

*SunFusion*TM

Leading Solar Technology



Solar Designing

Pioneers In Solar Energy Storage & Management

- Company founded by **Walter Ellard** in 2016
- Considered a **visionary** in electric industry
- **Developed groundbreaking** lithium iron phosphate battery using graphite and sodium
- Invented **innovative battery management** system to **extend battery performance** and life of batteries
- In 2008, after 32 years in commercial electric contracting, **he set his eye on battery technology**
- Since that time SunFusion has sold about **4,000 battery back-up systems**, and under his California contractor license, **about 300 solar battery systems**.



Battery and inverter enclosure supporting a 24 panel 9kW system



*We Design Solar Systems
with Battery Back-up*

- Homeowners
- Businesses
- Remote Power (off-grid)
- Cellular Sites
- Governments

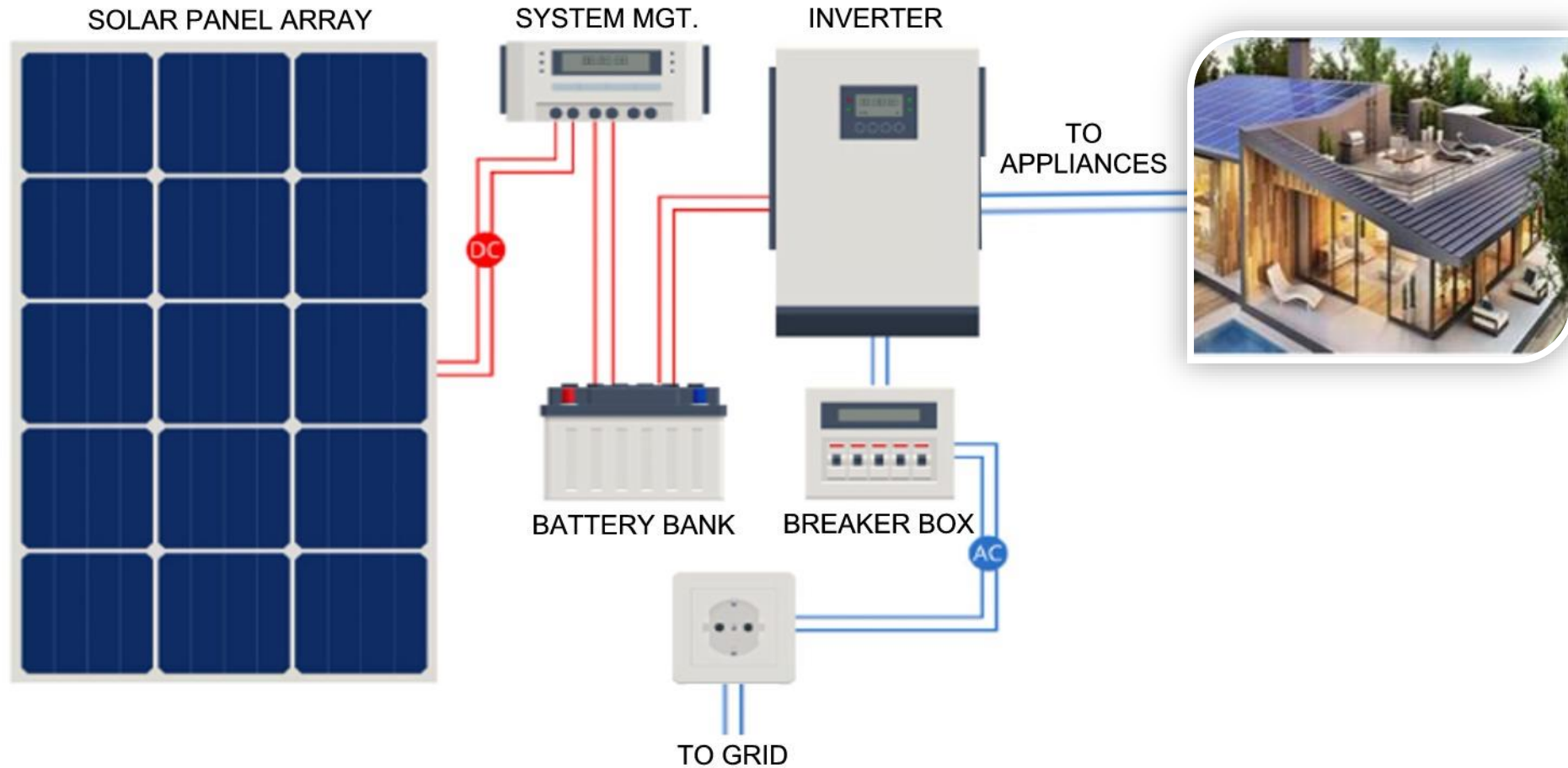


Solar Battery Choices

- Emergency Use Only
- Reduce On-Peak Periods
- Whole Home
- Whole Home w/EV
- ADU w/Non-Battery Option



