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FEDERAL ENERGY AND WATER MANAGEMENT PERFORMANCE ACT OF 2019

SEPTEMBER 25, 2019.—Ordered to be printed

Ms. MURKOWSKI, from the Committee on Energy and Natural Resources, submitted the following

R E P O R T

[To accompany S. 1857]

The Committee on Energy and Natural Resources, to which was referred the bill (S. 1857) to amend the National Energy Conservation Policy Act to improve Federal energy and water performance requirements for Federal buildings and establish a Federal Energy Management Program, having considered the same, reports favorably thereon with amendments and recommends that the bill, as amended, do pass.

The amendments are as follows:

On page 3, strike lines 1 through 7 and insert the following:

water consumption intensity—

“(i) by 54 percent by fiscal year 2030, relative to the water consumption of the agency in fiscal year 2007, through reductions of 2 percent each fiscal year (as measured in gallons per gross square foot);

“(ii) by reducing the industrial, landscaping, and agricultural water consumption of the agency, as compared to a baseline of that consumption by the agency in fiscal year 2010, through reductions of 2 percent each fiscal year (as measured in gallons); and

“(iii) by installing appropriate infrastructure features on federally owned property to improve stormwater and waste-water management; and”.

On page 12, line 1, strike “implement new” and insert “establish and implement”.

On page 12, line 2, strike “new”.

On page 12, line 6, strike “and sustainable design principles”.

On page 12, line 10, insert “that meet the highest energy conservation standards” after “products”.

PURPOSE

The purpose of S. 1857, as ordered reported, is to amend the National Energy Conservation Policy Act (NECPA, Public Law 95–619) to improve Federal energy and water performance requirements for Federal buildings and establish a Federal Energy Management Program (FEMP).

BACKGROUND AND NEED

Forty percent of the nation’s energy is consumed in buildings—far more than either the transportation or industry sectors. The Federal Government is the nation’s largest energy consumer and one of the largest energy consumers in the world. FEMP leverages Department of Energy expertise to help the Department and other Federal agencies reduce their energy and water consumption.

FEMP provides training, guidance, and technical assistance to enable Federal agencies to meet energy-related goals, works with agencies and stakeholders to identify affordable solutions, facilitates energy and water savings through public-private partnerships, and provides energy leadership to the country by identifying government best practices. These efforts have resulted in the Federal Government achieving a 49 percent reduction in energy intensity since 1975 and cost savings of approximately \$50 billion.

FEMP is an existing program that has never been authorized, although many energy management functions were specified in the NECPA. S. 1857, the Federal Energy and Water Management Performance Act of 2019, formally authorizes and details FEMP’s duties and sets energy and water reduction goals for 10 years for Federal buildings.

LEGISLATIVE HISTORY

S. 1857 was introduced by Senators Murkowski, Manchin, Portman, Shaheen, Gardner, and Hirono on June 13, 2019. The Subcommittee on Energy held a legislative hearing on S. 1857 on July 9, 2019.

The Senate Committee on Energy and Natural Resources met in open business session on July 16, 2019, and ordered S. 1857 favorably reported, as amended.

COMMITTEE RECOMMENDATION

The Senate Committee on Energy and Natural Resources, in open business session on July 16, 2019, by a majority voice vote of a quorum present, recommends that the Senate pass S. 1857, if amended as described herein.

COMMITTEE AMENDMENTS

During its consideration of S. 1857, the Committee adopted amendments to clarify and expand section 2 to ensure that industrial, landscaping, and agricultural water consumption are included in Federal water use reduction goals, and that stormwater and wastewater management infrastructure improvements are also considered. The amendments also make technical corrections relating to the duties outlined for FEMP.

SECTION-BY-SECTION ANALYSIS

Section 1. Short title

Section 1 sets forth the short title of the bill.

Sec. 2. Energy and water performance requirement for federal buildings

Subsection (a) amends section 543 of NECPA by adding water efficiency and establishing goals to reduce energy and water use in Federal buildings. The head of each Federal agency is required to reduce energy use by 2.5 percent per year for each of the fiscal years (FYs) 2020 through 2030 (relative to FY 2018), and to reduce water use by 54 percent by FY 2030 (relative to FY 2007). That total water use reduction is to be achieved by reducing water consumption by two percent each FY (relative to FY 2007), and by two percent each FY (relative to FY 2010) for industrial, landscaping, and agricultural water consumption. The Secretary is required by December 31, 2029, to review the results of the implementation of energy and water performance requirements, and to submit a report to Congress with recommendations concerning such requirements for FYs 2031 through 2040. Each Federal agency is required by October 1, 2019, to begin installing energy and water conservation measures that the Secretary has deemed life-cycle cost-effective. Finally, within 180 days of enactment, this section requires the Secretary to update guidelines for water metering.

