

Article 3B.

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

Part 1. Energy Policy and Life-Cycle Cost Analysis.

**§ 143-64.10. Findings; policy.**

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

- (1) That the State shall take a leadership role in aggressively undertaking the conservation of energy, water, and other utilities in North Carolina.
- (2) That State facilities have a significant impact on the State's consumption of energy, water, and other utilities.
- (3) That practices to conserve energy, water, and other utilities that are adopted for the design, construction, operation, maintenance, and renovation of these facilities and for the purchase, operation, and maintenance of equipment for these facilities will have a beneficial effect on the State's overall supply of energy, water, and other utilities.
- (4) That the cost of the energy, water, and other utilities consumed by these facilities and the equipment for these facilities over the life of the facilities shall be considered, in addition to the initial cost.
- (5) That the cost of energy, water, and other utilities is significant and facility designs shall take into consideration the total life-cycle cost, including the initial construction cost, and the cost, over the economic life of the facility, of the energy, water, and other utilities consumed, and of operation and maintenance of the facility as it affects the consumption of energy, water, or other utilities.
- (6) That State government shall undertake a program to reduce the use of energy, water, and other utilities in State facilities and equipment in those facilities in order to provide its citizens with an example of energy-use, water-use, and utility-use efficiency.

(b) It is the policy of the State of North Carolina to ensure that practices to conserve energy, water, and other utilities are employed in the design, construction, operation, maintenance, and renovation of State facilities and in the purchase, operation, and maintenance of equipment for State facilities. (1975, c. 434, s. 1; 1993, c. 334, s. 2; 2001-415, s. 1; 2006-190, s. 8.)

**§ 143-64.11. Definitions.**

For purposes of this Article:

- (1) "Economic life" means the projected or anticipated useful life of a facility.
- (2) "Energy-consumption analysis" means the evaluation of all energy-consuming systems, including systems that consume water or other utilities, and components of these systems by demand and type of energy or other utility use, including the internal energy load imposed

- on a facility by its occupants, equipment and components, and the external energy load imposed on the facility by climatic conditions.
- (2a) "Energy Office" means the State Energy Office of the Department of Administration.
  - (2b) "Energy-consuming system" includes but is not limited to any of the following equipment or measures:
    - a. Equipment used to heat, cool, or ventilate the facility;
    - b. Equipment used to heat water in the facility;
    - c. Lighting systems;
    - d. On-site equipment used to generate electricity for the facility;
    - e. On-site equipment that uses the sun, wind, oil, natural gas, liquid propane gas, coal, or electricity as a power source; and
    - f. Energy conservation measures, as defined in G.S. 143-64.17, in the facility design and construction that decrease the energy, water, or other utility requirements of the facility.
  - (3) "Facility" means a building or a group of buildings served by a central distribution system for energy, water, or other utility or components of a central distribution system.
  - (4) "Initial cost" means the required cost necessary to construct or renovate a facility.
  - (5) "Life-cycle cost analysis" means an analytical technique that considers certain costs of owning, using, and operating a facility over its economic life, including but not limited to:
    - a. Initial costs;
    - b. System repair and replacement costs;
    - c. Maintenance costs;
    - d. Operating costs, including energy costs; and
    - e. Salvage value.
  - (6) Repealed by Session Laws 1993, c. 334, s. 3, effective July 13, 1993.
  - (7) "State agency" means the State of North Carolina or any board, bureau, commission, department, institution, or agency of the State.
  - (8) "State-assisted facility" means a facility constructed or renovated in whole or in part with State funds or with funds guaranteed or insured by a State agency.
  - (9) "State facility" means a facility constructed or renovated, by a State agency. (1975, c. 434, s. 2; 1989, c. 23, s. 1; 1993, c. 334, s. 3; 2001-415, s. 2; 2006-190, ss. 9, 10, 11.)

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

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

(b) The Department of Administration shall develop and implement policies, procedures, and standards to ensure that State purchasing practices improve efficiency regarding energy, water, and other utility use and take the cost of the product over the economic life of the product into consideration. The Department of Administration shall adopt and implement Building Energy Design Guidelines. These guidelines shall include energy-use goals and standards, economic assumptions for life-cycle cost analysis, and other criteria on building systems and technologies. The Department of Administration shall modify the design criteria for construction and renovation of facilities to require that a life-cycle cost analysis be conducted pursuant to G.S. 143-64.15. The Department of Administration, as part of the Facilities Condition and Assessment Program, shall identify and recommend energy conservation maintenance and operating procedures that are designed to reduce energy consumption within the facility and that require no significant expenditure of funds. State departments, institutions, or agencies shall implement these recommendations. Where energy management equipment is proposed for State facilities, the maximum interchangeability and compatibility of equipment components shall be required.