System Schematic





◀ Panels: Q Cells
Q. Peak Duo

- High wattage
- Sleak all-black
- 400 w rating
- 25 Year warranty

Control: Guardian ▶
E2.0 Inverter &
System Mgt. System

- Manages system
- Expandable
- Fire-encased storage
- 240V/208V and 408V
- 24/7 off-grid capability
- 25 Year warranty



◀ Battery/Inverter/Mgt.
SunFusion Guardian E2.0

- 42kWh, 15kWh, 30kWh
- Lithium-Iron Phosphate
- AC-DC Generator
- Sustained power output
- 90% @ year 10
- 25 Year warranty



* Refer to specific product sheets for your final system design

Solar Emergency



Critical Functions Stay On

Solar On-Peak Reduction



Eliminate On-peak hours

Solar Whole Home +



Your Own Electric Power Plant

Energy Generation

High-efficiency solar panels



Generate your own power



Lower your utility bill



Rate hike protection



25-year equipment warranty



Industry leading inverters



Energy monitoring application



Solar Emergency



Enough Battery Life for a Day

Solar On-Peak Reduction



Enough Battery Life from 4-9pm

Solar Whole Home +



100% Battery Life for Days

Energy Storage

Lithium-iron phosphate batteries	✓	✓	✓
Smart power management	✓	✓	✓
Lower your utility bill	✗	✓	✓
Store excess solar power	✗	✓	✓
Utility black out protection	✗	✓	✓
Back-up critical loads	✗	✓	✓
24/7 off-grid capability	✓	✓	✓
Maximum savings/protection	✗	✓	✓

Solar Emergency



Less Than One Day Installation

Solar On-Peak Reduction



2-Day Installation & Training

Solar Whole Home +



2-Day Installation & Training

System Installation

Full turn-key service	✓	✓	✓
Detailed system design	✓	✓	✓
All permits/utility approvals	✓	✓	✓
Full project management	✓	✓	✓
Workmanship warranty	✓	✓	✓
SunFusion lifetime support	✓	✓	✓

Technical Specs. vs. Competition

Solar Manufacturers	Battery Product Intro. Yr	Battery kWh Offered	Replace in Field	Number of cycles to hitting once @ 20% SOC	Max kW Output per Modules	Max Continuous Power	Est. Price per kWh Storage w/Inverter	Weight in lbs	Warranty Cycles	Use of System if grid down
SunFusion	2015	28	Yes	10,000 @ 100% DOD 20,000 @70% DOD	11.5 Continuous (13.6kW@15 SEC peak)	15kW peak, 12kW continuous 60 amps @240V at peak	\$900	665	25 yrs (not prorated) 16,000 cycles	Yes
	2023	42	Yes			48kW peak, 15kW continuous 125 amps @240V at peak	\$894	1250		
	2024	56	Yes			36kW peak, 30kW continuous 180 amps @208V at peak	\$835	1750		
	2024	100	Yes			72kW peak, 60kW continuous 180 amps @480v at peak	\$975	1790		
Tesla	2023	13.5	Send in. Replaced in 1-3 months	4,000 @ 80% DOD	11.5 Continuous / 106 LRA PW2 / 150 LRA PW3	7.6kW w/sun, no sun 5kW continuous 31.6 at peak	1010	340.9	10 years, 15,000 cycles	No
Sonnen	2020	30	Send in. Replaced in 3-6 months	2kWh w/100% DOD @ 80% DOD	7kW Continuous / 8kW peak	8kW peak. 7kW continuous 33.3 amps	1200	1253	15 years, 15,000 cycles	No
Franklin	2022	13.6	Send in. Replaced in 7-20 days	3,942 @ 80% DOD		10kW peak. 5kW continuous 23 amps	1100	408	12 years, 6,000 cycles	No
Enphase	2020	11.4	Send in Replaced in 7-20 days	4,000 @ 70% DOD		280W peak. 270W continuous 16 amps	1710	154.7	10 years, 4,000 cycles	No

Top 10 Features of the New Guardian 2.0E Battery System

1. Advanced battery mgt. boasts high storage capacity
2. Minimal losses in charging & discharging modes
3. Remote monitoring of battery cells to insure optimum performance
4. System easily scalable for adding solar panels and batteries
5. Battery service and exchanges can be handled at field level
6. Lithium Iron Phosphate (LiFePO₄) batteries cost less vs. nickel/cobalt
7. Discharge cycles deliver nearly 5 times the battery life vs others
8. Fire rating at 1125°F for each battery module (surpasses industry standards)
9. Long life span with projected 16,000 battery cycles over 25-years
10. Users can prioritize times to access grid for importing or exporting power.