Subsection (b) updates the table of contents for NECPA accordingly.

Sec. 3. Federal Energy Management Program

Section 3 amends section 543 of NECPA to codify the Federal Energy Management Program in order to facilitate the implementation of cost-effective energy and water management and energy-related investment practices by the Federal government, to coordinate and strengthen Federal energy and water resilience, and promote environmental stewardship. This section also lists program activities related to strategic planning and technical assistance; energy and water management and reporting, which requires FEMP to submit to each Federal agency a report that facilitates the energy and water management, energy-related investment practices, and environmental stewardship of the agency in support of Federal goals, and to establish new Federal building energy efficiency standards; Federal policy coordination, which requires FEMP to report on the implementation of the President's priorities, including Executive Orders, relating to energy and water use in Federal buildings; and facility and fleet optimization. It further directs the Secretary to appoint a Federal Director of the program within the

Senior Executive Service to provide leadership and coordinate the program's activities. In addition to overseeing FEMP, the Federal Director is required to establish an advisory management council to consist of representatives from the Council on Environmental Quality, the Office of Management and Budget, and the Office of Federal High-Performance Green Buildings in the General Services Administration. Finally, this section authorizes \$36 million for each of FYs 2020 through 2030.

COST AND BUDGETARY CONSIDERATIONS

The Congressional Budget Office estimate of the costs of this measure has been requested but was not received at the time the report was filed. When the Congressional Budget Office completes its cost estimate, it will be posted on the internet at www.cbo.gov.

REGULATORY IMPACT EVALUATION

In compliance with paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee makes the following evaluation of the regulatory impact which would be incurred in carrying out S. 1857. The bill is not a regulatory measure in the sense of imposing Government-established standards or significant economic responsibilities on private individuals and businesses.

No personal information would be collected in administering the program. Therefore, there would be no impact on personal privacy.

Little, if any, additional paperwork would result from the enactment of S. 1857, as ordered reported.

CONGRESSIONALLY DIRECTED SPENDING

S. 1857, as ordered reported, does not contain any congressionally directed spending items, limited tax benefits, or limited tariff benefits as defined in rule XLIV of the Standing Rules of the Senate.

EXECUTIVE COMMUNICATIONS

The testimony provided by the Department of Energy at the July 9, 2019, hearing on S. 1857 follows:

TESTIMONY OF THE HONORABLE BRUCE J. WALKER, ASSISTANT SECRETARY, OFFICE OF ELECTRICITY U.S. DEPARTMENT OF ENERGY

INTRODUCTION

Chairman Cassidy, Ranking Member Heinrich, and Members of the Subcommittee, it is an honor and a privilege to serve at the Department of Energy (DOE or the Department), as Assistant Secretary for the Office of Electricity. DOE is charged with, among other important responsibilities, providing our Nation with premier energy research and development (R&D) activities. The work being conducted by DOE is setting the course for various advancements in the energy field and beyond. Issues like energy storage, improving energy efficiency, creating breakthroughs in how we extract and utilize our Nation's

fossil fuels, and Artificial Intelligence are just some of the important areas of DOE research. These are also the topics being covered at today's hearing.

ENERGY EFFICIENCY

EERE is, among other strategic goals, aiming to improve the energy efficiency of our nation's homes, buildings, and industries. EERE has set milestones for providing energy savings of 25 percent—50 percent by 2020–2030. By developing new materials, technologies, and processes for American homes, buildings, and industry, EERE will implement threshold energy performance standards, improve building energy codes, and support home weatherization.

S. 1857—Federal Energy and Water Management Performance Act of 2019

The Federal Energy and Water Management Performance Act of 2019 is structured into two key areas: establishing energy and water performance requirements for Federal buildings, with an increased emphasis on water management activities; and codifying the Federal Energy Management Program (FEMP) and its activities and authorities which are currently directed to the Secretary by statute and delegated to FEMP by the Secretary. Given its complexity, the Department continues to review this bill and believes that the Secretary should retain authority over the program.

CONCLUSION

Thank you again for the opportunity to testify today on behalf of DOE. The Department appreciates the ongoing bipartisan efforts to address our nation's energy challenges, and looks forward to working with the Committee on the legislation on today's agenda and any future legislation.

CHANGES IN EXISTING LAW

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, the changes in existing law made by the original bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman):

NATIONAL ENERGY CONSERVATION POLICY ACT

Public Law 95–619, as amended

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TITLE I—GENERAL PROVISIONS

SEC. 101. SHORT TITLE AND TABLE OF CONTENTS.