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

(c) through (g) Repealed by Session Laws 1993, c. 334, s. 4. (1975, c. 434, s. 3; 1993, c. 334, s. 4; 2000-140, s. 76(f); 2001-415, s. 3; 2006-190, s. 12.)

**§ 143-64.13: Repealed by Session Laws 1993, c. 334, s. 5.**

**§ 143-64.14: Recodified as § 143-64.16 by Session Laws 1993, c. 334, s. 7.**

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

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

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

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

- (1) An energy-consumption analysis of the facility's energy-consuming systems in accordance with the provisions of subsection (g) of this section.
- (2) The initial estimated cost of each energy-consuming system being compared and evaluated.
- (3) The estimated annual operating cost of all utility requirements.
- (4) The estimated annual cost of maintaining each energy-consuming system.
- (5) The average estimated replacement cost for each system expressed in annual terms for the economic life of the facility.

(c) Each entity shall conduct a life-cycle cost analysis pursuant to this section for the construction or the renovation of any State facility or State-assisted facility of 20,000 or more gross square feet. For the replacement of heating, ventilation, and air-conditioning equipment in any State facility or State-assisted facility of 20,000 or more gross square feet, the entity shall conduct a life-cycle cost analysis of the replacement equipment pursuant to this section when the replacement is financed under a guaranteed energy savings contract or financed using repair and renovation funds.

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

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

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

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

- (1) The comparison of two or more system alternatives.
- (2) The simulation or engineering evaluation of each system over the entire range of operation of the facility for a year's operating period.
- (3) The engineering evaluation of the consumption of energy, water, and other utilities of component equipment in each system considering the

operation of such components at other than full or rated outputs. (1993, c. 334, s. 6; 2001-415, ss. 4, 5; 2006-190, s. 13.)

**§ 143-64.15A. Certification of life-cycle cost analysis.**

All State agencies under the jurisdiction of the Department of Administration performing a life-cycle cost analysis for the purpose of constructing or renovating any State facility shall, prior to selecting a design option or advertising for bids for construction, submit the life-cycle cost analysis to the Department for certification. The Department shall review the material submitted by the State agency, reserve the right to require agencies to complete additional analysis to comply with certification, perform any additional analysis, as necessary, to comply with G.S. 143-341(11), and require that all construction or renovation conducted by the State agency comply with the certification issued by the Department. (2001-415, s. 6.)

**§ 143-64.16. Application of Part.**

The provisions of this Part shall not apply to municipalities or counties, nor to any agency or department of any municipality or county; provided, however, this Part shall apply to any board of a community college. Community college is defined in G.S. 115D-2(2). (1975, c. 434, s. 5; 1989, c. 23, s. 2; 1993, c. 334, s. 7; 1993 (Reg. Sess., 1994), c. 775, s. 2.)

Part 2. Guaranteed Energy Savings Contracts for Governmental Units.

**§ 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 or meter, when the alteration, training, or services provide anticipated energy 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.
  - c. Automatic energy control systems.
  - d. Heating, ventilating, or air-conditioning system modifications or replacements.
  - e. Replacement or modification of lighting fixtures to increase the energy efficiency of a lighting system without increasing the overall illumination of a facility, unless an increase in illumination is necessary to conform to the applicable State or

local building code or is required by the light system after the proposed modifications are made.