◀ *The Guardian 2.0E cabinet houses the batteries, inverter and monitoring equipment in a fire-proof enclosure and can be located inside or outside a building.*

Electricity NOT Getting Cheaper

Amount Paid Over Next 25 yrs w/o Solar

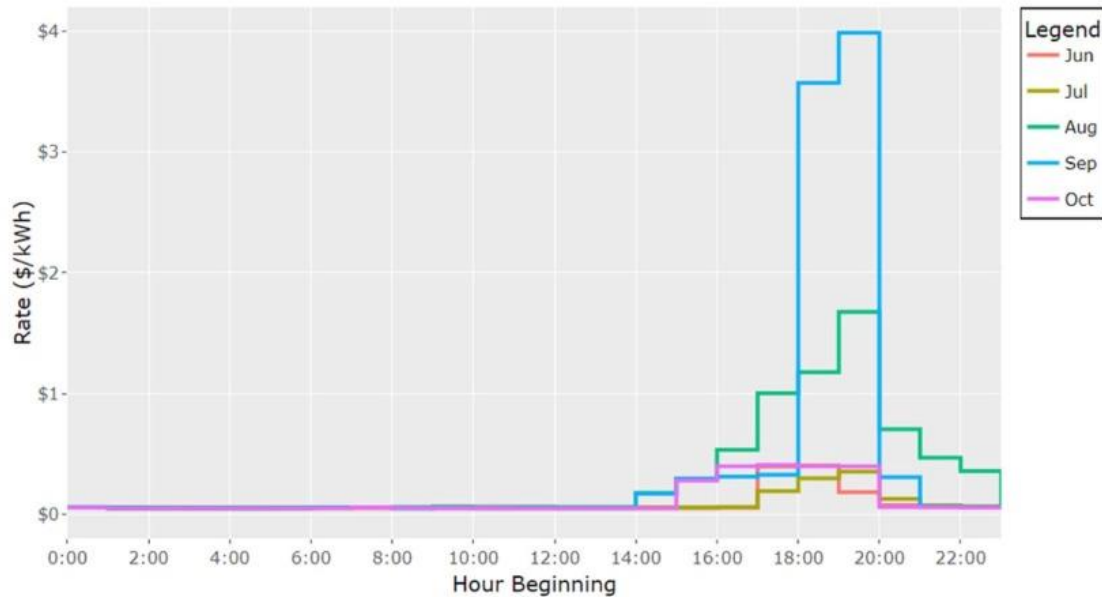
- Time-of-Use Rates (4 pm – 9 pm)
= > \$0.64/kWh
- NEM 3 utility export rates for solar lowered to about \$0.05/kWh (avg.) from a 1 : 1 NEM 2 rate (\$0.30 to \$0.50)
- Good idea to export to grid in peak hours of peak months (see Schedule next cell)
- Good idea to draw from grid when rates low.

Year	Current Monthly Bill (\$)	Annual % Increase per Year	Amortized Period (25 Years)	Total Expenditure (25 Years)
	236			\$96,924
	250			102,720
	275			112,992
	300			123,264
	375			154,080
2023	400	7	25	164,352
	450			184,896
	500			205,440
	550			225,984
	600			246,528
	650			267,072
	700			287,616

