

- (5) poor flow properties related to low temperatures;
- (6) oxidative and thermal instability in long-term storage and uses;
- (7) microbial contamination;
- (8) problems associated with electrical conductivity; and
- (9) such other areas as the Secretary considers appropriate.

(Pub. L. 110-140, title II, §248, Dec. 19, 2007, 121 Stat. 1548.)

SUBCHAPTER III—ENERGY SAVINGS IN BUILDINGS AND INDUSTRY

§ 17061. Definitions

In this title:¹

(1) Administrator

The term “Administrator” means the Administrator of General Services.

(2) Advisory Committee

The term “Advisory Committee” means the Green Building Advisory Committee established under section 484.¹

(3) Commercial Director

The term “Commercial Director” means the individual appointed to the position established under section 17081 of this title.

(4) Consortium

The term “Consortium” means the High-Performance Green Building Partnership Consortium created in response to section 17092(c)(1) of this title to represent the private sector in a public-private partnership to promote high-performance green buildings and zero-net-energy commercial buildings.

(5) Cost-effective lighting technology

(A) In general

The term “cost-effective lighting technology” means a lighting technology that—

- (i) will result in substantial operational cost savings by ensuring an installed consumption of not more than 1 watt per square foot; or
- (ii) is contained in a list under—

- (I) section 8259b of this title;
- (II) Federal acquisition regulation 23-203; and
- (III) is at least as energy-conserving as required by other provisions of this Act, including the requirements of this title¹ and title III¹ which shall be applicable to the extent that they would achieve greater energy savings than provided under clause (i) or this clause.²

(B) Inclusions

The term “cost-effective lighting technology” includes—

- (i) lamps;
- (ii) ballasts;
- (iii) luminaires;
- (iv) lighting controls;

- (v) daylighting; and
- (vi) early use of other highly cost-effective lighting technologies.

(6) Cost-effective technologies and practices

The term “cost-effective technologies and practices” means a technology or practice that—

(A) will result in substantial operational cost savings by reducing electricity or fossil fuel consumption, water, or other utility costs, including use of geothermal heat pumps;

(B) complies with the provisions of section 8259b of this title and Federal acquisition regulation 23-203; and

(C) is at least as energy and water conserving as required under this title,¹ including sections 431 through 435, and title V,¹ including sections 511 through 525, which shall be applicable to the extent that they are more stringent or require greater energy or water savings than required by this section.

(7) Federal Director

The term “Federal Director” means the individual appointed to the position established under section 17092(a) of this title.

(8) Federal facility

The term “Federal facility” means any building that is constructed, renovated, leased, or purchased in part or in whole for use by the Federal Government.

(9) Operational cost savings

(A) In general

The term “operational cost savings” means a reduction in end-use operational costs through the application of cost-effective technologies and practices or geothermal heat pumps, including a reduction in electricity consumption relative to consumption by the same customer or at the same facility in a given year, as defined in guidelines promulgated by the Administrator pursuant to section 7628(b) of this title, that achieves cost savings sufficient to pay the incremental additional costs of using cost-effective technologies and practices including geothermal heat pumps by not later than the later of the date established under sections 431 through 434,¹ or—

(i) for cost-effective technologies and practices, the date that is 5 years after the date of installation; and

(ii) for geothermal heat pumps, as soon as practical after the date of installation of the applicable geothermal heat pump.

(B) Inclusions

The term “operational cost savings” includes savings achieved at a facility as a result of—

- (i) the installation or use of cost-effective technologies and practices; or
- (ii) the planting of vegetation that shades the facility and reduces the heating, cooling, or lighting needs of the facility.

(C) Exclusion

The term “operational cost savings” does not include savings from measures that

¹ See References in Text note below.

² So in original. Does not fit with cl. (ii) introductory provision.

would likely be adopted in the absence of cost-effective technology and practices programs, as determined by the Administrator.

(10) Geothermal heat pump

The term “geothermal heat pump” means any heating or air conditioning technology that—

(A) uses the ground or ground water as a thermal energy source to heat, or as a thermal energy sink to cool, a building; and

(B) meets the requirements of the Energy Star program of the Environmental Protection Agency applicable to geothermal heat pumps on the date of purchase of the technology.

