

*Regulations of Connecticut State Agencies*

TITLE 16a. Planning and Energy Policy

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*Agency*

**Office of Policy and Management**

*Subject*

**Eligibility of Nonresidential Solar Energy Electricity Generating Systems for the Purpose of Authorized Property Tax Exemption**

*Inclusive Sections*

**§§ 16a-14-1—16a-14-302**

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**Eligibility of Nonresidential Solar Energy Electricity Generating Systems for the Purpose of Authorized Property Tax Exemption**

**Sec. 16a-14-1. Preamble**

These standards define the physical elements of solar energy systems that are eligible for a property tax exemption in accordance with the provisions of subsection (56) of section 12-81 of the General Statutes, and define solar energy electricity generating systems that are eligible for a property tax exemption in accordance with the provisions of subsection (57) and subsection (63) of section 12-81 of the General Statutes. Their purpose is to serve as a guide for assessors to evaluate an application claiming such exemptions, and as such to provide criteria for determining eligibility.

(Effective March 31, 1986)

**Sec. 16a-14-2. Definitions**

(a) “Solar Energy” is defined as the energy received by the earth from the sun in the form of electromagnetic radiation or potential or kinetic energy existing in the earth’s principle media, such as the sea, the air and the land, as the result of such radiation being received. Solar energy includes but is not limited to:

- (1) solar insolation both direct and diffuse in the form of sensible heat;
- (2) flowing or falling water, by means of which waterwheels or water turbines are driven;
- (3) moving air by means of which windmills are driven.

(b) A “conventional heating and cooling system” is a system which delivers heating or cooling to a building through the combustion of fossil fuels such as petroleum or petroleum products, natural gas, or coal or through the utilization of electricity as a heat source except where generated by means of solar energy as defined in subsection (a).

(c) A “residential solar energy electricity generating system” means equipment which is designed, operated and installed as a system at any private residential location, which utilizes solar energy to produce electricity for consumption at such location and which meets standards established by these regulations. “Consumption at such location” shall be deemed to include electricity furnished from any private residential location to an electric company as defined in section 16-1 of the General Statutes, a municipal electric plant established under chapter 101 of the General Statutes, a municipal electric energy cooperative established under chapter 101a of the General Statutes, or an electric cooperative established under chapter 597 of the General Statutes, whose authorized service area includes said private residential location, if the amount of electricity so furnished on an annual basis does not exceed the amount of electricity received on an annual basis from said company, plant, or cooperative for consumption at said private residential location.

(d) “private residential” includes both single-family and multi-family dwellings, and includes mobile homes as defined in subsection (a) of section 21-64 of the General Statutes, but does not include institutional buildings as defined in the State Building Code. If a portion of a building is occupied as a residential dwelling and a portion is occupied for some other use, then a solar energy electricity generating system which supplies electricity to such a

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building is eligible for a property tax exemption only if it supplies electricity solely to the residential portion of the building or if the conditions in subsection (e) are met for the nonresidential portion.

(e) A “nonresidential solar energy electricity generating system” means equipment other than a residential solar energy electricity generating system which is designed, operated and installed as a system which produces electricity using solar energy as the source of energy for at least seventy-five percent of the electricity produced by the system and which meets the standards established by these regulations.

(Effective March 31, 1986)

**Sec. 16a-14-3. Eligibility of solar energy heating or cooling systems for exemption under subsection (56) of section 12-81 of the General Statutes**

(a) **Criteria.** A “solar energy heating or cooling system” shall be deemed capable of offering a practical alternative to the use of conventional energy with regard to current technological feasibility and the climate of this state if it:

(1) constitutes any active system which complies with standards prepared by the National Bureau of Standards for the Department of Housing and Urban Development, “Intermediate Minimum Property Standards for Solar Heating and Domestic Hot Water Systems,” and including any amendments thereunto or revised editions thereof as may be adopted by said Department unless the Secretary of the Office of Policy and Management makes a written determination to the contrary, which determination shall be deemed a final decision for the purposes of section 4-183 of the General Statutes, or

(2) constitutes any active system which utilizes solar energy to provide heating or cooling to a building, and is comprised of the complete assembly of necessary equipment which supplies energy to the building in which it is installed, the primary purpose of such equipment to be the furnishing of thermal energy to meet part or all of such building’s heating and/or cooling and/or domestic hot water requirements.

(b) **Scope of exemption.** Eligible for exemption from the property tax in accordance with the provisions of subsection (56) of section 12-81 of the General Statutes are the collection, transfer and storage subsystems which, when combined and operating, supplement or supplant the output provided by a conventional heating or cooling system. A solar energy heating or cooling system may include such components as collectors, thermal storage device(s), energy transfer media and/or devices, and all valves and/or dampers, pumps and/or blowers, pipes and/or ducts, controls, heat exchangers, gaskets and hoses thereof necessary for the operating of the system.

(Effective July 3, 1980)

**Sec. 16a-14-4. Eligibility of residential and non-residential solar energy electricity generating systems for exemption under subsection (57) and subsection (63) of section 12-81 of the General Statutes**

(a) A residential and non-residential solar energy electricity generating system shall be

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deemed eligible for a property tax exemption if the requirements imposed by subsection (57) and subsection (63) of section 12-81 of the General Statutes and this section are met. Requirements for exemption are as follows:

(1) The system utilizes a photovoltaic, wind, water, solar thermal-to-electric, or other system to convert solar energy into electrical energy;

(2) A building permit has been obtained for the construction of the system, and a certificate of use or occupancy if required by the municipality involved;

(3) The system is in accord with all applicable zoning requirements;

(4) In the case of systems which produce electricity for distribution through the facilities of electric utilities, all applicable requirements of the department of public utility control shall be met, including, without limitation, those involving system operation and safety; and

(5) In the case of systems utilizing water power, the system conforms to all applicable statutes, regulations, and other requirements pertaining to the utilization of water resources, including, without limitation, those administered by the department of environmental protection, municipal inland wetlands agencies, and municipal conservation commissions.

(b) A hydroelectric system which employs energy resources other than renewable energy resources to pump water which is subsequently used to produce electricity or other forms of energy shall not be eligible for exemption unless at least seventy-five percent of the energy employed for such pumping is produced by means of solar energy.

(c) Components of solar energy electricity generating system eligible for exemption. A solar energy electricity generating system may include such components as photovoltaic cells, materials providing for the mounting of such cells upon a roof or other surface; wind rotors (windmills), including associated towers; waterwheels or turbines, dams and impounded water required for the operation of said wheels or turbines, and associated equipment such as water intakes, valves, pipes, or other components necessary to the system's operation; equipment for solar thermal-to-electrical conversion, including solar collectors and facilities to transfer the collected energy to a central location, or focusing mirrors, lenses, or other solar energy gathering devices, including their mountings (and including any equipment to enable the energy gathering devices to track the movement of the sun), central boilers, troughs, or other units and associated towers or mountings, for concentrating solar energy in working fluid, and facilities to transfer such fluid to the electricity generating equipment; turbines, condensers, and electricity generating equipment, including any gearing that may be required; equipment for the storage of energy, including electricity, such as batteries, equipment for the storage of energy in water (or any other storage media), compressed air storage systems, flywheel systems, magnetic energy storage systems, and hydrogen storage systems; and any additional equipment as may be necessary or useful for such electricity generation, such as inverters, voltage regulators, switches, and that portion of the system's wiring connecting the generating equipment to the electricity storage equipment (or to the building, if no electricity storage equipment is utilized); and any building or structure used solely to house the solar electricity generating system or

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components thereof. A solar energy electricity generating system does not include the land occupied by the system, or, in the case of a system which utilizes water power, the land occupied by water impounded for the purposes of the system.

(d) Systems located in more than one municipality. In the case of a water-powered solar energy electricity generating system which is located in more than one municipality, or which is located in one municipality but which provides power in another municipality, that portion of the system subject to assessment in each respective municipality pursuant to sections 12-78 through 12-80 of the General Statutes shall be eligible for exemption only if authorized by said municipality.

(Effective March 31, 1986)

**Sec. 16a-14-5—16a-14-99. Reserved**

**Standards and Specifications for Exemption from State Sales and Use Tax for Renewable Energy Systems or Systems Utilizing Cogeneration Technology**

**Sec. 16a-14-100. Preamble**

These regulations establish standards and specifications for renewable energy systems, cogeneration systems, and component parts of such systems. These regulations are authorized under Section 16a-14 (8) and under Section 12-412 (39) of the Connecticut General Statutes as amended by Section 3 of Public Act 85-534. These standards incorporate by reference portions of the regulations adopted by the Federal Energy Regulatory Commission (FERC) pursuant to Section 201 of the Public Utility Regulatory Policies Act of 1978 (PURPA). A system which is within the scope of such specifications and which complies with such standards, and which meets all requirements established in or under section 12-412 (39) of the Connecticut general statutes as amended by Section 3 of Public Act 85-534 is eligible for exemption from the state sales and use tax. Procedures for exemption from the state sales and use tax are set out in Section 12-426-28a of the regulations of Connecticut State Agencies.

(Effective November 6, 1986)

**Sec. 16a-14-101. Definitions**

For the purposes of these regulations, the following terms shall have the meanings assigned in this section, unless the context clearly indicates to the contrary:

“Secretary” means the Secretary of the Office of Policy and Management.

“Renewable Energy System” means a system of related equipment, including structural components of a building specifically designed to retain heat derived from solar energy, which system is designed for the collection, transfer, storage, conversion and use of solar energy, including:

- (1) direct solar insolation
- (2) wind
- (3) water or,

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(4) biomass energy

for the purpose of space heating or cooling, water heating or generation of electricity or any other application which, in the absence of such system would require the use of a conventional energy source, but shall not include woodburning stoves.

“Small Power Production Facility” means a renewable energy system which is designed to generate electricity and has been determined by the secretary to meet the size and fuel use standards set out in 18 CFR 292.204 (a) and (b).

“Cogeneration System” means a cogeneration facility, as defined in 18 CFR 292.202 (c), the primary purpose of which is reducing the use of conventional energy sources, and which has been determined by the secretary to meet the operating and efficiency standards set out in 18 CFR 292.205 (a) or (b).

“Parts or components of Cogeneration Systems” and “Parts or components of Small Power Production Facilities” means only those parts or components which are integral and essential to the operation of such systems and includes those parts referred to in Section 16a-14-102.

“Active Solar System” means a system which converts the sun’s energy into thermal energy and may transport this energy, when applicable, to a storage device through a heat transport medium such as air or a liquid. Heat is withdrawn either from the transport medium or from the storage device and used to provide space conditioning for the building or structure or service hot water. An active solar system shall also include a system using solar energy as defined in these regulations for the production of electricity or mechanical energy.

“Building” means any residential, commercial, industrial or other structure as defined in the state building code.

“Eligible” means that a system or piece of equipment qualifies to be included in the determination of the amount of the exemption pursuant to section 12-412 (39) of the Connecticut general statutes and complies with the standards specified in these regulations.

“Commercial Solar Equipment” means equipment manufactured for sale and which, when connected together, constitutes a solar energy system.

“Site Built System” means a solar system, utilizing collectors, constructed from basic materials where the collectors are assembled on the premises of final use by a contractor.

“Self Built” means a solar energy collector or system using a collector built from basic materials and installed by the owner or renter of the building.

“Passive Solar Heating and/or Cooling System” means (1) a system which utilizes the architectural features of a building to maximize solar heat gain during the heating season, minimize heat losses, and provide thermal storage within the building or structure, and during the cooling season minimize heat gain and provide for natural ventilation, and (2) a system using a collector wherein natural thermal transfer occurs but which does not include the use of a fan or pump.

“Direct Gain” means solar radiation passes through the living space before being stored in the thermal mass for long term heating.

“Indirect Gain” means a thermal mass collects and stores heat directly from the sun and

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then transfers heat to the living space.

“Isolated Gain” means solar collection and storage are thermally isolated from the living spaces of the building.

“Solar Energy” means energy which has recently originated in the sun in the form of direct and diffuse solar radiation.

“Thermal Mass Wall,” including but not limited to Trombe walls, water walls and drum walls, means a wall either directly or indirectly capable of exposure to solar radiation. Such wall may function as a combination heat sink and wall, and shall include external glazing or some other method which creates a heat trap for penetrating solar radiation.

“Thermal Contact Ceiling” means a combined roofing and heating system composed of containers filled with water or other heat storage medium placed above the roof beams of a building and utilized as a heat sink for solar radiation during the daylight hours and as a thermal storage device and insulator during the nocturnal hours. Some provision shall be made to reduce heat loss at night and during cold weather when little sunlight is available, as a means of retaining absorbed heat. During the cooling season, this operation may be reversed to provide a cooling effect.

“Heat Transportation System” means that portion of a solar heating and/or cooling system used to transfer heat from the collectors to a point of use or storage through pipes in liquid systems or ducts in warm air systems.

“Collector” means that component of a solar energy system that receives direct or diffuse solar radiation to convert it to thermal energy to be ultimately used for space conditioning or service water heating. The device contains an absorber and flow passages to carry the transfer medium either liquid or gaseous, to be heated. This assembly is surrounded by a casing and one or more layers of glazing material.

“Biomass” means non-fossil plant material which is used for fuel in direct combustion.

(Effective November 6, 1986)

**Sec. 16a-14-102. Eligibility**

A renewable energy system, a cogeneration system, or component parts shall qualify for a sales tax exemption if in compliance with the following standards and specifications.

(a) Commercial solar equipment in solar heating and/or cooling systems sold as a package and domestic hot water systems sold as a package including equipment for converting, storing and transporting solar energy. A system shall be deemed eligible if it is in compliance with the requirements of the state of Connecticut Building Code.

(b) Solar energy collectors purchased for heating and/or cooling of domestic hot water. A collector shall be deemed eligible if it is in compliance with the requirements of the state of Connecticut Building Code.

Basic materials used in the site built and self built construction of collectors and active systems and replacement parts for any eligible renewable energy system or eligible cogeneration system.

(c) Heat transportation systems which are a part of a solar system, up to the point where

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the system is integrated to a conventional or supplemental system meeting the requirements of the State of Connecticut Building Code.

(d) Devices constructed for the sole purpose of storing thermal energy collected and converted by a solar system.

(e) Devices used to control the operation or functioning of a solar system.

(f) Materials used solely to mount solar equipment on a building or on the ground.

(g) Devices used to track the movement of the sun and maintain the orientation of collectors toward the sun.

(h) Photovoltaic cells

(i) Wind energy conversion systems used to generate electricity. Components of such systems eligible for exemption shall include wind rotors, including associated towers, electricity generating equipment, inverters, voltage regulators, switches, and that portion of the system's wiring connecting the generating equipment to the electricity storage equipment, or to a building if no electricity storage equipment is utilized.

(j) **Hydroelectric generating systems.** Components of such systems eligible for exemption shall include waterwheels or turbines and associated equipment such as water intakes, control gates and other flow control devices, valves, pipes or other components necessary to the system's operation, electricity generating equipment, inverters, voltage regulators, switches, and that portion of the system's wiring connecting the generating equipment to the electricity storage equipment, or to a building if no electricity storage equipment is utilized. The exemption does not apply to materials used in construction of a dam or any appurtenant structures or components for the purpose of impounding water.

(k) Parts or components of cogeneration systems which are directly attributable, an integral part, and essential to the operation of the cogeneration system may include, but are not limited to, prime movers, generators and associated equipment, electrical switch gear and paralleling equipment, primary boiler or combustor, fuel storage or pipeline interconnection, controls and performance monitoring equipment, fuel and waste handling and preparatory and disposal equipment, waste heat recovery boilers or heat exchanger, and water treatment for process.

(l) Batteries used solely to store electricity produced by photovoltaic cells or other eligible devices.

(m) Equipment of the following types for passive systems.

(1) Glazing materials with a U value of .65 or less on a south facing wall,  $\pm 30$  degrees of true south, that is at least 75% free of shading between the hours of 9:00 AM and 3:00 PM on December 21, in fenestrating a building as part of a design for the purpose of direct or indirect solar heat gain.

(2) Equipment such as heads, sills and jambs used solely as bracing for eligible glazing, and awnings or overhangs for the purpose of shading such glazing during the cooling season.

(3) Skylights and roof glazing facing true south  $\pm 30$  degrees and are mounted at an angle of 40 degrees or greater shall be considered solar energy equipment only if such devices are used for direct or indirect solar heat gain during the heating season and if capable of



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reducing heat loss at night during the heating season through use of insulating devices so that such skylights or roof glazing provides a net heat gain to the building.

(4) Glass, fiberglass, or other glazing materials which are equal or less than a U value of .65 and are used to enclose south facing areas such as greenhouses, solariums, or atriums attached to a building for the purpose of isolated solar gain, provided that warmed air can circulate through the building and provisions have been made to prevent nocturnal and cold weather heat losses from the building to which the enclosed area is attached.

(5) Materials used in the construction of thermal mass walls.

(6) Materials such as brick, sand, masonry and insulation when used in constructing a floor for thermal storages for those areas capable of receiving reflected or direct light through solar glazing.

(7) Materials purchased for the construction of a thermal contact ceiling.

(8) Movable insulation used to minimize heat loss largely caused by nocturnal loss through areas used for direct, indirect or isolated solar gain during the daylight hours, provided that such insulation is tight fitting, gasketed, fully weatherstripped, or otherwise treated to limit infiltration and convective airflow around the device.

(n) Furnaces or other appliances which can use biomass as a fuel source, provided that such appliances circulate heat from a central location with ducts and pipes to provide space or water heating, or are used for the production of electricity or industrial process heat. Appliances using biomass as a fuel source which are designed to be added on to an existing central heating system shall also be eligible for exemption.

(o) Cogeneration systems which come as a packaged unit if such systems are in compliance with FERC criteria set out in 18 CFR 292.204.

(p) The following materials and equipment are not eligible for exemption:

(1) Building insulation used solely to reduce heat loss through walls, roofs, slabs and foundations. Insulation used behind the absorber surface of a site or self built collector shall be eligible for exemption.

(2) Uninsulated skylights.

(3) Bracing equipment used as structural members such as columns, beams, and studs, except as provided in (m) (2).

(4) Exterior walls and floors constructed of masonry as a means of reducing heat loss, except as provided in (m) (5).

(5) Devices such as non-insulated draperies, non-reflective venetian blinds, curtains, and rugs except as provided in (m) (8).

(6) Heat pumps.

(7) Trees, shrubbery, and other forms of vegetation incorporated into a building or site design.

(8) Evaporative coolers or cooling towers.

(9) Devices used solely for heating swimming pools.

(10) Distribution equipment or materials which transfer electrical, mechanical or thermal energy from the cogeneration system to the point at which the energy is used, and equipment

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or materials which use such energy.

(11) Any materials used in construction which are not physically incorporated into the cogeneration system or small power production facility.

(12) Buildings housing small power production facilities or cogeneration systems except for structures solely enclosing such equipment.

(13) Motor vehicles used in conjunction with the cogeneration system.

(14) Cogeneration systems in which the useful electric energy generated is less than 5% of the total useful energy output.

(q) If a renewable energy system is neither specifically eligible or ineligible for exemption, the secretary shall examine the plans and specifications of such system and issue a ruling as to eligibility within ninety days.

(Effective November 6, 1986)

**Sec. 16a-14-103—16a-14-199. Reserved**

**Standards and Specifications for Exemption from Property Tax for Passive and Hybrid Solar Energy Systems**

**Sec. 16a-14-200. Preamble**

These regulations establish standards and specifications for passive and hybrid solar energy systems. A system which is within the scope of such specifications and which complies with such standards, and which meets all requirements established in or under Section 12-81 (62) of the General Statutes is eligible for exemption from property tax in accordance with the provisions of Section 12-81 (62). Their purpose is to serve as a guide for assessors to evaluate an application claiming such an exemption and as such to provide criteria for determining eligibility. These regulations are authorized under Section 12-81 (62) and under division (8) of section 16a-14 of the General Statutes.

(Effective June 3, 1981)

**Sec. 16a-14-201. Definition**

“Secretary” means the secretary of the office of policy and management.

“Building” means any residential, commercial, industrial, or other structure as defined in the state building code.

“Passive Solar Heating and/or Cooling System” means 1) a system which utilizes the architectural features of a building to maximize solar heat gain during the heating season, minimize heat losses, and provide thermal storage within the building or structures, and during the cooling season minimize heat gain and provide for natural ventilation, and 2) a system using a collector wherein natural thermal transfer occurs but which does not include the use of a fan or pump.

“Direct Gain” means solar radiation passes through the living space before being stored in the thermal mass for long-term heating.

“Indirect Gain” means a thermal mass collects and stores heat directly from the sun and

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then transfers heat to the living space.

“Isolated Gain” means solar collection and storage are thermally isolated from the living spaces of the building.

“Solar Energy” means energy which has recently originated in the sun in the form of direct and diffuse solar radiation. Wind, water, wood and other biomass forms are specifically excluded for the purposes of these regulations.

“Thermal Mass Wall,” including but not limited to Trombe walls, other types of masonry or stone walls, water walls, and drum walls, means a wall either directly or indirectly capable of exposure to solar radiation. Such wall may function as a combination heat sink and wall, and shall include external glazing or some other method which creates a heat trap for penetrating solar radiation.

“Thermal Contact Ceiling” means a combined roofing and heating system composed of containers filled with water or other heat storage medium placed above the roof beams of a building and utilized as a heat sink for solar radiation during the daylight hours and as a thermal storage device and insulator during the nocturnal hours. Some provision shall be made reduce heat loss at night and during cold weather when little sunlight is available, as a means of retaining absorbed heat. During the cooling season, this operation may be reversed to provide a cooling effect.

“Hybrid Solar Heating or Cooling System” means a system using elements of a passive solar heating or cooling system but incorporates mechanical devices into the operation of the system for purposes of transporting heat to a storage area or living area or to control the operation of the system including control of nocturnal and cold weather heat losses.

(Effective June 3, 1981)

**Sec. 16a-14-202. Eligibility**

Any building located in a municipality which has adopted subdivision (62) of section 12-81 of the general statutes, the construction of which is commenced on or after April 20, 1977, and before October 1, 1991, which is equipped with a passive or hybrid solar energy heating or cooling system, of any building to which such a system is added on or after April 20, 1977 and before October 1, 1991 shall be eligible for exemption of property tax to the extent of any amount by which the assessed valuation of such real property equipped with such a system exceeds the valuation at which such real property would be assessed if built using conventional construction techniques in lieu of construction related to such a system. The following components of such a system shall be deemed eligible for inclusion in determining the amount of the exemption if such components meet the specifications stated herein and if such components meet all applicable requirements of the state of Connecticut building code.

(a) Glazing materials with a U value of .65 or less on a south facing wall,  $\pm$  30 degrees of true south, that is at least 75% free of shading between the hours of 9:00 a.m. and 3:00 p.m. on December 21, in fenestrating a building as part of a design for the purpose of direct or indirect solar heat gain.

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(b) Equipment such as heads, sills and jambs used solely as bracing for eligible glazing, and awnings or overhangs for the purpose of shading such glazing during the cooling season.

(c) Skylights and roof glazing facing true south  $\pm$  30 degrees shall be considered solar energy equipment only if such devices are used for direct or indirect solar heat gain during the heating season and if capable of reducing heat loss at night during the heating season through use of insulating devices so that such skylights or roof glazing provides a net heat gain to the building.

(d) Devices constructed for the sole purpose of storing thermal energy collected by a passive or hybrid solar system, including rock storage bins, thermal mass walls of a nonloadbearing wall of a building, and thermal contact ceilings. Devices such as loadbearing walls or floors designed to provide thermal storage shall be eligible only for that portion of the valuation of the device which exceeds the valuation of such wall or floor if it were not built for thermal storage.

(e) Devices used for transporting heat in a passive or hybrid system, including ducts to move heated air from where it is collected to where it is used or stored, and fans in hybrid systems for moving heated air.

(f) Devices used to control the operation or functioning of a passive or hybrid system, including thermostatic controls and dampers. Such devices may operate either manually or automatically.

(g) Movable insulation used to minimize heat loss largely caused by nocturnal loss through areas used for direct, indirect, or isolated solar gain during the daylight hours, provided such insulation is tight-fitting, gasketed, fully weatherstripped or otherwise treated to limit infiltration and convective airflow around the device.

(h) Greenhouses, solaria, or sunspaces attached to a building for the purpose of isolated solar gain. Such structures shall be south facing  $\pm$  30 degrees of true south, use glazing materials which are equal or less than a U value of .65, provide thermal storage, have provisions to circulate warmed air through the living spaces of the building to which the structure is attached, have provisions to prevent nocturnal and cold weather heat losses from the building to which the structure is attached, and provide a net heat gain to the building to which the structure is attached. Conversion of existing structures into a solar greenhouse, solarium, or sunspace shall be eligible for exemption only to the extent that the improvements to the existing structure increase the valuation of the structure, and providing that the finished structure meets all criteria above for a greenhouse, solarium, or sunspace.

(Effective June 3, 1981)

**Sec. 16a-14-203—16a-14-299. Reserved**

**Eligibility of Cogeneration Systems for Authorized Property Tax Exemption**

**Sec. 16a-14-300. Preamble**

These regulations establish the criteria which must be met by cogeneration systems in order to be eligible for a property tax exemption in accordance with the provisions of

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Subsection (63) of section 12-81 of the General Statutes.

Systems which meet the requirements of the Public Utility Regulatory Policies Act of 1978 (PURPA) and the federal regulations adopted pursuant to this Act in 18CFR292 shall be deemed qualified cogeneration systems which are eligible for the property tax exemption under Subsection (63) of section 12-81 of the General Statutes. Their purpose is to serve as a guide for assessors to evaluate an application claiming such exemptions, and as such to provide criteria for determining eligibility.

(Effective March 31, 1986)

**Sec. 16a-14-301. Definitions**

(a) “Cogeneration system” means equipment used to produce electric energy and forms of useful thermal energy (such as heat or steam), used for industrial, commercial, heating, or cooling purposes, through the sequential use of energy and is equivalent to the designation “cogeneration facility” pursuant to the provisions of the Public Utility Regulatory Policies Act of 1978 (Public Law 95-617) and regulations as defined in 18 CFR 292.

(b) “Qualified cogeneration system” means a cogeneration system which meets the definition of “qualifying cogeneration facility” as determined by the Federal Energy Regulatory Commission, or its successor, pursuant to the provisions of the Public Utility Regulatory Policies Act of 1978 as defined in 18 CFR 292 and is therefore eligible for a property tax exemption under Subsection (63) of section 12-81 of the General Statutes.

(Effective March 31, 1986)

**Sec. 16a-14-302. Eligibility**

(a) Cogeneration systems which meet the applicable operating and efficiency standards specified for “cogeneration facilities” is 18 CFR 292.205 (a) and (b) pursuant to the Public Utility Regulatory Policies Act of 1978, are qualified cogeneration systems and as such are eligible for property tax exemption.

(b) Eligibility for property tax exemption shall extend to equipment installed as a qualified cogeneration system. Equipment or materials which transfer electrical, mechanical, or thermal energy from the cogeneration system to the point at which the energy is used, and equipment or materials which use such energy, are not eligible. The land upon which a cogeneration system is located, and the building in which a cogeneration system is located, are not eligible.

(Effective March 31, 1986)

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**Office of Policy and Management**

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**Voluntary Testing and Certification Program for Energy-Related Products**

*Inclusive Sections*

**§§ 16a-14b-1—16a-14b-6**

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**Voluntary Testing and Certification Program for Energy-Related Products**

**Sec. 16a-14b-1. Definitions**

“Secretary” means the secretary of the office of policy and management.

“Undersecretary” means the undersecretary for energy of the office of policy and management.

“Commissioner” means the commissioner of the department of consumer protection.

(Effective April 23, 1981)

**Sec. 16a-14b-2. Product review advisory board**

(a) A product review advisory board shall be established pursuant to section 4-8 of the general statutes to advise the office of policy and management in conducting a voluntary testing program for energy-related products. The board shall provide technical advice to the office of policy and management in determining what products should be included in the program, what testing the products should be subjected to, and what testing facilities are suitable for testing such products. The board shall also advise the office of policy and management in reviewing test results and in developing information useful to consumers of such products.

(b) Board members shall be appointed by the secretary. Areas of expertise represented on the board may include solar energy, heating, ventilation, and air conditioning, automotive products, insulation, electrical and gas appliances, wood and other forms of biomass energy, wind energy, and consumer protection, and any other areas of expertise that may be deemed necessary for the proper functioning of the board. The board shall have a maximum of eight members.

(c) The board shall be chaired by the undersecretary or his designee.

(Effective April 23, 1981)

**Sec. 16a-14b-3. Selection of products for testing and/or certification**

(a) Energy-related products selected for review by the office of policy and management shall meet one of the following criteria:

(1) Products using renewable energy sources which are currently commercially viable or are potentially commercially viable,

(2) Products currently being marketed to consumers claiming to conserve energy or increase the efficiency of its use, or

(3) Products of an experimental or prototype nature using renewable energy sources or believed to have the potential for conserving conventional energy sources.

(b) Products suitable for review shall be identified by the office of policy and management or by board members in an advisory capacity. The office of policy and management shall determine the availability of suitable existing testing mechanisms for products.

(c) The office of policy and management shall be open to suggestions from any source

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on products to be tested and reviewed.

(d) The program will be publicized to the general public. State manufacturers/distributors of products will be solicited for submission of material.

(Effective April 23, 1981)

**Sec. 16a-14b-4. Designation of testing facilities and requirements for test results**

(a) The office of policy and management will determine what national consensus standards for testing exist for each specific category of energy-related products to be tested, what national testing facility accreditation programs exist for these standards, and what state statutes or regulations concerning product testing exist applicable to that category of products. Based on this information, the office of policy and management shall select testing facilities for each specific category of energy-related products to be tested. Test results shall indicate compliance or non-compliance with existing national consensus standards, where applicable, and/or state regulations, where applicable.

(b) If no established testing mechanism exists for a given energy-related product or category of energy-related products, the office of policy and management may determine parameters for testing and request proposals from facilities to do the testing, including proposed fee schedule.

(c) The office of policy and management may institute performance testing for energy-related products where existing testing programs test for conformance with minimum standards only, rather than actual product performance values. The office of policy and management may review life-cycle costs of certain energy-related products when such reliable information is unavailable from other sources, and when the office of policy and management believes such information to be useful to the public. The office of policy and management may request that some products be tested to determine their energy efficiency. The office of policy and management may review advertising claims of energy-related products and request testing of such products to substantiate advertising claims.

(d) The office of policy and management may participate in reciprocal programs with other states for testing, review, and certification of energy-related products.

(e) Where a testing mechanism is determined to exist for a specific category of products, the office of policy and management shall announce the availability of review, what tests must be performed, what data must be submitted, and what testing facilities are acceptable.

(Effective April 23, 1981)

**Sec. 16a-14b-5. Development and dissemination of information from test results**

(a) The office of policy and management shall determine if tested products are in compliance with appropriate national consensus standards and/or state regulations and, where applicable, determine the validity of tests for energy efficiency.

(b) The secretary shall forward reports of compliance or noncompliance to any state agency charged with regulating particular products. Where the office of policy and management has investigated advertising claims of an energy-related product and testing



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results show such claims to be false, the secretary shall forward the report to the commissioner for disposition.

(c) The office of policy and management shall develop information useful to consumers on specific products or categories of products based on test results. The office of policy and management may develop lists of specific products reviewed, including test results, and make such lists available to the public. Manufacturers/distributors submitting data for review shall receive copies of such materials. The office of policy and management may allow products it has reviewed to carry a label indicating test results. The format of such labels shall be determined by the office of policy and management, and any such labels applied to eligible products shall be approved by the office of policy and management, and use of such labels shall be subject to such conditions as the office of policy and management may impose.

Test results shall be available to the public. The office of policy and management may charge a reasonable fee for test results when appropriate. Information developed from test results shall be distributed to the public by the office of policy and management and the department of consumer protection.

(Effective April 23, 1981)

**Sec. 16a-14b-6. Review by participating manufacturer/distributor**

(a) When the office of policy and management develops information concerning a specific product tested that involves the office of policy and management making an interpretation of test results or a judgment concerning the product tested, a draft copy of such information shall be sent to the manufacturer/distributor of the product. Such information shall become available for public dissemination 30 days after the information is sent to the manufacturer/distributor of the product, unless the manufacturer/distributor rejects the interpretations or judgments of the office of policy and management.

(b) Information on a specific product tested taken directly from test results or other materials submitted by the manufacturer/distributor that involve no interpretations or judgments by the office of policy and management will be available for public dissemination immediately, including the full text of any test reports or other material submitted by the manufacturer/distributor.

(Effective April 23, 1981)

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**Signs — Retail Gasoline Outlets**

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Sec. 16a-15-9.	Signs, dimensions—information
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**Signs — Retail Gasoline Outlets**

**Sec. 16a-15-1—16a-15-6. Repealed**

Repealed May 21, 1981.

