

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2009

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HOUSE BILL 282

Short Title: Green School Construction/Loan Fund. (Public)

Sponsors: Representatives Harrison, Glazier, Cotham, Fisher (Primary Sponsors);
M. Alexander, Bryant, Carney, Faison, E. Floyd, Jeffus, Lucas, Luebke, Mackey,
Martin, Weiss, and Wray.

Referred to: Energy and Energy Efficiency, if favorable, Appropriations.

February 25, 2009

A BILL TO BE ENTITLED

AN ACT TO BROADEN THE SCOPE OF THE SUSTAINABLE ENERGY-EFFICIENT BUILDINGS PROGRAM TO INCLUDE PUBLIC SCHOOL BUILDINGS, TO REQUIRE THE STATE ENERGY OFFICE TO DEVELOP AND MAINTAIN SUSTAINABLE SCHOOL DESIGN PROTOCOL STANDARDS, TO CREATE AND APPROPRIATE FUNDS TO THE GREEN SCHOOL CONSTRUCTION LOAN FUND, AND TO MAKE CONFORMING CHANGES.

The General Assembly of North Carolina enacts:

SECTION 1. G.S. 143-135.35 reads as rewritten:

"§ 143-135.35. Findings; legislative intent.

The General Assembly finds that 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. The main objectives of sustainable, energy-efficient design are to avoid resource depletion of energy, water, and raw materials; prevent environmental degradation caused by facilities and infrastructure throughout their life cycle; and create buildings that are livable, comfortable, safe, and productive. It is the intent of the General Assembly that State-owned ~~buildings and~~ buildings, buildings of The University of North Carolina and the North Carolina Community College ~~System-System~~, and public school buildings be improved by establishing specific performance standards for sustainable, energy-efficient public buildings. These performance standards should be based upon recognized, consensus standards that are supported by science and have a demonstrated performance record. The General Assembly also intends, in order to ensure that the economic and environmental objectives of this Article are achieved, that State agencies, The University of North Carolina, ~~and~~ the North Carolina Community College ~~System-System~~, and local school administrative units determine whether the performance standards are met for major facility construction and renovation projects, measure utility and maintenance costs, and verify whether these standards result in savings. Also, it is the intent of the General Assembly to establish a priority to use North Carolina-based resources, building materials, products, industries, manufacturers, and businesses to provide economic development to North Carolina and to meet the objectives of this Article."

SECTION 2. G.S. 143-135.36 reads as rewritten:

"§ 143-135.36. Definitions.

As used in this section, the following definitions apply unless the context requires otherwise:



- 1 (1) "ASHRAE" means the American Society of Heating, Refrigerating and
2 Air-Conditioning Engineers, Inc.
- 3 (2) "Commission" means to document and to verify throughout the construction
4 process whether the performance of a building, a component of a building, a
5 system of a building, or a component of a building system meets specified
6 objectives, criteria, and agency project requirements.
- 7 (3) "Department" means the Department of Administration.
- 8 (4) "Institutions of higher education" means the constituent institutions of The
9 University of North Carolina, the regional institutions as defined in
10 G.S. 115D-2, and the community colleges as defined in G.S. 115D-2.
- 11 (4a) "Local school administrative unit" has the same meaning as in G.S. 115C-5.
- 12 (5) "Major facility construction project" means a project to construct a building
13 larger than 20,000 gross square feet of occupied or conditioned space, as
14 defined in the North Carolina State Building Code adopted under Article 9
15 of Chapter 143 of the General Statutes. "Major facility construction project"
16 does not include a project to construct a transmitter building or a pumping
17 station.
- 18 (6) "Major facility renovation project" means a project to renovate a building
19 when the cost of the project is greater than fifty percent (50%) of the
20 insurance value of the building prior to the renovation and the renovated
21 portion of the building is larger than 20,000 gross square feet of occupied or
22 conditioned space, as defined in the North Carolina State Building Code.
23 "Major facility renovation project" does not include a project to renovate a
24 transmitter building or a pumping station. "Major facility renovation project"
25 does not include a project to renovate a building having historic,
26 architectural, or cultural significance under Part 4 of Article 2 of Chapter
27 143B of the General Statutes.
- 28 (6a) "North Carolina sustainable school design protocol standards" means the
29 school design protocol and related information developed by the Department
30 of Public Instruction under G.S. 115C-521.
- 31 (7) "Public agency" means every State office, officer, board, department, ~~and~~
32 ~~commission~~ and institutions~~commission,~~ institution of higher
33 ~~education, education, and local school administrative unit.~~

34 **SECTION 3.** G.S. 143-135.37 is amended by adding a new subsection to read:

35 "(c1) Alternate Standards for Public School Projects. – For every major facility
36 construction or renovation project of a local school administrative unit receiving any funding in
37 the State capital budget, the building and the water system may be designed and constructed in
38 accordance with the North Carolina sustainable school design protocol standards developed
39 under G.S. 115C-521, and in that event, those requirements for the construction or renovation
40 project are in lieu of the requirements for energy efficiency and water use under subsection (b)
41 and (c) of this section."

