

**Energy Efficiency Working Group Meeting
January 10-11, 2002
Summary**

Attachment A: Participants and Contact Information

Attachment B: List of Available Documents

Attachment C: Meeting Agenda

Attachment D: EERE Mission & Vision

Thursday, January 10, 2002

LEED Program Discussion

- LCAM Order doesn't address sustainability. Need a performance-based Order.
- Otto - EO 13123 is currently the most comprehensive Order as far as green/sustainable issues is concerned.
- New draft Order 430.2x had to follow 10 CFR 435. It has significantly higher goals than EO 13123.
- Otto - EO 13123 cut down ghost loads. DOE 413.3 talks about the stages buildings go through to get funding.
- Ralph - Is there language in 413.3 that discusses how a project manager gets project approval? In the original draft of the Order there was language that discussed the importance of having energy efficiency measures in the design phase, prior to approval of the project.
- Otto - Energy efficiency/sustainable design reports replace the old energy reports. Addresses LEED issues.
- James - Why not plug LEED in to the draft 430.2x? If it doesn't have LEED, it's basically useless.
- MacDonald - Even if you put in the LEED criteria, project managers and contractors won't understand it, and they also are not graded on it.
- Ralph - At Sandia, green/sustainable design has been incorporated in projects and is performance-based and within budget. Subsequently, project managers are more aware of the issue and are embracing it.
- John - When evaluating proposals from A/E firms, our criteria includes looking at past experience in sustainable design practices. Having a silver LEED rating is one of our design goals, and that is part of choosing a contractor.

- Victor - Guidance must be given to the design team. A good design guide is needed; that is one way to improve the process without spending a lot of money. The LEED process could be automated by implementing a simple design guide.
- John - Is there an issue with DOE endorsing the LEED rating within Departmental policies?
- Part of 13123 was codified in the FAR (Energy Star). This might help procurement officials with solicitations to A/E firms.
- Kath - The City of Seattle has given a package proposal to the US GBC for City buildings to meet certain criteria, rather than have all buildings get certified for Silver LEED rating.
- Dale - Can DOE require its facilities to be LEED certified?
- Luda - What is the best way to sell LEED to upper management? Does the program provide visibility?
- Mike MacDonald - Operations offices should put LEED performance criteria for Labs.
- Ralph - will bring budget estimates for commissioning and modeling to next EEWG meeting.
- 430.2x Order is not intended to be prescriptive. Through performance agreements with regional offices, priorities are set for what is best at each site. The Order helps operations offices to get certain items into contracts.
- Victor - Need a comprehensive way to establish an energy baseline.
- Ralph - If you are going to pursue LEED, you need to join forces with people that are knowledgeable about areas you are not.
- Mike Holda - Will bring up with EFCOG the LEED rating based on ORNL's model.

Friday, January 11, 2002

Status of 430.2x - Will Lintner

- Lintner - Input on the draft Order was solicited from the field one year ago. Another comment resolution cycle was done with all major programs. Due to a new Administration, many people had to be educated about the Order. The Order was given to the Deputy Secretary for signature in December. His concern was the cost involved, and a cost breakdown and savings estimates were subsequently provided to him. A meeting with the Deputy Secretary is pending for January. The Order contains 17 energy management strategies. Once it is signed, DOE would like to set up a group to review implementation issues.

- John - Is a report required for new construction? Answer: yes, it takes the place of the energy conservation report. There is no set format for the report, and certain principles to follow will be attached to the Order.
- 10 CFR 436 - lays out an energy management program and includes life-cycle costing. 435 covers Federal residential buildings; 434 covers Federal residential and commercial buildings.
- Ralph - Input from the field and DOE offices should be solicited at the CDR phase.
- There have been changes to the utility portion of the Order; program offices wanted it to be more of a partnership.
- Will is going to e-mail the Order to EEWG participants when it is finalized.
- Beth - To show leadership, we would like to get a directive from the DOE Secretary about green power purchasing, specifically one that requires that 5 percent of power purchases by DOE to be green power by 2005. Questions that remain include: what is the best way to purchase green power/tags? How do we make DOE a leader in this area? Can we use distributed generation as credits? How do we make hydro part of the mix?
- Ralph - Green tags were purchased recently for the DOE Pollution Prevention conference. Cost was approximately \$2500. Beth supports this idea for FEMP's Energy 2002 conference. Jane will bring up the issue with the planning committee, and Ralph will send details to Jane.