**Sec. 16a-15-7. Definitions**

For the purposes of sections 16a-15-7 to 16a-15-10 inclusive:

(a) “Price” shall mean the total retail price per gallon, taxes included, at which the covered product being dispensed from a particular covered product dispenser is being offered for sale;

(b) For the purposes of price posting or oxygenate posting “Covered Product(s)” means diesel fuel, gasoline, alcohol, compressed natural gas (CNG) and propane or other products intended as a fuel for aircraft, motor boats or motor vehicles;

(c) For the purposes of octane posting “Covered Product(s)” means gasoline and gasoline blends;

(d) For the purposes of oxygenate posting

(1) “Co-solvent” means an alcohol or any other chemical with higher molecular weight than methanol or ethanol - which is blended with either or both to prevent phase separation in gasoline;

(2) “Ethanol” means ethyl alcohol, a flammable liquid having the formula  $CH_3CH_2OH$ , used or sold for the purpose of blending or mixing with gasoline for use in motor vehicles and commonly or commercially known or sold as ethanol or ethyl alcohol;

(3) “Methanol” means methyl alcohol, a flammable liquid having the formula  $CH_3OH$ , used or sold for the purpose of blending or mixing with gasoline for use in motor vehicles, and commonly or commercially known or sold as methanol or methyl alcohol; and

(4) “Maximum percentage” means the highest amount by volume of ethanol, methanol, or co-solvent permitted to be blended or mixed with gasoline in conformity with the specifications established by the United States Environmental Protection Agency, pursuant to section 211 of the clean air act, 42 U.S.C. section 7515;

(e) “Dispenser” means any self-contained suction pump or remote pedestal motor-fuel dispensing system;

(f) “Full serve” means that service which is offered at any service station where a retail purchaser shall expect to have an employee of the service station perform services and checks associated with the routine maintenance of vehicles in addition to his facilitating the transfer of fuel from the dispenser of the service station to the purchaser’s vehicle;

(g) “Mini serve” means that service which is offered at any service station where a retail purchaser shall only expect to have an employee of the service station facilitate the transfer of fuel from the dispenser of the service station to the purchaser’s vehicle; and

(h) “Self serve” means that service which is offered at any service station where a retail purchaser shall expect to personally facilitate the transfer of fuel from the dispenser of the

service station to his vehicle.

(Effective December 6, 1995)

**Sec. 16a-15-8. Type, number and display of signs**

(a) No one shall place on any dispenser any sign, notice, decal or other device that affects the visibility to the public of the required signs and notices listed in this section.

**(b) Price posting.**

There shall be a double-faced sign or two reversed single-faced signs on each fixed-location covered product dispenser displayed in a manner that shall be clearly visible to the members of the public from either side of the dispenser. The price of each grade of covered product dispensed from an individual dispenser shall be displayed individually.

**(c) Octane posting.**

(1) Retailers shall post the octane rating for all covered products sold to consumers.

Retailers shall do this by putting at least one label on each face of each covered products dispenser through which covered products are sold. If retailers sell two or more kinds of covered products with different octane ratings from a single dispenser, separate labels for each kind of covered product shall be placed on each dispenser face.

(2) The label, or labels, shall be placed conspicuously on the dispenser so as to be in full view of consumers and as near as reasonably practical to the price per gallon of the covered product.

(3) The octane rating shall be shown as a whole or half number equal to or less than the octane rating certified on transfer or determined by the retailer.

(4) The retailer shall maintain and replace labels as needed so that the consumers can easily see and read them. If the labels the retailer possesses are destroyed or are unusable or unreadable for some unexpected reason, the regulation may be satisfied by posting similar temporary labels. The required label shall be obtained and posted without delay.

(5) Certification of the octane rating of the covered product, either by letter or on the delivery ticket or other paper shall be received by the retailer upon transfer of covered product from a common carrier.

**(d) Gasoline oxygenate blend posting.**

(1) Retailers shall identify the oxygenate or combination of oxygenates by specific type, if above one percent by volume, for all covered products sold to consumers.

(2) Retailers shall display the content label on the front skirt of each dispenser or on the skirts of both sides of each dual dispenser or other dispensing device. For example, the label may read "contains ethanol" or "with MTBE/ETBE." Said label shall be displayed on the upper fifty (50) percent of the dispenser front panel in a location clear and conspicuous from the driver's position, in a type at least 127mm (1/2 in) in height, 15mm (1/16 in) stroke (width of type).

(3) The retailer shall be provided, at the time of delivery of the fuel, on an invoice, bill of lading, shipping paper, or other documentation, a declaration of any oxygenate or combination of oxygenates present in concentrations of at least one percent by volume in

the fuel. This documentation is only for dispenser labeling purposes; it is the responsibility of any potential blender to determine the total oxygen content of the engine fuel before blending.

(e) **Required signs.**

Retailers shall display any other sign or notice that may be required by any other state or federal statute or regulation in a manner prescribed by such state or federal statute or regulation.

(Effective December 6, 1996; Amended November 10, 2015)

**Sec. 16a-15-9. Signs, dimensions—information**

(a) **Price**

(1) The price display for each grade of covered product shall be 7¼" high and 9½" wide.

(2) The numbers on such sign shall be 4½" high and ⅝" wide. The price shall be displayed to three decimal places. The third decimal place number shall be half-sized and placed on the sign as shown in the examples at the end of this section.

(3) The numbers and letters shall be displayed in one of the following manners: (A) black numbers and the background shall be white; (B) white numbers and the background shall be black; or (C) illuminated white, red, green or yellow numbers viewed on an electronic display, using light-emitting diode ("LED") technology for example, where the background behind the illuminated numbers shall be black, and the body of the sign shall be either black with white letters, or white with black letters. The statement "TAX INCLUDED," or "TAXES INCLUDED," or "ALL TAXES INCLUDED" shall be displayed on the price sign, in letters ½" high and ⅛" wide in black for signs with a white background, and in white for signs with a black background. All price display colors and display methods, namely electronic or non-electronic, shall be consistent throughout the retail premises.

(4) The price on the sign on the top of the dispenser shall indicate price per gallon and shall be the same price as that displayed on the face of the dispenser.

(5) Dispensers shall compute the price for the sale of gasoline on a per gallon basis. Computing the price for such sale by the fraction of a gallon shall be prohibited.

(6) Illustration of price. Price signs, including the color combinations for numbers, characters and sign backgrounds, shall meet the specifications of this section and shall look like these examples, except that electronic displays may vary to accommodate multiple grades on one sign:

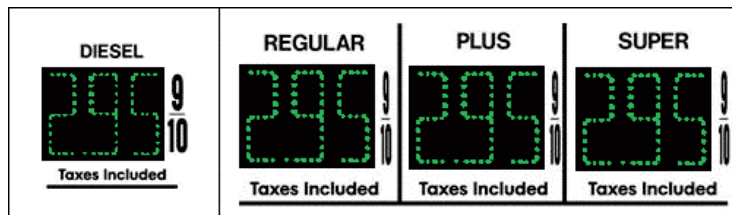
Sample display with white background and black letters:



Sample display with black background and white letters:



Sample electronic display:



**(b) Octane labels.**

(1) Layout. The label is 3" wide x 2½" long. The illustrations appearing at the end of this section are prototype labels that demonstrate the proper layout. Helvetica type is used throughout except for the octane rating number which is in Franklin Gothic type. Spacing of the label is ¼" between the top border and the first line of text, ⅛" between the first and second line of text, ¼" between the octane rating and the line of text above it. All text and numerals are centered within the interior borders.

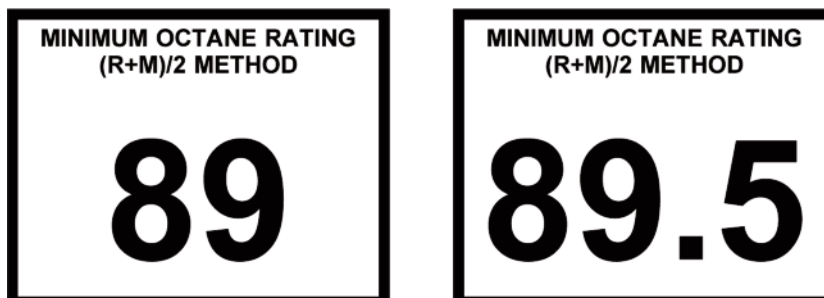
(2) Type size and setting. The Helvetica series is used for all numbers and letters with the exception of the octane rating number. Helvetica is available in a variety of phototypesetting systems and by linotype. The line "Minimum Octane Rating" is set in 12 point Helvetica Bold, all capitals, with letterspace set at 12½ points. The line "(R + M)/2 Method" is set in 10 point Helvetica Bold, all capitals with letterspace set at 10½ points. The octane number is set in 96 point Franklin Gothic Condensed with ⅛" space between the numbers.

(3) Colors. The basic color on all labels is process yellow. All type is process black. All borders are process black. Both colors must be non-fade.

(4) Contents. The contents are shown in the illustration. The proper octane rating for each covered product must be shown. No marks or information other than that called for by this section may appear on the label.

(5) Special label protection. All labels must be capable of withstanding extremes of weather conditions for a period of at least one year. They must be resistant to gasoline, oil, grease, solvents, detergents, and water.

(6) Illustrations of labels. Labels should meet the specification in this section and should look like these examples, except the black print should be on a yellow background.



(c) **Alcohol content labels.**

Repealed, December 6, 1995.

(Effective May 21, 1981; Amended November 10, 2015)

**Sec. 16a-15-10. Record keeping**

Retailers of covered product (octane posting) shall maintain for one year any delivery tickets or letters of certification on which the posting of octane ratings was based. Also retailers of covered products must keep for one year records of any octane rating determinations made. These records may be kept at the retail station or at another, reasonably close location.

(Effective May 21, 1981)

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**Posting of Signs at Gasoline Service Stations**

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**§§ 16a-15a-1—16a-15a-4**

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Sec. 16a-15a-2.	Posting of cash payment and credit card prices
Sec. 16a-15a-3.	Refueling service for handicapped drivers
Sec. 16a-15a-4.	Definitions



**Posting of Signs at Gasoline Service Stations**

**Sec. 16a-15a-1. Posting of full-serve, mini-serve and self-serve prices on the premises**

Where any gasoline or other product intended as a fuel for aircraft, motor boats or motor vehicles is sold on a full-serve, mini-serve and self-serve basis, any price signs displayed at a location on the premises other than at a dispenser shall conform with the following:

- (a) Signs shall indicate the full-serve, mini-serve and self-serve price per gallon;
- (b) The posted prices shall correspond by method of sale: e.g., Full-serve/Cash — 1.20<sup>o</sup>, Mini-serve/cash — 1.15<sup>o</sup>, Self-serve/Cash — 1.10<sup>o</sup>;
- (c) The price signs shall be of equal size, both in terms of the actual sign size and also in corresponding numerals and lettering on said sign; and
- (d)
  - (1) Signs directing customers to the location of full-serve, mini-serve and self-serve fuel dispensers shall be displayed in one of the following manners: as part of the island canopy; attached to or part of a multi-product dispenser; or free standing and next to the appropriate island.
  - (2) Each sign shall be clearly visible to the members of the public. The letters on such sign shall be of contrasting color to the background and large enough to direct customers to the appropriate dispenser.

(Effective May 23, 1988)

**Sec. 16a-15a-2. Posting of cash payment and credit card prices**

(a) At the dispensers or islands where cash discounts are offered, retail dealers shall display clear and conspicuous signs posting the price per gallon reduction for cash payment.

- (1) Each sign shall be 7¼" high and 9½" wide.
- (2) Each sign shall be clearly visible to the members of the public. The letters on such sign shall be of contrasting color to the background and large enough to direct customers to the appropriate dispenser.

(b) One method by which retailers may meet the cash-credit price posting requirement set forth in subsection (a) of this section is with a split sign that is 7¼" high by 9½" wide, showing the cash price per gallon on the top half of the sign and the credit price on the bottom half. The numerals on such sign shall be at least 2¾" high and ⅜ wide and shall look like the following example:



(c) If an island or dispenser is dedicated exclusively to cash sales, the price posted shall be the cash purchase price.

(d) If a non-cash form of payment, including, but not limited to, a credit card, debit card, gift card, store card, cash card or gas card is accepted as a form of payment, and a cash discount is offered for the purchase of motor fuel, disclosure by the retailer in a form acceptable to the commissioner shall be posted in a prominent manner at the point of dispensing of motor fuel. Such disclosure shall alert consumers to the form or forms of payment to which the cash discount price does not apply.

(Effective May 23, 1988; Amended October 5, 2011)

**Sec. 16a-15a-3. Refueling service for handicapped drivers**

(a) Retail dealers of gasoline or motor fuel who offer full-serve, mini-serve and self-serve facilities shall post a sign for the direction of handicapped drivers to the appropriate self-service dispenser for refueling.

(b)

(1) Said sign shall indicate that the refueling service is available to any handicapped driver of a vehicle which bears a special international symbol of access license plate issued pursuant to section 14-253a of the general statutes as amended.

(2) Said sign shall further indicate that refueling service to the handicapped driver shall be provided at self-service prices.

(c) The sign shall be clearly visible to the members of the public. The letters and symbols on such sign shall be of contrasting color to the background and large enough to direct customers to the appropriate dispenser.

(d) The provisions of this section shall not apply to retail dealers whose facilities (1) have remotely controlled dispensers, or (2) are operated by a single cashier.

(Effective May 23, 1988)

**Sec. 16a-15a-4. Definitions**

For the purposes of sections 16a-15a-1 to 16a-15a-3 inclusive:

(a) “Full Serve” means that service which is offered at any service station where a retail

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purchaser shall expect to have an employee of the service station perform services and checks associated with the routine maintenance of vehicles in addition to his facilitating the transfer of fuel from the dispenser of the service station to the purchaser's vehicle.

(b) "Mini Serve" means that service which is offered at any service station where a retail purchaser shall only expect to have an employee of the service station facilitate the transfer of fuel from the dispenser of the service station to the purchaser's vehicle.

(c) "Self Serve" means that service which is offered at any service station where a retail purchaser shall expect to personally facilitate the transfer of fuel from the dispenser of the service station to his vehicle.

(d) "Dispenser" means any self contained suction pump or remote pedestal motor fuel dispensing system.

(Effective May 23, 1988)

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**Petroleum Product Definitions**

*Section*

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Sec. 16a-22c-1. Petroleum product definitions

**Petroleum Product Definitions**

**Sec. 16a-22c-1. Petroleum product definitions**

(a) The purpose of these regulations is to implement Section 2 of Public Act 86-198, establishing petroleum product definitions which are to be used in determining the registration requirements for the Petroleum Product Vendor Registration program administered by the Office of Policy and Management pursuant to Section 16a-22d of the General Statutes.

(b) The petroleum product definitions contained herein are devised to be in conformance with the applicable Standards and Specifications of the American Society For Testing And Materials (ASTM), as amended. As used in these regulations the terms middle distillate, residual fuel oil, liquified petroleum gas, motor gasoline, aviation gasoline and aviation turbine fuel are defined as follows:

(1) Middle Distillate means a general classification for one or more distilled petroleum fractions used for domestic heating and industrial burners, or for power generation in compression ignition engines. These fractions are categorized as follows:

(A) Kerosine—A refined petroleum distillate conforming to the requirements of ASTM Specification D 3699. Two classifications of kerosine are recognized by ASTM Specification D 3699:

(i) No. 1-K—A special low-sulfur grade kerosine suitable for use in non-flue connected kerosine burner appliances and for wick-fed illuminating lamps.

(ii) No. 2-K—A regular grade kerosine suitable for use in flue connected burner appliances and for wick-fed illuminating lamps.

(B) No. 1 Fuel Oil—A light distillate fuel oil intended for use in vaporizing pot-type burners. Properties of No. 1 Fuel Oil are defined in ASTM Specification D 396.

(C) No. 2 Fuel Oil—A distillate fuel oil for use in atomizing-type burners for domestic heating, or for moderate capacity commercial-industrial burner units. No. 2 Fuel Oil properties are defined in ASTM Specification D 396.

(D) Diesel Fuel—Distillate fuel oil used in compression-ignition engines. Three classifications of diesel fuel are recognized by ASTM Specification D 975:

(i) No. 1-D—A volatile kerosine-type distillate for high-speed diesel engines in service comprising wide variations in speed and load. No. 1-D includes Type C-B diesel fuel used for city buses and similar operations.

(ii) No. 2-D—A gas oil type distillate for use in high-speed diesel engines generally operated under uniform speed and load conditions. No. 2-D includes Type R-R diesel fuel used for railroad locomotive engines, and Type T-T for diesel-engined trucks.

(iii) No. 4-D—A low-volatility distillate, or blend of such distillate and residual fuel oil, for low- and medium-speed diesel engines in sustained constant-speed service.

(E) No. 4 Fuel Oil—A fuel oil for commercial burner installations not equipped with preheating facilities. Extensively used in industrial plants. This grade is usually a blend of distillate and residual fuel stocks, but can be a heavy distillate with properties as defined in ASTM Specification D 396.

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(2) Residual Fuel Oil—General classification for fuels obtained as liquid still bottoms from the distillation of crude, used alone or in blends with heavy liquids from other refinery process operations. Includes Grades No. 5 and No. 6, as described below. Properties are described in ASTM Specification D 396 and ASTM 975.

(A) Grade No. 5—Residual fuel oil more viscous than Grade No. 4 distillate fuel for burners capable of handling product more viscous than Grade No. 4 distillate fuel. Preheat may be necessary depending upon equipment design and climatic conditions.

(B) Grade No. 6—A high-viscosity fuel oil for commercial and industrial heating and power generation. Preheating is required for satisfactory use. Includes heavy-grade residual fuel oil referred to as Bunker C fuel oil, and Navy Special, a grade of residual fuel oil meeting U.S. Government Specification MIL-F-859D, for use in steam powered vessels in government service and in shore power plants.

(3) Liquefied Petroleum Gas—Means propane and butane and propane/butane mixes.

(A) Propane—A normally gaseous paraffinic compound (C<sub>3</sub>H<sub>8</sub>), including all products covered by the Natural Gas Producers Association (NGPA) specifications for commercial and HD-5 propane.

(B) Butane—A normally gaseous paraffinic compound (C<sub>4</sub>H<sub>10</sub>), including all products covered by the Natural Gas Producers Association (NGPA) specifications for commercial butane.

(4) Motor Gasoline means a complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, including alcohol additives, obtained by blending appropriate refinery streams to form a fuel suitable for use in spark ignition engines. Motor Gasoline includes all refinery products within the gasoline range (ASTM Specification D 439) that are to be marketed as motor gasoline without further processing, i.e. any refinery operation except mechanical blending. Motor Gasoline includes both leaded and unleaded grades.

(A) Finished Leaded Motor Gasoline—Motor gasoline (as described above) which is produced with the use of any lead additive or which contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorous per gallon.

(B) Finished Unleaded Motor Gasoline—Motor gasoline (as described above) containing not more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorous per gallon.

(C) Gasohol—A mixture of 90 volume percent motor gasoline and 10 volume percent of ethanol, methanol or cosolvents as these terms are defined in the Regulations of Connecticut State Agencies, 16a-15-7 (d).

(5) Aviation Gasoline—All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D 910 and Military Specification MIL-G-5572. Aviation Gasoline includes all refinery products within the gasoline range that are to be marketed straight or in blends as aviation gasoline without further processing, i.e., any refinery operation except mechanical blending. Aviation Gasoline also includes finished components in the gasoline range which will be used for blending or compounding into

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aviation gasoline.

(6) Aviation Turbine Fuel—All refined petroleum fuel designed to operate aircraft turbine engines:

(A) Naptha-type or Jet B—A fuel in the heavy naptha boiling range covered by ASTM Specification D 1655 and meeting Military Specification MIL-T-5624 (JP-4). A Naptha-type fuel used for turbojet and turboprop aircraft engines, primarily by the military. This definition excludes ram-jet and petroleum rocket fuels.

(B) Kerosine-type or Jet A—A quality kerosine product covered by ASTM Specification D 1655. A Kerosine-type fuel used primarily as fuel for commercial turbojet and turboprop aircraft engines. A relatively low freezing point distillate of the kerosine type.

(Effective March 12, 1987)

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*Agency*

**Office of Policy and Management**

*Subject*

**Defining Standards and Substandard Anthracite**

*Inclusive Sections*

**§§ 16a-23a-1—16a-23a-3**

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Sec. 16a-23a-1.	Definitions
Sec. 16a-23a-2.	Written notification requirements
Sec. 16a-23a-3.	Effective date of regulation



**Defining Standards and Substandard Anthracite**

**Sec. 16a-23a-1. Definitions**

As used in these regulations in determining standards and/or substandard anthracite the terms undersize and ash content are defined as follows:

(a) **Undersize** - The maximum allowable percentage of undersize coal in the following size of anthracite shall be:

**Round-Hole Screen Sizes (in inches)**

<i>Size</i>	<i>Passing Through</i>	<i>Retained On</i>	<i>Undersize (Percent)(Maximum)</i>
Egg . . . . .	3-1/4	2-7/16	15
Stove . . . . .	2-7/16	1-5/8	15
Chestnut . . . . .	1-5/8	13/16	15
Pea . . . . .	13/16	9/16	15
No. 1 Buckwheat. . . . .	9/16	5/16	15
No. 2 Buckwheat. . . . .	5/16	3/16	17
No. 3 Buckwheat. . . . .	3/16	3/32	20
No. 4 Buckwheat. . . . .	3/32	3/64	20

(b) **Ash** - The maximum allowable dry basis percentage for ash content in anthracite coal shall be:

<i>Size</i>	<i>Ash (Dry Basis Percent)(Maximum)</i>
Egg . . . . .	10
Stove . . . . .	10
Chestnut . . . . .	11
Pea . . . . .	12
No. 1 Buckwheat. . . . .	13
No. 2 Buckwheat. . . . .	13
No. 3 Buckwheat. . . . .	14
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(c) **Sizing** - The sizing of Anthracite coal shall be determined by passing said anthracite coal over round mesh screens of stated size openings with screens in horizontal position.

(d) **Ash Contents** - Ash contents are determined from the residues left behind when weighed, (1-2 grams), and test samples are completely incinerated in air at 725°C ± 25°C.

(Effective February 18, 1983)

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**Sec. 16a-23a-2. Written notification requirements**

(a) Any person, firm or corporation selling anthracite either (1) from out of state or resale within the state or (2) within the state only, shall provide written notification to the purchaser as to whether such anthracite is standard as defined in these regulations.

(b) Anthracite coal sold by any person, firm or corporation either (1) from out of state for resale within the state or (2) within the state only, which conforms to the standards as defined in Section 1 of these regulations shall be accompanied by written notification indicating in bold face type of a minimum size of ten points a statement substantially in the following form: This delivery is anthracite coal that meets the state of Connecticut Department of Consumer Protection standard specification pertaining to undersize and ash content.

(c) Anthracite coal sold by any person, firm or corporation either (1) from out of state for resale within the state or (2) within the state only, which does not conform to standards as defined in Section 1 of these regulations shall be accompanied by written notification indicating in bold face type of minimum size of ten points a statement substantially in the following form: This delivery is anthracite coal that is substandard to the state of Connecticut Department of Consumer Protection standard specification pertaining to undersize and ash content.

(Effective March 20, 1983)

**Sec. 16a-23a-3. Effective date of regulation**

(a) Section 1 of these regulations shall become effective immediately upon filing with the Office of the Secretary of the State; and

(b) Section 2 of these regulations shall become effective thirty days after filing with the Office of the Secretary of the State.

(Effective February 18, 1983)

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**Office of Policy and Management**

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**Interim Change Process to the Conservation and Development Policies Plan**

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**Interim Change Process to the Conservation and Development Policies Plan**

(See § 16a-32)

**Sec. 16a-24b-1—16a-24b-4. Transferred**

Transferred, October 2, 2007.

**Sec. 16a-24b-5—16a-24b-6. Repealed**

Repealed March 25, 1983.

**Sec. 16a-24b-7—16a-24b-8. Transferred**

Transferred, October 2, 2007.

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Sec. 16a-32-4.	Committee consults with others, holds public hearing
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Sec. 16a-32-6.	Committee approves or does not approve interim change: Notification

**Interim Change Process to the Conservation and Development Policies Plan**

**Sec. 16a-32-1. Definitions**

(a) “Act” means Section 16a-24 through 16a-33 of the Connecticut general statutes, as amended.

(b) “Adoption year” means the calendar year which is no later than three years subsequent to the year in which the plan is first adopted in accordance with the process established in Chapter 297 of the general statutes and at least every third year subsequent to the last adoption.

(c) “Committee” means the Continuing Legislative Committee on State Planning and Development established pursuant to Section 4-60d.

(d) “Interim change” means any change made in the Policies Plan between adoption years.

(e) “Plan when referring to the state plan for conservation and development means the text of such plan and any accompanying locational guide map.

(f) “Map” means the locational guide map of the policies plan, official copies of which are maintained in the offices of the Committee and Secretary.

(g) “Policies Plan” means the latest revision of the State of Connecticut Conservation and Development Policies Plan adopted by the General Assembly, which is the working title assigned to the state plan of conservation and development in the Act, and means the text of such plan and any accompanying locational guide map.

(h) “Political subdivision” means any town, city or borough of the State of Connecticut.

(i) “Secretary” means the Secretary of the Office of Policy and Management of the State of Connecticut.

(j) “State agency” means any state department, institution, board, commission or official.

(Effective March 6, 1980; Transferred from § 16a-24b-1, October 2, 2007)

**Sec. 16a-32-2. Application for an interim change**

(a) In accordance with section 16a-32(b) of the Connecticut General Statutes, the secretary may undertake changes in the Policies Plan upon the secretary’s own initiative, or upon application of the chief executive officer of a municipality or any owner of real property or any person with interest therein on which a change is proposed. In the case of a municipality, the applicant shall be the chief executive officer of the municipality with approval of the legislative body of such municipality. No application for an interim change from a municipality may be submitted unless the municipality in which the change is being proposed has a plan of conservation and development that has been updated in accordance with section 8-23 of the Connecticut General Statutes.

(b) An application for an interim change shall be filed in triplicate with the Secretary.

(c) An application for an interim change which involves a change in the text of the Policies Plan shall be expressed in the following way:

(1) Cite page number(s) where the interim change(s) is requested.

(2) Copy the entire paragraph(s) verbatim where the interim change(s) is requested,

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placing brackets around any existing text proposed to be deleted and inserting in the appropriate places any proposed new text, with under-scoring. In the case of a proposed change to a chapter heading, subheading, category title, or other terminology, include the present wording and a clear explanation of the proposed change.

(d) An application for an interim change which involves a change in the map shall be expressed in the following way:

(1) On the appropriate United States Geological Survey topographic series map(s), scale of 1:24,000 (1" = 2000'), depict the land area or areas for which a change in land category is requested. Identify each geographical area so depicted with a reference letter or number.

(2) Cite each change requested, by the reference letter described in (1) above, identify the present land category as shown on the map and name the land category requested.

(e) An application for an interim change shall be accompanied by a narrative containing the reasons for the request, including any supporting documentation.

(f) An application for an interim change submitted by the chief executive officer of a municipality in accordance with subsection (a) of this section shall include evidence in writing of the opinion of the planning commission of the municipality regarding the interim change request.

(g) An applicant may remove his application at any time, without prejudice.

(Effective March 6, 1980; Amended March 8, 2007; Transferred from § 16a-24b-2, October 2, 2007)

**Sec. 16a-32-3. Notification and request for public hearing(s)**

(a) Within ten (10) calendar days of the receipt of an acceptably documented application for an interim change as set forth in (c) & (d) of Section 16a-24b-2, the Secretary shall: (1) forward such information to the Committee, (2) shall notify in writing the chief executive officer and the persons exercising planning or zoning powers in any municipality which is the subject of an application for change in the locational guide map and (3) shall notify any members of the general assembly representing any area which is the subject of an application for change in the locational guide map. Such notification to a chief executive officer and to persons exercising planning or zoning powers shall indicate the opportunity for a joint public hearing by the Committee and the Secretary and shall provide for twenty (20) calendar days for the receipt of a written request for such hearing to the Committee and the Secretary.

(Effective March 25, 1983; Transferred from § 16a-24b-3, October 2, 2007)

**Sec. 16a-32-4. Committee consults with others, holds public hearing**

(a) Upon receipt of an application for an interim change, the Committee shall review the nature of the request and may consult directly with the applicant, the Secretary, state and local agencies, the appropriate regional planning agency(s), or agency having the powers of a regional planning agency, or any other persons or agencies in order to gain a better understanding of a request.

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(b) Within thirty (30) calendar days of the receipt of the application for an interim change which does not involve a change to the locational guide map, the Committee shall hold a public hearing in order to hear from any parties of interest regarding the justifiability or feasibility for making the proposed change and shall notify the Secretary of such hearing.

(c) For an application for an interim change which involves a change in the locational guide map, within thirty (30) calendar days of the receipt of a request for a public hearing from the chief executive officer or persons exercising planning or zoning powers in the municipality, the Committee and the Secretary shall hold a joint public hearing in order to hear from any parties of interest regarding the justification or feasibility of making the proposed change. If the proposed map change lies within two or more political subdivisions, a hearing will be held in each municipality requesting a hearing and an additional five days will be allowed for each additional hearing.

(d) Notice of the time and place of such hearing shall be published in a newspaper having a substantial circulation in such municipality at least twice, at intervals of not less than two days, the first not more than fifteen days, nor less than ten days, and the last not less than two days before the date of such hearing.

Special notice of the hearing by registered mail shall be given to the applicant. If a map change is, or constitutes a part of, the proposed interim change, the appropriate political subdivision(s) and the appropriate regional planning agency(s), or agency(s) with the powers of a regional planning agency, shall also be given special notice by registered mail.

(e) The Committee shall establish its own rules of procedure for holding the public hearing. Each party in attendance shall be offered a reasonable opportunity to speak in favor of or against the proposed interim change. A permanent record of the hearing shall be made, either by stenography or electronic recording.

(Effective March 25, 1983; Transferred from § 16a-24b-4, October 2, 2007)

**Sec. 16a-32-5. Secretary reports to committee**

(a) Within ten (10) calendar days following the period provided to the chief executive officer and persons exercising planning or zoning powers if no public hearing is requested, or within ten (10) calendar days of the date of the completion of the hearing(s) the Secretary shall render a summary report of his findings with his recommendation(s) to the Committee.

(Effective March 25, 1983; Transferred from § 16a-24b-7, October 2, 2007)

**Sec. 16a-32-6. Committee approves or does not approve interim change: Notification**

(a) Within thirty (30) calendar days of receipt of the Secretary's report and recommendations, the Committee shall decide to approve or not to approve the proposed interim change and shall so inform the Secretary not more than ten (10) days after such decision.

(b) The Secretary shall make the interim change on master copies of the Policies Plan, including the map, if pertinent, recording the date, month and year of such action in its records.



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(c) The Secretary shall set an effective date for the interim change to take effect no later than ten (10) days from receipt of the Committee's action.

(d) The Secretary shall advise the applicant by registered letter of the action by the Committee and citing the effective date. Notices shall also be sent to the appropriate political subdivision(s) and regional planning agency(s) or agency(s) with the powers of a regional planning agency.

(e) In the case of approval of an interim change, the Secretary shall send notification of such action with a brief description and effective date for publication in the Connecticut Law Journal.

(Effective March 6, 1980; Amended March 8, 2007; Transferred from § 16a-24b-8, October 2, 2007)

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**Office of Policy and Management**

*Subject*

**Shared Energy Savings Program**

*Inclusive Sections*

**§§ 16a-37c-1—16a-37c-3**

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Sec. 16a-37c-1.	Scope
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Sec. 16a-37c-3.	Procedures for participation

**Shared Energy Savings Program**

**Sec. 16a-37c-1. Scope**

These regulations shall set forth the guidelines for a program designed to provide an incentive to agencies that achieve dollar savings through energy efficiency improvements utilizing agency procured funds for construction or, in the case of third party financing arrangements, project costs.

(Effective December 30, 1991)

**Sec. 16a-37c-2. Definitions**

(a) **Eligible Facility:** Any facility or building owned or leased by the state which is supported by appropriated funds. In the case of a leased facility or building, fuel or utility costs must be paid separate from the lease payment by the facility and the lease must extend beyond the installation of the energy conservation measures at least as long as the average simple payback period of all energy conservation measures for which savings will be shared.

(b) **Eligible Energy Conservation Measure:** Any construction, alteration or improvement of the capital assets of an eligible facility for the purpose of reducing fuel and utility costs.

(c) **Energy Conservation Project:** One or more energy conservation measures selected for implementation by an eligible facility, whose total cost must exceed ten thousand dollars (\$10,000).

(d) **Simple Payback Period:** A calculated period of time, within which the total cost of an energy conservation project will be recovered from the savings generated by the reduced fuel and utility operating costs resulting therefrom.

(e) **Useful Life:** That period of time during which an energy conservation measure performs at eighty five per cent (85%) or greater of its designed efficiency. In no case shall the useful life extend beyond the estimated useful life as documented by manufacturer's data.

(f) **Energy Conservation Related Activities:** Improvements, maintenance, or modifications to existing energy systems, including fenestration, roofing, or insulation, but exclusive of those activities which will result in multiple year obligations of state funds.

(Effective December 30, 1991)

**Sec. 16a-37c-3. Procedures for participation**

(a) Any state agency desiring to participate in this program shall:

(1) Provide, on forms prepared by the Of of Policy and Management, information including but not limited to:

(A) A description of each proposed energy conservation project, including the facilities involved in the project, those energy conservation measures anticipated to be implemented, technical documentation of estimated total implementation costs by measure, estimated energy usage savings (in units) by measure, estimated useful life of each measure based on

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manufacturer's documentation, and Department of Public Works assigned project number(s), if applicable.