42 **SECTION 4.** G.S. 143-135.39(e)(3) reads as rewritten:

43 "(3) Identification of any impacts on employee productivity and, where
44 applicable, student performance, from using energy-efficiency and water use
45 standards."

46 **SECTION 5.** G.S. 143-135.39(h) reads as rewritten:

47 "(h) Authority to Adopt Rules or Architectural or Engineering Standards. – The
48 Department and the State Board of Education may adopt rules to implement this Article. The
49 Department and the State Board of Education may adopt architectural or engineering standards
50 as needed to implement this Article."

1 **SECTION 6.** In recognition that the North Carolina Energy Guidelines for School
2 Design and Construction that were developed and maintained by the Department of Public
3 Instruction under G.S. 115C-521 are no longer sufficient in regard to a comprehensive
4 approach to energy efficiency in school design, school construction, and school operation and
5 maintenance, the State Energy Office of the Department of Administration shall develop and
6 maintain the North Carolina sustainable school design protocol standards to be used for the
7 construction of all new school buildings and the repairing of all old school buildings under the
8 control and direction of, and by contract with, the board of education. The North Carolina
9 sustainable school design protocol standards shall be used in lieu of the North Carolina Energy
10 Guidelines for School Design and Construction. The North Carolina sustainable school design
11 protocol standards shall be at least as stringent as the sustainable school design protocol
12 standards developed in the State of Washington, as mandated by their legislature. The North
13 Carolina sustainable school design protocol standards shall include a voluntary pass or fail
14 rating system to evaluate a school's progress toward sustainability. This rating system shall be
15 comprised of a number of prerequisites and optional sustainability measures developed by the
16 State Energy Office. Each local board of education participating in this protocol may choose
17 from among the list of optional measures to chart a path toward sustainability specific to the
18 site of the school and the goals of the board of education.

19 **SECTION 7.** G.S. 115C-521 reads as rewritten:

20 **"§ 115C-521. Erection of school buildings.**

21 (a) It shall be the duty of local boards of education to provide classroom facilities
22 adequate to meet the requirements of G.S. 115C-47(10) and 115C-301. Local boards of
23 education shall submit their long-range plans for meeting school facility needs to the State
24 Board of Education by January 1, 1988, and every five years thereafter. In developing these
25 plans, local boards of education shall consider the costs and feasibility of renovating old school
26 buildings instead of replacing ~~them~~ them and, employing life-cycle cost analysis as defined in
27 G.S. 143-64.11, shall consider the feasibility and costs of commissioning the old school
28 buildings that are renovated for the purpose of reducing energy and water use.

29 (b) It shall be the duty of the boards of education of the several local school
30 administrative school units of the State to make provisions for the public school term by
31 providing adequate school buildings equipped with suitable school furniture and apparatus. The
32 needs and the cost of those buildings, equipment, and apparatus, shall be presented each year
33 when the school budget is submitted to the respective tax-levying authorities. The boards of
34 commissioners shall be given a reasonable time to provide the funds which they, upon
35 investigation, shall find to be necessary for providing their respective units with buildings
36 suitably equipped, and it shall be the duty of the several boards of county commissioners to
37 provide funds for the same.

38 Upon determination by a local board of education that the existing permanent school
39 building does not have sufficient classrooms to house the pupil enrollment anticipated for the
40 school, the local board of education may acquire and use as temporary classrooms for the
41 operation of the school, relocatable or mobile classroom units, whether built on the lot or not,
42 which units and method of use shall meet the approval of the School Planning Division of the
43 State Board of Education, and which units shall comply with all applicable requirements of the
44 North Carolina State Building Code and of the local building and electrical codes applicable to
45 the area in which the school is located. These units shall also be anchored in a manner required
46 to assure their structural safety in severe weather. The acquisition and installation of these units
47 shall be subject in all respects to the provisions of Chapter 143 of the General ~~Statutes~~ Statutes,
48 including the provisions of Part 1 of Article 3B of that Chapter, Energy Policy and Life-Cycle
49 Cost Analysis. The provisions of Chapter 87, Article 1, of the General Statutes, shall not apply
50 to persons, firms or corporations engaged in the sale or furnishing to local boards of education

1 and the delivery and installation upon school sites of classroom trailers as a single building unit
2 or of relocatable or mobile classrooms delivered in less than four units or sections.

