

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 88th General Assembly
3 Regular Session, 2011
4

A Bill

HOUSE BILL 1027

5 By: Representative D. Altes
6

For An Act To Be Entitled

8 AN ACT TO PROMOTE THE CONSERVATION OF ENERGY AND
9 NATURAL RESOURCES IN PRIVATELY OWNED HOMES; AND FOR
10 OTHER PURPOSES.
11

Subtitle

12
13
14 TO PROMOTE THE CONSERVATION OF ENERGY AND
15 NATURAL RESOURCES IN PRIVATELY OWNED
16 HOMES.
17

18
19 BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF ARKANSAS:
20

21 SECTION 1. Arkansas Code Title 8 is amended to add a new chapter to
22 read as follows:

23 Subchapter 1 – Energy Efficient Homes

24 8-15-101. Title.

25 This chapter is known and may be cited as the “Sustainable Energy-
26 Efficient Home Program”.
27

28 8-15-102. Legislative findings.

29 The General Assembly finds that:

30 (1)(A) Homes can be built and renovated using sustainable,
31 energy-efficient designs that save money and reduce the negative
32 environmental impact.

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

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



1 (ii) Prevent environmental degradation throughout
 2 the designs' life cycle; and

3 (iii) Create homes that are livable, comfortable,
 4 safe, and energy efficient; and

5 (2) Homes can be improved by establishing specific performance
 6 criteria and goals for sustainable, energy-efficient homes that are based on
 7 recognized, consensual standards with a scientifically proven basis and a
 8 history of successful performance.

9
 10 8-15-103. Definitions

11 As used in this chapter:

12 (1) "Home" means the privately owned residence of a person;

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

16 (A) Initial costs;

17 (B) System repair and replacement costs;

18 (C) Maintenance costs;

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

20 (E) Appraised value;

21 (3) "Major home renovation" means a renovation of a home that costs
 22 more than fifty percent (50%) of its current appraised value;

23 (4) "New construction" means a new addition to a home or a complete
 24 new home; and

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

28
 29 8-15-104. The Sustainable Energy-Efficient Home Program.

30 (a) The Sustainable Energy-Efficient Home Program is established to
 31 promote energy conservation in privately owned homes.

32 (b) Under the Sustainable Energy-Efficient Home Program, the Arkansas
 33 Energy Office shall develop and:

34 (1) Issue policies and technical guidelines to establish
 35 procedures and methods for compliance with the criteria and the performance
 36 standards for the new construction of a home and a major home renovation

1 under § 8-15-105; and

2 (2) Administer an energy management program and an operation and
3 maintenance program designed to achieve compliance with the requirements of §
4 8-15-106 through the implementation of energy conservation measures.

5
6 8-15-105. Standards for new construction or major home renovation.

7 (a)(1) New construction or major home renovation shall be certified to
8 at least ten percent (10%) reduction below the baseline energy consumption
9 determined in accordance with the Performance Rating Method of Appendix G of
10 the American Society of Heating, Refrigerating and Air-Conditioning
11 Engineers, Standard 90.1-2007, as it existed on January 1, 2011.

12 (2) Subdivision (a)(1) of this section applies to new
13 construction and major home renovation that has not entered the schematic
14 design phase before the effective date of this act.

15 (b) For new construction under subsection (a) of this section:

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

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

25 (c) If the Arkansas Energy Office determines the American Society of
26 Heating, Refrigerating and Air-Conditioning Engineers, Standard 90.1-2007 is
27 not practicable for a new construction or a major home renovation, the office
28 shall determine a practicable alternative standard for the design and
29 construction for the home or the major home renovation.

30 (d) Building or system commissioning practices that are tailored to
31 the size and complexity of the home and its system components shall be
32 employed to verify the performance of a building component or system and to
33 ensure that design requirements are met upon completion of construction.

