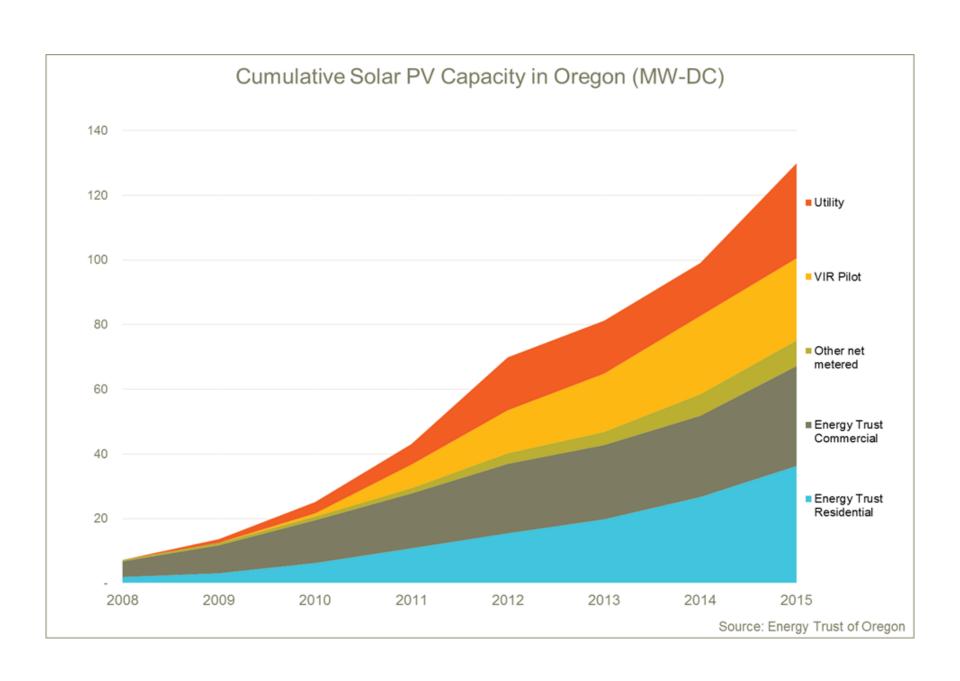


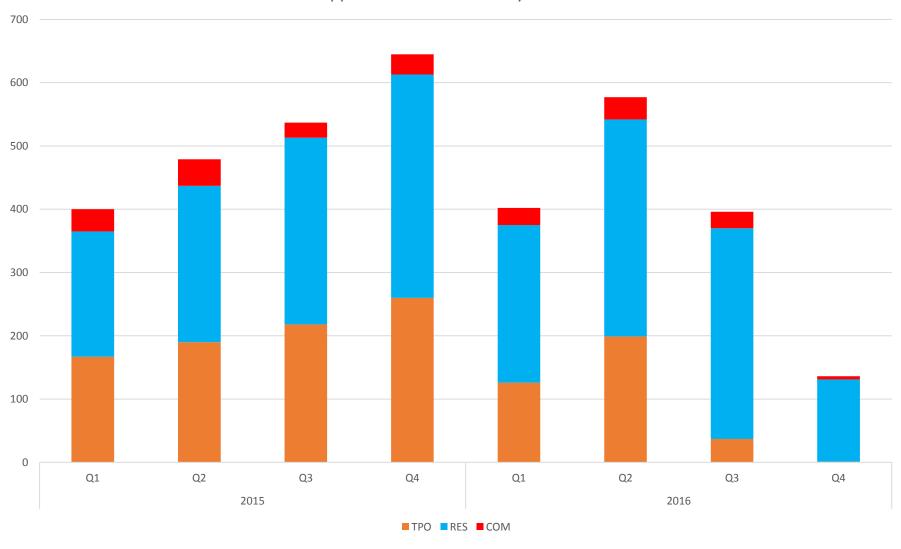
## Agenda

- 2016 industry overview
- Incentive status report
- Solar industry themes
- Soft cost reduction initiative
- Program updates
- Solar trade ally rating system

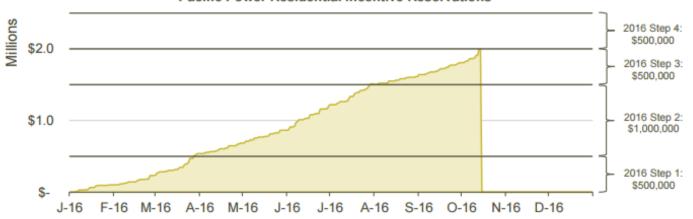
# 2016 Oregon Solar Industry Overview



### Application Submissions by Quarter







Status: \$500,000 available to reserve at the current 2016 Step 4 incentive rates.

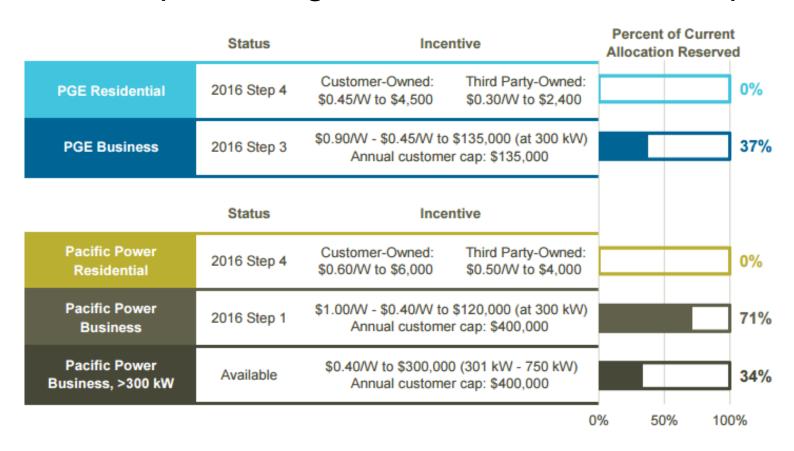
Pacific Power	Residential	Funding Alloca	ition		Inc	entive Rese	rvations		Fund	ding
Step	Start Date	Original	Added	ı	Inc	entives	<b>Projects</b>	Capacity	Rem	aining
2016 Step 1	1/1/2016	\$ 500,000	\$	-	\$	500,000	120	682 kW	\$	-
2016 Step 2	3/28/2016	\$ 500,000	\$	500,000	\$	1,000,000	270	1,589 kW	\$	-
2016 Step 3	8/1/2016	\$ 500,000	\$	-	\$	500,000	125	763 kW	\$	-
2016 Step 4	10/13/2016	\$ 500,000	\$	-	\$			0 kW	\$	500,000
Total		\$ 2,000,000	\$	500,000	\$	2,000,000	515	3,033 kW	\$	500,000

