

**Annual Performance Review
Implementation of
Act 1494 of 2009**

**By the
Arkansas Energy Office
Arkansas Economic Development Commission**

According to Act 1494 of 2009 (Act), "... the Arkansas Energy Office and each institution of higher education shall report to the co-chairs of the Legislative Council its:

- (1) Findings under subsection (a) of this section; and
- (2) Recommended changes, if any."

According to subsection (a) Performance Review — A report is required which includes the following:

- (a) The Arkansas Energy Office (AEO) of the Arkansas Economic Development Commission, to the extent funds are available, shall conduct a performance review of the Sustainable Energy-Efficient Buildings Program that includes at least the following:
 - (1) An identification of the costs of implementing energy efficient and water-efficient building standards in the design and construction of a major facility or major renovation;
 - (2) An identification of the operating savings attributable to the implementation of energy-efficient and water-efficient building standards, including without limitation savings in energy, water, utility, and maintenance costs;
 - (3) An identification of any impact on employee productivity from the application of the standards under this subchapter; and
 - (4) An evaluation of the effectiveness of the application of the standards under this subchapter.

The following report is submitted on the first year activities related to the implementation of Act 1494 of 2009:

Implementation of the Act has required a number of activities in coordination with Higher Education. Below is a chronology of the implementation of the Act :

The following events and actions have occurred including passage of the Act:

- 4/14/2009 Act 1494 was enacted.
- 7/28/2009 The first draft of the rules was written for the Act.
- 8/16/2010 Technical review of the rules for the Act began.
- 11/15/2010 Final rules for the Act submitted to the Legislative Council Rules and Regulations subcommittee for review.
- 12/02/2010 Rules for the Act were successfully reviewed by the Legislative Council.
- 01/01/2010 Rules became effective

Findings related to:

- 1) **An identification of the costs of implementing energy efficient and water-efficient building standards in the design and construction of a major facility or major renovation-**

The Arkansas Energy Office (AEO) used one person to begin to implement the Act, with the rest of the staff contributing as needed. The main costs involved in implementing the Act were:

- a) The coordination of the implementation of the Act and EO with the Governor's Working Group. (EO is Executive Order 09-07 that was signed by the Governor to encourage the reduction of energy consumption by state agencies and the environmental impact of state agency operations.)
- b) The training of State Agencies in the use of Energy Star Portfolio Manager in order to track energy usage and costs
- c) Development of the rules to implement the Act for all state agencies and higher education.
- d) Procurement of a contract with a third party to verify and set the baseline energy use for each agency.

The costs for the AEO manpower were approximately \$65, 000 and funded through ARRA. The contract to verify and set the baseline will be about \$1 million, using ARRA funds. (See discussion under 4(b)... Baseline Development using EPA's Energy Star Portfolio Manager.)

Recommendations:

- 1) Continued funding the position to coordinate the work required by the Act once ARRA funds are exhausted.

Findings related to -

- 2) **An identification of the operating savings attributable to the implementation of energy-efficient and water-efficient building standards, including without limitation savings in energy, water, utility, and maintenance costs.**

Finding: Implementation of the act will start January 1, 2011. The rules for the use of the new standard, ASHRAE 90.1 of 2007 is in place. AEO will be monitoring all projects and working with the Arkansas Building Authority (ABA) to achieve compliance with the new directive.

Findings related to –

- 3) **An identification of any impact on employee productivity from the application of these standards under this subchapter;**

Finding: The AEO will explore metrics available to determine the correlation of employee productivity to building design and performance.

Findings related to -

- 4) **An evaluation of the effectiveness of the application of the standards under this subchapter.**

Finding: Rules for the Implementation of the Act have been reviewed and published. The effectiveness of the standards will be followed after implementation begins in January of 2011. The first step will be the appointment of an Advisory Committee to develop a training program for those affected by the Rules, review of compliance with the Rules and review the standards in the future. The composition of this committee includes engineers, architects, state agencies, and higher education.

Finding: Chapter 4 Sustainable Public Building Standards for a Major Facility or a Major Renovation of the Rules in this Act will be implemented starting January 1, 2011. A Certification of Compliance by the Architect/Design Professional is required on all Major Facility or Major renovation project designs. The AEO has asked the ABA to monitor the presence of this certification during Design Review,

Finding: Chapter 6 State Building Energy Management defines the programs AEO will develop to monitor energy consumption and costs by state agencies. Two significant requirements in this chapter are already being implemented, development of Strategic Energy Plans and monitoring of energy consumption and costs using Energy Star Portfolio Manager. Other programs have been developed to compliment this work.

a) **Strategic Energy Plans**

Finding: Each state agency is now required to develop a Strategic Energy Plan. Last year 48 agencies completed these plans. Some Higher Education institutions have filed plans as well because it is a requisite to participate in the new ABA Revolving Loan Fund.

Finding: This year all state agencies will be required to submit a plan. About 120 smaller state agencies will be required to have a plan, but a template will be provided to simplify compliance by these agencies.

b) **Baseline Development using EPA's Energy Star Portfolio Manager (ESPM) –**

Finding: The first submission of data for ESPM began in April of 2010. The baseline will establish utility usage and costs in state agencies. So far, twenty four agencies have entered data representing over 1800 building. The goal this year is to double the number by inviting Higher Education to participate in the program.

Finding: A contract was let to verify the database and train agencies in how to build, maintain and report the data to the AEO.

Finding: Some larger agencies and many of the smaller agencies do not pay utility bills directly, but pay them indirectly in the lease agreements with the building owner. Their energy costs and usage are not being included in the ESPM work.

Recommendation: Require agencies with utilities included in the lease to work with the building owners to quantify their energy use and costs for the facilities they use.

Recommendation: Reword lease agreements to require the owner to establish and maintain an ESPM account for each building leased to a state agency.

c) **Life Cycle Cost Analysis (LCCA), Energy Efficiency Procurement Practices, and Energy Training**

Finding: The AEO will begin working on implementation of LCCA with the state agencies in 2011.

Finding: The RFP for Energy Manager Training was put out for bid last month and the first training should be in the first quarter of 2011. This training includes a discussion of LCCA.

d) **Building Performance – Energy Audits**

Finding: Energy Audits need to be performed on a regular basis on state facilities. Act 1494 has mandated that the AEO perform these audits as funds are available, but is not currently funded to perform this function. Inherently this function is one each agency performs as a part of the evaluation of their facilities. An amendment to the Act will be proposed to change this responsibility and focus on each agency performing this role. AEO will promote energy audits by providing training and monitoring the certification of individuals who perform this work. AEO will review the finding of the audits. AEO still will perform audits as funds are available in the future. AEO will also encourage state agencies to participate in the ABA revolving loan fund to make improvements based on the audits.