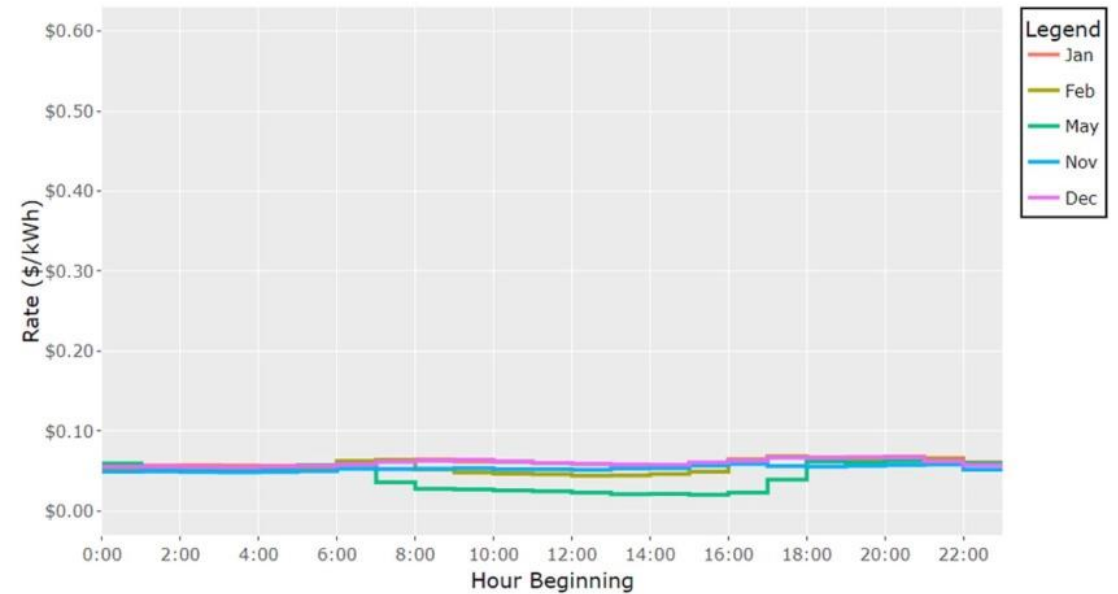
* Formula: Your monthly bill (\$236) x 12 months x 34.24 = \$96,924 over next 25 years

Utility Export Energy Payments per kWh

Resi GM SDG&E Summer Weekday 2024 ECR Comparison



Resi GM SDG&E Winter Weekday 2024 ECR Comparison

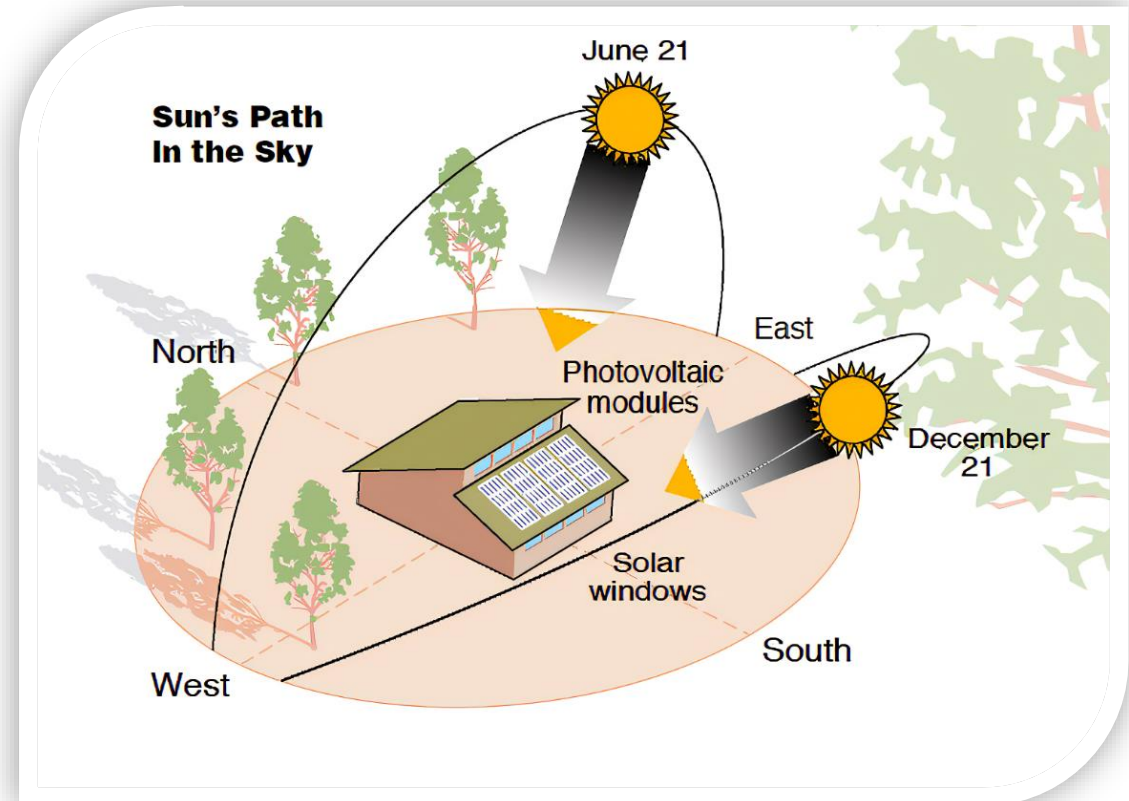


- On a few days rates paid = \$3.74/kWh
Average for November to May = \$0.03/kWh

- On a many days rates paid = 0.0001/kWh
Average from Nov. to May = \$0.045/kWh

Site Survey

- Roof in good condition
- Breaker box adequate
- Locating best roof(s) for panels, or ground-racks
- Locating azimuth (SE to SW)
- Locating best angle 20° to 35°
- Shading Report (by 3rd party)