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(b) TABLE OF CONTENTS.—

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TITLE V—FEDERAL ENERGY INITIATIVES

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PART 3—FEDERAL ENERGY MANAGEMENT

- Sec. 541. Findings.
- Sec. 542. Policy.
- [Sec. 543. Purpose.]**
- Sec. 543. Energy and water management requirements.*
- Sec. 544. Definitions.
- Sec. 545. Establishment and use of life cycle cost methods.
- Sec. 546. Energy performance targets for Federal buildings.
- Sec. 547. Energy audits and retrofitting of existing Federal buildings.
- Sec. 548. Leased Federal buildings.
- Sec. 549. Budget treatment of energy conserving improvements by Federal agencies.
- Sec. 550. Reports.
- Sec. 551. Authorization of appropriations.

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TITLE V—FEDERAL ENERGY INITIATIVES

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PART 3—FEDERAL ENERGY MANAGEMENT

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SECTION 543. ENERGY AND WATER MANAGEMENT REQUIREMENTS.

(a) Energy AND WATER PERFORMANCE REQUIREMENT FOR FEDERAL BUILDINGS.—[(1) Subject to paragraph (2), each agency shall apply energy conservation measures to, and shall improve the design for the construction of, the Federal buildings of the agency (including each industrial or laboratory facility) so that the energy consumption per gross square foot of the Federal buildings of the agency in fiscal years 2006 through 2015 is reduced, as compared with the energy consumption per gross square foot of the Federal buildings of the agency in fiscal year 2003, by the percentage specified in the following table:

Fiscal Year	Percentage Reduction
2006	2
2007	4
2008	9
2009	12
2010	15
2011	18
2012	21
2013	24
2014	27
2015	30]

(1) *IN GENERAL.*—Subject to paragraph (2), the head of each Federal agency shall—

(A) for each of fiscal years 2020 through 2030, reduce average building energy intensity (as measured in British thermal units per gross square foot) at facilities of the agency by 2.5 percent each fiscal year relative to the average building energy intensity of the facilities of the agency in fiscal year 2018;

(B) for each of fiscal years 2020 through 2030, improve water use efficiency and management, including stormwater management, at facilities of the agency by reducing agency potable water consumption intensity—

(i) by 54 percent by fiscal year 2030, relative to the water consumption of the agency in fiscal year 2007, through reductions of 2 percent each fiscal year (as measured in gallons per gross square foot);

(ii) by reducing the industrial, landscaping, and agricultural water consumption of the agency, as compared to a baseline of that consumption by the agency in fiscal year 2010, through reductions of 2 percent each fiscal year (as measured in gallons); and

(iii) by installing appropriate infrastructure features on federally owned property to improve stormwater and waste-water management; and

(C) to the maximum extent practicable, in carrying out subparagraphs (A) and (B), take measures that are life cycle cost effective (as defined in subsection (f)(1)).

【(2) **An agency**】 (2) *ENERGY AND WATER INTENSIVE BUILDING EXCLUSION.*—An agency may exclude from the requirements of paragraph (1) any building, and the associated energy and water consumption and gross square footage, in which energy and water intensive activities are carried out. Each agency shall identify and list in each report made under section 548(a) the buildings designated by it for such exclusion.

【(3) Not later than December 31, 2014, the Secretary shall review the results of the implementation of the energy performance requirement established under paragraph (1) and submit to Congress recommendations concerning energy performance requirements for fiscal years 2016 through 2025.】

(3) *RECOMMENDATIONS.*—Not later than December 31, 2029, the Secretary shall—

(A) review the results of the implementation of the energy and water performance requirements established under paragraph (1); and

(B) submit to Congress recommendations concerning energy and water performance requirements for fiscal years 2031 through 2040.

(b) *ENERGY AND WATER MANAGEMENT REQUIREMENT FOR FEDERAL AGENCIES.*—【(1) Not later than January 1, 2005, each agency shall, to the maximum extent practicable, install in Federal buildings owned by the United States all energy and water conservation measures with payback periods of less than 10 years, as determined by using the methods and procedures developed pursuant to section 544.】

(1) *IN GENERAL.*—Each agency shall—

(A) not later than October 1, 2019, to the maximum extent practicable, begin installing in Federal buildings owned by the United States all energy and water conservation measures determined by the Secretary to be life cycle cost effective (as defined in subsection (f)(1)); and

(B) complete the installation described in subparagraph (A) as soon as practicable after the date referred to in that subparagraph.

