

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.

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

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

Subtitle

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

36 (ii) Prevent environmental degradation caused by



1 facilities and infrastructure throughout their life cycle; and

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

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

9
10 25-4-402. Definitions

11 As used in this subchapter:

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

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

17 (A) Initial costs;

18 (B) System repair and replacement costs;

19 (C) Maintenance costs;

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

21 (E) Salvage value;

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

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

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

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

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

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

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

34 (6) "Sustainable, energy efficient public building" means a public
35 building that, by complying with this subchapter, has the most economical
36 energy and water efficiency for that type of building.

1
2 25-4-403. The Sustainable Energy-Efficient Buildings Program.

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

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

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

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

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

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

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

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

26
27 25-4-404. Standards for a major facility or a major renovation.

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

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

35 (2) Subdivision (a)(1) of this section applies to a major
36 facility project that has not entered the schematic design phase before the

1 effective date of this act.

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

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

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

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

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

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

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

35 (e) To verify the performance of a building component or system and
36 ensure that design requirements are met upon completion of construction,

1 building or system commissioning practices that are tailored to the size and
2 complexity of the building and its system components shall be employed;

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

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

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

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

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

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

25 (i) Investigate;

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

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

30
31 25-4-405. Purchase of a constructed or renovated building.

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

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

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

1 the time of the major renovation.

2 (b) This section does not apply to:

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

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

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

7
8 25-4-406. Program to manage energy usage of public agencies.

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

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

17 (2) Update this program annually.

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

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

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

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

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

27 (i) Energy-use goals and standards;

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

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

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

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

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

3 (B) Require no significant expenditure of funds.

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

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

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

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

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

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

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

21 (d) A public agency shall:

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

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

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

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

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

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

36 (5) Implement the Arkansas Energy Office's recommendations made

1 under subdivision (b)(1) of this section, to the extent funds are available.

2
3 25-4-407. Application to historic and unique buildings.

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

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

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

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

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

15
16 25-4-408. Advisory committee for the Arkansas Energy Office of the
17 Arkansas Economic Development Commission.

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

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

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

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

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

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

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

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

36 (3) Water-deficiency requirements and energy-efficiency

1 requirements.

2
3 25-4-409. Rules.

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

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

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

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

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

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

17 (b) The Arkansas Energy Office may adopt:

18 (1) Rules to implement this subchapter; and

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

21
22 25-4-410. Performance review – Report.

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

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

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

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

36 (4) An evaluation of the effectiveness of the application of the

1 standards under this subchapter.

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

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

6 (2) Recommended changes, if any.

7
8 25-4-411. Applicability.

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

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

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

23 (c) This subchapter does not:

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

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

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31
32 /s/ Webb