS | SOLAR PROFILE

Design Parameters: New STEM Building Roof

Proposed PV Size (kW)	Annual kWh	Proposed Utility Rate	Utility	Account	Meter	Volts; Amps
241	1,068,466	GS-2	APU	TBD	TBD	TBD


Meter Location:

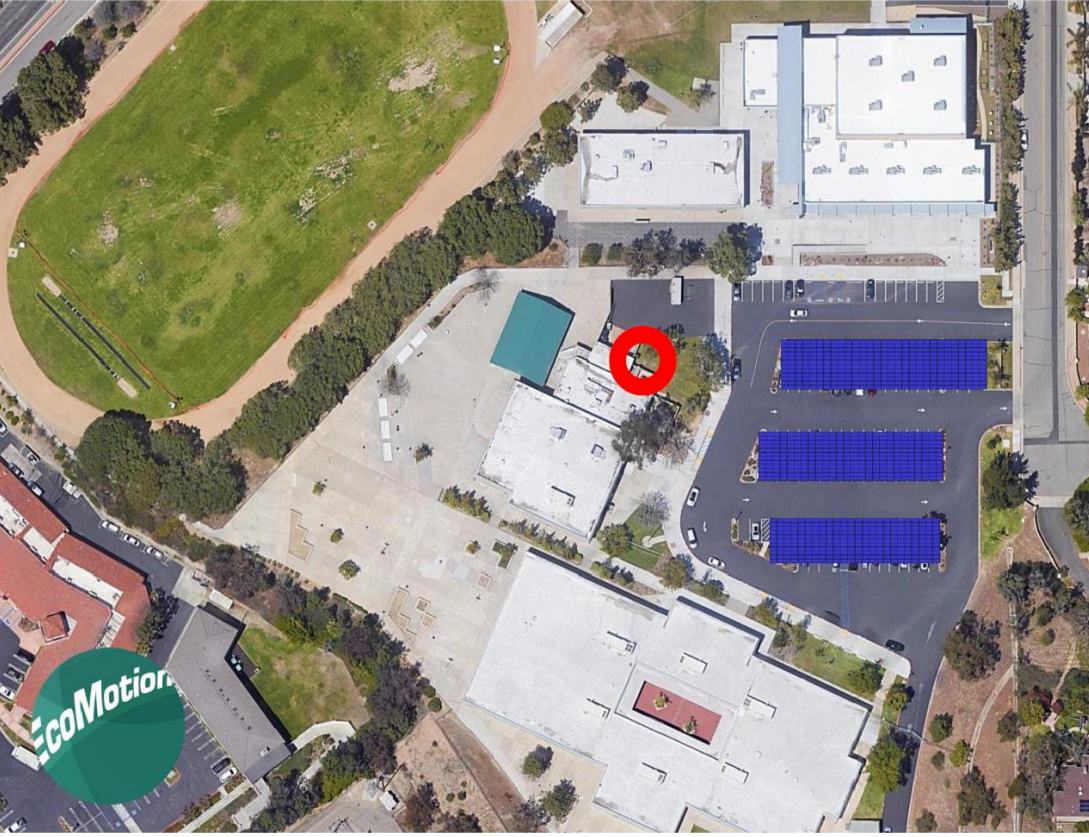


# El Rancho Charter Middle School | SOLAR PROFILE

Design Parameters: DSA Precheck Solar Carport

Proposed PV Size (kW)	Annual kWh	Proposed Utility Rate	Utility	Account	Meter	Volts; Amps
365	930,200	GS-2	APU	108085000	12929835	270/480V ; 2000A