(2) The Secretary may waive the requirements of this subsection for any agency for such periods as the Secretary may determine if the Secretary finds that the agency is taking all practicable steps to meet the requirements and that the requirements of this subsection will pose an unacceptable burden upon the agency. If the Secretary waives the requirements of this subsection, the Secretary shall, as part of the report required under section 548(b), notify the Congress in writing with an explanation and a justification of the reasons for such waiver.

(3) This subsection shall not apply to an agency's facilities that generate or transmit electric energy or to the uranium enrichment facilities operated by the Department of Energy.

(4) An agency may participate in the Environmental Protection Agency's "Green Lights" program for purposes of receiving technical assistance in complying with the requirements of this section.

(c) EXCLUSIONS.—(1)(A) **[An agency]** *The head of each agency* may exclude, from the energy or water performance requirement for a fiscal year established under subsection (a) of this section and the energy or water management requirement established under subsection (b) of this section, any Federal building or collection of Federal buildings, if the head of the agency finds that—

(i) compliance with those requirements would be impracticable;

(ii) the agency has completed and submitted all federally required energy management reports;

(iii) the agency has achieved compliance with the energy efficiency requirements of this chapter, the Energy Policy Act of 1992, Executive orders, and other Federal law; and

(iv) the agency has implemented all practicable, life cycle cost-effective projects with respect to the Federal building or collection of Federal buildings to be excluded.

(B) A finding of impracticability under subparagraph (A)(i) shall be based on—

(i) the energy or water intensiveness of activities carried out in the Federal building or collection of Federal buildings; or

(ii) the fact that the Federal building or collection of Federal buildings is used in the performance of a national security function.

(2) Each agency shall identify and list, in each report made under section 548(a), the Federal buildings designated by it for such exclusion. The Secretary shall review such findings for consistency with the standards for exclusion set forth in paragraph (1), and may within 90 days after receipt of the findings, reverse the exclusion. In the case of any such reversal, the agency shall comply

with the requirements of subsections (a) and (b)(1) of this section for the building concerned.

(3) Not later than 180 days after the date of enactment of this paragraph, the Secretary shall issue guidelines that establish criteria for exclusions under paragraph (1).

(d) IMPLEMENTATION STEPS.—The Secretary shall consult with the Secretary of Defense and the Administrator of General Services in developing guidelines for the implementation of this part. To meet the requirements of this section, each agency shall—

(1) prepare and submit to the Secretary, not later than December 31, 1993, a plan describing how the agency intends to meet such requirements, including how it will—

(A) designate personnel primarily responsible for achieving such requirements;

(B) identify high priority projects through calculation of payback periods;

(C) take maximum advantage of contracts authorized under subchapter VII of this chapter, of financial incentives and other services provided by utilities for efficiency investment, and of other forms of financing to reduce the direct costs to the Government; and

(D) otherwise implement this part;

(2) perform energy *and water* surveys of its Federal buildings to the extent necessary and update such surveys as needed, incorporating any relevant information obtained from the survey conducted pursuant to section 550;

(3) using such surveys, determine the cost and payback period of energy and water conservation measures likely to achieve the requirements of this section;

(4) install energy and water conservation measures that will achieve the requirements of this section through the methods and procedures established pursuant to section 544; and

(5) ensure that the operation and maintenance procedures applied under this section are continued.

(e) METERING OF ENERGY AND WATER USE.—

(1) DEADLINE.—By **October 1, 2012** *October 1, 2020*, in accordance with guidelines established by the Secretary under paragraph (2), all Federal buildings shall, for the purposes of efficient use of energy *and water* and reduction in the cost of electricity *and water* used in such buildings, be metered. Each agency shall use, to the maximum extent practicable, advanced meters or advanced metering devices that provide data at least daily and that measure at least hourly consumption of electricity *and water* in the Federal buildings of the agency. Not later than October 1, 2016, each agency shall provide for equivalent metering of natural gas and steam, in accordance with guidelines established by the Secretary under paragraph (2). Such data shall be incorporated into existing Federal energy *and water* tracking systems and made available to Federal facility managers.

(2) GUIDELINES.—

(A) IN GENERAL.—Not later than 180 days after the date of enactment of this subsection, the Secretary, in consultation with the Department of Defense, the General Services Administration, representatives from the metering indus-

try, utility industry, energy services industry, energy efficiency industry, energy efficiency advocacy organizations, national laboratories, universities, [and] Federal facility managers, *and any other person the Secretary deems necessary*, shall establish guidelines for agencies to carry out paragraph (1).