- f. Energy recovery systems.
  - g. Cogeneration systems that produce steam or forms of energy such as heat, as well as electricity, for use primarily within a building or complex of buildings.
  - h. Repealed by Session Laws 2006-190, s. 2, effective August 3, 2006, and applicable to contracts entered into or renewed on or after that date.
  - i. Faucets with automatic or metered shut-off valves, leak detection equipment, water meters, water recycling equipment, and wastewater recovery systems.
  - j. Other energy conservation measures that conserve energy, water, or other utilities.
- (2) "Energy savings" means a measured reduction in fuel costs, energy costs, water costs, stormwater fees, other utility costs, or operating costs, including environmental discharge fees, water and sewer maintenance fees, and increased meter accuracy, created from the implementation of one or more energy conservation measures when compared with an established baseline of previous costs, including captured lost revenues, developed by the governmental unit.
- (2a) "Governmental unit" means either a local governmental unit or a State governmental unit.
- (3) "Guaranteed energy savings contract" means a contract for the evaluation, recommendation, or implementation of energy conservation measures, including the design and installation of equipment or the repair or replacement of existing equipment or meters, in which all payments, except obligations on termination of the contract before its expiration, are to be made over time, and in which energy savings are guaranteed to exceed costs.
- (4) "Local governmental unit" means any board or governing body of a political subdivision of the State, including any board of a community college, any school board, or an agency, commission, or authority of a political subdivision of the State.
- (5) "Qualified provider" means a person or business experienced in the design, implementation, and installation of energy conservation measures.
- (6) "Request for proposals" means a negotiated procurement initiated by a governmental unit by way of a published notice that includes the following:
- a. The name and address of the governmental unit.
  - b. The name, address, title, and telephone number of a contact person in the governmental unit.

- c. Notice indicating that the governmental unit is requesting qualified providers to propose energy conservation measures through a guaranteed energy savings contract.
  - d. The date, time, and place where proposals must be received.
  - e. The evaluation criteria for assessing the proposals.
  - f. A statement reserving the right of the governmental unit to reject any or all the proposals.
  - g. Any other stipulations and clarifications the governmental unit may require.
- (7) "State governmental unit" means the State or a department, an agency, a board, or a commission of the State, including the Board of Governors of The University of North Carolina and its constituent institutions. (1993 (Reg. Sess., 1994), c. 775, s. 3; 1995, c. 295, s. 1; 1999-235, ss. 1, 2; 2002-161, s. 2; 2006-190, s. 2.)

**§ 143-64.17A. Solicitation of guaranteed energy savings contracts.**

(a) Before entering into a guaranteed energy savings contract, a governmental unit shall issue a request for proposals. Notice of the request shall be published at least 15 days in advance of the time specified for opening of the proposals in at least one newspaper of general circulation in the geographic area for which the local governmental unit is responsible or, in the case of a State governmental unit, in which the facility or facilities are located. No guaranteed energy savings contract shall be awarded by any governmental unit unless at least two proposals have been received from qualified providers. Provided that if after the publication of the notice of the request for proposals, fewer than two proposals have been received from qualified providers, the governmental unit shall again publish notice of the request and if as a result of the second notice, one or more proposals by qualified providers are received, the governmental unit may then open the proposals and select a qualified provider even if only one proposal is received.

(b) The governmental unit shall evaluate a sealed proposal from any qualified provider. Proposals shall contain estimates of all costs of installation, modification, or remodeling, including costs of design, engineering, installation, maintenance, repairs, debt service, and estimates of energy savings.

(c) In the case of a local governmental unit, proposals received pursuant to this section shall be opened by a member or an employee of the governing body of the local governmental unit at a public opening at which the contents of the proposals shall be announced and recorded in the minutes of the governing body. Proposals shall be evaluated for the local governmental unit by a licensed architect or engineer on the basis of:

- (1) The information required in subsection (b) of this section; and
- (2) The criteria stated in the request for proposals.

The local governmental unit may require a qualified provider to include in calculating the cost of a proposal for a guaranteed energy savings contract any reasonable fee payable by the local governmental unit for evaluation of the proposal by a licensed architect or

professional engineer not employed as a member of the staff of the local governmental unit or the qualified provider.

(c1) In the case of a State governmental unit, proposals received pursuant to this section shall be opened by a member or an employee of the State governmental unit at a public opening and the contents of the proposals shall be announced at this opening. Proposals shall be evaluated for the State governmental unit by a licensed architect or engineer who is either privately retained, employed with the Department of Administration, or employed as a member of the staff of the State governmental unit. The proposal shall be evaluated on the basis of the information required in subsection (b) of this section and the criteria stated in the request for proposals.

The State governmental unit shall require a qualified provider to include in calculating the cost of a proposal for a guaranteed energy savings contract any reasonable fee payable by the State governmental unit for evaluation of the proposal by a licensed architect or professional engineer not employed as a member of the staff of the State governmental unit or the qualified provider. The Department of Administration may charge the State governmental unit a reasonable fee for the evaluation of the proposal if the Department's services are used for the evaluation and the cost paid by the State governmental unit to the Department of Administration shall be calculated in the cost of the proposal under this subsection.