(B) Source(s) of funding, which shall account for all project costs.

(C) Expected date of project completion within the fiscal year.

(2) Submit the above forms to the Office of Policy and Management by May 1 for all projects expected to be completed by June 30 of that same fiscal year. No more than one energy conservation project under this program will be allowed in each fiscal year for each budgeted agency, unless a waiver of this requirement has been requested of and granted by the Office of Policy and Management.

(3) Submit to the Office of Policy and Management, by August 1 for any project completed in the preceding fiscal year, written confirmation, signed by the agency head, of all energy conservation measures completed in the preceding fiscal year, actual total implementation costs, and calculated savings (by unit). Such confirmation must be based upon those estimates for any project identified in 3 (a) (1) (A) above.

(4) Submit, beginning two years after the submittal required in subdivision (3) above, and each August 1 thereafter, technical certification that each completed energy conservation measure is performing at eighty five per cent (85%) or greater of its designed efficiency, or has been replaced, or is no longer functioning. Such verification shall be confirmed, in writing, by the agency head and forwarded to the Office of Policy and Management. The level of technical verification required shall be determined by the Office of Policy and Management for each energy conservation measure implemented.

(b) The Office of Policy and Management shall:

(1) For each budgeted agency participating in the program in any full fiscal year, provide, by June 30 of the following fiscal year, a statement of determined dollar savings achieved through energy conservation measures.

(2) Allow not less than fifty per cent of the determined dollar savings achieved through energy conservation measures during the preceding fiscal year of program participation to be credited to that agency for future energy costs or energy conservation related activities. Such savings shall be credited to the agency through the annual budget review and each annual credited amount must be used by the agency in that fiscal year. In the case of energy conservation projects funded through third party financing agreements, such portion credited must first be used as payment toward the debt of such obligation.

(3) Allow the savings identified in subdivision (2) above to be credited to the agency annually for a period equal to the useful life of the energy conservation measures implemented as identified in 3 (a) (3) and (4) above.

(4) Allow not less than fifty per cent of the credited amount to be used for future energy conservation related activities.

(Effective December 30, 1991)

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**Department of Administrative Services**

*Subject*

**Designation of Priority Energy Projects**

*Inclusive Sections*

**§§ 16a-38e-1—16a-38e-2**

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Sec. 16a-38e-1.	Definitions
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**Designation of Priority Energy Projects**

**Sec. 16a-38e-1. Definitions**

“Commissioner” means the Commissioner of the Department of Administrative Services.

“Head” of the affected agency means commissioner, executive officer, chief administrative officer or other person in charge of an agency requesting priority designation.

(Effective December 2, 1981)

**Sec. 16a-38e-2. General**

a. The commissioner will consider requests for a designation of energy saving capital projects and thereby establish a *priority* implementation through large energy and cost avoidances and/or rapid cost recovery (cost effectiveness and energy efficiency), when other contributing factors such as federal, financial support have a time limit for implementation, when there are specific adverse effects in any delay, or when other contributing factors as listed below are judged to warrant this treatment.

1. A request for priority selection must have approval by the head of the affected agency and be accompanied by substantiating data including but not limited to payback analysis based on energy cost avoidance calculations and implementation and operational cost estimates.

2. The estimated project cost must normally exceed \$50,000; if below \$50,000, it must exceed the capabilities of the agency to handle the project.

3. The estimated simple payback period for cost recovery through energy cost avoidance should not exceed five (5) years; higher preference will be given to a project having a more rapid payback.

4. The building or project affected must have a significantly useful future lifespan and in any case be two (2) years greater than the estimated simple payback period beginning with project completion, as determined by the agency applying for the priority energy project. If a leased building, the lease duration from project completion shall be two (2) years greater than the estimated simple payback period. Written approval to make improvements must be obtained from the lessor before the application for priority selection (Item a-1 above).

5. The implementation time should not exceed one year after date of construction contract using this priority approach.

b. The decision outline will be submitted on a form provided by the commissioner.

c. The commissioner shall indicate, in writing, his decision to make or refuse to make a designation of a priority energy project to the head of the agency making the application. The letter will include reasons why the refusal to make a designation has been made if such is the case.

(Effective December 2, 1981)

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**Office of Policy and Management**

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**Establishment of High Performance Building Construction Standards for State-Funded Buildings**

*Inclusive Sections*

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Sec. 16a-38k-9.	Exemptions

**Establishment of High Performance Building Construction Standards for State-Funded Buildings**

**Sec. 16a-38k-1. Definitions**

As used in section 16a-38k-1 to section 16a-38k-9, inclusive, of the Regulations of Connecticut State Agencies:

(1) “ASHRAE” means the American Society of Heating, Refrigerating, and Air Conditioning Engineers;

(2) “Building envelope systems” means the part of the building that represents the barrier between the outdoor and indoor environments, and includes such components as windows, doors, walls, and roofs.

(3) “Carpet and Rug Institute” means a trade association that represents manufacturers and suppliers of carpets, rugs, and floor coverings;

(4) “Chlorofluorocarbons” or “CFCs” means a class of chemical compounds containing chlorine, fluorine, and carbon that were commonly used as refrigerants and that damage the earth’s ozone layer;

(5) “Class I Renewable Energy Source” means “Class I Renewable Energy Source” as defined in section 16-1(a)(26) of the Connecticut General Statutes;

(6) “Commissioner” means the commissioner of the Department of Public Works;

(7) “Commissioning” means the process of verification that the building’s systems perform as designed and according to project requirements and construction documents, including assurances that the specified systems are installed properly and adjusted correctly;

(8) “Composite wood and agrifiber products” means particleboard, medium density fiberboard, plywood, wheatboard, strawboard, panel substrates, and door cores;

(9) “Connecticut State Building Code” means the state building code as adopted under Section 29-252 of the Connecticut General Statutes;

(10) “Connecticut Building Standard Guidelines Compliance Manual for High Performance Buildings” means a reference and support manual prepared to assist building teams to comply with sections 16a-38k-1 to 16a-38k-9 inclusive of the Regulations of Connecticut State Agencies, and available electronically on the Connecticut Office of Policy and Management website;

(11) “Energy Star” means a program developed jointly by the United States Department of Energy and the United States Environmental Protection Agency that labels products to designate high levels of energy efficiency;

(12) “Forest Stewardship Council” means a not-for profit, international membership-based organization that accredits third-party organizations to certify that forest managers and forest product producers support responsible forest management;

(13) “Green Globes system” means a green building design and management tool that includes a rating system and guide to encourage the integration of environmentally friendly design into buildings;

(14) “Green Label Plus” means an independent testing program developed by the Carpet and Rug Institute to provide assurances that carpet and adhesive products meet stringent



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criteria for low chemical emissions;

(15) “Halons” means a class of organic chemical compounds that contain carbon, fluorine and bromine and may contain chlorine and are destructive to the earth’s ozone layer;

(16) “Heat island effect” means local air and surface temperatures that are higher than nearby natural areas as a result of heat absorbing surfaces at a site;

(17) “Hydrochlorofluorocarbons” or “HCFCs” means a class of chemical compounds containing hydrogen, chlorine, fluorine and carbon that are commonly used as substitute refrigerants to Chlorofluorocarbons because they are less damaging to the earth’s ozone layer;

(18) “Institute for Sustainable Energy” means the Institute for Sustainable Energy at Eastern Connecticut State University;

(19) “Leadership in Energy and Environmental Design” or “LEED” means a rating system developed by the U. S. Green Building Council to encourage environmental integrity, energy efficiency, healthy work spaces, and sustainable building practices in buildings;

(20) “Low emitting and fuel efficient vehicles” means vehicles that are classified as zero emission vehicles by the California Air Resources Board or have achieved a minimum green score of 40 on the American Council for an Energy Efficient Economy annual vehicle rating guide;

(21) “Minimum Efficiency Reporting Value” or “MERV” means a number ranging from one to sixteen that indicates the efficiency at which an air filter can remove particles, where one is the least efficient and sixteen is the most efficient at removing particles;

(22) “New England Power Pool Generation Information System” or “NEPOOL-GIS” means a system that verifies and manages Renewable Energy Certificates that are the basis for environmental trading and investment incentives in the New England states;

(23) “On-site renewable energy” means renewable energy systems located on the building or building site that produce electricity or hot water for use in the building. This includes solar photovoltaic systems, solar hot water systems, wind energy systems, and fuel cell systems;

(24) “Pre-consumer recycled content” means that the materials used to make the product were recyclables from within the manufacturing process and never reached consumers;

(25) “Preferred parking” means parking spots that are closest to the main entrance of the building, exclusive of handicap designated spaces;

(26) “Project manager-facilitator” means whomever the Department of Public Works, Department of Transportation, Office of Legislative Management, the University of Connecticut, or municipality appoints as the lead individual responsible for a particular project;

(27) “Post-consumer recycled content” means that the materials used to make a product were already used by a consumer and recycled;

(28) “Renewable Energy Credit” or “REC” means a certificate representing one

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megawatt hour of renewable energy that is physically metered and verified from the generator or the renewable energy project;

(29) “School renovation” means “renovation” as defined in section 10-282 of the Connecticut General Statutes;

(30) “SDE Commissioner” means the commissioner of the State Department of Education;

(31) “Secretary” means the secretary of the Office of Policy and Management;

(32) “Solar Heat Gain Coefficient” or “SHGC” means a measure of how well a window blocks heat from sunlight. The SHGC is the fraction of the heat from the sun that enters through a window. It is expressed as a number between 0 and 1. The lower a window’s SHGC, the less solar heat it transmits;

(33) “Solar Reflectance Index” means a measure of a surface’s ability to reflect solar heat, with white being one hundred and black being zero;

(34) “State facility” means a building that is owned by the state of Connecticut;

(35) “State facility renovation” means an undertaking whereby the designer manipulates the building envelope, electrical systems, mechanical systems, and efficiency of equipment for modification of performance, when costs are two million dollars or more. This includes entire buildings as well as isolated portions of the building;

(36) “U. S. Green Building Council” means a membership organization dedicated to shaping the future of sustainable building design through the development of LEED rating system for building performance; and

(37) “Volatile organic compound” or “VOC” means a class of chemicals that are emitted as gases from certain solids and liquids and that have short- and long-term adverse health effects.

(Adopted effective September 2, 2009)

**Sec. 16a-38k-2. Applicability**

Sections 16a-35k-1 to 16a-35k-9 apply to:

(a) New construction of a state facility that is projected to cost five million dollars or more, and for which all budgeted project bond funds are allocated by the State Bond Commission on or after January 1, 2008;

(b) State facility renovation that is projected to cost two million dollars or more of which two million dollars or more is state funding, and is approved and funded on or after January 1, 2008;

(c) New construction of public school buildings costing five million dollars or more of which two million dollars or more is state funding, and is authorized by the General Assembly pursuant to chapter 173 on or after January 1, 2009; and

(d) School renovation that is projected to cost two million dollars or more of which two million dollars or more is state funding, and is authorized by the General Assembly pursuant to chapter 173 on or after January 1, 2009.

(Adopted effective September 2, 2009)

**Sec. 16a-38k-3. Mandatory building project requirements**

All building projects pursuant to section 16a-38k-2 of the Regulations of Connecticut State Agencies shall meet the minimum building standards outlined in subsections (a) through (l) of this section:

(a) Building commissioning shall be an integral part of the building project. Such commissioning shall be performed by an independent third-party, called a commissioning agent, who shall be certified as a commissioning agent by the Building Commissioning Association or the Association of Energy Engineers, and shall either be a Professional Engineer or have an S-1 license. This individual shall be included in the beginning stages of the building process through a post-occupancy evaluation. The commissioning agent shall not be an employee of the architectural, engineering, or construction firm that implements the project, and shall be hired directly by the state, municipality, or regional school district. For state facility projects, the commissioning agent may be an employee of the Department of Public Works provided such person shall act independently of the other staff assigned to oversee the design and construction of the project. The commissioning agent shall report all findings and recommendations to the owner of the state facility or the municipal or regional school district. Coordination and oversight of the training of facility management and maintenance personnel on proper equipment operation as well as verification of proper development of systems manuals shall be overseen by the commissioning agent in cooperation with the project manager-facilitator and with the building owner, designer, contractor, and subcontractors who installed the systems. The commissioning process, at minimum, shall include the following energy-related systems: (1) heating, ventilating, air conditioning, and refrigeration systems and associated controls, (2) lighting and day-lighting controls, (3) domestic hot water systems, and (4) renewable energy systems. It is required that the commissioning process also include water using systems and the building envelope systems.

(b) All building construction projects shall follow an integrated design process to set environmental and building performance goals. This process, at minimum, shall include at least one collaborative session of the design team consisting of the architect, mechanical engineer, electrical engineer, civil engineer, commissioning agent, the project manager-facilitator representing the building owner, and representative(s) of the building tenant state agency or municipality, as applicable, prior to the preparation of contract documentation. The meeting shall include the owner's project requirements, the basis of design, commissioning plan, performance verification documentation, commissioning report, and post commissioning requirements. Prior to the start of the construction phase, at least one collaborative session among the designers, owner, and contractors, including any selected electrical, mechanical, and controls subcontractors shall be held to insure knowledge of design intent, required approval processes, and commissioning procedures. All records of decisions from the collaborative sessions shall be shared among the design team. The owner of the state facility or the municipal or regional school district shall have final decision making authority.

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(c) The base minimum energy performance for all building projects shall be twenty-one percent better than the most current Connecticut State Building Code or ASHRAE Standard 90.1-2004, whichever is more stringent. Base minimum energy performance shall be determined using approved building modeling software that is identified in the *Connecticut Building Standard Guidelines Compliance Manual for High Performance Buildings*.

(d) Energy consuming products installed in the building shall be Energy Star compliant if the product category has an Energy Star specification.

(e) The project manager-facilitator shall develop an indoor air quality management plan for the construction phase of the project. As part of the plan, the following shall be addressed:

(1) Periodic inspections of materials stored on-site to ensure that all installed or stored absorptive materials are protected from moisture and mold damage. If resting on the ground, spacers shall be provided to allow air to circulate between the ground and the materials. All water-damaged materials shall be removed from the site and disposed of properly.

(2) Surface grades, drainage systems, and heating, ventilating and air conditioning condensate drainage systems shall be designed so as to prevent accumulation of water under, in, or near the building. Irrigation systems shall be designed so as to prevent spraying of the building.

(3) Ductwork shall be sealed from outside elements during transport and storage, and interior surfaces shall be wiped down immediately prior to installation. During installation, open ends of ductwork shall be temporarily sealed and ductwork shall be protected with surface wrapping. No installed ductwork shall contain internal porous insulation materials or lining.

(4) Heating, ventilation, and air conditioning (HVAC) equipment shall be covered and protected from moisture during transportation and on-site storage. For permanently installed air handlers used during construction, use filtration media in air handlers with a Minimum Efficiency Reporting Value (MERV) of ten, except for unit ventilator systems which shall have a minimum MERV of seven. All filtration media shall be replaced immediately prior to building occupancy with media having a MERV rating of equal or greater value to existing media.

(5) Materials that off-gas toxic or potentially toxic fumes shall be pre-conditioned for at least seventy-two hours prior to installation within the building. Such materials shall also be installed prior to the installation of porous building materials to reduce absorption and adsorption of those toxins by the porous materials. Prior to installation of porous materials and materials vulnerable to mold, the building enclosure shall be watertight.

(6) In the event that any portion of the building is occupied during construction or renovation activities, the Sheet Metal and Air Conditioning Contractor's National Association (SMACNA) *Indoor Air Quality Guidelines for Occupied Buildings Under Construction* shall be followed.

(f) Use low-flow fixtures to consume twenty percent less water in aggregate as compared to base levels calculated by meeting the Federal Energy Policy Act of 1992 fixture

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performance requirements. Calculations shall be based on estimates of occupant usage and shall include the following building fixtures only: showers, urinals, toilets, bathroom sink faucets, and kitchen sink faucets.

(g) The building or building site shall contain convenient areas to serve as collection points for recyclable materials and shall include an area for the sorting and storage of such materials for pick-up by recyclers.

(h) All construction shall include a plan for erosion and sediment control, as required by sections 22a-325 through 22a-329 of the Connecticut General Statutes.

(i) No smoking shall be permitted in any building or portion of a building owned and operated or leased and operated by the state or any political subdivision thereof as mandated by section 19a-342 of the Connecticut General Statutes. All exterior designated smoking areas shall be located at least twenty-five feet away from outdoor air intakes, operable windows, and building entrances.

(j) A plan for integrated pest management as defined in section 22a-47 of the Connecticut General Statutes, shall be established as required under section 22a-66l for general pest control in state buildings. Schools shall comply with sections 10-231d and 22a-66l of the Connecticut General Statutes.

(k) Chlorofluorocarbon (CFC)-based refrigerants shall not be utilized for energy systems in new construction. For renovation projects where existing heating, ventilating and air conditioning equipment is reused, a CFC phase-out conversion shall be undertaken.

(l) Buildings shall be designed to meet the minimum ventilation requirements of the current ASHRAE Standard 62.1 using the Ventilation Rate Procedure for mechanical systems. If the current Connecticut State Building Code contains more stringent requirements, it shall be used to meet minimum ventilation requirements.

(Adopted effective September 2, 2009)

**Sec. 16a-38k-4. Building standard strategies for state facilities**

All building projects as defined in sections 16a-38k-2 (a) and 16a-38k-2 (b) of the Regulations of Connecticut State Agencies shall implement a minimum of twenty-six of the sixty strategies in subsections (a) through (f) of this section.

**(a) Energy efficiency and Renewable Energy- A minimum of one strategy in this subsection is required.**

(1) Same as in section 16a-38k-3(c) except that the percentage improvement over base is increased by three and one-half percent.

(2) Same as in section 16a-38k-3(c) except that the percentage improvement over base is increased by seven percent. Selection of this strategy shall count as implementing two strategies since it is inclusive of the strategy listed in subsection (a)(1) of this section.

(3) Same as in section 16a-38k-3(c) except that the percentage improvement over base is increased by ten and one-half percent. Selection of this strategy shall count as implementing three strategies since it is inclusive of the strategies listed in subsections (a)(1) and (a)(2) of this section.

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(4) Same as in section 16a-38k-3(c) except that the percentage improvement over base is increased by fourteen percent. Selection of this strategy shall count as implementing four strategies since it is inclusive of the strategies listed in subsections (a)(1) through (a)(3) of this section.

(5) Same as in section 16a-38k-3(c) except that the percentage improvement over base is increased by seventeen and one-half percent. Selection of this strategy shall count as implementing five strategies since it is inclusive of the strategies listed in subsections (a)(1) through (a)(4) of this section.

(6) Same as in section 16a-38k-3(c) except that the percentage improvement over base is increased by twenty-one percent. Selection of this strategy shall count as implementing six strategies since it is inclusive of the strategies listed in subsections (a)(1) through (a)(5) of this section.

(7) The installation of on-site renewable energy shall provide at least three percent of the building energy needs based upon the most recent version of the U. S. Department of Energy Commercial Buildings Energy Consumption survey for estimated electricity usage or by using modeling software that is identified in the *Connecticut Building Standard Guidelines Compliance Manual for High Performance Buildings*. The facility shall retain ownership of associated renewable energy credits (RECs) for a period of two years.

(8) Same as in section 16a-38k-4(a)(7) except at least seven percent of the building energy needs are met through on-site renewable energy. Selection of this strategy shall count as implementing two strategies since it is inclusive of the strategy listed in subsection (a)(7) of this section.

(9) Same as in section 16a-38k-4(a)(7) except at least ten percent of building energy needs are met through on-site renewable energy. Selection of this strategy shall count as implementing three strategies since it is inclusive of the strategies listed in subsections (a)(7) and (a)(8) of this section.

(10) The facility shall have a two-year contract to purchase at least thirty-five percent of the building's annual electricity consumption from a Class I renewable energy source. Alternately, the purchase may be in the form of New England Power Pool Generation Information System (NEPOOL-GIS) renewable energy credits (RECs); or if procuring RECs outside of the NEPOOL-GIS, the RECs shall be equivalent to Class I renewable resources and certified by a nationally recognized certification organization as identified in the *Connecticut Building Standard Guidelines Compliance Manual for High Performance Buildings*. Baseline electric usage can be determined using either the most recent version of the U. S. Department of Energy Commercial Buildings Energy Consumption survey for estimated electricity usage or by using building modeling software that is identified in the *Connecticut Building Standard Guidelines Compliance Manual for High Performance Buildings*. RECs purchased to comply with this subsection shall not be purchased from a facility that has installed renewable energy systems for credit under subsections (a)(7) through (a)(9) of this section.

(11) Develop a measurement and verification plan for energy usage, to cover a period

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of at least one year after occupancy.

**(b) Indoor Environment -A minimum of two strategies in this subsection are required.**

(1) Install permanent indoor air monitoring systems to provide performance feedback on ventilation systems. Such monitoring systems, at minimum, shall include devices to measure temperature, relative humidity, carbon dioxide, and dew point. Carbon dioxide measurement sensors shall measure both interior and exterior levels of CO<sub>2</sub>.

(2) Provide increased outdoor ventilation by designing mechanical ventilation systems to exceed the minimum rates required by the current Connecticut State Building Code or the current version of the ASHRAE Standard 62.1, whichever is more stringent, by thirty percent.

(3) After construction ends and with all interior finishes installed but prior to building occupancy, flush the building continuously for at least ten days with outside air while maintaining an internal temperature between 60°F and 78°F and relative humidity no higher than 60%. Do not “bake out” the building by increasing the temperature of the space. Alternatively, use the following strategy: Flush out each space separately until 3,500 cubic feet of outside air per square foot of floor space has been delivered to that space. The space shall then be ventilated at the rate of 0.3 cubic feet per minute per square foot of floor space or the design minimum outside air rate, whichever is greater. This shall be performed for a minimum of three hours prior to occupancy and then during occupancy until a total of 14,000 cubic feet of outside air per square foot of floor area has been delivered to that space.

(4) Adhesives and sealants used in the interior of the building shall be certified for low emissions of volatile organic compounds (VOCs) using specifications or certification programs listed in the *Connecticut Building Standard Guidelines Compliance Manual for High Performance Buildings*.

(5) Paints and coatings used in the interior of the building shall be certified for low emissions of volatile organic compounds (VOCs) using specifications or certification programs listed in the *Connecticut Building Standard Guidelines Compliance Manual for High Performance Buildings*.

(6) All carpet, carpet adhesive products and carpet cushion installed in the building interior shall meet current testing and product requirements of the Carpet and Rug Institute’s Green Label Plus program.

(7) All composite wood and agrifiber products used within the shell of the building shall meet the testing and product requirements of the California Department of Health Services *Standard Practice for the Testing of Volatile Organic Emissions From Various Sources Using Small-Scale Environmental Chambers*, including 2004 Addenda.

(8) To protect building occupants from potentially hazardous particulates and pollutants, building design shall control entry of pollutants and excess moisture into buildings and later cross-contamination of regularly occupied areas at all entries directly connecting to the outdoors through the use of permanent entryway systems to capture, dirt, particulates, and moisture. Such entryway systems shall be a minimum of six feet long and may be

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permanently installed grates, grills, or slotted systems that allow for cleaning underneath. Outside air intakes shall be located a minimum of twenty-five feet from any hazard or noxious contaminants such as vents, chimneys, plumbing vents, exhaust fans, cooling towers, street alleys, parking lots, loading docks, dumpster areas, or any area where vehicle idling occurs. If locating an air intake within twenty-five feet of a contaminant source is unavoidable, the intake must be located a minimum of ten feet horizontal distance and two feet lower than the contaminant source.

(9) Allow for individual lighting control for ninety percent or more of the building occupants to allow for adjustments to suit individual tasks and preferences and provide lighting system controllability for all shared multi-occupant spaces to enable lighting adjustment that meets group needs and preferences.

(10) Using conditions for thermal comfort described in the current version of the ASHRAE Standard 55, allow for individual thermal comfort control for fifty percent or more of the building occupants to allow for adjustments to suit individual tasks and preferences and provide thermal system comfort controllability for all shared multi-occupant spaces to enable adjustment that meets group needs and preferences.

(11) Building facility personnel, under direction of the building owner, shall administer an anonymous survey for building occupants within the first twelve months after initial occupancy to assess occupant satisfaction and implement corrective actions for recurrent issues. At minimum, the survey shall cover thermal building comfort, lighting, security issues, indoor air quality, functionality of space, and acoustics. If greater than 20% of the respondents express dissatisfaction with any specific issue, the building owner shall prepare a plan for remedial action.

(12) Demonstrate through computer software simulations or through recording of indoor light measurements that a minimum illumination level of twenty-five foot-candles has been achieved from daylight in at least seventy-five percent of all regularly occupied areas.

(13) There shall be a direct line of sight to the outdoor environment via window glazing between two and one-half to seven and one half feet above the finished floor for seventy percent of all regularly occupied areas.

(14) Where chemical use occurs, including housekeeping areas, chemical storage and mixing areas, and copy/print rooms, use dedicated exhaust to ventilate the space at a minimum of 0.5 cubic feet per minute per square foot with adequate make-up air. No recirculation is permitted and such spaces shall have a negative air pressure of at least five pascal (.02 inches of water gauge) to a minimum of one pascal (0.004 inches of water gauge) when the doors are closed.

**(c) Water efficiency- A minimum of one strategy in this subsection is required.**

(1) Same as in section 16a-38k-3(f), except that the conserving strategies use thirty percent less water in aggregate.

(2) Reduce by fifty percent the amount of water required for landscaping from a modeled, mid-summer baseline usage case. Reductions may be attributed to the use of captured rainwater, recycled waste (grey) water, efficiency of irrigation strategies, and use of drought



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resistant plant species. This strategy only applies to renovation projects.

(3) Use landscaping that does not require a permanent irrigation system or uses non-potable water for irrigation. Any system installed for irrigation using potable water shall only be utilized for plant establishment and be removed prior to one year of building occupancy.

(4) Reduce potable water use by half through water conserving fixtures and/or use of non-potable water using methodologies stated in the *Connecticut Building Standard Guidelines Compliance Manual for High Performance Buildings*. This strategy only applies to renovation projects.

**(d) Recycling, Reuse, and Sustainability- A minimum of two strategies in this subsection are required.**

(1) Retain at least seventy-five percent, by surface area, of an existing building structure, including structural floor and roof decking, exterior framing, and envelope surface, but excluding window assemblies and non-structural roofing material. This strategy only applies to renovation projects.

(2) Same as in section 16a-38k-4(d)(1), except that a total of ninety-five percent of the building structure is retained. This strategy only applies to renovation projects. This strategy shall count as implementing two strategies since it is inclusive of the strategy listed in subsection (d)(1) of this section.

(3) Use existing non-structural elements such as interior walls, doors, floor coverings and ceiling systems in at least half (by square footage) of the completed building. This strategy only applies to renovation projects.

(4) Recycle or salvage at least half of non-hazardous construction and demolition debris.

(5) Same as in section 16a-38k-4(d)(4), except that a total of seventy-five percent of non-hazardous construction and demolition debris is recycled or salvaged. Selection of this strategy shall count as implementing two strategies since it is inclusive of the strategy listed in subsection (d)(4) of this section.

(6) Use five percent of refurbished, salvaged, or reused materials, based on cost of the total value of materials on the project. Only permanently installed materials can be used in calculations.

(7) Same as in section 16a-38k-4 (d)(6), except that a total of ten percent of refurbished, salvaged, or reused materials, based on cost of the total value of materials on the project shall be used. Selection of this strategy shall count as implementing two strategies since it is inclusive of the strategy listed in subsection (d)(6) of this section.

(8) Use materials where the weighted average of recycled materials content is ten percent, based on cost, of the total value of the materials in the project. Recycled content value of a material assembly shall be determined by weight. The weighted average shall be determined using the following formula:

Weighted average of recycled materials equals the percentage of post consumer content plus one-half the percentage of pre-consumer content.

(9) Same as section 16a-38k-4(d)(8), except that the weighted average of recycled

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materials shall constitute at least twenty percent, based on cost, of the total value of the materials in the project. Selection of this strategy shall count as implementing two strategies since it is inclusive of the strategy listed in subsection (d)(8) of this section.

(10) Use a minimum of ten percent of building materials extracted or manufactured within a five-hundred mile radius of the building site.

(11) Same as in section 16a-38k-4(d)(10), except that a minimum of twenty percent of building materials extracted or manufactured within a five-hundred mile radius of the building site shall be used. Selection of this strategy shall count as implementing two strategies since it is inclusive of the strategy listed in subsection (d)(10) of this section.

(12) Use building materials and products that are made from plants harvested in a ten-year or shorter cycle. Two and one-half percent of the total value of building materials and products, based on costs, must be used in the project.

(13) At least half of permanently installed wood and wood-based products shall be certified in accordance with the current Forest Stewardship Council (FSC) principles and criteria.

**(e) Site Selection and Development- A minimum of two strategies in this subsection are required.**

(1) Construct or renovate the building on a previously developed site and within one-half mile of a residential zone/neighborhood with an average density of ten units per acre net and within one half mile of a minimum of ten basic services as described in the *Connecticut Building Standard Guidelines Compliance Manual for High Performance Buildings* and with pedestrian access between the building and the services.

(2) Develop on a site that is defined as a brownfield by a local, state, or federal government agency.

(3) Select a site that has access to public transportation. Public transportation is considered accessible if the site is located within one-third of a mile to an existing commuter rail station or located within one quarter mile of a public commuter bus line.

(4) Encourage bicycle transportation by providing secure bicycle racks or storage within five-hundred feet of a building entrance for a minimum of five percent of building users at peak times and shower and changing facilities must be provided in the building or within five-hundred feet of the building. For residential buildings, covered storage facilities shall be provided for securing bicycles for a minimum of fifteen percent of building occupants.

(5) Encourage the use of low-emitting and fuel efficient vehicles by providing preferred parking for low-emitting and fuel efficient vehicles for five percent of the total parking capacity at the site.

(6) Reduce pollution from single occupancy vehicle use by sizing parking capacity to meet, but not exceed minimum local zoning requirements; provide designated preferred parking for carpools or vanpools for five percent of the total provided parking spaces; and provide infrastructure and support programs to facilitate shared vehicle usage such as ride sharing bulletin boards and shuttle services to mass transit.

(7) Protect existing natural areas or restore damaged areas to promote biodiversity. Any

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site disturbances shall be limited to no more than forty feet beyond the building perimeter; ten feet beyond surface walkways, patios, surface parking and utilities less than twelve inches in diameter; fifteen feet beyond primary roadway curbs and main utility branch trenches; and twenty-five feet beyond constructed areas with permeable surfaces, such as playing fields, that require additional staging areas in order to limit compaction in the constructed area. For previously developed or graded sites, restore or protect to a minimum of fifty percent of the site area, excluding the building footprint, to plant species indigenous to the locality or to cultivars of native plants adapted to the local climate conditions and not considered invasive species or noxious weeds. Except for playing fields and picnic areas, minimize lawn areas to less than ten percent of the building site landscape.

(8) Maximize open space at the site. Provide vegetated open space within the project boundary to exceed the local zoning's open space requirement by twenty-five percent; where there is no local zoning requirement, provide vegetated open space adjacent to the building that, at minimum, is equal to the building footprint.

(9) Design the site to minimize storm water runoff by implementing a storm water management plan that results in a twenty-five percent reduction in peak runoff rates for a two-year, twenty-four hour storm design from pre-construction to developed conditions; and implement a storm water management plan that results in a twenty-five percent decrease in run-off volume of storm water runoff from the one hundred-year, twenty-four hour storm design from existing to developed conditions.

(10) Design the site to minimize pollutants in storm water runoff by implementing a storm water management plan that reduces impervious cover, promotes infiltration, redirects water to pervious areas or storage reservoirs that treats storm water runoff from ninety percent of the average annual rainfall.

(11) Reduce heat island effect at the site by utilizing any combination of the use of native shade species, paving materials with a solar reflectance index of at least twenty-nine, and/or an open grid pavement system for fifty percent or more of the site parking, sidewalk and road areas; or place at least fifty percent of parking spaces under a covering, such as the a deck, a roof, underground or the building itself. Any roof used to cover parking spaces must have a solar reflectance index of at least twenty-nine.

(12) Reduce heat island effect through roofing selection by either installing native vegetation on at least fifty percent of the roof area or by using a roofing material that has a solar reflectance index equal to or greater than the values in the following table on at least seventy-five percent of the roof surface:

Roof Type	Slope	Solar Reflectance Index
Low-Sloped Roof	≤ 2:12	78
Steep-Sloped Roof	> 2:12	29

(13) Reduce light pollution from the site. In addition to requirements mandated in Section 4b-16 of the Connecticut General Statutes, automatic controls to turn off lights during non-

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business hours shall be installed on all non-emergency interior lighting. Manual override capability may be provided for after hours use. Exterior lighting shall be provided only in areas where lighting is required for safety and comfort. Light fixtures shall not be installed where the main purpose is to light building facades or landscape features. Exterior building-mounted lighting fixtures that are only needed during building operation shall be controlled by a time-clock with an easily accessible manual control. Lighting of flags, signs, and monuments shall be limited to fifty watts per fixture and shall incorporate shielding devices to minimize light pollution. No more than two fixtures may be used for each flag, sign or monument.

