

## MEETING NOTES - CALIFORNIA PV UTILITY (CPVU) MANAGERS WORKING GROUP

August 7, 2007

### Introductions

On August 7<sup>th</sup>, 26 representatives from 15 utilities, NCPA, the CEC, CPUC and invited guests convened in San Francisco to discuss PV program issues. Additional information on the meeting can be found on the California Solar Center CPVU page <http://www.californiasolarcenter.org/cpvu/cpvu.html>

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This working group meeting was intended to address issues & questions regarding the design and implementation of solar programs, as defined by SB1 and the California Solar Initiative (CSI). Presentations and discussions centered around the CSI & NSHP experience to date, new eligibility requirements for incentives from the CEC, and a common area Public Education opportunities.

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### Polly Shaw (California Public Utility Commission - CPUC)

**California Solar Initiative (CSI) Update** – status of the program. Changes made in recent months, participation rates, administrative database tool, Marketing & Outreach, Research, Solar Thermal + Implementation experience.

(ppt posted on website <http://www.californiasolarcenter.org/cpvu/cpvu.html> )

PPAs are playing a larger role than originally thought. (Does this impact the program in any significant manner? (TA)]

August 07 – new program handbook to be posted

[http://www.cpuc.ca.gov/static/energy/solar/061228\\_csihandbook.htm](http://www.cpuc.ca.gov/static/energy/solar/061228_csihandbook.htm)

Changes to the handbook, due to cpuc decisions

- BIPV eligibility – now able to get provide up-front incentive
- Metering Accuracy requirements (TA: *Any effort to define or study the consumer response is to metering feedback?*)
- TOU rate requirement (not required at the moment, until next rate case for each IOU, then it becomes a requirement again)
- also more streamlining of the process & reducing paperwork & launching of the online database (PowerClerk).

Self Install – proposed to allow for self-install, but there has been some objection (IBEW and utility workers union)

(keesee) is this a reliable resource (solar) that we can count on? (TA: *As utilities invest more in solar on rooftops, will need to increase reliability in longterm performance, for longterm planning purposes*)

‘Bluebook’ data – idea is to post price data to the public, but not performance data. (TA *what sort of analysis will be done over time on the PBI systems which will provide regular performance data?*)

PMRS providers – currently required to be “independent” – ie. still a work in progress.

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If trying to get RECs (Renewable Energy Credits), then will need to be +/- 2% accuracy meters. (per WREGIS). No inverter-based meters are yet +/- 2%.

Also can self report to WREGIS if less than 400kW (Nick Chaset @ CPUC). *Need to confirm this - <http://www.wregis.org/> (note next wregis committee meeting is scheduled for August 13<sup>th</sup> 2-4, via webex <http://www.wregis.org/> )*

POWERCLERK – launched August 6<sup>th</sup>. !! PAs and applicants have access. A POWERCLERK presentation for the POUs will be presented at the Sept. 27<sup>th</sup> meeting.

<https://www.powerclerk.com/default.aspx?P=7>

Low Income/Multifamily Workshop Aug. 15<sup>th</sup> – 10-4 pm call-in capabilities. In San Francisco hosted by CPUC. Proposals for both single family and multifamily situations are posted online at [http://www.cpuc.ca.gov/static/energy/solar/070424\\_csilowincome.htm](http://www.cpuc.ca.gov/static/energy/solar/070424_csilowincome.htm)

R&D - staff recommendation. Grid integration & demonstration focused. Focus on PV. Staff paper posted online.

[http://www.cpuc.ca.gov/static/energy/solar/070216\\_csi\\_rddplan.htm](http://www.cpuc.ca.gov/static/energy/solar/070216_csi_rddplan.htm)

EE requirements for 1/2008? – Refer to CEC SB1 presentation.

Marketing & Outreach Plans:

PAs – have 6 mo approval and are working on the details of this.

Eg. Installer training, fact sheets, explaining process of the incentive program.

<http://www.cpuc.ca.gov/EFILE/RULINGS/66254.pdf>

TOU – optional until next general rate cases are developed. Next up is SDG&E, the PG&E, SCE. Then it will be required.

Inspections – not going so well. one example of an installer doctoring the suneye shading analysis! Working on better defining tolerances for inspections – eg. Tilt & orientation angles. Energy Audits – 15 page (typ) is meeting with resistance & is considered cumbersome by solar installers. *(TA – suggestion – improve the online audit tools such that a summary page can be printed and submitted for the CSI application)*

Marketing & Outreach (M&O) – would like to draft some priority items for a longterm m&o plan.