Meter Location 

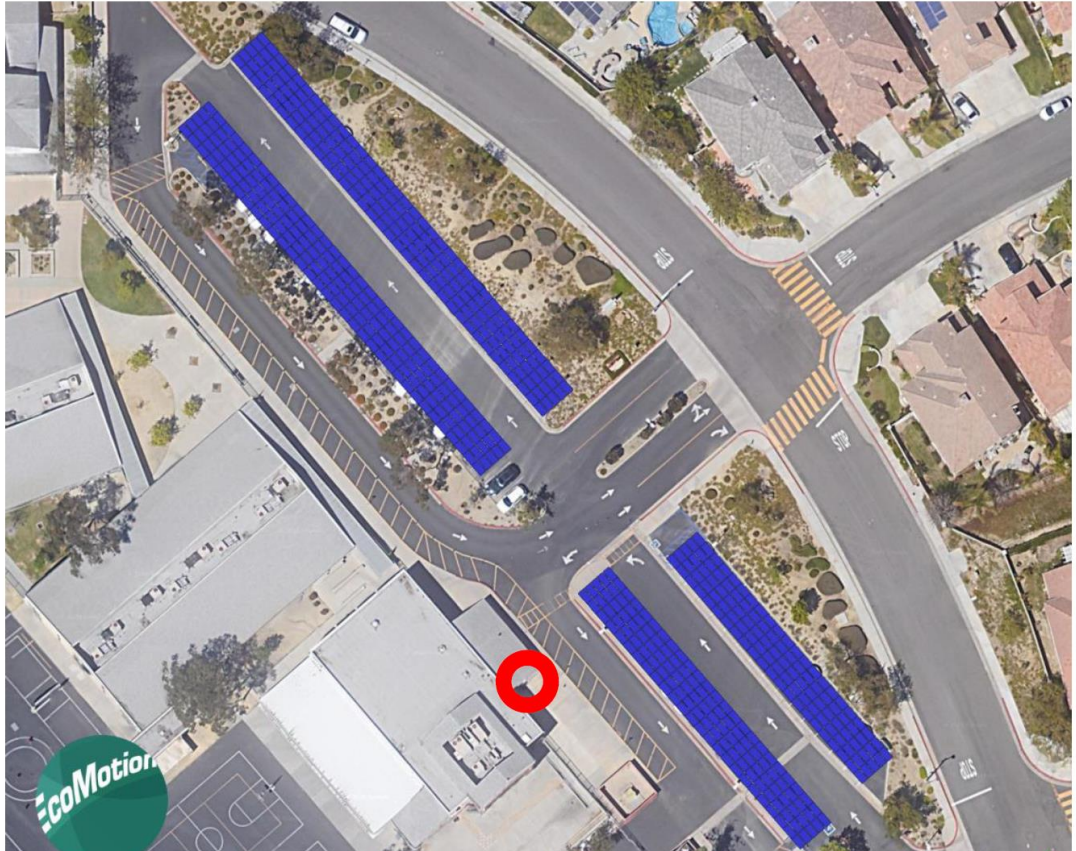


# Running Springs ES | SOLAR PROFILE

Design Parameters: DSA Precheck Solar Carport

Proposed PV Size (kW)	Annual kWh	Proposed Utility Rate	Utility	Account	Meter	Volts; Amps
229.1	382,680	GS-2	APU	904000161	904000161	277/480V 1000A