(d) The governmental unit shall select the qualified provider that it determines to best meet the needs of the governmental unit by evaluating all of the following:

- (1) Prices offered.
- (2) Proposed costs of construction, financing, maintenance, and training.
- (3) Quality of the products proposed.
- (4) Amount of energy savings.
- (5) General reputation and performance capabilities of the qualified providers.
- (6) Substantial conformity with the specifications and other conditions set forth in the request for proposals.
- (7) Time specified in the proposals for the performance of the contract.
- (8) Any other factors the governmental unit deems necessary, which factors shall be made a matter of record.

(e) Nothing in this section shall limit the authority of governmental units as set forth in Article 3D of this Chapter. (1993 (Reg. Sess., 1994), c. 775, s. 3; 2002-161, s. 3.)

#### **§ 143-64.17B. Guaranteed energy savings contracts.**

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

- (1) The term of the contract does not exceed 20 years from the date of the installation and acceptance by the governmental unit of the energy conservation measures provided for under the contract.



- (2) The governmental unit finds that the energy savings resulting from the performance of the contract will equal or exceed the total cost of the contract.
- (3) The energy conservation measures to be installed under the contract are for an existing building or utility system.

(b) Before entering into a guaranteed energy savings contract, the governmental unit shall provide published notice of the time and place or of the meeting at which it proposes to award the contract, the names of the parties to the proposed contract, and the contract's purpose. The notice must be published at least 15 days before the date of the proposed award or meeting.

(c) A qualified provider entering into a guaranteed energy savings contract under this Part shall provide security to the governmental unit in the form acceptable to the Office of the State Treasurer and in an amount equal to one hundred percent (100%) of the total cost of the guaranteed energy savings contract to assure the provider's faithful performance. Any bonds required by this subsection shall be subject to the provisions of Article 3 of Chapter 44A of the General Statutes. If the savings resulting from a guaranteed energy savings contract are not as great as projected under the contract and all required shortfall payments to the governmental unit have not been made, the governmental unit may terminate the contract without incurring any additional obligation to the qualified provider.

(d) As used in this section, "total cost" shall include, but not be limited to, costs of construction, costs of financing, and costs of maintenance and training during the term of the contract. "Total cost" does not include any obligations on termination of the contract before its expiration, provided that those obligations are disclosed when the contract is executed.

(e) A guaranteed energy savings contract may not require the governmental unit to purchase a maintenance contract or other maintenance agreement from the qualified provider who installs energy conservation measures under the contract if the unit of government takes appropriate action to budget for its own forces or another provider to maintain new systems installed and existing systems affected by the guaranteed energy savings contract.

(f) In the case of a State governmental unit, a qualified provider shall, when feasible, after the acceptance of the proposal of the qualified provider by the State governmental unit, conduct an investment grade audit. If the results of the audit are not within ten percent (10%) of both the guaranteed savings contained in the proposal and the total proposal amount, either the State governmental unit or the qualified provider may terminate the project without incurring any additional obligation to the other party. However, if the State governmental unit terminates the project after the audit is conducted and the results of the audit are within ten percent (10%) of both the guaranteed savings contained in the proposal and the total proposal amount, the State governmental unit shall reimburse the qualified provider the reasonable cost incurred in conducting the audit, and the results of the audit shall become the property of the State governmental unit.

(g) In the case of a State governmental unit, a qualified provider shall provide an annual reconciliation statement based upon the results of the measurement and verification review. The statement shall disclose any shortfalls or surplus between guaranteed energy and operational savings specified in the guaranteed energy savings contract and actual, not stipulated, energy and operational savings incurred during a given guarantee year. The guarantee year shall consist of a 12-month term commencing from the time that the energy conservation measures become fully operational. A qualified provider shall pay the State governmental unit any shortfall in the guaranteed energy and operational savings after the total year savings have been determined. A surplus in any one year shall not be carried forward or applied to a shortfall in any other year. (1993 (Reg. Sess., 1994), c. 775, s. 3; 1995, c. 295, s. 2; 1999-235, s. 3; 2002-161, s. 4; 2003-138, s. 1; 2006-190, s. 3.)

**§ 143-64.17C:** Repealed by Session Laws 2002, ch. 161, s. 5, effective January 1, 2003, and applicable to contracts entered into on or after that date.

