

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2007

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HOUSE BILL 1073*

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

Sponsors: Representatives Harrison, Insko, Thomas, Fisher (Primary Sponsors); Allen, Blue, Brown, Bryant, Carney, Coates, Cotham, Faison, Farmer-Butterfield, Glazier, Goodwin, Hall, T. Harrell, Holliman, Jones, Luebke, Martin, Mobley, Pierce, Tarleton, Wainwright, Weiss, and Womble.

Referred to: Finance, if favorable, Appropriations.

March 27, 2007

A BILL TO BE ENTITLED

1 AN ACT TO CREATE THE GREEN SCHOOL CONSTRUCTION REVOLVING
2 LOAN FUND TO BE USED FOR NO-INTEREST LOANS TO LOCAL BOARDS
3 OF EDUCATION FOR CERTAIN ENERGY-RELATED CONSTRUCTION,
4 COMMISSIONING, AND INSTALLATION PROJECTS AND TO ESTABLISH
5 THE GREEN SCHOOL CONSTRUCTION PROGRAM, A VOLUNTARY
6 PROGRAM FOR THE CONSTRUCTION OR MAJOR RENOVATION OF
7 HIGH-PERFORMANCE SCHOOL BUILDINGS.
8

9 The General Assembly of North Carolina enacts:

10 **SECTION 1.** Article 37 of Chapter 115C is amended by adding two new
11 sections to read:

12 **"§ 115C-521.1. Green School Construction Loan Fund.**

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

19 (b) The Loan Fund shall be used to provide no-interest loans to local boards of
20 education for any of the following purposes, with priority given to projects that will
21 have the greatest impact on reducing the use of energy and water:

- 22 (1) For all or part of the incremental cost of designing, constructing, and
23 certifying a new school facility or a major renovation of an existing
24 school to at least the LEED silver standard under G.S. 115C-521.2, to
25 be calculated by comparing the total cost of the project to the cost of

1 substantially the same project using conventional design and
2 construction.

3 (2) For all or part of the incremental cost of designing and constructing a
4 new school facility or a major renovation of an existing school in
5 accordance with the North Carolina sustainable school design protocol
6 standards under G.S. 115C-521.2, to be calculated by comparing the
7 total cost of the project to the cost of substantially the same project
8 using conventional design and construction.

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

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

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

25 (b) After consulting with the State Energy Office of the Department of
26 Administration, the Department of Public Instruction shall adopt rules to administer the
27 Loan Fund and to establish prioritization for loans, maximum loans, application, and
28 award criteria and schedules, and to otherwise implement this section.

29 **§ 115C-521.2. Green School Construction Program to construct**
30 **high-performance school buildings.**

31 (a) The General Assembly finds that high-performance school buildings are
32 proven to increase student test scores, reduce absenteeism, and cut energy and other
33 utility costs. It is the intent of the General Assembly to encourage local boards of
34 education to use recognized standards for the construction of high-performance public
35 school buildings that provide flexible methods and choices in how to achieve those
36 standards. It is the intent and an established goal of the Leadership in Energy and
37 Environmental Design (LEED) program as authored by the United States Green
38 Building Council to increase demand for building materials and products that are
39 extracted and manufactured locally, thereby reducing the environmental impacts and to
40 support the local economy. Accordingly, it is the intent of the General Assembly to
41 encourage local boards of education to participate in achieving this goal and voluntarily
42 establish a priority to use North Carolina-based resources, building materials, products,
43 industries, manufacturers, and other businesses to provide economic development to
44 North Carolina and to meet the objectives of this section.

1 **(b)** The Green School Construction Program under this section shall be
2 administered by the Department of Administration. Any major school facility project
3 may, as determined by the local board of education, be designed and constructed to at
4 least the LEED silver standard or in accordance with the North Carolina sustainable
5 school design protocol standards to the extent appropriate LEED silver or North
6 Carolina sustainable school design protocol standards exist for the type of building or
7 facility.

8 **(c)** Any local board of education that uses the high-performance standard under
9 this section is encouraged to:

10 **(1)** Monitor and document appropriate operating benefits and savings
11 resulting from major facility projects designed and constructed under
12 this section for a minimum of five years following local board
13 acceptance of the project; and

14 **(2)** Report annually to the Department of Administration and to the
15 Superintendent of Public Instruction on a form developed by the
16 Department of Administration.

17 **(d)** Any major school facility project designed to meet standards identified for
18 high-performance school buildings in this section shall include building commissioning
19 as a critical cost-saving part of the construction process. This process shall include input
20 from the project design and construction teams, representatives of the local board of
21 education, and the State Energy Office of the Department of Administration.

