I

109TH CONGRESS
2D SESSION

H. R. 5931

To improve efficiency in the Federal Government through the use of high-performance green buildings, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

JULY 27, 2006

Mr. DOYLE (for himself, Mrs. BONO, Mr. VAN HOLLEN, Mr. WYNN, and Mr. MCHUGH) introduced the following bill; which was referred to the Committee on Energy and Commerce, and in addition to the Committees on Government Reform, Science, and Transportation and Infrastructure, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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A BILL

To improve efficiency in the Federal Government through the use of high-performance green buildings, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the ''High-Performance Green Buildings Act of 2006''.

(b) TABLE OF CONTENTS.—The table of contents of this Act is as follows:

SEC. 2. DEFINITIONS.

In this Act:

(1) ADMINISTRATOR.—The term ''Administrator'' means the Administrator of General Services.

(2) COMMITTEE.—The term ''Committee'' means the Green Building Advisory Committee established under section 103(a).

(3) DIRECTOR.—The term ''Director'' means the individual appointed to the position established under section 101(a).

(4) FEDERAL FACILITY.—

(A) IN GENERAL.—The term ''Federal facility'' means any building or facility the in-

tended use of which requires the building or facility to be—

(i) accessible to the public; and

(ii) constructed or altered by or on behalf of the United States.

(B) EXCLUSIONS.—The term ''Federal facility'' does not include a privately-owned residential or commercial structure that is not leased by the Federal Government.

(5) HIGH-PERFORMANCE GREEN BUILDING.—The term ''high-performance green building'' means a building that, during its life-cycle—

(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 Office considers to be appropriate.

(6) 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 green building project and continuing through site selection, design,

construction, landscaping, commissioning, operation, maintenance, renovation, deconstruction or demolition, removal, and recycling of the green building.

(7) 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.

(8) 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.

(9) OFFICE.—The term ''Office'' means the Office of High-Performance Green Buildings established under section 102(a).

TITLE I—OFFICE OF HIGH-PERFORMANCE GREEN BUILDINGS

SEC. 101. OVERSIGHT.

(a) IN GENERAL.—The Administrator shall establish within the General Services Administration, and appoint an individual to serve as Director in, a position in the career-reserved Senior Executive service, to—

(1) establish and manage the Office in accordance with section 102; and

(2) carry out other duties as required under this Act.

(b) COMPENSATION.—The compensation of the Director shall not exceed the maximum rate of basic pay for the Senior Executive Service under section 5382 of title 5, United States Code, including any applicable locality-based comparability payment that may be authorized under section 5304(h)(2)(C) of that title.

SEC. 102. OFFICE OF HIGH-PERFORMANCE GREEN BUILDINGS.

(a) ESTABLISHMENT.—The Director shall establish within the General Services Administration an Office of High-Performance Green Buildings.

(b) DUTIES.—The Director shall—

(1) ensure full coordination of high-performance green building information and activities within the General Services Administration and all relevant agencies, including, at a minimum—

(A) the Environmental Protection Agency;

(B) the Office of the Federal Environmental Executive;

(C) the Office of Federal Procurement Policy;

(D) the Department of Energy;

(E) the Department of Health and Human Services;

(F) the Department of Defense; and

(G) such other Federal agencies as the Director considers to be appropriate;

(2) establish a senior-level Federal green building advisory committee, which shall provide advice and recommendations in accordance with section 103;

(3) identify and biennially reassess improved or higher rating standards recommended by the Committee;

(4) establish a national high-performance green building clearinghouse in accordance with section 104, which shall provide green building information through—

(A) outreach;

(B) education; and

(C) the provision of technical assistance;

(5) ensure full coordination of research and development information relating to high-performance green building initiatives under section 105;

(6) identify and develop green building standards that could be used for all types of Federal facilities in accordance with section 105;

(7) establish green practices that can be used throughout the life of a Federal facility;

(8) review and analyze current Federal budget practices and life-cycle costing issues, and make recommendations to Congress, in accordance with section 106; and

(9) complete and submit the report described in subsection (c).