34 (e) To measure and to verify a major home renovation's performance
35 under this section's standards:

36 (1) A homeowner's meter for electricity, natural gas, fuel oil,

1 and water shall be installed in accordance with the guidelines issued by the
 2 United States Department of Energy under Section 103 of the Energy Policy Act
 3 of 2005; and

4 (2)(A) The homeowner and the building designer shall:

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

7 (ii) Report the performance results of that
 8 comparison to the office.

9 (B) If the report under subdivision (e)(2)(A)(i) of this
 10 section shows that the home's average energy or water consumption over the
 11 one-year period after the date of beneficial occupancy is more than the
 12 baseline consumption determined in accordance with the Performance Rating
 13 Method of Appendix G of the American Society of Heating, Refrigerating and
 14 Air Conditioning Engineers, Standard 90.1-2007, as it existed on January 1,
 15 2011, the designer, the homeowner, the contractor, the contract manager at
 16 risk, and the commissioning agent shall:

17 (i) Investigate;

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

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

22
 23 8-15-106. Program to manage energy usage of homes.

24 (a) The Arkansas Energy Office shall:

25 (1) Develop for interested homeowners an energy program to
 26 manage energy, water, and other utility uses for the home that will reduce
 27 total energy consumption per gross square foot by twenty percent (20%) by
 28 2016 and thirty percent (30%) by 2019 based on yearly energy consumption if
 29 the savings can be justified by a life-cycle cost analysis; and

30 (2) Update this program annually.

31 (b) To implement its program, the office shall:

32 (1) Develop and implement policies, procedures, and standards to
 33 ensure that a homeowner's purchasing practices:

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

36 (B) Consider the cost of the product over its economic

1 life;

2 (2) Adopt and implement building energy design guidelines for
3 homes that include without limitation:

4 (A) Energy-use goals and standards;

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

6 (C) Other criteria for home systems and technologies;

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

9 (A) Are designed to reduce energy consumption within the
10 home; and

11 (B) Require no significant expenditure of funds;

12 (4) Require the maximum interchangeability and compatibility of
13 equipment components when energy management equipment is proposed for any
14 home; and

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

17 (B) When conducting an energy audit under subdivision
18 (b)(5) of this section, the office shall identify and recommend suitable
19 energy saving measures to the homeowner.

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

22 (d) A participating homeowner shall:

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

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

30 (3) Submit annually by April 1 to the office a written report of
31 the home's utility consumption and costs by fuel;

32 (4) Carry out the construction and renovation of a home 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 office’s recommendations made under
 2 subdivision (b)(1) of this section, to the extent funds are available.

3
 4 8-15-107. Application to historic and unique homes.

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 home located within an historic district;

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

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

16
 17 8-15-108. Advisory committee for the Arkansas Energy Office.

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

20 (A) Representatives from the design and construction
 21 industry who are involved in residential home contracting;

22 (B) Persons from public agencies who are responsible for
 23 developing energy efficiency programs and policies; and

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

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

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

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

32 (2) An ongoing evaluation or feedback process to help implement
 33 this chapter; and

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

1 8-15-109. Rules.

2 (a) The Arkansas Energy Office shall:

3 (1) Adopt rules for the implementation of operation and
4 maintenance energy conservation measures in homes;

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

7 (A) Which energy conservation measures are best suited to
8 the unique characteristics of a home; and

9 (B) The specifications for the energy conservation
10 measures under this chapter; and

11 (3) Adopt rules for the development of education and training
12 requirements for the various personnel that may be involved in a new
13 construction and a major home renovation under this chapter.

14 (b) The office may adopt:

15 (1) Rules to implement this chapter; and

16 (2) Architectural or engineering standards as needed to
17 implement this chapter.

18
19 8-15-110. Performance review – Report.

20 (a) The Arkansas Energy Office, to the extent funds are available,
21 shall conduct a performance review of the Sustainable Energy-Efficient Home
22 Program that includes at least the following:

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

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

30 (3) An evaluation of the effectiveness of the application of the
31 standards under this chapter.

32 (b) No later than December 1, 2012, and each year thereafter, the
33 office shall report to the co-chairs of the Legislative Council its:

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

35 (2) Recommended changes, if any.

36