Berkeley Fume Hood - Geoffrey Bell

A PowerPoint and video presentation was given by Geoffrey Bell, outlining the status of this new technology. A copy of the presentation is available under separate cover by request. Please contact Jane McGuire at (703) 921-1719 for a copy of the presentation.

- Berkeley is moving towards the licensing phase of the technology, and has six commercial partners.
- While the hood is primarily a safety device, it should change energy consumption dramatically, by cutting air flow in half. To date, the project has not had much support from DOE.
- The operating costs of \$4/cubic foot were determined at Stanford. Assumptions are available from Geoffrey Bell if others want to do an estimate for their own facility.
- The environmental benefits need to be reviewed, as the hood cuts chemical use because of the reduced volatility, less chemical use, and reduced emissions. There is a potential for less permitting due to this.

Status of New 10CFR 435 - Mohammed Khan

- Through 435, it is hoped to make new efficiency standards more stringent. Agencies are currently providing information in order to make this a more user-friendly rule and easier to implement.
- FedCom2 will hopefully be available October/November 2002. Guidance for FedCom is in the works.
- LEED rating is based on ASHRAE 99.
- FedCom1 is based on ASHRAE 88 plus addendums.
- Fed Com2 is based on ASHRAE 99.
- 435 applies to new buildings and major new renovations, with “major” being defined by square footage. Applies to non-residential and non-laboratory facilities, with the exception of HVAC, lighting, and building envelope.

FEMP Update - Beth Shearer, Vic Petrolati

- New legislation - Expect an energy bill in the Spring. Possible new energy reduction goals might include:
 - ❖ 40 percent reduction by 2020 (House)
 - ❖ 2 percent reduction per year, against 1990 baseline, up to 2010 (Senate)
- If this energy bill is passed, 430.2x would have to be amended.
- A likely development will be a Federal Energy Bank. Congress would authorize funds to loan to Federal agencies to complete energy projects. Funds could be used in lieu of ESPCs if not economically viable, or to buy-down an existing ESPC. Could possibly allow water-related projects and new construction replacement buildings. Treasury would be doing the actual lending, and FEMP will review the proposals. The Bank would be useful for riskier projects that ESCOs traditionally do not like to fund, or for smaller projects that ESCOs aren't interested in.
- New EERE Mission & Vision - Beth handed out copies of EERE's new Mission and Vision, as written by David Garman. Attachment D of this document summarizes these items. In addition, Garman has drafted his own personal Priorities for DOE/EERE. Seven of the expected nine are listed below:
 - ❖ Dramatically Reduce or Even End Dependence on Foreign Oil
 - ❖ Reduce Burden of Energy Prices on Disadvantaged
 - ❖ Increase Viability and Deployment of Renewable Energy

- ❖ Increase the Efficiency/Reduce the Energy Intensity of Industry
 - ❖ Create the New Domestic Bioindustry
 - ❖ Lead by Example Through Government's Own Actions
 - ❖ Change the Way that EERE Does Business
- Communication within DOE needs to be improved, and FEMP needs to have better outreach to the other Assistant Secretaries in DOE.
 - Vic - The FY 2002 budget has allocated a total of \$1.5 million on energy projects; \$1 million of this is for retrofit projects, and \$0.5 million is targeted at model programs. Information on specific FY 2002 projects should be available by mid-February.
 - The FY2003 budget has \$3.0 million earmarked for energy management projects.
 - A new initiative is under way to show DOE as a model for other agencies. To highlight model programs, two pilot tests are being done at DOE HQ and at NREL. Using 125 Energy Software, the sites are being assessed from a holistic viewpoint. At the end of these pilots, participants will determine whether the process is worthwhile and should be used at other sites. Vic will provide a workshop on the 125 Energy Software after the initial pilot tests are completed. Also looking for volunteers for more pilot projects. Model programs may include ESPCs; auditing; recommissioning; and, excess facilities
 - A policy is being drafted for using utility contracts for energy services.
 - DOE site UESC projects are being reviewed at DOE/HQ.

