

**ENERGY EFFICIENCY WORKING GROUP(EEWG)
CY 99 ANNUAL REPORT TO THE DIRECTORS
February 18, 2000**

Purpose

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 communication, and facilitate the application of information and techniques.

A key vehicle we use to further this goal are periodic workshops. We normally conduct workshops on a quarterly basis lasting 1-2 days. We encourage DOE/HQ and local DOE office attendance at each workshop. We don't require EFCOG membership to attend our workshops. Interested energy management professionals from other federal agencies and organizations are welcome to participate. There is no fee for workshop participants. Workshops 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)

Elizabeth Shearer, FEMP Director

Vic Petrolati, DOE's Energy Management Team Leader

Executive Sponsor: John Lee, WIPP

EEWG Chairman: Mike Holda, LBNL

EEWG Steering Committee:

- John Hail, PNNL
- James Hedin, WIPP
- Mike Ginder Allied Signal Kansas City Plant
- Wilson Reynolds, Energy Management Engineering
- Carter Ward, Energy Information Systems
- Vic Petrolati, DOE's Energy Management Team Leader
- Ralph Wrons, Sandia National Labs

Membership: Over 50 members and regular participants representing national laboratories, M&O contractors, energy management firms, DOE/HQ, field, operations and support offices.

Status

The primary funding source(direct appropriations) for energy efficiency activities at DOE sites have been eliminated resulting in an accelerating loss of talented energy efficiency professionals at sites and operations offices. Additionally alternative options for financing energy efficiency project are being pursued.

The top priority for FEMP and EEWG continues to be assisting DOE and other federal agencies in securing private sector financing to fund energy efficiency and infrastructure improvement projects at their facilities using innovative financing mechanisms.

This initiative supports FEMP's overall goal of helping agencies increase energy efficiency, conserve water, promote renewable energy technology use and manage energy costs.

FEMP's primary alternative financing procurement vehicles are Super Energy Savings Performance Contracts (ESPC's). These regional indefinite delivery indefinite quantity (IDIQ) contracts cover each of the six DOE geographical regions, with \$750 million contracting capacity each (\$4.5 billion total). Any federal agency can issue delivery order projects under these IDIQ contracts. This procurement vehicle provides a mechanism for sites to increase the energy efficiency of their facilities, improve infrastructure, while reducing their energy and related operations and maintenance costs.

Energy Savings Performance Contracting (ESPC) is a contracting method whereby a contractor incurs the upfront cost of implementing energy cost savings and infrastructure improvement projects, in exchange for repayment through energy and related operations and maintenance cost savings resulting from implementation of the project.

EEWG is providing support to the Super ESPC initiative by utilizing the pool of the energy efficiency expertise that exists at the national laboratories to assist DOE and other federal agency sites to issue delivery order projects utilizing this innovative procurement vehicle.

The following is a list DOE sites which have developed or are in the process of developing Energy Savings Performance Contracts that have benefited as a result of information and lessons learned shared through EEWG over the past year:

- Savannah River Site
- Waste Isolation Pilot Plant
- Kansas City Plant
- Idaho National Engineering and Environmental Laboratory

- Argonne National Laboratory
- Oak Ridge National Laboratory
- Pantex
- Los Alamos National Laboratory
- Albuquerque Operations Office
- Y-12
- Nevada Operations Office

Over \$5 million annually will be saved in energy and related operations and maintenance costs through the implementation of ESPC projects at these sites. According to DOE, EEWG has been instrumental in accelerating the process, directly associated with the number of ESPC projects within the Department of Energy and a substantial portion of the savings associated with these efforts is directly attributable to EEWG.

Summary of other Energy Efficiency Working Group (EEWG) activities during CY1999:

- Conducted an EEWG workshop in conjunction with GLOBALCON Convention and Exposition sponsored by the Association of Energy Engineers Denver, CO April 5-6, 1999. The workshop included a joint session with DOE's energy coordinators providing a forum of open discussions between DOE and site M&O contractor energy managers. Agenda items included ESPC legislation update, performance agreements, fuel cell applications, and integrated chiller retrofits. Over 35 energy efficiency professionals from DOE, US Navy, energy management firms and the National Laboratories participated in the workshop.
- Conducted an EEWG workshop in conjunction with the DOE/FEMP sponsored Energy '99 Exposition in Orlando, FL August 25-26,1999. This was a joint workshop with FEMP's Super ESPC Project Facilitators discussing common issues associated with improving the process of implementing alternatively financed projects at DOE sites. The workshop included a panel discussion with representatives from Energy Services companies currently developing ESPC projects at DOE site's to provide feedback on what's working, what's not, and opportunities for improvement.
- The panel included representatives from Duke Solutions, CES Way, Honeywell, EUA Cogenics, Johnson Controls, and Noresco. This forum resulted in a candid discussion identifying issues, barriers and potential opportunities for improving the process of implementing alternatively financed projects at DOE sites. The following day was a working session with DOE/HQ to address issues raised by the ESCO's. As a result of the discussion, clarification was provided by HQ staff on guidance for DOE ESPC projects. A draft guidance document "Expectations

for Alternative Financed projects at DOE sites” for use at project kickoff meetings was also generated.