#### Pacific Power Residential Incentives

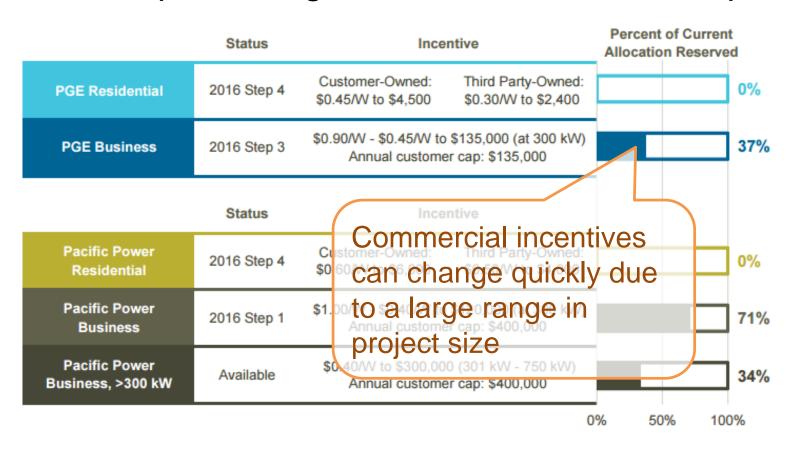
Step	Start Date	Status	Customer-Owned	Third Party-Owned	Estimated Remaining
2016 Step 1	1/1/2016	Expired	\$0.75/W to \$7,500	\$0.65/W to \$5,000	0 projects
2016 Step 2	3/28/2016	Expired	\$0.70/W to \$7,000	\$0.60/W to \$4,800	0 projects
2016 Step 3	8/1/2016	Expired	\$0.65/W to \$6,500	\$0.55/W to \$4,400	0 projects
2016 Step 4	10/13/2016	Current Rates	\$0.60/W to \$6,000	\$0.50/W to \$4,000	About 145 projects

www.energytrust.org/solarstatus

Monitor percentage reserved in current step



Monitor percentage reserved in current step



### Help managing customer expectations

#### Pacific Power Residential Incentives

Step	Start Date	Status	Customer-Owned	Third Party-Owned	<b>Estimated Remaining</b>
2016 Step 1	1/1/2016	Expired	\$0.75/W to \$7,500	\$0.65/W to \$5,000	0 projects
2016 Step 2	3/28/2016	Expired	\$0.70/W to \$7,000	\$0.60/W to \$4,800	0 projects
2016 Step 3	8/1/2016	Expired	\$0.65/W to \$6,500	\$0.55/W to \$4,400	0 projects
2016 Step 4	10/13/2016	<b>Current Rates</b>	\$0.60/W to \$6,000	\$0.50/W to \$4,000	About 145 projects

#### Pacific Power Residential Applications\*

3,826

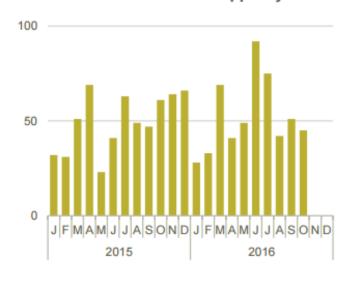
	Projects	Capacity	Avg Size	Avg Cost**
2003-2014	2,705	10,407 kW		
2015 Q1	114	642 kW	5.6 kW	\$4.10/W
2015 Q2	132	792 kW	6.0 kW	\$3.88/W
2015 Q3	159	847 kW	5.3 kW	\$4.08/W
2015 Q4	191	1,077 kW	5.6 kW	\$4.07/W
2015 YTD	596	3,358 kW	5.6 kW	\$4.03/W
2016 Q1	130	747 kW	5.7 kW	\$3.97/W
2016 Q2	182	1,020 kW	5.6 kW	\$4.10/W
2016 Q3	168	1,035 kW	6.2 kW	\$4.08/W
2016 Q4	45	280 kW	6.2 kW	\$4.15/W
2016 YTD	525	3,083 kW	5.9 kW	\$4.07/W
Occasil Total	0.000	40.040.138/		

<sup>\*</sup>Includes canceled projects.

Grand Total

16,848 kW

#### Pacific Power Residential Apps. by Month



<sup>\*\*</sup>Capacity-weighted average cost. Excludes third party-owned applications that don't report a system sale price.

### Help managing customer expectations

Pacific Powe	r Residen	tial Incentives	S			
Step	Start D	ate Status	Cus	stomer-Owned	Third Party-Owned	Estimated Remaining
2016 Step 1	1/1/2	016 Expired	d \$0	.75/W to \$7,500	\$0.65/W to \$5,000	0 projects
2016 Step 2	3/28/	2016 Expired	d \$0	.70/W to \$7,000	\$0.60/W to \$4,800	0 projects
2016 Step 3	8/1/2	016 Expired	d <del>\$0</del>	.65/W to \$6,500	\$0.55/W to \$4,400	0 projects
2016 Step 4	10/13	2016 Currer	nt Rates \$0	.60/W to \$6,000	\$0.50/W to \$4,000	About 145 projects
Pacific Powe	r Residen	tial Application	ons*		Pacific Power Res	idential Apps. by Month
	Projects	Capacity	Avg Size	Avg Cost**	100	
2003-2014	2,705	10,407 kW		Ectimato	of remaining	
2015 Q1	114	642 kW	5.6 kW	LStilliate	or remaining	
2015 Q2	132	792 kW	6.0 kW	projects	for each step	1 10
2015 Q3	159	847 kW	5.3 kW	\$4.08/VV		at I II
2015 Q4	191	1,077 kW	5.6 kW	based or	n average	
2015 YTD	596	3,358 kW	5.6 kW	project ci	izo	
2016 Q1	130	747 kW	5.7 kW	project si	IZE	
2016 Q2	182	1,020 kW	5.6 kW	\$4.10///		
2016 Q3	168	1,035 kW	6.2 kW	\$4.08/W	0	
2016 Q4	45	280 kW	6.2 kW	\$4.15/W	• 1 1 1 1 1 1 1 1	ONDJFMAMJJASOND
2016 YTD	525	3,083 kW	5.9 kW	\$4.07/W	2015	2016
<b>Grand Total</b>	3,826	16,848 kW				

<sup>\*</sup>Includes canceled projects.

www.energytrust.org/solarstatus

<sup>\*\*</sup>Capacity-weighted average cost. Excludes third party-owned applications that don't report a system sale price.