**§ 143-64.17D. Contract continuance.**

A guaranteed energy savings contract may extend beyond the fiscal year in which it becomes effective. Such a contract shall stipulate that it does not constitute a direct or indirect pledge of the taxing power or full faith and credit of any governmental unit. (1993 (Reg. Sess., 1994), c. 775, s. 3; 2002-161, s. 6.)

**§ 143-64.17E. Payments under contract.**

A local governmental unit may use any funds, whether operating or capital, that are not otherwise restricted by law for the payment of a guaranteed energy savings contract. State appropriations to any local governmental unit shall not be reduced as a result of energy savings occurring as a result of a guaranteed energy savings contract. (1993 (Reg. Sess., 1994), c. 775, s. 3.)

**§ 143-64.17F. State agencies to use contracts when feasible; rules; recommendations.**

(a) State governmental units shall evaluate the use of guaranteed energy savings contracts in reducing energy costs and may use those contracts when feasible and practical.

(b) The Department of Administration, through the State Energy Office, shall adopt rules for: (i) agency evaluation of guaranteed energy savings contracts; (ii) establishing time periods for consideration of guaranteed energy savings contracts by the Office of State Budget and Management, the Office of the State Treasurer, and the Council of State, and (iii) setting measurements and verification criteria, including review, audit, and precertification. Prior to adopting any rules pursuant to this section, the Department shall consult with and obtain approval of those rules from the State Treasurer.

(c) The Department of Administration, through the State Energy Office, may provide to the Council of State its recommendations concerning any energy savings contracts being considered. (2002-161, s. 7; 2003-138, s. 2.)

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

A local governmental unit that enters into a guaranteed energy savings contract must report the contract and the terms of the contract to the Local Government Commission. The Commission shall compile the information and report it biennially to the Joint Commission on Governmental Operations. In compiling the information, the Local Government Commission shall include information on the energy savings expected to be realized from a contract and, with the assistance of the Office of State Construction, shall evaluate whether expected savings have in fact been realized. (1993 (Reg. Sess., 1994), c. 775, s. 9; 2006-190, s. 4.)

**§ 143-64.17H. Report on guaranteed energy savings contracts entered into by State governmental units.**

A State governmental unit that enters into a guaranteed energy savings contract must report the contract and the terms of the contract to the State Energy Office of the Department of Administration within 30 days of the date the contract is entered into. In addition, within 60 days after each annual anniversary date of a guaranteed energy savings contract, the State governmental unit must report the status of the contract to the State Energy Office, including any details required by the State Energy Office. The State Energy Office shall compile the information for each fiscal year and report it to the Joint Legislative Commission on Governmental Operations and to the Local Government Commission annually by December 1. In compiling the information, the State Energy Office shall include information on the energy savings expected to be realized from a contract and shall evaluate whether expected savings have in fact been realized. (2002-161, s. 8; 2006-190, s. 5.)

**§ 143-64.17I. Installment and lease purchase contracts.**

A local governmental unit may provide for the acquisition, installation, or maintenance of energy conservation measures acquired pursuant to this Part by installment or lease purchase contracts in accordance with and subject to the provisions of G.S. 160A-20 and G.S. 160A-19, as applicable. (2002-161, s. 8.)

**§ 143-64.17J. Financing by State governmental units.**

State governmental units may finance the acquisition, installation, or maintenance of energy conservation measures acquired pursuant to this Part in the manner and to the extent set forth in Article 8 of Chapter 142 of the General Statutes or as otherwise authorized by law. (2002-161, s. 8.)

**§ 143-64.17K. Inspection and compliance certification for State governmental units.**

The provisions of G.S. 143-341(3) shall not apply to any energy conservation measure for State governmental units provided pursuant to this Part, except as specifically set forth in this section. Except as otherwise exempt under G.S. 116-31.11, the following shall apply to all energy conservation measures provided to State governmental units pursuant to this Part:

- (1) The provisions of G.S. 133-1.1.
- (2) Inspection and certification by:
  - a. The applicable local building inspector under Part 4 of Article 18 of Chapter 153A of the General Statutes or Part 5 of Article 19 of Chapter 160A of the General Statutes; or
  - b. At the election of the State governmental unit, the Department of Administration under G.S. 143-341(3)d.

The cost of compliance with this section may be included in the cost of the project in accordance with G.S. 143-64.17A(c1) and may be included in the cost financed under Article 8 of Chapter 142 of the General Statutes. (2002-161, s. 8.)

**§§ 143-64.17L through 143-64.19. Reserved for future codification purposes.**