

Stricken language would be deleted from and underlined language would be added to the law as it existed prior to this session of the General Assembly.

Act 1494 of the Regular Session

1 State of Arkansas  
2 87th General Assembly  
3 Regular Session, 2009  
4

As Engrossed: H3/18/09 H4/7/09

A Bill

HOUSE BILL 1663

5 By: Representative Webb  
6 By: Senator Broadway  
7  
8

9 **For An Act To Be Entitled**

10 *AN ACT TO PROMOTE THE CONSERVATION OF ENERGY AND*  
11 *NATURAL RESOURCES IN BUILDINGS OWNED BY PUBLIC*  
12 *AGENCIES AND INSTITUTIONS OF HIGHER EDUCATION;*  
13 *AND FOR OTHER PURPOSES.*  
14

15 **Subtitle**

16 *TO PROMOTE THE CONSERVATION OF ENERGY*  
17 *AND NATURAL RESOURCES IN BUILDINGS OWNED*  
18 *BY PUBLIC AGENCIES AND INSTITUTIONS OF*  
19 *HIGHER EDUCATION.*  
20  
21

22 BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF ARKANSAS:  
23

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

26 *25-4-401. Legislative findings.*

27 *The General Assembly finds that:*

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

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

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



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

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

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

10  
11 25-4-402. Definitions

12 As used in this subchapter:

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

15 (2) "Life-cycle cost analysis" means an analytical technique that  
16 considers the costs of owning, using, and operating a facility over its  
17 economic life including without limitation:

18 (A) Initial costs;

19 (B) System repair and replacement costs;

20 (C) Maintenance costs;

21 (D) Operating costs, including energy costs; and

22 (E) Salvage value;

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

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

27 (4) "Major renovation" means a building renovation project that:

28 (A) Costs more than fifty percent (50%) of its current  
29 replacement value;

30 (B) Is larger than twenty thousand (20,000) gross square feet of  
31 occupied or conditioned space; and

32 (C) Is funded in whole or in part by the state;

33 (5) "Public agency" means a state agency, office, officer, board,  
34 department, or commission; and

35 (6) "Sustainable, energy efficient public building" means a public  
36 building that, by complying with this subchapter, has the most economical

1 energy and water efficiency for that type of building.

2  
3 25-4-403. The Sustainable Energy-Efficient Buildings Program.

4 (a) The Sustainable Energy-Efficient Buildings Program is established  
5 to promote energy conservation in buildings owned by public agencies and  
6 buildings owned by institutions of higher education.

7 (b) Under the Sustainable Energy-Efficient Buildings Program:

8 (1) For public agencies, the Arkansas Energy Office of the  
9 Arkansas Economic Development Commission shall develop and:

10 (A) Issue policies and technical guidelines to establish  
11 procedures and methods for compliance with the criteria and the performance  
12 standards for a major facility or a major renovation under § 25-4-404; and

13 (B) Administer an energy management program and an  
14 operation and maintenance program designed to achieve compliance with the  
15 requirements of § 25-4-406 through the implementation of energy conservation  
16 measures.

17 (2) For the institutions of higher education, each institution  
18 of higher education:

19 (A) Shall develop and issue policies and technical  
20 guidelines to establish procedures and methods for compliance with the  
21 criteria and the performance standards for a major facility or a major  
22 renovation under § 25-4-404; and

23 (B) May administer an energy management program and an  
24 operation and maintenance program designed to achieve compliance with the  
25 requirements of § 25-4-406 through the implementation of energy conservation  
26 measures.

27  
28 25-4-404. Standards for a major facility or a major renovation.

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

30 (1) A major facility of a public agency or an institution of  
31 higher education shall be designed, constructed, and certified to at least  
32 ten percent (10%) reduction below the baseline energy consumption determined  
33 in accordance with the Performance Rating Method of Appendix G of the  
34 American Society of Heating, Refrigerating and Air-Conditioning Engineers,  
35 Standard 90.1-2007, as it existed on January 1, 2009.

36 (2) Subdivision (a)(1) of this section applies to a major

1 facility project that has not entered the schematic design phase before the  
2 effective date of this act.

3 (3) An exception or a special standard for a specific type of  
4 building or building facility that is found in the American Society of  
5 Heating, Refrigerating and Air-Conditioning Engineers, Standard 90.1-2007, is  
6 included in the American Society of Heating, Refrigerating and Air-  
7 Conditioning Engineers, Standard 90.1-2007, under subdivision (a)(1) of this  
8 subsection.