### Help managing customer expectations

I dellie I owe	i itosiacii	tiai ilicciitives					
Step	Start D	ate Status	Cust	tomer-Owned	Third Part	y-Owned	Estimated Remaining
2016 Step 1	1/1/2	016 Expired	\$0.7	75/W to \$7,500	\$0.65/W t	o \$5,000	0 projects
2016 Step 2	3/28/2	2016 Expired	<del>\$0.7</del>	70/W to \$7,000	\$0.60AV t	<del>o \$4,800</del>	0 projects
2016 Step 3	8/1/2	016 Expired	<del>\$0.6</del>	65/W to \$6,500	\$0.55/W t	<del>o \$4,400</del>	0 projects
2016 Step 4	10/13/	2016 Current	t Rates \$0.6	60/W to \$6,000	\$0.50/W t	o \$4,000	About 145 projects
Pacific Power	r Residen	tial Applicatio	ns*		Pacific	Power Res	idential Apps. by Month
	Projects	Capacity	Avg Size	Avg Cost**	100		
2003-2014	2,705	10 40 Prop	osed ra	ates can	be		
2015 Q1	114	0.40 1.107	E 0 1-107	04 40001			
2015 Q2	132	79USEC	tor cus	stomers	With		. 10
2015 Q3	159	84 <b>7</b> 000	er timel	lines 18/W		11 1 1	at I II
2015 Q4	191	1 077 KW9		\$4.07/W	50		HH + ++H +-
2015 YTD	596	3,358 kW	5.6 kW	\$4.03/W		d illi	-
2016 Q1	130	747 kW	5.7 kW	\$3.97/W			
2016 Q2	182	1,020 kW	5.6 kW	\$4.10/W			
2016 Q3	168	1,035 kW	6.2 kW	\$4.08/W	0		
2016 Q4	45	280 kW	6.2 kW	\$4.15/W		MAMJJAS	ONDJFMAMJJASOND
2016 YTD	525	3,083 kW	5.9 kW	\$4.07/W		2015	2016
<b>Grand Total</b>	3,826	16,848 kW					

<sup>\*</sup>Includes canceled projects.

Pacific Power Residential Incentives

www.energytrust.org/solarstatus

<sup>\*\*</sup>Capacity-weighted average cost. Excludes third party-owned applications that don't report a system sale price.

### Help managing customer expectations

Pacific Power Residential Incentives	Pacific	Power	Residential	Incentives
--------------------------------------	---------	-------	-------------	------------

Step	Start Date Status	Customer-Owned
2016 Step 1	Basic market	research for
2016 Step 2	3/28/2016 Expired	\$0.70/VV to \$7,000
2016 Step 3	average insta	Illation size and
2016 Step 4	40/42/2046 Current D	
	cost in each ι	lilly territory

<b>Pacific Power</b>	Residential Application	ns*
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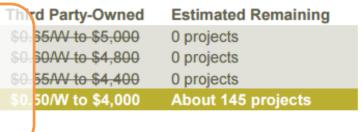
3,826

	Projects	Capacity	Avg Size	Avg Cost**
2003-2014	2,705	10,407 KW		
2015 Q1	114	642 kW	5.6 kW	\$4.10/W
2015 Q2	132	792 kW	6.0 kW	\$3.88/W
2015 Q3	159	847 kW	5.3 kW	\$4.08/W
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2016 Q3	168	1,035 kW	6.2 kW	\$4.08/W
2016 Q4	45	280 kW	6.2 kW	\$4.15/W
2016 YTD	525	3,083 kW	5.9 kW	\$4.07/W
2016 Q4	45	280 kW	6.2 kW	\$4.15/W

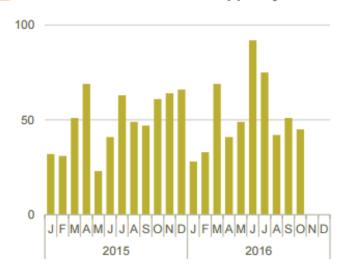
<sup>\*</sup>Includes canceled projects.

**Grand Total** 

16,848 kW



acific Power Residential Apps. by Month

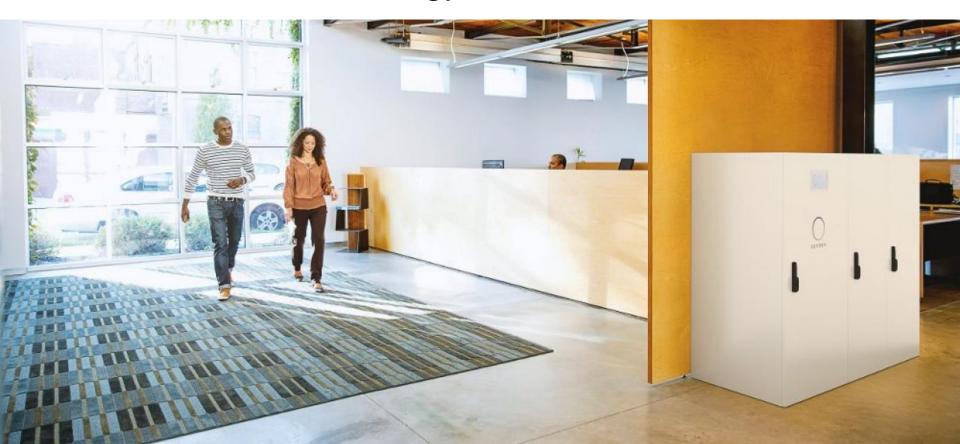


<sup>\*\*</sup>Capacity-weighted average cost. Excludes third party-owned applications that don't report a system sale price.

# Solar Industry Themes

## Solar Industry Themes

- Soft cost reduction
- Consumer protection
- Advanced technology



### Soft Cost Reduction

### Soft Cost Reduction Initiative

- Process improvements
- Utility coordination
- Jurisdiction coordination
- Technical training
- Quality management
- Business development
- Soft cost survey

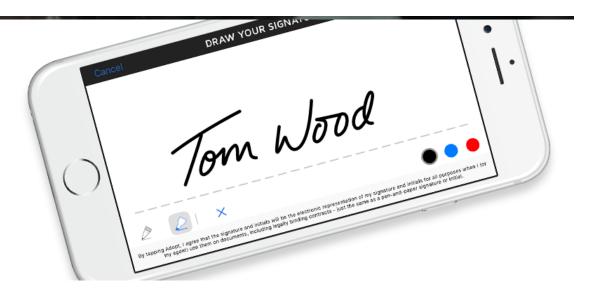


## PowerClerk Electronic Signature

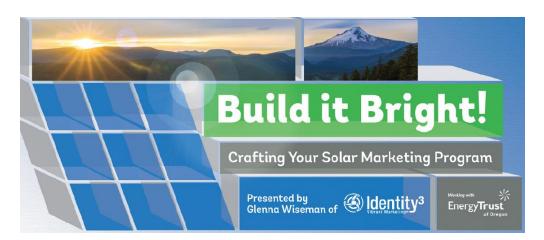
- Built in to PowerClerk for ease of use
- Free of charge for trade allies
- Portland General Electric and Pacific Power Net Metering application included