(14) Building orientation shall be such that the east/west glazing exposure is minimized. South windows shall have an external overhang to entirely shade adjacent windows during the summer solstice or shall utilize glazing with a solar heat gain coefficient of less than or equal to 0.4. Shading mechanisms or glazing with a solar heat gain coefficient less than or equal to 0.4 shall be installed at eastern and western exposure windows to minimize solar heat gain early and late in the day respectively.

(15) Buildings, roads, parking areas, sidewalks, or other impervious surfaces shall not be built in any area that is inconsistent with the state plan of conservation and development.

**(f) Operations and Procedures/Innovation – No minimum number of strategies are required for this subsection.**

(1) Do not install fire suppression systems that contain chlorofluorocarbons (CFCs), hydro chlorofluorocarbon (HCFCs) or halons. Select refrigerants and heating, ventilating, air conditioning, and refrigeration (HVAC&R) systems that minimize or eliminate compounds contributing to ozone layer depletion and global warming. If refrigerants are used, the mechanical room shall have leak detection equipment installed.

(2) Utilize innovative high performance features or technologies that exceed any existing mandatory requirement as specified in Section 16a-38k-3 or optional measure within Section 16a-38k-4.

(3) In settings where a central plant provides energy to multiple buildings or in cases where multiple buildings are fed from the same fuel source, new construction or major renovation shall include metering and other such equipment necessary to evaluate energy and water consumption.

(Adopted effective September 2, 2009)

**Sec. 16a-38k-5. Additional mandatory building project requirements for schools**

In addition to complying with the requirements set forth in Section 16a-38k-3 of the Regulations of Connecticut State Agencies, all building projects as defined in sections 16a-38k-2(c) and 16a-38k-2(d) of the Regulations of Connecticut State Agencies shall meet the following mandatory requirements.

(a) All classrooms, including art rooms, music rooms, science rooms, computer rooms, and special needs, remedial and library space shall meet the acoustical standards as required under section 10-285g of the Connecticut General Statutes.

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(b) Outside air intakes shall be located a minimum of twenty-five feet from any hazard or noxious contaminants such as vents, chimneys, plumbing vents, exhaust fans, cooling towers, street alleys, parking lots, loading docks, dumpster areas, bus loops, or any area where vehicle idling occurs. If locating an air intake within twenty-five feet of a contaminant source is unavoidable, the intake must be located a minimum of ten feet horizontal distance and two feet lower than the contaminant source.

(c) Only electronic ignitions shall be specified for gas-fired water heaters, boilers, furnaces, air handling units, and stovetops/ovens.

(d) The following materials shall be certified for low emissions of volatile organic compounds (VOCs) using specifications or certification programs listed in the *Connecticut Building Standard Guidelines Compliance Manual for High Performance Buildings*:

- (1) 50% of adhesives and sealants used in the interior of the building;
- (2) Acoustic ceiling tiles and wall panels;
- (3) Interior paints;
- (4) Wall coverings;
- (5) Carpet systems and associated adhesives;
- (6) Composite and solid wood flooring;
- (7) Resilient flooring and associated adhesives.

(e) The town or regional board of education and the building committee of such town or district, shall provide for a Phase I environmental site assessment in accordance with the American Society for Testing and Materials Standard #1527, Standard Practice for Environmental Site Assessments: Phase I Site Assessment Process, or similar subsequent standards, as required pursuant to Section 10-291 of the Connecticut General Statutes. If a town, regional board of education or the building committee of such town or district suspect contamination, a Phase II Environmental Site Assessment shall be undertaken as described in American Society for Testing and Materials Standard E1903-97 or similar subsequent standards. Any contamination found shall be remedied.

(f) Prior to substantial completion of the building, vacuum all carpeted and soft surfaces with a high-efficiency particulate arrestor (HEPA) vacuum. For phased or occupied renovations, HEPA vacuum the carpet daily in occupied areas.

(Adopted effective September 2, 2009)

**Sec. 16a-38k-6. Building standard strategies for schools**

All building projects as defined in sections 16a-38k-2(c) and 16a-38k-2(d) of the Regulations of Connecticut State Agencies shall implement a minimum of twenty-eight of the fifty-nine strategies in subsections (a) through (f) of this section:

(a) **Energy efficiency and Renewable Energy- A minimum of one strategy in this subsection is required.**

(1) Same as in section 16a-38k-3(c) except that the percentage improvement over base is increased by three and one-half percent.

(2) Same as in section 16a-38k-3(c) except that the percentage improvement over base

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is increased by seven percent. Selection of this strategy shall count as implementing two strategies since it is inclusive of the strategy listed in subsection (a)(1) of this section.

(3) Same as in section 16a-38k-3(c) except that the percentage improvement over base is increased by ten and one-half percent. Selection of this strategy shall count as implementing three strategies since it is inclusive of the strategies listed in subsections (a)(1) and (a)(2) of this section.

(4) Same as in section 16a-38k-3(c) except that the percentage improvement over base is increased by fourteen percent. Selection of this strategy shall count as implementing four strategies since it is inclusive of the strategies listed in subsections (a)(1) through (a)(3) of this section.

(5) Same as in section 16a-38k-3(c) except that the percentage improvement over base is increased by seventeen and one-half percent. Selection of this strategy shall count as implementing five strategies since it is inclusive of the strategies listed in subsections (a)(1) through (a)(4) of this section.

(6) Same as in section 16a-38k-3(c) except that the percentage improvement over base is increased by twenty-one percent. Selection of this strategy shall count as implementing six strategies since it is inclusive of the strategies listed in subsections (a)(1) through (a)(5) of this section.

(7) The installation of on-site renewable energy shall provide at least three percent of the building energy needs based upon the most recent version of the U. S. Department of Energy Commercial Buildings Energy Consumption survey for estimated electricity usage or by using modeling software that is identified in the *Connecticut Building Standard Guidelines Compliance Manual for High Performance Buildings*.

(8) Same as in section 16a-38k-6(a)(7) except at least seven percent of the building energy needs are met through on-site renewable energy. Selection of this strategy shall count as implementing two strategies since it is inclusive of the strategy listed in subsection (a)(7) of this section.

(9) Same as in section 16a-38k-6(a)(7) except at least ten percent of building energy needs are met through on-site renewable energy. Selection of this strategy shall count as implementing three strategies since it is inclusive of strategies listed in subsections (a)(7) and (a)(8) of this section.

(10) The facility shall have a two-year contract to purchase at least thirty-five percent of the building's annual electricity consumption from a Class I renewable energy source. Alternately, the purchase may be in the form of New England Power Pool Generation Information System (NEPOOL-GIS) renewable energy credits (RECs); or if procuring RECs outside of the NEPOOL-GIS, the RECs shall be equivalent to Class I renewable resources and certified by a nationally recognized certification organization as identified in the *Connecticut Building Standard Guidelines Compliance Manual for High Performance Buildings*. Baseline electric usage can be determined using either the most recent version of the U. S. Department of Energy Commercial Buildings Energy Consumption survey for estimated electricity usage or by using building modeling software that is identified in the

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(11) Develop a measurement and verification plan for energy usage, to cover a period of at least one year after occupancy.

**(b) Indoor Environment- A minimum of two strategies in this subsection are required.**

(1) Install permanent indoor air monitoring systems to provide performance feedback on ventilation systems. Such monitoring systems, at minimum, shall include devices to measure temperature, relative humidity, carbon dioxide, and dew point. Carbon dioxide measurement sensors shall measure both interior and exterior levels of CO<sub>2</sub>.

(2) Provide increased outdoor ventilation by designing mechanical ventilation systems to exceed the minimum rates required by the current Connecticut State Building Code or the current version of the ASHRAE Standard 62.1, whichever is more stringent, by thirty percent.

(3) After construction ends and with all interior finishes installed but prior to building occupancy, flush the building continuously for at least ten days with outside air while maintaining an internal temperature between 60°F and 78°F and relative humidity no higher than 60%. Do not “bake out” the building by increasing the temperature of the space. Alternatively, use the following strategy: Flush out each space separately until 3,500 cubic feet of outside air per square foot of floor space has been delivered to that space. The space shall then be ventilated at the rate of 0.3 cubic feet per minute per square foot of floor space or the design minimum outside air rate, whichever is greater. This shall be performed for a minimum of three hours prior to occupancy and then during occupancy until a total of 14,000 cubic feet of outside air per square foot of floor area has been delivered to that space.

(4) All composite wood and agrifiber products used within the shell of the building shall meet the testing and product requirements of the California Department of Health Services *Standard Practice for the Testing of Volatile Organic Emissions From Various Sources Using Small-Scale Environmental Chambers*, including 2004 Addenda.

(5) For administrative offices and other regularly occupied spaces, allow for individual lighting control for ninety percent or more of the building occupants in workspaces to allow for adjustments to suit individual tasks and preferences. For classroom and core learning spaces, with the exception of chemistry laboratories, art and music rooms, shops, and gyms, install two modes of illumination: general illumination and audio visual illumination. General illumination mode shall achieve desk level illumination of 30-50 foot-candles; audio visual mode shall achieve a desk level illumination of 10 to 20 foot-candles while limiting vertical illumination at a projection screen of no more than seven foot-candles. All lighting fixtures shall include glare control features.

(6) Using the current version of the ASHRAE Standard 55, allow for individual thermal comfort control in administrative areas for fifty percent or more of the building occupants to allow for adjustments to suit individual tasks and preferences and provide thermal system comfort controllability for all shared multi-occupant spaces such as classrooms, auditoriums,

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and gyms to enable adjustment that meets group needs and preferences.

(7) Building facility personnel, under direction of the building owner, shall administer an anonymous survey for building occupants within the first twelve months after initial occupancy to assess occupant satisfaction and implement corrective actions for recurrent issues. At minimum, the survey shall cover thermal building comfort, lighting, security issues, indoor air quality, functionality of space, and acoustics. If greater than 20% of the respondents express dissatisfaction with any specific issue, the building owner shall prepare a plan for remedial action.

(8) Demonstrate through computer software simulations or through recording of indoor light measurements that a minimum illumination level of twenty-five foot-candles has been achieved from daylight in at least seventy-five percent of all regularly occupied areas.

(9) There shall be a direct line of sight to the outdoor environment via window glazing between two and one-half to seven and one half feet above the finished floor for seventy percent of all regularly occupied areas.

(10) To prevent mold, heating, ventilating and air conditioning systems (HVAC) shall be designed to limit space relative humidity to 60% or less during load conditions whether the building is occupied or non-occupied; an ongoing indoor air quality management plan shall be implemented as required under section 10-220 of the Connecticut General Statutes, using the U. S. Environmental Protection Agency's (EPA) Indoor Air Quality *Tools for Schools* Program; and the criteria of sections 16a-38k-6(b)(6) and 16a-38k-6(b)(7) of the Regulations of Connecticut State Agencies shall be met.

(11) Student and teacher classroom chairs, desks, and tables manufactured, refurbished or refinished within one year prior to building occupancy and used within the building interior shall be certified for low chemical emissions by the certifying organization listed in the *Connecticut Building Standard Guidelines Compliance Manual for High Performance Buildings*.

(12) Where chemical use occurs, including housekeeping areas, chemical mixing areas, photo labs, science labs, art rooms, and copy/print rooms, use dedicated exhaust to ventilate the space at a minimum of 0.5 cubic feet per minute per square foot with adequate make-up air. No recirculation is permitted and such spaces shall have a negative air pressure of at least five pascal (.02 inches of water gauge) to a minimum of one pascal (0.004 inches of water gauge) when the doors are closed.

(13) Building design shall control entry of pollutants and excess moisture into buildings and later cross-contamination of regularly occupied areas at all high volume entryways and those adjacent to playing fields and locker rooms through the use of three-part walk-off systems and the proper placement of outside air intakes. Walk-off systems shall include a grate or grill outside the entryway for removing dirt and snow, a drop through mat system within the vestibule, and a fifteen foot interior walk-off mat.

**(c) Water efficiency- A minimum of one strategy in this subsection is required.**

(1) Same as in section 16a-38k-3(f), except that the conserving strategies use thirty percent less water in aggregate.



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(2) Reduce by fifty percent the amount of water required for landscaping from a modeled, mid-summer baseline usage case. Reductions may be attributed to the use of captured rainwater, recycled waste (grey) water, efficiency of irrigation strategies, and use of drought resistant plant species. This strategy only applies to renovation projects.

(3) Use landscaping that does not require a permanent irrigation system or uses non-potable water for irrigation. Any system installed for irrigation using potable water shall only be utilized for plant establishment and be removed prior to one year of building occupancy.

(4) Reduce potable water use by half through water conserving fixtures and/or use of non-potable water using methodologies stated in the *Connecticut Building Standard Guidelines Compliance Manual for High Performance Buildings*. This strategy only applies to renovation projects.

**(d) Recycling, Reuse, and Sustainability-A minimum of two strategies in this subsection are required.**

(1) Retain at least seventy-five percent, by surface area, of an existing building structure, including structural floor and roof decking, exterior framing, and envelope surface, but excluding window assemblies and non-structural roofing material. This strategy only applies to renovation projects.

(2) Same as section 16a-38k-6(d)(1), except that a total of ninety-five percent of the building structure is retained. This strategy only applies to renovation projects. Selection of this strategy shall count as implementing two strategies since it is inclusive of the strategy listed in subsection (d) (1) of this section.

(3) Use existing non-structural elements such as interior walls, doors, floor coverings and ceiling systems in at least half (by square footage) of the completed building. This strategy only applies to renovation projects.

(4) Recycle or salvage at least half of non-hazardous construction and demolition debris.

(5) Same as section 16a-38k-6(d)(4), except that a total of seventy-five percent of non-hazardous construction and demolition debris is recycled or salvaged. Selection of this strategy shall count as implementing two strategies since it is inclusive of the strategy listed in subsection (d)(4) of this section.

(6) Use five percent of refurbished, salvaged, or reused materials, based on cost of the total value of materials on the project. Only permanently installed materials can be used in calculations.

(7) Same as section 16a-38k-6(d)(6), except that a total of ten percent of refurbished, salvaged, or reused materials, based on cost of the total value of materials on the project shall be used. Selection of this strategy shall count as implementing two strategies since it is inclusive of the strategy listed in subsection (d)(6) of this section.

(8) Use materials where the weighted average of recycled materials content is ten percent, based on cost, of the total value of the materials in the project. Recycled content value of a material assembly shall be determined by weight. The weighted average shall be determined using the following formula:

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Weighted average of recycled materials equals the percentage of post consumer content plus one-half the percentage of pre-consumer content.

(9) Same as section 16a-38k-6(d)(8), except that the weighted average of recycled materials shall constitute at least twenty percent, based on cost, of the total value of the materials in the project. Selection of this strategy shall count as implementing two strategies since it is inclusive of the strategy listed in subsection (d)(8) of this section.

(10) Use a minimum of ten percent of building materials extracted or manufactured within a five-hundred mile radius of the building site.

(11) Same as in section 16a-38k-6(d)(10), except that a minimum of twenty percent of building materials extracted or manufactured within a five-hundred mile radius of the building site shall be used. Selection of this strategy shall count as implementing two strategies since it is inclusive of the strategy listed in subsection (d)(10) of this section.

(12) Use building materials and products that are made from plants harvested in a ten-year or shorter cycle. Two and one-half percent of the total value of building materials and products, based on costs, must be used in the project.

(13) At least half of permanently installed wood and wood-based products shall be certified in accordance with the current Forest Stewardship Council (FSC) principles and criteria.

**(e) Site Selection and Development- A minimum of two strategies in this subsection are required.**

(1) Construct or renovate the building on a previously developed site and within one-half mile of a residential zone/neighborhood with an average density of ten units per acre net and within one half mile of a minimum of ten basic services as described in the *Connecticut Building Standard Guidelines Compliance Manual for High Performance Buildings* and with pedestrian access between the building and the services.

(2) Select a site that has access to public transportation. Public transportation is considered accessible if the site is located within one-third of a mile to an existing commuter rail station or located within one quarter mile of a public commuter bus line.

(3) Encourage bicycle transportation by providing secure bicycle racks or storage within five-hundred feet of a building entrance for a minimum of five percent of building users at peak times and shower and changing facilities must be provided in the building or within five-hundred feet of the building.

(4) Encourage the use of low-emitting and fuel efficient vehicles by providing preferred parking for low-emitting and fuel efficient vehicles for five percent of the total parking capacity at the site.

(5) Reduce pollution from single occupancy vehicle use by sizing parking capacity to meet, but not exceed minimum local zoning requirements; provide designated preferred parking for carpools or vanpools for five percent of the total provided parking spaces; and provide infrastructure and support programs to facilitate shared vehicle usage such as ride sharing bulletin boards and shuttle services to mass transit.

(6) Protect existing natural areas or restore damaged areas to promote biodiversity. Any

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site disturbances shall be limited to no more than forty feet beyond the building perimeter; ten feet beyond surface walkways, patios, surface parking and utilities less than twelve inches in diameter; fifteen feet beyond primary roadway curbs and main utility branch trenches; and twenty-five feet beyond constructed areas with permeable surfaces, such as playing fields, that require additional staging areas in order to limit compaction in the constructed area. For previously developed or graded sites, restore or protect to a minimum of fifty percent of the site area, excluding the building footprint, to plant species indigenous to the locality or to cultivars of native plants adapted to the local climate conditions and not considered invasive species or noxious weeds. Except for playing fields and picnic areas, minimize lawn areas to less than ten percent of the building site landscape.

(7) Maximize open space at the site. Provide vegetated open space within the project boundary to exceed the local zoning's open space requirement by twenty-five percent; where there is no local zoning requirement, provide vegetated open space adjacent to the building that, at minimum, is equal to the building footprint.

(8) Design the site to minimize storm water runoff by implementing a storm water management plan that results in a twenty-five percent reduction in peak runoff rates for a two-year, twenty-four hour storm design from pre-construction to developed conditions; and implement a storm water management plan that results in a twenty-five percent decrease in run-off volume of storm water runoff from the one hundred-year, twenty-four hour storm design from existing to developed conditions.

(9) Design the site to minimize pollutants in storm water runoff by implementing a storm water management plan that reduces impervious cover, promotes infiltration, and redirects water to pervious areas or storage reservoirs that treats storm water runoff from ninety percent of the average annual rainfall.

(10) Reduce heat island effect at the site by utilizing any combination of the use of native shade species, paving materials with a solar reflectance index of at least twenty-nine, and/or an open grid pavement system for fifty percent or more of the site parking, sidewalk and road areas; or place at least fifty percent of parking spaces under a covering, such as the a deck, a roof, underground or the building itself. Any roof used to cover parking spaces must have a solar reflectance index of at least twenty-nine.

(11) Reduce heat island effect through roofing selection by either installing native vegetation on at least fifty percent of the roof area or by using a roofing material that has a solar reflectance index equal to or greater than the values in the following table on at least seventy-five percent of the roof surface:

Roof Type	Slope	Solar Reflectance Index
Low-Sloped Roof	≤ 2:12	78
Steep-Sloped Roof	> 2:12	29

(12) Reduce light pollution from the site. In addition to requirements mandated in Section

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4b-16 of the Connecticut General Statutes, automatic controls to turn off lights during non-business hours shall be installed on all non-emergency interior lighting. Manual override capability may be provided for after hours use. Exterior lighting shall be provided only in areas where lighting is required for safety and comfort. Light fixtures shall not be installed where the main purpose is to light building facades or landscape features. Exterior building-mounted lighting fixtures that are only needed during building operation shall be controlled by a time-clock with an easily accessible manual control. Lighting of flags, signs, and monuments shall be limited to fifty watts per fixture and shall incorporate shielding devices to minimize light pollution. No more than two fixtures may be used for each flag, sign or monument. Sports field lighting shall be controlled automatically for shutoff no later than eleven PM, with manual override to prevent disruption of school-sponsored events.

(13) Building orientation shall be such that the east/west glazing exposure is minimized. South windows shall have an external overhang to entirely shade adjacent windows during the summer solstice or shall utilize glazing with a solar heat gain coefficient of less than or equal to 0.4. Shading mechanisms or glazing with a solar heat gain coefficient less than or equal to 0.4 shall be installed at eastern and western exposure windows to minimize solar heat gain early and late in the day respectively.

(14) Buildings shall not be constructed on land that is lower than five feet above the elevation of the 100 year flood as defined by the Federal Emergency Management Agency or its successor agency; and buildings, roads, parking areas, sidewalks, or other impervious surfaces shall not be built in any area that is inconsistent with the applicable municipal plan of conservation and development prepared in accordance with section 8-23 of the Connecticut General Statutes.

(15) The school building shall be sited on land away from sources of unreasonable excess noise, such as highways, airport flight paths, and areas that are subject to unreasonable noise from agricultural or industrial equipment use.

**(f) Operations and Procedures/Innovation – No minimum number of strategies are required for this subsection.**

(1) Do not install fire suppression systems that contain chlorofluorocarbons (CFCs), hydro chlorofluorocarbon (HCFCs) or halons. Select refrigerants and heating, ventilating, air conditioning, and refrigeration (HVAC&R) systems that minimize or eliminate compounds contributing to ozone layer depletion and global warming. If refrigerants are used, the mechanical room shall have leak detection equipment installed.

(2) Utilize innovative high performance features or technologies that exceed any existing mandatory requirements as specified in sections 16a-38k-3 and 16a-38k-5 or optional measures within Section 16a-38k-6.

(3) Integrate the sustainable features of the school building into the educational curriculum within the first full year of school operation.

(Adopted effective September 2, 2009)

**Sec. 16a-38k-7. Alternative strategies to section 16a-38k-4 of the Regulations of Connecticut State Agencies or section 16a-38k-6 of the Regulations of Connecticut State Agencies**

(a) As an alternate to meeting the criteria in section 16a-38k-4 of the Regulations of Connecticut State Agencies, a project as defined by sections 16a-38k-2(a) and 16a-38k-2(b) of the Regulations of Connecticut State Agencies may meet the requirements under section 16a-38k-4 of the Regulations of Connecticut State Agencies by receiving a Leadership in Energy and Environmental Design (LEED) Silver level certification from the United States Green Building Council, or by receiving a Two-Globe rating from the Green Globe system self certification program, providing that the project includes all mandatory requirements within sections 16a-38k-3 and 16a-38k-8 of the Regulations of Connecticut State Agencies.

(b) As an alternate to meeting the criteria in section 16a-38k-6 of the Regulations of Connecticut State Agencies, a project as defined by sections 16a-38k-2(c) and 16a-38k-2(d) of the Regulations of Connecticut State Agencies may meet the requirements under section 16a-38k-6 of the Regulations of Connecticut State Agencies by receiving a Leadership in Energy and Environmental Design (LEED) Silver level certification from the United States Green Building Council, or by meeting the criteria set forth in the Northeast Collaborative for High Performance School Protocol, also known as NE-CHPS, providing that the project includes all mandatory requirements within sections 16a-38k-3, 16a-38k-5, and 16a-38k-8 of the Regulations of Connecticut State Agencies.

(Adopted effective September 2, 2009)

**Sec. 16a-38k-8. Reporting requirements**

(a) For projects as defined in sections 16a-38k-2(a) and 16a-38k-2(b) of the Regulations of Connecticut State Agencies:

(1) Upon successful awarding of the design contract, the design team shall provide a letter to both the commissioner and the secretary listing the project timeline and members of the design team and indicating understanding of the requirements of sections 16a-38k-1 through 16a-38k-9 of the Regulations of Connecticut State Agencies.

(2) Upon design development completion, a report shall be submitted to the Secretary and the Commissioner by the project manager facilitator on behalf of and signed off by the agency/municipality that will be responsible for the ongoing care, operation, and maintenance of the building. This submittal shall include details of how the agency is complying with the mandatory measures under section 16a-38k-3 of the Regulations of Connecticut State Agencies. Documentation shall also include which of the twenty-six measures of the sixty measure strategies are planned for implementation; or if the project is utilizing the alternative strategy outlined in section 16a-38k-7(a) of the Regulations of Connecticut State Agencies, the project manager-facilitator shall document how the design team intends to meet the alternative paths to compliance.

(3) At the end of the construction document phase, a report shall be prepared by the design team to include energy modeling for the current Connecticut State Building Code

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requirements versus the proposed building project and cost differentials and operational savings for the project. The report is to be provided to the project manager-facilitator for submittal to the secretary and the commissioner.

(4) If, at any time during the construction process, substitutions for the any of the twenty-six stated measure strategies are made, the commissioner and the secretary shall be notified by the project manager-facilitator in writing of the changes. These substitutions must be in conformance with the general requirements of the project manual. Such changes shall be agreed to by the secretary and the commissioner. A pre-occupancy commissioning report shall be prepared by the commissioning agent that demonstrates that the project has met all of the requirements spelled out in sections 16a-38k-3 and 16a-38k-4 of the Regulations of Connecticut State Agencies; or alternatively, in sections 16a-38k-3 and 16a-38k-7 of the Regulations of Connecticut State Agencies. The report is to include all design elements of the project that address each completed strategy in sections 16a-38k-3 and 16a-38k-4 of the Regulations of Connecticut State Agencies; or alternatively, in sections 16a-38k-3 and 16a-38k-7 of the Regulations of Connecticut State Agencies. The report shall be submitted to the commissioner and to the secretary with the seal of the professional engineer and signed off by the project manager-facilitator indicating that “this report certifies that the material contained herein is true and correct.”

(5) A post-occupancy commissioning report shall be prepared by the commissioning agent and submitted by the agency that is responsible for the ongoing care, operation, and maintenance of the building to the secretary and the commissioner within one hundred eighty days after one year of occupancy. The report shall include results of any post-occupancy survey of building occupants, a description of any adjustments made to equipment or building operation and the reasons for which the changes were made, and one year of all energy usage by source and water usage.

(b) For projects as defined in sections 16a-38k-2(c) and 16a-38k-2(d) of the Regulations of Connecticut State Agencies:

(1) Upon successful awarding of the design contract, the design team shall provide a letter to the SDE commissioner listing the project timeline and members of the design team and indicating understanding of the requirements of sections 16a-38k-1 through 16a-38k-9 of the Regulations of Connecticut State Agencies.

(2) Upon design development completion, a report shall be submitted to the SDE commissioner by the project manager facilitator on behalf of and signed off by the agency/municipality that will be responsible for the ongoing care, operation, and maintenance of the building. This submittal shall include details of how the project is complying with the mandatory measures under sections 16a-38k-3 and 16a-38k-5 of the Regulations of Connecticut State Agencies. Documentation shall also include which of the twenty-eight measures of the fifty-nine measure strategies are planned for implementation; or if the project is utilizing the alternative strategy outlined in section 16a-38k-7(b) of the Regulations of Connecticut State Agencies, the project manager-facilitator shall document how the design team intends to meet the alternative paths to compliance.

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(3) At the end of the construction document phase, a report shall be prepared by the design team to include energy modeling for the current Connecticut State Building Code requirements versus the proposed building project and cost differentials and operational savings for the project. The report is to be provided to the project manager-facilitator for submittal to the SDE commissioner.

(4) If, at any time during the construction process, substitutions for the any of the twenty-eight measure strategies are made, the SDE commissioner shall be notified by the project manager-facilitator in writing of the changes. These substitutions must be in conformance with the general requirements of the project manual. Such changes shall be agreed to by the SDE commissioner. A pre-occupancy commissioning report shall be prepared by the commissioning agent that demonstrates that the project has met all of the requirements spelled out in sections 16a-38k-3, 16a-38k-5, and 16a-38k-6 of the Regulations of Connecticut State Agencies; or alternatively, in sections 16a-38k-3, 16a-38k-5, and 16a-38k-7 of the Regulations of Connecticut State Agencies. The report is to include all design elements of the project that address each completed strategy in sections 16a-38k-3, 16a-38k-5, and 16a-38k-6 of the Regulations of Connecticut State Agencies; or alternatively, in sections 16a-38k-3, 16a-38k-5, and 16a-38k-7 of the Regulations of Connecticut State Agencies. The report shall be submitted to the SDE commissioner with the seal of the professional engineer and signed off by the project manager-facilitator indicating that “this report certifies that the material contained herein is true and correct.”

(5) A post-occupancy commissioning report shall be prepared by the commissioning agent and submitted by the agency that is responsible for the ongoing care, operation, and maintenance of the building to the SDE commissioner within one hundred eighty days after one year of occupancy. The report shall include results of any post-occupancy survey of building occupants, a description of any adjustments made to equipment or building operation and the reasons for which the changes were made, and one year of all energy usage by source and water usage.

(Adopted effective September 2, 2009)

**Sec. 16a-38k-9. Exemptions**

Any exemption request shall be submitted to the secretary with the signature of the agency commissioner, deputy commissioner, president or vice president of the agency, or the chief operating officer of the municipality or school district that is responsible for the ongoing care, operation, and maintenance of the building. Within no more than forty-five days of submittal of an exemption request, the secretary, in consultation with the commissioner and the Institute of Sustainable Energy, may exempt a facility from complying with these regulations if the secretary finds, in a written analysis, that the cost of such compliance significantly outweighs its benefits. Requests for exemptions shall be submitted to the secretary with cost/benefit calculations and life-cycle analysis and shall include:

(a) for projects as defined in sections 16a-38k-2(a) and 16a-38k-2(b) of the Regulations of Connecticut State Agencies:

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- (1) a description of the building project,
  - (2) documentation for such costs required to minimally meet the provisions of sections 16a-38k-3 and 16a-38k-4 of the Regulations of Connecticut State Agencies or, alternatively, sections 16a-38k-3 and 16a-38k-7 of the Regulations of Connecticut State Agencies,
  - (3) what efforts have been made to comply with the provisions of sections 16a-38k-3 and 16a-38k-4 of the Regulations of Connecticut State Agencies or, alternatively, sections 16a-38k-3 and 16a-38k-7 of the Regulations of Connecticut State Agencies,
  - (4) health and safety impacts of the building occupants and building management personnel, and
  - (5) the reason(s) for which such an exemption is necessary. In the case of an historic building, documentation of the building being on the State Register of Historic Places or the National Register of Historic Places shall be submitted.
- (b) for projects as defined in sections 16a-38k-2(c) and 16a-38k-2(d) of the Regulations of Connecticut State Agencies:
- (1) a description of the building project,
  - (2) documentation for such costs required to minimally meet the provisions of sections 16a-38k-3, 16a-38k-5 and 16a-38k-6 of the Regulations of Connecticut State Agencies or, alternatively, sections 16a-38k-3, 16a-38k-5 and 16a-38k-7 of the Regulations of Connecticut State Agencies,
  - (3) what efforts have been made to comply with the provisions of sections 16a-38k-3, 16a-38k-5 and 16a-38k-6 of the Regulations of Connecticut State Agencies or, alternatively, sections 16a-38k-3, 16a-38k-5 and 16a-38k-7 of the Regulations of Connecticut State Agencies,
  - (4) health and safety impacts of the building occupants and building management personnel, and
  - (5) the reason(s) for which such an exemption is necessary. In the case of an historic building, documentation of the building being on the State Register of Historic Places or the National Register of Historic Places shall be submitted. If the secretary approves of any such exemption, the secretary shall notify the SDE commissioner in writing of such exemption.

(Adopted effective September 2, 2009)



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*Agency*

**Department of Administrative Services**

*Subject*

**Lighting Efficiency Standards for Public Buildings**

*Inclusive Sections*

**§§ 16a-39-1—16a-39-8**

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**Lighting Efficiency Standards for Public Buildings**

**Sec. 16a-39-1. Scope**

These regulations shall control all matters concerning the lighting efficiency within or on public buildings through the lighting efficiency standards adopted in accordance with Sub-section (b) of Section 16a-39 of the Connecticut General Statutes. They shall control the operation of all lighting equipment used within or on buildings for the purposes of lighting.

(Effective November 1, 1979)

**Sec. 16a-39-2. Purpose**

(a) to set maximum power limits for the conservation of energy thereby reducing the power consumed for lighting buildings, both for interior and exterior purposes;

(b) to insure against conflict with safety, health, environmental or building code regulations;

(c) to address the issue of maximum feasible energy efficiency of lighting equipment commensurate with those other facts specified in Sub-section (c) of Section 16a-39 of the Connecticut General Statutes.

(Effective November 1, 1979)

**Sec. 16a-39-3. Goals**

(a) The goal of these standards is twofold:

(1) to achieve energy conservation through a reduction of energy used for lighting for public buildings; and

(2) to ensure maintenance of the highest degree of energy efficiency possible in the public buildings in Connecticut.

(Effective November 1, 1979)

**Sec. 16a-39-4. Definitions**

(a) **Commissioner:** the Commissioner of the Department of Administrative Services, or his designee.

(b) **Lighting Power Budget:** the upper limit of the power needed to provide lighting in accordance with Sections MCA-1309.1 through -1309.4 inclusive, with the exception of Sub-section 1309.22, of the Mechanical Code Appendix of the State Building Code.

(c) **Owner:** any person, agent, firm or corporation having legal or equitable interest in the building and heads of departments of governments of the State and political subdivisions who are vested with the authority to maintain and operate government-owned buildings.

(d) **Secretary:** the Secretary of the Office of Policy and Management, or his designee.

(e) **Standards:** those lighting efficiency standards adopted pursuant to Section 16a-39 of the Connecticut General Statutes and set forth herein.

