

**EFCOG Energy Efficiency Working Group
Measurement & Validation of ESPCs and Metering Teleconference Minutes
April 21, 2008**

This teleconference was held due to interest around metering of utilities and measurement and validation efforts as part of ESPCs.

Participants from a number of sites and headquarters were represented on the call.

A question was posed as to the estimation of stipulated savings and their over- or under-conservatism. PNNL stated that they experienced actual savings better than stipulated estimates. John Stewart of SLAC asked what measurement process was used. PNNL answered that building metering was used.

A question was posed concerning the status of the sites in the ESPC process:

NTS – DES stage

NREL – DES stage

PNNL – DES starts in May

ORNL – DES stage

LLNL – DES complete. The DES contains two ECMs, EMCS in 25 buildings with measured savings and metering at 100 locations with stipulated savings (2.5% for new meters and 1.5% for tie-ins).

SLA – IP presentation

AMES – IP reviewed with DES expected next week

LBNL – DES phase

SNL – IP presentation May 31.

LLNL stated that they were being conservative on energy savings estimates as part of the ESPC. They expect maintenance savings on the EMCS project. Utility costs are allocated by GSF.

There was substantial discussion around the options for measuring energy savings and the utilization of the different options to calculate savings. Option A requires some actual data to support assumptions of estimation. Data may not be available so ESCO may propose to use Option D and modeling.

LLNL EMCS project discussion: Measuring effectiveness and savings of the control system depends on maintenance of HVAC systems and auto setback. ESCO concerned with O&M of HVAC systems. ORNL recommended ESCO provide O&M requirements for internal department to execute and follow up quarterly to make sure proper O&M is occurring. SLAC, John Stewart, discussed the variability of M&V over time and acknowledged that change to building operations could be a potential baseline change issue.

ORNL estimated a site energy reduction of 30% associated with a proposed \$69M ESPC, which would include a new biomass addition to the steam plant.

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They also estimated a 2% reduction per year with on-site funding of energy projects.

Kasey Curtis of FEMP stated that there is some variability in the data but from the 2003 baseline to date they estimate a 15% reduction in energy usage across the complex (8% from previous efforts and 7% related to IP estimates). PNNL estimates a 10% reduction utilizing the current ESPC.

A concern was expressed that some ESCOs may be utilizing a phased approach (Phase 1, Phase 2, etc.) and only scoping the best pay-back options as part of their first proposals which may leave longer payback projects, renewable energy projects, and metering as non-viable in future phases thus rendering energy goals unattainable for some sites.

In closing, it was suggested that lessons learned from IP Board Reviews be distributed to sites so that these could be incorporated in future contracts.

Kasey expects Executive Plan guidance (new requirement of DOE Order 430.2B) to be drafted by end of week and issued by end of May.

Karin (LLNL Site Office) stated that an ESPC lessons learned panel would be held June 17.

David McAndrew is the POC for the GovEnergy conference in Phoenix Aug. 3- 6. The next scheduled EEWG meeting will be held following the GovEnergy Conference on Aug. 7th.