



ASSOCIATION OF  
ENERGY ENGINEERS

Bay Area Chapter

# NEWSLETTER

November 2001

## Meeting Information Tuesday, November 27, 2001

*AEE Bay Area Chapter Presents*

### Anchor Steam Brewery, Tour and Award Dinner

**6:00 – 6:30 p.m.**

Social

**6:30-7:30 p.m.**

Tour and Dinner

**7:30 – 9:00 p.m.**

Chapter Awards and Business

**Location:**

Anchor Steam Brewery

**Cost:** \$30.00/Members  
\$35.00/Non-members  
\$15.00/Student

**Reservations:** Call Rory Moran at (925)437-2718 or  
FAX (877)638-4942. See inside for more info...

The state's Investor Owned Utilities (IOU's) have administered energy efficiency programs in California for as long as I can remember. They are granted funding by the California Public Utilities Commission (CPUC) to do so from funds collected from ratepayers. Some of that funding has recently included money for Third Party Programs, or programs run by other agencies that have proposed programs either to the CPUC directly, or to the IOU's as program administrators.

The CPUC has made motions towards opening the administrator role to other parties for the last few years. Two years ago there was a draft RFP that would have essentially bid out the whole process to a contractor (the IOU's would surely have bid) but the process fell apart in a political turmoil.

On October 25<sup>th</sup> the CPUC made another attempt to open the process to non-IOU agencies. In a draft decision it laid out a process for evaluating energy efficiency programs for the next 10 years. Programs would be evaluated based on cost effectiveness with an emphasis on long-term energy savings and underserved markets, and a budget set aside for locally-based programs. The draft decision would have required proposals to be submitted to the CPUC by December 7<sup>th</sup>, with successful bidders chosen, and contracts written by March. The process would also require that the IOU's hold the contracts for the work, meaning that successful bidders would have to contract with a utility that they competed against for funding.

The CPUC's draft decision has been met with a flood of criticism, most of which pertains to the timeline for carrying out the plan. Although many have praised the documents underlying goals, the consensus is that the process is far too rushed to get programs out by March of next year. PG&E's comments said the proposal "will destroy the successful programs that were instrumental in averting the energy crises."

The criticism for the plan comes also from the Energy Commission, who recommended a more reasonable time frame, among other suggestions. Perhaps in response to the criticism, the period for comments has been extended to November 16<sup>th</sup>. Meanwhile, the draft decision has not been adopted, so the deadline of December 7<sup>th</sup> for proposals looks uncertain, and the process in general appears to be headed for delay.

So what will likely happen? The draft decision grants funding to Express and SPC for the 1<sup>st</sup> quarter of next year. These funds make up about 10% of the total program budget. It is likely that when the decision is finalized, those elements will still be there (get your projects in fast – it won't last long). For other programs, making up 90% of the PGC funding, it looks like a program hiatus is likely. Let's hope that the CPUC can come up with a plan that has a more realistic timeline so that IOU's and other interested parties can come up plans that

## President's Message

### Energy Efficiency Programs Still in Limbo...

It now seems that the rollout of energy efficiency programs for 2002, other than SPC and Express, will likely be delayed. I hope I'm wrong but the way the political process is presently churning, we seem headed for problems. This is bad news for our industry, and bad news for California ratepayers who are still paying into public goods funds for energy conservation. This news is particularly surprising coming at the end of the year when the need for energy efficiency has been in the headlines for the first time since the 1970's.

So what happened? I don't pretend to know all the ins and outs of the process but, for those of you who don't have time for follow the regulatory process, I'll try and catch you up with what I do know, and why you shouldn't count on energy

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*Bay Area Chapter*

AEE Bay Area Chapter serves as a unique forum for the discussion of energy issues and concerns. AEE Bay Area Chapter provides common professional meeting ground for facility managers, design and specifying engineers, utility and vendor representatives and energy researchers to participate in vigorous peer-to-peer dialogue, learning and group discussion.

AEE Bay Area Chapter strives to provide quality professional development opportunities that build knowledge and skills through meetings, seminars and publications. Emphasis is placed on:

- ? Assessing the applicability of emerging technologies, and
- ? Improving the performance and reliability of current technologies.

Meetings are held on the fourth Tuesday of the month. All interested persons are welcome to attend, participate and join the Chapter. If you are interested in joining the AEE Bay Area Chapter, contact Ryan Wood (800) 770-8539.

## Secretary's Report: October Meeting

Meeting Date: 10/23

Topic: New Rates and Incentives from PG&E

Presenter: Bill McLaren, Mission Division Major Accounts Representative, PG&E

Mr. McLaren first presented the **Real Time Meter (RTM) Program**. The RTM program has been mandated by the PUC, and is state-supported by approximately 35 million dollars allocated to the replacement of conventional meters with real time meters. As a result, all "full service" customers that have electric accounts greater than 200 kW (i.e., commercial customers on the A10, E19, and E20 schedules) will soon have or already have had their meters replaced. PG&E will replace tens of thousands of meters under the program.