Meet DocuSign: the easiest way to get things done



## Solar Marketing Training Series



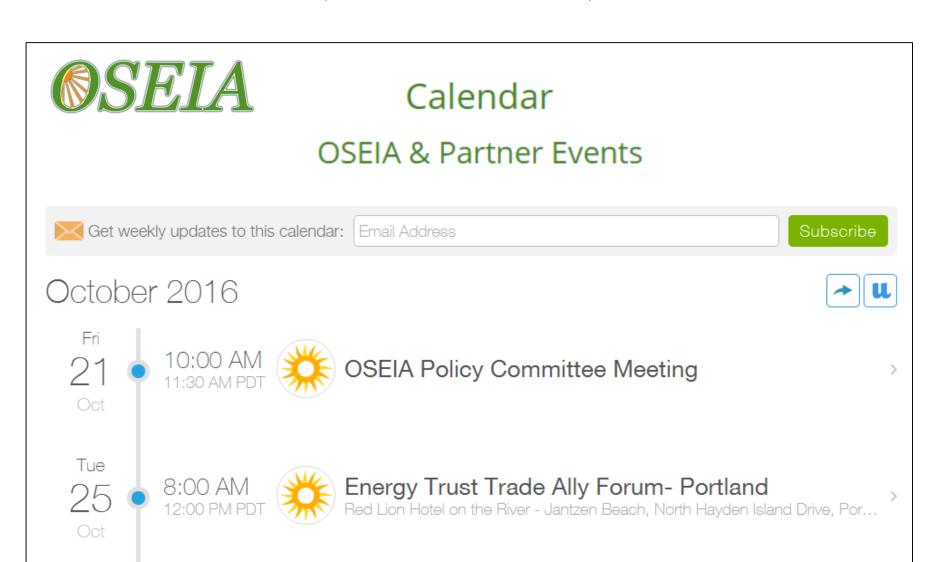
- 6-month training series
- Webinars, podcasts, blog articles and worksheets
- Available on Heatspring

#### 2016 Calendar & Topics Taking Stock January Assessing the Condition of Live Webinar: Your Marketing Foundation 1.28.16. 11 AM PST Mapping Strategy February **Engineering Your** Live Webinar: Marketing Success 2.25.16, 11 AM PST **Presenting Your Best** March Marketing Campaigns Live Webinar: and Creative Content 3.24.16, 11 AM PST Efficient Activation April Tools and Strategies for Live Webinar: Efficient Campaign Delivery 4.28.15, 11 AM PST **Tracking Results** May Implementing Systematic Live Webinar: **ROI** Reporting 5.26.16, 11 AM PST **Putting it All Together** From Assessment to Live Webinar: June Tracking Results, Creating 6.23.16, 11 AM PST the Building Blocks of Your

Solar Marketing Program

## **OSEIA Technical Training**

New courses; More locations; Lower cost





## **Business Development Fund**

# BUSINESS DEVELOPMENT FUND GUIDELINES

#### SOLAR TRADE ALLY NETWORK

As a trade ally, you may be eligible to receive partial reimbursement for marketing projects and training approved by Energy Trust of Oregon. Using the Energy Trust logo in your marketing pieces positions your business as a solar expert, and participating in training helps your business improve and grow.

#### Examples of eligible cooperative marketing projects

Print advertisements — Yellow Pages, direct mail and brochures Digital media—online banner ads, pay-per-click ads Radio and television advertisements Outdoor yard signs and billboards

#### Apparel

Energy Trust trade ally logo may be embroidered or screenprinted on shirts, jackets or hats. Logo must be black or white and oriented horizontally on the left sleeve or chest.

#### **Events**

Trade allies can receive reimbursements for pre-approved event display costs.

#### Website

Website must follow print marketing guidelines and logo must hyperlink to www.energytrust.org/solar.

#### Training and continuing education

The following pre-approved trainings are eligible for business development funds:

- Trainings and workshops listed on the Training & Education Calendar at www.energytrust.org/ta/solar
- Classes offering continuing education units for Construction Contractors Board (CCB), Building Codes Division (BCC), and North American Board of Certified Energy Practitioners (NABCEP)
- Industry certifications (NABCEP Entry Level Exam, NABCEP PV Installation Professional, NABCEP PV Technical Sales Professional, NABCEP Company Accreditation)

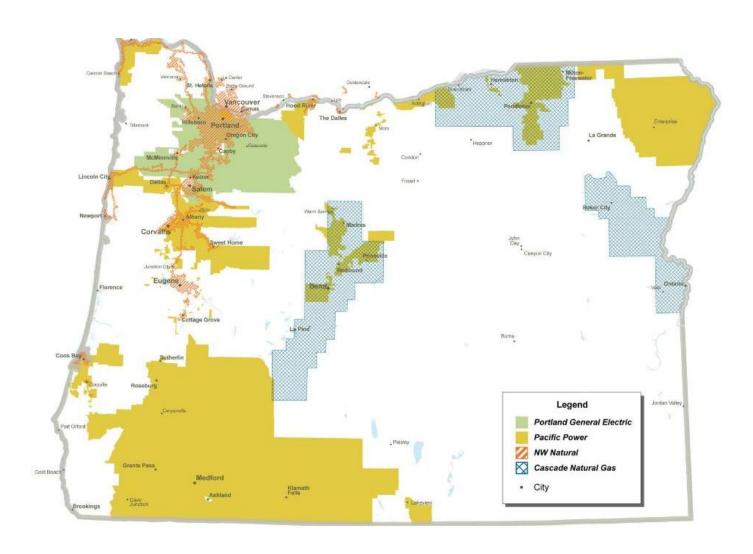
#### REIMBURSEMENT

To request reimbursement for sales, marketing, advertising, or other business development trainings, submit the pre-approval request form available from

www.energytrust.org/businessdevelopment

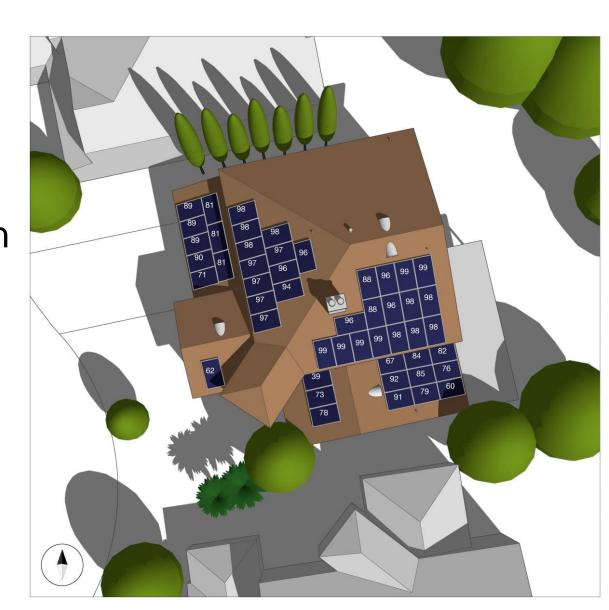
## Process & Program Updates

# Design Review & Verification



## Remote Shade Analysis

- Only approved list of vendors will qualify
- Watch for formal announcement in the next few weeks!