\$20M/yr is spent by solar industry marketing in California, thus CSI M&O will not be a mass-market approach.

public – collaborative materials, research that will help all *(eg. Verify if PV adds to property value of home. This will alleviate the over focus on payback as only economic metric.)*

CEC NSHP – cross over marketing opportunities.

Most likely in 2008 before a long-term plan is approved. PAs have option of submitting another 6 month plan for 2008.

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**Sara Birmingham (PG&E) Experience of PAs = “flying the plane while it’s being built!”**

Currently running 2 databases since all Powerclerk functions are not yet in place.

“Shading” issues are difficult and problematic.

Inspectors – 3<sup>rd</sup> party contractors. Were inspecting 100%, now 1 in 7 are inspected.

Working to define better tolerances on what is allowed. Eg. Tilt angles, orientation. Shading.

How to replicate the shading analysis? Is difficult. A shading committee has been formed and will address this issue.

PowerClerk – has been difficult to incorporate into the utility. We will address at September meeting. SMUD will be leading next phase for munis.

Are they getting many calls about solar? Have trained call centers, with some specific info going solar staff.

Avg res system size = 3-3.5 kW

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**Claudia Chandler (asst exec director @ CEC)**

**New Solar Home Partnership** -Public Awareness Campaign, including Builder Market Research, Case Studies

**(ref to ppt)**

\$5M for 3yr marketing/education budget for NSHP

Through partnerships will stretch the budget and reach.

Tier1 – 15% above T24

Tier2 – 35% above T24

650 homes in the program currently.

Goal – get buyers to ask for homes with ‘solar’ on the roof.

Marketing firm – Edelman (market researcher as subcontractor)

Focus groups

Demographics: Income >\$100k and college or no college education

(provide the consumer research report – Amy Morgan–when it is available)

Economics were top driver, with environmental factor as a bonus.

Builder research/interviews – (report?)

Incremental cost ~ \$13k per home for PV.

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Builders recouping cost by selling homes faster (reduced holding cost) AND buyers were ordering more options (eg. Granite countertops, etc) since they believed the solar/ee systems would save them a lot of money.

Message to buyer - ~ 50% reduction of their energy bill (if otherwise did not have solar/ee package.)

Greater focus on entry and mid level new homes (vs. high end \$700k+)

Word of mouth marketing – eg. Moveon.org, youtube, etc.

Builders are selling the solar/ee home at the **same price** as non-solar.

### **NEXT STEPS.**

Letter from governor – inviting top 20 builders (representing 50% of the market) to participate in his million solar roof goal.

Partnership –

#1 consumers are reached most by print material via financial institutions. (eg. Atm receipts, mortgage mailers, bank statements)

Where to look to buy a home - #1 1<sup>st</sup> step = online.

Eg. Truella.com (?) moveon.com(?)

NSHP – Kick Off Event – Sept. 19<sup>th</sup> (tentative) w/governor if possible.

Plans to create/develop an icon (solar/ee home) that builders start using in their marketing materials.

Gosolarcalifornia website – was put together in 4 weeks. Collaborative (CEC/CPUC to maintain) <http://www.gosolarcalifornia.ca.gov/>

Resale value of homes with solar? Are there studies. Not top priority yet. (!!)

Because – “not ugly and it saves money” are the current prime reasons for buying.

More work needs to be done with appraisers. Etc.

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### **SANDY MILLER (NSHP UPDATE) (ref ppt online)**

Updates:

PV CEC Calculator v.2.1 7/30/07

More modules being added - ~ 112 modules (august)

Better coordination with utility EE incentive programs. Eg. PG&E has aligned it's EE program with the NSHP. SCE and SDG&E are working on this.

2<sup>nd</sup> edition of NSHP Guidebook adopted 7-11-07

<http://www.gosolarcalifornia.ca.gov/nshp/index.html>

Added Affordable Housing incentives.

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Reference incentive is San Jose. Higher solar resource areas will get higher rebate eg. \$4/watt in Borrego. And less in Arcata (coastal clouds). Uses the Calculator to adjust this. (*this is different from CSI approach of not awarding rebate higher than reference site*)

Requires a Maintenance Plan be submitted(!!!) (*q: any suggestions what this could look like?*)

Represents 12 builders. (650 homes submitted so far)

Increase in transformer sizing due to NSHP in subdivisions? (Nick – Cpuc) further discussion. Most said no to this.

Handoff to PAs?- plans for Fall 07.

Will have a web-based application. (not Powerclerk currently). *Will need to integrate it?*

More trainings scheduled for Fall 07. <http://www.energy.ca.gov/2007publications/CEC-300-2007-010/CEC-300-2007-010.PDF>

(Kema is tech support contractor) NEW! Utility allowance tool – helps to estimate the energy use of a new subdivision. (will be available Fall 07) Munis can then also use this. Initially for affordable housing market – will help lenders.

