

**MEETING NOTES**  
CALIFORNIA PV UTILITY (CPVU) MANAGERS MEETING  
September 14, 2005

**Introductions**

On September 14<sup>th</sup>, representatives from 7 utilities, CMUA and the CEC, convened in the city of Santa Clara to discuss PV program issues.

Resource sharing – on California Solar Center CPVU page  
<http://www.californiasolarcenter.org/cpvu/cpvu.html>

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**Bret Barrow, California Municipal Utilities Association**, provided a review of recent federal and state legislation.. Bret described the events leading to the demise of SB 1, especially IBEW insistence on prevailing wage and a C-10 license requirements. He noted that the focus for the Governor's solar efforts has changed to the PUC. During the next 3 months, the Governor's staff will be working with the PUC commissioners and staff to implement the main elements of SB 1. However, legislation is still required to raise the net metering cap and address solar on new homes. The state solar tax credit is in limbo and due to expire on December 31, 2005. The PUC will also be looking at how IOU tariffs and rates impact solar. Specifically, PG&E's A6 TOU rate is very favorable for solar, but SCE doesn't have a similar rate. The big news is the Federal Energy Policy Act which provides substantial federal tax credits for residential and commercial solar projects. Under the federal bill, residential PV and solar thermal installations are eligible for a maximum \$2000 federal tax credit; commercial PV installations receive a 30% federal tax credit.

[http://www.californiasolarcenter.org/pdfs/utility/2005.9.14-CPVU\\_BBarrow-CMUA.pdf](http://www.californiasolarcenter.org/pdfs/utility/2005.9.14-CPVU_BBarrow-CMUA.pdf)

**Performance Based Incentive – Panel Session**

The group heard from

Stephen Frantz, Bill Blackburn, and Mike Nelson on their experience working with performance based incentives (PBI), or paying per energy produced (kWh) vs. capacity ratings.

**Stephen Frantz – SMUD**

Stephen is heading up efforts to develop a PBI for SMUD. SMUD has recently completed a report evaluating different options for a PBI-based program in Sacramento.

[http://www.californiasolarcenter.org/pdfs/utility/2005.9.14-CPVU\\_SFrantz-SMUDPBI.pdf](http://www.californiasolarcenter.org/pdfs/utility/2005.9.14-CPVU_SFrantz-SMUDPBI.pdf)

SMUD's goals for exploring PBI included:

- \* Improving the cost/benefit equation of providing incentives for solar
- \* Improving the quality of solar installations;
- \* Creating long-term stewardship for solar installations;
- \* How to make solar a good business long-term investment for the utility. as compared to other types of investments made by the utility. Eg. More expensive to build new transmission lines, thus local distributed resources become attractive.

There are ongoing discussions within SMUD regarding the pros/cons of PBI approaches. SMUD is still debating what \$/kWh is appropriate. Residential not looking attractive for PBI primarily due to the high transactional costs associated with residential solar installations. Stephen noted that SMUD's current incentive program has some elements of a performance based incentive in that it considers tilt, orientation, shading – and the rebate is derated accordingly.

Additional questions being considered at SMUD include –  
Will PBI change customers perspective? For example, under the current capacity rebate model, the emphasis is on home energy management. Under a PBI model,

✱

✱ the emphasis is selling power to the utility.

For example, for system owner in the 30% tax bracket, \$0.10/kWh for 30 years is a good investment. SMUD will continue working on PBI evaluation, with potential total adoption sometime in 2006-07. Most likely would occur if PBI is integrated into power purchase program (20 years), vs. annual appropriation, public goods supported programs (current).

### **Bill Blackburn – CEC**

The CEC is currently managing a pilot PBI program for systems up to 30kW.

[http://www.energy.ca.gov/renewables/performance\\_based/index.html](http://www.energy.ca.gov/renewables/performance_based/index.html)

Bill discussed the experience to date. His presentation is posted online at

[http://www.californiasolarcenter.org/pdfs/utility/2005.9.14-CPVU\\_BBlackburn-CEC-PBI.pdf](http://www.californiasolarcenter.org/pdfs/utility/2005.9.14-CPVU_BBlackburn-CEC-PBI.pdf)

Bill noted that several factors have limited program participation

Several key questions still need to be addressed, including: Questions raised

- Are \$/kWh payments taxable?
- Automated Meter – does it give customers load profile data?
- Is it possible to provide PBI 'adders'? eg. For west facing system, add more \$/kWh since it provides more grid benefits.

### **Mike Nelson – Northwest Solar Center**

Mike shared his experience in establishing a feed-in tariff (PBI) in the state of Washington earlier this year. The bill(s) (SB 5101) were promoted as jobs creation. It was revenue neutral – money spent on the solar incentives was considered deductible in utility taxes (state based utility tax), and included net metering. The general concept is that since the incentive is performance based (ie. pays based on kWh actually produced), the program can be simpler (ie. Less dependent on site visits by 2-3 inspectors, etc.).

Mike's presentation from the Solar Forum is posted here, and includes some discussion on Silicon supply as well. Some of the slides got tweaked when converting from mac to Pc powerpoint format.

