

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Proceeding: R.14-07-002

California Solar Energy Industries Association

Exhibit Number:

Date: September 21, 2015

**PREPARED DIRECT TESTIMONY OF
JOSE LUIS CONTRERAS AND MIKE TERESSO
ON BEHALF OF THE
CALIFORNIA SOLAR ENERGY INDUSTRIES ASSOCIATION**

TABLE OF CONTENTS

SECTION 1.	INTRODUCTION.....	1
SECTION 2.	SOLAR PRICE [JOSE LUIS CONTRERAS]	3
SECTION 3.	COMPETITION [JOSE LUIS CONTRERAS].....	5
SECTION 4.	FUTURE PRICE REDUCTIONS [MIKE TERESSO].....	8
SECTION 5.	CONCLUSION.....	16
APPENDIX A.	SOLAR COMPANIES WITH APPROVED NEM APPLICATIONS, JANUARY- JULY 2015	17

**PREPARED DIRECT TESTIMONY OF
JOSE LUIS CONTRERAS AND MIKE TERESSO
ON BEHALF OF THE
CALIFORNIA SOLAR ENERGY INDUSTRIES ASSOCIATION**

1 **Section 1. Introduction**

2 Q **Please state your name, occupation and business address.**

3 A My name is Jose Luis Contreras. I am president of Solare Energy. My
4 business address is 9520 Padgett St #218, San Diego, CA 92126.

5 Q **Please describe your professional background.**

6 A I co-founded Solare Energy in 2009 and have served as president since
7 then. Solare Energy merged an electrical contracting business established in 1989 with an
8 energy auditing firm. Solare Energy designs, installs, and finances integrated energy
9 solutions (e.g., solar PV, solar water heating, energy efficiency retrofits) for residential
10 and commercial customers in San Diego. I was previously Associate Director in Navigant
11 Consulting's Clean Energy Technology Practice. In seven years there I led strategy,
12 technology management, financial analysis, and policy analysis consulting projects for
13 utilities, equipment manufacturers, oil companies, government research agencies, and
14 other clients. Prior to that I was with Arthur D. Little's Technology and Innovation
15 Management Practice for six years. I have an Industrial and Systems Engineering degree
16 from Tecnologico de Monterrey and an MBA from Columbia University.

17 Q **Who else is sponsoring portions of this testimony?**

18 A My name is Mike Teresso. I am president of NB Baker Electric, Inc. (dba
19 Baker Electric Solar). My business address is 1298 Pacific Oaks Place, Escondido, CA
20 92029.

1 Q **Please describe your professional background.**

2 A I have a BBA from University of Texas at Arlington and an MBA from
3 Texas Christian University. I have been president of Baker Electric Solar since 2013.
4 Baker Electric Solar is a sister company to Baker Electric, a fourth generation company
5 doing business in San Diego since 1938. Previously, I was an executive in the plumbing
6 manufacturing industry for eleven years, including four years as Executive Director
7 North America of LAUFEN Bathrooms AG, a 120-year-old Swiss brand, and seven years
8 as president of St. Thomas creations (U.S. subsidiary of German manufacturer Villeroy &
9 Boch), one of the first companies in the U.S. to produce a line of EPA WaterSense-
10 certified 1.28 gallons-per-flush toilets.

11 Q **On whose behalf are you testifying in this proceeding?**

12 A This testimony is presented on behalf of the California Solar Energy
13 Industries Association (CALSEIA). CALSEIA is a 501(C)(6) not-for-profit solar industry
14 trade association with more than 300 company members involved in the solar energy
15 business in California. CALSEIA is an active participant in a number of Commission
16 proceedings addressing State policy and electric utility rates. Changes to electricity tariffs
17 have direct economic impacts on the current and prospective customers of CALSEIA's
18 member companies and may help or hinder the companies' ability to market solar energy
19 products. Solare Energy and Baker Solar Electric are members of this industry trade
20 association.

21 Q **What is CALSEIA's interest in this proceeding?**

22 A CALSEIA member companies are the leading providers of solar systems
23 in California. CALSEIA member companies include the largest national installers as well

1 as local and regional players. Net energy metering (NEM) is one of the single most
2 important factors in determining the economic viability of a solar project. The decision
3 on the successor tariff will directly affect CALSEIA member companies. Furthermore,
4 we believe the State will not be able to achieve its clean energy goals if the Commission
5 does not maintain a regulatory environment that enables customer investment in rooftop
6 solar.

7 **Section 2. Solar Price [Jose Luis Contreras]**

8 Q **Do solar providers set prices based on their costs or based on the**
9 **utility rates that customers offset with solar?**

10 A The high degree of competition in the California solar market ensures that
11 solar providers price systems based on cost rather than pegging price to an amount of
12 customer savings. Obviously, companies can only do business where they are able to
13 offer savings to customers, but the intensely competitive market limits the amount of
14 overhead that companies can add to project costs to determine price. Prices have declined
15 steadily in recent years as economies of scale have been achieved. The cost of hardware
16 has declined and installers are working more efficiently. Future price reductions are
17 possible, but only if solar providers are able to further reduce their costs.

18 Q **What are current solar prices?**

19 A The most authoritative academic study on solar prices published in the
20 United States is the annual “Tracking the Sun” report from Lawrence Berkeley National
21 Laboratory (LBNL).¹ The eighth edition of the study, released in August 2015, found that

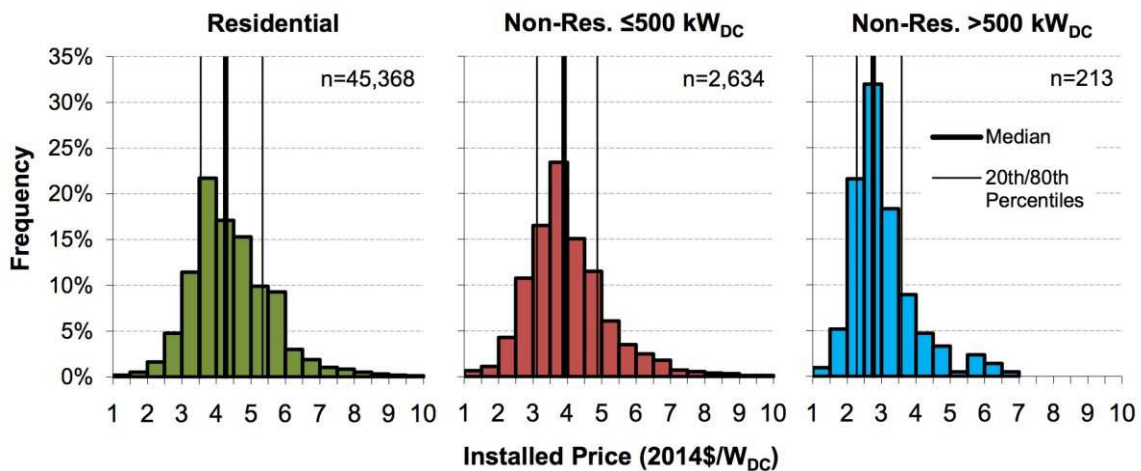
¹ See Barbose, Galen L. and Naïm R. Darghouth, “Tracking the Sun VIII: The Installed Price of Residential and Non-Residential Photovoltaic Systems in the United States” (*Tracking the Sun*), Lawrence Berkeley National Lab, August 2015, available at: <http://emp.lbl.gov/publications/tracking-sun-viii-install>.

1 the average all-in price of solar to California customers in 2014 was \$5.29/W-AC
 2 (\$4.60/W-DC) for systems smaller than 10 kW.² This is 2% higher than the 2014 solar
 3 cost in the Public Tool base cost case and 19% higher than the Public Tool’s low cost
 4 case. Thus, looking back to last year, the Public Tool is roughly accurate in the base cost
 5 case. For the low cost case, however, the Public Tool is not only being overly aggressive
 6 in future cost reduction assumptions, as shown below, but is significantly misrepresenting
 7 customer costs that have already been measured in the marketplace.

8 Q **How consistent is pricing between customers?**

9 A The LBNL study also found significant variability in pricing. In 2014, the
 10 20th percentile residential solar price on the low and high ends was \$3.50/W-DC and
 11 \$5.30/W-DC, respectively, a range of \$1.80/W. This wide range indicates that the costs to
 12 install solar can vary widely depending on the location of the system, the system
 13 configuration, and the building properties.

Figure 1. Variability of Solar Prices³



² *Id.* at p. 51, using an AC/DC conversion rate of 0.87.

³ *Id.*, p. 25.

1 In addition to regional variation in labor and supply chain costs, a source of
2 variation is the differences in system configuration and customer requirements. Some
3 buildings are easier to equip with solar and some are more difficult. Some jobs require
4 prevailing wage. Some are located in jurisdictions with more onerous permitting
5 requirements. Some involve engineering disputes with the utility.

6 **Section 3. Competition [Jose Luis Contreras]**

7 Q **How many companies are competing for business in the California**
8 **solar industry?**

9 A The California Solar Statistics database shows 1,595 solar companies
10 operating within California across all of the IOU service territories this year. This
11 includes at least ten companies marketing to residential customers that operate
12 statewide;⁴ companies that specialize in residential, commercial, agricultural, or public
13 sector customers; small, medium, and large regional companies, some of which have
14 multiple warehouses and many of which offer a variety of financing options; and
15 contractors that offer solar installations in addition to their core trade. A full list of
16 companies that have approved NEM applications in the first seven months of 2015 is in
17 Appendix A of this testimony.

18 Q **How does a quantity of companies ensure competition?**

19 A The number and variety of competitors ensures that individual market
20 participants generally cannot charge excessive prices without being undercut by other
21 companies. The majority of customers who are considering solar power get multiple bids.
22 When a company gives a potential customer a price quote, the company knows that the

⁴ American Solar Direct, NRG Home, Petersen Dean, Real Goods Solar, SolarCity, Sungevity, SunPower, SunRun, Verengo Solar, and Vivint Solar.

1 lower the price is, the more likelihood that the customer will select the company to do
2 business with.

3 As demand for solar has grown, companies have become larger to meet the
4 growing demand. With this growth comes an increased need for business activity.
5 Companies have payroll to meet and overhead to cover. If a company does not get
6 enough business, it will fail. Therefore, when companies are approaching potential
7 customers, they know they have to offer low enough prices to ensure that they get a
8 sufficient level of project flow to keep their employees productive and to cover overhead
9 expenses. This forces companies to offer lower prices than they would in the absence of
10 competition.