Installation of the meters entails real time load data acquisition by the utility company. In addition, however, the customer is provided with an Internet-based data interpretation software package that can compile and present historical load data in various formats. The customer can review the prior day's electric usage in 15-minute increments, and view up to 14 months worth of stored data.

Under the RTM program, customers who are now on the A10 schedule (which is not time-of-use (TOU) based), must choose either to have rate surcharges applied on a TOU basis or to go on a load management program. A load management program delivers payments or credits to customers in exchange for the utility company's option to reduce customer load during periods of high system-wide load. Customers can presently choose from four different options for the structure of their load management program.

Load management programs usually are a hardship to customers, so most present A10 customers are choosing the TOU-based surcharge option instead. However, Mr. McLaren emphasized that a major benefit of the historical load data available through the program is that the data identifies usage patterns and thereby becomes a good basis for identifying load reduction or load shifting opportunities. The data also makes possible informed choices regarding the economic tradeoffs between rate schedules.

**Projections of Current Gas & Electric Supplies.** A recent report by the California ISO project sufficient gas and electric supplies for this winter. However, the margin of excess supply projected for next May is less than 6%, so May could be a problem month.

**Outlook for Energy Efficiency Programs.** Mr. McLaren made the following points.

- (1) Overall funding for efficiency programs will probably be less next year.
- (2) Funded energy management services will probably be made up the following. For large customers: Targeted energy audits dealing with compressed air systems, boilers, and chillers. For medium-sized (A10 and E19) customers: Site surveys. For small customers: Phone and mail-in surveys.
- (3) Information and education programs will be delivered through web-based information, the Business Customer Center, the Pacific Energy Center, the Food Service Technology Center, and seminars.

**New Rate Structures.**

- (1) Per AB1890, the current rate freeze will expire on 3-31-02. The generation component of the rates might start to float monthly (like natural gas prices).
- (2) Future rates are likely to be calculated more and more on a "real time" basis for large customers

## Secretary's Report: September Meeting

**AEE Dinner Meeting, September 25, 2001  
At Zza's Trattoria, Oakland**

***Powerlight: Innovative and Timely Solar Energy Systems***

Gary Wayne, of Powerlight Corporation, gave an informative and entertaining presentation that was a catalyst for a lively discussion on the state of larger photovoltaic systems (>50 kW). PV is an excellent choice for clean reliable distributed generation. It is a financially prudent solution because it has zero fuel costs and is a hedge against fuel price increases. In addition, power generation is coincident with expensive "peak" electricity. Gary estimates that PV costs have been reduced by a factor of 10 in the last 15 years.

Powerlight Corporation (founded in 1991) is the US leader in grid-tied commercial PV systems. Their focus is on manufacturing PV systems (not PV panels) and integrating turn-key systems. They have doubled in size each year since 1997, been named to "Inc. 200" list, and been profitable since their inception. Their products include panels that follow the sun, solar electric shade structures, and their most popular (and proprietary) Power Guard system for flat roofs. These lightweight and wind resistant modules are compatible with 87% of existing roofs and are designed for a fast non-invasive installation. A typical panel is one square meter and roughly 700 watts. The panels are installed on a flat surface (no angles) in order to reduce cost and optimize peak summer savings

## Secretary's Report: September Meeting (continued)

When combined with energy efficiency measures, PV is competitive with all energy sources. Gary discussed an econometrics study that found a blended cost of PV and energy efficiency measures (at \$0.13 per kWh) is cheaper than buying expensive power (\$0.18 per kWh). The synergy of PV and energy efficiency measures (with a logical interface that would throttle back on discretionary energy use) is a viable solution. Many of the direct current technologies (variable frequency drives and electronic ballasts) that are installed in newer building are an excellent match with PV. He mentioned that the State will be issuing an RFP for building conservation services in state facilities soon and Powerlight will be proposing this integrated distributed generation concept.

Gary also discussed the Santa Rita Jail project in Alameda County. This project, an example of integrating solar electric generation with energy efficiency, combined 650 kW of PV (Phase 1) with efficient lighting strategies and a fan motor replacement project. The gross savings over the projects 25+ year life will exceed \$12 million. (This \$3.2 million incentives from three separate State programs helped offset the gross project cost of \$6.2 million.) The total system benefits (besides the electricity savings) include an extended roof life and thermal efficiency benefits since they have found that roof temperatures are reduced due to the PV panel shading effect.

In answering the inevitable question, Gary estimated \$650/kW for a turnkey Power Guard system installation with a 20% capacity factor (compared to 12% in Minneapolis or 25% in New Mexico).

Finally, Gary made it clear that Powerlight is very interested in collaboration through partnerships in research grants or promoting and designing new programs. In the near future, they are planning on placing a white paper on the Powerlight website ([www.powerlight.com](http://www.powerlight.com)) that looks at the history of subsidies in energy markets.

Bruce Chamberlain  
Co. Secretary, AEE Bay Area Chapter

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might be interested in joining  
AEE Bay Area Chapter?**

The benefits of joining include:

- ?? Participating in exciting and informative programs
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