22 **(e)** In order to be able to monitor and document ongoing operating benefits and
23 savings under subsection (c) of this section, a local board of education is encouraged to
24 require all utilities going into any school building that is the subject of a major facility
25 project under this section to be metered.

26 **(f)** A member of the design or construction teams shall not be held liable for the
27 failure of a major facility project to meet the high-performance building standard under
28 this section that is established for the project as long as a good faith attempt was made
29 to achieve this standard.

30 **(g)** No later than September 1 of each year, the Department of Administration
31 shall consolidate the reports required in subsection (c) of this section into one report and
32 submit this report, along with input from the Department of Public Instruction, to the
33 Chairs of the Senate and House Appropriations Committees and the Joint Legislative
34 Commission on Governmental Operations. The Department of Public Instruction and
35 the Department of Administration may make recommendations regarding the ongoing
36 implementation of the Green School Construction Program, may include a discussion of
37 current incentives and disincentives related to implementing this section, and may
38 comment on the performance of the Program, including any changes that may be needed
39 to adapt the Program to any new or modified standards for high-performance buildings
40 that are consistent with the intent of this section.

41 **(h)** The Department of Administration, in consultation with the Superintendent of
42 Public Instruction, shall develop and issue guidelines to implement this section. The
43 guidelines shall define a procedure and method for employing and verifying activities
44 necessary for certification to at least the LEED silver standard for major school facility

1 projects. The Department of Administration and the Department of Public Instruction
2 shall amend their fee schedules for architectural and engineering services to
3 accommodate the requirements in the design of major school facility projects that are
4 subject to this section.

5 (i) The Department of Administration and the State Board of Education may
6 adopt rules needed to implement this section.

7 (j) As used in this Article, the following definitions apply:

8 (1) "High-performance school building" means a school building
9 designed, constructed, and certified to a standard as identified in this
10 section.

11 (2) "LEED silver standard" means the U.S. Green Building Council
12 Leadership in Energy and Environmental Design (LEED) green
13 building rating standard referred to as the LEED Silver Standard, as
14 amended.

15 (3) "Major facility project" means a construction project larger than 5,000
16 gross square feet of occupied or conditioned space as defined in the
17 North Carolina State Building Code or a building renovation project
18 when the cost is greater than fifty percent (50%) of the assessed value
19 and the project is larger than 5,000 gross square feet of occupied or
20 conditioned space as defined in the North Carolina State Building
21 Code. "Major facility project" does not include any of the following:
22 research facilities primarily used for sponsored laboratory
23 experimentation, laboratory research, or laboratory training in research
24 methods, or other similar building types as determined by the
25 Department of Administration.

26 (4) "North Carolina sustainable school design protocol standards" means
27 the school design protocol and related information developed by the
28 Department of Public Instruction under G.S. 115C-521."

29 **SECTION 2.** Article 31 of Chapter 115C of the General Statutes is amended
30 by adding a new section to read:

31 **"§ 115C-426.3. Monitor and report utility consumption by local administrative**
32 **units.**

33 (a) Each local school administrative unit that participates in the Green School
34 Construction Program under G.S. 115C-521.2 shall monitor and report utility
35 consumption for purposes of reporting to the Superintendent of Public Instruction as
36 provided in G.S. 143-135.38."

37 **SECTION 3.** In recognition that the North Carolina Energy Guidelines for
38 School Design and Construction that were developed and maintained by the Department
39 of Public Construction under G.S. 115C-521 are no longer sufficient in regard to a
40 comprehensive approach to energy efficiency in school design, school construction, and
41 school operation and maintenance, the State Energy Office within the Department of
42 Administration shall develop and maintain the North Carolina sustainable school design
43 protocol standards to be used for the construction of all new school buildings and the
44 repairing of all old school buildings under the control and direction of, and by contract

1 with, the board of education. The North Carolina sustainable school design protocol
2 standards shall be used in lieu of the North Carolina Energy Guidelines for School
3 Design and Construction. The North Carolina sustainable school design protocol
4 standards shall be at least as stringent as the sustainable school design protocol
5 standards developed in the State of Washington, as mandated by their legislature. The
6 North Carolina sustainable school design protocol standards shall include a voluntary
7 pass/fail rating system to evaluate a school's progress toward sustainability. This rating
8 system shall be comprised of a number of prerequisites and optional sustainability
9 measures developed by the State Energy Office. Each board of education participating
10 in this protocol may choose from among the list of optional measures to chart a path
11 toward sustainability specific to the site of the school and the goals of the board of
12 education.