(11) GSA facility

(A) In general

The term “GSA facility” means any building, structure, or facility, in whole or in part (including the associated support systems of the building, structure, or facility) that—

(i) is constructed (including facilities constructed for lease), renovated, or purchased, in whole or in part, by the Administrator for use by the Federal Government; or

(ii) is leased, in whole or in part, by the Administrator for use by the Federal Government—

(I) except as provided in subclause (II), for a term of not less than 5 years; or

(II) for a term of less than 5 years, if the Administrator determines that use of cost-effective technologies and practices would result in the payback of expenses.

(B) Inclusion

The term “GSA facility” includes any group of buildings, structures, or facilities described in subparagraph (A) (including the associated energy-consuming support systems of the buildings, structures, and facilities).

(C) Exemption

The Administrator may exempt from the definition of “GSA facility” under this paragraph a building, structure, or facility that meets the requirements of section 8253(c) of this title.

(12) High-performance building

The term “high-performance building” means a building that integrates and optimizes on a life cycle basis all major high performance attributes, including energy conservation, environment, safety, security, durability, accessibility, cost-benefit, productivity, sustainability, functionality, and operational considerations.

(13) High-performance green building

The term “high-performance green building” means a high-performance building that, during its life-cycle, as compared with similar buildings (as measured by Commercial Buildings Energy Consumption Survey or Residential Energy Consumption Survey data from the Energy Information Agency)—

(A) reduces energy, water, and material resource use;

(B) improves indoor environmental quality, including reducing indoor pollution, improving thermal comfort, and improving lighting and acoustic environments that affect occupant health and productivity;

(C) reduces negative impacts on the environment throughout the life-cycle of the building, including air and water pollution and waste generation;

(D) increases the use of environmentally preferable products, including biobased, recycled content, and nontoxic products with lower life-cycle impacts;

(E) increases reuse and recycling opportunities;

(F) integrates systems in the building;

(G) reduces the environmental and energy impacts of transportation through building location and site design that support a full range of transportation choices for users of the building; and

(H) considers indoor and outdoor effects of the building on human health and the environment, including—

(i) improvements in worker productivity;

(ii) the life-cycle impacts of building materials and operations; and

(iii) other factors that the Federal Director or the Commercial Director consider to be appropriate.

(14) Life-cycle

The term “life-cycle”, with respect to a high-performance green building, means all stages of the useful life of the building (including components, equipment, systems, and controls of the building) beginning at conception of a high-performance green building project and continuing through site selection, design, construction, landscaping, commissioning, operation, maintenance, renovation, deconstruction or demolition, removal, and recycling of the high-performance green building.

(15) Life-cycle assessment

The term “life-cycle assessment” means a comprehensive system approach for measuring the environmental performance of a product or service over the life of the product or service, beginning at raw materials acquisition and continuing through manufacturing, transportation, installation, use, reuse, and end-of-life waste management.

(16) Life-cycle costing

The term “life-cycle costing”, with respect to a high-performance green building, means a technique of economic evaluation that—

(A) sums, over a given study period, the costs of initial investment (less resale value), replacements, operations (including energy use), and maintenance and repair of an investment decision; and

(B) is expressed—

(i) in present value terms, in the case of a study period equivalent to the longest useful life of the building, determined by taking into consideration the typical life of such a building in the area in which the building is to be located; or

(ii) in annual value terms, in the case of any other study period.

(17) Office of Commercial High-Performance Green Buildings

The term “Office of Commercial High-Performance Green Buildings” means the Office of Commercial High-Performance Green Buildings established under section 17081(a) of this title.

(18) Office of Federal High-Performance Green Buildings

The term “Office of Federal High-Performance Green Buildings” means the Office of Federal High-Performance Green Buildings established under section 17092(a) of this title.

(19) Practices

The term “practices” means design, financing, permitting, construction, commissioning, operation and maintenance, and other practices that contribute to achieving zero-net-energy buildings or facilities.

(20) Zero-net-energy commercial building

The term “zero-net-energy commercial building” means a commercial building that is designed, constructed, and operated to—

- (A) require a greatly reduced quantity of energy to operate;
- (B) meet the balance of energy needs from sources of energy that do not produce greenhouse gases;
- (C) therefore result in no net emissions of greenhouse gases; and
- (D) be economically viable.

(Pub. L. 110–140, title IV, § 401, Dec. 19, 2007, 121 Stat. 1596.)