11 The high degree of competitiveness of the market is also evidenced by another
12 LBNL report published in October 2014 that examined the residential PV market in
13 California to understand the share of incentives passed through from installers to
14 consumers. The report found “an average pass-through rate of direct incentives of nearly
15 100%, though with regional differences among California counties. While these results
16 could have multiple explanations, they suggest a relatively competitive market and well-
17 functioning subsidy program.”⁵

18 Q **How uniform is the solar industry?**

19 A Solar companies are not all the same, and this is essential for serving
20 customers well and reaching various types of customers. Not all customers are the same,
21 and solar providers should be expected to be at least as varied as the customer base. Solar

⁵ See C.G. Dong, Ryan Wiser and Varun Rai, “Incentive Pass-through for Residential Solar Systems in California,” Lawrence Berkeley National Lab, October 2014, p. 1, available at: <https://emp.lbl.gov/sites/all/files/pass-through-report-oct7.pdf>.

1 installations have a wide range of complexity. Those that are more complex require
2 design and installation professionals that have higher levels of training than is necessary
3 for simpler installations. Some customers prefer working with large national companies,
4 while others prefer working with smaller companies that are deeply rooted in their
5 communities. Solar companies have varying marketing strategies, which helps reach
6 different segments of the diverse customer base.

7 Also, customers have a wide range of financial conditions, and a range of solar
8 financing arrangements is therefore beneficial. Third-party owned systems financed with
9 power purchase agreements have become common, but there is a trend away from PPAs
10 and we cannot be sure what the most common financing structure will be in the future.
11 Increasingly, customers are choosing to finance systems with loans tailored to solar
12 installations that banks and credit unions have begun offering. Looking at California
13 Solar Statistics data, 75% of solar installations in 2012-2013 were third-party owned.
14 This has declined to 58% in the first seven months of this year.

Table 1. Percentage of Systems That Are Third-Party Owned⁶

	2012	2013	2014	2015
Host Owned	25%	25%	40%	42%
Third Party Owned	75%	75%	60%	58%

15 Q **Can the Commission trust that the competitive market will produce**
16 **the lowest prices for customers?**

17 A Absolutely. Competition is a better check on prices than regulatory
18 judgment. Solar providers are vigilant about costs in a fiercely competitive market, and

⁶ Go Solar California, “Currently Interconnected Data Set,”
https://www.californiasolarstatistics.ca.gov/data_downloads, accessed September 18,
2015.

1 are striving to reduce costs in order to continue offering customers an economic
2 opportunity to install solar after scheduled changes to the ITC in January 2017.

3 In order to judge the impacts that the tariff proposals would have on solar
4 adoption if the proposals were in place today, the Commission can simply look at the
5 prices reported by LBNL. For future prices, the Commission can only expect reductions
6 based on clearly defined predictions for lower hardware and labor costs.

7 **Section 4. Future Price Reductions [Mike Teresso]**

8 Q **How much can prices be expected to decline in the future?**

9 A The Commission must take care not to assume future price reductions that
10 are unattainable. This would happen if the Commission were to find reasonable the
11 numbers in the Public Tool’s low solar cost case. Assuming unreasonably low solar costs
12 results in very high adoption projections that are not realistic.

13 LBNL’s “Tracking the Sun” report finds that the majority of past cost reductions
14 have been the result of reductions in hardware costs and that the majority of future cost
15 reductions are likely to result from non-hardware cost reductions. The study states,
16 “Recent years have seen a shift in the relative importance of module and non-module cost
17 reductions. Following a lengthy period of little price movement, module prices began a
18 steep descent in 2008, falling by \$2.7/W in real 2014 dollars from 2008 to 2012. Over
19 this period, module price reductions were the dominant driver for the overall decline in
20 installed prices, constituting roughly 80% of the total drop in installed price of residential
21 systems. Since 2012, however, module prices have flattened considerably, but installed
22 prices have continued to fall with the steady decline in non-module costs.”⁷

⁷ *Tracking the Sun* at p. 16.

1 In the absence of reduced future equipment costs, solar companies must look for
2 cost reductions in labor. The only ways to spend less on labor are to pay people less or to
3 spend fewer hours to accomplish the same results. The first of those is not an option
4 because the quality of work should not be allowed to diminish and because the growing
5 economy will push average wages higher. The cost of labor per hour should be assumed
6 to go up. Thus, the only way to save on labor costs is to work more efficiently. Some
7 continued improvement on labor efficiency should absolutely be expected, but it would
8 be risky to count on that efficiency growing rapidly and continuously, especially in the
9 face of expected reductions in business activity in 2017 due to the ITC step-down.
10 Maintaining project flow is essential to keeping employees as productive as possible.
11 Any reduction in adoption rates will harm labor efficiency and therefore increase costs to
12 customers.

13 **Q Is the Public Tool’s low solar cost case realistic?**

14 A It is not even close to realistic. As noted above, the LBNL “Tracking the
15 Sun” study found that the average all-in cost of solar to California customers in 2014 was
16 \$5.29/W-AC (\$4.60/W-DC) for systems smaller than 10 kW.⁸ The 2015 price in the
17 Public Tool low cost case is \$3.55/W-AC. This is 49% lower than the actual 2014 price
18 as found by LBNL. A year-over-year price reduction of that magnitude is unfathomable.
19 Based on preliminary data for the first half of this year, LBNL finds that 2015 prices are
20 8% lower than 2014 prices. If that trend holds for the rest of the year, the 2015 California
21 price will be \$4.87/W-AC. To meet the 2016 price in the Public Tool low cost case of
22 \$2.87/W-AC, there would have to be a 70% year over year price reduction. Those

⁸ *Id.*, (using an AC/DC conversion rate of 0.87).

- 1 percentage reductions are so extreme that the Commission must dismiss the results of any
 2 Public Tool runs using the low solar cost case.

Table 2. Comparison of LBNL Findings With Public Tool Numbers (\$/W-AC)

	LBNL	Public Tool Base Case	Public Tool Low Case
2014	5.29	5.17	4.46
2015	4.87 (est.)	4.69	3.55
2016	N/A	4.29	2.87

3 From 2008-2013, the total installed price of solar in California declined by 11%
 4 per year.² For the reasons stated above, it will be hard to sustain that percentage reduction
 5 going forward, but it is reasonable to hope we can still achieve continual cost reductions.
 6 That is the scenario in the Public Tool base solar cost case, as shown in Table 3. The low
 7 solar cost case, in contrast, is not realistic. It is not reasonable to expect the rate of
 8 reduction to double at the same time that manufacturing economies of scale have largely
 9 been achieved and ITC and rate design changes are tightening the value proposition to
 10 customers.

² *Id.*, Table B-3 at 53.

Table 3. Price Reduction Assumptions in the Public Tool for Small Systems¹⁰

	Price (\$/W-DC)			Reduction from Previous Year		
	Low	Base	High	Low	Base	High
2014	\$3.88	\$4.50	\$4.85	23%	10%	3%
2015	\$3.08	\$4.08	\$4.71	21%	9%	3%
2016	\$2.49	\$3.73	\$4.59	19%	9%	3%
2017	\$2.06	\$3.44	\$4.47	18%	8%	3%
2018	\$1.81	\$3.25	\$4.36	12%	5%	2%
2019	\$1.61	\$3.09	\$4.27	11%	5%	2%
2020	\$1.45	\$2.94	\$4.18	10%	5%	2%
2021	\$1.43	\$2.81	\$4.09	2%	5%	2%
2022	\$1.40	\$2.68	\$3.98	2%	5%	3%
2023	\$1.38	\$2.55	\$3.88	2%	5%	3%
2024	\$1.35	\$2.43	\$3.78	2%	5%	3%
2025	\$1.33	\$2.32	\$3.68	2%	5%	3%

1 Q **What would be the impact of other parties’ successor tariff proposals**
 2 **on solar prices?**

3 A Other parties’ proposals for the successor tariff would make it more
 4 difficult for solar providers to lower prices, as their costs would increase for the
 5 following reasons.

- 6 • More explanation to customers due to increased complexity would be
 7 required. This may include more time to educate customers before installation
 8 and additional communication after installation for customers whose bills are
 9 different from their expectations.
- 10 • Employees, especially sales associates and their staff support, would need to
 11 be retrained, adding to overhead.
- 12 • Marketing costs would increase as businesses chase after a diminishing
 13 number of viable, willing customers.
- 14 • The percentage of successful sales made per customer interaction would
 15 decrease because solar would not be viable for a greater portion of customers.

¹⁰ Solar costs are listed in the Advanced DER Inputs tab in cells D31:J48.

1 • The delicate balance between sales, production and overhead that a business is
2 constantly attempting to achieve would be disrupted. A business depends on
3 this balance to maintain top efficiency. Without top efficiency, margins suffer
4 and costs increase.

5 • Companies would need to develop and invest in new tools, such as
6 subscription software to model exports versus behind the meter consumption.

7 These changes would happen at precisely the time when solar companies need to
8 lower prices to remain viable, even before considering changes to net metering.

9 Q **What are the most important opportunities for soft cost reduction and**
10 **what is the level of certainty that reductions can be achieved?**

11 A Solar companies understand that they need to work hard to reduce costs.

12 Cost reductions in recent years are widely viewed as a success story, and there is hope
13 that the success will continue. However, the largest cost reductions have come from high
14 volume manufacturing of solar panels, and the cost of panels has leveled off.

15 Future cost reduction will come mainly from “soft costs.” The primary
16 opportunities in soft cost reductions are listed below. However, there is no guarantee that
17 any of these opportunities will come to fruition.

18 1. Installation efficiency – Manufacturers of solar racking and roof attachments are
19 constantly innovating to reduce the physical steps necessary to safely and securely
20 mount solar modules on a roof. Future installation efficiency improvements can
21 be expected through innovation, but they are also dependent on volume.

22 Companies must have a steady project flow to maximize labor efficiency. If
23 companies gear up for a certain level of work and that level diminishes, crews
24 will sit idle and costs per installation will increase.

- 1 2. Customer acquisition – New customer outreach is one of the largest single
2 expenses for solar providers. Advertising is expensive. Once potential customers
3 are identified, it takes a lot of time to make them comfortable with the decision to
4 take the matter of energy production into their own hands. Customer acquisition is
5 also dependent on volume and solar economics. To maintain and improve labor
6 efficiencies, sales and system design employees must stay busy interacting with
7 customers who have a reasonable potential of going solar. If solar becomes a
8 viable financial prospect for a smaller pool of customers, sales staff will spend
9 more of their time speaking with customers who ultimately decide not to go solar
10 and system designers will spend more of their time modeling project economics
11 for systems that never get built. Furthermore, if the net metering tariff becomes
12 more complex than standard retail rates, sales staff will spend more time with
13 each customer explaining those rates, which will increase acquisition costs. Also,
14 advertising expenses are less cost-effective when they are spread over a smaller
15 number of customers.
- 16 3. Financing – As more investors become comfortable that customers pay their solar
17 bills reliably, they will reduce their risk margin and competition between
18 financiers will reduce financing costs. Financing is also highly dependent on the
19 ability to offer products at a large enough scale that risk is mitigated and the legal
20 and administrative burden of creating financing mechanisms can be shared across
21 many customers. If the number of customers declines, fewer institutions may be
22 willing to offer financing products.