(Effective November 1, 1979)

**Sec. 16a-39-5. Exempted buildings**

The following buildings are exempted from these regulations:

- (a) any building whose peak design rate of energy usage for all purposes is less than one watt per square foot of floor area for all purposes;
- (b) any building with neither a heating nor cooling system;
- (c) any building owned or leased in whole or in part by the United States;

(Effective November 1, 1979)

**Sec. 16a-39-6. Lighting switching**

All exterior building lighting fixtures shall be capable of being switched automatically for non-operation when natural light is available. The use of photo-cell controls and timing is encouraged.

(Effective November 1, 1979)

**Sec. 16a-39-7. Lighting power budget calculations**

(a) Lighting power budgets shall be calculated in accordance with Sections MCA-1309.1 through -1309.4 inclusive, with the exception of Subsection-1309.22, of the Mechanical Code Appendix of the State Building Code.

(b) **Alternates:** The lighting power budget for any portion of the interior area may be increased or decreased from the calculated power budget values provided that the total calculated interior lighting power budget is not exceeded.

(Effective November 1, 1979)

**Sec. 16a-39-8. Inspections**

(a) **Types of Inspections.** Under these regulations the following two forms of inspection will be performed: a Compliance Inspection and a Complaint Inspection.

(1) Compliance Inspection. The Commissioner shall make random inspections of buildings to monitor compliance with the regulations established herein.

(2) Complaint Inspection. Upon receipt of a written complaint alleging a violation of these regulations, the Commissioner may have an inspection of the site of complaint performed. The results of the inspection shall be reported to the owner and the complainant.

(b) **Compliance Information.** Upon inspection under any of the two above inspection categories, if it is determined that there is a lack of compliance with the regulations, the inspector shall make available to the owner of the building, or in the case of government buildings, the appropriate department head, a copy of these regulations and information on the economic advantages and feasibility of increasing lighting efficiency and the energy savings resulting therefrom.

(c) **Reinspection.** The owner or department head may, after having taken such measures as are necessary to render the building or portion thereof in compliance, request a reinspection in writing. Upon review of the data furnished, such reinspection may be scheduled if found necessary. The owner or department head shall be notified concerning

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the disposition of the results.

(d) Annually, the Commissioner will furnish a listing of all inspections performed to the Secretary.

(Effective November 1, 1979)

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*Agency*

**Department of Housing**

*Subject*

**Energy Conservation Material Standards for Residential Buildings**

*Inclusive Sections*

**§§ 16a-40b-1—16a-40b-14**

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**Energy Conservation Material Standards for Residential Buildings**

**Sec. 16a-40b-1. Scope**

These regulations shall be used as standards for insulation, alternative energy devices, and energy conservation materials that will be purchased and installed in new and existing residential dwellings and in additions to residential dwellings under a low-cost loan from the state as provided for in Public Act 79-509, as amended by Public Act 79-10 of the October Special Session.

(Effective March 4, 1980)

**Sec. 16a-40b-2. Purpose**

(a) To establish standards for energy conservation materials and devices for use by the department of housing in the administration of low-cost loans for energy conservation thereby insuring that such loans are issued in the best interest of the state of Connecticut;

(b) To assist loan applicants in the purchase of tested and approved energy conservation materials and devices and in the proper and accepted methods of workmanship for installation of such materials and devices;

(c) To insure against conflict with health, safety, environmental or building code regulations.

(Effective March 4, 1980)

**Sec. 16a-40b-3. Definitions**

Whenever used in Sections 16a-40b-1 to 16a-40b-6 inclusive, of these regulations:

(a) “Commissioner” means the commissioner of the department of housing or said commissioner’s designee.

(b) “Secretary” means the secretary of the office of policy and management or said secretary’s designee.

(c) “State” means the state of Connecticut acting by and through the department of housing.

(d) “Residential dwelling” means any residential structure containing not more than four dwelling units.

(e) “Insulation” means a material primarily designed to resist heat flow and which is installed between conditioned areas of a building and the unconditioned areas of the building or the outside or is installed on heating or cooling ducts or pipes or is wrapped around the exterior casing of a domestic water heater.

(f) “Alternative energy device” means a wood-burning stove for space heating and any system or mechanism which uses wood, solar radiation, wind, water or geothermal resources as a source for space heating, water heating, cooling or generation of electrical energy. Such alternate energy device may be a new source or system, a replacement of an existing source or system, or a supplement to an existing source or system.

(g) “Energy conservation material” means material other than insulation which is applied

to various portions of a building to reduce the passage of air and moisture, structural modifications to provide for addition or exclusion of solar heat through non-mechanical means and the addition of mechanical devices to improve or control the operational characteristics of heating systems and domestic water heaters.

(h) “Low-cost loan” means a loan made by the commissioner to eligible persons or families for the purchase and installation in residential dwellings of insulation, alternative energy devices, and energy conservation materials pursuant to Public Act 79-509, as amended.

(i) “Self-built solar energy system” means a solar energy system constructed with basic materials and installed by the owner of a residential dwelling for the provision of space heating, cooling, and domestic water heating to said residential dwelling.

(Effective March 4, 1980)

**Sec. 16a-40b-4. Eligible insulation, alternative energy devices, and energy conservation materials**

The following insulation, devices, and materials are eligible for a low-cost loan from the commissioner. The secretary shall provide technical assistance to the department of housing regarding eligible insulation, devices, and materials. Eligibility of items not mentioned in these regulations shall be determined by the secretary.

(a) **Insulation.** The insulation materials listed in this subsection are eligible for use in existing residential dwellings to increase the heat flow resistance of such dwellings and are also eligible for use in the construction of new residential dwellings, or additions to existing residential dwellings, for the purpose of exceeding the minimum insulation requirements of the state basic building code.

- (1) Loose-fill organic or wood fiber thermal insulation
- (2) Loose-fill mineral fiber thermal insulation
- (3) Mineral fiber blanket and batt thermal insulation
- (4) Vermiculite thermal insulation
- (5) Perlite thermal insulation board
- (6) Polystyrene thermal insulation board
- (7) Polyurethane and polyisocyanurate thermal insulation board
- (8) Aluminum foil reflective thermal insulation
- (9) Urea-formaldehyde based foam insulation

(b) **Alternative energy devices**

- (1) Wood-burning stoves
- (2) Wood-burning systems or mechanisms for space heating, water heating, or cooling
- (3) Active solar energy heating and cooling systems
- (4) Passive solar energy additions including, but not limited to addition of south-facing windows, non-mechanical solar collectors, and greenhouses attached to the residential dwelling for solar heat supply purposes
- (5) Photo-voltaic electric generating systems

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- (6) Windmill electric generating systems
- (7) Low-head hydroelectric generating systems
- (8) Geothermal heating and cooling systems
- (9) Alternative energy systems which are classified by the secretary as systems in the research and development stage for commercialization are *not eligible*.

(c) **Energy conservation materials.**

- (1) Caulking
- (2) Weatherstripping
- (3) Storm doors and storm windows
- (4) Thermal doors and thermal windows
- (5) Flue dampers
- (6) Replacement burners for oil-fired heating systems
- (7) Electrical or mechanical ignition systems, replacing gas pilot lights
- (8) Furnace heat reclamation systems
- (9) Setback thermostats and zone thermostats
- (10) Off-peak electric water heater storage tanks
- (11) Shading devices for south-facing windows and doors including, but not limited to, exterior awnings roof overhang extensions and reflective glass, except that the use of trees and shrubs for shading is *excluded*
- (12) Insulating shades and shutters
- (13) Heat reflective and heat absorbing window or door material
- (14) Low flow showerheads and faucets.

(Effective March 4, 1980)

**Sec. 16a-40b-5. Mandatory compliance**

(a) **Insulation.** Eligible insulation shall meet the requirements of the Connecticut fire safety code and basic building code, except that insulation in new residential buildings and additions to existing residential buildings shall exceed the requirement of the basic building code and only the excess insulation shall be eligible for a loan.

(b) **Alternative energy devices.**

(1) All eligible alternative energy devices and installation thereof shall meet the minimum requirements of the Connecticut fire safety code and basic building code.

(2) Self-built solar energy heating, cooling, and electrical system designs and installation shall be certified as to safety and feasibility by a registered professional engineer when required by the commissioner.

(3) System and installation designs for photo-voltaic, windmill and low-head hydroelectric generation and geothermal heating and cooling shall be certified as to safety and feasibility by a registered professional engineer when required by the commissioner.

(c) **Energy conservation materials.**

(1) The following eligible materials shall meet the requirements of the Connecticut fire safety code and be approved by an accredited independent national testing laboratory



accepted by the commissioner:

- (A) Flue dampers
- (B) Replacement oil burners
- (C) Electrical or mechanical ignition systems, replacing gas pilot lights
- (D) Furnace heat reclamation systems

(2) The following eligible materials shall meet the requirements of the Connecticut basic building code: shading devices, such as roof overhang extensions, requiring structural modifications.

(Effective March 4, 1980)

**Sec. 16a-40b-6. Consideration of approved materials**

(a) **Alternative energy devices.** In making a loan pursuant to Public Act 79-509 the commissioner may consider the use of appurtenant mechanical, electrical, structural, and insulating parts and materials that have been approved by the state board of material review or the department of consumer protection.

(b) **Insulation and energy conservation materials.** In making a loan pursuant to Public Act 79-509 the commissioner may consider the use of eligible insulation and energy conservation materials approved by the state board of material review or the department of consumer protection.

(Effective March 4, 1980)

**Energy Conservation Loan Program**

**Sec. 16a-40b-7. Definitions**

Whenever used in Sections 16a-40b-7 to 16a-40b-14 of these regulations:

(a) “Alternative Energy Device” means a wood-burning stove for space heating and any system or mechanism which uses wood, solar radiation, wind, water or geothermal resources as a source for space heating, water heating, cooling or generation of electrical energy.

(b) “Commissioner” means the Commissioner of Housing.

(c) “Eligible person” means any resident of the State of Connecticut holding title to real property in Connecticut which consists of a residential property.

(d) “Energy Conservation Loan Fund” means the fund established and used to make loans or loan guarantees authorized by sections 16a-40 through 16a-40c of the Connecticut General Statutes, as amended, and for expenses incurred by the Commissioner in the implementation of the program of loans and loan guarantees established by said sections and in servicing of loans made before July 1, 1985, under section 16a-40k, as amended, of the Connecticut General Statutes.

(e) “Loan” means monies provided from the Energy Conservation Loan Fund to an eligible person for the purchase and installation of insulation, alternative energy devices, energy conservation materials, and replacement furnaces and boilers, as these appear in regulations adopted by the Secretary of the Office of Policy and Management, or for the

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purchase of a secondary heating system using a source of heat other than electricity or for the conversion of a primary electric heating system to a system using a source of heat other than electricity.

(f) “Loan Guarantee” means an agreement by the Department to guarantee a loan made by a private institution for purposes, terms and limits as covered in these regulations.

(g) “Primary Heating System” means a heating system which will satisfy all heating requirements of a dwelling unit in a residential structure.

(h) “Residential Structure” means any building in which at least two-thirds of the usable square footage is used for dwelling purposes.

(i) “Secondary Heating System” means a heating system which will satisfy only a portion of the heating requirements of a residential structure or of a dwelling unit in a residential structure.

(j) “Adjusted Gross Income” means the adjusted gross income for federal income tax purposes for all family members residing in the dwelling unit.

(k) “Department” means the Connecticut Department of Housing.

(l) “Family” means one or more persons residing in the same household.

(m) “Gross Income” means the aggregate annual income of all family members residing in the dwelling unit from all sources, before any deductions.

(n) “Interest Rate Subsidy Payment” means the annual payment made by electric and gas companies which is used to subsidize the interest rates charged on loans extended under the Energy Conservation Loan Program.

(Effective August 4, 1988)

**Sec. 16a-40b-8. Loans for residential structures with not more than four dwelling units**

(a) **Income Limit.** All eligible persons shall submit evidence, satisfactory to the Commissioner, that their adjusted gross income is not in excess of the amount established as the income limit in Section 16a-40b (b) of the General Statutes.

(b) **Loan Limits.** The loan shall not be less than four hundred dollars (\$400) and not more than six thousand dollars (\$6000) per structure.

(c) **Term.** The term of the loan shall not exceed ten years.

(d) **Interest Rates.** The State Bond Commission shall establish a range of rates of interest payable on all loans for residential structures containing not more than four dwelling units. The range shall be applied to applicants in accordance with a formula which reflects their income.

(e) **Underwriting.** All eligible persons must meet the following underwriting criteria:

(1) **Income Ratio.** Not more than thirty-nine percent (39%) of gross income shall be applied to payments of the first mortgage, taxes, homeowners insurance and all countable obligations, including the Energy Conservation Loan.

(2) **Saving/Payment Ratio.** Eligible persons whose adjusted gross income is (115%) of median area income adjusted for family size, as determined from time to time by the U.S.

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Department of Housing and Urban Development, and who do not qualify for a loan under subdivision (1) above may qualify if the energy conservation improvements financed by this loan result in net savings, as projected by a technical energy audit performed according to standards set by the Office of Policy and Management, at least ten percent (10%) greater than the energy loan monthly payment. In the case of multiple improvements, the net savings is the sum of the normalized savings from individual measures as projected by a technical energy audit performed according to standards set by the Office of Policy and Management. In the case of inoperable heating systems, the Energy Conservation improvements shall be considered cost effective in order to determine the net savings.

(3) Income.

(A) Eligible person(s) shall identify the amount and source of all income. All income other than that from primary employment that is necessary to meet the income ratio shall be verified.

(B) Primary Employment

(i) The commissioner shall require the eligible person(s) to provide copies of federal income tax returns as filed with the Commissioner of Internal Revenue.

(ii) Overtime shall be verified as likely to continue by the following: year to date earnings; previous history of overtime in this company and Department; and last year's overtime income.

(iii) Self-employed eligible person(s) shall submit a profit and loss statement prepared by a qualified accountant or CPA showing a minimum of one year in the business. Only net business income will be counted.

(iv) Bonuses or commissions must have been received for the past two years in present employment or present and past employment. An average of the last two years shall generally be used.

(C) Income from second jobs may be counted if verified as permanent and likely to continue. The Commissioner may accept new second job income if verified as permanent and if the eligible person has had a verifiable second job in the recent past.

(D) Income shall also include alimony, child support or maintenance receipts only to the extent that they are likely to be consistently received. Factors to be considered in determining the likelihood of consistent payments include, but are not limited to: whether payments are received pursuant to a written agreement or court decree; the length of time payments have been received; regularity of receipt; availability of procedures to compel payment; whether full or partial payments have been made; the age of any child for whom child support is to be paid; and the credit worthiness of the obligee, including the credit history of the obligee where available.

(E) Social Security and pensions shall be verified.

(F) Income from Rents.

(i) One hundred percent (100%) of rental income shall be added to the eligible person's gross income where the residential dwelling is owner-occupied.

(ii) Net rental income shall be used for investment properties. Such properties must have

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been owned for a minimum of one year with at least six months reflected on the investment rental analysis.

(G) Interest and dividends may be counted if verified.

(4) Countable Obligations.

Countable obligations shall include, but are not limited to:

(A) All installment debts and credit union loans with ten or more months remaining from date of closing and all monthly interest charged on demand notes;

(B) Five percent (5%) of the balance of all revolving credit per month;

(C) Court-ordered alimony, child support or maintenance payments; and

(D) Condominium fees.

(5) Credit.

(A) All applications for loans shall be accompanied by a written credit report obtained not more than six months prior to the date of application.

(B) Written explanations for previous poor credit and/or bankruptcies shall be included with the loan application.

(C) Grounds for rejection of any application shall include, but are not limited to, situations where an eligible person has a history of continuing delinquencies in the year prior to the date of application, has an account in collections, or has had an account written off to profit and loss.

(f) **Loan Security.** Pursuant to Section 16a-40b of the Connecticut General Statutes, the state shall have a lien on each property for which a loan has been made to ensure compliance with the terms and conditions of such loan.

(Effective April 20, 1990)

**Sec. 16a-40b-9. Loans and loan guarantees for residential structures of more than four dwelling units**

(a) **Income Limits.** There shall be no income limit for eligible persons under this section. The Commissioner shall, however, give preference, through reduced interest rates or other means, to applications for loans for structures which are occupied by persons of low or moderate income. Standards for low or moderate income shall be established by the Commissioner. The Commissioner shall consider, but not be limited to, the following statistics in making this determination: poverty level statistics as determined by the Department of Health and Human Services and median income statistics as determined by the United States Department of Housing and Urban Development.

(b) **Loan Limits.** The loan shall not be more than one thousand dollars (\$1,000) multiplied by the number of dwelling units in each structure, provided no such loan shall exceed thirty thousand dollars (\$30,000). If the cost of the energy improvements exceeds this amount for a structure containing more than thirty dwelling units, the eligible person shall include in his application a commitment to make comparable energy improvements to all dwelling units in the structure in addition to the thirty units which are eligible for the loan.

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(c) **Term.** The term of the loan or loan guarantee shall not exceed ten years.

(d) **Interest Rates.** A range of interest rates payable on loans made under this section shall be established by the Commissioner.

(e) **Underwriting.**

(1) Savings/Payment Ratio. The energy conservation improvement financed by this loan must result in net savings, as projected by a technical energy audit performed according to standards set by the Office of Policy and Management, at least ten percent (10%) greater than the energy loan monthly payment. In the case of multiple improvements, the net savings is the sum of the normalized savings from individual measures as projected by a technical energy audit. In the case of inoperable heating systems, no technical energy audit shall be required and the energy conservation improvements shall be considered cost effective in order to determine the net savings.

(2) Credit. All mortgages on the building to be improved must be current and show a satisfactory payment history. If other credit is not satisfactory, arrangements for payment must be made. At the option of the Commissioner, an eligible person may be required to submit evidence that, for the property to be improved, property taxes are current.

(f) **Loan Security.** Pursuant to Section 16a-40b of the Connecticut General Statutes, the State shall have a lien on each property for which a loan has been made in order to ensure compliance with the terms and conditions of such loan.

(g) The Commissioner may employ the criteria in this section of these regulations to provide loans to owners of residential structures which contain four or less dwelling units which share common property with other multi-unit structures so long as the aggregate number of units on the property is more than four.

(Effective April 20, 1990)

**Sec. 16a-40b-10. Loans for residential electrical heating conversion**

(a) **Eligible Structures.** To be eligible for a loan, a residential structure must:

- (1) Be located in the State of Connecticut;
- (2) Have been constructed prior to January 1, 1980;
- (3) Have an existing electric heating system which the applicant is replacing with a primary or secondary heating system; and
- (4) Have had at least fifty percent (50%) of the area of the structure heated by the existing electric heating system or predecessor electric heating systems since December 31, 1979.

(b) **Eligible Replacement Heating Systems.**

- (1) The following heating systems are eligible for funding as primary heating systems;
  - (A) Oil-fired boiler or furnace and distribution system;
  - (B) Gas-fired boiler or furnace and distribution system;
  - (C) Coal-fired boiler or furnace and distribution system;
  - (D) Wood-fired boiler or furnace and distribution system;
  - (E) Multi-fueled boiler or furnace and distribution system;
  - (F) Air or water source heat pumps and distribution system; and

- (G) Chimney and fuel tank when needed.
- (2) The following heating systems are eligible for funding as secondary heating systems:
  - (A) Vented kerosene, oil, and gas (natural or bottled) space heaters;
  - (B) Wood stoves;
  - (C) Coal stoves;
  - (D) Passive solar heating systems including sunspaces, thermosiphon air panels, fan-assisted air panels, integral storage passive space heating systems;
  - (E) Active solar space heating; and
  - (F) Chimney and fuel tank when needed.
- (3) All secondary heating systems must be permanent fixtures to be eligible for a loan.

(Effective August 4, 1988)

**Sec. 16a-40b-10a. Eligibility requirements for residential structures with not more than four dwelling units**

(a) **Eligible Costs.**

(1) Loans made under this program shall be used for the purchase and installation of insulation, alternative energy devices, energy conservation or materials and replacement furnaces and boilers, or for the purchase of a secondary heating system using a source of heat other than electricity or for the conversion of a primary electric heating system to a system using a source of heat other than electricity.

(2) All materials purchased and/or installed shall be approved in accordance with regulations promulgated by the Secretary of the Office of Policy and Management.

(3) In the purchase and installation of insulation in residential structures built after December 31, 1979, only that insulation which exceeds the requirements of the state building code shall be eligible for such loans.

(b) **Eligible Structures**

(1) Loans in this program shall be used for residential structures only.

(2) Any eligible residential structure shall be located within the State of Connecticut.

(Effective August 4, 1988)

**Sec. 16a-40b-10b. Eligibility requirements for residential structures with more than four dwelling units**

(a) **Eligible Costs**

(1) Weatherization

(2) Mechanical Systems including, but not limited to;

(A) Heating systems efficiency improvements,

(B) Domestic hot water system efficiency improvements, or

(C) Lighting efficiency improvements;

(3) Building Envelope Improvements; or

(4) Renewable Resources

(b) **Eligible Structures**

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- (1) Loans in this program shall be used for residential structures only;
- (2) Any eligible residential structure shall be located within the State of Connecticut;
- (3) Prior to closing the loan, any delinquent property taxes or outstanding code violations must be satisfactorily resolved, in the opinion of the Commissioner.

(Effective August 4, 1988)

**Sec. 16a-40b-11. Interest rate subsidy payment**

(a) **Calculation.** Not later than August 1 of each year, the Commissioner shall calculate the interest rate subsidy payment which shall be the lesser of the following amounts:

(1) The difference between (1) the weighted average of the percentage rates of interest payable on all subsidized loans made (A) after July 1, 1982 from the Energy Conservation Loan Fund and (B) from the Home Heating System Loan Fund established under Section 16a-40k, of the Connecticut General Statutes and (2) the average of the percentage rates of interest on any bonds and notes issued pursuant to Section 3-20, which have been dedicated to the energy conservation loan program and used to fund such loans, and multiply such difference by the outstanding amount of all such loans;

(2) The maximum allowable under Section 103 (c) of the Internal Revenue Code of 1954 or any successor legislation thereto; or

(3) Six percent (6%) of the sum of the outstanding principal amount at the end of each fiscal year of all loans made (A) on or after July 1, 1982, from the Energy Conservation Loan Fund and (B) from the Home Heating System Loan Fund established under Section 16a-40k, as amended, and the balance remaining in the Energy Conservation Loan Fund.

(b) **Collection.** The amount of the interest rate subsidy payment shall be paid by the electric and gas companies having at least seventy-five thousand (75,000) customers, as allocated by the Department of Public Utility Control. Not later than September 1 of each year, the Commissioner shall bill the electric and gas companies. Payment shall be due no later than October 1 of each year.

(Effective April 20, 1990)

**Sec. 16a-40b-12. Priorities**

The department shall endeavor to ensure that loans for dwelling units owned or occupied by low or moderate income persons are facilitated to the extent possible. In the event the allocation of funds available for loans is not sufficient to finance all of the qualified applicants, priority shall be established first by the extent to which the loan will be used by or for low or moderate income persons and then by date of department receipt of application.

(Effective August 4, 1988)

**Sec. 16a-40b-13. Program management**

(a) The Commissioner shall adopt such internal management procedures as may be required for the processing and servicing of loans made from the Energy Conservation Loan Fund.

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(b) The Commissioner shall refuse to provide any loan for any work done prior to receipt of a formal application from the borrower by the Department. The Department shall not be liable for any work performed, materials purchased, contracts signed or any other debt incurred in connection with any unsuccessful application for an energy conservation loan.

(c) The Commissioner shall recall any loan granted from the Energy Conservation Loan Fund when the proceeds of such loan are used for purposes other than those identified in regulations adopted by the Secretary of the Office of Policy and Management where applicable, or for purposes other than those identified in Section 16a-40b of the General Statutes or in these regulations.

(d) In the event a loan is in arrears for a period of 120 days or more, the Commissioner may:

(1) Require the recipient of any loan granted to repay the loan in full; or

(2) To facilitate repayment, the Commissioner may recast the balance of the outstanding indebtedness, at an interest rate not less than that originally levied, for a period of time not exceeding the original loan term and consistent with the appropriate underwriting income ratio.

(e) The Commissioner shall take steps to make the existence of the Energy Conservation Loan Fund known to low and moderate income families. He may use radio, newspaper, and/or television media. In addition, he shall consult with the Department of Human Resources, the Department of Income Maintenance and local Community Action Agencies in an effort to reach as many low and moderate income families as possible.

(f) The Commissioner shall reimburse the general fund for interest on the outstanding bonds and notes used to fund loans made under this program on or after July 1, 1982 by applying to the general fund (1) the interest payments received from recipients of loans made on and after July 1, 1982, less the administrative expenses incurred by the commissioner, and (2) the payments received from electric and gas companies as interest rate subsidy payments.

(Effective August 4, 1988)

**Sec. 16a-40b-14. Repealer**

Subsection (v) of Section 8-203-4 of the Regulations of Connecticut State Agencies is repealed.

(Effective January 6, 1987)



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**Energy Assistance**

**Sec. 16a-41(b)-1. Definitions**

As used in Sections 16a-41 (b)-1 through 16a-41 (b)-16 inclusive:

(a) “Applicant” means any person who is age eighteen or older or the head of a household and who has signed an application for energy assistance.

(b) “Commissioner” means the Commissioner of the Department of Human Resources.

(c) “Connecticut Energy Assistance Program” means a program to offset winter heating costs of the state’s lower income households whose gross incomes fall at or below 150 percent of the federal poverty income guidelines.

(d) “Crisis Assistance” means a vendor payment on behalf of an applicant household or service recipient who is in a crisis situation.

(e) “Department” means the Department of Human Resources.

(f) “Desk review” means an informal hearing conducted by a service provider agency in response to a written appeal filed by an applicant or service recipient.

(g) “Disabled” means any individual who has a physical or mental impairment, whether congenital or acquired, which substantially limits one or more of life’s major activities, has a record of having such an impairment, or is regarded as having such an impairment, including, but not limited to, blindness, epilepsy, deafness or hearing impairment, or reliance on a wheelchair or other remedial appliance or device.

(h) “Elderly” means any individual 60 years of age or over.

(i) “Excluded income” is as follows:

(1) Payments received for day care or homecare services.

(2) Payments received under Title II of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (84 Stat. 1902, 42 USC 1636).

(3) The value of the coupon allotment made under the Food Stamp Act of 1964 (78 Stat. 705, as amended, 7 USC 2016 (c)).

(4) The value of assistance to children under the National School Lunch Act (60 Stat. 230, 42 USC 1751 et. seq.) as amended by PL 90-302.

(5) The value of assistance to children under the Child Nutrition Act of 1966 (80 Stat. 889, USC 1780 (b)).

(6) Payments to volunteers under the Domestic Volunteer Service Act of 1973 as provided by Section 404 (g) of that act (87 Stat. 409, 42 USC 5044).

(7) The value of any assistance paid with respect to a dwelling unit under the United States Housing Act of 1937, the National Housing Act, section 101 of the Housing and Urban Development Act of 1965, or Title V of the Housing Act of 1959, as provided by section 2 (h) of PL 94-375 (90 Stat. 1068).

(8) Value of Federally donated foods distributed pursuant to section 32 of PL 94-320 or section 416 of the Agriculture Act of 1949 (7 CFR 250.69e (9) as authorized by 5 USC 301).

(9) Payments for supporting services or reimbursement of out-of-pocket expenses made to individual volunteers serving as foster grandparents, senior health aides, or senior

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companions, and to persons serving in the Service Corps of Retired Executives (SCORE) and Active Corps of Executives (ACE) and any other programs under Titles II and III, pursuant to section 418 of PL 93-113.

(10) Income from employment or self-employment of individuals under 18 years of age who are at least part-time students and are not heads of household.

(j) “Household” means any individual or group of individuals living together in a house, apartment, stationary mobile home, group of rooms or a single room with either exclusive or shared kitchen facilities and in which the individuals share living expenses.

(k) “Included income” is as follows:

(1) “Income from employment” means the gross earnings from salaries, wages, and tips for all household members excluding those cited in Section 16-41 (b)-1 (i) (10).

(2) “Income from self-employment” means the total gross profit from business enterprises, including farming, for all household members, excluding those cited in Section 16-41 (b)-1 (i) (10), remaining after the total cost of business expenses or cost of production of the income is deducted from the gross income. Personal expenses such as income tax payments, social security deductions, lunches, transportation, etc., are not classified as business expenses.

(3) “Income from all other sources” means gross income from whatever source derived (except as excluded in subsection (i) of this section) including, but not limited to: pensions, annuities, dividends, interest (if more than \$10.00 a month), rental income, boarders, estate or trust incomes, royalties, social security or supplemental security income, veterans’ benefits, unemployment compensation, workers’ compensation, alimony, child support, and cash assistance from federal, state, and municipally funded assistance programs that are not otherwise expressly excluded as income by federal or state laws for purposes of these regulations.

(l) “Life threatening situation” means a household that is without or within one week of being without its primary deliverable heating fuel and lacking resources to pay for fuel without depriving the household or individual of the ability to pay for food, shelter, utilities and necessary medical expenses.

(m) “Primary heating fuel” means the principal fuel, either deliverable or a utility, used by a household to heat its dwelling unit.

(n) “Renters” means households which do not make direct vendor payments and includes owners of dwelling units where the primary source of heat is not separately billed to the household by a vendor.

(o) “Service provider agency” means an entity that is under contract with the Department to provide fuel assistance services.

(p) “State Appropriated Fuel Assistance Program” means a program to provide fuel assistance to elderly and disabled persons whose household gross income is between 150 and 200 percent of the federal poverty income guidelines.

(Effective July 30, 1992)

**Sec. 16a-41(b)-2. Scope**

These regulations apply to Community Action Agencies or any other qualified non-profit or for profit entities authorized by the Commissioner to provide Connecticut Energy Assistance Program (CEAP) services or State Appropriated Fuel Assistance Program (SAFA) services. These regulations shall also apply to applicants or service recipients of either the Connecticut Energy Assistance Program (CEAP) or the State Appropriated Fuel Assistance (SAFA) Program.

(Effective July 30, 1992)

**Sec. 16a-41(b)-3. Income eligibility for CEAP**

The Connecticut Energy Assistance Program (CEAP) provides fuel and rental assistance to households whose gross annual income falls at or below 150% of the federal poverty income guidelines promulgated by the Federal Department of Health and Human Services and in effect prior to the beginning of the current program year.

(Effective July 30, 1992)

**Sec. 16a-41(b)-4. Income eligibility for SAFA**

The State Appropriated Fuel Assistance Program (SAFA) provides fuel assistance to households if one or more of the members of the household is disabled and/or elderly and the gross annual income of the household is between 150 and 200% of the federal poverty income guidelines promulgated by the Federal Department of Health and Human Services and in effect prior to the beginning of the current program year.

(Effective July 30, 1992)

**Sec. 16a-41(b)-5. Eligibility certification**

(a) The Department will require all household members to document their income for the previous four (4) weeks or for the previous six (6) calendar months, if self-employed, which will be extrapolated to 52 weeks. Documentation must be verifiable, or supported by affidavits, and applicants must comply with all reasonable requests for assistance in verifying income.

(b) Households claiming no income in the previous four (4) weeks must sign an affidavit declaring their means of support for that period. The affidavit shall include authorization to verify all income and the financial status of the household.

(c) An applicant household has the option of having its eligibility determination based on its income for the previous 52 weeks from the date of application if that will more accurately reflect its annual income.

(d) Food Stamp recipients may use a letter from the Department of Income Maintenance that verifies food stamp eligibility, household size and annual income. Non food stamp recipient members of the household shall provide income verification as stated in subsections (a) and (c) of Section 16a-41 (b)-5.

(Effective July 30, 1992)

**Sec. 16a-41(b)-6. Limits of assistance**

(a) Energy Assistance is not an entitlement program. For the Connecticut Energy Assistance Program (CEAP) and the State Appropriated Fuel Assistance Program (SAFA), benefits are limited to the amounts contained in the Connecticut Energy Assistance Program State Plan as approved in accordance with Connecticut General Statute 4-28b. Rental benefits are not available for the SAFA income eligible households.

(b) In accordance with Sections 245A and 210A of the Immigration and Nationality Act, as amended by Sections 201 and 303 of the Immigration Reform and Control Act of 1986, certain individuals granted residence pursuant to the Immigration Reform and Control Act of 1986 shall not be eligible to receive Energy Assistance.

(Effective July 1, 1993)

**Sec. 16a-41(b)-7. Crisis assistance for CEAP and SAFA**

Subject to the availability of funds, crisis assistance will be provided within the following restrictions.

(a) **Type I Crisis Assistance**—To receive a one-time crisis assistance payment, an applicant household shall be without or within a week of being without its primary deliverable heating fuel and file and sign an application for assistance. For those applicant households who are determined eligible, the total amount of crisis assistance provided shall be deducted from their heat benefits. For those applicant households who are determined ineligible, the total amount of crisis assistance shall be repaid to the service provider agency.

Service provider agencies shall arrange for the delivery to the applicant household's dwelling within 24 hours of the request.

Service provider agencies are not required to provide this assistance if the applicant household is found ineligible within 24 hours of the request.

(b) **Type II Crisis Assistance**—To receive a crisis assistance benefit, a service recipient household shall have exhausted their heat benefits and be without or within one week of being without its primary deliverable fuel. To receive Type II Crisis Assistance, service recipient households shall sign a statement attesting to the veracity of their crisis situation and allow for an inspection/energy audit of their dwelling unit, within the extent of their legal power to do so.

