

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2005

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SENATE BILL 402*
House Committee Substitute Favorable 6/28/06

Short Title: Water/Utilities Savings in Govt. Facilities.

(Public)

Sponsors:

Referred to:

March 7, 2005

A BILL TO BE ENTITLED

AN ACT TO CLARIFY THAT GUARANTEED ENERGY SAVINGS CONTRACTS INCLUDE CONSERVATION MEASURES FOR WATER AND OTHER UTILITIES, TO RAISE THE CAP FOR GUARANTEED ENERGY SAVINGS CONTRACTS, TO EXPAND THE STATE'S ENERGY POLICY AND LIFE-CYCLE COST ANALYSIS TO INCLUDE THE CONSERVATION OF WATER AND OTHER UTILITIES, AND TO MAKE CONFORMING CHANGES.

The General Assembly of North Carolina enacts:

SECTION 1. The title of Article 3B of Chapter 143 of the General Statutes reads as rewritten:

"Article 3B.

~~Energy Conservation of Energy, Water, and Other Utilities in Public Government~~
Facilities."

SECTION 2. G.S. 143-64.17 reads as rewritten:

"§ 143-64.17. Definitions.

As used in this Part:

- (1) "Energy conservation measure" means a facility ~~or meter~~ alteration, training, or services related to the operation of the ~~facility, facility or meter~~, when the alteration, training, or services provide anticipated energy ~~savings-savings or capture lost revenue~~. Energy conservation measure includes any of the following:
 - a. Insulation of the building structure and systems within the building.
 - b. Storm windows or doors, caulking, weatherstripping, multiglazed windows or doors, heat-absorbing or heat-reflective glazed or coated window or door systems, additional glazing, reductions in glass area, or other window or door system modifications that reduce energy consumption.

- 1 c. Automatic energy control systems.
2 d. Heating, ventilating, or air-conditioning system modifications
3 or replacements.
4 e. Replacement or modification of lighting fixtures to increase the
5 energy efficiency of a lighting system without increasing the
6 overall illumination of a facility, unless an increase in
7 illumination is necessary to conform to the applicable State or
8 local building code or is required by the light system after the
9 proposed modifications are made.
10 f. Energy recovery systems.
11 g. Cogeneration systems that produce steam or forms of energy
12 such as heat, as well as electricity, for use primarily within a
13 building or complex of buildings.
14 h. ~~Other energy conservation measures.~~
15 i. Faucets with automatic or metered shut-off valves, leak
16 detection equipment, water meters, water recycling equipment,
17 and wastewater recovery systems.
18 j. Other energy conservation measures that conserve energy,
19 water, or other utilities.
20 (2) "Energy savings" means a measured reduction in fuel costs, energy
21 costs, water costs, stormwater fees, other utility costs, or operating
22 costs—costs, including environmental discharge fees, water and sewer
23 maintenance fees, and increased meter accuracy, created from the
24 implementation of one or more energy conservation measures when
25 compared with an established baseline of previous fuel costs, energy
26 costs, or operating costs costs, including captured lost revenues,
27 developed by the governmental unit.
28 (2a) "Governmental unit" means either a local governmental unit or a State
29 governmental unit.
30 (3) "Guaranteed energy savings contract" means a contract for the
31 evaluation, recommendation, or implementation of energy
32 conservation measures, including the design and installation of
33 equipment or the repair or replacement of existing
34 equipment, equipment or meters, in which all payments, except
35 obligations on termination of the contract before its expiration, are to
36 be made over time, and in which energy savings are guaranteed to
37 exceed costs.
38 (4) "Local governmental unit" means any board or governing body of a
39 political subdivision of the State, including any board of a community
40 college, any school board, or an agency, commission, or authority of a
41 political subdivision of the State.
42 (5) "Qualified provider" means a person or business experienced in the
43 design, implementation, and installation of energy conservation
44 measures.

