



ASSOCIATION OF  
ENERGY ENGINEERS

Bay Area Chapter

# NEWSLETTER

November 1999

## Meeting Information Tuesday, November 23<sup>rd</sup>

### Is There a Place for Energy Management Systems in Food Services?

(Hint: the answer is yes...)

The evening will begin with a tour of the PG&E Food Service Technology Center. Richard Young will then give a presentation on EMS's in the Food Services industry. Mr. Young, an electrical engineer with Fisher, Nickle, Inc., serves as the lead engineer for the Center. He has been promoting energy-efficiency in the food services industry for nearly 10 years.

**Time:**

**6:00 - 7:30**

Tour and Presentation

**7:30-9:00**

Dinner at Max's Cafe.

**Location:** PG&E Food Services  
Technology Center, San Ramon

**Cost:**

\$25.00 Members

\$30.00 Non-Members

\$15.00 Students

**Reservations:**

Call Leslie Kramer at (415) 434-0900 x146 or fax (415) 956-6220 using the handy fax form to make reservations by noon Friday, November 19. You can also reserve on the web at the chapter web site at [www.aee-sf.org](http://www.aee-sf.org).

See inside for more info...

## PRESIDENT'S MESSAGE

### by guest past president, Bob Spitzka

It was 20 years ago that I joined AEE where I served two terms as President. Lots of changes have happened in the energy field, and in my career focusing on small cogeneration systems that generate under 100 kW. I chose that field because it was a new technology that was broadly applicable and a real match for a small engineering firm. The following are my thoughts on that field in light of the market forces, the PUC, new developments, etc.

### RECIPROCATING ENGINES

Automotive derivative engines have dominated this field where 60 kW generation was the most popular package. There were many firms (about 20) that tried to produce equipment but they all failed except for two or three. The existing firms are Tecogen and Coast Intelligen. Energy User's News lists many more but they are not really in the business. "Big Iron" producers such as Waukasha and Cat have never really been interested in producing this equipment as pre-packaged cogen although they do make gen-sets this size.

Only Coast Intelligen has ever spent the money to field sales staff to create sales. Primarily the Tecogen sales were made by firms such as mine who proactively sought out the clients to make sales.

I have personally created a market for the 100+ units for which I did the study and design work. Coast Intelligen is changing that.

### MICROTURBINES

"The World is Alive With the Sound of Music"...and with the hype surrounding the ten's of thousands of microturbines (30-120 kw) that are being touted for installation almost overnight. Look out !!! The concept of such a product is excellent and their low emissions, among other features, will make them a hot product....if,if,if a number of critical issues are proven before the sales people over-promise the world what can be delivered. Articles that suggest an installed cost of around \$400/kW are misleading considering the product's state of development. Little problems of 50 psi gas requirement are being dismissed as trivial. There's a long way to go before the technology is ready.

Firms in this field include Capstone, Allied Signal, Elliott, Ingersoll Rand, and some British and Japanese businesses. In my opinion, none of these is fully ready for mass marketing now.

Continued →

## President's Message (continued)

### 1999 Board

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(925) 944-8929

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(415) 434-0900

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Ryan Wood  
(800) 770-8539

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Open

#### Interested in involvement?

**Contact:** Ed Spivey  
(925) 944-8929

### FUEL CELLS

The concept of cogenerating electricity and hot water (while making fresh water as a byproduct) with no emissions or other pollution is a fantastic goal. The big players such as ONSI have been at this for quite a while with units around 200 kW. They are being joined by GE-Plug Power, Northwest Power, American Fuel Cell Corp., NuPower and Avista Labs all of whom are trying to develop units fueled with natural gas (with hydrogen stripped off) in the 3-10 kW size for residential application (see Mother Earth News, Nov.1999)

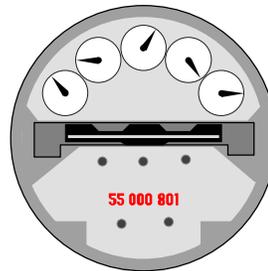
The cost may be around \$7,500 for a 7 kW unit. There are some test units in the field for a year already. Stay tuned!