Income eligibility redetermination will not be required to receive Type II Crisis Assistance.

Service provider agencies shall arrange for the delivery to the service recipient's dwelling within 24 hours of the request.

(Effective July 30, 1992)

**Sec. 16a-41(b)-8. Rental assistance**

Rental assistance is available only under the Connecticut Energy Assistance Program (CEAP) and if all of the following conditions are met:

- (1) the household is income eligible;

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- (2) the household pays for its heat in its rent; and
- (3) the household pays over 30% of its income towards the cost of rent.

(Effective July 30, 1992)

**Sec. 16a-41(b)-9. Safety-net**

(a) Subject to the availability of funds, the Department will implement a Safety-Net Program to address the needs of service recipient households who have exhausted their heat and Type II Crisis Assistance benefits and are in a life-threatening situation. The Safety-Net Program will assist service recipient households with obtaining shelter with adequate heat and, as a last resort, may authorize an emergency fuel delivery to provide heat to those households who have no other means of obtaining shelter with adequate heat.

(b) An emergency fuel delivery may be authorized for a service recipient household if it is determined that:

- (1) the household is out of fuel or will be out of fuel in less than a week;
- (2) there are no family or friends with whom to reside temporarily;
- (3) they have no one to assist with the purchase of fuel;
- (4) they have no paycheck or entitlement funds coming into the household prior to the time at which they will be out of fuel;
- (5) there is no emergency shelter within a reasonable distance which can provide temporary shelter; and

(6) after allowing for essential living costs, the household has no liquid assets from which fuel may be purchased. The department shall not authorize an emergency fuel delivery if the household has resources due to income or liquid assets that are equal to or greater than \$150. Liquid assets shall include, but not be limited to: cash, checking accounts, savings, stocks, bonds, certificates of deposit, and money market accounts.

(c) A fuel delivery may also be authorized for a service recipient household if it is determined that there is a family member who is elderly or with an illness or disability or under two (2) years of age and would be in danger without the provision of heat.

(d) After two-thirds of the funds reserved for the Safety-Net Emergency Program are committed, or in other exigent circumstances, the Department may restrict Safety-Net eligibility to those households with a member who is seriously ill, elderly, disabled or under two (2) years of age.

(Effective July 1, 1993)

**Sec. 16a-41(b)-10. Application process**

(a) Service provider agencies and their designees shall use a standard application form provided by the Department.

(b) All individuals shall be allowed to file an application.

(c) Service provider agencies and their designees shall take simultaneous applications from individuals for any energy, utility, weatherization or conservation loans, audits, assistance, or service made available by the Commissioner and administrated by the service

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provider agency.

(d) Service provider agencies shall take whatever actions are necessary to insure that elderly and disabled individuals are not denied equal access to the program due to their age or physical condition, including, but not limited to, the provision of home visits where necessary.

(e) Service provider agencies and their designees shall attempt to locate interpreters for applicants whose primary language is not English.

(f) Applicant households who are denied energy assistance due to missing documentation and/or incomplete applications shall provide the required information/documentation within ten (10) days from the applicant household's receipt of the notice of ineligibility. Should the applicant household fail to provide the required information/documentation within the allotted time, and if assistance is still being sought, the applicant household will be required to reapply, documenting the most recent four (4) week period, or six (6) calendar months if someone in the applicant household is self-employed.

(g) As a condition of initial and continuing eligibility, the applicant or service recipient shall make himself or herself available for a personal interview at a location designated by the service provider agency.

(h) The application or service recipient shall cooperate with the Department's fraud early detection (FRED) program by completing all required forms, cooperating and participating in home visits by FRED investigators, responding to interview appointments and by making all requested records or information available to the Department. The applicant or service recipient who does not cooperate, as determined by the Department, may be ineligible until they cooperate.

(i) The applicant or service recipient shall verify all information pertaining to eligibility as required by the Department or its agents. Verification shall include, but not be limited to, a household's included income or excluded income as defined in Section 16a-41(b)-1. Denial or discontinuance of assistance shall result from failure to provide verification of information deemed by the Department or its agents to be essential to the determination or redetermination of eligibility.

(j) The applicant or service recipient or his or her duly authorized representative shall have access to his or her application file during the regular business hours of the service provider agency which received his or her application.

(k) The applicant or service recipient shall, within twenty-eight (28) days, excluding state designated holidays, from the date of application or reapplication have a decision rendered that eligibility has been approved or that eligibility has been denied or discontinued.

(l) The service provider agency shall mail a notice of approval or denial to the applicant or service recipient. Such notice shall be postmarked within twenty-eight (28) days, excluding state designated holidays, of the date of application.

(m) If the primary heating fuel is deliverable, the service provider agency shall issue payment to the vendor within thirty (30) days of receipt of a bill. If the primary heating fuel

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is provided by a utility, payment will be issued directly to the vendor, providing that verification of the service recipient's account number has been provided.

(n) A service provider agency or its designee shall provide each applicant with a notice of applicant rights and service availability as part of the application process. The notice shall contain a listing of the dates by which applications will be received and bills must be presented for payment in the Energy Assistance program. All program participants shall comply with those scheduled dates for the submission of applications and presentment of bills for payment.

(Effective July 30, 1992; Amended March 7, 2007)

**Sec. 16a-41(b)-11. Payments disregarded as income**

No payment under this program shall be considered income for the purpose of determining eligibility for benefits or level of benefits under any other program of assistance.

(Effective July 30, 1992)

**Sec. 16a-41(b)-12. Weatherization services**

(a) Households who refuse weatherization services without good cause shall be ineligible to receive fuel assistance in the program year following their refusal of services. Good cause for refusing weatherization services shall include, but not be limited to the following:

(1) A household member is ill and weatherization efforts would compound the health problem(s).

(2) No adult is at home during the day due to employment and cannot take time off from work without loss of income.

(3) No adult is at home during the day because of participation in a therapy or treatment program or a job training or educational program.

(4) The applicant no longer lives at the address where the initial weatherization agreement was made.

(5) If agreement was for home-owned property and it is now in the process of being sold.

(6) Recipient lives in rental housing which is the subject of a dispute with the recipient's landlord and the issue of weatherization services could adversely affect the dispute.

(7) Recipient is not the primary lessee of the unit and the primary lessee does not want weatherization work to be done.

(b) The burden of proof to demonstrate good cause rests with the client. Those households who are unable to accept weatherization services due to their landlords' refusal to authorize weatherization services shall not be subject to denial of fuel assistance benefits.

(Effective July 30, 1992)

**Sec. 16a-41(b)-13. Fraud early detection, fraud investigation, recoupment of overpayment(s) and vendor fraud**

(a) **Identification and reporting of overpayment(s):**



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(1) All overpayment(s) will be referred to the Department; and

(2) Any service provider agency referring any overpayment(s) to the Department shall indicate whether, in its judgment, the overpayment was caused by the applicant/service recipient or by agency error.

**(b) Recoupment of overpayment(s):**

(1) An overpayment(s) which occurs through the error of a service provider agency shall be fully reimbursed by the service provider agency from funds which are not derived from state or federal governments.

(2) An overpayment(s) which results from the provision of Type I Crisis Assistance to ineligible households shall be reimbursed by the applicant household. The total amount of Type I Crisis Assistance shall be repaid by the applicant to the service provider agency within ninety (90) days of receipt of the Notice of Repayment.

(A) The applicant household shall be:

(i) provided with a Notice of Ineligibility from the service provider agency; and

(ii) provided with a Notice of Repayment from the service provider agency which states the amount to be repaid.

(B) If no payment is received from the applicant household after ninety (90) days from the postmarked date of the notice of repayment, the service provider agency shall notify the Department in writing.

(C) Upon receipt of said notification, the Department shall re-notify, in writing, the applicant household of the amount to be repaid. Repayment is to be made to the service provider agency within thirty (30) days of the postmarked date of this final notice. The Department shall make every reasonable effort to recoup the overpayment(s).

(3) An overpayment(s) resulting from error, misrepresentation or fraud by service recipient households shall be fully reimbursed by the service recipient households. The Department shall provide written notification to the service recipient household and service provider agency as to the decision regarding the overpayment(s) and the amount to be repaid. No further assistance shall be provided to the service recipient household in the current program year. In addition, the household is prohibited from participation for a period of two (2) program years following the year in which the offense occurred.

**(c) Vendor fraud**

Vendors convicted of program fraud, misrepresentation, or a violation of any aspect of their agreement with the energy assistance program, are subject to prosecution and indefinite suspension from the program. Vendors suspected of fraud may be suspended during the pendency of legal proceedings.

**(d) Fraud early detection and fraud investigations**

(1) The applicant or service recipient shall cooperate with the Department's fraud early detection (FRED) program and with any fraud investigation by completing all required forms, cooperating and participating in home visits by FRED investigators, responding to interview appointments and by making all requested records or information available to the Department. The applicant or service recipient who does not cooperate may be determined

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to be ineligible until they do cooperate.

(2) Service provider agencies shall make referrals to the Department on applications that meet FRED criteria, as determined by the Department.

(Effective July 1, 1993; Amended March 7, 2007)

**Sec. 16a-41(b)-14. Program schedule**

(a) This program shall operate in accordance with the dates established for the operation of the Energy Assistance Program as outlined in the approved Connecticut Energy Assistance State Plan.

(b) The Department shall annually notify service provider agencies of the time schedule for the operation of the Energy Assistance Program.

(Effective July 30, 1992)

**Sec. 16a-41(b)-15. Record maintenance and retention**

(a) Service provider agencies shall maintain books, records, documents, program and individual service records and other evidence of its accounting and billing procedures and practice, which sufficiently and properly reflect all direct and indirect costs of any nature incurred in the program. These records shall be subject during normal business hours to monitoring, inspection, review or audit by authorized employees or agents of the Commissioner or the State or interested Federal agencies.

(b) Service provider agencies shall also collect fiscal, and/or statistical data and submit fiscal and/or statistical reports at times and in the manner prescribed by the Commissioner. Services provider agencies will retain all such books, records, other financial, program and individual service documents concerning this program for a period of three (3) years after a completed audit.

(Effective July 30, 1992)

**Sec. 16a-41(b)-16. Appeals**

**(a) Desk Review**

(1) The Desk Review shall be the initial step in the grievance resolution process when as a result of an action or decision by the service provider agencies:

(A) An applicant household has been denied assistance;

(B) An applicant or service recipient is aggrieved because the service provider agency failed to notify the household of the decision of eligibility or ineligibility within twenty-eight (28) days, excluding state designated holidays, of the date of application;

(C) A service recipient is aggrieved because he or she believes that an incorrect level of assistance has been awarded.

It is not necessary for an applicant or service recipient to have a desk review to change its rental option if the applicant or service recipient has moved.

(D) A service recipient is aggrieved because assistance has been discontinued.

(2) Process for a Desk Review

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(A) A request for a desk review shall be in writing to the executive director of the service provider agency and shall be signed by the aggrieved.

(B) A request for a desk review shall be mailed within sixty (60) days of the mailing date of the decision being appealed or within sixty (60) days of the occurrence or the discovery of the occurrence, of the action complained of, but no later than the end of the program year.

(C) Notwithstanding the provisions of Section 16a-41 (b)-16 (a) (2) (B), all applicants or service recipients who request a desk review prior to the end of the program year shall be afforded a full sixty (60) days from the date of the desk review to request a fair hearing.

(D) The executive director, or any supervisor he designates, who has not participated in the original decision regarding the recipient's eligibility, shall make a finding based on the desk review.

(E) The applicant or service recipient may withdraw the request for a desk review if a satisfactory resolution of the matter has been reached.

(F) Within fifteen (15) days, excluding state designated holidays, from the date of the receipt of the request, the service provider agency person responsible for the desk review shall make a decision based on an evaluation of the evidence as submitted at the time of application and shall notify the recipient in writing, on a form provided by the Department, of the decision. This written statement shall state the reason(s) for the decision.

**(b) Fair Hearings**

(1) An aggrieved applicant or service recipient shall be given notice of the right to request a fair hearing from the Department.

(2) An aggrieved applicant or service recipient shall be given an opportunity for a fair hearing in accordance with Conn. Gen. Stat. Sections 17-603 and 17-604, as same may be amended. The Department's fair hearing procedures are governed by applicable provisions of the Uniform Administrative Procedures Act and the agency's separate fair hearing regulations.

(Effective July 30, 1992)

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**Energy Assistance Programs**

**Sec. 16a-41-1—16a-41-12. Repealed**

Repealed July 30, 1992.

**Sec. 16a-41-13—16a-41-29. Reserved**

**Coordination of Energy Assistance, Energy Conservation, and Renewable Resource Programs**

**Sec. 16a-41-30. Definitions**

(a) “Applicant” means a natural person or a household seeking assistance from any energy program.

(b) “Energy program” means any energy or fuel assistance program or energy conservation loan, grant, audit or service program, or any renewable resources loan, grant, or service program which is administered or funded in whole or in part by the state.

(Effective November 2, 1987)

**Sec. 16a-41-31. Scope**

These regulations apply to any public or private agency or organization administering or providing energy programs.

(Effective November 2, 1987)

**Sec. 16a-41-32. Referrals**

(a) All public and private agencies administering energy programs shall refer any applicant to all other energy programs for which the applicant may be eligible, in accordance with subsection (b) of this section.

(b) Such referral shall include, but not be limited to, the distribution to all applicants of written materials which shall describe, in summary form, the eligibility criteria for, services provided through, and means of contacting such energy programs. Such descriptive summaries shall employ the precise language provided by the office of policy and management under subsection (c) of this section, or such substitute language as may be approved in writing by the office of policy and management. Each state agency which funds other public or private agencies which administer energy programs, has legal authority over such agencies in their administration of energy programs, or which itself directly administers energy programs, shall be responsible to ensure printing of such referral materials by itself or by such agencies in such format as the office of policy and management may prescribe in accordance with subsection (c) of this section, in quantities sufficient to provide a copy to all applicants.

(c) The office of policy and management shall, by August 30 of each year, prepare and provide to all agencies which administer energy programs, written material which describes in summary form, the eligibility criteria of, services provided through, and means of

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contacting such energy programs, together with a description of the specific format, if any, which the office of policy and management wishes such agencies to use in printing such referral materials.

(d) A referring agency shall not be responsible for determining the eligibility or suitability of any applicant for any program administered by another agency.

(Effective November 2, 1987)

**Sec. 16a-41-33. Simultaneous applications**

Any agency which administers more than one energy program shall take applications at the time of the initial visit of any applicant for all such energy programs which are administered by the agency at that time.

(Effective November 2, 1987)

**Weatherization Assistance Program**

**Sec. 16a-41-34. Definitions**

As used in Sections 34 through 45 inclusive

(a) Administrative overpayment means an overpayment which occurs through the error or fraud of a service provider agency or fraud on part of a recipient and may be attributable to an action or inaction by the service provider agency.

(b) Appellant is an individual or service provider agency seeking administrative remedy, through a Departmental Hearing or a Community Action Agency Desk Review, to a decision rendered concerning the weatherization assistance program.

(c) Applicant means any individual who has filled out an application.

(d) Applicant household is any individual or group of individuals living together as one economic unit whose source of residential heat is purchased in common and is applying for weatherization assistance.

(e) Bid is a specific price quotation requested from a potential seller or supplier. Bids must follow the format set forth in Section 16a-41-31, Standards for Procurement.

(f) Commissioner means the Commissioner of the Department of Human Resources.

(g) Current income status is the applicant household's income from the previous four (4) weeks preceding the date of application or the fifty-two (52) weeks from the date of application, except in cases of self-employment.

Income derived from self-employment shall be determined based upon the six (6) calendar months preceding the date of application.

(h) Departmental Hearing is:

(1) A hearing held between an applicant or a service recipient and the Department of Human Resources in response to the filing of an appeal; or,

(2) A hearing held with an applicant or a service recipient and a service provider agency and the Department of Human Resources in response to the filing of an appeal.

(i) Disabled means any individual who has a physical or mental impairment, whether

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congenital or acquired, which substantially limits one or more major life activities, has a record of having such an impairment, or is regarded as having such an impairment, including, but not limited to, blindness, epilepsy, deafness or hearing impairment, or reliance on a wheelchair or other remedial appliance or device.

(j) Dwelling unit is a house, including a stationary mobile home, an apartment, a group of rooms, or a single room occupied as separate living quarters with a private entrance.

(k) Elderly means any individual 60 years of age or over.

(l) Desk Review is a process by which a service provider agency responds in writing to an appeal filed by an applicant or a service recipient.

(m) Excluded income is as follows:

(1) Day care, foster care, or homecare service program payments.

(2) Payments received under Title II of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (84 Stat. 1902, 42 USC 1636).

(3) The value of the coupon allotment made under the Food Stamp Act of 1964 [78 Stat. 705, as amended, 7 USC 2016 (c)].

(4) The value of assistance to children under the National School Lunch Act (60 Stat. 230, 42 USC 1751 et. seq.) as amended by PL 90-302.

(5) The value of assistance to children under the Child Nutrition Act of 1966 [80 Stat. 889, 42 USC 1870 (b)].

(6) Any grant or loan to any undergraduate student for tuition and fees made or insured under any program administered by the Commissioner of Education as provided by Section 507 of the Higher Education Amendments of 1968, PL 90-575 (82 Stat. 1063).

(7) Payments to volunteers under the Domestic Volunteer Service Act of 1973 as provided by Section 404 (g) of that act (87 Stat. 409, 42 USC 5044).

(8) The value of any assistance paid with respect to a dwelling unit under the United States Housing Act of 1937, the National Housing Act, section 101 of the Housing and Urban Development Act of 1965, or Title V of the Housing Act of 1959, as provided by Section 2 (n) of PL 94-375 (90 Stat. 1068).

(9) Value of Federally donated foods distributed pursuant to section 32 of PL 94-320 or section 416 of the Agriculture Act of 1949 [7 CFR 250.6 (e) (9) as authorized by 5 USC 301].

(10) Payments for supporting services or reimbursement of out-of-pocket expenses made to individual volunteers serving as foster grandparents, senior health aides, or senior companions, and to persons serving in the Service Corps of Retired Executives (SCORE) and Active Corps of Executives (ACE) and any other programs under Titles II and III, pursuant to section 418 of PL-93-113.

(11) Income from employment or self-employment of individuals under 18 years of age who are at least part-time students.

(n) Fraud is:

(1) Any false statement, misrepresentation, or concealment of or failure to disclose information regarding circumstances relevant to a determination of eligibility.

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(2) Any false statement or misrepresentation or impersonation or other fraudulent act or device, made to obtain or attempt to obtain, or aiding or abetting any attempt to obtain any assistance to which a household is not entitled.

(o) Household means any individual or group of individuals living together in one dwelling unit, whose source of residential heat is customarily purchased in common.

(p) Included Income is as follows:

(1) Income from employment means the gross earnings from salaries, wages, and tips for all household members excluding those cited in Section 16a-41-25 (m) (1).

(2) Income from self-employment means the total gross profit from business enterprises, for all household members, excluding those cited in Section 16a-41-25 (m) (1), including farming, remaining after the total cost of production of the income is deducted from the gross income. Personal expenses such as income tax payments, social security deductions, lunches, transportation, etc., are not classified as business expenses.

(3) Income from all other sources means pensions, annuities, dividends, interest, rental income, estate or trust income, royalties, social security or supplemental security income, unemployment compensation, workmen's compensation, alimony, child support, and cash assistance from federal, state and municipally funded assistance programs that are not otherwise excluded as income by the federal or state governments for all household members.

(q) Materials Inventory means the actual cost of weatherization materials, repair materials and low cost/no cost items in bulk inventory and not yet transferred and cost allocated to a job site. This amount shall be based on a physical count and reconciliation to supporting documentation.

(r) Multi-Family means any structure with three (3) or more separate living quarters.

(s) Overpayment means assistance to which a service recipient was not entitled because he/she failed to meet the eligibility requirements for which the payment was made or the amount of the assistance was not appropriate to the household's circumstances.

Overpayment may occur through a fraudulent action by the service recipient or the service provider agency or through administrative error.

(t) Individual means any person of majority status as defined by Section 1-1d of the Connecticut General Statutes or any individual not of majority status who is a head of household.

(u) Recoupment is the recovery of any assistance properly paid because a household withheld information on their application or because of an administrative overpayment.

(v) Redetermination is the periodic evaluation of household income to determine eligibility for assistance which shall occur at least every twelve (12) months from the initial date of eligibility.

(w) Repair Materials are items necessary for the effective performance or preservation of weatherization materials.

(x) Respondent is an individual or service provider agency against whom an appeal is filed.



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(y) Service provider agency is an agency with which the Department of Human Resources contracts for the provision of weatherization assistance services.

(z) Service recipient is a household that has been determined eligible for weatherization assistance.

(aa) Weatherization Materials are those items intended primarily to improve the heating efficiency of a dwelling unit as cited in section 16a-41-30 a-h.

(bb) Willful withholding of information means oral or written misstatements made by an applicant/service recipient in response to questions from a service provider agency regarding circumstances affecting the provision of assistance, or the failure by an applicant household to provide documentation(s), certification(s) or information required of it by the service provider agency.

(cc) Emergency repairs are items necessary for the operation of a furnace.

(dd) Head of Household is an individual who has maintained and contributed to more than one-half (½) of the maintenance of the household for the previous twelve (12) months, and has had that dwelling as his/her principal residence for that time.

(ee) S.W.A.P. is the acronym for the State Weatherization Assistance Program.

(ff) D.O.E. is the acronym for the United States Department of Energy.

(Effective August 25, 1986)

**Sec. 16a-41-35. Eligibility**

(a) Income eligibility exists when the household's included income, based on the total gross annual income, as determined by that household's current income status, excluding assets, and, based on size, does not exceed 150% of the Federal Poverty Income Guidelines for the current program year.

(b) When a dwelling unit/s is located in a building that has five (5) or more units, and at least sixty-six percent (66%) of the households in that building, are at or below one hundred and fifty percent (150%) of the current federal poverty guidelines, then, all of the dwelling units in that building may be weatherized. When a dwelling unit/s is located in a building that has four (4) or less units, fifty percent (50%) of the households must be income eligible. However, the expenditures for that entire building may not exceed the maximum cost per unit multiplied by the number of eligible households.

(c) Income may be zero for any applicant household and, in cases of self-employment only, may result in a negative income. Zero income must be sworn or affirmed to by the applicant.

(d) Program eligibility for weatherization exists when a household:

(1) Is income eligible as stated in section 16a-41-26 (a).

(2) The dwelling unit is in sufficient physical condition to warrant the installation of insulation materials.

(Effective August 25, 1986)

**Sec. 16a-41-36. Limits of assistance**

- (a) This is not an entitlement program.
- (b) Weatherization benefits shall be subject to the availability of funds.
- (c) Weatherization assistance for applicant households shall not exceed \$750.00 for materials. A waiver must be approved by the Commissioner or his designee for work on heating systems, for single family owner occupied dwelling units that require additional materials beyond the \$750.00 limit. Waivers will be required in writing by the service provider agency's energy coordinator prior to work started on a unit.

(Effective August 25, 1986)

**Sec. 16a-41-37. Application process**

- (a) For eligible applicants, the fuel assistance award letter shall include a pread-dressed weatherization card that solicits dwelling unit data.
- (b) To be eligible for weatherization assistance, applicants must return the card in person or by mail within 30 days from the date on which the service provider agency or the Department of Income Maintenance mailed their award letter.
- (c) The service provider agencies shall check the returned cards against their list of units completed since the beginning of SWAP/DOE coordination.
- (d) The service provider agencies shall mail a denial letter to applicants if weatherization work had been previously completed on that dwelling unit.
- (e) The service provider agencies shall then place the remaining eligible cards in chronological order organized by municipality.
- (f) Weatherization work will be scheduled on a first come first serve basis.
- (g) From this process the service provider agencies shall develop a planned caseload, which shall be served during the program year.
- (h) This process shall determine seventy five percent (75%) of the dwelling units to be weatherized. The remaining twenty five percent (25%) will be determined at the discretion of the service provider agency.
- (i) If there are eligible households that cannot be served during the program year, those cards will be carried forward to the following program year.
- (j) If a service provider agency has exhausted their eligible weatherization caseload, they shall use their energy assistance caseload for outreach services.

(Effective August 25, 1986)

**Sec. 16a-41-38. Determination of eligibility and provided services**

- (a) All persons shall be allowed to file an application.
- (b) Service provider agencies, or their designees, shall use a standard application form for fuel assistance and weatherization services provided by the Department of Human Resources.
- (c) Service provider agencies, or their designees, shall take simultaneous applications from persons for any energy, utility, weatherization or conservation loans, audits, assistance,

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or services made available by the Commissioner and which the service provider agency administers.

(d) Service provider agencies shall advise applicants as to the best way to maximize the benefits potentially available to them by providing information on the maximum amount of the assistance available and how to obtain it.

(e) Service provider agencies, or their designees, shall assist persons in completing application forms and in locating interpreters for applicants whose primary language is not English.

(f) Service provider agencies shall take whatever actions are necessary to insure that elderly and disabled persons are not denied equal access to the program due to their age or physical condition, including but not limited to home visits.

(g) Service provider agencies, and their designees, shall counsel all applicant households as the needs of those households require and make referrals as appropriate to the individual household.

(h) As a condition of initial and continuing eligibility, the applicant/service recipient shall make him/herself available for personal interview at a location designated by the service provider agency.

(i) The applicant/service recipient shall verify all factors pertaining to eligibility, technical and financial, as required by the Commissioner. Denial or discontinuance of assistance shall result from failure to provide verification of information deemed by the Commissioner to be essential to the determination or redetermination of eligibility.

(j) The applicant/service recipient or his/her duly authorized representative shall have access to his/her application file during the regular business hours of the service provider agency with whom he/she applies.

(k) The applicant/service recipient shall have a decision rendered whether the dwelling unit will be weatherized during the program year.

(Effective August 25, 1986)

**Sec. 16a-41-39. Allowed materials**

(a) Caulking and weatherstripping of doors and windows.

(b) The replacement of an inoperable furnace system or a system beyond repair in single family owner occupied dwelling units, in cases where DHR has approved this measure.

(c) Furnace efficiency modification:

(1) Replacement burners designed to substantially increase the energy efficiency of the heating system.

(2) Optimizing the firing rate in oil-fired systems and clock thermostats.

(d) Ceiling, attic, wall, floor, pipe and duct insulation.

(e) Primary window and door replacement, repair or modification.

(f) Storm windows, multi-glazed windows and doors, heat-absorbing or heat-reflective window and door materials.

(g) The following insulating or energy-conserving devices or technologies:

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- (1) Skirting.
  - (2) Items to improve attic ventilation.
  - (3) Vapor barriers.
  - (4) Materials used as a patch to reduce infiltration through the building envelope; and,
  - (5) Water-flow controllers.
  - (6) Consumable supplies.
  - (7) General heat waste items, such as window or door locks, electrical outlet gaskets, hot water heater insulation, or any new or innovative material deemed appropriate by DHR.
- (Effective August 25, 1986)

**Sec. 16a-41-40. Standards for procurement**

(a) General Standards for Procurement of Materials, or Contractor Labor:

(1) The service provider agencies must insure that all procurement transactions will be conducted in a manner to provide, to maximum extent practicable, open and free competition.

(2) Solicitations for bids/offers shall clearly set forth all requirements that the bidder/offeror must fulfill in order for a bid/offer to be evaluated by the grantee.

(3) Awards shall be made to the bidder/offeror whose bid/offer is responsive to the service provider agency's solicitation and is most advantageous to the service provider agency; price and other factors considered.

(4) The service provider agencies must maintain a code or standards of conduct that shall govern the performance of its officers, employees, or agents engaged in the awarding and administration of contracts using State Funds. Such codes or standards must provide that:

No service provider agency employee, officer or agent shall participate in the selection, award or administration of a contract in which State Funds are used, where to his knowledge, he or his immediate family or partner has a financial interest or with whom he is negotiating or has any arrangement concerning prospective employment. The service provider agency's officers, employees, or agents shall neither solicit nor accept gratuities, favors, or anything of monetary value from contractors or potential contractors. Such standards shall provide for disciplinary action to be applied for violation of such standards by the service provider agency's officers, employees or agents.

(5) Procurement standards shall be consistent with the federal standards covered by OMB Circulars A-102 and A-110 and will be amended from time to time.

(b) Specific Standards and Requirements for Procurement of Weatherization Materials, or Contractor Labor

(1) Steps must be taken by the service provider agencies to avoid the purchasing of unnecessary or duplicate items.

(2) Solicitations of bids (price quotations) must include:

**Bid specifications:** Clear and accurate descriptions of technical requirements for goods or services sought must be provided by the service provider agency to potential suppliers with every request or solicitation of a bid or price quotation. Such descriptions shall not, in

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competitive procurements, contain features which unduly restrict competition (e.g., “Brand name or equal” descriptions may be used as a means to define the performance or other significant features of the named brand which must be met by bidders/offerors and shall be clearly specified).

Criteria for: The service provider agencies must determine criteria for selection of a bid in advance and make that criteria known to potential bidders (e.g., possible criteria include: price, quality of goods, delivery date, etc.)

Additional items: Where bids exceeding \$6,000 are to be received in writing (see sub-section (c) below), bid invitations must state date, time, and location for public opening of bids; that any bids not received on time will be rejected and returned unopened; and that the service provider agency may reject any and all bids.

(c) Solicitation of Bids—Manner of Getting Bids (price quotes)

(1) Purchases valued at less than \$500 may be made at the discretion of the Executive Director without competitive quotations.

(2) For purchases valued at \$500 to \$4,000, telephone quotations are acceptable. Quotations from no less than three (3) sources will be solicited and recorded on a telephone bid form. Orders may be placed on the basis of the lowest acceptable price quotation. Records must be kept until the program is audited and a certificate of termination is issued.

(3) Formal requests for price quotations will be prepared by service provider agencies for purchases valued from \$4,000 to \$6,000 and will require a minimum of three (3) formal (written) quotations from vendors.

Identical formal requests describing in detail the items to be purchased, stating the required date of delivery, terms of payments, etc., must be presented to vendors believed to be capable of furnishing the items to be purchased. In all cases, it is mandatory that those solicited submit their quotations on the basis of identical requests for price quotations.

Requests for quotations and the quotations for each procurement action will be filed permanently and kept available for review by the Department of Human Resources, or its agents and representatives.

(4) For a purchase which is estimated to cost \$6,000 or more, solicitation of bids must be formally advertised and bids received must be written, sealed and sent to the service provider agency for public opening at the advertised time and place. Exceptions to this advertising requirement are described in sub-section (5) below.

(5) Procurement may be negotiated if it is impossible or not feasible to use formal advertising. In general, regulations provide that procurements of materials may be negotiated if:

A. The public emergency will not permit the delay incident to advertising.

B. The material to be procured is available from only one (1) person or firm (i.e., sole source — see sub-Section (6) below); or,

C. No acceptable bids have been received after formal advertising.

However, regulations do require that notwithstanding the existence of circumstances justifying negotiation, competition shall be obtained to the maximum extent practicable.

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(6) Sole Source Procurement

It is recognized that, in some instances, service provider agencies may require certain items which due to their technical nature or relative lack of capable vendors, must be purchased from a “sole source.”

For a proposed sole source contract, or where only one (1) bid is received involving \$2,000 or more, the bid may not be awarded, or the sole source accepted, without the prior approval of the Department of Human Resources.

(d) Service provider agencies must utilize small businesses and minority-owned businesses whenever possible.

(e) Service provider agencies shall establish some form of price or cost analysis to be made with every procurement. Price analysis may be accomplished in various ways, including the comparison of price quotations submitted, market prices, etc.

(f) Service provider agencies must use purchase order for ALL procurements.

NOTE: All purchase orders must, on their face, show the Federal Specification, if any, for the item being purchased.

(g) Procurement Contracts-when required-contents:

(1) For purchases in excess of \$2,000 the service provider agency must have, in addition to the purchase order, a signed contract (i.e., a written statement of the key terms of the agreement, signed by the seller and an authorized service provider agency representative. KEY TERMS to be included are: names of the service provider agency and the seller, the purchase price, the description and the quantity of goods purchased, the payment terms, and the date and terms of delivery).

A service provider agency may, as a matter of agency policy, require a contract for purchases of less than \$2,000. Service provider agencies are advised, but not required, to consider requiring a contract for the purchase of any and all services.

(2) For purchases in excess of \$6,000, the service provider agency’s procurement contract must include the following provisions, in addition to the key terms listed in the preceding sub-section (1) above:

Provisions for contractual or legal remedies in instances in which contractors violate or breach contract terms, and also provisions for such sanctions and penalties for violation of the contract as may be appropriate;

Suitable provisions for the termination, and descriptions of conditions under which the contract may be terminated;

All negotiated contracts (for over \$6,000) awarded by service provider agencies shall include a provision to the effect that the service provider agency, Department of Human Resources, or any of their duly authorized representatives shall have access to any books, documents, papers, and records which are directly pertinent to the Weatherization Program for the purpose of making an audit, examination, excerpts, and transcriptions.

(h) Recordkeeping on Procurement of Materials

(1) The service provider agency must keep up-to-date and complete records of all procurements available for inspection and auditing by the Department of Human Resources,

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or its authorized representative.

(2) Such records shall include:

A copy of the bid specifications and criteria for awarding the bid (for each procurement in excess of \$500.00).