- Participated in the Laboratories of the 21st Century Workshop, September 8-10, 1995-7, 1998 in Cambridge, MA. The goal was to continue to develop a broader federal agency and private sector information exchange and forum for laboratory facility energy managers.
- Conducted an EEWG workshop in conjunction with DOE’s Annual Pollution Prevention Conference November 15, 1999 in Albuquerque, NM. Approximately 40 people participated in the workshop. New FEMP Director, Beth Shearer participated in the session and communicated her vision of FEMP to provide comprehensive, customer focused approach to providing assistance to federal agencies in saving energy saving water, promoting renewable energy technologies and managing energy costs.
- EEWG is providing assistance to DOE/HQ in resolving an issue concerning DOE CFO and OMB review of ESPC projects over \$750K requiring congressional notification.

CY2000 plans:

Our next EEWG workshop is tentatively scheduled for April 17-18, 2000 in New Orleans, LA in conjunction with the Federal Utility Partnership Working Group meeting sponsored by FEMP and The Edison Electric Institute. Tentative agenda items include: Utility Energy Services Contracts(UESC), energy supply-side options, electric utility deregulation and restructuring.

Travel restrictions are expected to impact participation in workshops. We will attempt to video conference/tape future workshop sessions when practical.

We will also conduct an EEWG workshop Aug.21-23,1999 in conjunction with Energy 2000 Exposition and Workshop in Pittsburgh, PA.

Also in CY 2000 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.

EEWG will also 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 other federal agencies at workshops to extend the pool of knowledge available to support DOE’s energy management initiatives.

Lessons Learned

Some feedback from EEWG participants on CY1999 activities:

” EEWG has provided a valuable forum, especially to discuss resolve issues associated with ESPC projects at DOE sites” - DOE Denver Regional Office.

“I have had limited involvement with the EEWG except to attend one meeting and get your support on our ESPC project here at the NTS.I was new to the process and totally unfamiliar with ESPC concepts. but totally unfamiliar with the new techniques of creative financing through the ESPC process. At the meeting I was able to get a lot of information from other sites that were in the process and see other points of view which changed my thinking. Since that point, we have moved ahead and selected an ESCO and started the process I believe the issues associated with the ESPC process were discussed, pro and con, giving our organization a better picture of what to expect and what to be careful about, which has saved a lot of time and money. There are still a lot of issues to settle with ESPC's as we see more results of various projects and this collective group information will be valuable feedback in this process.” - Bechtal Nevada Project Manager

“ ... the group continues to help facilitate ESPC efforts. Our program is primarily ESPC right now, and we gain benefit from keeping in touch with what everyone else is doing, learning, not doing, etc. We can't put a savings or cost avoidance figure on it, but here are a couple of things that we benefited from last year, or that others hopefully did.

...based on attending, we were later provided with a draft ESPC financial issues document from ORNL. This ended up being a very useful document for SRS. The DOE-HQ CFO directed the DOE-SR CFO to prepare a document addressing the same types of issues. We provided the SRS financial team (WSRC and DOE) with the ORNL document and it was used as the skeleton for our document. While these documents are similar, ours does include some site-specific issues. Also, it resulted in good communication on ESPC issues between WSRC and DOE..... The bottom line is that the EEWG meeting attendance resulted in the ORNL document which was a great benefit to us here. We have been told that the DOE-HQ CFO wants to use the SRS document as a guide for other sites.

In closing, the theme of "information exchange" seems to be the award winner for us. While we can't hang a dollar figure on it, there has been great benefit in being able to communicate issues and needs with the other sites.

...and how the group adds some "consistency" to all the DOE ESPC efforts.”

- Westinghouse Savannah River Site

“My limited participation in the EEWG group has allowed me to gain valuable insight on the progress and problems other DOE sights are having in initiating Super ESPC contracts. Because DOE headquarters is an integral part of this process, these meeting have been valuable informing local DOE and contractor offices.

EEWG meetings have also allowed a dialogue with Headquarter on if Super ESPC or other tools will be needed in proceeding with energy conservation activities in DOE.

Energy conservation within the DOE system presents barriers, ...(EEWG) offer new perspectives on how to proceed through them.

I estimate that the local avoided cost saved by attending is approximately \$15,000. The cost of attending is estimated at \$1,000” - Bechtel Nevada Energy Engineer

Recommendations

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

No subgroups are recommended to be formed at this time.