
California PV Alliance MEETING - Notes

DATE: Wednesday, June 27, 2001

TIME: 12:30 to 5:30 pm

PLACE: PG&E Pacific Energy Center, 851 Howard St., San Francisco, CA 94103

1) STATUS REPORTS

A) Emerging Renewables Buydown Program(15 min) – Sandy Miller (CEC)

- see handout from Sandy. A PV Installation Guide was also handed out and will be available on the website in a few weeks.

B) Consumer Education – Grant Project Update (CEC)

- see handout from CEC on project/program activities including grants and a new contract for a public awareness campaign.

C) Utility Program Review / Legislative Review/Taxable Rebates/ - Tor (Rahus)

- go to www.californiasolarcenter.org for updates on utility incentives and legislation.
- The taxable rebate issue is something that needs continued attention to assure that these rebates are not taxable for residential consumers, per the Energy Policy Act of 1992.

D) San Francisco Solar Program – Cal Broomhead / Cal_Broomhead@ci.sf.ca.us

- SFSolar bond for SF city facilities \$100M, + another \$100M bond for residents and businesses voted on in Nov. Must pay for themselves, therefore City gets share of benefit from project, or there will be a loan

E) PV Battery Grant Program & Status – Endecon/CEC – Drake Johnson(CEC) DJohnson@energy.state.ca.us

- Battery program ends June 29, open Jan 1, 2001, renewal depends on state budget. Batteries meeting requirements are limited to one: nothing is "listed" nor meets 3 yr. warranty. Looking at another year of funding and revise criteria.

F) Large Inverters – UL listing? – Kent Sheldon (Xantrex Technologies) Kent.Sheldon@xantrex.com

- Xantrex PV products group, inverters- med.-large power inverters,5-500 kW 3ph, 208, req. iso transformer for grounding, 5, 10, 15 kW are UL1741, customizations do eliminate UL listing, each jurisdiction also has own req.'s. Utilities aren't requiring UL for own installations. UL is limited to 40 KW test. Trying to increase this size due to requirements of CEC program (UL 1741 only) Lots of discussion here on getting utilities to agree to a standard for large systems

2 CEC PIER Program –Renewables and Photovoltaics – Joe McCabe (CEC) Jmccabe@energy.state.ca.us

Joe will provide an analysis of the Emerging Renewable Buydown program, discuss the winning proposals of a recent Renewable Energy focused Programmatic solicitation (worth \$40M), and provide a description of an upcoming Building Integrated Photovoltaics solicitation. [PIER = Public Interest Energy Research]

-Affordability grants announced today-SMUD administrator 13.6, Commonwealth, 19 projects with 3 winners (6 million including NCPA/PPREAT) should reduce price and increase employability in 3 years. New building integrated research grant solicitation coming.

3 PG&E - New Net Metering Tariffs & Rebate Program- Harold Hirsch (PG&E) (30 min)

Harold will present the new tariffs for commercial, industrial & ag customers, as a result of AB29x (the new net metering bill which allows for up to 1 MW systems). In addition, Time-of-Use Net Metering will be reviewed and experiences to date shared (TOU Net Metering was introduced Jan. 1 2001). Also, the status of the upcoming rebate program for >30kW PV systems will be provided.

❖ E-NET 4/11/01 from Abx129- additional sizes and classes goes to 1/2003, but may be extended. Their final tariff under development and review. Rule 21- CPUC requirements for interconnection w/PG&E. Interconnection handbook. E1= res, E7=res TOU, E8 seasonal (now closed to new customers), E9 low emission vehicles. Now have 5 tiers. Applicability = all, 1 MW size, new rules for additional classes and larger system sizes, but billing still same as the January change to TOU. \$277 meter charge to go TOU (res), \$443 for commercial. For larger systems (>10 kW) \$800 interconnection study fee Rule 21. Plus upgrades to system if necessary. Has \$4/mo. customer charge. PG&E has homeowners insurance requirements (must continue during generation life). see www.pge.com/gen and go to retail, email gen@pge.com, phone 415 973-2213. See also www.pge.com/customer_services/business/tariffs and Rule 21.

CPUC Rebate -

Administered by Utilities, 30kW-1 MW. Launched Friday 6/29. \$4.5/w up to 50%. \$48M/yr. 4 years.

❖ refer to <http://www.californiasolarcenter.org/incentives.html> for contact info for the new self gen program for each of the IOUs.

SMUD- looking for installers, has RFP out now. contact Vince Scwhent at vschwen@smud.org

5 Building Integrated Roofing Product- Steve Heckerth, Director of Building Integrated Products (Baeckert ECD Solar Systems) Steve will provide an introduction and overview of existing and emerging building integrated PV roofing products from Baeckert ECD (UniSolar) uni-solar@renewables.com 707-937-0338

-Unisolar on metal roof -15.5" by 18' or 9.5' lengths are standard now, customized (structural standing seam roof 16 in wide pan or greater, 17 in. preferred). 180 sf/kW, amorph. Peel and stick (30 year history with adhesive) available. Popular with schools (so Cal). Santa Monica auditorium. Output increases in low light and high temps (30%). Top = clear teflon, 20 yr. warranty to 80%. Unisolar contractor training July 17 @Willits, 19 @SMUD. Terminations under ridge cap or eave soffit.

New system got R&D grant (part of PIER program): on a roll avoids metal roof and becomes the roof. Clamping battons holds it down glued at bottom, with metal trim. Installation team includes roofer, electrician and solar contractor. 6.5%-13% efficiency, shade tolerant. 3 years for availability? Faster than traditional roof. Retrofit go over existing roof. Questions about heat effect, some goes into reflection and elec. production.

4 New Inverter UL listed – SMAs Sunny Boy – John Berdner (SMA- America) (30 min)
jberdner@sma-america.com

One of the success' of the German Solar Program has now landed in California. The SMA Sunny Boy 2500 is now UL listed and ready to serve. John will provide an overview of this highly anticipated product and describe some of it's unique features.

-SMA 1981, largest supplier of inverters in Euro (60 MW), sealed powder coated stainless steel, 20 year life! No fans (inefficient and they fail 10-20,000 hour life), locate ANYWHERE, wide temp range (-25 to +60C some degradation here), unidirectional or bidirectional, max power point tracking (MPPT) high efficiency over volt and power ranges. FCC Part 15 only 3 pass interference tests (pacemakers) AES, Trace Tek, SunnyBoy. 2500 now, 1100E for thin film UL Nov. 01. The 2500 @94.4% peak wire to wire.inverter = 10% of project cost, so can undersize array. 75 lb.s. String inverters easy to trouble shoot esp. ground faults. Fax or PC to send status reports from remote site. Krythnos greek island 100% renewable for 3000 residents, hybrid for tourists. Check the website for more product info etc:
<http://www.sma.de/en/solartechnik/index.htm>

Next PV Alliance Meeting September (So California).

Contact info: Tor Allen, The Rahu Institute – tor@rahus.org or 925-370-7262