- 1 (6) "Request for proposals" means a negotiated procurement initiated by a
2 governmental unit by way of a published notice that includes the
3 following:
4 a. The name and address of the governmental unit.
5 b. The name, address, title, and telephone number of a contact
6 person in the governmental unit.
7 c. Notice indicating that the governmental unit is requesting
8 qualified providers to propose energy conservation measures
9 through a guaranteed energy savings contract.
10 d. The date, time, and place where proposals must be received.
11 e. The evaluation criteria for assessing the proposals.
12 f. A statement reserving the right of the governmental unit to
13 reject any or all the proposals.
14 g. Any other stipulations and clarifications the governmental unit
15 may require.
- 16 (7) "State governmental unit" means the State or a department, an agency,
17 a board, or a commission of the State, including the Board of
18 Governors of The University of North Carolina and its constituent
19 institutions."

20 **SECTION 3.** G.S. 143-64.17B(a) reads as rewritten:

21 **"§ 143-64.17B. Guaranteed energy savings contracts.**

22 (a) A governmental unit may enter into a guaranteed energy savings contract
23 with a qualified provider if all of the following apply:

- 24 (1) The term of the contract does not exceed ~~12~~20 years from the date of
25 the installation and acceptance by the governmental unit of the energy
26 conservation measures provided for under the contract.
27 (2) The governmental unit finds that the energy savings resulting from the
28 performance of the contract will equal or exceed the total cost of the
29 contract.
30 (3) The energy conservation measures to be installed under the contract
31 are for an existing ~~building~~building or utility system."

32 **SECTION 4.** The catch line of G.S. 143-64.17G reads as rewritten:

33 **"§ 143-64.17G. Report on guaranteed energy savings ~~contracts~~contracts entered**
34 **into by local governmental units."**

35 **SECTION 5.** The catch line of G.S. 143-64.17H reads as rewritten:

36 **"§ 143-64.17H. ~~Guaranteed~~Report on guaranteed energy savings ~~contract~~**
37 **reporting requirements~~contracts entered into by State governmental~~**
38 **units."**

39 **SECTION 6.** G.S. 142-63 reads as rewritten:

40 **"§ 142-63. Authorization of financing contract.**

41 Subject to the terms and conditions set forth in this Article, a State governmental
42 unit that has solicited a guaranteed energy conservation measure pursuant to
43 G.S. 143-64.17A or G.S. 143-64.17B or the State Treasurer, as designated by the
44 Council of State, is authorized to execute and deliver, for and on behalf of the State of

1 North Carolina, a financing contract to finance the costs of the energy conservation
2 measure. The aggregate principal amount payable by the State under financing contracts
3 entered pursuant to this Article shall not exceed ~~fifty million dollars (\$50,000,000)~~ one
4 hundred million dollars (\$100,000,000) at any one time."

5 **SECTION 7.** G.S. 142-64(b)(2) reads as rewritten:

6 "(2) The Council of State has approved the execution and delivery of the
7 financing contract by resolution that sets forth all of the following:

- 8 a. The not-to-exceed term or final maturity of the financing
9 contract, which shall be no later than ~~12 years from the date the~~
10 ~~financing contract is entered.~~ 20 years from the date of
11 acceptance of the project.
12 b. The not-to-exceed interest rate or rates (or the equivalent
13 thereof), which may be fixed or vary over a period of time, with
14 respect to the financing contract.
15 c. The appropriate officers of the State to execute and deliver the
16 financing contract and all other documentation relating to it."

17 **SECTION 8.** G.S. 143-64.10 reads as rewritten:

18 **"§ 143-64.10. Findings; policy.**

19 (a) The General Assembly ~~hereby finds:~~ finds all of the following:

- 20 (1) That the State shall take a leadership role in aggressively undertaking
21 ~~energy~~ the conservation of energy, water, and other utilities in North
22 ~~Carolina;~~ Carolina.
23 (2) That State facilities have a significant impact on the State's
24 consumption of ~~energy;~~ energy, water, and other utilities.
25 (3) That ~~energy conservation~~ practices to conserve energy, water, and
26 other utilities that are adopted for the design, construction, operation,
27 maintenance, and renovation of these facilities and for the purchase,
28 operation, and maintenance of equipment for these facilities will have
29 a beneficial effect on the State's overall supply of ~~energy;~~ energy,
30 water, and other utilities.
31 (4) That the cost of the ~~energy~~ energy, water, and other utilities consumed
32 by these facilities and the equipment for these facilities over the life of
33 the facilities shall be considered, in addition to the initial ~~cost;~~ cost.
34 (5) That the cost of ~~energy~~ energy, water, and other utilities is significant
35 and facility designs shall take into consideration the total life-cycle
36 cost, including the initial construction cost, and the cost, over the
37 economic life of the facility, of the ~~energy~~ energy, water, and other
38 utilities consumed, and of operation and maintenance of the facility as
39 it affects ~~energy consumption; and~~ the consumption of energy, water,
40 or other utilities.
41 (6) That State government shall undertake a program to reduce ~~energy~~ the
42 use of energy, water, and other utilities in State facilities and
43 equipment in those facilities in order to provide its citizens with an