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### BILL PENNINGTON (CEC – SB1 STATUS REPORT)

**SB1 Requirements** – New Report from CEC (30 min) outlining eligibility criteria, conditions for incentives, and rating standards required by Senate Bill 1 (Statutes of 2006) to establish for all solar energy system programs, pursuant to Public Resources Code Section 25782.

*Senate Bill 1 calls for three specific expectations to be met to qualify for the ratepayer funded incentives made available through the bill:*

- 1. High **quality solar energy systems** with maximum system performance to promote the highest energy production per ratepayer dollar,*
- 2. Optimal system performance during periods of **peak demand**, and*
- 3. Appropriate **energy efficiency** improvements in the new and existing home or commercial structure where the solar energy system is installed*

(ref ppt and link to report online at cpvu site)

ppt- outline of recommendations that cec staff is making to policy committee at CEC.

Guidebook adopted in 12/07 and then allow 1 year for incentive programs to comply with effective date being 1/1/09.

Workshop scheduled for 8/22/07 in Sacramento. Then 2<sup>nd</sup> workshop in October.

CPUC – will review in legal approach. (Polly)

There may also be some legal review and revision of SB1 (SB?)

The Market wants some clear guidelines. (sb)

*TOU incentive as a carrot not a stick approach (tor)*

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LEED for homes revised, now matches Tier1 (15% better than T24). Synchronized.

“2030 Challenge” – true zero carbon footprint buildings by 2030. current goal is 50% than current buildings.

Energy Star tool called “Portfolio Manager” – benchmarking tool for all building types. (supported by IOUs).

Existing Residential – will be complicated.

What about tightening T-24 standards – include solar? Or only allowing high efficiency equipment to be sold in California.

(Bailey) approve a single standard calculator (algorithm) for use throughout programs. (shaw) the different programs (cpuc/cec) saw different needs in a calculator, thus the 2 calculators now being used.

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**TOR ALLEN (PUBLIC EDUCATION Presentation)**

**Marketing & Outreach** – a Collaborative Approach for common area marketing/education needs for utilities throughout California.

Exploring the need and interest in developing common area Public Education materials (also called Marketing & Outreach) for ALL solar programs in California.

A sample video was shown “Is Solar Right for me?” aka “ How to buy a Solar system” to demonstrate Rahu capabilities.

Rahu is currently redesigning the Californiasolarcenter.org and solarschoolhouse.org websites.

Public Education of solar energy through the Solar Schoolhouse Program (Rahu), has proven to be a short term investment. Parents of students conducting solar lessons/projects are highly interested and motivated to learn more about solar options for their own homes and businesses.

Some polling of CPVU participants was conducted prior to this meeting. Additional polling will help shape what services would be of interest.

*Rahu will follow up with a proposal to NCPA, SCPPA and CEC.*

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**ROUNDTABLE**

Mike Keese – update on “POU PV Rebate Review Report”. Passed out copies.

Available on the cpvu site.

SMUD new home program – in 3<sup>rd</sup> tier already, with success of new home program.

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Doug Boleyn (Gridley, Lassen, Truckee) – including ee audit and in some cases, implement eems (less than 3 yr payback), as contingency for solar incentive.

Dina Predisik (Anaheim) – going toward PBI over time.

NCPA – (Reynolds)

MID (Mike Zweifel) – went to board recently. (ref his email)  
Has questions about PPAs.

How are the incentives paid for? Some with surcharge and some with Pub Benefits.

Nancy Folly (TID) – will not pay PBI initially. \$4/watt. Builder has inquired and TID is working with this builder. Looking at NSHP program as structure.

Colton (Gerald Katz) – separating RECS from rebate incentive.

SVP (Joyce Kinnear) – require energy audit before solar. But they have a history of doing energy audits, so it hasn't been a problem.

8 cents/kWh for residential. Most demand is commercial due to federal tax credits.

SMUD (Rachel) – if on a PPA, then must do a PBI (10 year). Not a higher rate for non-profit or government, because they are using the PPA approach which provides the tax benefits to 3<sup>rd</sup> party.

FYI - Mel Devine (assemblyman) inherited SB1 legislation – will have a hearing soon to hear from POUs.

Sara (PGE) – wide range of PPA contract terms. 5 years to 25 years. can we get more details. What do they care about? How long will be on roof/ what happens if co goes out of business. Requires in place 10 years. (penalty – owner cannot participate in further CSI program. Still being debated.)

SDGE – Ken Parks – going well. New construction is picking up (NSHP). Lots of PPAs.

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Next Meeting September 27<sup>th</sup>, 2:30-6:30pm  
Long Beach at SEPA Solar Power Conference 2007