1 4. Permitting and inspections efficiency – Solar companies have large labor costs
2 associated with obtaining permits and inspection approvals. Employees must be
3 trained to work with different rules in different jurisdictions. Some of those rules
4 are unduly onerous. Companies must also pay employees to meet inspectors,
5 regularly waiting at a job site unproductively for hours. Improvements to this
6 process are possible, but companies are at the mercy of local governments to
7 institute improvements. As explained below, progress has been slow.

8 5. Interconnection efficiency – Similar to permitting and inspections, solar
9 companies have considerable expenses navigating the utility interconnection
10 process. Disputes are common, and utility field representatives can be
11 unresponsive. The IOUs are automating much of the process for small, uniform
12 systems. However, for larger systems or systems that do not have the most
13 common engineering designs, the process can still be very time consuming.
14 Similar to permitting, significant improvements are possible but are dependent on
15 utilities as willing partners.

16 The first three of these opportunities rely heavily on a healthy, predictable and
17 consistently growing installation volume. If volume is stable or increases, cost
18 improvements can be realized. If volume decreases, these opportunities are unlikely to
19 achieve their promise of savings. The fourth and fifth opportunities are dependent on the
20 collaboration of local governments and utilities. Solar providers will seek to identify
21 areas for improvement, but if local governments and utilities are not willing partners cost
22 reductions are unlikely.

23 Q **Is the permitting process improving?**

1 A AB 2188 of 2014 was intended to streamline the solar permitting process
2 by requiring local governments to conform their processes with the California Solar
3 Permitting Guidebook produced by the Governor’s Office of Planning and Research.¹¹
4 Local jurisdictions have a September 30, 2015 deadline to adopt ordinances conforming
5 to the state guidelines. However, progress has been slow. Less than two weeks from the
6 deadline, only 28 out of approximately 500 local jurisdictions have adopted ordinances.

Figure 2. Map of Local Jurisdiction Compliance with AB 2188¹²



7 Some local governments have made the permitting process more difficult in
8 response to AB 2188. Because they can no longer do multiple inspections for the solar
9 permit application, these local governments have begun requiring a letter from a

¹¹ Government Code § 65850.5 (g).

¹² Center for Sustainable Energy, “Expedited Solar Permitting Act Compliance Map,” downloaded September 21, 2015 from energycenter.org/permitting/guidebook/implementation/ab2188-map.

1 structural engineer with site-specific calculations certifying that the roof can withstand
2 the weight of the PV system. This is an added expense in the permitting process.

3 There is still opportunity to reduce permitting costs in the long run, but change
4 may come slowly and in some places costs may go up before they go down.

5 **Section 5. Conclusion**

6 The base solar cost case in the Public Tool includes future cost reductions that
7 cannot be guaranteed but represent a fair target. The low solar cost case is entirely
8 unrealistic. This is clear from current prices and the fact that prices must track costs due
9 to the intense competition in the solar industry. The Commission must recognize the
10 impacts of competition and set reasonable projections for future price reductions that are
11 based on clearly identified cost reduction expectations.

12 Q Does that conclude your testimony?

13 A Yes, it does.

Appendix A. Solar Companies with Approved NEM Applications, January-July 2015

The following companies have had NEM applications approved in the first seven months of this year, according to the Currently Interconnected Data Set maintained by California Solar Statistics under direction of the California Public Utilities Commission.¹³

To produce this list, CALSEIA combined names of companies that appeared to be different versions of the same company name. In many cases this was obvious (e.g. “CitiGreen Inc” and “CitiGreen, Inc.”). In order to err on the side of a shorter list, CALSEIA combined records when the differences were more than spelling inconsistencies (e.g. Freedom Electric and Freedom Solar). In so doing, some of the number and kW values for individual companies are likely overstated because a company’s records were combined with the records of another company. CALSEIA also deleted records for self-installers and records that appeared to be customer names rather than installer names.

Company	Number	kW
100 Percent Electric	30	153
12-GAUGE ELECTRIC	1	11
180 SOLAR POWER	9	52
1st Light Energy	130	1,157
2 G's Solar Electric	1	7
2 THE T CONSTRUCTION	6	29
2G's Solar Electric	3	24
360 Solar Energy, Inc.	82	558
3C Engineering, Inc.	3	21
4 GRANITE INC	1	4
4 Sons Solar Electric Inc.	4	19
4th Day Energy	35	249
5 Cities Corporation	1	5
510 SOLAR	4	19
A & J CONTRACTING	2	18
A A Electric	1	16
A PLUS GENERAL	1	4
A Rover Electric, Inc	1	3
A S ELECTRIC	1	4
A-1 Contractors	2	32
A-1 Guaranteed Heating & Air, Inc.	4	16
A-C Electric Company	18	1,085

¹³ Available at https://www.californiasolarstatistics.ca.gov/data_downloads.

Company	Number	kW
A. Travalini Construction	4	23
A.M. Sun Solar	52	328
A.M. Shine Electric Inc.	4	35
A1 Guaranteed Heating & AC	5	16
A1 Solar Power	351	1,442
A1 Sun, Inc	32	117
A2Z Energy	2	9
AAA Service Electric	20	104
AAA Solar Electric	5	29
AAA Steiner's Solar Service	4	22
AAA Tree Service & Construction	7	40
Aardema Electric & Construction Cor	1	7
Aaron Construction	2	5
ABC Solar, Inc.	11	57
ABOVE ALL	1	7
Absolutely Electric Inc	7	42
AC&R SERVICE HEATING & COOLING Inc.	3	14
ACA Solar Inc	9	52
Access Controls	1	4
Acclaim Electric, Inc.	1	4
ACCUTHERM, INC.	1	4
ACME RF INC	4	18
ACR Solar International, Corp.	7	31
ACS	1	5
Active Solar	7	54
Adams Solar Electrical and Electric	5	34
Addy Electric	20	144
Adelbai Electric	1	8
ADR Electric	40	240
ADROIT SOLAR	30	165
Advance Power Redding	5	40
Advance Solar, Hydro, Wind Power Inc	2	14
Advanced Alternative Energy Solutions	2	13
Advanced Builders Properties Inc	1	6
Advanced Home Energy	67	550
Advanced Improvements	6	37
Advanced Solar Energy	9	76
AERO SUN ELECTRIC	1	4
AES Technology, Inc. dba: Advanced Electric & Sound	1	8
AFC PLUMBING & SOLAR	1	44

Company	Number	kW
Affordable AC	2	18
Affordable Roofing & Solar	1	4
AFFORDABLE SOLAR ROOFS	16	84
Agile Remodelers	2	12
AGWELL SOLAR	1	13
Aikyum, Inc.	12	75
Air Sun Inc	18	140
Air Tech HVAC Inc	4	16
Airtech	1	5
Al Fresco Concepts Inc, dba Fresco Solar	6	32
Albion Power Company	13	54
Alchemy Construction	1	4
Alex Redin Solar	4	25
Alive Industries, Inc.	23	161
All About Solar	9	61
All American Design	13	43
All Bay Solar	64	251
All In One	17	69
All On Electric	37	228
All Seasons Energy Solutions dba All Seasons Solar, Inc.	31	219
All Seasons General Contracting, Inc.	8	36
ALL SEASONS, INC	1	7
All Solar Electric	32	219
ALL STAR CONTRACTORS	10	82
All Year Inc.	1	7
All-American Construction	1	4
Allana Buick & Bers Inc	2	1,018
Allen Energy	32	213
ALLIANCE ENERGY	7	50
Alliance Energy & Mechanical Inc	2	11
Allied Energy, Inc	3	20
Alltech Solar	2	23
Alltera Solar	129	586
Ally Electric and Solar Inc	13	49
ALPHA ELECTRIC AC	1	8
Alpine Electric	1	3
ALTADENA ENERGY &	2	17
Altair Solar Inc	1	10
Alter Systems	12	100
Alternative Energy Applications, Inc.	4	14

Company	Number	kW
Alternative Energy Systems	188	3,829
Alternative Power Generation	26	237
Alternative Power Solutions, Inc.	18	107
Altsys Solar Inc	6	122
AlvinProjects, Inc.	3	18
AM Construction	1	8
Ambassador Energy	42	271
Ambrosini and Sons Electric, Inc	5	25
AMECO SOLAR INC	31	203
AMEKO Power Solar	30	150
Ameresco	2	88
AMERI TECH CONSTRUCTION INC	5	48
American Array Solar Inc	29	113
American Capital Energy	1	949
American Electrical Services Inc	4	52
American Green Solar	1	3
American Patios, Inc.	2	10
American Republic	1	4
American River Electric	1	11
American Solar Company	226	1,469
American Solar Direct	313	1,595
AMERICAN SOLARGY INC	2	12
American Vision Solar	38	198
Amerisolar	1	13
AMGREEN SOLUTIONS	17	92
Amp Solar Electric	6	31
ANATONE CORP	1	7
Andalay Solar	17	59
Anderson Solar Controls	1	2
Andrews Brothers Electric Inc.	6	60
Angelic Construction	5	32
Ans Solar	1	4
Anthem Electric	3	16
Anthony J. Durst Construction	5	33
Antioch Unified School District	1	156
Aon Engineering	12	76
AP American	1	2
Apex Solar	23	156
APG Solar	4	30
APLUS ELECTRIC	1	7

Company	Number	kW
Apollo Designs	5	18
Applied Solar Energy Solutions	27	171
Aragon Electric	1	3
Arbour Electric	1	3
Arcona Remodel	1	8
Area Electric	1	5
Argent Solar	2	24
Arise Solar	182	1,784
Armageddon Energy	1	5
Arnold Solar	7	36
Arrow Electric inc.	4	19
Artisan Design Group, Inc dba Artisan Construction	2	19
AS ELECTRIC	7	27
ASE Solar Solutions	16	90
ASGARD ELECTRIC	2	20
ASI Hastings, Inc	254	1,435
Asolia New Energy	1	4
Associated Services Heating Solar and Air	1	13
Astro Air Design/ Clarion Electric	1	5
ASTRUM SOLAR	37	259
Atech Construction, Inc.	31	176
ATI Architects and Engineers	1	675
Atlas Solar Inc.	4	25
Avatar Solar, Inc.	1	5
AZ SOLAR	1	6
Aztec Solar Inc	23	127
B & B Solar	9	93
B S W ROOFING CONTRACTORS	18	122
B.E.S Solar	1	3
B&D Quality Water	65	498
Baker Electric, Inc.	691	5,685
Balken Construction	2	9
BAP Power Corporation dba Cenergy Power	33	5,416
BARKLEY'S QUALITY	1	9
Barnes Solar	51	333
Baron Electric	1	3
Barrier Solar	17	345
Barrus Electric	14	70
Barton Electric	1	5
Bautista Builders	1	3

