

**ENERGY EFFICIENCY WORKING GROUP (EEWG)
ANNUAL REPORT TO THE DIRECTORS
(FY 2005)**

Introduction

EEWG is a working committee of energy management professionals from various DOE/HQ, field, operations and support offices, national laboratories and M&O contractors throughout the DOE complex.

Our goal is to promote excellence in energy management through the active exchange of management and technical information, timely and effective communications, and by facilitating the application of information and techniques.

Key vehicles we use to further this goal are periodic working meetings. We normally conduct working meetings once or twice a year lasting 1-2 days. We encourage DOE/HQ and local DOE office attendance at each working group meeting. We do not require EFCOG membership to attend our working meetings. Interested energy management professionals from other federal agencies and organizations are welcome and encouraged to participate. There is no fee for meeting participants. Working meetings are normally scheduled to coincide with other energy related conferences and technical seminars. This strategy leverages the limited travel budgets of members and participants.

Membership

Primary sponsor:

DOE's Federal Energy Management Program (FEMP)
Rick Khan, FEMP Program Manager

Executive Sponsor: Mike Schlender, PNNL

EEWG Chair: Mike Moran, PNNL

EEWG Steering Committee:

Tom Brand, DOE/OAK

Ernie Fossum, INL

James Hedin, WIPP

Blair Horst, LLNL

Mike Holda, LBNL

Mike Moran, PNNL

Cheryl O'Brien, INL

Vic Petrolati, DOE's Departmental Energy Management

Wilson Reynolds, Energy Management Engineering

Dale Sartor, LBNL

Otto Van Geet, NREL

Carter Ward, Energy Information Systems

Our membership includes over 50 members and regular participants representing national laboratories, M&O contractors, energy management firms, DOE/HQ, field, operations and support offices.

Objectives and Achievements

Over the past year the primary focus of the working group has been on issues associated with the development and implementation of sustainable and energy efficient design and best practices at DOE facilities as well as offering our group support to DOE in interpretation and implementation of the recently signed energy bill.

Some of the goals of the working group have been to support DOE/HQ and site energy coordinators as follows:

1. Increase the number of DOE sites that participate in departmental energy management program funding initiatives and have active energy management programs
2. Continue implementation of DOE Order 430.2a including:
 - a. Implementing water efficiency programs, plans and best management practices
 - b. Selection of DOE/EPA energy star products
 - c. Strategies for reducing energy consumption in Laboratory and Industrial Facilities
 - d. Increased use of off-grid generation systems including renewable energy systems
3. Develop and/or work to establish Best Management Practices through the Departmental Model Programs initiative including:
 - Re-commissioning (for both new and current facilities); Sustainable Design for new facilities
 - Acquiring Energy Star Labels for DOE office buildings
 - Expanding the use of private sector financing for DOE facilities
 - Water Management Plans and accomplishment of best practices
 - Expanding the purchase of Energy Star Products
 - Replacing chillers using ozone depleting substances

These model programs provide a springboard for the introduction of best practices in energy management at DOE facilities. Presentations featuring the progress and results of these and other topics were included at the August 2005 EEWG meeting in Long Beach, Ca.

4. Integrate EEWG with other EFCOG Working Groups. The Chairs of the EFCOG Maintenance, Engineering Standards and ISM Environmental subgroup have shared information with the EEWG on related activities/initiatives and will continue to identify opportunities that would be of benefit to each Working Group and EFCOG members. The intent is to continue to exchange information, share common goals, and leverage synergies between the working groups and their members.

Summary of other Energy Efficiency Working Group (EEWG) activities during FY2005:

The EEWG held three teleconferences in FY2005 (February, May, and October). All teleconferences included: DOE HQ updates, EFCOG updates, status of subgroup progress regarding sustainable design work, energy topics/hot items and open forum membership roundtables. Participation was solid for each call, with up to 35 participants, and never fewer than 26.

The annual EEWG meeting was held August 18, 2005 in conjunction with the Energy 2005 Conference in Long Beach, Ca. The meeting attendance was strong with 35 all day participants

and additional visitors/vendors throughout the day. The highlight was that the attendance this year was extremely diverse. All National Labs (except BNL) were represented and other agencies (NASA, US Navy, Pantex, Ames Lab, EG&G, etc.) were also present. The agenda included Federal Energy Management Program HQ/Update; re-commissioning efforts and ALERT audits at INL; retro-commissioning at ORNL, SNL and SRS; water audits at the SRS; a Labs21 overview was presented by LBNL; a sustainable design interest group progress report; and the US Navy presented an overview of their energy program. The meeting agenda and slide presentations are posted on the EFCOG/EEWG website.

The EEWG worked on the development of two best practices during FY05; retro-commissioning building systems (INL) and water efficiency (PNNL). Both Best Practices will be posted on the web page when completed in early FY06.

The EEWG Sustainable Interest sub group had a leadership change, with Kim Fowler (PNNL) assuming the lead role from Cheryl O'Brien (INL). Cheryl did a great job with establishing the sub group and leading the first EEWG Best Practice being published in 2004. She has taken on a new role at INL and will be missed. Kim is coming into her new role with much energy and will be a valuable addition to our group.

We are also utilizing the EFCOG/EEWG website to post applicable DOE directives, publications, working group meeting information, and energy related conferences and technical seminars.

FY2006 Plans

The EEWG will continue to focus on:

- Publishing two Best Management Practices in the energy and water conservation areas
- Selection of topics and speakers to present at the annual FY2006 EEWG meeting
- Support DOE in implementation of the energy bill
- Provide suggestions to revisions of DOE 430.2a.

- The EEWG will have scheduled teleconference meetings in December (05?), March, and June during FY2006.

- Our next EFCOG/EEWG meeting is scheduled for August at the end of Energy 2006 in Chicago. The agenda for the meeting will include:
 - Presentation by a related EFCOG Working Group (TBD) e.g., Maintenance, Engineering Standards, or ISM Environmental Subgroup
 - DOE FEMP/HQ update
 - Presentation on EEWG FY2006 BMP publications
 - Presentation/display from a vendor on new technologies in the energy efficiency field
 - Round table discussion- success stories, issues, lessons learned
 - DOE Order 430.2a site implementation progress update: noteworthy accomplishments required by the order including:
 1. Water efficiency programs, plans and best management practices
 2. DOE/EPA Energy Star Product selection

3. Laboratory/Industrial Facilities Energy reduction strategies
4. Increased use of off-grid generation/renewables

- Travel restrictions are expected to continue to impact participation in working meetings. An attempt to video conference/tape future working meetings will be used when practical.
- In FY 2006 we will continue to assist DOE FEMP with marketing and implementation of alternative financing mechanisms for energy efficiency and infrastructure improvements projects at DOE sites.
- We will continue to interact with representatives from other EFCOG Working Groups to exchange information, share common goals, and to take advantage of synergies between the working groups and their members
- EEWG will also continue to take a comprehensive customer focused approach responsive to FEMP's vision to assist DOE and federal agency sites increase energy efficiency, conserve water, promote renewable energy technology use and manage energy costs.
- EEWG will continue to assist DOE's Federal Energy Management Program with timely and effective communication between sites, field and operations offices and HQ.
- We will also continue to increase communication and participation of energy management professionals from DOE, other federal agencies and other appropriate EFCOG working groups at workshops to extend the pool of knowledge available to support DOE's energy management initiatives.

Recommendations

Recommend that the Energy Efficiency Working Group (EEWG) be continued.