

**Hall of the House of Representatives**  
General Assembly - Regular Session, 2009R  
**Amendment Form**

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**Subtitle of House Bill No. 1663**

"TO PROMOTE THE CONSERVATION OF ENERGY AND NATURAL RESOURCES IN  
BUILDINGS OWNED BY THE STATE OR INSTITUTIONS OF HIGHER EDUCATION."

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**Amendment No. 1 to House Bill No. 1663.**

Amend House Bill No. 1663 as originally introduced:

Delete everything after the enactment clause and substitute the following:

“SECTION 1. Arkansas Code Title 22, Chapter 2, is amended to add an additional subchapter to read as follows:

22-2-201. Legislative findings.

The General Assembly finds that:

(1)(A) Public buildings can be built and renovated using sustainable, energy-efficient methods that save money, reduce negative environmental impacts, improve employee and student performance, and make employees and students more productive.

(B) The main objectives of sustainable, energy-efficient designs are to:

(i) Avoid resource depletion of energy, water, and raw materials;

(ii) Prevent environmental degradation caused by facilities and infrastructure throughout their life cycle; and

(iii) Create buildings that are livable, comfortable, safe, and productive; and

(2) State-owned buildings and buildings owned by an institution of higher education can be improved by establishing specific performance criteria and goals for sustainable, energy-efficient public buildings that are based on recognized, consensual standards with a scientifically proven basis and a history of successful performance.

22-2-202. Definitions

As used in this subchapter:

(1) "Institution of higher education" means a state-supported university or college;

(2)(A) "Major facility" means a construction project larger than twenty thousand (20,000) gross square feet of occupied or conditioned space.

(B) "Major facility" does not include a transmitter building or a pumping station;



- (3) "Major renovation" means a building renovation project that:  
(A) Costs more than fifty percent (50%) of its insured value;  
(B) Is larger than twenty thousand (20,000) gross square feet of occupied or conditioned space; and  
(C) Is funded in whole or in part by the state;  
(4) "Public agency" means a state agency, office, officer, board, department, commission, or an institution of higher education; and  
(5) "Sustainable, energy efficient public building" means a public building that, by complying with this subchapter, has the most economical energy and water efficiency for that type of building.

22-2-203. The Sustainable Energy-Efficient Buildings Program for Public Agencies.

(a) The Sustainable Energy-Efficient Buildings Program for Public Agencies is established and shall be administered by the Arkansas Building Authority.

(b)(1) The authority shall develop and issue policies and technical guidelines to establish procedures and methods for compliance with the criteria and the performance standards for a major facility or a major renovation.

- (2) The authority shall develop and administer an:  
(A) Energy management program for the implementation of energy conservation measures; and  
(B) Operation and maintenance program for public agencies.

22-2-204. Standards for a major facility or a major renovation.

(a) The following minimum standards apply to a major facility:

(1) A major facility project of a public agency shall be designed, constructed, and certified to at least thirty percent (30%) greater energy efficiency than the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Standard 90.1-2004, as it existed on January 1, 2009.

(2) Subdivision (a)(1) of this section applies to a major facility project that has not entered the schematic design phase before the effective date of this act.

(3) An exception or a special standard for a specific type of building or building facility that is found in the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Standard 90.1-2004, is included in the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Standard 90.1-2004, under subdivision (a)(1) of this subsection.

(b) A major renovation project of a public agency shall be certified to at least a twenty percent (20%) greater energy efficiency than the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., Standard 90.1-2004, as it existed on January 1, 2009.

(c) For new construction under either subsection (a) or (b) of this section:

(1) The indoor water system shall be designed and constructed to use at least twenty percent (20%) less potable water than the indoor water use baseline calculated for the building after satisfying the fixture performance requirement, if any, under the Arkansas Plumbing Code; and

(2) Outdoor potable water or harvested groundwater consumption

shall use water use efficient landscape materials and irrigation strategies, including without limitation water reuse and recycling, to reduce conventional consumption by at least fifty percent (50%) of the water that would have been consumed otherwise;

(d) If the Arkansas Building Authority determines the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Standard 90.1-2004 is not practicable for a major facility or major renovation, the authority shall determine a practicable alternative standard for the design and construction for that major facility or major renovation.

(e) To verify the performance of a building component or system and ensure that design requirements are met upon completion of construction, building or system commissioning practices that are tailored to the size and complexity of the building and its system components shall be employed;

(f) To measure and verify a major facility's performance under this section's standards:

(1) A building level owner's meter for electricity, natural gas, fuel oil, and water shall be installed in accordance with the guidelines issued by the United States Department of Energy under Section 103 of the Energy Policy Act of 2005; and

(2)(A) The public agency and the building designers shall:

(i) Compare metered data from the first twelve (12) months of the building's operation with the energy design target; and

(ii) Report the performance results of that comparison to the authority.

(B) If the report under subdivision (f)(2)(A)(i) of this section shows that the building's average energy or water consumption over the one-year period after the date of beneficial occupancy is less than eighty-five percent (85%) of the performance goal established by this section's standards, the designer, the owner public agency, the contractor, the contract manager at risk, and the commissioning agent shall:

(i) Investigate;

(ii) Determine the cause for the failure to achieve this section's performance standards; and

(iii) Recommend corrections or modifications to meet this section's performance standards.

22-2-205. Purchase of a constructed or renovated building.