Administrative Details

- Next EEWG Meeting - June 6, 2002, Palm Springs, CA; in conjunction with Energy 2002. Details to follow.
- EEWG Web Site: www.efcog.org; click on EEWG.
- EFCOG Annual Directors Meeting - May 29-30, 2002, Crystal City Marriott, VA.
- EFCOG Sponsoring Director - Don Pearman, Bechtel
- EFCOG Secretary - Barbara Pierre, bpierre@cox.net (**Note: this is a NEW e-mail**).
- Mike Holda will be soliciting EEWG members for input to the Annual Report.
- Agenda items for next EEWG meeting:
 - ❖ Building Recommissioning (PNNL, Mike Moran)
 - ❖ ESPC in Excess Facilities (Steve Dunnivant & Cheryl O'Brien)

- ❖ Sustainable Design (Cheryl O'Brien/Mike Moran)
- ❖ PNNL Energy Management Program (Mike Moran)
- ❖ Peer-to-Peer Workshop Report (Vic Petrolati & Mike Moran)
- ❖ Discussion about possible name change for EEWG (to include sustainable design and water resource efficiency issues).
- ❖ Discuss constraints for Energy Star label at DOE sites.
- ❖ EEWG coordination with other Working Groups.

Action Items

- Mike H. will contact ORNL to champion sustainable design at Lab Director's EFCOG meeting.
- Invite representatives of Pollution Prevention and Engineering Standards Working Groups to next EEWG meeting.
- Identify constraints for Energy Star labels at DOE sites.
- Mike H. to raise LEED standard to Lab Directors.
- Ralph to provide budget estimates for commissioning and modeling.
- Kath Williams to provide further commissioning information.

Attachment A : Attendees/Contact Information

Name	Title	Organization	Address	Phone/Fax	E-Mail
Mike Moran	Manager, Facility Infrastructure	Battelle PNNL	P.O. Box 999 Richland, WA	509-372-2680	mike.j.moran@pnl.gov
Marv Olson	Chief Engineer	Battelle PNNL	P.O. Box 999 Richland, WA 94352	509-376-2198	marv.olson@pnl.gov
Victor Neuman	Director	Tek-Air	303 A St., Suite 301 San Diego, CA 92101	619-865-8235 619-238-9661	v.neuman@tek-air.com
Rory S. Simpson	Contracting Officer	DOE - Chicago Operations Office	9800 Cass Ave. Argonne, IL 60439	630-252-2127	rory.simpson@ca.doe.gov
Dale L. Keairns	Consulting Engineer	SAIC	P.O. Box 18689 Pittsburgh, PA 15236	412-386-5826 412-386-4516	dale.keairns@sa.netl.doe.gov
John Yates	Director of Lab Infrastructure	U.S. DOE Office of Science	Germantown, MD	301-903-8435	john.yates@science.doe.gov
Ralph Wrons	Facilities Energy Manager	Sandia National Laboratories	MS0933, P.O. Box 5800, Albuquerque, NM 87185	505-844-0601 505-844-5480	rjwrons@sandia.gov
Otto Van Geet		NREL	1617 Cole Blvd. Golden, CO 80401	303-384-7364	otto_vangeet@nrel.gov
Mike MacDonald	Staff Researcher	ORNL	P.O. Box 2008 Oak Ridge, TN 37831	865-574-5187	macdonaldjm@ornl.gov
Kath Williams	Vice Chair	U.S. Green Building Council	2310 Spring Creek Bozeman, MT 59715	406-586-3175	williams@theglobal.net
Cheryl O'Brien	Department Manager	INEEL	P.O. Box 1625, MS 3760 Idaho Falls, ID 83415	208-526-4105 208-526-4017	cco@inel.gov
Luda Fieguth	Energy Manager	Stanford Linear Accelerator Center	2375 Sand Hill Rd. Menlo Park, CA 94025	650-926-3422	luda@slac.stanford.edu
Camelia Ilarslan	PF	LBNL	901 D St., SW Washington, DC	202-646-7872	cilarslan@lbl.gov