(B) REQUIREMENTS FOR GUIDELINES.—The guidelines shall—

(i) take into consideration—

(I) the cost of metering and the reduced cost of operation and maintenance expected to result from metering;

(II) the extent to which metering is expected to result in increased potential for energy *and water* management, increased potential for energy *and water* savings and energy and water efficiency improvement, and cost and energy *and water* savings due to utility contract aggregation; and

(III) the measurement and verification protocols of the Department of Energy;

(ii) include recommendations concerning the amount of funds and the number of trained personnel necessary to gather and use the metering information to track and reduce energy *and water* use;

(iii) establish priorities for types and locations of buildings to be metered based on cost-effectiveness and a schedule of one or more dates, not later than 1 year after the date of issuance of the guidelines, on which the requirements specified in paragraph (1) shall take effect; and

(iv) establish exclusions from the requirements specified in paragraph (1) based on the de minimis quantity of energy *and water* use of a Federal building, industrial process, or structure.

(C) UPDATE.—*Not later than 180 days after the date of enactment of this subparagraph, the Secretary shall update the guidelines established under subparagraph (A) to take into account water efficiency requirements under this section.*

(3) PLAN.—Not later than 180 days after the date on which guidelines are [established under paragraph (2)] *updated under paragraph (2)(C)*, in a report submitted by the agency under section 548(a), each agency shall submit to the Secretary a plan describing the manner in which the agency will implement the requirements of paragraph (1), including

(A) how the agency will designate personnel primarily responsible for achieving the requirements; and

(B) a demonstration by the agency, complete with documentation, of any finding that advanced meters or advanced metering devices (as those terms are used in paragraph (1)), are not practicable.

(4) BEST PRACTICES REPORT.—

(A) IN GENERAL.—Not later than 180 days after the enactment of [this paragraph] *the Federal Energy and Water Management Performance Act of 2019*, the Secretary of En-

ergy, in consultation with the Secretary of Defense and the Administrator of General Services, shall develop, and issue a report on, best practices for the use of advanced metering of energy *and water* use in Federal facilities, buildings, and equipment by Federal agencies.

(B) COMPONENTS.—The report shall include, at a minimum—

(i) summaries and analysis of the reports by agencies under paragraph (3);

(ii) recommendations on standard requirements or guidelines for automated energy *and water* management systems, including—

(I) potential common communications standards to allow data sharing and reporting;

(II) means of facilitating continuous commissioning of buildings and evidence-based maintenance of buildings and building systems; and

(III) standards for sufficient levels of security and protection against cyber threats to ensure systems cannot be controlled by unauthorized persons; and

(iii) an analysis of—

(I) the types of advanced metering and monitoring systems being piloted, tested, or installed in Federal buildings; and

(II) existing techniques used within the private sector or other non-Federal government buildings.

(f) USE OF ENERGY AND WATER EFFICIENCY MEASURES IN FEDERAL BUILDINGS.—

(1) DEFINITIONS.—In this subsection:

(A) COMMISSIONING.—The term “commissioning”, with respect to a facility, means a systematic process—

(i) of ensuring, using appropriate verification and documentation, during the period beginning on the initial day of the design phase of the facility and ending not earlier than 1 year after the date of completion of construction of the facility, that all facility systems perform interactively in accordance with—

(I) the design documentation and intent of the facility; and

(II) the operational needs of the owner of the facility, including preparation of operation personnel; and

(ii) the primary goal of which is to ensure fully functional systems that can be properly operated and maintained during the useful life of the facility.

(B) ENERGY MANAGER.—

(i) IN GENERAL.—The term “energy manager”, with respect to a facility, means the individual who is responsible for—

(I) ensuring compliance with this subsection by the facility; and

(II) reducing energy *or water* use at the facility.

(ii) INCLUSIONS.—The term “energy manager” may include—

- (I) a contractor of a facility;
- (II) a part-time employee of a facility; and
- (III) an individual who is responsible for multiple facilities.

(C) FACILITY.—

(i) IN GENERAL.—The term “facility” means any building, installation, structure, or other property (including any applicable fixtures) owned or operated by, or constructed or manufactured and leased to, the Federal Government.

(ii) INCLUSIONS.—The term “facility” includes—

(I) a group of facilities at a single location or multiple locations managed as an integrated operation; and

(II) contractor-operated facilities owned by the Federal Government.

(iii) EXCLUSIONS.—The term “facility” does not include any land or site for which the cost of utilities is not paid by the Federal Government.

(D) LIFE CYCLE COST-EFFECTIVE.—The term “life cycle cost-effective”, with respect to a measure, means a measure, the estimated savings of which exceed the estimated costs over the lifespan of the measure, as determined in accordance with section 544.

(E) PAYBACK PERIOD.—

(i) IN GENERAL.—Subject to clause (ii), the term “payback period”, with respect to a measure, means a value equal to the quotient obtained by dividing—

(I) the estimated initial implementation cost of the measure (other than financing costs); by

(II) the annual cost savings resulting from the measure, including—

(aa) net savings in estimated energy and water costs; and

(bb) operations, maintenance, repair, replacement, and other direct costs.