Manner used to obtain bids (e.g., telephone, letter, newspaper ad for all procurements).

The purchase order (for all procurements).

The actual contract, if one is required by the service provider agency or Department of Human Resources.

For purchases of \$6,000 or more, justification for use of negotiation in lieu of advertising (if applicable) and the basis for the cost or the price negotiated.

(i) All materials purchased by service provider agencies, as discussed in the subsections above, shall be governed by the following:

(1) Standards: Only materials which meet or exceed the Federal standards shall be purchased with funds provided by Department of Human Resources to carry out a program of weatherization assistance.

(2) Conditions: To insure compliance with the above requirement:

All purchase orders must, on their face, state the applicable Standard for the product being purchased.

Suppliers of products must, either in a letter of acknowledgement or on their vendor's invoice for payment, indicate acceptance of the standards for the product(s) being supplied.

(3) Inspection: Upon receipt of orders, a visual inspection shall be made of the product(s) to insure conformance to the conditions specified on the purchase order.

(Effective August 25, 1986)

**Sec. 16a-41-41. Fraud and overpayment**

(a) Identification and Reporting of Overpayment(s):

(1) All overpayment(s) will be referred to the Department of Human Resources; and,

(2) Any service provider agency referring any overpayment to the Department of Human Resources shall indicate whether, in its judgment, the overpayment was caused by the withholding of information, or agency error.

(b) Recoupment of Overpayments

(1) Recoupment of administrative overpayment(s) shall be 100% of all such overpayment reimbursed by the service provider agency from locally generated funds at a rate to insure full restitution of all overpayments by the end of the annual program period.

(2) Recoupment of overpayments resulting from willful withholding of information by applicant/service recipients;

(A) Where an overpayment is caused by the household's willful withholding of information the recoupment of said overpayment shall be made from the household's available income, excluding income as defined in Section 16a-41-34 (m) (1).

(B) Upon receipt of those cases referred to the Department of Human Resources in which an allegation of willfulness has been made, a determination will be made, by the

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Department, as to whether or not the cases will be recommended for prosecution.

When the determination is not to pursue prosecution, the Department of Human Resources will initiate the following recoupment process.

(i) The Department of Human Resources will notify the service provider agency and the household of its decision concerning said overpayment.

(ii) The Department of Human Resources will remand the case to the service provider agency for the discontinuance of further assistance to the household, and the development, with the subject household, of an amortization agreement for full repayment of the overpayment(s) by September 30 of the program year in which the willful withholding occurred.

(iii) In every instance in which the Department of Human Resources remands a case to a service provider agency or finds against a service provider agency and proposes to recoup, advance notice shall be given, in writing, stating the nature of the overpayment(s) and the amount(s) due. The household or service provider agency will also be advised of their right to appeal the decision within seven (7) days of receipt of the notice.

(C) Fraud and Suspected Fraud

(i) All fraud and suspected fraud will be referred in writing to the Department of Human Resources.

(ii) Any service provider agency referring any fraud or suspected fraud will indicate the nature of the fraud being reported.

(iii) Any assistance paid on behalf of any household as a result of fraud may be recovered in an action brought against the applicant for the household or the service provider agency.

(iv) Any applicant/service recipient who perpetrates any fraud or persons who aid and abet in the perpetration of any fraud, to obtain assistance under these regulations, shall be subject to the penalties under these regulations, shall be subject to the penalties for larceny established under Sections 53a-122 to 53a-125 of the Connecticut General Statutes, inclusive, depending upon the amount involved.

(v) Persons who misrepresent their circumstances in applying for assistance are subject to prosecution and recoupment of any benefits provided, and may be prohibited from participation for a period of two program years following the year in which the offense occurred. Clients who divert benefits to ineligible persons are subject to the same penalties, following proper due process.

(iv) Vendors committing fraud, misrepresentation, or a violation of any aspect of their agreement with the service provider agencies are subject to prosecution, and prohibition from the program for up to five years following the program year in which their offense occurred, upon conviction. Vendors suspected of fraud may be suspended from participation in the weatherization program during the pendency of legal proceedings.

(Effective August 25, 1986)

**Sec. 16a-41-42. Appeals**

(a) Desk Review



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(1) A desk review is allowed when:

(A) An applicant household has been denied assistance;

(B) An applicant/service recipient household is aggrieved because the service provider agency failed to notify the household of the status of their application within the program year.

(C) A service recipient household is aggrieved because it believes that not enough weatherization work was completed or the weatherization work was done incorrectly.

(2) Process for a Desk Review

(A) A request for a desk review shall be in writing to the executive director of the service provider agency and shall be signed by the aggrieved. The request shall include a statement of the grievance.

(B) A request for a desk review shall be mailed within ten (10) days, excluding State designated holidays, of the mailing date of the decision being appealed or within ten (10) days, excluding state designated holidays, of the occurrence, but no later than the end of the program year.

(C) The executive director, or any supervisor he designates, none of whom has participated in the original decision regarding the recipient's eligibility, shall make a finding based on the desk review.

(D) The applicant/service provider may withdraw the request if a satisfactory resolution has been determined.

(E) Within fifteen days, excluding state designated holidays, from the date of the receipt of the request, the service provider agency person in charge of the review shall make a decision based on an evaluation of the evidence as submitted at the time of application and shall notify the recipient in writing, on a form provided by the Department of Human Resources, of the decision. This written statement shall include the following if the decision is adverse:

(i) over income

(ii) application incomplete

(iii) inadequate documentation

(iv) other

(F) If the decision is adverse to the applicant/service recipient, he shall be informed and afforded the right to make a written request for a departmental hearing within fifteen working days of the notification of such adverse decision. The applicant/recipient requesting such hearing may choose either a review by the departmental hearing officer of the record of the evidence of the desk review to determine whether the decision of the agency person in charge of the desk review was supported by substantial evidence in the record, or a new hearing (DE NOVO) in which the recommendation of the departmental hearing officer is based exclusively on evidence and other material introduced at the departmental hearing.

(b) Departmental Hearings

(1) An applicant/service recipient who remains aggrieved following a desk review may appeal that decision, in writing, within ten (10) working days of the notification of such

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decision.

(2) An applicant or a service provider agency who is aggrieved by a decision of fraud or overpayment may appeal that decision within ten (10) working days of receipt of notification of fraud or overpayment.

(3) All appeals must be sent to the Commissioner of the Department of Human Resources.

(4) Upon receipt of a request for a hearing the Commissioner shall designate a hearing officer.

(5) All appeals received shall be acknowledged by the hearing officer.

(6) The hearing officer shall schedule a hearing within thirty (30) working days of the date the appeal is received by the Commissioner.

(7) Continuances or changes in scheduled hearings shall be granted by the hearing officer only for good cause but must be rescheduled within thirty (30) working days of the originally scheduled hearing. The appellant may withdraw the appeal, in writing to the hearing officer, at any time prior to the hearing.

(8) The hearing officer shall be in charge of the proceedings.

(9) The appellant shall act as a witness in his own behalf, and may bring additional witnesses. The respondent may be represented at the hearing or may choose not to be represented.

(10) Each hearing will be closed to the public. Witnesses may be sequestered at the discretion of the hearing officer. The hearing officer may exclude any person who engages in disruptive conduct, including individuals directly involved with the hearing.

(11) Testimony may be given by the appellant and his witnesses and by the respondent in response to questions asked by the hearing officer. Testimony may be freely given so long as it is reasonably relevant to the questions asked and is offered in a proper manner. The technical rules of evidence do not apply, although testimony is required by law to be given under oath. If the appellant is represented by legal counsel, his direct testimony is usually given in response to his attorney's questions. His attorney may also question the designee of the service provider agency. The appellant who is not represented by counsel may ask questions which are answered by the hearing officer or directed by him in turn to a departmental or service provider agency representative.

(12) Exhibits may be introduced by the appellant or the respondent or other witnesses to substantiate or amplify their oral testimony. For example, wage slips and other papers or records may be introduced, if relevant to the case. If the individual wishes to retain possession of a document introduced as an exhibit, the substance of it may be dictated into the record by the hearing officer. The appellant has the right to examine all documents and records used at the hearing at any reasonable time before or during the hearing.

(13) Any change in circumstances which occurs in the case after a hearing has been held shall have no effect on the hearing decision.

(14) The hearing officer has the power to compel the attendance and testimony of witnesses and the production of books and papers where such action becomes necessary.

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(15) A mechanical recording of the proceedings shall be made for use by the hearing officer as a basis for this decision and shall be retained for a period of sixty (60) working days following the hearing. A transcript of the recording shall be made available to the appellant or the respondent upon request to the Commissioner, at cost to the requester, subject to the provisions of Section 1-15 of the Connecticut General Statutes.

(16) Within forty-five (45) working days from the hearing date, the hearing officer shall make a decision based on an evaluation of the testimony and exhibits introduced at the hearing. Such decision shall supersede the decision by which the appellant was aggrieved. The decision of the hearing officer represents a final and positive finding with respect to the point or points at issue as of the date of decision being appealed.

(17) A formal memorandum of decision shall be prepared by the hearing officer and sent to the appellant and the respondent. If the appellant or the respondent or both has been represented by legal counsel at the hearing, a copy of the memorandum of decision shall be sent to that attorney. Such memorandum shall include a statement of the point or points at issue at the time the hearing was requested and a summary of related facts, specific provisions of law and policy applicable to the case and the reasoning on which the decision is based and conclude with a statement of the decision.

(18) The right of appeal to a decision of the hearing officer to the Superior Court is governed by Section 4-183 of the Connecticut General Statutes.

(c) Departmental Hearings Appeal Process

(1) The appeal process is designed to allow for the resolution of the matter prior to a hearing if possible.

(2) All appeals will be remanded for review to the service provider agency that certified the application.

(3) The results of the review shall be forwarded to the hearing officer for determination as to the merits of the original appeal.

(4) Appellants will be notified by the hearing officer of the results of the review and be afforded an opportunity, if appropriate, to withdraw his or her appeal.

(d) Desk Review and Departmental Disposition of Appeals

(1) Appeals may be withdrawn by the person making them. This action shall be voluntary and may be made at any time prior to the hearing by written statement of such action addressed to the hearing officer. All withdrawals shall be acknowledged in writing by the hearing officer.

(2) A hearing request may be dismissed by the hearing officer if:

(A) The appellant fails to appear at the designated place and time on the appointed date; or,

(B) The point at issue is resolved prior to the hearing and the request is not voluntarily withdrawn by the appellant. A written notice of dismissal shall be sent by the hearing officer to the appellant.

(3) Once a hearing is held, the hearing officer shall issue a decision in accordance with

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Section 16a-41-42 (b) (8) or Sections 16a-42 (b) (15) and (16).

(Effective August 25, 1986)

**Sec. 16a-41-43. Conflicts of interest**

No employee of any service provider agency, or its designee, shall certify to the eligibility of any other employee or board member of said service provider agency. All such certifications shall be made by the Department of Human Resources. Nothing herein, however, shall preclude any employee of any service provider agency, or its designee, from participation in this program.

(Effective August 25, 1986)

**Sec. 16a-41-44. Administrative and reporting requirements**

(a) Service provider agencies will execute administration fund agreements.

(b) By the tenth day of the month, each service provider agency will submit a financial statement applicable to the funding grant made to the service provider agency for administration.

(Effective August 25, 1986)

**Sec. 16a-41-45. Payments disregarded as income**

No payment made under this program shall be considered income for the purpose of determining eligibility for benefits or level of benefits under any other program of assistance.

(Effective August 25, 1986)

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*Agency*

**Office of Policy and Management**

*Subject*

**Loans for Payment of Home Heating Fuel Bills**

*Inclusive Sections*

**§§ 16a-42g-1—16a-42g-10**

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Sec. 16a-42g-1.	Purpose (Repealed)
Sec. 16a-42g-2.	Definitions (Repealed)
Sec. 16a-42g-3.	Requests by town for funds (Repealed)
Sec. 16a-42g-4.	Standard forms (Repealed)
Sec. 16a-42g-5.	Criteria for determination and verification of eligibility (Repealed)
Sec. 16a-42g-6.	Loan acceptances (Repealed)
Sec. 16a-42g-7.	Review of loan denial (Repealed)
Sec. 16a-42g-8.	Bi-monthly reports (Repealed)
Sec. 16a-42g-9.	Administrative costs. Repayment to the state (Repealed)
Sec. 16a-42g-10.	Auditing procedures (Repealed)

**Loans for Payment of Home Heating Fuel Bills**

**Sec. 16a-42g-1. Purpose (Repealed)**

Repealed June 11, 2014.

(Effective January 22, 1981; Repealed June 11, 2014)

*Notes:* For 2014 repeal, see Sec. 54 of Public Act 14-187. (June 11, 2014)

**Sec. 16a-42g-2. Definitions (Repealed)**

Repealed June 11, 2014.

(Effective January 22, 1981; Repealed June 11, 2014)

*Notes:* For 2014 repeal, see Sec. 54 of Public Act 14-187. (June 11, 2014)

**Sec. 16a-42g-3. Requests by town for funds (Repealed)**

Repealed June 11, 2014.

(Effective January 22, 1981; Repealed June 11, 2014)

*Notes:* For 2014 repeal, see Sec. 54 of Public Act 14-187. (June 11, 2014)

**Sec. 16a-42g-4. Standard forms (Repealed)**

Repealed June 11, 2014.

(Effective January 22, 1981; Repealed June 11, 2014)

*Notes:* For 2014 repeal, see Sec. 54 of Public Act 14-187. (June 11, 2014)

**Sec. 16a-42g-5. Criteria for determination and verification of eligibility (Repealed)**

Repealed June 11, 2014.

(Effective January 22, 1981; Repealed June 11, 2014)

*Notes:* For 2014 repeal, see Sec. 54 of Public Act 14-187. (June 11, 2014)

**Sec. 16a-42g-6. Loan acceptances (Repealed)**

Repealed June 11, 2014.

(Effective January 22, 1981; Repealed June 11, 2014)

*Notes:* For 2014 repeal, see Sec. 54 of Public Act 14-187. (June 11, 2014)

**Sec. 16a-42g-7. Review of loan denial (Repealed)**

Repealed June 11, 2014.

(Effective January 22, 1981; Repealed June 11, 2014)

*Notes:* For 2014 repeal, see Sec. 54 of Public Act 14-187. (June 11, 2014)

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**Sec. 16a-42g-8. Bi-monthly reports (Repealed)**

Repealed June 11, 2014.

(Effective January 22, 1981; Repealed June 11, 2014)

*Notes:* For 2014 repeal, see Sec. 54 of Public Act 14-187. (June 11, 2014)

**Sec. 16a-42g-9. Administrative costs. Repayment to the state (Repealed)**

Repealed June 11, 2014.

(Effective January 22, 1981; Repealed June 11, 2014)

*Notes:* For 2014 repeal, see Sec. 54 of Public Act 14-187. (June 11, 2014)

**Sec. 16a-42g-10. Auditing procedures (Repealed)**

Repealed June 11, 2014.

(Effective January 22, 1981; Repealed June 11, 2014)

*Notes:* For 2014 repeal, see Sec. 54 of Public Act 14-187. (June 11, 2014)

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*Agency*

**Department of Economic Development**

*Subject*

**Business Emergency Relief Loan Program and Small Home Heating Oil Dealers  
Loan Program**

*Inclusive Sections*

**§§ 16a-43-1—16a-43-8**

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Sec. 16a-43-4.	Promissory note for small home heating oil dealer loans
Sec. 16a-43-5.	Eligibility
Sec. 16a-43-6.	Loan application and agreement for business emergency relief loans
Sec. 16a-43-7.	Loan amounts and terms for business emergency relief loans
Sec. 16a-43-8.	Promissory note for business emergency relief loans



**Business Emergency Relief Loan Program and Small Home Heating Oil Dealers  
Loan Program**

**Sec. 16a-43-1. Definitions**

“Applicant” means any business concern that applies for a loan under these regulations.

“Authority” means the Connecticut Development Authority.

“Borrower” means any business concern to whom a loan has been approved under these regulations.

“Business concern” means any sole proprietorship, partnership, association or corporation formed for the purpose of transacting business for profit, including but not limited to agricultural, manufacturing, wholesale, retail, construction and service concerns.

“Commissioner” means the Commissioner of Economic Development. “Department” means the Department of Economic Development.

“Disaster emergency” means an emergency or disaster which has been proclaimed by the governor under the laws of the state.

“Loan” means a business emergency relief loan or a small home heating oil dealer loan.

(Effective March 10, 1983)

**Sec. 16a-43-2. Loan application and agreement for small home heating oil dealer  
loans**

(a) Application for a small home heating oil dealer loan shall be submitted on Department small home heating oil dealer loan application forms. No application shall be considered unless the exhibits required by such form are furnished.

(b) Upon approval of an application by the Authority or, if the authority so determines, by a committee of the authority, the Department and the borrower shall enter into a small home heating oil Dealer Loan Agreement which shall set forth the terms and conditions required by these regulations and other terms and conditions applicable to the particular loan that the commissioner shall deem appropriate.

(c) Each small home heating oil dealer Loan Agreement shall be effective only upon execution by the Commissioner and the borrower.

(d) The small home heating oil dealer loan Agreement shall provide, without limitation, that the borrower agrees:

(1) That the funds provided will be used exclusively for the purchase of home heating oil;

(2) To provide the Department with such financial and other reports as the Commissioner, in his discretion, may require from time to time;

(3) To notify the Department promptly of any material adverse change in the financial condition or business prospects of the borrower;

(4) To represent and warrant that it has the power and authority to enter into the Loan Agreement and to incur the obligations therein provided for, and that all documents and agreements executed and delivered in connection with the loan will be valid and binding upon the borrower in accordance with their respective terms;

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(5) To provide such security for the loan as the Commissioner may deem necessary and appropriate and to execute and deliver all documents in connection therewith;

(6) To provide heating oil to customers whose heating oil bills will be paid for by any governmental agency and to make deliveries in amounts the cost of which can be provided by grants from such governmental agencies to the extent of supplies available to such borrower and within the service area of such borrower;

(7) That the borrower will not assess a surcharge on the price of fuel oil delivered to a customer if the delivery of such fuel oil is in an amount in excess of one hundred twenty-five gallons, except that a surcharge may be assessed if a delivery is made outside the normal service area or the normal business hours of such borrower or extraordinary labor costs are involved in making a delivery;

(8) To the extent the loan is secured by a contract or contracts, to:

(A) Notify the Commissioner of the modification of any provision of a contract which is security for the loan when said modification affects the time or manner of payment, or in any other way substantially affects the contract or the manner of performance of said contract;

(B) Notify the Commissioner of the termination of any part of a contract or the termination of the entire contract by any party to the contract;

(C) Notify the Commissioner of the failure of either party to a contract to perform any of its obligations under such contract.

(e) If upon examination of the application, supporting information and results of any investigation, either the Authority or the Commissioner rejects such application, then the loan may not be granted and the Commissioner shall cause the applicant to be notified that the application has been denied.

(Effective March 10, 1983)

**Sec. 16a-43-3. Loan amounts and terms for small home heating oil dealer loans**

(a) The term for repayment of any small home heating oil dealer loan or extension of credit shall end not later than the first day of October next following the date of such loan or extension of credit.

(b) The total amount of such Working Capital Loans and Lines of Credit to any one borrower in any period of one year shall not exceed \$200,000.

(c) Disbursement of the loan shall be made at the discretion of the Commissioner in accordance with the provisions of the small home heating oil dealer Loan Agreement and the instructions of the Authority.

(d) The Commissioner shall determine the method of payment of interest and principal due with respect to each loan.

(Effective March 10, 1983)

**Sec. 16a-43-4. Promissory note for small home heating oil dealer loans**

(a) Each small home heating oil dealer loan shall be evidenced by a Promissory Note in

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the maximum amount of the loan set forth in the small home heating oil dealer Loan Agreement and shall contain a provision permitting the borrower to prepay the loan in whole or in part upon any interest payment date.

(b) The Promissory Note shall provide for the payment of interest at a rate of not more than 1% above the rate of interest borne by the bonds of the State of Connecticut last issued prior to the date of approval of the loan application except that, if such rate is lower than the rate charged by the Federal Small Business Administration for loans provided under its Economic Dislocation Loan Program, the Federal Small Business Administration rate shall be charged and collected.

(c) The Promissory Note may provide for the collection of a late charge not to exceed two percent of any installment which is not paid within ten days of the due date thereof. Late charges shall be separately charged to and collected from the borrower.

(d) The failure of the borrower to abide by the terms of the small home heating oil dealer Loan Agreement or the Promissory Note shall be considered as default under such Promissory Note.

(e) The Promissory Note shall contain a provision that the failure of the borrower to make a payment of any installments of principal or interest due under the Promissory Note within fifteen days from the due date shall constitute a default.

(f) The Promissory Note shall provide that upon default, any and all sums owing by the borrower under the Promissory Note shall, at the option of the Commissioner, become immediately due and payable.

(g) The Promissory Note shall provide for the payment of reasonable attorneys' fees and legal costs in the event the borrower shall default in payment of the Note.

(h) The Promissory Note shall contain such other clauses and covenants as the Commissioner, in his discretion, may require.

(Effective March 10, 1983)

**Sec. 16a-43-5. Eligibility**

(a) In order to be eligible for a small home heating oil dealer loan, the applicant must:

(1) be a small home heating oil dealer as defined in subsection (a) of Section 16a-43 of the General Statutes;

(2) represent that such applicant is unable to obtain sufficient assistance through programs of the Federal Small Business Administration or in the event 30 days or more have elapsed since such applicant submitted application for assistance to the Small Business Administration and such application has not been acted upon; and

(3) demonstrate, to the satisfaction of the Commissioner, that such applicant will be unable to properly finance oil purchases without state assistance.

(b) In order to be eligible for a business emergency relief loan, the applicant must:

(1) be a business concern as defined in these regulations;

(2) represent that such applicant was adversely affected by a disaster emergency;

(3) represent that a loan is required in order to repair, reclaim or replace

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- (A) machinery,
  - (B) equipment,
  - (C) real property and improvements thereon,
  - (D) inventory, or
  - (E) crops
- which were damaged, destroyed or otherwise adversely affected by a disaster emergency;
- (4) demonstrate that such applicant is unable to obtain sufficient assistance through programs of the federal government, or in the event 30 days or more have elapsed since such applicant submitted application for assistance under a program of the federal government and such application has not been acted upon;
- (5) file an application for a business emergency relief loan within 1 year of the date of the Governor's proclamation of a disaster emergency; and
- (6) demonstrate, to the satisfaction of the Commissioner that such applicant will be unable to properly finance all the repair, reclamation or replacement expense without state assistance.

(Effective March 10, 1983)

**Sec. 16a-43-6. Loan application and agreement for business emergency relief loans**

(a) Application for a business emergency relief loan shall be submitted on Department business emergency relief loan application forms. No application shall be considered unless the exhibits required by such are furnished.

(b) Upon approval of an application by the Authority or, if the Authority so determines, by a committee of the Authority, the Department and the borrower shall enter into a Business Emergency Relief Loan Agreement which shall set forth the terms and conditions required by these regulations and other terms and conditions applicable to the particular loan that the Commissioner shall deem appropriate.

(c) Each Business Emergency Relief Loan Agreement shall be effective only upon execution by the Commissioner and the borrower.

(d) The Business Emergency Relief Loan Agreement shall provide, without limitation, that the borrower agrees:

(1) That the funprovided will be used exclusively for the repair, reclamation or replacement of machinery, equipment, real property and improvements thereon, inventory or crops which were damaged, destroyed or otherwise adversely affected by a disaster emergency;

(2) To provide the Department with such financial and other reports as the Commissioner, in his discretion, may require from time to time;

(3) To notify the Department promptly of any material adverse change in the financial condition or business prospects of the borrower;

(4) To represent and warrant that it has the power and authority to enter into the Loan Agreement and to incur the obligations therein provided for, and that all documents and agreements executed and delivered in connection with the loan will be valid and binding

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upon the borrower in accordance with their respective terms;

(5) To provide such security for the loan as the Commissioner may deem necessary and appropriate and to execute and deliver all documents in connection therewith;

(6) To the extent the loan is secured by a contract or contracts, to:

(A) Notify the Commissioner of the modification of any provision of a contract which is security for the loan when said modification affects the time or manner of payment, or in any other way substantially affects the contract or the manner of performance of said contract;

(B) Notify the Commissioner of the termination of any part of a contract or the termination of the entire contract by any party to the contract;

(C) Notify the Commissioner of the failure of either party to a contract to perform any of its obligations under such contract.

(e) If upon examination of the application, supporting information and results of any investigation, either the Authority or the Commissioner rejects such application, then the loan may not be granted and the Commissioner shall cause the applicant to be notified that the application has been denied.

(Effective March 10, 1983)

**Sec. 16a-43-7. Loan amounts and terms for business emergency relief loans**

(a) The business emergency relief loan may be secured or unsecured, as the Authority determines to be appropriate in the particular circumstances. If the loan is to be secured, the Authority or the committee of the Authority may require the borrower to provide the Department as security any or all of the following: real property, accounts, chattel paper, documents, instruments, general intangibles, goods, equipment, inventory or other personal property, and may further require the borrower to have executed and delivered to the Department security agreements, financing statements, mortgages, pledges, assignments, subordinations, guarantees or other documents or evidences of security as and in the form required by the Authority or the committee of the Authority.

(b) The term for repayment of any business emergency relief loan shall not exceed 10 years, provided that no such loan shall be made the term of which ends later than October 1, 1993.

(c) The total amount of a business emergency relief loan provided by the Commissioner to any single business concern for relief from any one disaster emergency shall not exceed \$500,000.

(d) A business emergency relief loan shall be repaid on an amortized schedule of periodic payments or upon such other periodic method of payment of principal and interest as the Authority or the committee of the authority considers necessary and appropriate in the particular circumstances.

(e) Disbursement of the loan shall be made at the discretion of the Commissioner in accordance with the provisions of the Business Emergency Relief Loan Agreement and the

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instructions of the Authority.

(Effective March 10, 1983)

**Sec. 16a-43-8. Promissory note for business emergency relief loans**

(a) Each business emergency relief loan shall be evidenced by a Promissory Note in the maximum amount of the loan set forth in the Business Emergency Relief Loan Agreement and shall contain a provision permitting the borrower to prepay the loan in whole or in part upon any interest payment date.

(b) The Promissory Note shall provide for the payment of interest at a rate of not more than 1% above the rate of interest borne by the bonds of the State of Connecticut last issued prior to the closing date of the Promissory Note except that, if such rate is lower than the rate charged by the Federal Small Business Administration for loans provided under its Economic Dislocation Loan Program, the Federal Small Business Administration rate shall be charged and collected.

(c) The Promissory Note may provide for the collection of a late charge not to exceed two percent of any installment which is not paid within ten days of the due date thereof. Late charges shall be separately charged to and collected from the borrower.

(d) The failure of the borrower to abide by terms of the Business Emergency Relief Loan Agreement or the Promissory Note shall be considered a default under such Promissory Note.

(e) The Promissory Note shall contain a provision that the failure of the borrower to make a payment of any installments of principal or interest due under the Promissory Note within fifteen days from the due date shall constitute a default.

(f) The Promissory Note shall provide that upon default, any and all sums owing by the borrower under the Promissory Note shall, at the option of the Commissioner, become immediately due and payable.

(g) The Promissory Note shall provide for the payment of reasonable attorneys' fees and legal costs in the event the borrower shall default in payment of the Note.

(h) The Promissory Note shall contain such other clauses and covenants as the Commissioner, in his discretion, may require.

(Effective March 10, 1983)

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*Agency*

**Office of Policy and Management**

*Subject*

**Procedures for Establishing Energy Efficiency Standards for Certain Appliances  
and Products**

*Inclusive Sections*

**§§ 16a-48-1—16a-48-6**

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**Procedures for Establishing Energy Efficiency Standards for Certain Appliances and Products**

**Sec. 16a-48-1. Definitions**

As used in section 16a-48-1 to section 16a-48-6, inclusive, of the Regulations of Connecticut State Agencies:

(1) “Annual fuel utilization efficiency” means a measure of the fuel converted to heat supplied to a space in proportion to the total amount of fuel entering the furnace or boiler;

(2) “AV” means “Adjusted Volume,” + refrigerator volume (ft<sup>3</sup>);

(3) “Boiler” means “boiler” as defined in section 16a-48 of the Connecticut General Statutes;

(4) “Bottle-type water dispenser” means “bottle type water dispenser” as defined in section 16a-48 of the Connecticut General Statutes;

(5) “Central air conditioner” means “central air conditioner” as defined in section 16a-48 of the Connecticut General Statutes;

(6) “Central furnace” means “central furnace” as defined in section 16a-48 of the Connecticut General Statutes;

(7) “Commercial clothes washer” means “commercial clothes washer” as defined in section 16a-48 of the Connecticut General Statutes;

(8) “Commercial hot food holding cabinet” means “commercial hot food holding cabinet” as defined in section 16a-48 of the Connecticut General Statutes;

(9) “Commercial refrigerators and freezers” means “commercial refrigerators and freezers” as defined in section 16a-48 of the Connecticut General Statutes;

(10) “Electricity ratio” means “electricity ratio” as defined in section 16a-48 of the Connecticut General Statutes;

(11) “Energy Efficiency ratio” means “energy efficiency ratio” as defined in section 16a-48 of the Connecticut General Statutes;

(12) “Furnace air handler” means “furnace air handler” as defined in section 16a-48 of the Connecticut General Statutes;

(13) “High intensity discharge lamp” means “high intensity discharge lamp” as defined in section 16a-48 of the Connecticut General Statutes;

(14) “Illuminated exit sign” means “illuminated exit sign” as defined in section 16a-48 of the Connecticut General Statutes;

(15) “Large packaged air-conditioning equipment” means “large packaged air-conditioning equipment” as defined in section 16a-48 of the Connecticut General Statutes;

(16) “Low-voltage dry-type transformer” means “low-voltage dry-type transformer” as defined in section 16a-48 of the Connecticut General Statutes;

(17) “Metal halide lamp” means “metal halide lamp” as defined in section 16a-48 of the Connecticut General Statutes;

(18) “Metal Halide lamp fixture” means “metal halide lamp fixture” as defined in section 16a-48 of the Connecticut General Statutes;

(19) “Modified energy factor” (MEF) means the quotient of the ft<sup>3</sup> capacity of the clothes



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container divided by the total clothes washer energy consumption per cycle, with such energy consumption expressed as the sum of the machine electrical energy consumption, the hot water energy consumption, and the energy required for removal or the remaining moisture in the wash load, as determined using the applicable test method as directed by the Secretary;

(20) “New product” means; “new product” as defined in section 16a-48 of the Connecticut General Statutes;

(21) “Pass-through cabinet” means “pass-through cabinet” as defined in section 16a-48 of the Connecticut General Statutes;

(22) “Pool heater” means “pool heater” as defined in section 16a-48 of the Connecticut General Statutes;

(23) “Portable electric spa” means “portable electric spa” as defined in section 16a-48 of the Connecticut General Statutes;

(24) “Probe start metal halide ballast” means “probe start metal halide ballast” as defined in section 16a-48 of the Connecticut General Statutes;

(25) “Reach-in cabinet” means “reach-in cabinet” as defined in section 16a-48 of the Connecticut General Statutes;

(26) “Residential furnace or boiler” means “residential furnace or boiler” as defined in section 16a-48 of the Connecticut General Statutes;

(27) “Residential pool pump” means “residential pool pump” as defined in section 16a-48 of the Connecticut General Statutes;

(28) “Roll-in cabinet” or “roll-through cabinet” means “roll-in cabinet” or “roll-through cabinet” as defined in section 16a-48 of the Connecticut General Statutes;

(29) “Secretary” means the Secretary of the Office of Policy and Management;

(30) “Single voltage external AC to DC power supply” means “single voltage external AC to DC power supply” as defined in section 16a-48 of the Connecticut General Statutes;

(31) “State regulated incandescent reflector lamp” means “State regulated incandescent reflector lamp” as defined in section 16a-48 of the Connecticut General Statutes;

(32) “Torchiere lighting fixture” means “torchiere lighting fixture” as defined in section 16a-48 of the Connecticut General Statutes;

(33) “Traffic signal module” means “traffic signal module” as defined in section 16a-48 of the Connecticut General Statutes;

(34) “Transformer” means “transformer” as defined in section 16a-48 of the Connecticut General Statutes;

(35) “Unit heater” means “unit heater” as defined in section 16a-48 of the Connecticut General Statutes;

(36) “V” means total volume (ft<sup>3</sup>);

(37) “Walk-in freezer” means “walk-in freezer” as defined in section 16a-48 of the Connecticut General Statutes;

(38) “Walk-in refrigerator” means “walk-in refrigerator” as defined in section 16a-48 of the Connecticut General Statutes; and

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(39) “Water factor” means the quotient of the total weighted per-cycle water consumption divided by the capacity of the clothes washer, determined using the applicable test method as directed by the Secretary.