Meter Location 

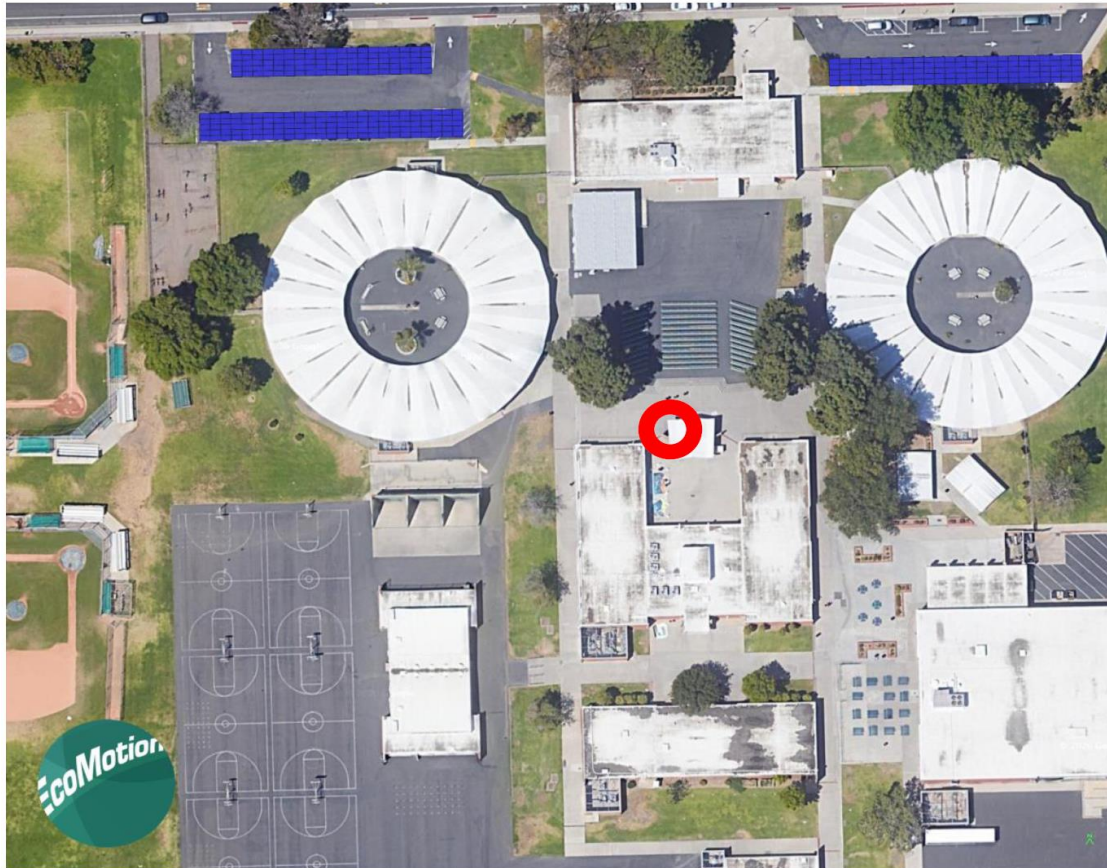


# Cerro Villa MS | SOLAR PROFILE

Design Parameters: DSA Precheck Solar Carport

Proposed PV Size (kW)	Annual kWh	Proposed Utility Rate	Utility	Account	Meter	Volts; Amps
134.3	384,360	TOU-GS-3E	SCE	3-000-2960-69	V349N012150	277/480V; 1600A

Meter Location



# Serrano ES | SOLAR PROFILE

Design Parameters: DSA Precheck Solar Carport

Proposed PV Size (kW)	Annual kWh	Proposed Utility Rate	Utility	Account	Meter	Volts; Amps
113	192,066	TOU-GS-2E	SCE	3-018-2237-54	V349N010987	120/208V; 1200A

Meter Location

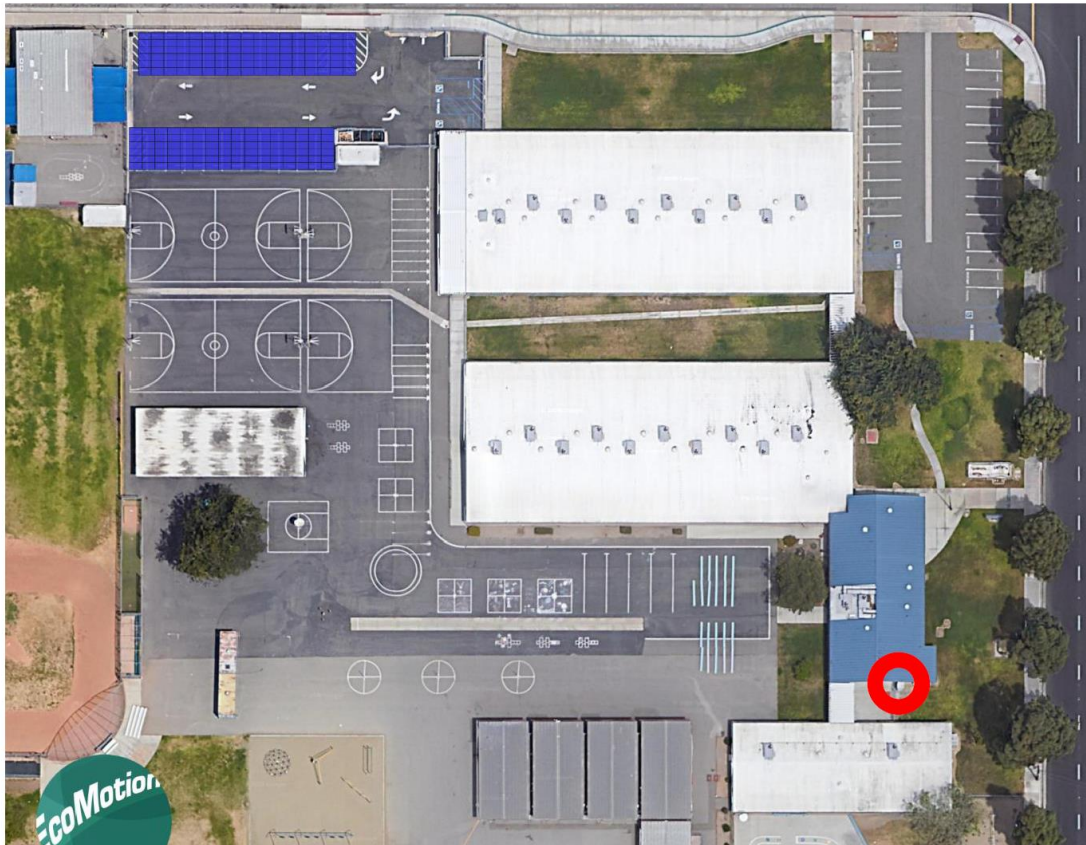


# Sycamore ES | SOLAR PROFILE

Design Parameters: DSA Precheck Solar Carport

Proposed PV Size (kW)	Annual kWh	Proposed Utility Rate	Utility	Account	Meter	Volts; Amps
78.2	152,419	TOU-GS-2E	SCE	3-001-0140-35	359150010204	120/208V; 1200A

