

In total the College could expect to save almost \$20k by switching to the new CG-3(A) rate.

Appendix A – Rate Comparison

A3A and CG-3(A) Comparison (High Season)				
Jun - Sep		Jun - Sep		
A-3A		CG-3 Rate A		
1	Service Charge	\$75.00	1 Service Charge	\$150.00
2	Facilities Charge	\$4.56	2 Facilities Charge	\$4.56
3	Demand Charge - per kW		3 Supplemental Capacity Charge - per kW	
	High Peak Period	\$9.70	High Peak Period	\$5.50
	Low Peak Period	\$3.30	Low Peak Period	\$3.00
	Base Period	\$-	Base Period	\$-
4	Energy Charge - per kWh		4 Energy Charge - per kWh	
	High Peak Period	\$0.04785	High Peak Period	\$0.04785
	Low Peak Period	\$0.04159	Low Peak Period	\$0.04159
	Base Period	\$0.02150	Base Period	\$0.02150
5	Reactive Energy Charge		5 Reactive Energy Charge	
	High Peak Period	See Table	High Peak Period	See Table
	Low Peak Period	See Table	Low Peak Period	See Table
	Base Period	See Table	Base Period	See Table
6	Backup Capacity Charge- per kWh of Backup Energy		5 Backup Capacity Charge- per kWh of Backup Energy	
	High Peak Period		High Peak Period	\$0.14569
	Low Peak Period		Low Peak Period	\$0.03578
	Base Period		Base Period	
7	ECA - per kWh	\$0.05690	6 ECA - per kWh	\$0.05690
8	ESA - per kW	\$0.46000	7 ESA - per kW	\$0.46000
9	RCA - per kW	\$0.96000	8 RCA - per kW	\$0.96000
10	IRCA - per kW (except June)	ADJ Factors	9 IRCA - per kW (except June)	ADJ Factors
11	VEA - per kWh	ADJ Factors	0 VEA - per kWh	ADJ Factors
12	CRPSEA - per kWh	ADJ Factors	1 CRPSEA - per kWh	ADJ Factors
13	VRPSEA - per kWh	ADJ Factors	1 VRPSEA - per kWh	ADJ Factors

A3A and CG-3(A) Comparison (Low Season)				
Sep - Jun		Sep - Jun		
<u>A-3A</u>		<u>CG-3 Rate A</u>		
1	Service Charge	\$75.00	1 Service Charge	\$150.00
2	Facilities Charge	\$4.56	2 Facilities Charge	\$4.56
3	Demand Charge - per kW		3 Supplemental Capacity Charge - per kW	
	High Peak Period	\$4.30	High Peak Period	\$4.00
	Low Peak Period	\$-	Low Peak Period	\$-
	Base Period	\$-	Base Period	\$-
4	Energy Charge - per kWh		4 Energy Charge - per kWh	
	High Peak Period	\$0.04258	High Peak Period	\$0.04258
	Low Peak Period	\$0.04258	Low Peak Period	\$0.04258
	Base Period	\$0.02592	Base Period	\$0.02592
5	Backup Capacity Charge- per kWh of Backup Energy		5 Backup Capacity Charge- per kWh of Backup Energy	
	High Peak Period		High Peak Period	\$-
	Low Peak Period		Low Peak Period	\$-
	Base Period		Base Period	\$-
		\$0.056		
6	ECA - per kWh	\$0.05690	6 ECA - per kWh	\$0.05690
7	ESA - per kW	\$0.46000	7 ESA - per kW	\$0.46000
		\$0.960		
8	RCA - per kW	\$0.96000	8 RCA - per kW	\$0.96000
9	IRCA - per kW (except June)	ADJ Factors	9 IRCA - per kW (except June)	ADJ Factors
1		ADJ	1	ADJ
0	VEA - per kWh	Factors	0 VEA - per kWh	Factors
1		ADJ	1	ADJ
1	CRPSEA - per kWh	Factors	1 CRPSEA - per kWh	Factors
1		ADJ	1	ADJ
2	VRPSEA - per kWh	Factors	2 VRPSEA - per kWh	Factors

Appendix B – Seasons and Periods

Season: High season (June – September) or Low season (October – May)

High Peak Period <i>(20 hours per week)</i>	Monday through Friday 1:00 p.m. - 4:59 p.m.
Low Peak Period <i>(30 hours per week)</i>	Monday through Friday 10:00 a.m. - 12:59 p.m. 5:00 p.m. - 7:59 p.m.
Base Period <i>(118 hours per week)</i>	Monday through Friday 8:00 p.m. - 9:59 a.m. All day Saturday and Sunday

Document F: CSI Quotes



DESIGN | BUILD | MAINTAIN

April 13, 2015

Occidental College
1600 Campus Rd.
Los Angeles, CA. 90041
Attention: Michelle McFadden Hill and Daniel Snowden-Ifft

Reference: Alternate PV System Locations

Thank you for the opportunity to provide you our ROM price for the electrical work portion of the above referenced project. We are pleased to present the following scope for your consideration.

