

ASSOCIATION OF
ENERGY ENGINEERS

Bay Area Chapter

NEWSLETTER

November 2004

**Meeting Information
Tuesday,
November 30, 2004**

AEE Bay Area Chapter Presents

“Annual Award Banquet”

6:00 – 7:15 p.m.
Social and Dinner

7:15 – 8:30 p.m.
2004 AEE Chapter – a year in review

Award Presentations

Location:
Pyramid Alehouse, Brewery & Restaurant

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

Reservations:

E-mail to luther@energy-solution.com or call Luther Kopf at (510) 482-4420 ext 230 or FAX (510) 482-4421 using the handy FAX form. Please make your reservations by EOB Thursday, November 25th. You can also respond at the chapter website www.aee-sf.org

President's Message

You may have noticed that the newsletter is arriving late this month. I'll take responsibility for that. It's due, as you can imagine, not to any one issue. Mostly, the usual priorities of work and a busy schedule. But this month, I've been a bit stuck on the context of the "message". I have to, honestly, say that I have been flummoxed as to the outcome of the election...and for what the future portends across the board including energy policies, legislation, and research. I'm really not sure what Americans want anymore. (Can't say I ever did.) And, frankly, I didn't think the outcome was a "mandate".

President's Message (cont.)

As we commemorate Veteran's Day, it becomes clearer to me that the fog of war is befuddling all of us. I'm numbed by the irony of my wife and I contemplating adoption while mothers weep the loss of their soul mate and kin in Iraq. It's a good time to reflect and try to figure out what "we're" doing, why it's being done, when will it be resolved, and how do we move forward.

One way to move forward, in our small, local sphere, is to acknowledge those champions among us who have been leading the way with their dedication to the research, education, legislation, and the business of energy efficiency and renewable resources. This is the time of year when our Chapter applauds these valiant efforts in helping achieve a brighter future. Yes. It's time for the annual AEE Bay Chapter Awards on Tuesday, November 30 (see announcement for details).

What other news gives us hope or cause for pause? "ET" or emerging technologies were recently the cause celebre at a summit organized by the American Council for an Energy Efficient Economy (ACEEE) at the Pacific Energy Center. It was heartening to see the large turnout and broad support from investor owned utilities (IOUs), CPUC, CEC, and Governor's office. Keep an eye out for some more news on this front. Rumor has it that it might be an annual event.

On the down side, natural gas prices are in the midst of another big jump. (The plus side on this one is that project paybacks on energy efficiency efforts look even better!) And on the research front, the Arctic Climate Impact Assessment released a report this month that estimates 8% of Arctic ice, covering an area the size of Texas (how ironic) and Arizona (got McCain's attention) combined, has been lost in the past 30 years. This report is the most comprehensive study to date, involving 300 scientists in 7 Arctic-bordering nations. Somehow, I don't see this issue as being high (or even) on our President's list....and how I wish it was...

Happy Thanksgiving and hope to see you on the 30th!

Bruce

Bruce Chamberlain
President, Bay Area Chapter
bruce@energy-solution.com

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Contact: Bruce Chamberlain
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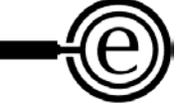
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ENGINEERING PROJECT MANAGER

Requires BS in Engineering and 8-10 years related experience – Masters degree a plus. This position will work with clients to identify energy savings opportunities in buildings. Conducts, and manages engineering staff performing energy audits in commercial and industrial buildings. Troubleshoots systems using various data collection techniques and diagnostic tools. Prepares written analysis of findings and presents recommendations for improvement in energy efficiency. Oversees work of subcontractors and is responsible for delivering projects on time and within budget. Participates in sales meetings.

PROJECT ENGINEER

Requires BS in Engineering and 3-5 years related experience – PE license a plus. Will develop measurement plans & perform energy calculations to measure & verify energy savings. Conducts energy audits in large commercial/industrial buildings and troubleshoots equipment using various data collection techniques and diagnostic tools. Prepares written analysis of findings and presents recommendations for improvement in energy efficiency. This position works closely with the program manager and client to meet project deadlines.