(ii) MODIFICATIONS AND EXCEPTIONS.—The Secretary, in guidelines issued pursuant to paragraph (6), may make such modifications and provide such exceptions to the calculation of the payback period of a measure as the Secretary determines to be appropriate to achieve the purposes of this Act.

(F) RECOMMISSIONING.—The term “recommissioning” means a process—

(i) of commissioning a facility or system beyond the project development and warranty phases of the facility or system; and

(ii) the primary goal of which is to ensure optimum performance of a facility, in accordance with design or current operating needs, over the useful life of the facility, while meeting building occupancy requirements.

(G) RETROCOMMISSIONING.—The term “retrocommissioning” means a process of commissioning a facility or system that was not commissioned at the time of construction of the facility or system.

(2) FACILITY ENERGY MANAGERS.—

(A) IN GENERAL.—Each Federal agency shall designate an energy manager responsible for implementing this subsection and reducing energy *and water* use at each facility that meets criteria under subparagraph (B).

(B) COVERED FACILITIES.—The Secretary shall develop criteria, after consultation with affected agencies, [energy] efficiency advocates, and energy and utility service providers, that cover, at a minimum, Federal facilities, including central utility plants and distribution systems and other energy intensive operations, that constitute at least 75 percent of facility energy *or water* use at each agency.

(3) ENERGY AND WATER EVALUATIONS.—

(A) EVALUATIONS.—Effective beginning on the date that is 180 days after the date of enactment of this subsection, and annually thereafter, energy managers shall complete, for each calendar year, a comprehensive energy and water evaluation for approximately 25 percent of the facilities of each agency that meet the criteria under paragraph (2)(B) in a manner that ensures that an evaluation of each such facility is completed at least once every 4 years.

(B) RECOMMISSIONING AND RETROCOMMISSIONING.—As part of the evaluation under subparagraph (A), the energy manager shall identify and assess recommissioning measures (or, if the facility has never been commissioned, retrocommissioning measures) for each such facility.

(4) IMPLEMENTATION OF IDENTIFIED ENERGY AND WATER EFFICIENCY MEASURES.—Not later than 2 years after the completion of each evaluation under paragraph (3), each energy manager may—

(A) implement any energy- or water-saving measure that the Federal agency identified in the evaluation conducted under paragraph (3) that is life cycle cost-effective; and

(B) bundle individual measures of varying paybacks together into combined projects.

(5) FOLLOW-UP ON IMPLEMENTED MEASURES.—For each measure implemented under paragraph (4), each energy manager shall ensure that—

(A) equipment, including building and equipment controls, is fully commissioned at acceptance to be operating at design specifications;

(B) a plan for appropriate operations, maintenance, and repair of the equipment is in place at acceptance and is followed;

(C) equipment and system performance is measured during its entire life to ensure proper operations, maintenance, and repair; and

(D) energy and water savings are measured and verified.

(6) GUIDELINES.—

(A) IN GENERAL.—The Secretary shall issue guidelines and necessary criteria that each Federal agency shall follow for implementation of—

(i) paragraphs (2) and (3) not later than 180 days after the date of enactment of this subsection; and

(ii) paragraphs (4) and (5) not later than 1 year after the date of enactment of this subsection.

(B) RELATIONSHIP TO FUNDING SOURCE.—The guidelines issued by the Secretary under subparagraph (A) shall be appropriate and uniform for measures funded with each type of funding made available under paragraph (10), but may distinguish between different types of measures¹ project size, and other criteria the Secretary determines are relevant.

(7) WEB-BASED CERTIFICATION.—

(A) IN GENERAL.—For each facility that meets the criteria established by the Secretary under paragraph (2)(B), the energy manager shall use the web-based tracking system under subparagraph (B)—

(i) to certify compliance with the requirements for—

(I) energy and water evaluations under paragraph (3);

(II) implementation of identified energy and water measures under paragraph (4); and

(III) follow-up on implemented measures under paragraph (5); and

(ii) to publish energy and water consumption data on an individual facility basis.

(B) DEPLOYMENT.—

(i) IN GENERAL.—Not later than 1 year after the date of enactment of this subsection, the Secretary shall develop and deploy a web-based tracking system required under this paragraph in a manner that tracks, at a minimum—

(I) the covered facilities;

(II) the status of meeting the requirements specified in subparagraph (A);

(III) the estimated cost and savings for measures required to be implemented in a facility;

(IV) the measured savings and persistence of savings for implemented measures; and

(V) the benchmarking information disclosed under paragraph (8)(C).