What Type of System Needed

Amount of Energy to Generate

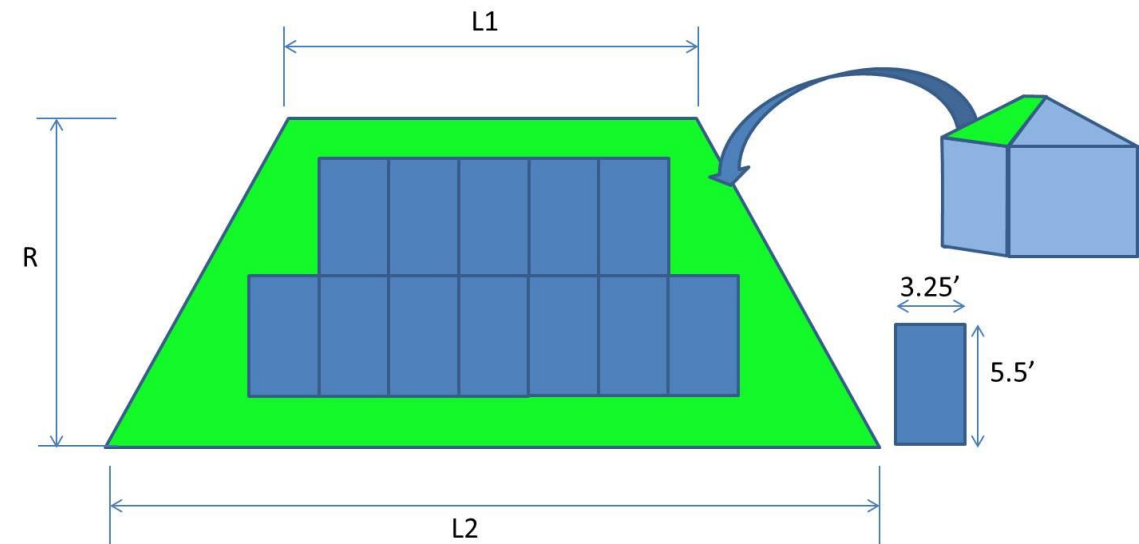
- Emergency Use = About 2 to 3 solar panels*
- Reduce On-Peak (4 pm to 9 pm) = To handle on-peak 70% of daily demand
- Whole Home = 100% of daily usage
- Whole Home w/EV = Daily usage + electric vehicle
- ADU w/Battery or Non-Battery Option = From 4 to about 6 panels
(Three ADU sizes: 400 sf, 600 sf and 120 sf)



* *Shading will increase system size to above options to make up for lost solar generation*

Sizing The System

- Calculate your average annual electric usage in kWh
- Divide the solar panel output into total electric usage in kWh for number of panels
- Determine the solar panel output for your location and multiply by 5 hours (avg. per day annually)
- Calculate the battery storage based on total kWh and highest daily electricity draw – plus additional for an electric car or other appliances.



Numbers to Consider

Today No Solar

Implied Historical Energy Rate per kWh	\$0.43	
Estimated Monthly kWh	550	
Monthly Utility Bill	\$236	550kWh/mo