Company	Number	kW
Bay Area Solar Solutions dba Your Energy Solutions	124	682
BBS Remodeling	1	4
BDS Solar	9	83
BEACH CITIES SOLAR	6	75
Beake Bros Electric Company	3	16
Bear Bryan Electric	1	6
BEDROCK SOLAR	15	85
Behnke Electric & Specialty Service	1	5
Belcon Development	1	2
Bella Electric	54	345
BELMONT ENERGY	7	47
Bendix Electric, Inc.	6	36
Bert Bartsch CCEnergy	5	16
BEST SOLAR POWER	3	12
Bestco	1	9
Beutler Corporation	12	94
Big Dog Renewable Electric Energy	2	22
Big Mountain Air	4	28
BILT WELL ROOFING	1	6
BISHOP HEATING &	3	23
Blalock Electric	10	55
Bland Solar & Air	214	1,549
Bloom Energy	3	1,681
Blue Raven Solar	6	38
Blue Sky Sustainable Living Center	1	11
Bluegill Construction Inc	3	29
Blueline Solar Power	1	52
BMC Solar	8	73
Bob & Sons Electrical Inc.	2	21
Bob Richardson	3	21
BOB RUFFA ELECTRIC	3	21
Bob Salvo	4	36
BOBBY ROARK ELECTRICAL	2	11
Booth Construction	3	24
Borrego Solar	2	709
Boston Brick and	4	13
Bovenzi Homes	2	21
Brady Electric / Zane Brady	1	6
Brandt Construction	2	11
Bratton Solar Inc.	1	10

Company	Number	kW
BREA ROOFING	1	4
Brett Hightower - Homestead Htg & Air & Construction & Solar	1	7
Brian S. Puckett Electrical	1	5
BridgeCore Partners	2	17
Bright Future Solar Energy Inc.	14	93
BRIGHT IMPRESSIONS	1	7
Bright Life Solar	328	1,578
BRIGHT LIGHT ELECTRIC INC	8	27
Bright Power Inc. dba BPI	1	209
BRIGHT SOLAR CAPITAL	5	31
Brighter Solutions Energy Consulting	2	79
BRIGHTSIDE POWER	3	14
Brite Energy	454	2,505
BROADWAY ELECTRIC	1	7
Brock Electric	1	3
Brower Mechanical	23	102
BSW Roofing & Solar	6	24
BTA Solar	14	137
Buckley Heat Air Solar	2	12
BUILDING THE WAY	3	18
Built Green California Inc.	47	324
BURCH CREEK FARMS INC	2	153
Buresh Electric	1	15
Burke Electric, Inc.	2	13
Burt Electric & Communications	4	59
BWB Construction	2	19
Bwy Properties	1	6
Byers Enterprises Inc.	4	31
C E Light	1	3
C ELECTRIC	1	1
C R Resource Contracting	1	4
C-K CONSTRUCTION CO	7	33
CA Development & Construction Corp	4	8
CA Sunrise Construction Solution Inc	1	3
Cal Pac Roofing of San Mateo	1	4
Cal Paso Solar Electric	15	96
Cal Valley Solar	11	74
Cal West Electric, Inc.	3	17
Calafata Construction & Electric	7	49
CalCom Solar	3	1,692

Company	Number	kW
Calibrated Construction Inc.	2	10
California Building Structures Inc	1	13
California Coast Builders, Inc.	5	22
California Home Solar	14	53
California Preferred Builders	3	14
California Premier Solar	60	372
California Quality Windows & Solar	1	4
CALIFORNIA SHOW	2	7
California Solar Electric Company	185	1,111
California Solar Improvements	29	91
California Solar Partners, Inc.	1	4
California Solar Systems	147	972
California Solar Thermal, Inc.	1	4
California Structures	2	29
CALIFORNIA SUN	4	36
CalSolarworks	2	22
Calstate Solar	10	149
CalSun Electric & Solar Systems	12	71
Cam Electric	1	9
Camara	1	9
Candelaria Solar Electric	5	33
Capital Aire Systems	3	18
Capital City Solar	45	277
Capital Remodel & Design	12	89
Carl Reuter - Land & Sea Solar	1	5
Carlos J. Don Electric	1	11
Carlson Electrical Services	5	36
Carnahan Electric, Ltd.	1	10
CARPE SOLARIS	2	10
Casey's Electrical	1	7
CEGA ALLIANCE, INC	1	6
CELEBRITY SOLAR	1	8
Cell Energy Inc.	1	6
Centerlins	1	13
Central California Solar	61	466
Centurion Electric	1	43
Century Lighting and Electric	2	361
Century Roof and Solar	8	29
CertainTeed Corporation	1	5
Certified Solar Pros, Inc.	10	61

Company	Number	kW
CES CASTANEDA	10	34
CGS Energy Consultants	1	5
CHAMPION ELECTRIC	1	4
CHANDLERS ROOFING	2	11
Charger Solar	1	13
Cheatham Solar Construction	4	33
Chevron Energy Solutions	5	1,209
Chico Electric	58	3,727
Chico Roofing	1	4
CHINCHEN ELECTRIC	6	48
Chris's Electric	1	7
Christmas Light Co Inc	1	7
Cienaga Solar, Inc.	5	21
Cinnamon Solar	16	77
CIRA ENERGY INC.	1	10
CitiGreen Inc	3	220
City Electric	1	14
City of Lancaster	1	168
CK ELECTRIC	13	74
CLARK QUALITY	3	20
Clarke & Rush Mechanical	10	66
Clarusys Inc.	4	156
Clary Solar	3	16
Clean Energy of America Group Inc.	18	83
Clean Energy Solar	5	28
Clean Energy Solutions	25	131
Clean Power Solutions	5	49
Clean Solar	170	932
CleanFocus Energy Inc	1	10
Cleantech Energy Solutions, Inc.	3	24
Clear Sun Corporation	1	9
Climate and Energy Solutions	3	9
Climate Masters HVAC and Solar	6	28
CM Electric Av Automations Inc	9	45
CM Solar Electric	6	24
CMC CONSTRUCTION	1	7
CMCO Electric & Solar	6	58
Coastal Constructors	12	96
Coastal Home Improvement, Inc.	9	38
COASTAL SOLAR	4	20

Company	Number	kW
Cobalt Power Systems, Inc.	76	1,332
Cogenra Development Inc	1	9
Coldwell Solar	9	3,812
COLORED SOLAR	1	6
Combined Energy Inc.	6	25
Comfort King, Inc	3	14
Commercial Contracting	2	42
Commercial West Realty	1	4
COMPLETE DOOR & TRIM	3	26
Complete Solar	357	2,243
Conergy Projects Inc.	13	8,198
Connect Solar Electric	12	95
Contact Electric	5	13
CONTEMPO	3	22
Contreras Construction	1	8
Cool Earth Solar	2	225
Coon Electric Inc	1	6
CORDELL CONSTRUCTION	4	15
Corona Solar	8	33
Corralitos Electric Co.	1	5
Cosmic Solar Inc.	95	723
Countywide Mechanical Systems	35	302
CREATIVE SOLAR LLC	2	105
Crest Electric	3	20
Crizer Construction	4	19
Crown Electric	4	112
Cruz Electric	1	7
CS CONSTRUCTION	2	10
CSET	2	6
CSI ELECTRICAL	2	192
Cubbison Enterprises, Inc.	1	4
CUCCELL INC	8	44
CUELLAR ELECTRIC	1	5
Cupertino Electric	15	1,781
Current Solar Contracting	35	234
CURTCO ELECTRIC	1	8
Custom Design & Construction	3	12
Custom Environments	1	4
D Dyar Solar	1	17
D G Electric	1	13

Company	Number	kW
D-Electric Inc.	1	5
D.J. Construction	1	3
D.R. Brown Company dba Solar Universe Diablo Valley	20	118
DA Solar Inc. / DM Briggs Electric	10	49
Daily Electric	6	26
DAJING SOLAR USA	3	17
Dan Kemme	4	11
Danlin Corporation	2	8
Dave Bettis Construction	1	3
Dave Moyer Solar	1	4
Dave Nichols Electric	1	11
David Anderson Electric	1	10
David Cobian	5	26
David Sweitzer Solar	6	44
Davis Electric	2	10
Davis Reed Construction, Inc.	1	8
Day One Solar	20	76
DC Solar Electric Inc	31	253
DCS Enterprises	1	5
DEC Services, Inc	1	3
deHaro Construction Inc	1	6
DEK Electric Co./Energy Remodeling Inc	184	732
Del Distribution Co	1	12
Del Sol Energy	9	181
Delectric Inc.	1	2
Delion Electrical Contractors	1	13
DELTA SOLAR ELECTRIC	13	65
DeMello Roofing	1	3
DENALI DEVELOPMENT	8	76
DENERGY DEVELOPMENT	1	111
Dennis Forsberg, Forsberg Construction Inc. dba Sunbolt Energy Systems	1	4
Denny Osburn Construction	1	1
Desert Solar	35	281
Design Build Electric	1	7
Desire or Require Construction	1	5
Devcon Construction	1	4
DEVERT ENERGY	3	27
DG & E Electric	1	22
DG Heating & Air Conditioning	3	9

Company	Number	kW
Diablo Solar Services	47	297
Dickinson Energy Solutions	1	10
Direct Energy Solar	24	147
DISCOUNT SERVICE	5	50
Distinctive Home Improvements, Inc	9	23
Distributed Clean Power	2	19
DIVERSIFIED	1	5
Divine Power USA	74	534
DJH CONSTRUCTION	13	97
DMR Electric Inc	1	3
DNA Electric	1	6
DNL Electric Inc	1	1
Doble & Son	4	25
Domiciles For A New America	2	14
Don Barch/ Energy Solar	1	4
Don Pickett & Associates, Inc.	19	3,702
Don Whipple Construction	2	9
Donald P Dick Air Conditioning, Inc	109	492
Dority Roofing Inc.	9	37
DOUG ENGINEERING	2	13
DOUGLAS A. BUCKLEY	1	2
Douglas Doherty Electric & Solar	1	4
DP Construction	2	11
DPB Engineers, Inc.	1	356
Dreihund	1	5
DRH Electrical	6	30
DRIVEN SOLAR	1	4
Due Brothers Construction Solar	1	13
Dunbar Electric & Solar	2	16
Durham Electric	3	21
Duwright Construction Inc.	1	10
Dwight A. Landis	2	50
Dynamic Power Systems	2	11
Eagle Energy Electric	3	21
Eamerican Solar Company	12	83
Earth Electric	19	88
Earth Wind and Solar, Inc. dba E W S Construction	12	93
EARTHWISE SOLAR	1	7
EBERHARD ENERGY	2	351