(ii) EASE OF COMPLIANCE.—The Secretary shall ensure that energy manager compliance with the requirements in this paragraph, to the maximum extent practicable—

(I) can be accomplished with the use of streamlined procedures and templates that minimize the time demands on Federal employees; and

(II) is coordinated with other applicable energy *and water* reporting requirements.

(C) AVAILABILITY.—

(i) IN GENERAL.—Subject to clause (ii), the Secretary shall make the web-based tracking system required under this paragraph available to Congress, other Federal agencies, and the public through the Internet.

(ii) EXEMPTIONS.—At the request of a Federal agency, the Secretary may exempt specific data for specific

facilities from disclosure under clause (i) for national security purposes.

(8) BENCHMARKING OF FEDERAL FACILITIES.—

(A) IN GENERAL.—The energy manager shall enter energy use data for each metered building that is (or is a part of) a facility that meets the criteria established by the Secretary under paragraph (2)(B) into a building energy use benchmarking system, such as the Energy Star Portfolio Manager.

(B) SYSTEM AND GUIDANCE.—Not later than 1 year after December 19, 2007, the Secretary shall—

(i) select or develop the building energy use benchmarking system required under this paragraph for each type of building; and

(ii) issue guidance for use of the system.

(C) PUBLIC DISCLOSURE.—Each energy manager shall post the information entered into, or generated by, a benchmarking system under this subsection, on the web-based tracking system under paragraph (7)(B). The energy manager shall update such information each year, and shall include in such reporting previous years' information to allow changes in building performance to be tracked over time.

(9) FEDERAL AGENCY SCORECARDS.—

(A) IN GENERAL.—The Director of the Office of Management and Budget shall issue semiannual scorecards for energy *and water* management activities carried out by each Federal agency that includes—

(i) summaries of the status of implementing the various requirements of the agency and its energy managers under this subsection; and

(ii) any other means of measuring performance that the Director considers appropriate.

(B) *Availability*.—The Director shall make the scorecards required under this paragraph available to Congress, other Federal agencies, and the public through the Internet.

(10) FUNDING AND IMPLEMENTATION.—

(A) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this subsection.

(B) FUNDING OPTIONS.—

(i) IN GENERAL.—To carry out this subsection, a Federal agency may use any combination of—

(I) appropriated funds made available under subparagraph (A); and

(II) private financing otherwise authorized under Federal law, including financing available through energy savings performance contracts or utility energy service contracts.

(ii) COMBINED FUNDING FOR SAME MEASURE.—A Federal agency may use any combination of appropriated funds and private financing described in clause (i) to carry out the same measure under this subsection.

(C) IMPLEMENTATION.—Each Federal agency may implement the requirements under this subsection itself or may contract out performance of some or all of the requirements.

(11) RULE OF CONSTRUCTION.—This subsection shall not be construed to require or to obviate any contractor savings guarantees.

(g) LARGE CAPITAL ENERGY INVESTMENTS.—

(1) IN GENERAL.—Each Federal agency shall ensure that any large capital energy investment in an existing building that is not a major renovation but involves replacement of installed equipment (such as heating and cooling systems), or involves renovation, rehabilitation, expansion, or remodeling of existing space, employs the most energy efficient designs, systems, equipment, and controls that are life-cycle cost effective.

(2) PROCESS FOR REVIEW OF INVESTMENT DECISIONS.—Not later than 180 days after December 19, 2007, each Federal agency shall—

(A) develop a process for reviewing each decision made on a large capital energy investment described in paragraph (1) to ensure that the requirements of this subsection are met; and

(B) report to the Director of the Office of Management and Budget on the process established.

(3) COMPLIANCE REPORT.—Not later than 1 year after the date of enactment of this subsection, the Director of the Office of Management and Budget shall evaluate and report to Congress on the compliance of each agency with this subsection.

(h) FEDERAL ENERGY MANAGEMENT PROGRAM.—

(1) IN GENERAL.—*The Secretary shall establish a program, to be known as the “Federal Energy Management Program” (referred to in this subsection as the “Program”), to facilitate the implementation by the Federal Government of cost-effective energy and water management and energy-related investment practices—*

(A) to coordinate and strengthen Federal energy and water resilience; and

(B) to promote environmental stewardship.