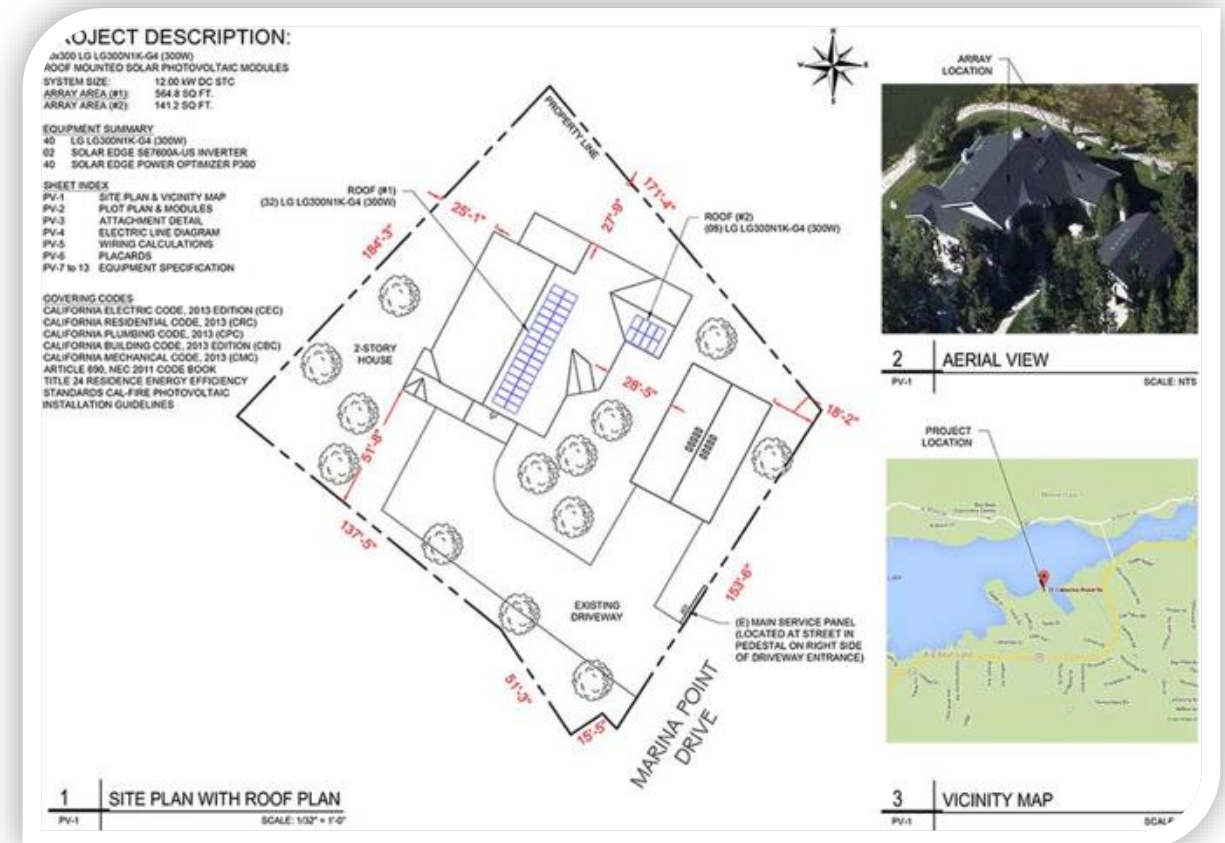
Solar Battery System/Grid Tied

Total Purchase Cost		\$22,770
Monthly Connect fee	15	
Monthly Finance Cost	\$168	
Keep 30% solar tax credit or reduce principle.		700 kWh 5.8kW (max load)
Total Cost per Month	\$183	