(a) A public agency shall not purchase a building that:

(1) Did not meet the design and construction standards that were applicable for a comparable building at the time of its construction; or

(2) Had a major renovation that did not meet the standard for energy and water efficiency that was applicable for a comparable building at the time of the major renovation.

(b) This section does not apply to:

(1) The purchase of a building that has historic, architectural, or cultural significance; or

(2) A building that is acquired by devise or gift.

22-2-206. Program to manage energy usage of public agencies.

(a) The Arkansas Building Authority shall:

(1) Develop an energy program to manage energy, water, and other utility uses for public agencies that will reduce total energy consumption

per gross square foot for all state buildings by twenty percent (20%) by 2014 and thirty percent (30%) by 2017 based on energy consumption for the 2007 - 2008 fiscal year; and

(2) Update this program annually.

(b) To implement its plan, the authority shall:

(1) Develop and implement policies, procedures, and standards to ensure that a public agency's purchasing practices:

(A) Improve the efficiency of energy, water, and other utility uses; and

(B) Consider the cost of the product over its economic life;

(2)(A) Adopt and implement building energy design guidelines for public agencies that include without limitation:

(i) Energy-use goals and standards;

(ii) Economic assumptions for life-cycle cost analysis; and

(iii) Other criteria for building systems and technologies.

(B) The authority shall modify the design criteria for the construction or the renovation of the facilities of a public facility to require the conduct of a life-cycle cost analysis;

(3) Identify and recommend energy conservation maintenance and operating procedures that:

(A) Are designed to reduce energy consumption within the public facility; and

(B) Require no significant expenditure of funds.

(4) Require the maximum interchangeability and compatibility of equipment components when energy management equipment is proposed for any facility of a public agency; and

(5)(A) Develop an energy audit and a procedure for conducting an energy audit.

(B) Within five (5) years after the effective date of this act, the authority shall have completed an energy audit of every public agency.

(C) When conducting an energy audit under subsection (b)(5) of this section, the authority shall identify and recommend any public facility that is suitable for:

(i) Building commissioning to reduce energy consumption within the facility; or

(ii) Installing an energy savings measure under a guaranteed energy savings contract.

(c) The authority may adopt architectural and engineering standards to implement this section.

(d) A public agency shall:

(1) Develop and implement an energy management plan to manage its energy, water, and other utility uses that is consistent with the authority's energy management program developed under this section;

(2) Update its management plan annually, including without limitation strategies for supporting the energy consumption reduction requirements under subsection (a) of this section;

(3) Submit annually by April 1 to the authority a written report of the public agency's utility consumption and costs by fuel;

(4) Carry out the construction and renovation of a facility in a manner that:

- (A) Furthers the goals under this section; and
- (B) Ensures the use of life-cycle cost analyses and practices to conserve energy, water, and other utilities; and
- (5) Implement the authority's recommendations made under subdivision (b)(1) of this section.

22-2-207. Application to historic and unique buildings.

This subchapter does not apply if the implementation of a measure to conserve energy, water, or other utility use conflicts with the requirements for:

- (1) A property to be eligible for, nominated to, or entered on the National Register of Historic Places under the National Historic Preservation Act of 1966, P.L. 89-665;
- (2) An historic building located within an historic district;
- (3) An historic building listed, owned, or under the jurisdiction of an historic properties commission; or
- (4) A building that the authority has exempted from this subchapter because of its unique architectural characteristics or usage.

22-2-208. Advisory committee.

(a)(1) The Director of the Arkansas Building Authority shall create a sustainable, energy-efficient building advisory committee composed of:

- (A) Representatives from the design and construction industry who are involved in public works contracting;
- (B) Persons from public agencies who are responsible for overseeing public works projects or for developing energy efficiency programs and policies; and
- (C) Other persons that the director considers to have useful information.

(2) Advisory committee members shall serve at the pleasure of the director.

(b) The committee shall provide advice on the implementation of this subchapter, including without limitation recommendations regarding:

- (1) An education and training process for persons who are involved in the implementation of this subchapter;
- (2) An ongoing evaluation or feedback process to help the authority to implement this section; and
- (3) Water-deficiency requirements and energy-efficiency requirements.

22-2-209. Rules.

(a) The Arkansas Building Authority shall:

- (1) Adopt rules for the implementation of operation and maintenance energy conservation measures in a public building; and
- (2) Develop or revise the authority's architectural and engineering standards to provide assistance in determining:
  - (A) Which energy conservation measures are best suited to the unique characteristics of each building; and
  - (B) The specifications for the energy conservation measures under this subchapter; and

(3) Adopt rules for the development of education and training requirements for the various personnel that may be involved in a major facility or a major renovation under this subchapter.

(b) The authority may adopt:

(1) Rules to implement this subchapter; and

(2) Architectural or engineering standards as needed to implement this section.

22-2-210. Performance review – Report.

(a) The Arkansas Building Authority shall conduct a performance review of the Sustainable Energy-Efficient Buildings Program for Public Agencies 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.

(b) No later than December 1, 2010, and each year thereafter, the authority shall report to the cochairs of the Legislative Council its:

(1) Findings under subsection (a) of this section; and

(2) Recommended changes, if any, in this subchapter's standards."

The Amendment was read \_\_\_\_\_

By: Representative Webb  
GLG/RCK - 03-17-2009 08:55  
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Chief Clerk