Name	Title	Organization	Address	Phone/Fax	E-Mail
Carter Ward	Project Facilitator		11201 Wilshire Ave. Albuquerque, NM 87122	505-856-9259	cward@eisresource.com
John Shaffer	Site Operations Director	NREL	1607 Cole Blvd. Golden, CO 80503	303-384-7373	john_shaffer@nrel.gov
Anna Hoenmans	Engineer, Site Operations	NREL	1617 Cole Blvd. Golden, CO 80401	303-384-7432	anna_hoenmans@nrel.gov
James L. Hedin	Senior Engineer/ Energy Manager	WIPP	P.O. Box 2078 Carlsbad, NM 88220	505-234-8411	james.hedin@wipp.ws
Liz Exter	FEMP Project Facilitator	LBNL	1 Cyclotron Rd. MS 90-3111	510-486-6179	eaexter@lbl.gov
Dale Sartor	A-Team	LBNL	1 Cyclotron Rd. MS 90-3111	510-486-5988	dasartor@lbl.gov
Bill Tschudi	A-Team	LBNL	1 Cyclotron Rd. MS 90-3111	510-495-2417	wftschudi@lbl.gov
Mohammed Khan	DOE HQ			202-586-7892	mohammed.khan@ee.doe.gov
Vic Petrolati		FEMP	1000 Independence Ave., SW, EE-90 Washington, DC 20585	202-586-4549 202-586-3000	victor.petrolati@hq.doe.gov
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Arnie Edelman		U.S. DOE - Office of Science	SC HQ, SC-83	301-903-5145	arnold.edelman@science.doe.gov
Jane McGuire	Senior Analyst	McNeil Technologies	6564 Loisdale Ct., # 800 Springfield, VA 22150	703-921-1719 703-921-1610	jmcguire@mcneiltech.com
Mike Holda		LBNL	Tracy, CA	209-835-8150	holda@mindspring.com

Name	Title	Organization	Address	Phone/Fax	E-Mail
Dave Hunt	Program Manager	PNNL	901 D St., SW, Suite 900 Washington, DC 20024	202-646-7867 202-646-7825	dave.hunt@pnl.gov
Patricia Coffin	Program Analyst	DOE/NNSA	Germantown, MD	301-903-5564	patricia.coffin@nnsa.doe.gov
Beth Shearer	Director	FEMP	1000 Independence Ave., SW, EE-90 Washington, DC 20585	202-586-5772 202-586-3000	elizabeth.sherarer@ee.doe.gov
Geoffrey Bell		LBNL		510-486-4626 510-486-5394	gcbell@lbl.gov

Attachment B: Available Documents

- Available FEMP Design Assistance and Technical Assistance Call for Projects
- “More Light, Less Cost: Lighting Retrofit Programs at Sandia”
- DOE Office of Science, Pollution Prevention Strategic Approaches, 1/9/02
- Sandia MESA Project Design Intent

All of the above documents are available by contacting Jane McGuire, McNeil Technologies, at (703) 921-1719, or e-mail: jmcguire@mcneiltech.com.

- Video of a broadcast that presented all 2001 changes to the 1999 ASHRAE Energy Standard – Available for \$15. Call 800-270-CODE, Option 1.