Company	Number	kW
Eclectic Electric	1	10
ECO Friendly Energy Group	102	355
Ecocentric	2	20
EcoConsultants	2	5
Ecology Electrical	6	35
ECONO AIR	9	34
Economic Energy Solutions Inc.	13	54
Ecostrategies, Inc	7	56
ECS SOLAR	2	26
Ed Wise Electric Company	1	2
Eddington Construction	1	9
EES Solar inc	27	122
EESC Inc	3	92
Efficient Energy Concepts Inc	9	41
Eggsolar.Com	6	36
El Camino Electric	1	2
ELECTRI-COM	1	4
Electric Pro	4	32
Electrical Power Source	1	8
Electrical Solutions	1	2
ElectriCare Inc.	51	319
Electricraft	18	95
Element Power Systems, Inc.	21	99
Elevation Solar	3	17
ELIGHT ELECTRICAL	3	16
Elite Electric	165	916
Elite Solar	43	884
Elkco Electric	2	10
Ellie Electric	1	2
Empowered Energy Solutions, Inc.	21	117
Empyrean Electric	1	10
ENERGY BALANCE	1	4
Energy Builders	26	104
Energy Concepts Enterprises Inc	75	587
ENERGY HARVESTER	2	12
Energy House	10	66
Energy Inc	2	12
Energy Integrity Inc	7	38
Energy Plus Air	36	305
ENERGY PROTECTION	3	17

Company	Number	kW
ENERGY OUTLET	5	202
Energy Resolutions, Inc	3	15
Energy Saving Pros	110	855
Energy Solar	2	29
Energy Solutions	1	3
Energy Stars Construction	4	13
Energy Systems Development Construction, Inc	1	7
Energy, Inc.	1	8
ENERPARC INC	10	137
ENFIELD ELECTRIC	2	7
EnPro	6	111
Enrg Plus Solutions	2	7
ENRICHED ENERGY	4	14
Enver Solar	424	1,655
Environmental Design/Build	1	3
EP ELECTRICAL	1	5
Epic Solar	9	84
EPICA INC	5	60
Eric A Matson	3	22
Eric Welter Electric	5	60
Ericson Solar	1	1
Eriksson	50	286
Ernie Mauro Electric	1	6
ES ELECTRICAL CONSTRUCTION INC.	9	74
Essex Mechanical	4	27
Esterro Bay Solar Solutions	4	25
Etc Constuction,Llc	3	16
ETI SERVICES, INC.	1	6
EUROCAL CONSTRUCTION	9	56
EV Grid Inc	1	97
Evans Energy Systems	3	24
Evertt Electric	1	3
Everyday Energy	22	651
EVOLUTION ENERGY	38	249
Extra Space Energy	1	87
Extreme Energy Solutions	1	10
Extreme Sun Pirates Inc	4	30
Farnum Electric	1	5
Feather River Solar Electric	4	15
Ferrari Development Inc.	2	10

Company	Number	kW
FIDELITY HOME ENERGY	282	811
Fidelity Roof Company	4	18
Findleton Electric	1	5
Fisher Electric	3	14
Five Cities Construction	2	14
Floyd Auten Electric, Inc.	1	10
Fluor Enterprises, Inc.	1	6
Foothill Electric	1	85
Ford Roofing	1	6
Forever Power	5	122
Forsberg Construction Inc. dba Sunbolt Energy Systems	6	46
Forsythe Electric	1	30
Foshay Electric	3	55
Foundation Windpower	1	944
Fourth Phase Energy	1	5
Fralick Homes	184	1,391
Fred Vogel DBA Calistoga Solutions	1	12
Fredricks Electric, Inc.	1	6
Free Energy Systems	66	279
Freedom Solar	68	469
FRESH Energy Systems	1	4
Frontier Solar Inc	5	36
Full Phase Electric	1	6
Fusion Power Design	2	14
Future Energy Corp	311	1,375
G & A Construction	1	8
G C Electric-Solar	5	122
G&G Electric	4	29
Gaia Energy Systems	11	53
Galkos Construction	63	370
Ganesh Works	1	10
GB Energy Inc	18	130
GC Green	1	3
GCI SOLAR	470	2,635
GD Construction	2	8
GEHRLICHER SOLAR	3	403
Gene McCormick Construction	3	14
Generation 819	24	153
Genesis Energy Solutions	13	79
Geo Energy	3	23

Company	Number	kW
Gerd Werner Electric Inc.	3	23
GGR Energy	5	32
GH Remodeling	13	62
GIGAWATT Inc.	4	29
GILLILAND SOLAR INC	4	27
Gilmore Heat Air & Solar	3	9
Glen Rand Concrete	1	14
Global HVAC and Construction	6	59
GNRG Solar	145	528
Go Solar Now Inc	4	23
Gold Electric	25	419
Gold River Mechanical, Inc.	1	4
Golden Bear Solar	8	45
GOLDEN CREW	6	31
Golden Gate Electric	97	349
Golden State Power	1	11
GOLDEN WEST ENERGY	10	120
GoldenBridge Development Corporation	5	73
Good Energy Renewables, Inc.	9	57
Goodman Construction and Electrical Inc.	2	25
GR8 Energy	14	70
Graham Porter Construction Inc.	9	64
Grand Electric and Construction Co.	1	4
Granite Bay Energy	2	155
Great Expectations Construction	2	12
Green Air Heating & Air Conditioning Inc	21	139
Green America Construction	43	280
Green Charge Networks	1	637
GREEN CONCEPTION INC	5	43
Green Convergence	96	580
Green Earth Engineering Corporation	1	8
Green Energy Epc Inc	22	103
Green Engineering Solar Corp. dba GESG	14	78
Green Envi. LLC	5	34
Green Heart Solar	2	44
Green Homes of California	39	216
Green Leaf Solar & Electric, Inc.	3	16
Green Light Construction Service	2	7
Green NRG	149	733
Green Power Installers	9	40

Company	Number	kW
Green Realities LLC	1	6
GREEN SOLAR	7	41
Green Source Solutions	7	27
Green Stock Solar	28	196
Green Tech	35	243
Green Technology International	1	5
Green Volt Energy	5	27
Green Wolf Electric & Solar	43	170
Greenaway Construction	1	5
Greenbuilding Science Company	1	7
Greenbuilt	2	7
Greengoldsolar	1	3
Greenhill Remodeling	125	478
Greenlight Construction	6	42
Greentech Solutions Inc.	3	13
GreenTechProperties LLC	1	8
Greenway Solar	1	8
Greenwired	3	15
Greg Gayler Construction Co	7	20
Greg Shaw Construction	1	3
Greg Tomsik Construction	11	84
Gregory Reginato Const.	1	3
Greiner Heating & Air conditioning	14	75
GRID Alternatives	443	1,347
Griff's Electric - Preston Griffith	1	9
GROUND UP BUILDERS	43	155
GSE SOLAR SYSTEMS	1	5
GTi Solar Builder Inc	6	42
GUASTI CONSTRUCTION	15	90
Gudgel Yancey Roofing	7	58
GUYOU CONSTRUCTION	10	56
Haenggi Home Services Inc.	2	8
hajee rafique kasim	2	9
Halcyon Solar Construction	9	239
HALO ROOFING	1	6
Halsell Builders	1	4
Hammond Electric	10	65
Hancock Electric	1	6
Hans Energy Systems	2	8
HANWHA SOLARENERGY	1	166

Company	Number	kW
Hardy Construction, Inc. / Ronald Hardy	1	11
Harmony Air	4	13
Harrison Electric	4	21
Hawes Air & Solar	1	5
Hayes Electrical Service	1	1
Heck Electric	2	14
Heitman Excavating & Engineering	1	5
Helpers Electric Company, Inc.	1	7
HELIO TEK USA	1	6
Heliofarm	2	5
HelioPower	135	2,459
Helios Planning	3	16
Heliotek Corporation	30	171
Henry's Air & Solar	1	2
HERCA SOLAR INC	92	721
Heritage Solar	47	364
HERM ELECTRIC INC	1	2
Hi Tec Solar and Construction	1	5
HI-DEF LIGHTING & ELECTRICAL, INC.	1	32
Hi-Tech Solar	8	50
High Defintition Solar	215	402
HIGH POWER ELECTRIC	2	17
HIGH STAR	1	18
Highcraft Home	1	7
Highlight Solar	37	168
HIGHPOINT SOLAR	4	29
Hish Power ELeetric	2	18
Hitech Remodeling Inc.	20	95
HLV Electric Co.	3	15
HMR&R Services Inc	2	14
HODNE CONSTRUCTION	2	12
Hoes Engineering, Inc.	1	6
HOFFMAN CONSTRUCTION	1	5
Holtz Consulting	2	14
Home Energy Systems	52	674
Home Networks, Electric & Solar	9	32
HOME PERFORMANCE	12	108
Home Performance Matters	2	15
HOME UNPLUGGED	11	63
Honey's Air & Solar	27	94

Company	Number	kW
Hooked on Solar	3	13
Horizon Solar Power	1,271	8,869
HOT PURPLE ENERGY	73	594
HOWE CUSTOM HOME	5	32
Huhn Electric	4	23
Hunter Energy Solutions	5	80
Hutching Construction & Harmony Solar	43	245
Hutchinson Construction Inc	1	6
HYBRID POWER	1	5
Hydro Stock Inc	1	12
I Solar	1	5
I. E. SOLAR	1	4
Ickler Electric Corporation	1	33
Ideal Plumbing	1	3
Ideal Solar Lighting & Electric	1	8
ILP ELECTRIC	1	7
Independent Energy Solutions	41	862
INDIGLO ELECTRIC	1	5
Indus Solar	2	8
Industrial Controls and Electrical Services Inc.	2	11
Innavent	2	17
Installation Services Of San Diego	1	7
Integrated Power & Lighting Inc.	1	3
Integrity Electric & Solar	30	239
Intelisolar dba Intelisolar constructions	1	2
INTERCON SOLAR	4	11
Interfaith Electric & Fire Inc.	20	137
INTERIOR INNOVATIONS	48	239
Interstate Roofing and Solar	5	19
Inviro Solutions Group	3	12
J & J Owens Electric Inc.	1	4
J A D BUILT GENERAL CONSTRUCTION	1	10
J W Warren Construction, Inc	1	7
J. H. Simpson Company Inc	1	7
J. Johnson Electric	1	6
J.C. Construction	1	7
J.H. Simpson Company, Inc.	1	7
J.P. WITHEROW	1	3
J.R. Zar Inc.	1	4
Jack Hanauer Const., Inc., dba SolarIoS	3	16