3 (c) The building of all new school buildings and the repairing of all old school
4 buildings shall be under the control and direction of, and by contract with, the board of
5 education for which the building and repairing is done. If a board of education is considering
6 building a new school building to replace an existing school building, the board shall not invest
7 any construction money in the new building unless it submits to the State Superintendent and
8 the State Superintendent submits to the North Carolina Historical Commission an analysis that
9 compares the costs and feasibility of building the new building and of renovating the existing
10 building and that clearly indicates the desirability of building the new building. No board of
11 education shall invest any money in any new building until it has (i) developed plans based
12 upon a consideration of the State Board's facilities ~~guidelines, guidelines~~ and consideration of
13 ways to minimize the new building's use of energy and water, (ii) submitted these plans to the
14 State Board for its review and comments, and (iii) reviewed the plans based upon a
15 consideration of the comments it receives from the State Board. No local board of education
16 shall contract for more money than is made available for the erection of a new
17 ~~building-building~~; however, any money obtained as no-interest loans under G.S. 115C-521.1
18 shall be included as available money. However, this subsection shall not be construed so as to
19 prevent boards of education from investing any money in buildings that are being constructed
20 pursuant to a continuing contract of construction as provided for in G.S. 115C-441(c). All
21 contracts for buildings shall be in writing and all buildings shall be inspected, received, and
22 approved by the local superintendent and the architect before full payment is made therefor.
23 Nothing in this subsection shall prohibit boards of education from repairing and altering
24 buildings with the help of janitors and other regular employees of the board.

25 In the design and construction of new school buildings and in the renovation of existing
26 school buildings that are required to be designed by an architect or engineer under
27 G.S. 133-1.1, the local board of education shall participate in the planning and review process
28 of the ~~Energy Guidelines for School Design and Construction that are developed and~~
29 ~~maintained by the Department of Public Instruction~~ North Carolina sustainable school design
30 protocol standards that are developed and maintained by the State Energy Office of the
31 Department of Administration, for use by the Department of Public Instruction and shall adopt
32 ~~local-energy-use~~ goals for building design and operation that take into account local conditions
33 in an effort to reduce the impact of operation costs on local and State budgets. In the design and
34 construction of new school facilities and in the repair and renovation of existing school
35 facilities, the local board of education shall consider the placement and design of windows and
36 other building features to use the climate of North Carolina for both light and ventilation in
37 case of ~~power-energy~~ shortages. A local board shall also consider the installation of solar
38 energy systems or other alternative energy systems in the school facilities whenever
39 practicable. A local board of education is encouraged to participate in the Sustainable
40 Energy-Efficient Buildings Program for major facility construction or renovation projects, as
41 defined in G.S. 143-135.36, involving school buildings under Article 8C of Chapter 143 of the
42 General Statutes.

43 In the case of any school buildings erected, repaired, or equipped with any money loaned or
44 granted by the State to any local school administrative unit, no board of education shall invest
45 any money until it has (i) developed plans based upon a consideration of the State Board's
46 facilities guidelines, (ii) submitted these plans to the State Board for its review and comments,
47 and (iii) reviewed the plans based upon a consideration of the comments it receives from the
48 State Board.

49 (d) Local boards of education shall make no contract for the erection of any school
50 building unless the site upon which it is located is owned in fee simple by the board: Provided,
51 that the board of education of a local school administrative unit, with the approval of the board

1 of county commissioners, may appropriate funds to aid in the establishment of a school facility
2 and the operation thereof in an adjoining local school administrative unit when a written
3 agreement between the boards of education of the administrative units involved has been
4 reached and the same recorded in the minutes of the boards, whereby children from the
5 administrative unit making the appropriations shall be entitled to attend the school so
6 established.

7 In all cases where title to property has been vested in the trustees of a special charter district
8 which has been abolished and has not been reorganized, title to the property shall be vested in
9 the local board of education of the county embracing the former special charter district.

10 (e) The State Board of Education shall establish within the Department of Public
11 Instruction a central clearinghouse for access by local boards of education that may want to use
12 a prototype design in the construction of school facilities. The State Board shall compile
13 necessary publications and a computer database to distribute information on prototype designs
14 to local school administrative units. A prototype design of a new school facility that is designed
15 to at least the standards for energy efficiency and water use under G.S. 143-135.37 shall be
16 included in this computer database. All architects and engineers registered in North Carolina
17 may submit plans for inclusion in the computer database and these plans may be accessed by
18 any person. The original architect of record or engineer of record shall retain ownership and
19 liability for a prototype design. The State Board may adopt rules it considers necessary to
20 implement this subsection."