[http://www.californiasolarcenter.org/pdfs/forum/2005.9.13-SolarForum\\_MNelson\\_NWSolarCenter.pdf](http://www.californiasolarcenter.org/pdfs/forum/2005.9.13-SolarForum_MNelson_NWSolarCenter.pdf)

**Jan Pepper – Clean Power Markets – New Jersey Solar REC experience**

Jan reviewed New Jersey's solar Renewable Energy Credits (RECs) experience to date.

Key points in New Jersey's REC program include:

1. if own Solar REC – I am “producing” Renewable Energy.
2. if sell Solar REC – I am “hosting” an RE system.
3. moving away from estimates toward requiring metering for all.

Presentation posted here.

[http://www.californiasolarcenter.org/pdfs/utility/2005.9.14-CPVU\\_JPepper-NJRPS.pdf](http://www.californiasolarcenter.org/pdfs/utility/2005.9.14-CPVU_JPepper-NJRPS.pdf)

**Tom Hoff – Clean Power Research – PowerClerk Database tool**

Tom described the current status of his PowerClerk database tool for managing solar incentive programs, sharing data, and realtime-web posting of incentive program status. Connecticut and New York are currently using this program, and SMUD has just started evaluating it. Tom showed where New York used an existing system and PowerClerk in parallel for 4-6 months to test the program, and have now switched completely to PowerClerk.

To view the Realtime PV incentives page of the New York program.

<http://www.clean-power.com/PowerNaturally/>

(<http://www.powernaturally.org/> )

[http://www.californiasolarcenter.org/pdfs/utility/2005.9.14-CPVU\\_THoff-PowerClerk.pdf](http://www.californiasolarcenter.org/pdfs/utility/2005.9.14-CPVU_THoff-PowerClerk.pdf)

**Additional items discussed...**

1. Billing & Net Metering:
  - a. The 12 month true up process is a time consuming manual exercise for every utility. In most cases, the existing billing software does not have this built in, and due to the relative low percentage of customers with net metering, the investment to modifying the software is not warranted at this time. Thus the manual exercise of truing up net metered customers is the standard.
  - b. As an alternative, it was suggested that utilities prefer the monthly true up. If a customer produced a credit, then it simply carries over to the next month. If the customer owes, then they pay the bill, as is normal. By going to monthly approach, the existing billing software can handle the information and does not require any new modifications to collect, report, and otherwise manage data from the netmetered customer.
  - c. City of Palo Alto noted that they were already doing this.
  - d. Roseville Electric also noted(in post meeting conversation) that monthly billing was standard practice.
  - e. Current legislation allows for either monthly or 12 month billing. Thus it may be as simple as clarifying to customers the benefits of monthly billing and either switching them to monthly or, for new customers, starting them on monthly.

- f. A review of the current utility code (per previous net metering legislation) is suggested.
  - g. Solar industry and customers are expected to embrace this change
  - h. Solar credits would continue to rollover until the meter(account) is closed (eg. Change of ownership).
2. San Diego (Ken Parks – Sempra) – Ken shared some activities in San Diego.
  - a. City of San Diego is accelerating permitting of solar installations.
  - b. San Diego's Sustainable City project plans to install approximately 300kW/year for the next 3-5 yearson city buildings. Bidding process underway, and they are looking for additional sites and selecting local contractors. SDG&E is using Stockholder funds to pay for the project.
  - c. The SDG&E Net Metering Cap was raised via new legislation. The Cap was raised from 19MW to 50 MW via SB 816 (Kehoe).  
[http://www.leginfo.ca.gov/cgi-bin/postquery?bill\\_number=sb\\_816&sess=CUR&house=B&author=kehoe](http://www.leginfo.ca.gov/cgi-bin/postquery?bill_number=sb_816&sess=CUR&house=B&author=kehoe)
3. Self Generation Program (Sara Birmingham- PG&E) –
  - a. Noted that the deadline to provide application fee to keep project in the queue for incentive consideration had passed. Next week they would know how many projects had fallen out, and if there was room for more on the waiting list.  
<http://www.pge.com/selfgen/>
  - b. Future direction – discussion about the bidding option, which would rank projects by cost effectiveness and/or \$/watt requested.
4. Currently the CMUA does not have a standing Renewable Energy committee . Mike Keesee suggested that this group could serve this function or contribute to CMUA's efforts. The group concurred, and Mike will investigate with CMUA.
5. MID is currently looking at a 2kW demo project and working on developing a PV incentive program.
6. Billing Data (Survey by Tor/Rahus)
  - a. A survey of utilities was started prior to the meeting. The purpose was to gather information on the various programs, learn what is working, and share these lessons with the group. Additionally, it was hoped that the group could identify some improvements in managing and presenting the information on customer bills, reducing inefficiencies, and enhancing respective programs.
  - b. The surveys are continuing post 9/14. The data will be posted in the cpvu site. Call Tor with any questions. 925-370-7262.
7. Next Legislative Session (2006)
  - a. It was suggested that the group might draft some suggestions for the next legislative session. Unclear who would lead this effort.
8. Inspectors – (Palo Alto) – there was some discussion about providing training to the building inspectors and utility inspectors of systems.

9. TheCEC Renewables Program has had several personnel changes, including the resignation of Marwan Masri and transfer of Ann Peterson and Tony Brazil to other state departments.
10. Next Meeting Proposed for Jan/Feb 2006 timeframe with SDG&E as the host utility.