13 **SECTION 4.** G.S. 115C-521 reads as rewritten:

14 **"§ 115C-521. Erection of school buildings.**

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

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

33 Upon determination by a local board of education that the existing permanent school
34 building does not have sufficient classrooms to house the pupil enrollment anticipated
35 for the school, the local board of education may acquire and use as temporary
36 classrooms for the operation of the school, relocatable or mobile classroom units,
37 whether built on the lot or not, which units and method of use shall meet the approval of
38 the School Planning Division of the State Board of Education, and which units shall
39 comply with all applicable requirements of the North Carolina State Building Code and
40 of the local building and electrical codes applicable to the area in which the school is
41 located. These units shall also be anchored in a manner required to assure their
42 structural safety in severe weather. The acquisition and installation of these units shall
43 be subject in all respects to the provisions of Chapter 143 of the General
44 ~~Statutes~~Statutes, including the provisions of Part 1 of Article 3B of that Chapter,

1 Energy Policy and Life-Cycle Cost Analysis. The provisions of Chapter 87, Article 1, of
2 the General Statutes, shall not apply to persons, firms or corporations engaged in the
3 sale or furnishing to local boards of education and the delivery and installation upon
4 school sites of classroom trailers as a single building unit or of relocatable or mobile
5 classrooms delivered in less than four units or sections.

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

30 In the design and construction of new school buildings and in the renovation of
31 existing school buildings that are required to be designed by an architect or engineer
32 under G.S. 133-1.1, the local board of education shall participate in the planning and
33 review process of the ~~Energy Guidelines for School Design and Construction that are~~
34 ~~developed and maintained by the Department of Public Instruction~~North Carolina
35 sustainable school design protocol standards that are developed and maintained by the
36 State Energy Office of the Department of Administration, for use by the Department of
37 Public Instruction and shall adopt ~~local~~-energy-use goals for building design and
38 operation that take into account local conditions in an effort to reduce the impact of
39 operation costs on local and State budgets. In the design and construction of new school
40 facilities and in the repair and renovation of existing school facilities, the local board of
41 education shall consider the placement and design of windows and other building
42 features to use the climate of North Carolina for both light and ventilation in case of
43 ~~power-energy~~ shortages. A local board shall also consider the installation of solar
44 energy systems or other alternative energy systems in the school facilities whenever

1 practicable. A local board is encouraged to participate in the Green School Construction
2 Program for the construction or major renovation of high-performance school buildings
3 under G.S. 115C-521.2.

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

10 (d) Local boards of education shall make no contract for the erection of any
11 school building unless the site upon which it is located is owned in fee simple by the
12 board: Provided, that the board of education of a local school administrative unit, with
13 the approval of the board of county commissioners, may appropriate funds to aid in the
14 establishment of a school facility and the operation thereof in an adjoining local school
15 administrative unit when a written agreement between the boards of education of the
16 administrative units involved has been reached and the same recorded in the minutes of
17 the boards, whereby children from the administrative unit making the appropriations
18 shall be entitled to attend the school so established.

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

23 (e) The State Board of Education shall establish within the Department of Public
24 Instruction a central clearinghouse for access by local boards of education that may
25 want to use a prototype design in the construction of school facilities. The State Board
26 shall compile necessary publications and a computer database to distribute information
27 on prototype designs to local school administrative units. A prototype design of a new
28 school facility that is designed to at least the LEED silver standard, as defined in
29 G.S. 115C-521.1, shall be included in this computer database. All architects and
30 engineers registered in North Carolina may submit plans for inclusion in the computer
31 database and these plans may be accessed by any person. The original architect of
32 record or engineer of record shall retain ownership and liability for a prototype design.
33 The State Board may adopt rules it considers necessary to implement this subsection."

34 **SECTION 5.** There is appropriated from the General Fund to the Green
35 School Construction Loan Fund, as created in G.S. 115C-521.1, as enacted by Section 1
36 of this act, the sum of one million dollars (\$1,000,000) for the 2007-2008 fiscal year and
37 the sum of one million dollars (\$1,000,000) for the 2008-2009 fiscal year to be used for
38 loans to local boards of education in accordance with G.S. 115C-521.1, as enacted by
39 Section 1 of this act.

40 **SECTION 6.** G.S. 115C-521.1, as enacted in Section 1 of this act, and
41 Section 6 of this act become effective July 1, 2007. The remainder of this act becomes
42 effective January 1, 2008, and applies to contracts for major facility projects that have
43 not received project approval from the Superintendent of Public Instruction prior to July
44 1, 2008.