21 **SECTION 8.** Article 37 of Chapter 115C is amended by adding a new section to
22 read:

23 **"§ 115C-521.1. Green School Construction Loan Fund.**

24 (a) The Green School Construction Loan Fund is created under the control and
25 direction of the Department of Public Instruction. This Loan Fund shall be a nonreverting
26 revolving loan fund consisting of any moneys appropriated to it by the General Assembly,
27 other moneys paid to it as gifts or grants, or any moneys repaid or recovered on behalf of the
28 Loan Fund. The Loan Fund shall be credited with interest on the Loan Fund by the State
29 Treasurer pursuant to G.S. 147-69.2 and G.S. 147-69.3.

30 (b) The Loan Fund shall be used to provide no-interest loans to local school
31 administrative units for any of the following purposes, with priority given to projects that will
32 have the greatest impact on reducing the use of energy and water:

33 (1) When the project is a major facility construction or renovation project, as
34 defined in G.S. 143-135.36, for all or part of the incremental cost of
35 designing and constructing a new or renovated school building or its water
36 system to at least the standards for energy efficiency and the standards for
37 water use under G.S. 143-135.37, to be calculated by comparing the total
38 cost of the project to the cost of substantially the same project using
39 conventional design and construction.

40 (2) For all or part of the incremental cost of designing and constructing a new
41 school facility or a major renovation of an existing school in accordance
42 with the North Carolina sustainable school design protocol standards under
43 G.S. 115C-521, to be calculated by comparing the total cost of the project to
44 the cost of substantially the same project using conventional design and
45 construction.

46 (3) For all or part of the cost of commissioning a school building for the purpose
47 of reducing the building's use of energy or water, including installing an
48 alternative energy system, when the commissioning under this subdivision is
49 not suitable for a guaranteed energy savings contract under Part 2 of Article
50 3B of Chapter 143 of the General Statutes.

1 (4) For all or part of the cost of installing in a school building one or more
2 energy conservation measures, as defined in G.S. 143-64.17, when these
3 energy conservation measures are not suitable for a guaranteed energy
4 savings contract under Part 2 of Article 3B of Chapter 143 of the General
5 Statutes.

6 (5) For all or part of the cost of installing in a school building an alternative
7 energy system to replace a conventional energy system when the installation
8 of the alternative energy system is not suitable for a guaranteed energy
9 savings contract under Part 2 of Article 3B of Chapter 143 of the General
10 Statutes.

11 (c) After consulting with the State Energy Office of the Department of Administration,
12 the Department of Public Instruction shall adopt rules to administer the Loan Fund and to
13 establish prioritization for loans, maximum loans, application, and award criteria and
14 schedules, and to otherwise implement this section."

15 **SECTION 9.** Article 31 of Chapter 115C of the General Statutes is amended by
16 adding a new section to read:

17 **"§ 115C-426.3. Monitor and report utility consumption by local school administrative**
18 **units.**

19 Each local school administrative unit that participates in the Sustainable Energy-Efficient
20 Buildings Program under Article 8C of Chapter 143 of the General Statutes shall monitor and
21 report utility consumption for purposes of reporting to the Office of State Construction as
22 provided in G.S. 143-135.37."

23 **SECTION 10.** G.S. 115C-47 is amended by adding a new subdivision to read:

24 "(28b) Sustainable energy-efficient school buildings. – Local boards of education
25 shall comply with the design and construction requirements under Article 8C
26 of Chapter 143 of the General Statutes."

27 **SECTION 11.** There is appropriated from the General Fund to the Green School
28 Construction Loan Fund, as created in G.S. 115C-521.1, as enacted by Section 8 of this act, the
29 sum of one million dollars (\$1,000,000) for the 2009-2010 fiscal year and the sum of one
30 million dollars (\$1,000,000) for the 2010-2011 fiscal year to be used for loans to local school
31 administrative units in accordance with G.S. 115C-521.1, as enacted by Section 8 of this act.

32 **SECTION 12.** G.S. 115C-521.1, as enacted by Section 8 of this act, and Section 11
33 of this act becomes effective July 1, 2009. The remainder of this act becomes effective January
34 1, 2010, and applies to contracts for major facility construction and renovation projects, as
35 defined in G.S. 143-135.36, as amended by Section 2 of this act, involving school buildings
36 that have not received project approval from the Superintendent of Public Instruction prior to
37 July 1, 2010.