NEWS FOR SOLAR TRADE ALLIES



#### TO GET MORE REFERRALS, MAKE CUSTOMERS HAPPY

A survey by National Renewable Energy Laboratory found that most solar customers are satisfied with both their solar systems and their installers. MORE



#### EIGHT THINGS YOU MAY NOT KNOW ABOUT THE NATIONAL ELECTRICAL CODE

In preparation for the 2017 National Electrical Code (NEC) Solar Power World shared key points from a presentation at Solar Power International by Marvin R. Hamon, Hamon Engineering, about understanding the NEC and how Industry standards are created. MORE



#### FALL TRADE ALLY FORUMS COMING OCTOBER 25 – 28

Energy Trust's Fall Trade Ally Forums are only a month away. Join us at one of these free informative events for a hot breaktast, networking and the latest information about Energy Trust incentives and 2017 activities. MORE

### LIST OF NXT LEVEL DESIGNATED CONTRACTORS NOW AVAILABLE

Customers have a new tool to help them select highly trained and qualified lighting trade aillies. The list of individuals and companies who have completed NXT Level training is now available online. MORE



### **Insider Newsletters**

- Solar program-specific
- Source for Solar program updates and industry news
- Sign up today!

## Solar Trade Ally Rating



Feb 2016

Build trade ally rating system with industry involvement

Aug 2016

Make changes based on industry feedback

Oct 2016

Provide a report and star rating based on trade ally's 12-month performance

Feb 2017

4 Star rating made visible to customers through Find a Contractor tool



### **Customer Service Star**

- 0-2 Customer Complaints = 1 star
- 3 Customer Complaint = ½ star
- 4 or more Customer Complaints = no star

Customer service score is calculated

> Based on *unresolved* customer complaints



### **Program Service Star**

- 100 points or greater = 1 star
- 75 99 points =  $\frac{1}{2}$  star
- 74 points or fewer = no star

### Program service score calculation

+2.5 points | Application and design with no corrections

-2.5 points | Application marked Pending Paperwork

-2.5 points | System design marked Design Rejected



- 100 points or greater = 1 star
- 75 99 points =  $\frac{1}{2}$  star
- 74 points or fewer = no star

### Quality service score calculation

+2.5 points | System verification with no corrections

-2.5 points | *Minor Correction* 

-5.0 points *Major Correction* 

-15 points *Maximum deduction per project* 



- 1. Pass
- 2. Minor Correction
- 3. Major Correction
- 4. Does not Qualify (DNQ)



- 1. Pass
- 2. Minor Correction
- 3. Major Correction
- 4. Does not Qualify (DNQ)



### **Major Corrective Action - Definition**

 Work is unsatisfactory, with potentially significant or serious problems related to system performance, health and safety, system durability, customer education, or overall installation quality, and is substantially noncompliant with the program requirements.



### **Major Corrective Action - Outcome**

- Email to trade ally listing corrections required and that it is the contractor's responsibility to make the necessary corrections within 30-days.
- Negative points toward trade ally's score
- Incentive payment is held until proof that the correction has been addressed is provided



### **Minor Corrective Action - Definition**

Work is unsatisfactory, with minor problems
 associated with system performance, health and
 safety, system durability, customer education, or
 overall installation quality, and/or does not comply
 with the program requirements.



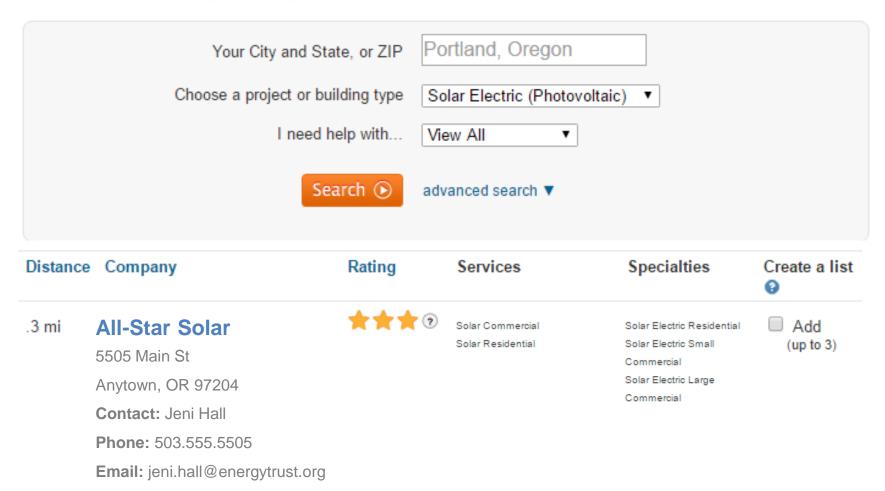
### **Quality Service Star**

### **Minor Corrective Action - Outcome**

- Email to trade ally <u>and customer</u> listing corrections required and that it is the trade ally's responsibility to address corrections within 30-days.
- Negative points toward trade ally's score
- Incentive payment is <u>processed immediately</u>.