9 (b)(1) A major renovation of a public agency or an institution of  
10 higher education shall be certified to at least ten percent (10%) reduction  
11 below the baseline energy consumption determined in accordance with the  
12 Performance Rating Method of Appendix G of the American Society of Heating,  
13 Refrigerating and Air-Conditioning Engineers, Standard 90.1-2007, as it  
14 existed on January 1, 2009.

15 (2) Subdivision (b)(1) of this section applies to a major  
16 renovation that has not entered the schematic design phase before the  
17 effective date of this act.

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

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

24 (2) Outdoor potable water or harvested groundwater consumption  
25 shall use water use efficient landscape materials and irrigation strategies,  
26 including without limitation water reuse and recycling, to reduce  
27 conventional consumption by at least fifty percent (50%) of the water that  
28 would have been consumed otherwise;

29 (d) If the Arkansas Energy Office of the Arkansas Economic Development  
30 Commission or the institution of higher education determines the American  
31 Society of Heating, Refrigerating and Air-Conditioning Engineers, Standard  
32 90.1-2007 is not practicable for a major facility or major renovation, the  
33 Arkansas Energy Office or the institution of higher education shall determine  
34 a practicable alternative standard for the design and construction for that  
35 major facility or major renovation.

36 (e) To verify the performance of a building component or system and

1 ensure that design requirements are met upon completion of construction,  
2 building or system commissioning practices that are tailored to the size and  
3 complexity of the building and its system components shall be employed;

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

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

10 (2)(A) The public or institution of higher education and the  
11 building designers shall:

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

14 (ii) Report the performance results of that  
15 comparison to the Arkansas Energy Office or to the governing board of the  
16 institution of higher education.

17 (B) If the report under subdivision (f)(2)(A)(i) of this  
18 section shows that the building's average energy or water consumption over  
19 the one-year period after the date of beneficial occupancy is more than the  
20 baseline consumption determined in accordance with the Performance Rating  
21 Method of Appendix G of the American Society of Heating, Refrigerating and  
22 Air Conditioning Engineers, Standard 90.1-2007, as it existed on January 1,  
23 2009, the designer, the owner public agency or the owner institution of  
24 higher education, the contractor, the contract manager at risk, and the  
25 commissioning agent shall:

26 (i) Investigate;

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

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

31  
32 25-4-405. Purchase of a constructed or renovated building.

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

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

36 (2) Had a major renovation that did not meet the standard for

1 energy and water efficiency that was applicable for a comparable building at  
2 the time of the major renovation.

3 (b) This section does not apply to:

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

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

7 (3) A building that is purchased for demolition.

8  
9 25-4-406. Program to manage energy usage of public agencies.

10 (a) The Arkansas Energy Office of the Arkansas Economic Development  
11 Commission shall:

12 (1) Develop an energy program to manage energy, water, and other  
13 utility uses for public agencies that will reduce total energy consumption  
14 per gross square foot for all existing state buildings by twenty percent  
15 (20%) by 2014 and thirty percent (30%) by 2017 based on energy consumption  
16 for the 2007 - 2008 fiscal year if the savings can be justified by a life-  
17 cycle cost analysis; and

18 (2) Update this program annually.

19 (b) To implement its plan, the Arkansas Energy Office shall:

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

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

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

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

28 (i) Energy-use goals and standards;

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

31 (iii) Other criteria for building systems and  
32 technologies.

33 (B) The Arkansas Energy Office shall modify the design  
34 criteria for the construction or the renovation of the facilities of a public  
35 facility to require the conduct of a life-cycle cost analysis;

36 (3) Identify and recommend energy conservation maintenance and

1 operating procedures that:

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

4 (B) Require no significant expenditure of funds.

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

8 (5)(A) Develop an energy audit and a procedure for conducting an  
9 energy audit, to the extent funds are available.

10 (B) Within five (5) years after the effective date of this  
11 act, the Arkansas Energy Office shall have completed an energy audit of every  
12 public agency.

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

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

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

20 (c) The Arkansas Energy Office may adopt architectural and engineering  
21 standards to implement this section.

22 (d) A public agency shall:

23 (1) Develop and implement, to the extent funds are available, an  
24 energy management plan to manage its energy, water, and other utility uses  
25 that is consistent with the Arkansas Energy Office's energy management  
26 program developed under this section;

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

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

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

34 (A) Furthers the goals under this section; and

35 (B) Ensures the use of life-cycle cost analyses and  
36 practices to conserve energy, water, and other utilities; and

1 (5) Implement the Arkansas Energy Office's recommendations made  
2 under subdivision (b)(1) of this section, to the extent funds are available.