Company	Number	kW
Jacktone Shelling LLC	1	91
Jake Ford Electric, Inc.	1	9
Jamar Power Systems	45	283
James K. Collins	2	7
Jason Daves Electric	1	5
Jason's Electric	1	6
JB Electric	2	13
JBL Solar Energy	13	82
JDC ENERGY SOLUTIONS	25	149
JDS POWER	3	159
Jerry Kutumian	13	95
Jess Knolle Electric	1	3
Jim Marshall Construction, Inc.	1	7
JIM TYLER	24	252
JK Solar	8	58
JKB Energy	35	8,547
JLM Energy Inc.	1	52
JMT Mechanical	2	6
JOBE ROOFING COMPANY	3	10
John K Construction Inc	1	3
John S. Baker Electric	2	12
John Steed Homes	1	10
Johnson Controls Inc	2	978
Johnson Electric And Supply	1	5
Jonas Energy Solutions	1	4
JONES PRUNE ORCHARDS INC	1	54
Jones Service Company	7	60
JP & Sun, Inc dba Solar Works	12	86
JP Electric & Solar	28	237
JUAN RUIZ	2	14
Jungwirth Construction	1	7
JUSMARK ELECTRIC	1	475
Just Do It Builders	1	4
JV Seasholtz Family Limited Partnership LP	1	121
JWN	1	9
K. Y. M. CORPORATION	4	23
K12 Solar	1	40
K2 Development Company, Inc.	1	5
Kalin Enterprises Inc	1	6
Katalyst Construction	11	79

Company	Number	kW
KBI ELECTRIC, INC.	1	7
KEARNS ELECTRIC	2	10
Keegan Electric	1	4
Keith Brown Construction	5	35
Kelly Nixon Construction	1	5
Ken Rappaport Ent	1	13
Kennybs Works	1	6
Kern Mechanical Inc	2	36
Kerr Electric	1	5
Kettle Construction	3	24
Kevin Arnoul Electric	1	10
Kevin Dunn Electric Inc	1	8
Kevin Stephens Design Group	1	2
Kilowatt Systems, LLC	2	9
Kirna Solar Electric	4	27
Kliewer Construction Inc.	1	16
KN Consulting	1	9
KND Energy Solutions	1	10
Knolle Electric	7	53
KPRS INC	1	19
KR Design & Construction	1	8
KRC Enterprises	1	19
Kruetzfeldt Construction Company, Inc. DBA Solar Universe	32	228
Kurios Energy	22	159
Kuykendall Solar	73	498
KV SOLAR SUPPLY	2	6
KWC CONSTRUCTION INC	1	5
KYM Corporation	8	40
LA GREEN BUILDING	1	4
LA Power Center	44	231
LA Solar Group	160	967
Lafleur Designs	1	3
LAIBACH SOLAR LLC	1	3
LAMSON ELECTRIC	1	6
Land & Sea Solar	5	21
Larry Hamilton dba All Save Energy	3	109
Larry Phillips Construction	1	4
Larry Rambaud Construction	1	6
LASALLE SOLAR	2	38
Laughlin Electric	1	6

Company	Number	kW
LaVerne & Son	1	4
Layman Electric Inc	1	13
Layne Laboratories, Inc.	1	120
Lb Rebate Consulting	12	61
LCI/Luikens Construction Industries	1	7
Lee's Sheet Metal HVAC	1	5
LEONARD ROOFING	331	1,010
Leslie Electric	1	10
Levi Builders	23	93
Libery Solar	3	19
Libri Development	1	8
LifeStyle Solar	113	607
Light House Roofing	1	2
Light It Up Solar & Electric	13	114
Line Side Solar	1	5
LITE SOLAR CORP	11	174
LLP Energy	1	10
LMA Construction	1	10
Lotta Construction	1	7
Lovenburg Electric	1	2
LTS Solar Energy	1	13
Luke Roofing	5	26
Luminalt Energy Corporation	61	349
Lundy Construction and Maintenance Co.	3	24
Luxlight Solar	3	18
Lyle Design	1	3
M Kahn Solar Inc.	6	35
M Sanderson	2	13
M.I. Electric	3	25
MAC SOLAR	1	34
MacMichael Electric	1	5
Maedl Solar	22	148
Magic Sun Solar	73	514
MAGNOLIA HEATING &	1	7
Maguic Sun Solar, Inc.	1	7
Mannel Electric	1	7
Marc Daniels Construction	5	37
MARCO ROOFING COMPANY	2	7
Marcus Beale-Inter Faith Electric	1	8
Mark Fambrini Renovation	1	5

Company	Number	kW
Mark Heinz	19	115
Mark Miller Electric	2	17
MARK PARTON TOWN N	1	5
Mark Snyder Electric	1	5
Marthedal Solar, Air & Heating	1	18
Martin Electric & Solar, Inc.	4	17
Masellis Electric & Solar, Inc.	9	85
Masterlyne Corporation	8	25
MASTERS ELECTRIC	1	7
Matson-Services dba Auburn Solar	17	149
Matt Anderson Electric Inc	4	79
Matt McCarty Construction	2	16
Matt Thompson Solar	4	10
MB HERZOG ELECTRIC	1	21
MBL & Sons, Inc.	1	4
MC ENERGY	6	39
McCormack Roofing	4	18
MCDANIEL INC	2	24
McKeever Energy & Electric Inc	1	18
MCKEON ELECTRIC	1	28
MCO Construction	8	64
McPeak Electric, Inc.	1	8
MCWIRE ELECTRIC	47	193
MD Electric & Solar Inc.	14	623
MEC Fire and Electric	1	6
Meced County Community Action Agency	1	3
MECO ELECTRIC	1	5
MEE Solutions	2	21
MEGA POWER ELECTRIC	4	24
Meissner and Son	1	6
Mellor Electric	1	12
Men at Work Thompson and Sunz	1	6
Mendencino Solar Works	14	60
Merced County Community Action Agency	24	84
Metro RF Services Inc.	22	240
Michael & Sun Solar, Inc.	7	33
MID CAL ELECTRIC COMPANY INC	1	13
Mid-State Solar	8	61
Midwest Roofing	2	100
MIGUEL SERNA ELECTRICAL	2	7

Company	Number	kW
Mike Calhoon Construction Inc.	3	38
Mike Electric, Inc.	2	14
Mike Rietkerk	4	19
Milholland Electric Inc	79	601
Miller Solar	1	7
MIMEOS CORPORATION	7	65
Minich & Sons Construction	3	14
Miquel Serna Electrical	1	4
MIRACLE ART SERVICES	2	14
Miracle Solar Inc.	8	67
Mission Solar Electric	18	107
Mister Tile	1	5
Mixteco Construction	3	11
Modern Method Roofing & Construction	2	10
MODERN SOLAR	2	9
Mohler Solar	1	4
Mohr Power Solar, Inc.	50	265
MOOFEZ INC	1	9
Moonlight Electric Services	2	14
MOORE SOLAR & GREEN CONSTRUCTION	13	111
MORROW-MEADOWS	1	26
Mother Nature Solar	20	122
Mountain Aire Heating & AC Inc.	2	12
Mr Roofing dba Solar Universe	12	47
MULTI electric	1	5
MURDON CORP	3	10
Mustang Electric	2	14
Muzio Energy Inc.	1	6
N.V. Construction	5	17
N2 Electric, Inc.	1	6
Nahas Construction	1	6
Napa Electric Shop Inc	3	92
Native Electrical Construction, Inc	3	17
Natural Energy	150	857
Neault Electric	1	4
Nermin Bubic	2	8
Nesus Energy Systems	22	93
NEUBAUER ELECTRIC	1	50
NEW DAY SOLAR	74	489
NEW ECO CENTURY	2	17

Company	Number	kW
NEW ENERGY	1	2
NEW GEN ENERGY	2	20
NEWPORT POWER	10	49
NexGen Construction Services, Inc.	18	94
Next Energy	5	46
Nexus Energy System	307	1,313
Nicosia Construction	1	9
Noll Electric	4	20
Norcal Contracting Inc	6	56
NorCal Home Improvements	13	37
Norris Electric inc.	2	19
North Bay Industries	1	52
North Bay Solar Electric	3	29
NORTH PACIFIC	1	10
North State Solar Energy	78	824
North West Exteriors, Inc	1	4
Northern California Roofing	7	33
Northern Lights Electric	1	1
Northern Pacific Power	34	164
Northwest Exteriors Inc.	6	23
Nostalgic's Inc	2	5
Nova West Solar	66	922
NRG HOME SOLAR	95	500
NT Electric	10	53
Nuance Energy Group, Inc	6	393
NuSolar Technologies	13	79
NUVISION ENERGY	9	40
O'CONNOR ELECTRIC	1	64
O'Coyne Electric	1	8
Oates Solar Electric	1	7
OC HOME IMPROVEMENT	3	18
OC Solar Panels, Llc	2	22
OC SUNNY SOLAR	4	25
Occidental Power	21	99
OCS Energy, Inc.	1	12
Offgrid Systems Inc.	7	59
Offline Solar Electric	7	35
Omneco Solar	1	2
Omni Valley Construction	14	178
On Time Services Co	3	62

Company	Number	kW
One Hour Heating & Air Conditioning	1	4
One Roof Energy	30	140
One Stop Solar	3	7
Opterra Energy Services	9	1,809
Option One Corp.	32	230
Orion Electric Corporation	1	3
Ortega R's Construction	2	11
O'Sullivan Green Solar	1	5
Otto Inc	2	12
Pab Solar and Air Inc.	1	3
Pac Solar Corp.	31	164
Pacific Beach Tower Inc	3	15
PACIFIC BLUE SOLAR	34	204
Pacific Coast Electric And Solar	6	19
PACIFIC ELECTRIC	5	42
Pacific Energy Company	1	43
Pacific Power Renewables Inc.	1	42
Pacific Pro Solar Group Inc.	2	11
Pacific Ridge Electric, Inc.	1	4
Pacific Rim Construction/ARAM Solar	3	23
PACIFIC STONEGATE	10	83
Pacific Sun Solar	12	64
Pacific View Electric	20	41
PACIFICSKY SOLAR	1	10
Pajaro Valley USD	1	375
PALM DESERT ROOFING	1	8
Palomar Solar	77	713
PARAMOUNT CONSTRUCTION	1	5
PARKS ELECTRIC	1	4
PATRIOTIC POWER	1	144
Pavletich Electric - PAV Solar	9	54
PCL	1	36
PCM Construction	1	4
Peace of Mind Electric	6	66
Peak Power Solutions, Inc	70	353
Peck Heating & Air Conditioning, Inc	1	5
Pell Solar Inc.	75	510
PENNIES 4 AIR	1	3
Perfect Energy	2	15
Perfect Image Video	1	4