### **Customer View**

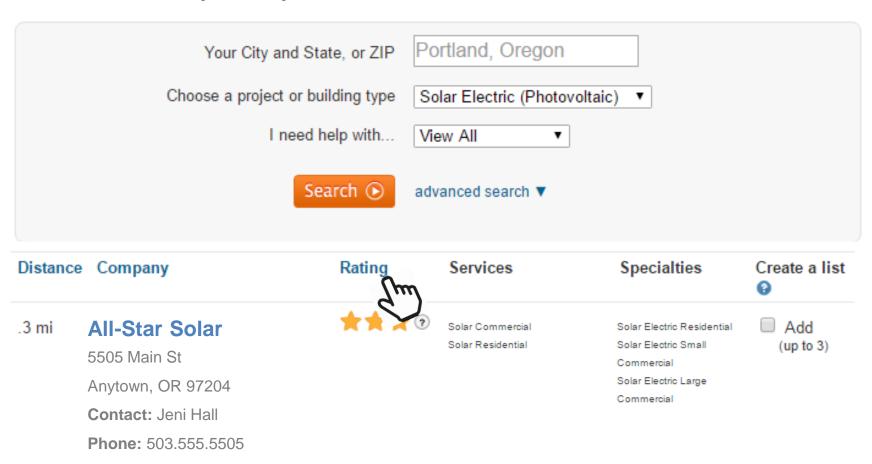




### **Customer View**

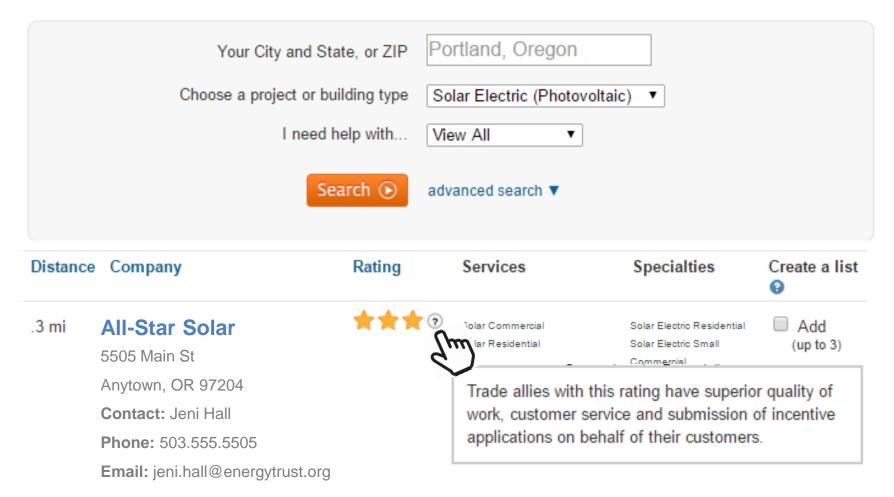
To find contractors near you, enter your location below.

