



ASSOCIATION OF
ENERGY ENGINEERS

Bay Area Chapter

NEWSLETTER

April 2001

Meeting Information

Tuesday,
April 24th

AEE Bay Area Chapter Presents

Retrospect – The Oakland Administration Building Project

6:00 – 6:30 p.m.

Social

6:30 – 7:30 p.m.

Dinner

7:30 – 9:00 p.m.

Chapter Business and Presentation

Location:

Sinbad's Restaurant, San Francisco

Cost:

\$35.00 for Members

\$40.00 for Non-members

\$15.00 for Students

Reservations: Call John Clark at (510) 420-8987 or FAX (510) 420-1404.

See inside for more info...

President's Message

Well now the stuff has really hit the fan. If you thought the last few months in the local energy world were tumultuous, you ain't seen nothing yet. For those of you who've been in Siberia for the last week and haven't heard, PG&E, the nation's largest investor-owned utility (at least it was before their stock plummeted), filed for Chapter 11 protection last week. This is the third largest bankruptcy in history, and even with dotcoms dying right and left this is certainly the biggest in our own back yard.

To be frank, this turn of events leaves me feeling sick to my stomach. First, because I find myself in the unfamiliar position

of being one of the creditors of a bankrupt utility. I admit that I personally have a stake regarding how this whole debacle plays out. But also I am concerned for what this will do to the progress of energy efficiency programs in Northern California. Public goods charges, that are collected as a tariff on everyone's energy bills, go to fund energy efficiency programs that are managed by PG&E. So if funds suddenly stop going through PG&E, and incentive dollars are held up, then energy efficiency work around here will slow when we need it most.

The official word so far is that "The utility will utilize existing resources to continue operating its business during bankruptcy, including paying vendors and suppliers in full for goods and services received after the filing." The public statement is a little reassuring except it doesn't say anything about work that was done prior to filing Chapter 11. Is anyone going to be paid for that? How willing are vendors going to be to start work on a new or existing job when they haven't been paid for the last one? This doubt alone will slow or stop progress in energy efficiency at a time when it has never been needed more. I know that some energy engineering contractors have already stopped work on PG&E administered energy efficiency projects that are based on public good funds. When this happens the progress of the programs comes to a halt, the grid suffers, the environment suffers, and the public suffers. You can't turn energy efficiency projects on and off like a faucet. It takes a long time to get the momentum of a program going. Once the public's confidence has been lost, it will be hard to regain.

I hope that PG&E and the judge presiding over the bankruptcy filing will choose to administer the public goods-funded projects separately from the rest of the company's assets. That way our industry can continue to do the energy efficiency work that is so needed right now.

– Jim Kelsey, P.E.

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Interested in involvement?

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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

AEE – Bay Chapter Meeting, March 27, 2001, Autumn Moon Cafe, Oakland

PRESENTATION: LATEST IN LIGHTING SYSTEMS AND CONTROLS STRATEGIES

Based on Scotopic/Photopic ratios, how much more end-of-life task modified lumens does an F32T8 841 lamp have compared to an F32T8 735 lamp?

Stan Walerczyk began the presentation with a battery of multiple-answer questions on lighting ranging from policy-oriented issues to technical specifications to practical solutions. This is what you get when Stan discusses lighting – a no-holds-barred, frank, solution-oriented discussion based on many years of designing, advocating and installing energy-efficiency lighting systems. While his expertise spans the many realms of lighting and he could talk all day about them, he prefers to tackle the questions and issues that are on people's minds.

Throughout his informal discussion, he covered the following topics: 1) "Gateway" technology and its applicability to peak load curtailment. This technology is a computer box that accepts price and utility alert signals from the web and is connected to an energy management system. Through this configuration, a power customer could control their load and ostensibly sell back power to the ISO (if it's greater than 1 MW) or potentially to Pacific Gas and Electric Company. 2) High Output T5 Fluorescent (HOT5) vs. High Intensity Discharge (HID) lamps. Stan is finding that, in many cases, fluorescent is a superior application due to color, control options and higher efficiency, among other characteristics. 3) Fundamental lighting design practices have been evolving over the past few years. There is a growing acceptance of indirect/direct lighting in standard interior spaces. 4) Daylight dimming systems can and will work. The key is understanding and trouble-shooting each application and specific technology. 5) Compact Fluorescent Lamps. Some CFLs contain amalgam. This is to protect the lamp in cold-start applications. In this case, the lamp has a slow start and takes less than a minute to reach full brightness. CFLs without amalgam tend to reach full brightness immediately. However, this lamp is more susceptible to failing in a cold environment. For more enlightenment from Stan and others on these and many more topics, be sure to attend the free workshop: **Lighting Retrofits, Wednesday, May 16 (9:00 a.m. to 4:30 p.m.)** Program Level: Intermediate to Advanced, at the Pacific Energy Center in San Francisco. You may register by phone (415) 973-7268 or log on to pge.com and search for Pacific Energy Center. By the way, the answer to the opening question above is: about 25 percent. See you in April for the next meeting where we, among other things, hash out how the ~\$800 million energy efficiency funds (SBX5) should be spent.

Bruce Chamberlain

Letter to the Editor

Editor: This reply to the President's Message in the March 2001 Newsletter is intended to start a discussion among AEE members. Jim Kelsey was "rankled" by an article in a second-class newspaper that blamed the current energy crisis on "evil generating companies." I am just an engineer doing conservation work like Jim Kelsey, but I am beyond rankled.