(c) REPORT.—Not later than 2 years after the date of enactment of this Act, and biennially thereafter, the Director shall submit to Congress a report that—

(1) describes the status of the green building initiatives under this Act and other Federal programs in effect as of the date of the report, including—

(A) the extent to which the programs are being carried out in accordance with this Act; and

(B) the status of funding requests and appropriations for those programs;

(2) identifies within the planning, budgeting, and construction process all types of Federal facility procedures that inhibit new and existing Federal facilities from becoming high-performance green buildings as measured by—

(A) a silver rating, as defined by the Leadership in Energy and Environmental Design Building Rating System standard established by the United States Green Building Council (or an equivalent rating); or

(B) an improved or higher rating standard, as identified by the Committee;

(3) identifies inconsistencies, as reported to the Committee, in Federal law with respect to product acquisition guidelines and high-performance product guidelines;

(4) recommends language for uniform standards for use by Federal agencies in environmentally responsible acquisition;

(5) in coordination with the Office of Management and Budget, reviews the budget process for capital programs with respect to alternatives for—

(A) restructuring of budgets to require the use of complete energy- and environmental-cost accounting;

(B) using operations expenditures in budget-related decisions while simultaneously incorporating productivity and health measures (as those measures can be quantified by the Office, with the assistance of universities and national laboratories);

(C) permitting Federal agencies to retain all identified savings accrued as a result of the use of life-cycle costing for future high-performance green building initiatives; and

(D) identifying short- and long-term cost savings that accrue from high-performance

green buildings, including those relating to health and productivity;

(6) identifies green, self-sustaining technologies to address the operational needs of Federal facilities in times of national security emergencies, natural disasters, or other dire emergencies;

(7) summarizes and highlights development, at the State and local level, of green building initiatives, including executive orders, policies, or laws adopted promoting green building (including the status of implementation of those initiatives); and

(8) includes, for the 2-year period covered by the report, recommendations to address each of the matters, and a plan for implementation of each recommendation, described in paragraphs (1) through (6).

(d) IMPLEMENTATION.—The Office shall carry out each plan for implementation of recommendations under subsection (c)(7).

SEC. 103. GREEN BUILDING ADVISORY COMMITTEE.

(a) ESTABLISHMENT.—Not later than 180 days after the date of enactment of this Act, the Director shall establish a committee to be known as the ''Green Building Advisory Committee''.

(b) MEMBERSHIP.—The Committee shall be composed of representatives of, at a minimum—

(1) each agency referred to in section 102(b)(1); and

(2) other relevant entities, as determined by the Director, including at least 1 representative of each of the following:

(A) State and local governmental green building programs.

(B) Independent green building associations or councils.

(C) Building experts, including architects, material suppliers, and construction contractors.

(D) Security advisors focusing on national security needs, natural disasters, and other dire emergency situations.

(E) Children and adult environmental health experts.

(c) MEETINGS.—The Director shall establish a regular schedule of meetings for the Committee, which shall convene a minimum of 6 times each year.

(d) DUTIES.—The Committee shall provide advice and expertise for use by the Director in carrying out the duties under this Act, including such recommendations re-

lating to Federal activities carried out under sections 104 through 106 as are agreed to by a majority of the members of the Committee.

(e) FACA EXEMPTION.—The Committee shall not be subject to the Federal Advisory Committee Act (5 U.S.C. App.).

SEC. 104. PUBLIC OUTREACH.

The Director, in coordination with the Committee, shall carry out public outreach to inform individuals and entities of the information and services available Government-wide by—

(1) establishing and maintaining a national high-performance green building clearinghouse, including on the Internet, that—

(A) identifies existing similar efforts and coordinates activities of common interest; and

(B) provides information relating to high-performance green buildings, including hyperlinks to Internet sites that describe the activities, information, and resources of—

(i) the Federal Government;

(ii) State and local governments;

(iii) the private sector (including non-governmental and nonprofit entities and organizations); and

(iv) international organizations;

(2) identifying and recommending educational resources for implementing high-performance green building practices, including security and emergency benefits and practices;

(3) providing access to technical assistance on using tools and resources to make more cost-effective, energy-efficient, health-protective, and environmentally beneficial decisions for constructing high-performance green buildings, particularly tools available to conduct life-cycle costing and life-cycle assessment;

(4) providing information on application processes for certifying a high-performance green building, including certification and commissioning;

(5) providing technical information, market research, or other forms of assistance or advice that would be useful in planning and constructing high-performance green buildings; and

(6) using such other methods as are determined by the Director to be appropriate.

SEC. 105. RESEARCH AND DEVELOPMENT.