REFERENCES IN TEXT

This title, referred to in text, is title IV of Pub. L. 110–140, Dec. 19, 2007, 121 Stat. 1596, which enacted this subchapter, part C (§ 6341 et seq.) of subchapter III of chapter 77 of this title, sections 6371h–1 and 7628 of this title, and subchapter V (§ 2695 et seq.) of chapter 53 of Title 15, Commerce and Trade, amended sections 6832, 6834, 6862, 6872, 8253, 8254, and 12709 of this title, and enacted provisions set out as notes under sections 6834 and 6872 of this title. For complete classification of title IV to the Code, see Tables.

Section 484, referred to in par. (2), probably should be a reference to section 494 of Pub. L. 110–140, which is classified to section 17123 of this title.

This Act, referred to in par. (5)(A)(ii)(III), is Pub. L. 110–140, Dec. 19, 2007, 121 Stat. 1492, known as the Energy Independence and Security Act of 2007, which enacted this chapter and enacted and amended numerous other sections and notes in the Code. For complete classification of this Act to the Code, see Short Title note set out under section 17001 of this title and Tables.

Title III, referred to in par. (5)(A)(ii)(III), is title III of Pub. L. 110–140, Dec. 19, 2007, 121 Stat. 1549, which enacted section 3313 of Title 40, Public Buildings, Property, and Works, amended sections 6291 to 6295, 6297, 6302, 6304, 6311, 6313 to 6316, 15821, and 16191 of this title and sections 3307, 3310, and 3314 to 3316 of Title 40, and enacted provisions set out as notes under sections 6291, 6294, 6295, and 6313 of this title. For complete classification of title III to the Code, see Tables.

Sections 431 through 435, referred to in pars. (6)(C) and 9(A), are sections 431 to 435 of Pub. L. 110–140. Sections 431 to 434 amended sections 6832, 6834, and 8253 of this title and enacted provisions set out as a note under section 6834 of this title. Section 435 enacted section 17091 of this title.

Title V, referred to in par. (6)(C), is title V of Pub. L. 110–140, Dec. 19, 2007, 121 Stat. 1655, which enacted sub-

chapter IV (§ 17131 et seq.) of this chapter, part D (§ 8279) of subchapter III of chapter 91 of this title, and sections 1824, 2162a, and 2169 of Title 2, The Congress, amended sections 6325, 6834, 8256, 8258, 8259b, 8287, and 8287c of this title, section 2162 of Title 2, section 2913 of Title 10, Armed Forces, section 3203 of Title 15, Commerce and Trade, and section 2621 of Title 16, Conservation, and enacted provisions set out as a note under section 8259b of this title. For complete classification of title V to the Code, see Tables.

Sections 511 through 525, referred to in par. (6)(C), are sections 511 to 525 of Pub. L. 110–140, which enacted part A (§ 17131) of subchapter IV of this chapter and section 17141 of this title, amended sections 6834, 8256, 8258, 8259b, 8287, and 8287c of this title and section 2913 of Title 10, Armed Forces, and enacted provisions set out as a note under section 8259b of this title.

PART A—RESIDENTIAL BUILDING EFFICIENCY

§ 17071. Energy Code improvements applicable to manufactured housing

(a) Establishment of standards

(1) In general

Not later than 4 years after December 19, 2007, the Secretary shall by regulation establish standards for energy efficiency in manufactured housing.

(2) Notice, comment, and consultation

Standards described in paragraph (1) shall be established after—

- (A) notice and an opportunity for comment by manufacturers of manufactured housing and other interested parties; and
- (B) consultation with the Secretary of Housing and Urban Development, who may seek further counsel from the Manufactured Housing Consensus Committee.

(b) Requirements

(1) International Energy Conservation Code

The energy conservation standards established under this section shall be based on the most recent version of the International Energy Conservation Code (including supplements), except in cases in which the Secretary finds that the code¹ is not cost-effective, or a more stringent standard would be more cost-effective, based on the impact of the code¹ on the purchase price of manufactured housing and on total life-cycle construction and operating costs.

(2) Considerations

The energy conservation standards established under this section may—

- (A) take into consideration the design and factory construction techniques of manufactured homes;
- (B) be based on the climate zones established by the Department of Housing and Urban Development rather than the climate zones under the International Energy Conservation Code; and
- (C) provide for alternative practices that result in net estimated energy consumption equal to or less than the specified standards.

(C) provide for alternative practices that result in net estimated energy consumption equal to or less than the specified standards.

(3) Updating

The energy conservation standards established under this section shall be updated not later than—

¹ So in original. Probably should be “Code”.