

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

A Bill

HOUSE BILL 1663

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

For An Act To Be Entitled

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

Subtitle

15 TO PROMOTE THE CONSERVATION OF ENERGY
16 AND NATURAL RESOURCES IN BUILDINGS OWNED
17 BY THE STATE OR INSTITUTIONS OF HIGHER
18 EDUCATION.
19
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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 22-2-201. 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 22-2-202. Definitions

11 As used in this subchapter:

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

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

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

18 (3) "Major renovation" means a building renovation project that:

19 (A) Costs more than fifty percent (50%) of its insured value;

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

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

23 (4) "Public agency" means a state agency, office, officer, board,
24 department, commission, or an institution of higher education; and

25 (5) "Sustainable, energy efficient public building" means a public
26 building that, by complying with this subchapter, has the most economical
27 energy and water efficiency for that type of building.

28
29 22-2-203. The Sustainable Energy-Efficient Buildings Program for
30 Public Agencies.

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

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

1 renovation.

2 (2) The authority shall develop and administer an:

3 (A) Energy management program for the implementation of
4 energy conservation measures; and

5 (B) Operation and maintenance program for public agencies.

6
7 22-2-204. Standards for a major facility or a major renovation.

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

9 (1) A major facility project of a public agency shall be
10 designed, constructed, and certified to at least thirty percent (30%) greater
11 energy efficiency than the American Society of Heating, Refrigerating and
12 Air-Conditioning Engineers, Standard 90.1-2004, as it existed on January 1,
13 2009.

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

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

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

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

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

33 (2) Outdoor potable water or harvested groundwater consumption
34 shall use water use efficient landscape materials and irrigation strategies,
35 including without limitation water reuse and recycling, to reduce
36 conventional consumption by at least fifty percent (50%) of the water that

1 would have been consumed otherwise;

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

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

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

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

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

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

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

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

28 (i) Investigate;

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

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

33
34 22-2-205. Purchase of a constructed or renovated building.

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

36 (1) Did not meet the design and construction standards that were

1 applicable for a comparable building at the time of its construction; or
2 (2) Had a major renovation that did not meet the standard for
3 energy and water efficiency that was applicable for a comparable building at
4 the time of the major renovation.

5 (b) This section does not apply to:

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

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

9
10 22-2-206. Program to manage energy usage of public agencies.

11 (a) The Arkansas Building Authority 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 state buildings by twenty percent (20%) by 2014
15 and thirty percent (30%) by 2017 based on energy consumption for the 2007 -
16 2008 fiscal year; and

17 (2) Update this program annually.

18 (b) To implement its plan, the authority 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 authority shall modify the design criteria for the
33 construction or the renovation of the facilities of a public facility to
34 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.

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

12 (C) When conducting an energy audit under subsection
13 (b)(5) of this section, the authority shall identify and recommend any public
14 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 authority may adopt architectural and engineering standards to
20 implement this section.

21 (d) A public agency shall:

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

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

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

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

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

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

35 (5) Implement the authority's recommendations made under
36 subdivision (b)(1) of this section.

1
2 22-2-207. Application to historic and unique buildings.

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

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

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

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

12 (4) A building that the authority has exempted from this
13 subchapter because of its unique architectural characteristics or usage.

14
15 22-2-208. Advisory committee.

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

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

20 (B) Persons from public agencies who are responsible for
21 overseeing public works projects or for developing energy efficiency programs
22 and policies; and

23 (C) Other persons that the director considers to have
24 useful information.

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

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

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

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

33 (3) Water-deficiency requirements and energy-efficiency
34 requirements.

35
36 22-2-209. Rules.

1 (a) The Arkansas Building Authority shall:

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

4 (2) Develop or revise the authority's architectural and
5 engineering standards to provide assistance in determining:

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

8 (B) The specifications for the energy conservation
9 measures under this subchapter; and

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

13 (b) The authority may adopt:

14 (1) Rules to implement this subchapter; and

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

17
18 22-2-210. Performance review – Report.

19 (a) The Arkansas Building Authority shall conduct a performance review
20 of the Sustainable Energy-Efficient Buildings Program for Public Agencies
21 that includes at least the following:

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

25 (2) An identification of the operating savings attributable to
26 the implementation of energy-efficient and water-efficient building
27 standards, including without limitation savings in energy, water, utility,
28 and maintenance costs;

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

31 (4) An evaluation of the effectiveness of the application of the
32 standards under this subchapter.

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

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

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

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/s/ Webb