(a) ESTABLISHMENT.—The Director, in coordination with the Committee, shall—

(1)(A) survey existing research and studies relating to high-performance green buildings; and

(B) coordinate activities of common interest;

(2) develop and recommend a high-performance green building research plan that—

(A) identifies information and research needs, including the relationships between health, occupant productivity, and each of—

(i) pollutant emissions from materials and products in the building;

(ii) natural day lighting;

(iii) ventilation choices and technologies;

(iv) heating, cooling, and system control choices and technologies;

(v) moisture control and mold;

(vi) maintenance, cleaning, and pest control activities;

(vii) acoustics; and

(viii) other issues relating to the health, comfort, productivity, and performance of occupants of the building; and

(B) promotes the development and dissemination of high-performance green building

measurement tools that, at a minimum, may be used—

(i) to monitor and assess the life-cycle performance of facilities (including demonstration projects) built as high-performance green buildings; and

(ii) to perform life-cycle assessments;

(3) assist the budget and life-cycle costing functions of the Office under section 106;

(4) study and identify potential benefits of green buildings relating to security, natural disaster, and emergency needs of the Federal Government; and

(5) support other research initiatives determined by the Office.

(b) INDOOR AIR QUALITY.—The Director, in consultation with the Committee, shall develop and implement a comprehensive indoor air quality program for all Federal facilities to ensure the safety of Federal workers and facility occupants—

(1) during new construction and renovation of facilities; and

(2) in existing facilities.

SEC. 106. BUDGET AND LIFE-CYCLE COSTING AND CONTRACTING.

(a) ESTABLISHMENT.—The Director, in coordination with the Committee, shall—

(1) identify, review, and analyze current budget and contracting practices that affect achievement of high-performance green buildings, including the identification of barriers to green building life-cycle costing and budgetary issues;

(2) develop guidance and conduct training sessions with budget specialists and contracting personnel from Federal agencies and budget examiners to apply life-cycle cost criteria to actual projects;

(3) identify tools to aid life-cycle cost decision-making; and

(4) explore the feasibility of incorporating the benefits of green buildings, such as security benefits, into a cost-budget analysis to aid in life-cycle costing for budget and decision making processes.

SEC. 107. AUTHORIZATION OF APPROPRIATIONS.

There is authorized to be appropriated to carry out this title $4,000,000 for each of fiscal years 2007 through 2012, to remain available until expended.

TITLE II—STRENGTHENING FEDERAL LEADERSHIP

SEC. 201. INCENTIVES.

As soon as practicable after the date of enactment of this Act, the Director shall identify incentives to encourage the use of green buildings and related technology in the operations of the Federal Government, including through—

(1) the provision of recognition awards; and

(2) the maximum feasible retention of financial savings in the annual budgets of Federal agencies for use in reinvesting in future green building initiatives.

SEC. 202. FEDERAL PROCUREMENT.

(a) IN GENERAL.—Not later than 2 years after the date of enactment of this Act, the Director of the Office of Federal Procurement Policy, in consultation with the Director and the Under Secretary of Defense for Acquisition, Technology, and Logistics, shall promulgate revisions of the applicable acquisition regulations, to take effect as of the date of promulgation of the revisions—

(1) to direct any Federal procurement executives involved in the acquisition, construction, or major renovation (including contracting for the construction or major renovation) of any facility—

(A) to employ integrated design principles;

(B) to improve site selection for environmental and community benefits;

(C) to optimize building and systems energy performance;

(D) to protect and conserve water;

(E) to enhance indoor environmental quality; and

(F) to reduce environmental impacts of materials and waste flows; and

(2) to direct Federal procurement executives involved in leasing buildings, to give preference to the lease of facilities that—

(A) are energy-efficient; and

(B) to the maximum extent practicable, have applied contemporary high-performance and sustainable design principles during construction or renovation.

(b) GUIDANCE.—Not later than 90 days after the date of promulgation of the revised regulations under subsection (a), the Director shall issue guidance to all Federal procurement executives providing direction and instructions to renegotiate the design of proposed facilities, renovations for existing facilities, and leased facilities to in-

corporate improvements that are consistent with this section.

SEC. 203. FEDERAL GREEN BUILDING PERFORMANCE.

(a) IN GENERAL.—Not later than October 31 of each of the 2 fiscal years following the fiscal year in which this Act is enacted, and at such times thereafter as the Comptroller General of the United States determines to be appropriate, the Comptroller General of the United States shall, with respect to the fiscal years that have passed since the preceding report—

(1) conduct an audit of the implementation of this Act; and

(2) submit to the Office, the Committee, the Administrator, and Congress a report describing the results of the audit.

(b) CONTENTS.—An audit under subsection (a) shall include a review, with respect to the period covered by the report under subsection (a)(2), of—

(1) budget, life-cycle costing, and contracting issues, using best practices identified by the Comptroller General of the United States and heads of other agencies in accordance with section 106;

(2) the level of coordination among the Office, the Office of Management and Budget, and relevant agencies;

(3) the performance of the Office in carrying out the implementation plan;

(4) the design stage of high-performance green building measures;

(5) high-performance building data that were collected and reported to the Office; and

(6) such other matters as the Comptroller General of the United States determines to be appropriate.