Company	Number	kW
Performance Solar, Inc	4	29
PERKINS ELECTRIC	1	6
Perksolar	30	170
PERMACITY	5	47
Perron Construction	1	9
PerryBuilt Construction, Inc.	31	155
Pete & Sun	1	5
Petersen Dean Roofing & Solar Systems	1,595	8,110
PHAT Energy	6	70
Philip Huff Engineering	1	7
Photon Brothers	26	125
Picture Perfect Solar	1	2
PIERRO CONSTRUCTION	69	316
Pine Valley Property	1	4
Plan It Solar Inc DBA Plan It Solar Construction	19	124
Planet Earth Solar LLC	64	292
Planet Home	1	2
Planet Solar Inc	88	703
Poco Solar Energy	17	105
POLAR SOLAR	6	31
Potere Solar	39	367
POWELL ELECTRIC INC	1	8
Power Star Solar	1	10
PowerGrid Inc DBA Rancho Electric	2	16
PowerHouse Solar	17	147
Powerhouse Systems, Inc	9	64
Powertec	1	65
POWERTOWN ELECTRIC	2	13
Precis Solar	153	885
Precision Electric	11	105
Premier Renewables LLC	4	815
Prime Electrical Service	2	37
PRO-LINE ELECTRIC CO	1	8
PROGRESSIVE ENERGY	63	361
Progressive Power Group, Inc	20	158
Promise Energy Inc	14	269
Proquality Contracting, Inc.	1	6
ProVoltz Inc	36	145
PSOMAS FMG LLC	4	3,167
Pure Energy Solar	15	104

Company	Number	kW
Pure Power Solutions	20	200
Pure Pwr Pools, Inc	1	7
PURE SOLAR POWER	17	109
PV Guru, Inc.	2	12
Quality Electric dba JT Solar Inc	8	47
Quality First Home Improvement Inc	89	279
Quality Home Renovators	24	72
Quality Home Services	46	329
Quality Solar	5	40
Quantum Solar Construction	60	380
Quattro Solar	7	42
Quest Constrction Corp General Cont	7	39
Quick Systems Inc	4	27
Quirarte	1	5
Quisenberry Construction,Inc.	1	6
R & R Electric	1	3
R.A. Burch Construction	1	11
R.E. Pierro	2	13
R.McClure Electric	3	11
Rader Electric, Inc.	7	95
Radiance Solar	2	20
Radiant Solar Technology	4	32
Raichart Electric	2	10
RALPH PISCIOTTA ELECTRIC I WILLITS ELECTRIC	1	3
Ramos Electrical	1	2
Rancho Santa Fe Craftsman, Inc.	2	17
Rancho Solar	34	305
Rare Electric	1	4
Ray O. Cook Company	3	15
Rayco Energy	10	83
Raygen Energy	4	152
RB DEVELOPING	1	11
RCC SOLAR	1	13
RCI Solar	20	117
Real Goods Solar	172	2,484
REC Solar	696	7,446
Reddi Electric	1	6
Redding Repair & Remodel	1	6
Reed Construction	4	59
Reef Solar	1	4

Company	Number	kW
REFERRAL DESIGN &	1	15
Regenerative Solutions	2	17
Regreen Corp.	22	144
Reid Heating & Energy inc	1	10
RENEW SOLAR	5	63
Renewable Electric Inc	9	46
Renewable Electric Integration	22	154
Renewable Energy	15	115
Renewable Energy Advantage	2	19
Renewable Solar Energy	12	563
Renewable Technologies Inc	2	49
Renninger Electric	1	3
RENOVA ENERGY CORP	246	2,420
REP Energy, Inc.	2	70
Repower by Solar Universe	2	14
Responsible Solar	12	103
Restad Electric	15	92
Restart Solar	70	537
Revco Solar Engineering, Inc.	34	234
Revolve Solar	255	1,375
Rez Solar & Electric, Inc.	5	27
Richall Electric Co.	3	27
Richard Steele Construction	2	18
Right Now Air	7	28
RIGHT WAY SOLAR	1	6
Rise and Shine Solar	2	12
River City Solar	1	6
RMS BUILDING, INC.	1	7
Roam Solar	1	7
Robbins Reed, Inc.	1	9
Robert's Solar	9	42
Robertson Solar	17	110
RODDA ELECTRIC INC	4	385
Rogers Electric	12	51
Ronald B McClintock (dba Golden State Solar Elec)	3	18
Ronco Solar Power	44	171
Rooftop Solar Llc	7	40
Roseville Solar Electric	2	18
ROSS POWER SOLUTIONS	2	24
Ross Roofing	6	25

Company	Number	kW
Rossignol Companies	1	4
Royal Aire	27	161
Royal Enterprise	1	11
RPM Solar Construction Inc.	2	8
RRS Construction Corp.	1	8
RS ENERGY CALIFORNIA	2	14
RSI Roofing	1	6
RT Maher Construction	22	423
RT Solar	16	117
RUN ON SUN	3	68
Running Electric	4	26
Rupert's Installation Managemnt Service Inc	12	91
Russell Electric	1	12
Sabato Electric & Sun Wave Solar	1	5
Sac River Solar	3	10
Sadler Solar Development	7	27
San Diego County Solar	24	141
San Diego Custom Remodeling	4	15
San Diego Solar Construction	10	56
San Diego Solar Install, Inc	20	107
San Joaquin Electric	1	7
San Leandro Unified School Dis	1	712
Sandbar Solar	5	271
Santa Cruz Solar	3	10
Santa Maria Electric, Inc.	1	11
Santa Ynez Valley Solar	4	18
SASS ELECTRIC	15	56
SAUFLEY ELECTRIC	2	20
Save a Lot Solar	19	70
Save On Solar	5	21
Sawmill Solar Electric	9	84
Scafuri Construction	2	12
SCCE SOLAR	6	38
SCOTT AND SONS	5	87
SCOTT'S ELECTRIC	1	6
Scudder Roofing Sun Energy Systems (Scudder Solar)	39	435
Scurfield Solar & Heating	3	12
SD DEVELOPMENT INC	1	6
SD Energy	1	5
SDS Construction	1	8

Company	Number	kW
SEA BRIGHT SOLAR	52	404
Sears Construction Co.	2	16
Secure Home Improvements, Inc.	74	471
Secure Roofing And Solar, Inc.	28	150
SEL Construction Corp.	18	129
Semper Fidelis Construction Inc.	23	154
Semper Solaris Construction Inc	537	2,846
Sensible Solar Construction	3	19
SePac Energy Systems	4	25
Sequoia Roofing	10	57
Shadowfax Roofing	5	22
Shamrock Renewable Energy Services, Inc.	1	20
Shaw's Air Conditioning & Heating Inc.	1	3
Shields Electric	10	57
Shorebreak Energy Developers	16	674
Shufelberger Construction	3	19
Sierra Energy Savers	6	31
Sierra Pacific Home & Comfort	130	798
Sierra Roofing & Solar	7	34
Sierra Solar	7	51
Sierra Valley Home Corp.	3	29
Sign Solutions Electrical Division	1	10
Sigway Energy	3	13
Silicon Valley Energy	10	65
Silverado Electric	1	7
SIMMITRI CORPORATION	2	10
Simms Solar Electric Inc.	1	7
Simply Solar	30	127
SK Solar, Inc	2	8
Skelly Electric Inc	5	43
Sky Power Solar	83	716
Skybridge	2	97
Skyline Energy Savers, Inc.	25	83
Skyway Electric	34	150
Sleight Consultants Inc	2	17
Slingshot Power	55	269
Smart Energy Solar	780	4,595
SmartBuilding IQ, Inc	2	13
Smith Electric Service	1	4
Smits Solar Heating & Air	2	30

Company	Number	kW
So-Cal Solar Inc.	58	562
SOCAL CUSTOM INC	17	113
SOCAL ENERGY SYSTEMS	1	7
SoCore Energy	43	1,983
Sol Fusion, Inc	62	233
Sol Power Construction, dba All Wire Electric, Inc.	8	82
Sol Reliable Inc	43	192
Sol Sierra, Inc.	3	27
Sol Tek Industries	59	446
Solahart San Martin East Bay	3	29
Solaire Energy Systems	108	608
Solar 360 Building Services	45	294
SOLAR 4 LESS	1	3
SOLAR ALTERNATIVES	2	30
SOLAR BLVD	4	15
Solar Center, Inc	4	17
Solar Coast Construction	13	88
Solar Construction Servicing Center	24	115
SOLAR CREW	5	30
Solar Ease, Inc	8	46
SOLAR EDGE LLC	1	4
Solar Electric Maintenance Direct	1	4
Solar Electric Works	10	88
Solar Electrical	11	77
SOLAR eMD	2	12
Solar Energy	11	72
Solar Energy 911	1	6
Solar Energy Designs	15	78
Solar Energy Exchange Inc	6	54
Solar Energy Group	1	10
Solar Express	1	6
Solar Forward Electric	14	88
Solar Holmes	10	63
Solar Home Inc	30	201
Solar Ignition	1	4
Solar Lightworkers Inc	8	59
Solar Negotiators	17	127
Solar Network Inc.	9	70
SOLAR NOW	18	110
Solar Optimum Inc.	18	119

Company	Number	kW
Solar Point Energy Group	1	62
SOLAR POOL	1	5
Solar Power, Inc	1	3
Solar Projects Unlimited	5	22
SOLAR PROS INC	8	59
SOLAR QWEST	1	4
Solar Revolution	40	243
Solar Roof Dynamics	3	17
Solar Sense PV, Inc.	22	117
Solar Service Center, LLC	937	4,879
SOLAR SGV INC	39	195
Solar Solutions 4 U, Inc	71	491
Solar Source Inc.	33	222
SOLAR SYMPHONY	17	108
Solar Tec-Systems Inc	10	137
Solar Technologies	149	1,096
Solar Universe	257	2,395
Solar Universe - Brentwood	49	281
Solar Universe Sacramento DBA Solar Electric	27	161
Solar Universe San Marcos	55	307
Solar Universe-Brentwood	4	25
SOLAR UNLIMITED INC	5	25
SOLAR VAST	8	45
Solar Watt Solutions	21	119
Solar West Electric, Inc.	41	248
Solar Works	11	56
SOLAR XPRESS	5	43
Solar- Kitchen &	3	18
SOLAR-G ELECTRIC	9	77
Solar's Smart LLC	1	17
SolarBreeze Technology	1	6
SolarCity	22,940	131,216
Solarco, Inc.	66	316
SolarCraft	68	1,274
SOLARE ENERGY, INC	183	1,163
SolarFirst Inc dba FirstPV	26	121
Solarfuze	8	42
SolarGem Electrical	20	146
SolarHut, LLC	20	110
SOLARISENERGY	2	12