1 example of ~~energy-use~~energy-use, water-use, and utility-use
2 efficiency.

3 (b) It is the policy of the State of North Carolina to ensure that ~~energy~~
4 ~~conservation practices~~ to conserve energy, water, and other utilities are employed in the
5 design, construction, operation, maintenance, and renovation of State facilities and in
6 the purchase, operation, and maintenance of equipment for State facilities."

7 **SECTION 9.** G.S. 143-64.11(2) reads as rewritten:

8 "(2) "Energy-consumption analysis" means the evaluation of all energy-
9 consuming ~~systems~~systems, including systems that consume water or
10 other utilities, and components of these systems by demand and type
11 of ~~energy~~energy or other utility use, including the internal energy load
12 imposed on a facility by its occupants, equipment and components,
13 and the external energy load imposed on the facility by climatic
14 conditions."

15 **SECTION 10.** G.S. 143-64.11(2b) reads as rewritten:

16 "(2b) "Energy-consuming system" includes but is not limited to any of the
17 following equipment or measures:

- 18 a. Equipment used to heat, cool, or ventilate the facility;
- 19 b. Equipment used to heat water in the facility;
- 20 c. Lighting systems;
- 21 d. On-site equipment used to generate electricity for the facility;
- 22 e. On-site equipment that uses the sun, wind, oil, natural gas,
23 liquid propane gas, coal, or electricity as a power source; and
- 24 f. Energy conservation ~~measures~~measures, as defined in
25 G.S. 143-64.17, in the facility design and construction that
26 decrease the ~~energy~~energy, water, or other utility requirements
27 of the facility."

28 **SECTION 11.** G.S. 143-64.11(3) reads as rewritten:

29 "(3) "Facility" means a building or a group of buildings served by a central
30 ~~energy~~distribution system for energy, water, or other utility or
31 components of a central ~~energy~~distribution system."

32 **SECTION 12.** G.S. 143-64.12 reads as rewritten:

33 **"§ 143-64.12. Authority and duties of State agencies.**

34 (a) The General Assembly authorizes and directs that State agencies shall carry
35 out the construction and renovation of State facilities, under their jurisdiction in such a
36 manner as to further the policy declared herein, ensuring the use of life-cycle cost
37 analyses and ~~energy conservation practices~~practices to conserve energy, water, and
38 other utilities.

39 (b) The Department of Administration shall develop and implement policies,
40 procedures, and standards to ensure that State purchasing practices improve ~~energy~~
41 efficiency regarding energy, water, and other utility use and take the cost of the product
42 over the economic life of the product into consideration. The Department of
43 Administration shall adopt and implement Building Energy Design Guidelines. These
44 guidelines shall include energy-use goals and standards, economic assumptions for

1 life-cycle cost analysis, and other criteria on building systems and technologies. The
2 Department of Administration shall modify the design criteria for construction and
3 renovation of facilities to require that a life-cycle cost analysis be conducted pursuant to
4 G.S. 143-64.15. The Department of Administration, as part of the Facilities Condition
5 and Assessment Program, shall identify and recommend energy conservation
6 maintenance and operating procedures that are designed to reduce energy consumption
7 within the facility and that require no significant expenditure of funds. State
8 departments, institutions, or agencies shall implement these recommendations. Where
9 energy management equipment is proposed for State facilities, the maximum
10 interchangeability and compatibility of equipment components shall be required.

11 The Department of Administration shall develop a comprehensive ~~energy~~
12 ~~management~~ program to manage energy, water, and other utility use for State
13 government. Each State agency shall develop and implement ~~an energy~~ a management
14 plan that is consistent with the State's comprehensive ~~energy management~~
15 ~~program~~ program to manage energy, water, and other utility use.