**Email:** jeni.hall@energytrust.org



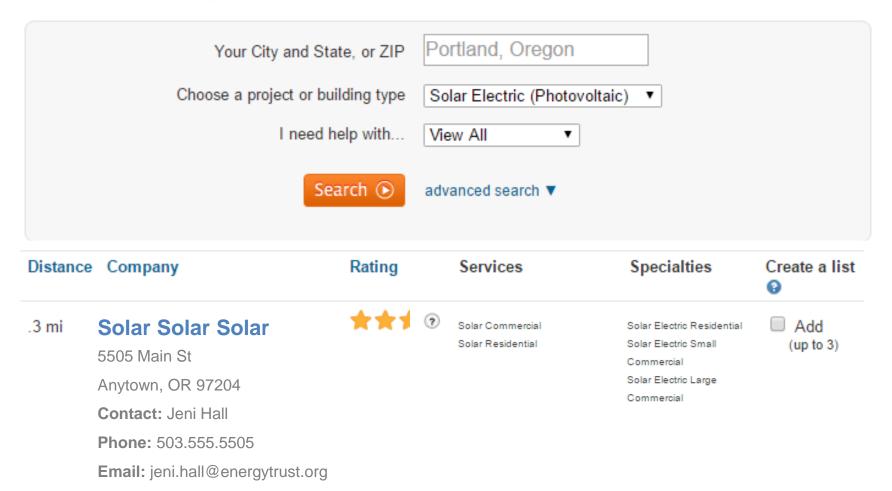


#### **Customer View**



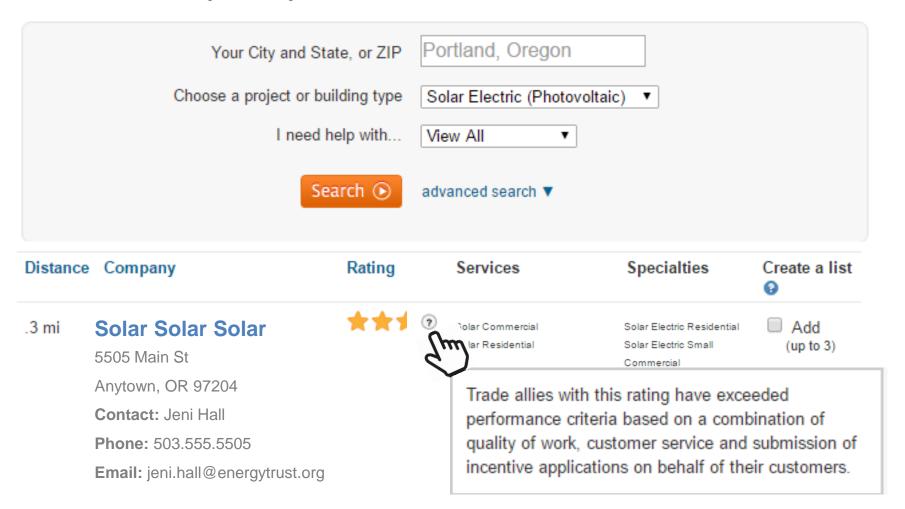


### **Customer View**



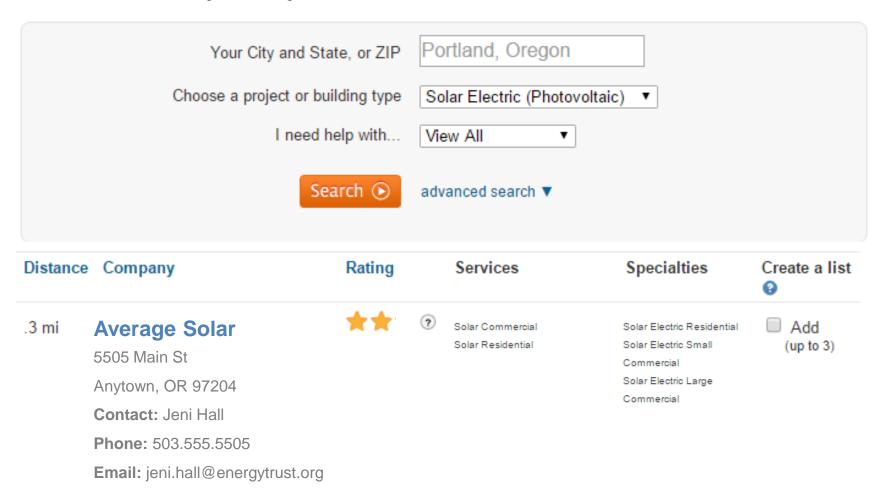


### **Customer View**



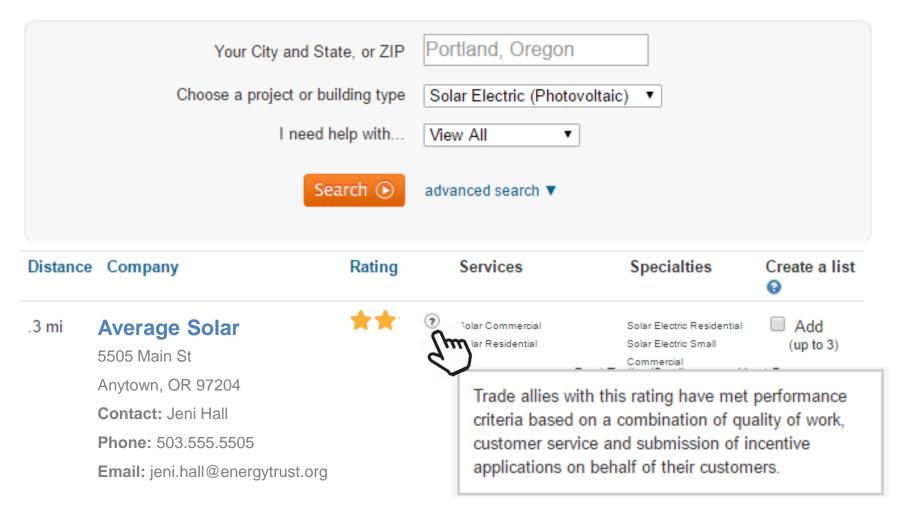


### **Customer View**



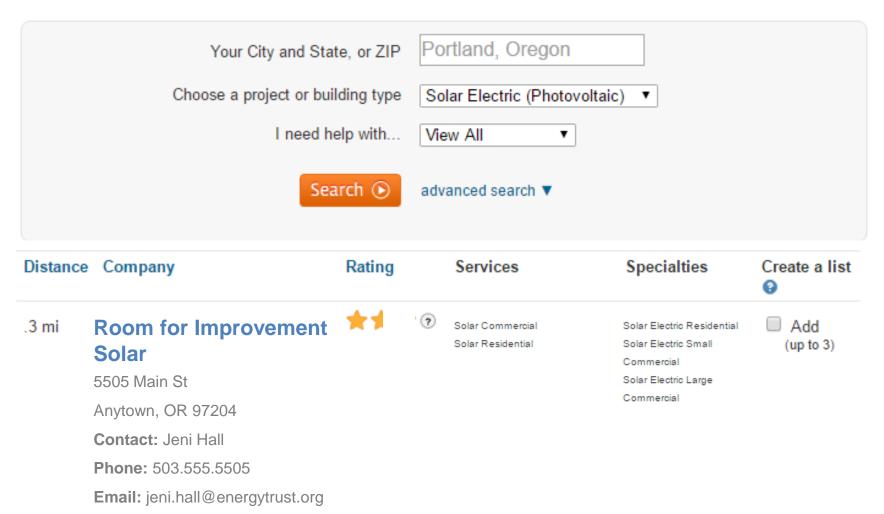


### **Customer View**



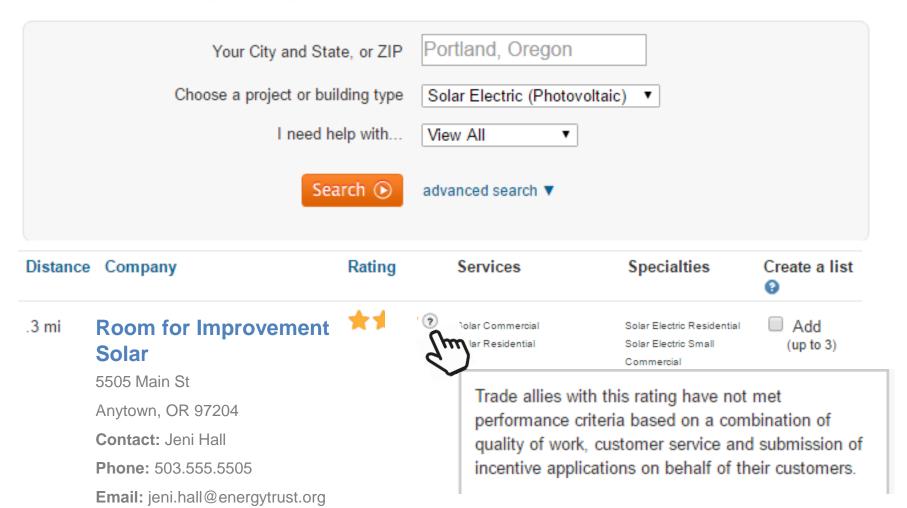


### **Customer View**





### **Customer View**





### **Star Rating Benefits**

Rating	Annual Amount*	Cooperative Marketing**	Training and Events**	Solar Leads**	Pilot Programs**
***	\$8,000	50 percent reimbursement	50 percent reimbursement	Yes	Yes
**1	\$4,000	30 percent reimbursement	30 percent reimbursement	Yes	No
**	\$1,000	30 percent reimbursement	30 percent reimbursement	No	No
Fewer than two stars	\$400	Projects can be pre- approved but are not eligible for reimbursement	30 percent reimbursement	No	No

<sup>\*</sup>Minimum \$75 reimbursement per request, see steps to receive reimbursement for more details \*\*Preapproval required

- Rating Period previous 12 months of activity
- Score updated quarterly
- Detailed rating report generated
- Only visible to trade ally

#### Sunbeam Solar LLC



Trade Ally Rating Program Summary: Solar Trade Allies can receive one star for each category. Ratings are public, and higher ratings can qualify trade allies for additional program offerings.

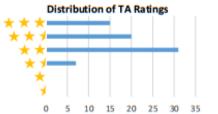
Rating Period: October 1, 2015 - September 30, 2016

Program Service	
Total Reservations	63
No Mistakes	41
Pending Paperwork	13
Design Rejected	10
Total Program Service Score	122.5

10 Star

	I.U Juli
Quality Service	
Total Installations Verified	59
No Corrections	39
Minor Corrections	10
Major Corrections	22
Total Quality Service Score	60
	0.0 Star

Customer Service	
Unresolved Complaints	0
	10 Star



#### Program Service metrics :

100 points or greater = 1 star 75-99 points = .5 star 74 points or fewer = no star

#### Quality Service metrics:

100 points or greater = 1 star 75-99 points = .5 star 74 points or fewer = no star

#### Customer Service Metrics:

0 complaints = 1 star 1 complaint = .5 star 2 or more complaints = no star





#### **Sunbeam Solar LLC**



<u>Trade Ally Rating Program Summary:</u> Solar Trade Allies can receive one star for each category. Ratings are public, and higher ratings can qualify trade allies for additional program offerings.