(Effective June 27, 1988; Amended April 11, 2006; Amended June 3, 2008)

**Sec. 16a-48-2. Scope**

These provisions apply to the following types of new products that are sold, offered for sale or installed in Connecticut: commercial clothes washers; commercial refrigerators and freezers; illuminated exit signs; large packaged air-conditioning equipment; low-voltage dry-type transformers; torchiere lighting fixtures; traffic signal modules; unit heaters, residential furnaces and boilers; residential pool pumps; metal halide lamp fixtures; single voltage external AC to DC power supplies; state regulated incandescent reflector lamps; bottle-type water dispensers; commercial hot food holding cabinets; portable electric spas; walk-in refrigerators and walk-in freezers; and pool heaters. Each provision applies only to units sold, offered for sale or installed on or after the effective date of the provision. These provisions do not include those products sold wholesale in Connecticut for final retail sale or installation outside the state, those installed in mobile manufactured homes at the time of construction, and those designed expressly for installation and use in recreational vehicles.

(Effective June 27, 1988; Amended April 11, 2006; Amended June 3, 2008)

**Sec. 16a-48-3. Applicability**

The appliance efficiency standards set forth in section 16a-48-3 of the Regulations of Connecticut State Agencies, where in conflict with the State Building Code section 29-252 of the Connecticut General Statutes, shall take precedence over the standards contained in the State Building Code.

(Effective June 27, 1988; Amended April 11, 2006; Amended June 3, 2008)

**Sec. 16a-48-4. Appliance energy efficiency standards**

(a) Commercial clothes washers sold, offered for sale, or installed for the first time on or after July 1, 2007 shall meet or exceed the following energy efficiency standards:

<b>Washer Type</b>	<b>Minimum Modified Energy Factor</b>	<b>Maximum Water Factor</b>
Front loading <3.5 cubic foot clothes container compartment capacity	1.26	9.5
Top loading <1.6 cubic foot clothes container compartment capacity	0.65	9.5

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Top loading =1.6 cubic foot and <4.0 cubic foot clothes container compartment capacity	1.26	9.5
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(b) Commercial refrigerators and freezers sold, offered for sale, or installed on or after July 1, 2008 shall meet or exceed the following requirements:

<b>Refrigerator/Freezer Type</b>	<b>Doors</b>	<b>Maximum Daily Energy Consumption kWh*</b>
Reach-in cabinets, pass-through cabinets, and roll-in or roll-through cabinets that are refrigerators	Solid	$0.125V + 2.76$
	Transparent	$0.172V + 4.77$
Reach-in cabinets, pass-through cabinets, and roll-in or roll-through cabinets that are freezers	Solid	$0.398V + 2.28$
	Transparent	$0.940V + 5.10$
Reach-in cabinets that are refrigerator/freezers	Solid	$0.273AV + 1.65$

\*Where V= Volume in Cubic Feet, and AV = Adjusted volume + refrigerator volume.

(c) Illuminated exit signs sold, offered for sale, or installed on or after July 1, 2006 shall meet or exceed the following energy efficiency standards:

<b>Standard</b>	<b>Requirement</b>
Input Power	<5 watts per face
Luminance contrast	>0.8
Minimum luminance	>8.6 caldelas/square meter measured at normal (0°) and 45° viewing angles
Average luminance	>15 caldelas/square meter measured at normal (0°) and 45° viewing angles
Maximum to minimum luminance ratio	<20:1 measured at normal (0°) and 45° viewing angles

(d) Large packaged air-conditioning equipment having not more than 760,000 BTUs per

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hour of capacity sold, offered for sale, or installed on or after July 1, 2009 shall meet a minimum energy efficiency ratio of 10.0 for units using both electric heat and air conditioning or units solely using electric air conditioning, and 9.8 for units using both natural gas heat and electric air conditioning.

(e) Large packaged air-conditioning equipment having not less than 761,000 BTUs per hour of capacity sold, offered for sale, or installed on or after July 1, 2009 shall meet a minimum energy efficiency ratio of 9.7 for units using both electric heat and air conditioning or units solely using electric air conditioning, and 9.5 for units using both natural gas heat and electric air conditioning.

<b>Capacity</b>	<b>Type</b>	<b>Minimum Energy Efficiency Ratio</b>
=760,000 BTUs per hour	Units using both electric heat and air conditioning or units solely using electric air conditioning	10.0
	Units using both natural gas heat and electric air conditioning	9.8
=761,000 BTUs per hour	Units using both electric heat and air conditioning or units solely using electric air conditioning	9.7
	Units using both natural gas heat and electric air conditioning	9.5

(f) Low voltage dry-type distribution transformers sold, offered for sale, or installed on or after July 1, 2006 shall meet or exceed the following energy efficiency values:

<b>Single Phase</b>				<b>Three Phase</b>			
<b>Rated Power kVa</b>	<b>Output</b>	<b>Mini- mum %</b>	<b>Effi- ciency</b>	<b>Rated Power kVa</b>	<b>Output</b>	<b>Mini- mum %</b>	<b>Effi- ciency</b>
= 15	<25	97.7		= 15	<30	97.0	
= 25	<37.5	98.0		= 30	<45	97.5	
= 37.5	<50	98.2		= 45	<75	97.7	
= 50	<75	98.3		= 75	<112.5	98.0	
= 75	<100	98.5		= 112.5	<150	98.2	
= 100	<167	98.6		= 150	<225	98.3	
= 167	<250	98.7		= 225	<300	98.5	

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= 250	<333	98.8		= 300	<500	98.6	
333		98.9		= 500	<750	98.7	
				= 750	<1000	98.8	
				1000		98.9	

(g) Torchiere lighting fixtures sold, offered for sale, or installed on or after July 1, 2006 shall not consume more than 190 watts and shall not be capable of operating with lamps that total more than 190 watts.

(h) Traffic signal modules sold, offered for sale, or installed on or after July 1, 2006 shall meet the product specification of the “Energy Star Program Requirements for Traffic Signals” developed by the United States Environmental Protection Agency that took effect in February 2001, except where the department, in consultation with the Commissioner of Transportation, determines that such specification would compromise safe signal operation, and shall meet or exceed the following energy efficiency standards:

Type	Red		Amber		Green	
	At 25°C (77°F)	At 74°C (165.2°F)	At 25°C (77°F)	At 74°C (165.2°F)	At 25°C (77°F)	At 74°C (165.2°F)
300 mm circular	11 watts	17 watts	22 watts	25 watts	15 watts	15 watts
200 mm circular	8 watts	13 watts	13 watts	16 watts	12 watts	12 watts
300 mm arrow	9 watts	12 watts	10 watts	12 watts	11 watts	11 watts
Lane control (X)	9 watts	12 watts	No requirement		No requirement	
Lane control (Arrow)	No requirement		No requirement		11 watts	11 watts

The power consumption of traffic signal lamps shall be not greater than 25 watts.

(i) Unit heaters sold, offered for sale, or installed on or after July 1, 2006 shall not have continuously burning pilot lights and shall have either power venting or an automatic flue damper.

(j) Residential furnaces and boilers purchased by the State after January 1, 2009 shall meet the following criteria:

Type of Equipment	Annual Fuel Utilization Efficiency	Electricity Ratio
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Gas and propane furnaces	≥ 90%	—
Oil furnaces	≥ 83%	—
Gas and propane boilers	≥ 84%	—
Oil-fired hot water boilers	≥ 84%	—
Gas and propane steam boilers	≥ 82%	—
Oil-fired steam boilers	≥ 82%	—
Furnaces with furnace air handlers except for oil furnaces of <94,000 BTU/hour capacity	—	≤ 2.0
Oil furnaces <94,000 BTU/hour capacity with furnace air handlers	—	≤ 2.3

(k) Metal halide lamp fixtures sold, offered for sale, or installed on or after January 1, 2010 that are designed to be operated with lamps rated ≤150 watts but ≤500 watts shall not contain a probe-start metal halide lamp ballast;

(l) Single voltage external AC to DC power supplies sold individually or sold as a component or in conjunction with another product and manufactured after January 1, 2008 shall meet or exceed the following energy efficiency standards:

The efficiency in the active mode of power supplies when tested at 115 volts at 60 Hz, shall not be less than the applicable values shown (expressed as the decimal equivalent of a percentage); and the energy consumption in the no-load mode of power supplies when tested at 115 volts at 60 Hz shall not be greater than the values shown in the following table:

<b>Nameplate Output</b>	<b>Minimum Efficiency – Active Mode</b>
0 to < 1 watt	0.49* nameplate output
≥ 1 and ≤ 49 watts	0.09* Ln(nameplate output) + 0.49
> 49 watts	0.84
	<b>Maximum Energy Consumption – No-Load Mode</b>
0 to < 10 watts	0.5 watts
≥ 10 and ≤ 250 watts	0.75 watts
Where Ln (Nameplate output) = Natural logarithm of the nameplate output expressed in	

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watts

Exceptions:

(1) Single voltage external AC to DC power supplies made available by a manufacturer directly to a consumer or to a service or repair facility after and separate from the original sale of the product requiring the power supply as a service part or spare part, shall meet the standards effective January 1, 2012 for external power supplies used with laptop computers, mobile phones, printers, print servers, scanners, personal digital assistants and digital cameras; effective July 1, 2012 for external power supplies used with wireline telephones and all other applications.

(2) Single voltage external AC to DC power supplies with products subject to certification by the United States Food and Drug Administration.

(m) State regulated incandescent reflector lamps sold, offered for sale, or installed on or after January 1, 2009 shall be labeled indicating the date of manufacture, and shall be manufactured to meet the following minimum average lamp efficacy requirements:

Nominal Lamp Wattage	Minimum Average Lamp Efficacy, Lumens per Watt
40-50	10.5
51-66	11.0
67-85	12.5
86-115	14.0
116-155	14.5
156-205	15.0

Exceptions:

- (1) ≤45 Watt R-20 (Reflector, 2.5" diameter)
- (2) ≤50 Watt ER-30 (Ellipsoidal reflector, 3.75" diameter)
- (3) ≤50 Watt ER-40 (Ellipsoidal reflector, 5.0" diameter)
- (4) 65 Watt ER-40 (Ellipsoidal reflector, 5.0" diameter)
- (5) ≤50 Watt BR-30 (Bulge reflector, 3.75" diameter)
- (6) ≤50 Watt BR-40 (Bulge reflector, 5.0" diameter)
- (7) 65 Watt BR-30 (Bulge reflector, 3.75" diameter)
- (8) 65 Watt BR-40 (Bulge reflector, 5.0" diameter)

(n) Bottle-type water dispensers that are designed for the dispensing of both hot and cold water that are sold, offered for sale, or installed on or after January 1, 2009 shall have a stand-by energy consumption of = 1.2 KWH per day.

(o) Commercial hot food holding cabinets sold, offered for sale, or installed on or after January 1, 2009 shall have an idle energy rate no greater than 40 watts per square foot of measured interior volume.

(p) The standby power of portable electric spas sold, offered for sale, or installed on or

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after January 1, 2009 shall not be greater than  $5(V^{2/3})$  watts where V = the total volume, in gallons.

(q) Walk in refrigerators and walk-in freezers sold, offered for sale, or installed on or after January 1, 2009 shall be equipped with the following required components:

<b>Motor Type</b>	<b>Required Components</b>
All	Automatic door closers that firmly close all reach-in doors
All	Automatic door closers on all doors no wider than four foot or higher than seven foot, that firmly close walk-in doors that have been closed to within one inch of full closure.
All	Envelope insulation >R-28 for refrigerators
All	Envelope insulation >R-36 for freezers
Condenser fan motors <1 hp	Electronically commutated motors; permanent split capacitor-type motors; or polyphase motors > 1/2 hp
Single-phase evaporator fan motors <1 HP and <460 volts	Electronically commutated motors

(r) Residential pool pumps sold, offered for sale, or installed on or after January 1, 2010 shall meet the following criteria:

(1) Pool pump motors shall not be split-phase or capacitor start—induction type.

(2) Pool pump motors  $\geq 1$ hp shall have the capability of operating at two or more speeds with the low speed having a rotation rate on more than 1/2 of the motors maximum rotation rate;

(3) Pool pump motor controls shall have the capability of operating the pool pump at least two speeds. The default circulation speed shall be the lowest speed, with a high speed override capability being for a temporary period not to exceed on normal cycle.

(s) Pool heaters sold, offered for sale, or installed on or after January 1, 2009 shall meet or exceed the following criteria:

(1) Thermal efficiencies of gas-fired and oil-fired pool heaters shall be not less than 78%;

(2) Natural gas pool heaters shall not be equipped with a constantly burning pilot light;

(3) All pool heaters shall have a readily accessible on-off switch that is mounted on the outside of the heater that allows shutting off the heater without adjusting the thermostat setting;

(4) Heat pump pool heaters shall have a coefficient of performance (COP) of not less



than 3.5 at standard temperature rating and at low temperature rating.

(Effective June 27, 1988; Amended April 11, 2006; Amended June 3, 2008)

**Sec. 16a-48-5. Test methods**

(a) **General Testing Requirements.** The manufacturer shall cause the testing of units of each basic model of appliance or covered product using the applicable test method listed. If the manufacturer of the basic model does not participate in an approved industry certification program for the basic model, or does not apply such a program to test all units, the testing shall be at a laboratory that, as determined by the Secretary:

- (1) has conducted tests using the applicable test method within the previous 12 months;
- (2) agrees to interpret and apply the applicable test method set forth precisely as written;
- (3) has, and keeps properly calibrated and maintained, all equipment, material, and facilities necessary to apply the applicable test method precisely as written;
- (4) agrees to and does maintain copies of all test reports, and provides any such report to the Secretary upon request, for all basic models that are still in commercial production; and
- (5) agrees to permit the Secretary to witness any test of such an appliance upon request, up to once per calendar year for each basic model.

(b) **Commercial Clothes Washers:** The test method for commercial clothes washers is that described in 10 CFR Section 430.23(j), Appendix J1 to Subpart B of Part 430 (2005).

(c) **Commercial Refrigerators/Freezers:** The test method for commercial refrigerators and freezers is as follows:

Volume shall be measured using ANSI/AHAM HRF1-1979. Energy consumption shall be measured using ANSI/ASHRAE 1171992, except that the back (loading) doors of pass-through and roll-through refrigerators and freezers shall remain closed throughout the test, and except that the controls of all appliances shall be adjusted to obtain the following product temperatures in degrees Fahrenheit:

- Refrigerator Compartment  $38 \pm 2$
- Freezer Compartment  $0 \pm 2$
- Wine chiller  $45 \pm 2$
- Ice Cream Cabinet  $-5 \pm 2$

When a refrigerator, refrigerator-freezer, or freezer can be operated using either alternating current electricity or one or more other sources of primary power, the test shall be performed using alternating current electricity only.

(d) **Illuminated Exit Signs:**

The test method for illuminated exit signs (Energy Star Qualified Exit Signs Specification Version 2.0) is as follows:

- (1) Conditions for testing:
  - (A) testing shall be conducted in clear (non-smoke) conditions;
  - (B) all measurements shall be made in a stable ambient air temperature of  $25^{\circ}\text{C} \pm 5^{\circ}\text{C}$ ;
  - (C) all voltages shall be provided within  $\pm 0.5$  percent by a constant voltage power

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supply;

(D) signs which are rated for continuous operation at more than one AC input voltage shall be tested at each of the rated AC input voltages.

(E) prior to input power or photometric measurements, the sign shall be operated at the rated input voltage for a period of 100 hours;

(F) in addition, a sign with an internal battery shall be operated from the battery for one-and-one-half hours and then recharged for the period specified by the manufacturer; and

(G) all of the light sources of the sign, except those only energized in the battery operation mode, shall produce light throughout the first 100 hours of operation.

(2) Input power measurement:

Measure the total input power of the sign in its entirety with an appropriate true RMS watt meter at the rated input voltage which represents normal operation. For a sign that includes a battery, the battery circuit shall be connected and the battery fully charged before any measurements are made. Calculate input power per face by dividing total input power of the sign by the number of faces.

(3) Photometric measurements:

Each of the luminance characteristics of the sign shall be measured at three voltages (or three voltages for each of the rated AC input voltages for signs rated for continuous operation at more than one AC input voltage).

(A) the rated input voltage which represents normal operation;

(B) a voltage corresponding to the minimum voltage provided either by the internal battery or a remote emergency power source after one minute of operation, as applicable; and

(C) a voltage corresponding to the minimum voltage provided by the internal battery after the marked rated operating time or at 87.5 percent of the rated emergency input voltage for signs intended to be connected to a remote emergency power source. The level of illumination of the exit sign shall be permitted to decline to 60 percent of the initial illumination by the end of the emergency lighting time duration. All measurements shall be taken with less than 0.01 foot-candles of external illumination on the face of the sign. The luminances shall be measured from two viewing angles: 1) from normal (0°) to the face of the sign, and 2) from 45° to the face of the sign.

(4) Luminance measurement positions:

The positions where the luminances for the legend and background of the exit sign are to be measured are found in Figures 40.4 through 40.9A (as appropriate for the type of sign being tested) of UL 924-1995 (revised 1999).

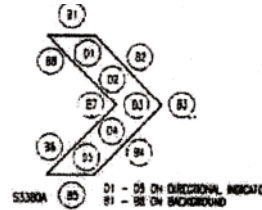
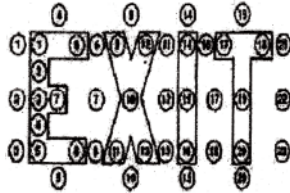
(5) Measurement of exit sign luminance      Measurement of directional indicator

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The luminance for each numbered position in the legend and directional indicator shall be measured over a circular area as large as possible while maintaining at least a 1.6 mm distance between the perimeter of the circular area and the adjacent border. The positions for measuring the luminances of the background shall lie within 25.4 mm of the legend and directional indicator but no closer than 1.6 mm to the border.

(6) Luminance calculations:

The following shall be calculated:

(A) Average luminance of (i) the legend or background of the legend, whichever is higher, and where applicable, (ii) the directional indicator or its background, whichever is higher: for each, the luminance of all the positions measured.

(B) Luminance contrast:

$$\text{Contrast} = \frac{L_g - L_e}{L_g}$$

Where:  $L_g$  is the greater luminance and  $L_e$  is the lesser luminance, either the variable  $L_g$  or  $L_e$  may represent the legend or directional indicator, and the remaining variable shall represent the respective background.

(C) Minimum luminance of (i) the legend or background of the legend, whichever is higher, and where applicable, (ii) the directional indicator or its background, whichever is higher: for each, the lowest luminance of all points measured.

(D) Maximum to minimum luminance ratio of (i) the legend, or background of the legend, whichever is higher, and where applicable, (ii) the directional indicator or its background, whichever is higher: for each the ratio of the highest luminance of any position measured to the lowest luminance of any position measured.

(e) **Large Packaged Air Conditioning Equipment:** The test method for large packaged air conditioning equipment is ARI Standard 340/360-2000 “Commercial and Industrial Unitary Air-Conditioning and Heat-Pump Equipment.”

(f) **Distribution Transformers:** The test method for distribution transformers is NEMA TP-2-2005.

(g) **Torchieres:** There is no test method for torchieres.

(h) **Traffic Signal Modules:** Traffic signal modules must meet the minimum performance requirements of the relevant Institute of Transportation Engineers specification, and be tested under the conditions presented in Section 6.4.2 of the “Interim LED Purchase Specification, Vehicle Traffic Control Signal Heads, Part 2: Light Emitting Diode (LED)”

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Vehicle Traffic Signal Modules (VTCSH Part 2).

(i) **Unit Heaters:** There is no test method for unit heaters.

(j) **Residential furnaces and boilers:** The test method for residential boilers and furnaces is 10 CFR Section 430.23(n) (2005).

(k) **Metal halide lamp fixtures:** The test method for metal halide lamp fixtures is ANSI C82.6-2005.

(l) **Single-voltage external AC to DC power supplies:** The test method for single-voltage external ac to dc power supplies is US Epa “test method for calculating the energy efficiency of single-voltage external ac-dc and ac-ac power supplies” dated august 11, 2004.

(m) **State regulated incandescent reflector lamps:** Test method for state regulated incandescent reflector lamps is 10 CFR Section 430.23(r) (2005).

(n) **Bottle-type water dispensers:** The test method for bottle-type water dispensers is EPA Energy Star Program Requirements for Bottled Water Coolers (2004), with the exception that units equipped with and integral automatic timer shall not be tested using Section 4D, “Timer Usage”, of the referenced test method.

(o) **Commercial hot food holding cabinets:** The test method for commercial hot food holding cabinets is ANSI/ASTM F2140-01 (test for idle energy rate-dry test), and US EPA’s Energy Star Guidelines, “Measuring Interior Volume” (test for interior volume).

(p) **Portable electric spas:** The test method for portable electric spas is as follows:

(1) Minimum continuous testing time shall be 72 hours;

(2) The water temperature shall remain at or above the test temperature of 102°F and the ambient air temperature shall remain at or below the test temperature of 60°F for the duration of the test;

(3) The standard cover that comes with the unit shall be used during the test;

(4) The test shall start when the water temperature has been at 102°F for at least four hours;

(5) The unit shall remain covered and in the default operation mode during the test. Energy-conserving circulation functions, if present, must not be enabled if not appropriate for continuous, long-term use;

(6) Total energy use shall be recorded for the period of the test, beginning at the end of the first heating cycle after the four hour stabilization period, and finishing at the end of the first heating cycle after 72 hours has elapsed;

(7) Data reported shall include: spa identification (make, model, S/N, specifications); volume of the unit in gallons; cover R-value; supply voltage; average relative humidity during the test; minimum, maximum, and average water temperatures during the test; minimum, maximum, and average ambient air temperatures during the test; date of test, length of test (t in hours); total energy used during the test (P, in watt-hours); and standby power (P/T, in watts).

(q) **Residential pool pumps:** The test method for residential pool pumps is as follows:

(1) IEEE 114-2001 shall be used for the measurement of motor efficiency;

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(2) ANSI/HI 1.6-2000 shall be used for the measurement of pump and motor combinations efficiency;

(3) Two curves shall be calculated:

Curve A:  $H = 0.0167 \times F^2$

Curve B:  $H = 0.050 \times F^2$

Where F is the flow rate in gallons per minute and H is the total system head in feet of water.

(4) For each curve (A & B), the pump head shall be adjusted until the flow and head lie on the curve. The following shall be reported for each curve and pump speed (two speed pumps shall be tested at both high and low speeds): head, in feet of water; flow in gallons per minute; power in watts and volt amps; and energy factor in gallons per watt hour, where energy factor (EF) is calculated as:  $EF = \text{flow (gpm)} \times 60 / \text{power (watts)}$ .

(r) **Pool heaters:** The test method for pool heaters is as follows:

Pool Heater Test Methods

Appliance		Test Method	
Gas-fired and oil-fired pool heaters		ANSI Z21.56-1998	
Electric resistance pool heaters		ANSI/ASHRAE 146-1998	
Heat pump pool heaters		ANSI/ASHRAE 146-1998 as modified by Addendum Test Procedures published by Pool Heat Pump Manufacturers Association dated April 1999, Rev. 4: February 28, 2000.	
Reading	Standard Temperature Rating	Low Temperature Rating	Spa Conditions Rating
Air Temperature Dry-bulb Wet-bulb	27°C (80.6°F) 21.7°C (71°F)	10°C (50°F) 6.9°C (44.4°F)	27°C (80.6°F) 21.7°C (71°F)
Relative Humidity	63%	63%	63%
Pool Water Temperature	23.7°C (80°F)	23.7°C (80°F)	40°C (104°F)

(s) **Walk-in Refrigerators and Walk-in Freezers:** There is no test method for walk-in refrigerators or walk-in freezers.

(t) **References**

(1) Section 6.4.2, VTCSH Part 2  
 Institute of Transportation Engineers  
 1099 14th Street, NW, Suite 300 West  
 Washington, DC 20005-3438  
 Phone: (202) 289-0222  
 Fax: (202)-289-7722  
[www.ite.org](http://www.ite.org)

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(2) CFR, Title 10, Section 430.23 (2005)

Copies available from:  
Superintendent of Documents  
U.S. Government Printing Office  
Washington, DC 20402  
[www.access.gpo.gov/nara/cfr](http://www.access.gpo.gov/nara/cfr)

(3) Energy Star Qualified Exit Signs Specification Version 2.0; EPA Energy Star Program Requirements for Bottled Water Coolers (2004); EPA test method for calculating the energy efficiency of single-voltage AC-DC and AC-AC power supplies, August 11, 2004.

Copies available from:  
US EPA  
Energy Star Programs Hotline & Distribution (MS-6202J)  
1200 Pennsylvania Ave NW  
Washington, DC 20460  
[www.energystar.gov](http://www.energystar.gov)

(4) ANSI/ASHRAE 117-1992; ANSI/ASHRAE 146-1998

Copies available from:  
American Society of Heating, Refrigerating and Air-Conditioning Engineers 1791 Tullie Circle N.E.  
Atlanta, GA 30329  
Phone: (800) 527-4723 (U.S./Canada) or (404) 636-8400  
Fax: (404) 321-5478  
[www.ashrae.org](http://www.ashrae.org)

(5) ANSI/AHAM HRF1-1979

Copies available from:  
Association of Home Appliance Manufacturers  
1111 19<sup>th</sup> Street, NW, Suite 402  
Washington, DC 20036  
Phone: (202) 872-5955  
Fax: (202) 872-9354  
[www.aham.org](http://www.aham.org)

(6) NEMA TP-2-2005

Copies available from:  
National Electrical Manufacturers Association  
1300 North 17<sup>th</sup> Street, Suite 1752  
Rosslyn, VA 22209

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Phone: (703) 841-3200

Fax: (703) 841-5900

[www.nema.org](http://www.nema.org)

(7) ARI Standard 340/360-2000  
Air Conditioning and Refrigeration Institute  
4100 N. Fairfax Drive, Suite 200  
Arlington, VA 22203  
Phone (703)-524-8800  
Fax (703)-528-3816  
[www.ari.org](http://www.ari.org)

(8) ANSI C82.6-2005; ANSI Z21.56-1998  
Copies available from:  
American National Standards Institute 1819 L Street, NW, 6<sup>th</sup> floor  
Washington, DC 20036  
[www.ansi.org](http://www.ansi.org)  
Phone: (202) 293-8020  
Fax: (202) 293-9287

(9) ANSI/ASTM F2140-01  
Copies available from:  
American Society for Testing and Materials 100 Barr Harbor Drive  
West Conshohocken, PA 19428-2959  
[www.astm.org](http://www.astm.org)  
Phone: (610) 832-9585  
Fax: (610) 832-9555

(10) ANSI/HI 1.6-2000  
Copies available from:  
Hydraulic Institute  
9 Sylvan Way  
Parsippany, NJ 07054  
[www.hydraulicinstitute.com](http://www.hydraulicinstitute.com)  
Phone: (973) 267-9700

(11) IEEE 114-2001  
Copies available from:  
Institute of Electrical and Electronics Engineers Publications Office  
10662 Los Vaqueros Circle  
PO Box 3014

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Los Alamitos, CA 90720-1264

[www.ieee.org](http://www.ieee.org)

Phone: (714) 821-8380

Fax: (714) 821-4010

(12) Addendum Test Procedure-April 1999, rev. 4: Feb 28, 2000

Copies available from:

Pool Heat Pump Manufacturers Association

Jeff Tawney, President

c/o Aquacal

2737 24<sup>th</sup> Street, North

St. Petersburg, FL 33713

Phone: (727) 823-5642 ext. 130

(Effective June 27, 1988; Amended April 11, 2006; Amended June 3, 2008)

**Sec. 16a-48-6. Certification of product compliance**

(a) Using the test methods outlined in Section 16a-48-5, manufacturers must provide data in such form as to allow the secretary to make a determination as to whether the product meets the standards set forth in Section 16a-48-4.

(b) Procedures for the submittal of data are as follows:

(1) If a manufacturer's product is certified in the State of California (CA), the manufacturer must send a letter on company letterhead to the Connecticut Office of Policy and Management (OPM) that indicates that the product is so certified and that the information the manufacturer had previously submitted to the California Energy Commission (CEC) is true and correct. A manufacturer of propane unit heaters must additionally provide pilot light information to the Secretary for Connecticut certification. Single voltage external AC to DC power supplies are exempt from these requirements. Manufacturers of Single voltage external AC to DC power supplies must label their product as required by the California code of regulations, Title 20: Division 2, Chapter 4, Article 4, Section 1607: Appliance Efficiency Regulations.

(2) If the product is not certified in CA, the manufacturer must submit certification data to the CEC (<http://www.energy.ca.gov/appliances/index.html>) and submit a letter to the Secretary indicating that the information has been submitted to CA and that it is true and correct.

(c) For each product listed in Section 16a-48-4, the Secretary will periodically review and validate the certification material submitted to the CEC.

(d) The Secretary will create a publicly available list of certified products, and will notify the manufacturer within 45 days of submittal of compliance of the status of the manufacturer's product with regard to certification, or, if the Secretary does not certify the product, reasons for non-certification. Exception: Single voltage external AC to DC power



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*Office of Policy and Management*

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supplies.

(Adopted effective April 11, 2006; Amended June 3, 2008)

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*Agency*

**Department of Public Utility Control**

*Subject*

**Contract Procedures for Private Power Producers and Providers**

*Inclusive Sections*

**§§ 16a-49-1—16a-49-3**

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**Contract Procedures for Private Power Producers and Providers**

**Sec. 16a-49-1. Definitions, pertaining to gas public service companies**

(a) “Authority” and “Department” as used in these regulations shall be as defined in section 16-1 of the Connecticut General Statutes.

(b) “Gas Public Service Company” as used in these regulations, shall mean a “public service company” which provides gas service, as defined in section 16-1 of the Connecticut General Statutes.

(c) “Gas Conservation and Load Management Investments” as used in these regulations, means any investments by gas public service companies in multi-year conservation and load management measures designed to conserve gas energy or manage gas load.

(Effective October 26, 1989)

**Sec. 16a-49-2. Conservation and load management plan filing requirements for gas public service companies**

(a) Consistent with the filing date required in Section 16-32f of the Connecticut General Statutes, as may be amended from time to time, each gas public service company shall file with the Department a comprehensive conservation and load management plan including but not limited to the following information:

(1) A forecast of gas loads and resources including but not limited to conservation and load management measures, supply contract terms, line extension and interconnections. The report shall describe the facilities and supply resources that are projected to be required to meet gas demand during the forecast period. This information may incorporate and must be consistent with the ten year report filed with the Department pursuant to Section 16-32f of the Connecticut General Statutes;

(2) A report of the status of all gas conservation and load management programs for which the company has made commitments for capital investments within the next ten years from the date of the forecast filing, including any such programs planned but not yet implemented;

(3) A report of the effect of existing and planned conservation and load management programs on the gas winter peak load, and on the projected resource requirements for the next ten years from the date of the forecast filing, including a description of the program’s consistency with state energy policy;

(4) Documentation of the program elements, costs, implementation requirements, and fuel and energy savings objectives for each conservation and load management program filed pursuant to this section for the next ten years from the date of the forecast filing and documentation of fuel and energy savings achieved to date for each program; and

(5) Such other information as the Department may direct.

(b) If the conservation and load management plan filed pursuant to Section 16a-49-2 (a) of these regulations contains programs for multi-year conservation and load management investments, the gas public service company shall file the following additional information:

(1) The expected annual cost of operating the program, the capital investment

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requirements for each year of the program, and the anticipated savings of gas for each year of the program;

(2) Documentation as to the use of cash or energy source credits to customers as part of the program;

(3) Documentation as to the energy source or fuel used and the energy source or fuel displaced by the program;

(4) The anticipated impact of such programs on the gas public service company's gas demand and energy requirements; and

(5) Testimony regarding the requested premium above the most recently authorized rate of return for each multi-year program requiring capital investment, the requested period of amortization, and the annual and cumulative amount requested to be recovered in rate base. Such information shall address each individual multi-year investment program as well as the cumulative impact of such programs.

(Effective October 26, 1989)

**Sec. 16a-49-3. Department review and action on gas conservation and load management investments**

(a) The Department shall conduct a public hearing to review the conservation and load management plans filed pursuant to Section 16a-49-2 (a) and 16a-49-2 (b) of these regulations and shall issue a decision including but not limited to the following determinations:

(1) Which of the conservation and load management programs are cost efficient and consistent with the provisions of state conservation and energy policy and with provisions of Section 16a-35k of the Connecticut General Statutes;

(2) Which of the proposed multi-year conservation and load management investments qualify as investments for inclusion in the rate base of the gas public service company which may be recovered pursuant to provisions of Section 16a-49 of the Connecticut General Statutes, and

(3) The interim accounting mechanism for recovery of conservation and load management investments pending determination in the company's next filed application for rate adjustment.

(b) The appropriateness of the return on rate base requested by the gas public service company above its authorized rate of return for recovery of its approved multi-year conservation and load management investments shall be made by the Department in its consideration of the gas public service company's next application for amendment of rates. Such allowed return on the rate base for multi-year conservation and load management investments shall be at a rate of no less than one per cent and no greater than five per cent above the gas public service company's authorized rate of return.

(c) No costs incurred by a gas public service company in connection with any plan or program under which the company offers direct cash or energy source credit incentives or imposes undue economic burdens which are intended to promote the conversion of primary

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residential or commercial oil heating systems to gas heating systems shall be placed in the rate base of the gas public service company or included, directly or indirectly, as operating expenses of that company for the purposes of rate making.

(d) Nothing in these regulations shall be construed to preclude or restrain the company's short term management decisions made to improve the economics or reliability of its system or fuel mix through wholesale or retail supply or demand opportunities made in the operation of its gas distribution franchise.

(Effective October 26, 1989)