(c) CONSULTATION.—The Director shall consult with the Committee to enhance and assist the implementation of the Environmental Stewardship Scorecard announced at the White House Summit on Federal sustainable buildings in January 2006, to measure the implementation by each Federal agency of sustainable design and green building initiatives.

TITLE III—DEMONSTRATION PROJECT

SEC. 301. COORDINATION OF GOALS.

(a) IN GENERAL.—The Director shall establish guidelines to implement a demonstration project to contribute to the research goals of the Office.

(b) PROJECTS.—In accordance with guidelines established by the Director under subsection (a) and the duties

of the Director described in title I, the Director shall carry out—

(1) for each of fiscal years 2008 through 2013, 1 demonstration project in a Federal building selected by the Director in accordance with relevant agencies and described in subsection (c)(1), that—

(A) provides for the evaluation of the information obtained through the conduct of projects and activities under this Act; and

(B) achieves a platinum rating, as defined by the Leadership in Energy and Environmental Design Building Rating System standard established by the United States Green Building Council (or equivalent rating); and

(2) no fewer than 4 demonstration projects at 4 universities, that, as competitively selected by the Director in accordance with subsection (c)(2), have—

(A) appropriate research resources and relevant projects to meet the goals of the demonstration project established by the Office; and

(B) the ability—

(i) to serve as a model for high-performance green building initiatives, including research and education;

(ii) to identify the most effective ways to use high-performance green building and landscape technologies to engage and educate undergraduate and graduate students;

(iii) to effectively implement a high-performance green building education program for students and occupants;

(iv) to demonstrate the effectiveness of various high-performance technologies in each of the 4 climatic regions of the United States described in subsection (c)(2)(B); and

(v) to explore quantifiable and non-quantifiable beneficial impacts on public health and employee and student performance.

(c) CRITERIA.—

(1) FEDERAL FACILITIES.—With respect to the existing or proposed Federal facility at which a demonstration project under this section is conducted, the Federal facility shall—

(A) be an appropriate model for a project relating to—

(i) the effectiveness of high-performance technologies;

(ii) analysis of materials, components, systems, and emergency operations in the building, and the impact of those materials, components, and systems, including the impact on the health of building occupants;

(iii) life-cycle costing and life-cycle assessment of building materials and systems; and

(iv) location and design that promote access to the Federal facility through walking, biking, and mass transit; and

(B) possess sufficient technological and organizational adaptability.

(2) UNIVERSITIES.—With respect to the 4 universities at which a demonstration project under this section is conducted—

(A) the universities should be selected, after careful review of all applications received containing the required information, as determined by the Director, based on—

(i) successful and established public-private research and development partnerships;

(ii) demonstrated capabilities to construct or renovate buildings that meet high indoor environmental quality standards;

(iii) organizational flexibility;

(iv) technological adaptability;

(v) the demonstrated capacity of at least 1 university to replicate lessons learned among nearby or sister universities, preferably by participation in groups or consortia that promote sustainability;

(vi) the demonstrated capacity of at least 1 university to have officially-adopted, institution-wide ''green building'' guidelines for all campus building projects; and

(vii) the demonstrated capacity of at least 1 university to have been recognized by similar institutions as a national leader in sustainability education and curriculum for students of the university; and

(B) each university shall be located in a different climatic region of the United States,

each of which regions shall have, as determined by the Office—

(i) a hot, dry climate;

(ii) a hot, humid climate;

(iii) a cold climate; or

(iv) a temperate climate (including a climate with cold winters and humid summers).

(d) REPORT.—Not later than 1 year after the date of enactment of this Act, and annually thereafter through September 30, 2013—

(1) the Director shall submit to the Administrator a report that describes the status of the demonstration projects; and

(2) each University at which a demonstration project under this section is conducted shall submit to the Administrator a report that describes the status of the demonstration projects under this section.

SEC. 302. AUTHORIZATION OF APPROPRIATIONS.

(a) FEDERAL DEMONSTRATION PROJECT.—There is authorized to be appropriated to carry out the Federal demonstration project described in section 301(b)(1) $10,000,000 for the period of fiscal years 2008 through 2013, to remain available until expended.

(b) UNIVERSITY DEMONSTRATION PROJECTS.—There is authorized to be appropriated to carry out the university demonstration projects described in section 301(b)(2) $10,000,000 for the period of fiscal years 2008 through 2013, to remain available until expended.

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