16 (c) through (g) Repealed by Session Laws 1993, c. 334, s. 4."

17 **SECTION 13.** G.S. 143-64.15 reads as rewritten:

18 **"§ 143-64.15. Life-cycle cost analysis.**

19 (a) A life-cycle cost analysis shall include, but not be limited to, all of the
20 following elements:

- 21 (1) The coordination, orientation, and positioning of the facility on its
22 physical ~~site;~~site.
- 23 (2) The amount and type of fenestration employed in the ~~facility;~~facility.
- 24 (3) Thermal characteristics of materials and the amount of insulation
25 incorporated into the facility ~~design;~~design.
- 26 (4) The variable occupancy and operating conditions of the facility,
27 including illumination ~~levels;~~ and levels.
- 28 (5) Architectural features ~~which that~~ affect ~~energy consumption;~~the
29 consumption of energy, water, and other utilities.

30 (b) The life-cycle cost analysis performed for any State facility shall, in addition
31 to the requirements set forth in subsection (a) of this section, include, but not be limited
32 to, all of the following:

- 33 (1) An energy-consumption analysis of the facility's energy-consuming
34 systems in accordance with the provisions of subsection (g) of this
35 ~~section;~~section.
- 36 (2) The initial estimated cost of each energy-consuming system being
37 compared and ~~evaluated;~~evaluated.
- 38 (3) The estimated annual operating cost of all utility
39 ~~requirements;~~requirements.
- 40 (4) The estimated annual cost of maintaining each energy-consuming
41 ~~system;~~ and system.
- 42 (5) The average estimated replacement cost for each system expressed in
43 annual terms for the economic life of the facility.

1 (c) ~~The General Assembly requires each~~Each entity ~~to shall~~ conduct a life-cycle
2 cost analysis pursuant to this section for the construction or the renovation of any State
3 facility or State-assisted facility of 20,000 or more gross square feet. For the
4 replacement of heating, ventilation, and air-conditioning equipment in any State facility
5 or State-assisted facility of 20,000 or more gross square feet, the entity shall conduct a
6 life-cycle cost analysis of the replacement equipment pursuant to this section when the
7 replacement is financed under a guaranteed energy savings contract or financed using
8 repair and renovation funds.

9 (d) The life-cycle cost analysis shall be certified by a registered professional
10 engineer or bear the seal of a North Carolina registered architect, or both. The engineer
11 or architect shall be particularly qualified by training and experience for the type of
12 work involved, but shall not be employed directly or indirectly by a fuel provider, utility
13 company, or group supported by fuel providers or utility funds. Plans and specifications
14 for facilities involving public funds shall be designed in conformance with the
15 provisions of G.S. 133-1.1.

16 (e) In order to protect the integrity of historic buildings, no provision of this
17 Article shall be interpreted to require the implementation of ~~energy-cost~~ measures to
18 conserve energy, water, or other utility use that conflict with respect to any property
19 eligible for, nominated to, or entered on the National Register of Historic Places,
20 pursuant to the National Historic Preservation Act of 1966, P.L. 89-665; any historic
21 building located within an historic district as provided in Chapters 160A or 153A of the
22 General Statutes; any historic building listed, owned, or under the jurisdiction of an
23 historic properties commission as provided in Chapter 160A or 153A; nor any historic
24 property owned by the State or assisted by the State.

25 (f) Each State agency shall use the life-cycle cost analysis over the economic life
26 of the facility in selecting the optimum system or combination of systems to be
27 incorporated into the design of the facility.

28 (g) The energy-consumption analysis of the operation of energy-consuming
29 systems utilities in a facility shall include, but not be limited ~~to to~~, all of the following:

- 30 (1) The comparison of two or more system ~~alternatives;~~alternatives.
- 31 (2) The simulation or engineering evaluation of each system over the
32 entire range of operation of the facility for a year's operating ~~period;~~
33 ~~and~~period.
- 34 (3) The engineering evaluation of the ~~energy-consumption of~~ energy,
35 water, and other utilities of component equipment in each system
36 considering the operation of such components at other than full or
37 rated outputs."

38 **SECTION 14.** This act is effective when it becomes law and applies to
39 contracts entered into or renewed on or after that date.