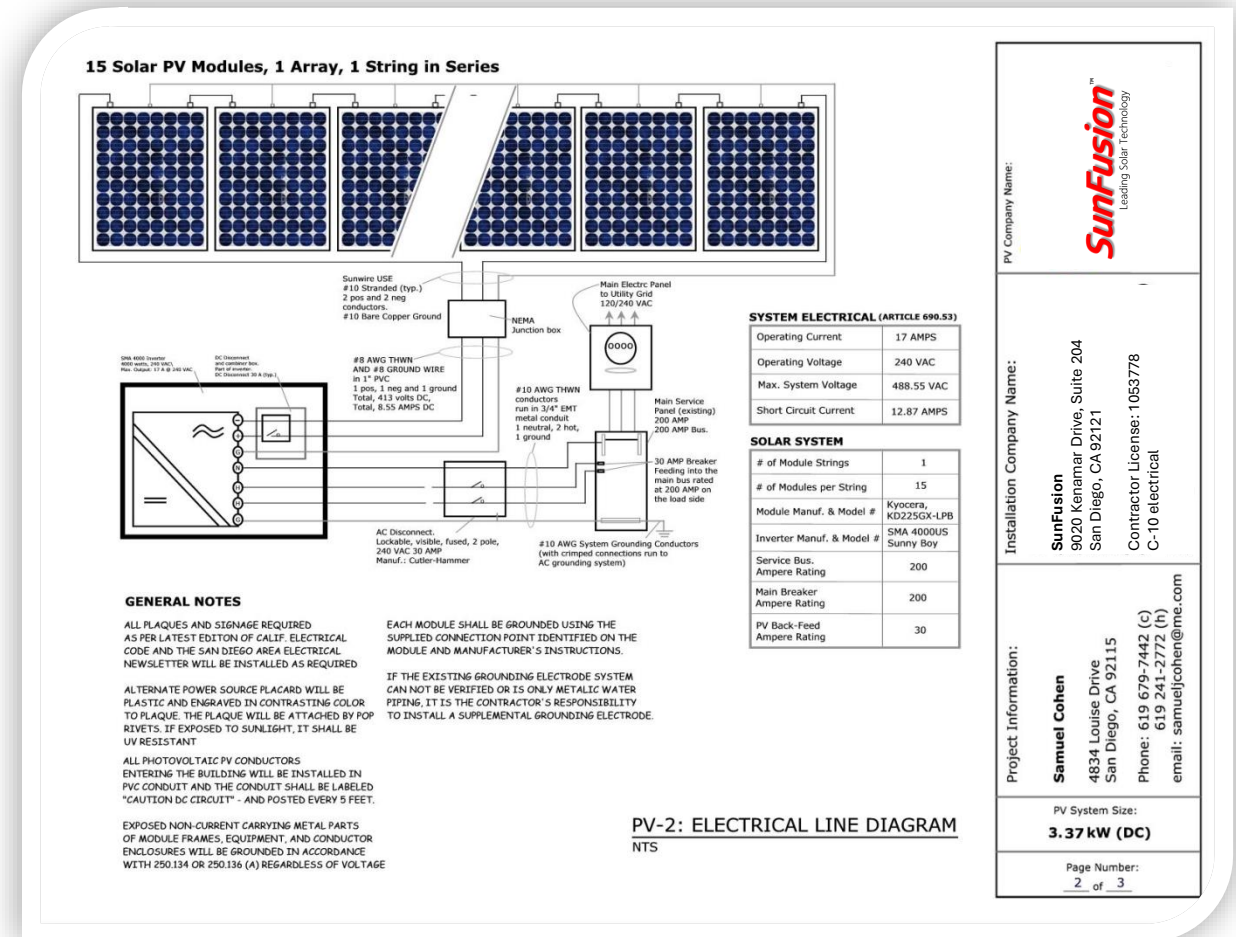
Project Description

- Roof solar panel locations
- Electrical meter approved
- Wire sizing
- Exact location of inverter and battery & mgt. system
- Engineering draft and final design for City/County permit



Project Schematic

- Plot plan, design and line diagram of electrical
- Plans submitted to HOA if applicable
- Sometimes a few days for final approval depending on City or County process and work-load
- Any issues with latter resolved.



PV Company Name: **SunFusion**TM
Leading Solar Technology

Installation Company Name: **SunFusion**
9020 Kenamar Drive, Suite 204
San Diego, CA 92121

Contractor License: 1065778
C-10 electrical

Project Information: **Samuel Cohen**
4834 Louise Drive
San Diego, CA 92115
Phone: 619 679-7442 (c)
619 241-2772 (h)
email: samuelcohen@me.com

PV System Size: **3.37 kW (DC)**


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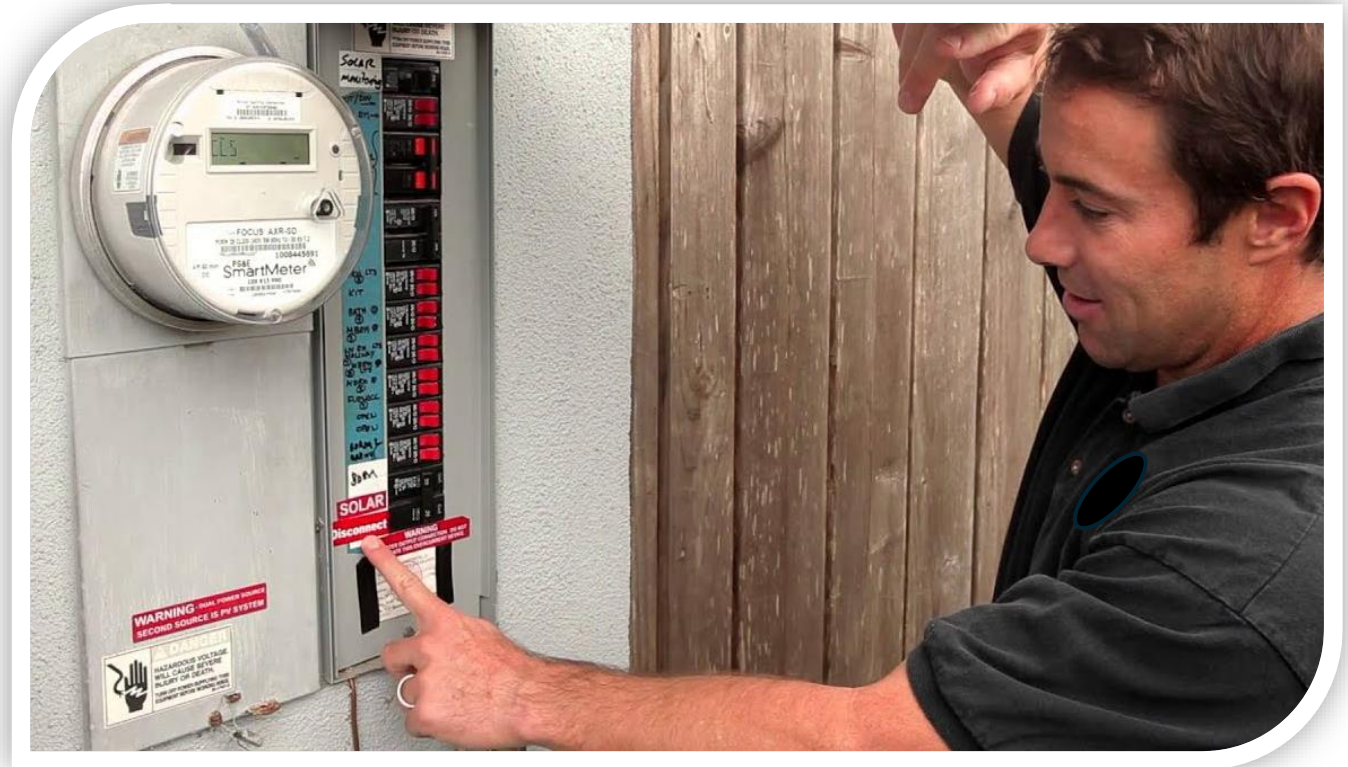
Project Almost Ready