Company	Number	kW
Solarium Energy	6	39
SolarKen	1	36
Solarmax Renewable Energy Provider,	513	3,181
SOLAROLOGY INC	58	367
Solaron, Inc.	41	297
Solaropoly Inc., dba Solar Universe	36	192
Solarpark USA	3	15
Solarponics, Inc	68	612
Solarquest	14	77
Solarrite	2	14
Solarscape Artistry	12	108
Solartech	80	509
SolarWinds Energy	5	24
Solcius	826	4,597
Solclaro	1	7
Solcon Solar	5	19
SOLEENIC INC	5	14
Solex	28	163
Solforce	6	35
Soligent Leasing	45	287
Solomon Construction	22	137
SolRise Electric	1	5
SOLTAIRE ENERGY	1	7
Sonce Electric	5	35
Sonray Solar Inc dba Sonray Construction	22	120
Souder Construction	41	288
South West Sun Solar	39	184
Southern	16	179
SOUTHERN EXPOSURE	1	4
Southern Pacific Solar	1	9
SOUTHLAND SOLAR	10	55
Southwestern Solar Systems	3	19
Specialized Energy	1	6
Spectrum Energy Development Inc	5	28
Spectrum Solarwind, Inc	11	60
SPG Solar, Inc.	1	1,000
Sprig Electric	4	46
Stan Vierra Electric	2	13
STANTON ELECTRIC	1	8
Star Power LLC	5	18

Company	Number	kW
Staten Solar	2	57
Stebbing Electrical Services, Inc	1	8
Stellar Energy GP Inc	6	2,843
STELLAR SOLAR	314	2,053
Stem Inc.	1	925
STERLING SOLAR	1	7
Steve Patrick Air & Solar	1	11
Steve Smith Electric	1	6
STI Solar Electric Services	3	17
Stinger Electric	1	3
STION CORPORATION	1	208
Stornetta Brothers Construction Inc	18	97
STOUT & BERG	22	107
Straight Line Construction	9	31
Streamline Electric & Construction	7	77
Suacci Electric	11	57
Sub Edison	1	3
SULLIVAN SOLAR POWER	737	4,966
Summerwind Solar	1	5
Summit Electric	1	3
Summit Technology Group	1	142
SUN AT WORK SOLAR CONSTRUCTION	2	15
Sun Bees Groups Inc DBA True Power Solar	69	354
Sun Coast Remodelers	12	46
SUN CRAFTSMEN SOLAR	1	5
Sun Economy	1	3
Sun First Solar	71	335
SUN HARVESTER INC	1	5
Sun Incorporated	8	45
Sun Integration	7	66
Sun Kiss Solar	17	121
Sun Light and Power	34	1,002
Sun Metrics	16	111
Sun Pacific Solar Electric, Inc	18	130
Sun Phase Energy	2	11
Sun Plug Inc.	3	15
Sun Smart Inc	15	119
Sun Solar Energy Solutions	290	2,823
Sun Time Energy	29	150
Sun X Solar	42	231

Company	Number	kW
Sun-Brite Electric	6	43
SUN-TIME ENERGY	22	100
Sun, Inc	20	102
Sun's Free Solar	2	13
SunAmerica Solar & Construction Company	10	39
Sunbelt Solar Corp.	18	97
SUNBRITE	1	7
Sunburst Solar Energy, Inc.	2	27
SunCapital Solar	1	5
SUNCATCHERS	2	14
Sunco Solar Electric	3	23
Suncoast Remodelers	26	96
Suncraft Solar, Inc.	79	443
SUNCRAFTSMEN SOLAR	1	6
Suncrest Solar	464	2,546
Sundance Solar	1	5
Sundowner Solar	3	25
SunEdison LLC	6	1,311
Sunequity Solar	1	3
Sunergy Solar Inc.	2	16
SUNFUSION SOLAR	118	602
Sungate Energy Solutions	2	7
Sungenia Solar Solutions	4	63
Sungevity, Inc	1,665	8,798
SUNGREEN SYSTEMS	7	65
Sunlectric, Inc	8	50
Sunlight Solar Inc	86	276
Sunline Energy Inc.	162	729
Sunnova Energy Corporation	5	28
SunnyCal Solar Inc	13	75
Sunnyside Solar Inc	2	5
SUNPLUG	2	11
SunPower Corp	1,065	14,699
Sunpro Solar Inc.	132	840
Sunrise Solar Co.	18	198
SunRun, Inc.	2,897	17,464
Suns Free Solar	1	4
Suns Up Solar, a div of Putt Construction	15	82
Sunsational Solar	1	3
SUNSIDE SOLAR INC	9	83

Company	Number	kW
SunSolar US	15	86
SunStar Energy, Inc	6	50
Sunstarter Solar Installations Inc	25	148
SunStreet Energy Group/Lennar Homes	892	2,828
SunSystem Technology	3	21
Sunterra Solar, Inc.	3	365
Suntime Energy Builders	65	324
SunTrek Industries	5	46
Sunvalley Solar Inc.	2	53
SunVest Solar Electric, Inc	17	90
SunView Vineyards of CA, Inc	1	27
SUNWEST ENERGY GROUP	5	26
SunWork Renewable Energy Projects	41	171
SUNworks	257	2,515
Super Solar	16	62
Supreme Air Systems Inc	2	9
Sustainable Energy Group Inc	21	110
Sustineo Solar Systems	3	69
Swan Solar	2	10
Swanrock DBA Skytech Solar	31	116
Sweitzer Solar	2	12
Swidler Sales & Consulting	1	8
SWIFT ELECTRIC	3	17
Swinson Electric	1	5
Swiss Renewable Energy	6	36
Synapse Electric	12	201
Synergy Solar & Electrical Systems Inc.	40	275
Syntrol Plumbing Heating & Air	315	1,487
T & G ROOFING	5	35
T&M Solar and Air Conditioning, Inc.	197	1,052
TA EDISON CORP	1	3
TAG Electric Inc.	1	3
TAK ELECTRIC	1	14
Talbott Solar & Radiant Homes Inc.	8	47
Tavolazzi Construction	1	6
Taylor Energy Systems, Inc	11	131
Technical Electrical Inc	15	134
Technidea Corporation	1	27
Tecta America Corp	1	170
Teleos Building and development	1	10

Company	Number	kW
Tenco Solar, Inc	6	30
TERAWATT	7	68
Tesoro Veterans Group	4	19
Thak Energy	1	7
THAT SOLAR GUY	3	18
The Ascott Company	1	5
The Solar Company	470	3,700
Thern Electric and Solar	1	14
THIRD GENERATION	1	14
Third Millennium Electric	6	78
Thomas Cote Electric	1	9
Thomas Electric, Inc.	2	31
Thomassen Construction Inc.	1	7
Thornton's Gas Service	3	28
Three D Electric Company	1	4
Tier 1 Solar Inc.	1	3
Tilley Construction	1	8
Time-4-Solar	1	8
Timeless Wood Products, Inc.	1	36
Titan Construction and Solar	165	743
TLP Electric Integrations, Inc./Infinity	123	777
TODD BENNEY ELECTRIC	1	12
TODD SOLAR	2	9
Tom Reed Reed Const.	1	8
TONY CAMARA	2	20
Top Hat Energy Inc	28	349
Top Notch Electric	2	17
Topwest	1	9
Torrey Pines Construction	2	9
TOTAL CONSTRUCTION	15	65
Total Solar Solutions	13	95
Tower Power Electric	1	5
Town & Country Roofing	1	1
Transworld Solar Inc	4	17
Trapsun Solar Energy, LLC.	4	31
Travis Robson Construction	8	30
Tri D Associated Builders	16	130
Trident Technical Resources	6	32
Trinidad Electric	1	3
Trinity Construction Enterprises	5	27

Company	Number	kW
TRIPLE LINE SOLAR	24	155
Trombino Electric	2	12
TSJ Electrical &	2	11
Turn Key Construction, Inc.	7	62
Ulrich Energy & Solar	1	4
Unique Solar	27	149
United Express Construction Inc	23	108
United Field Remodeling Inc	96	324
United Sun Energy	32	497
University City Photons	10	56
Unleash Solar	49	181
UNLIMITED ENERGY	9	45
Up On The Roof, Inc.	1	9
Uptown Solar	30	138
Urban Design Solar	18	148
URBAN ENERGY SOLAR	58	322
US Green Energy Technologies	39	226
USMC	1	85
V'S SOLAR ENTERPRISE	13	76
V3 Electric, Inc	122	671
VAHA SUSTAINABLE	1	169
Valley Center Water District	2	54
Valley Heating, Cooling, and Electrical	3	11
Valley Pacific Builders, Inc. dba Pacific Solar	42	514
Valley Solar Electric	35	355
Valley Unique Electric	128	1,174
Value Electric & Communication	3	18
Van Groningen and Sons Inc.	1	993
VASCO SOLAR ENERGY	10	77
VCS	1	7
Vector Construction	1	3
Velocity Solar	2	18
Verengo Solar	1,815	10,211
VeriSol	1	43
Vezina Industries	1	15
Via Solar Corp.	39	179
Victory Heating &	1	7
Vigor Construction	6	31
Villara Corporation	2	15
Vince Sigal Electric, Inc	2	11

Company	Number	kW
VISALIA ROOFING	2	5
Vision Installation, LLC	142	674
Vista Solar Inc	7	971
Vivint Solar	6,999	37,969
W C Stein Construction Corp	1	4
W&E Electric	1	10
Wannamaker Electric Inc	1	8
Washington Gas Energy Systems	2	183
Webb Homes	1	43
Wegen Solar, Inc	43	218
West Coast Exteriors	7	24
West Coast Green Electric	3	27
West Coast Solar Energy	246	2,290
West Coast Sustainables	2	14
WEST HILLS	2	11
West Valley Solar & Electric	3	25
Westech	1	251
Western Sierra	5	26
Western Solar	6	39
Western Sun Systems, Inc	14	67
Westhaven, Inc.	177	1,441
Whittington Solar	1	8
Wick's Roofing Inc.	4	24
Wildcat Solar	1	4
WILDWOOD Pools Inc.	1	6
WILLIAM CLAYTON ELECTRIC	4	14
Williams Lifetime Builders Inc. dba Lifetime Solar	12	77
Willow Glen Electric, Inc.	3	12
Wind and Solar Solutions	1	23
Windsun Energy Systems	22	143
Wing Solar & Wood Energy, Inc	18	102
Wire Rite Inc	1	8
Wired Into the Future Inc. DBA / Wired Into the Future Solar	2	6
Wiresmart	1	8
WLF solar	1	19
Wommack Electric	1	5
Wonder Electric Co.	3	15
Woodall Construction	1	9
Woods Electric	1	3
Wooster Engineering Specialties	1	4

Company	Number	kW
Xavier Electric	1	8
XCELL ELECTRICAL,	1	7
Xero Solar	15	159
XSUNX INC	1	106
Yancey Home Improvements Inc	2	12
Yes Electric	3	15
Young's Air Conditioing	6	63
Your Energy Source	9	293
Your Solar Mate	2	88
YOUVEE SOLAR	3	15
Zero Energy	192	265
ZING SOLAR	135	563
ZM Electric, Inc	1	22
Zone Air	4	17
ZURN'S ELECTRIC	1	8