(2) PROGRAM ACTIVITIES.—

(A) STRATEGIC PLANNING AND TECHNICAL ASSISTANCE.—*Under the Program, the Federal Director appointed under paragraph (3)(A) (referred to in this subsection as the “Federal Director”) shall—*

(i) provide technical assistance and project implementation support and guidance to Federal agencies to identify, implement, procure, and track energy and water conservation measures required under this Act and under other provisions of law (including regulations);

(ii) in coordination with the Administrator of the General Services Administration, establish appropriate procedures, methods, and best practices for use by Federal agencies to select, monitor, and terminate contracts entered into under section 546 with utilities;

(iii) *in coordination with the Federal Acquisition Regulatory Council, establish appropriate procedures, methods, and best practices for use by Federal agencies to select, monitor, and terminate contracts entered into under section 801 with energy service contractors and utilities;*

(iv) *establish and maintain internet-based information resources and project tracking systems and tools for energy and water management;*

(v) *coordinate comprehensive and strategic approaches to energy and water resilience planning for Federal agencies; and*

(vi) *establish a recognition program for Federal achievement in energy and water management, energy-related investment practices, environmental stewardship, and other relevant areas, through events such as individual recognition award ceremonies and public announcements.*

(B) ENERGY AND WATER MANAGEMENT AND REPORTING.—
Under the Program, the Federal Director shall—

(i) *track and report on the progress of Federal agencies in meeting the requirements of the agency under this section;*

(ii) *make publicly available annual Federal agency performance data required under—*

(I) *this section and sections 544 through 548;*
and

(II) *section 203 of the Energy Policy Act of 2005 (42 U.S.C. 15852);*

(iii)(I) *collect energy and water use and consumption data from each Federal agency; and*

(II) *based on that data, submit to each Federal agency a report that will facilitate the energy and water management, energy-related investment practices, and environmental stewardship of the agency in support of Federal goals under this Act and under other provisions of law (including regulations);*

(iv)(I) *establish new Federal building energy efficiency standards; and*

(II) *in consultation with the Administrator of the General Services Administration, acting through the head of the Office of High-Performance Green Buildings, establish and implement Federal building sustainable design principles for Federal facilities;*

(v) *manage the implementation of Federal building energy efficiency standards established under section 305 of the Energy Conservation and Production Act (42 U.S.C. 6834); and*

(vi) *designate products that meet the highest energy conservation standards for categories not covered under the Energy Star program established under section 324A of the Energy Policy and Conservation Act (42 U.S.C. 6294a).*

(C) *FEDERAL POLICY COORDINATION.*—Under the Program, the Federal Director shall—

(i) develop and implement accredited training consistent with existing Federal programs and activities—

(I) relating to energy and water use, management, and resilience in Federal buildings, energy-related investment practices, and environmental stewardship; and

(II) that includes in-person training, internet-based programs, and national in-person training events;

(ii) coordinate and facilitate energy and water management, energy-related investment practices, and environmental stewardship through the Interagency Energy Management Task Force established under section 547; and

(iii) report on the implementation of the priorities of the President, including Executive orders, relating to energy and water use in Federal buildings, in coordination with—

(I) the Office of Management and Budget;

(II) the Council on Environmental Quality; and

(III) any other entity, as considered necessary by the Federal Director.

(D) *FACILITY AND FLEET OPTIMIZATION.*—Under the Program, the Federal Director shall develop guidance, supply assistance to, and track the progress of Federal agencies—

(i) in conducting portfolio-wide facility energy and water resilience planning and project integration;

(ii) in building new construction and major renovations to meet the sustainable design and energy and water performance standards required under this section;

(iii) in developing guidelines for—

(I) building commissioning; and

(II) facility operations and maintenance; and

(iv) in coordination with the Administrator of the General Services Administration, in meeting statutory and agency goals for Federal fleet vehicles.

(3) *FEDERAL DIRECTOR.*—

(A) *APPOINTMENT.*—The Secretary shall appoint an individual to serve as Federal Director of the Program, which shall be a career position in the Senior Executive service, to manage the Program and carry out the activities of the Program described in paragraph (2).

(B) *DUTIES.*—The Federal Director shall—

(i) oversee, manage, and administer the Program;

(ii) provide leadership in energy and water management, energy-related investment practices, and environmental stewardship through coordination with Federal agencies and other appropriate entities; and

(iii) establish a management council to advise the Federal Director that shall—

(I) convene not less frequently than once every quarter; and

(II) consist of representatives from—
 (aa) the Council on Environmental Quality;
 (bb) the Office of Management and Budget;
 and
 (cc) the Office of Federal High-Performance
 Green Buildings in the General Services Ad-
 ministration.

(4) SAVINGS CLAUSE.—Nothing in this subsection impedes, supersedes, or alters the authority of the Secretary to carry out the remainder of this section or section 305 of the Energy Conservation and Production Act (42 U.S.C. 6834).

(5) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this subsection \$36,000,000 for each of fiscal years 2020 through 2030.