Attachment C: Meeting Agenda

Thursday, January 10 – 4-6 pm

Hotel Washington - Ballroom

- Welcome/Introductions Mike Holda - LBNL
- LEED Program Discussion Kath Williams - US Green Buildings Council
- Draft LEED for Labs
 - What Does it Mean for DOE Sites? Victor Neuman - Tek-Air Systems
- Requirement for LEED Rating/Sustainable Design Standard for New DOE Buildings Otto Van Geet - NREL

Friday, January 11 – 8 am - 12:30 pm

Hotel Washington - Capital Room

- 8:00 - 8:15 Welcome/Agenda Review Mike Holda - LBNL
- 8:15 - 8:30 Status of 430.2x Vic Petrolati - FEMP
Will Lintner - FEMP
- 8:30 - 9:00 Berkeley Fume Hood Geoffrey Bell - LBNL
- 9:00 - 9:30 Status of New 10CFR 435 with ASHRAE 90.1 - 1999 as Basis Mohammed Khan - DOE/HQ
- 9:30 - 10:00 FEMP HQ Update Beth Shearer - FEMP Director
Vic Petrolati - FEMP
- 10:00 - 10:15 Break
- 10:15 - 11:15 Best Practices Roundtable
 - ❖ Performance Metrics Ralph Wrons - SNL
 - ❖ Recommissioning James Hedin - WIPP
 - ❖ Group Relamping Ralph Wrons - SNL
 - ❖ Inventory Management/Education James Hedin - WIPP
- 11:15 - 11:30 DOE/HQ Program Infrastructure Budgets/Coordination with Energy Managers John Yates - DOE/HQ
- 11:30 - 12:15 EEWG Program
 - ❖ Direction & Support Ralph Wrons - SNL
 - ❖ Focus for Next Year James Hedin - WIPP
- 12:15 - 12:30 Action Items/Next Meeting/Adjourn Mike Holda - LBNL

Attachment D: EERE Vision & Mission

Our Vision

A prosperous future where energy is clean, abundant, reliable and affordable.

Our Mission

Strengthen America's energy security, environmental quality and economic vitality through public-private partnerships that:

- Promote energy efficiency and productivity;
- Bring clean, reliable and affordable energy technologies to the marketplace; and
- Make a difference in the everyday lives of Americans by enhancing their energy choices and their quality of life.

Core Values

In EERE, our core values are reflected in our team culture. In the EERE culture, people and performance are valued. The culture begins and ends with people. We have chosen to outline our core values using the "PEOPLE" acronym shown below. We shall discuss each of the core values individually.

Pride and Passion – Our team mission is our aim. If you are not willing to tell everyone you know about the mission – then you may be in the wrong field. Whether you clean, organize, deliver, prepare or produce – you should be ready to tell anyone who will listen how well your team can do it. Additionally, you should have three reasons why your team is the best in the business – and improving.

Excellence – Our products and services make our reputation. As a team, we should strive to deliver the finest product and highest quality service - the first time, every time. If we consistently demonstrate these attributes in our works and in our words and we are continuously improving our quality, then we will earn a reputation for excellence.

Optimism – "*We can do it !!*" Does the team believe its goals? We must create a sense within the team (and with our customers) that the goals are based on solid analysis and realistic capabilities. When we engender confidence that the goal is *possible*, the team can focus on hitting the milestones that lead to success. It is essential that the team *believes* in itself and that they keep their "eye on the prize."

Precision – Does the team do it right – or correctly? Words and numbers can have very rich meanings – so can actions. We should push ourselves to say and do *exactly* what we mean. A document should not be released until facts and figures, spelling, grammar and format are exactly as desired. The choice to communicate by phone, fax, e-mail, or in-person should be a conscious and thoughtful decision. What is your message? Send it *exactly*.

Leadership – Managers understand that they are responsible for ensuring the safety of our employees and the working environment of those employees. They understand that they should instill respect for, and the observation of, the highest standards of excellence. Managers build a culture where merit determines promotion and hiring, and diversity is viewed as a key to recruiting and retaining the best people.

Education – As a team we want to strive for a learning environment. We want to continue to learn – from our customers, our suppliers, the world, and each other. Additionally, we want to share our product information with the world. An informed customer can make better choices – and help you achieve your mission.