3  
4 25-4-407. Application to historic and unique buildings.

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

8 (1) A property to be eligible for, nominated to, or entered on  
9 the National Register of Historic Places under the National Historic  
10 Preservation Act of 1966, P.L. 89-665;

11 (2) An historic building located within an historic district;

12 (3) An historic building listed, owned, or under the  
13 jurisdiction of an historic properties commission; or

14 (4) A building that the Arkansas Energy Office has exempted from  
15 this subchapter because of its unique architectural characteristics or usage.

16  
17 25-4-408. Advisory committee for the Arkansas Energy Office of the  
18 Arkansas Economic Development Commission.

19 (a)(1) The Director of the Arkansas Energy Office of the Arkansas  
20 Economic Development Commission shall create a sustainable, energy-efficient  
21 building advisory committee composed of:

22 (A) Representatives from the design and construction  
23 industry who are involved in public works contracting;

24 (B) Persons from public agencies who are responsible for  
25 overseeing public works projects or for developing energy efficiency programs  
26 and policies; and

27 (C) Other persons that the director considers to have  
28 useful information.

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

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

33 (1) An education and training process for persons who are  
34 involved in the implementation of this subchapter;

35 (2) An ongoing evaluation or feedback process to help the  
36 authority to implement this section; and



1           (3) Water-deficiency requirements and energy-efficiency  
2 requirements.

3  
4           25-4-409. Rules.

5           (a) The Arkansas Energy Office of the Arkansas Economic Development  
6 Commission shall:

7           (1) Adopt rules for the implementation of operation and  
8 maintenance energy conservation measures in a public building; and

9           (2) Develop or revise the Arkansas Energy Office's architectural  
10 and engineering standards to provide assistance in determining:

11           (A) Which energy conservation measures are best suited to  
12 the unique characteristics of each building; and

13           (B) The specifications for the energy conservation  
14 measures under this subchapter; and

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

18           (b) The Arkansas Energy Office may adopt:

19           (1) Rules to implement this subchapter; and

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

22  
23           25-4-410. Performance review – Report.

24           (a) The Arkansas Energy Office of the Arkansas Economic Development  
25 Commission, to the extent funds are available, shall conduct a performance  
26 review of the Sustainable Energy-Efficient Buildings Program that includes at  
27 least the following:

28           (1) An identification of the costs of implementing energy-  
29 efficient and water-efficient building standards in the design and  
30 construction of a major facility or major renovation;

31           (2) An identification of the operating savings attributable to  
32 the implementation of energy-efficient and water-efficient building  
33 standards, including without limitation savings in energy, water, utility,  
34 and maintenance costs;

35           (3) An identification of any impact on employee productivity  
36 from the application of the standards under this subchapter; and

1 (4) An evaluation of the effectiveness of the application of the  
2 standards under this subchapter.

3 (b) No later than December 1, 2010, and each year thereafter, the  
4 Arkansas Energy Office and each institution of higher education shall report  
5 to the cochairs of the Legislative Council its:

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

7 (2) Recommended changes, if any.

8  
9 25-4-411. Applicability.

10 (a) The boards of trustees for the University of Arkansas, Arkansas  
11 State University, the University of Central Arkansas, Henderson State  
12 University, Arkansas Tech University, and Southern Arkansas University are  
13 exempt from the provisions of this subchapter if those institutions develop  
14 policies and procedures to meet the specific performance criteria and goals  
15 for a major facility or major renovation.

16 (b)(1) The board of trustees of any institution of higher education  
17 that is not included under subsection (a) of this section may be exempted  
18 from the provisions of this subchapter by the Department of Higher Education.

19 (2) Before granting an exemption to a board of trustees of an  
20 institution of higher education under subdivision (b)(1) of this section, the  
21 department shall review and approve the policies and procedures to meet the  
22 specific performance criteria and goals for a major facility or major  
23 renovation.

24 (c) This subchapter does not:

25 (1) Preclude an institution of higher education from adopting  
26 the policies and technical guidelines for a major facility or a major  
27 renovation that are established by the Arkansas Energy Office of the Arkansas  
28 Economic Development Commission under § 25-4-403(b)(1); or

29 (2) Affect the processes or exemptions under § 22-6-601.

30  
31  
32  
33 /s/ Webb

34  
35 APPROVED: 4/14/2009