We confirm our ROM pricing and scope as follows:

Chilcott Roof (27.45kW):	\$ 96,075.00
Library Roof (36.6kW):	\$ 128,100.00
Admissions (180.56kW):	\$ 722,240.00

Scope of Work

- As system integrator CSI will engineer, procure and construct fully functional Solar Power Systems (photovoltaic)
- Furnish and install photovoltaic racking system for roof mounted arrays
- Furnish and install carports for garage mounted arrays
- Furnish and install photovoltaic modules for corresponding solar arrays
- Complete all associated grounding and wiring of modules
- Includes mechanical grounding system associated with PV and electrical equipment
- Furnish and install all required electrical conduit and cabling systems
- Furnish and install inverter(s) of 96% efficiency or better
- Testing/Labeling
- Electrical and structural engineering
- Furnish and install AC Disconnect and Meter Installation for Utility Interconnection
- Furnish and install of DAS monitoring system
- LADWP coordination and inspection
- Secure all required certificates of inspection, testing or approval
- Equipment operation and maintenance manuals
- 10-year system warranty
- System Start-up Commissioning
- System Training and Turnover

HEADQUARTERS: 10623 Fulton Wells Avenue, Santa Fe Springs, CA 90670
P: 562-946-0700 F: 562-946-0701

PALMDALE OFFICE: 41769 11th Street West, Suite B, Palmdale, CA 93551
P: 661-723-0869 F: 661-723-0361

SAN JOSE OFFICE: 1625 Remuda Lane, San Jose, CA 95112
P: 408-641-2500 F: 408-451-9462

AUBURN OFFICE: 11768 Atwood Road, Suite 232, Auburn, CA 95603
P: 530-878-5765 F: 530-878-5766

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Exclusions, Clarifications, and Assumptions

1. CSI has excluded design and installation changes required by the utility company for interconnection or upgrades to the grid upstream (Line side of AC switchgear at point of interconnection) from the site.
2. Changes to the design for convenience or aesthetic purposes which increase construction costs will be eligible for pricing adjustment.
3. CSI assumes existing switchgear is sized to accept the new solar loads without modification
4. Tie in points are assumed to be directly under the roof of the two buildings and the first floor of the parking garage
5. Parking garage carports are assumed to have columns at 18' on center.
6. CSI assumes the existing roofs and garage decks are structurally sound to support the new solar loads without additional reinforcement or modification.
7. All work is to be done on straight time. Overtime and special shifts are excluded from the pricing submitted.
8. CSI excludes changes to the design or process by government or permitting authorities that require aesthetic or planning department-related changes.
9. CSI excludes removal, remediation and disposal of, or any liability related to, any existing hazardous waste materials including but not limited to asbestos, petroleum products, etc.
10. CSI excludes site de-grubbing, bush, tree removal and grading.
11. CSI excludes temporary and permanent perimeter fencing or additional protective measures (bollards, curbs, etc.) around the site.
12. Due to irregularities in plan check and permitting fees associated with photovoltaic projects, fees for building plan check/permits will be passed through to the Customer.
13. CSI excludes upgrades to the Customer's electrical equipment to meet current code standards or system requirements.
14. CSI excludes any structural upgrades or improvements to existing buildings or roofs. CSI assumes that the photovoltaic system can be supported on the existing structures without such upgrades or improvements.
15. CSI excludes any trimming, removal, replanting, or relocating of trees, shrubs or other potential shading obstructions. Customer is to maintain and/or remove trees if needed for photovoltaic design.
16. CSI assumes that standard wind conditions (90 mph wind zone) exist at the installation location.
17. CSI assumes that standard seismic conditions exist at the installation location.
18. CSI will install the inverter and electrical equipment on strut racks
19. CSI assumes that work will be done in one phase.
20. CSI has excluded customer Data Acquisition System (DAS) displays, Kiosks etc. Customer will receive standard web-based monitoring with the system.
21. Customer is to provide adequate space on site for storage of materials, employee restrooms and material deliveries needed to work.

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- 22. CSI will use EMT conduit where applicable and acceptable per NEC.
- 23. CSI has excluded any special insurance requirements by the Customer not previously mentioned.
This includes but is not limited to OCIP's, earthquake Pollution, excess Umbrella etc.
- 24. We exclude replacement of PV modules or losses caused by theft or vandalism once installed.
- 25. We assume that neighboring trees will be trimmed/removed as required for peak solar production.

Statement of Performance

All figures, prices, rebates, savings projections, and incentives are by no means conscionable and are to be considered merely a possibility. This document is a cursory assessment, drawing support from experience, publications, and standard practices, and is not intended as an obligation of performance on the part of CSI Electrical Contractors Inc.

Statement of confidentiality

The requirements of confidentiality and non-disclosure apply to this document and any communication with CSI Electrical Contractors Inc., This page is a statement to that effect and represents an agreement between CSI Electrical Contractors Inc., and all parties who make inquiries of, or with whom CSI Electrical Contractors Inc., is actively working.

We appreciate the opportunity to be of service to your organization and we hope the above scope accurately outlines the work required for a complete Photovoltaic System installation. If you disagree with our interpretation of the scope-of-work or have any comments or changes that you would like to add, please let us know so we can make the necessary adjustments.

Respectfully submitted,

Peter Rael

Peter Rael
Energy Solutions

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