- System installation takes typically two days
- First day, installation of roof mounts and panels
- Day two, tie-in battery/inverter/mgt. system at the home breaker
- Call for City or County inspection



Final Inspection

-  schedules a home visit
- Checks installation
- Turns system on and connects to electricity grid
- You are ready to use your own solar power!



Coverage Details

- Coverage for all parts supplied and installed by SunFusion
 - Solar panels (as per manufacturer)
 - Racking or support system
 - Batteries, Inverter and Mgt. system
25 years from SunFusion
- All labor included
- Active monitoring component reports in real time for fast response
- Transferable warranty (if you move), protects the value of your home



synchrony[™]

- Instant Credit Approval for Qualified Applicants
- Minimal Documentation
- Integration with Agreement
- Low rates: 4.99% to 9.99%



*Licensed
C10 – Electrical
Contractor*

California License No.: 1053778



*Liability
insurance*

\$2,000,000 general coverage

ACORD [®]		CERTIFICATE OF LIABILITY INSURANCE		DATE (MM/DD/YYYY)		
				9/10/2020		
THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.						
IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).						
PRODUCER Orr & Associates Insurance Services 28780 Single Oak Dr Ste 255 Temecula CA 92590 License#: 0E63493 GREEEAR-03			CONTACT NAME: Certificates PHONE (A/C, No., Ext): 951-506-5859 FAX (A/C, No): 800-474-3003 E-MAIL ADDRESS: certs@orrandassociates.com			
			INSURER(S) AFFORDING COVERAGE		NAIC #	
INSURED Green Earth Energy Solutions Inc dba Green Home Builders 6161 El Cajon Blvd B258 San Diego CA 92115			INSURER A : Associated Industries Insuranc		23140	
			INSURER B :			
			INSURER C :			
			INSURER D :			
			INSURER E :			
			INSURER F :			
COVERAGES		CERTIFICATE NUMBER: 1763266601		REVISION NUMBER:		
THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.						
INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:		AES119050401	7/18/2020	7/18/2021	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY					COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	<input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$					EACH OCCURRENCE \$ AGGREGATE \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A			PER STATUTE <input type="checkbox"/> OTHER <input type="checkbox"/> E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$

Mostly 5 Star Ratings



Increased Home Value

According to Zillow study:

4.1% increase in home value with a rooftop PV solar system (without battery back-up component).

Home value before solar: \$860k

Home value after adding solar: \$895k

7.2% increase in home value with a rooftop solar system & 100% battery back-up

Home value before solar: \$860k

Home value after adding solar: \$922k



Why SunFusion?

Key Features Reminder

- Never have to pay for electricity for next 25+ years (with over 100% solar coverage with batteries)
- Only pay \$15/month for access to SDG&E
- Increases value of home – immediately by 7.2%
- Virtually zero maintenance
- Best warranty in the solar industry. (25 years*)
- Superior battery type to last in excess of 25 years
- Solar panels with high watt output (400DC, 320AC)
- Remote mgt. keeps critical performance in check
- In-field parts replace (no sending in)
- System highly scalable for panels and batteries
- Set timers to export power when grid rates high



* Except for power purchase agreements (PPA)



*Thank You for Your Attention
We Are Ready to Serve You!*