Meter Location 



# Villa Park HS | SOLAR PROFILE

Design Parameters: DSA Precheck Solar Carport

Proposed PV Size (kW)	Annual kWh	Proposed Utility Rate	Utility	Account	Meter	Volts; Amps
669	1,104,121	TOU-8 D	SCE	3-019-2545-51	V349N014697	277/480V; 3000A

Meter Location 





# Phase II Solar

## PROCESS TIMELINE

### RFP Schedule

Request for Proposals Issued	October 16, 2020
Virtual Conference / Site Walk	October 23, 2020 @ 9:00 am
Final Questions	October 29, 2020
Proposals Due	November 20, 2020 @ 5:00 pm
Interviews	November 23-24, 2020



# Phase II Solar

## RFP RESULTS AND ANALYSIS

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- ❖ Scope of Work was sent to ten (10) Energy Contracting Firms
- ❖ Two proposals were received at the November 20, 2020 deadline
- ❖ One firm misrepresented their involvement and had a subpar presentation to the District
- ❖ A single firm, Ameresco, was able to demonstrate net savings over the course of the Power Purchase Agreement term of 25 years



Year	Utility Energy Savings (kWh) - TOTAL	Utility Energy Savings (\$)	PPA Cost at \$0.149 \$/kWh with 0.00% escalation	Annual Savings	Cumulative Savings
0	1,662,410	\$258,292	\$247,699	\$10,593	\$10,593
1	3,756,574	\$545,951	\$559,730	(\$13,779)	(\$3,186)
2	3,737,791	\$562,234	\$556,931	\$5,303	\$2,117
3	3,719,102	\$579,002	\$554,146	\$24,856	\$26,973
4	3,700,507	\$596,271	\$551,375	\$44,895	\$71,868
5	3,682,004	\$614,055	\$548,619	\$65,436	\$137,304
6	3,663,594	\$632,369	\$545,876	\$86,493	\$223,798
7	3,645,276	\$651,229	\$543,146	\$108,083	\$331,881
8	3,627,050	\$670,652	\$540,430	\$130,222	\$462,103
9	3,608,914	\$690,654	\$537,728	\$152,926	\$615,029
10	3,590,870	\$711,253	\$535,040	\$176,214	\$791,243
11	3,572,916	\$732,466	\$532,364	\$200,102	\$991,345
12	3,555,051	\$754,312	\$529,703	\$224,610	\$1,215,954
13	3,537,276	\$776,810	\$527,054	\$249,755	\$1,465,710
14	3,519,589	\$799,978	\$524,419	\$275,559	\$1,741,269
15	3,501,991	\$823,837	\$521,797	\$302,040	\$2,043,309
16	3,484,481	\$848,408	\$519,188	\$329,220	\$2,372,530
17	3,467,059	\$873,712	\$516,592	\$357,120	\$2,729,650
18	3,449,724	\$899,770	\$514,009	\$385,762	\$3,115,411
19	3,432,475	\$926,606	\$511,439	\$415,167	\$3,530,579
20	3,415,313	\$954,242	\$508,882	\$445,360	\$3,975,939
21	3,398,236	\$982,702	\$506,337	\$476,365	\$4,452,304
22	3,381,245	\$1,012,011	\$503,806	\$508,206	\$4,960,510
23	3,364,339	\$1,042,195	\$501,286	\$540,908	\$5,501,418
24	3,347,517	\$1,073,278	\$498,780	\$574,498	\$6,075,917
25	1,864,168	\$566,775	\$277,761	\$289,014	\$6,364,931
<b>TOTAL</b>	<b>88,685,472</b>	<b>\$19,579,066</b>	<b>\$13,214,135</b>		
				<b>Option Savings</b>	<b>\$6,364,931</b>

# Phase II Solar



## RFP RESULTS AND ANALYSIS

### AMERESCO INC

❖ PPA Rate: \$0.149 per Kilowatt Hour

❖ Previous Rate (Phase I): \$0.139

- One cent per KWh variance is due to an increase cost in solar panels and inverters due to revised tax credits.

❖ Total energy savings over 25 year PPA (Power Purchase Agreement):  
**\$6,364,931**



# Phase II Solar NEXT STEPS

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- ❖ MOU to enter into Government Code 4217 process and contract negotiations presented to Board of Education: *December 15, 2020*
- ❖ Public Hearing of EcoMotion's Third Party Findings per GC 4217: *January 21, 2020 (pending approval of MOU on December 15)*
- ❖ Contract Approval: *January 21, 2020 (pending public hearing and Board direction on previous item on January 21 agenda)*
- ❖ *Work completed in two fiscal years, commencing in Summer 2021*



# Questions?

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