Rating Period: October 1, 2015 - September 30, 2016

Program Service		
Total Reservations	63	
No Mistakes	41	
Pending Paperwork	13	
Design Rejected	10	
Total Program Service Score 122.5		

 Quality Service

 Total Installations Verified
 59

 No Corrections
 39

 Minor Corrections
 10

 Major Corrections
 22

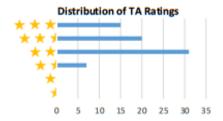
 Total Quality Service Score
 60

0.0 Star

1.0 Star

Customer Service		
Unresolved Complaints	0	

1.0 Star



#### Program Service metrics :

100 points or greater = 1 star 75-99 points = .5 star 74 points or fewer = no star

#### Quality Service metrics:

100 points or greater = 1 star 75-99 points = .5 star 74 points or fewer = no star

#### Customer Service Metrics:

0 complaints = 1 star 1 complaint = .5 star 2 or more complaints = no star



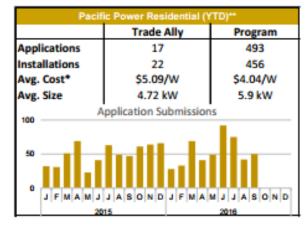
nnual Amount	\$1,000		
Amount Used (YTD)	\$0		
Remaining	\$1,000		
Business Development Resources			
Coop. Marketing	30%		
Training/Events	30%		
Solar Leads	Not Eligible		
	Not Eligible		

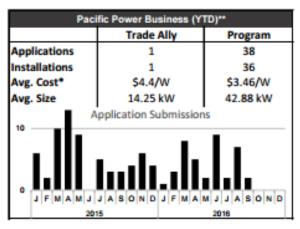


	Trade Ally	Program	
Applications	24	840	
Installations	21	836	
Avg. Cost*	\$4.61/W	\$3.74/W	
Avg. Size	6.35 kW	5.62 kW	
150 100 50 J F M A M J	JASONDJFM	AMJJASON	

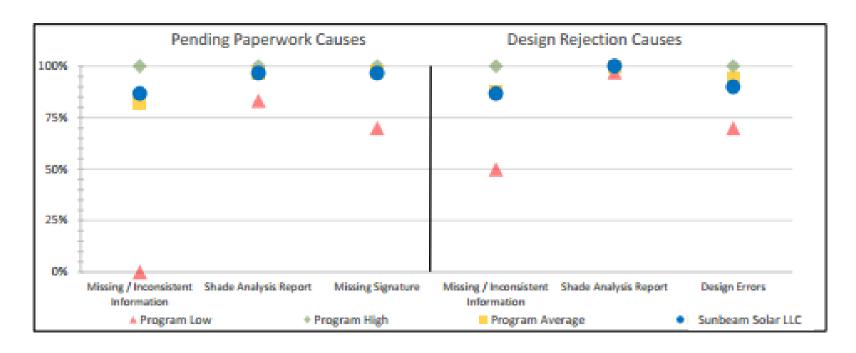
Portland 0	Portland General Electric Business (YTD)**				
	Trade Ally	Program			
Applications	3	42			
Installations	1	36			
Avg. Cost*	\$4.48/W	\$2.6/W			
Avg. Size	14.44 kW	50.71 kW			
10 Ap	pplication Submission	is			
	JASOND JEMA	M J J A S O N D			

Lifetime Statistics*				
Systems 715 Generation Karrie 4,457 SkWh/yrseS Leads 85	Reapacity 3,875 W Incentives \$4,446,779 Bus. Dev. \$4,500			

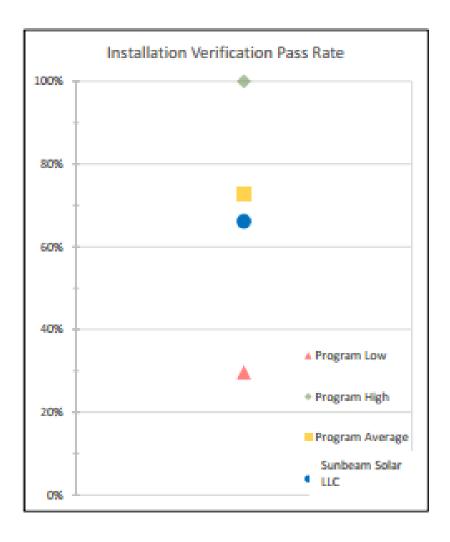




### **Program Service Summary**

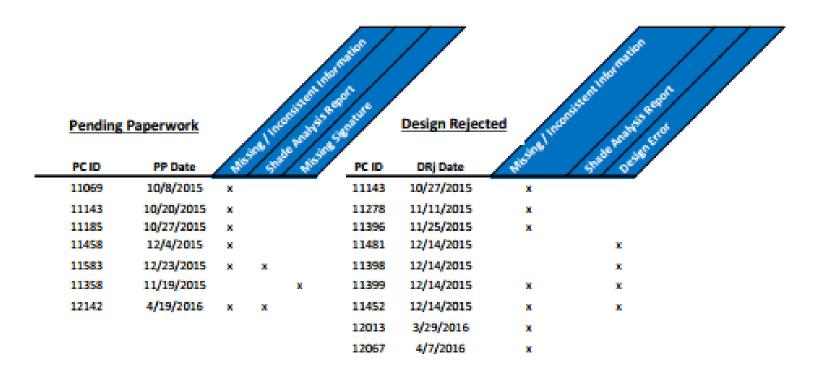


### **Quality Service Summary**



Corrections by category:		
Category	Occurrences	
3.0	8	
2.1.7	6	
2.3.10	3	
2.3.20	3	
2.3.3.1	3	
2.1.0	2	
2.7.1	1	
2.3.16	1	
2.3.18	1	
2.3.11	1	
2.1.6	1	
2.3.17	1	
2.3.6	1	

### **Correction Details - Applications**



### **Correction Details - Installations**

10546 10890	2.3.10 3.0.1, 2.3.3.1	1	1		
10890	201 2221		1	0	-5
	3.0.1, 2.3.3.1	2	1	1	-7.5
10962	2.1.0, 2.3.3.1	2	2	0	-10
9865	2.3.3.1, 2.7.1.2	2	2	0	-10
11458	2.3.10, 3.0.3	2	1	1	-7.5
11582	2.3.18.0	1	1	0	-5
11844	2.1.7.2	2	2	0	-10
11630	2.3.11, 2.3.16	2	1	1	•7.5
11398	2.1.7.2, 2.3.20	3	3	0	-15
11399	2.1.7.2, 2.3.20	3	3	0	•15
11452	2.1.7.2, 2.3.20	3	3	0	-15
12013	2.1.7.2, 2.3.6	3	3	0	-15
11978	2.1.0, 2.3.10, 3.0.1, 2.1.7.1	5	4	1	-15
12159	3.0.1	1	0	1	•2.5
12801	2.1.6.2	1	1	0	-5
12808	3.0.1	1	0	1	-2.5
12840	3.0.1	1	0	1	•2.5
12263	2.3.17	1	0	1	•2.5
12532	3.0.1	1	0	1	-2.5
12557	3.0.1	1	0	1	-2.5