### FINAL THOUGHTS

Someone has been talking about electrical de-regulation being a big factor in California.

Did I miss something? My bills are still the same, PG&E is still asking for more rate increases....so what's going on? Answer: not much that looks new. I'm suspicious about how PG&E is going to give up about \$0.033 (CTC'S) out of the \$0.10+ that they currently charge and still remain in business. What are they going to add back in to keep their revenues flat enough to keep staff and profit?

Bob Spitzka



*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 which 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 Ken Moore at (415) 460-0460.

AEE Bay Area Chapter Presents

**TOUR AND PRESENTATION  
AT THE PG&E FOOD SERVICE  
TECHNOLOGY CENTER**



**Tuesday, November 23<sup>rd</sup>**

6:00-7:30 **Tour and Presentation.** We will start the evening with a tour of Pacific Gas and Electric Company's food service technology center, the country's leading independent testing facility for commercial kitchen appliances. Richard Young will then give a presentation entitled "Is There a Place for Energy Management Systems in Food Services?" (Hint: the answer is "Yes"). Mr. Young, an electrical engineer with Fisher, Nickle, Inc., serves as the lead engineer for the Center. He has been promoting energy-efficiency in the food services industry for nearly 10 years.

7:30-9:00 **Dinner at Max's Cafe.** We will walk from the Center to Max's Cafe (1015 Crow Canyon Place) for dinner. The dinner options for the evening are:

1. Roma Pasta (linguini noodles, roma tomatoes, garlic, olive oil)
2. Caesar Chicken Salad
3. Gourmet Cheeseburger
4. Vegetarian Club Sandwich (eggplant, feta cheese, spinach, tomato)

Meals also include coffee and a choice of pumpkin pie or ultimate chocolate cake.

**Location:** PG&E Food Services Technology Center  
12949 Alcosta Boulevard, Suite 101  
San Ramon, CA 94583  
Tel: 925-866-2844  
800-EXT-FSTC  
(1-800-398-3782)  
From Hwy 680, Exit at Crow Canyon Road and go east to Alcosta Boulevard.  
Turn Right on Alcosta Boulevard. (See attached map).

**Cost:** \$25 Members  
\$30 Non-Members  
\$15 Students

**Reservations:** Call Leslie Kramer at (415) 434-0900 ext. 146 or fax (415) 956-6220 using the handy fax form to make reservations by noon Friday, November 19. Please indicate your meal choice. You can also respond by e-mail to lkramer@brownvence.com.

## Thanks Newcomb Anderson!

Our hats are off to Newcomb Anderson Associates for their continuing support of the Bay Area Chapter of AEE. NAA is our first corporate sponsor for the 1999-2000 year. Thanks!



NEWCOMB ANDERSON ASSOCIATES  
755 Sansome Street, Suite 500, San Francisco, CA 94111  
[www.newcombanderson.com](http://www.newcombanderson.com)

## Have you renewed your membership yet?

Corporate members receive recognition in the newsletter  
and the chapter web site ([www.aee-sf.org](http://www.aee-sf.org))

For more info send a note to [webmaster@aee-sf.org](mailto:webmaster@aee-sf.org) or use the address below.

Do you know someone who  
might be interested in joining  
AEE Bay Area Chapter?



*Bay Area Chapter*

The benefits of joining include:

- Participating in exciting and informative programs
- Receiving a monthly newsletter containing information on meetings, events, and job openings
- Communicating with other energy professionals

For membership application:

**Contact Ken Moore**  
**(415) 460-0460**

Meetings are held on the fourth Tuesday of each month. All interested persons are welcome to attend, participate and join.

175 Filbert Street, Suite 205  
Oakland, CA 94607-2541