Now about those rolling blackouts. The nominal installed generating capacity in the private utility service areas of California is 53 GW. The daily demand peaks this past winter were always under 30 GW. When California cannot get 60 percent of the plants online once a day, common sense tells us that something more basic is wrong. It has nothing to do with load growth, lack of plant construction, or inelastic demand. The end-user price has not gone up but ten percent outside of San Diego.

If you read only one thing, my fellow energy geeks, seek out the FERC Order of December 15, 2000, available on the web. Should and could the FERC have saved the CPUC from itself sooner? Unfortunately, they did not. The CPUC has long been a captive of those it regulates and, in this case, deregulates.

FERC Commissioner Massey wrote in December, "Prices have not been just and reasonable, and market power has been exercised . . . the transfer of wealth from purchasers of power to sellers has been absolutely staggering and defies the public interest. No legitimate public purpose has been served by the regrettable spectacle." Readers must recognize the term "exercise of market power" as code for monopoly price fixing. This price fixing refers to the generators. If the generating companies exercised market power, they were enabled by the design of deregulation. Utilities were required to sell all of their generation to the PX and to buy all of their distribution from it. This led to reliance on the spot market.

Additionally, the market clearing price, the price of that last needed kilowatt, set the price for all purchases. Gray Davis calls it that "crazy auction." Three websites allowed suppliers complete and timely information about the rest of the market participants, one known as Oasis arranged by FERC. Even a small supplier could influence this imperfect market. Economists are always 20/20 on hindsight.

Massey went on to say in December 2000, "It seems rather clear to me that someday soon a federal court, if asked, will declare that all utilities are entitled as a matter of federal preemption to recover these high wholesale costs from their customers." Instead, people went on like everything was normal, the bills piled up, and now we have this scene out of Ayn Rand: said PG&E Chairman Glynn of the bankruptcy filing, "The regulatory and political processes have failed us, and now we are turning to the court."

It took us exactly three years to get into this hole and it may take three more to dig out of it, a colleague put it.

And for readers who wonder, I have never had a job or a contract with PG&E and probably never will.

Career Opportunities

Energy Services Engineer. Major Design/Build firm is looking for Engineer with 5+ years experience in energy efficiency/auditing and planning. CEM preferred. Location: LA area. Salary: negotiable, DOE. Send confidential resumes to: Nancy Benamati, Benamati Associates, 12247 E. Iowa Drive, Aurora, CO 80012, phone (303) 671-5344, fax (303) 671-0450, www.benamatiexecruiters.com, nben@worldnet.att.net.

Berkeley Lab – Environmental Energy Technologies Division – Project Manager Opportunity. As a project manager for our Environmental Energy Technologies Division, you will be an integral member of a research team that develops technologies and processes to mitigate the environmental effects of energy use. Desired qualifications: experience developing and facilitating large, complex energy efficiency projects, preferably in the high tech sector; experience leading multi-disciplinary teams to apply energy efficiency technologies; experience making presentations and producing end-user resource guidelines; proficiency in MS Office; extensive experience in critical facility design, energy management programs, energy retrofit project management and/or facilities management. Interested? Go to www.lbl.gov for more details about Berkeley Lab. Apply on-line at www.cjo.lbl.gov or email application to employment@lbl.gov. Send your resume in plain text, no attachments please. Or mail to Berkeley Lab Staffing Office, One Cyclotron Road, MS 937-0600, Berkeley, CA, 94720. Reference job title and source code EE/013146/BEE1.

NORESKO – Project Managers and Measurement & Verification Specialist. NORESKO is a national leader in designing and providing energy services programs. Currently, we are looking for bright, motivated *Project Managers* in our South San Francisco office. Project managers are sought to coordinate bids, create budgets, track job costs, and manage subcontractors and vendors in the construction of mechanical and electrical efficiency projects. Minimum requirements: 3 years exp. in management and installation of lighting and mechanical retrofit projects. Strong verbal, written, communication and time management skills, the ability to work independently, and strong Excel, MSWord, and Windows skills. NORESKO offers competitive salaries, a full array of benefits and an exciting work environment for the right candidate. Please forward resume with a cover letter to NORESKO, Attn.: Tom Harley, 100 Produce Ave., Suite L, South San Francisco, CA 94080, Fax: (650) 589-3750, tharley@noresko.com.

NORESKO is also seeking a measurement and verification specialist for our South San Francisco office. Duties will include: monitoring and verifying energy savings of long-term performance contracts in both utility and non-utility sponsored programs; performing measurement and verification data collection, troubleshooting, and integrity checks; installing and maintaining measurement and verification systems for Utility and Performance Contract Programs; receiving, diagnosing, and solving trouble calls for Energy Management Systems; and developing measurement and verification strategies for lighting and HVAC energy conservation measures. The successful applicant will have the following skills and interests: 1-3 years work experience, a general background or interest in energy efficiency, strong computer knowledge; experience in engineering, construction, and field work. Please forward resume with a cover letter to NORESKO, Attn.: Melinda Saunders, 100 Produce Ave. Suite L, South San Francisco, CA 94080. Fax: (650) 589-3750. msaunders@noresko.com

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 Ryan Wood
(650)-596-1160

Meetings are held on the fourth Tuesday of each month. All interested persons are welcome to attend. Participants

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