CONTROL SYSTEMS & MONITORING TECHNICIAN

Requires extensive knowledge of commercial building HVAC systems and controls, pneumatic & DDC. Must be able to install, service, test, calibrate, maintain, troubleshoot and replace data acquisition systems using serial and LAN/WAN networking hardware and software.

For Quantum Energies & Technologies please submit cover letter, resume and salary requirements to:

Quantum Energy Services & Technologies, Inc.
2001 Addison St. Suite 300
Berkeley, CA 94704
Job Code: HROAEEESF1004
Email resumes@qcworld.com or fax (510)540-7268

JOB OPPORTUNITY FOR ENERGY ENGINEER

Brown, Vence and Associates, Inc. (BVA) is seeking a senior-level energy engineer and project manager with particular expertise in HVAC systems. BVA is an energy management consulting firm with 25 years of experience providing a full range of technical services related to energy efficiency, renewable energy, and cogeneration projects. Ideal candidates have experience in the identification and evaluation of energy efficiency measures. Other qualifications should include an engineering degree and a P.E. In addition, experience with M&V, cogeneration, water conservation and green building design. Good project management, writing and communications skills are required. Please submit resume, references and writing samples to BVAMail@brownvence.com.

Secretary's Message

AEE Dinner Meeting, September 28, 2004
Café Rustica, Oakland

Energy Efficient Chilled Water Plant Design

Presenter: Ken Mozek

It's estimated that primary HVAC equipment accounts for about 45% of energy consumption in a commercial building. With today's technology, advancements in chilled water plant design play a key role in attempts to reduce energy consumption. Ken identified key factors when designing for energy efficient central chilled water plants.

- Energy costs
- Energy Standards
- Designing for performance
- Hybrid plant design
- Variable primary flow (VPF)
- Modeling design tools

It is important to start with certified equipment performance ratings from reputable sources (ARI, ASHRAE). Example: ARI Standard 550/590-98. Performance ratings are no guarantee, but they do provide equal baseline for all manufacturers.

Take advantage of low wet bulb temperatures available in your region. In order to maximize plant efficiency and economics, consider the impact of local wet bulb temperatures during selection of cooling towers and chillers. As the wet bulb temperature falls, so does the condenser water temperature. Lower condenser water temperature lowers the head pressure which reduces compressor work resulting in lower energy consumption.

In 2003, 80% of all large tonnage chillers shipped were variable speed, leading the way for variable primary flow (VPF) systems. There are many drivers for a VPF system.

- Lower capital cost
- Less floor space requirements
- Higher reliability
- Energy savings (may reduce pump horsepower)
- Eliminate low delta "T" syndrome

With many of the advanced simulation tools readily available, modeling variable flow systems for chilled water plant design is becoming an important factor when selecting the right equipment.

John Clark
Co-Secretary, AEE Bay Area Chapter

Chapter Awards

Every year we take the final meeting of the year to recognize a few of the people that have made a notable contribution to energy efficiency and energy policy. First I want to congratulate all 2004 AEE Bay Area Chapter Awardees for their outstanding achievements and contribution. I also would like to encourage you to join us on November 30th at the Pyramid Brewery in Berkeley to congratulate them in person and learn more about their specific contribution.

- **Mark Leno, CA State Assemblymember: *Energy Legislation Champion***
- **Gerald Lahr, Association of Bay Area Governments: *Local Government Energy Champion***
- **James L. Davis, P.E., C.E.M, Brown, Vence and Associates: *Lifetime Achievement Award***
- **Gary Gerber, Sun Light and Power Company: *Renewable Energy Champion***
- **Sasha (Alexandra) Von Meier, Sonoma State University: *Energy Educator of the Year***



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 typically 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, you can contact Stan Boghosian at (510) 845-7468, or you can directly download a mail-in membership application from the AEE website at: <http://www.aee-sf.org/form.rtf> or <http://www.aee-sf.org/form.doc>

Do you know someone who might be interested in joining AEE 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 Stan Boghosian
(510) 845-7468.**

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or

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115 Sansome Street, Suite 800
San Francisco, CA 94104