DISCUSSION DRAFT

Calendar No. _____

111TH CONGRESS
1ST SESSION

S. _____

[Report No. 111–_____]

To promote clean energy technology development, enhanced energy efficiency, improved energy security, and energy innovation and workforce development, and for other purposes.

IN THE SENATE OF THE UNITED STATES

Mr. BINGAMAN from the Committee on Energy and Natural Resources reported the following original bill; which was read twice and placed on the calendar

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A BILL

To promote clean energy technology development, enhanced energy efficiency, improved energy security, and energy innovation and workforce development, 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 ''American Clean Energy Leadership Act of 2009''.

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

SEC. 2. DEFINITION OF SECRETARY.

In this Act, the term ''Secretary'' means the Secretary of Energy.

TITLE I—CLEAN ENERGY TECHNOLOGY DEPLOYMENT

Subtitle A—Clean Energy Financing

SEC. 101. SHORT TITLE.

This subtitle may be cited as the ''21st Century Energy Technology Deployment Act''.

SEC. 102. PURPOSE.

The purpose of this subtitle is to promote the domestic development and deployment of clean energy technologies required for the 21st century through the improvement of existing programs and the establishment of a self-sustaining Clean Energy Deployment Administration that will provide for an attractive investment environment through partnership with and support of the private capital market in order to promote access to affordable financing for accelerated and widespread deployment of—

(1) clean energy technologies;

(2) advanced or enabling energy infrastructure technologies;

(3) energy efficiency technologies in residential, commercial, and industrial applications, including end-use efficiency in buildings; and

(4) manufacturing technologies for any of the technologies or applications described in this section.

SEC. 103. DEFINITIONS.

In this subtitle:

(1) ADMINISTRATION.—The term ''Administration'' means the Clean Energy Deployment Administration established by section 106.

(2) ADMINISTRATOR.—The term ''Administrator'' means the Administrator of the Administration.

(3) ADVISORY COUNCIL.—The term ''Advisory Council'' means the Energy Technology Advisory Council of the Administration.

(4) BREAKTHROUGH TECHNOLOGY.—The term ''breakthrough technology'' means a clean energy technology that—

(A) presents a significant opportunity to advance the goals developed under section 105, as assessed under the methodology established by the Advisory Council; but

(B) has generally not been considered a commercially ready technology as a result of high perceived technology risk or other similar factors.

(5) CLEAN ENERGY TECHNOLOGY.—The term ''clean energy technology'' means a technology related to the production, use, transmission, storage, control, or conservation of energy that will—

(A) reduce the need for additional energy supplies by using existing energy supplies with greater efficiency or by transmitting, distributing, or transporting energy with greater effectiveness through the infrastructure of the United States;

(B) diversify the sources of energy supply of the United States to strengthen energy security and to increase supplies with a favorable balance of environmental effects if the entire technology system is considered; or

(C) contribute to a stabilization of atmospheric greenhouse gas concentrations through reduction, avoidance, or sequestration of energy-related emissions.

(6) COST.—The term ''cost'' has the meaning given the term in section 502 of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a).

(7) DIRECT LOAN.—The term ''direct loan'' has the meaning given the term in section 502 of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a).

(8) FUND.—The term ''Fund'' means the Clean Energy Investment Fund established by section 104(a).

(9) LOAN GUARANTEE.—The term ''loan guarantee'' has the meaning given the term in section 502 of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a).

(10) NATIONAL LABORATORY.—The term ''National Laboratory'' has the meaning given the term in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801).

(11) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

(12) SECURITY.—The term ''security'' has the meaning given the term in section 2 of the Securities Act of 1933 (15 U.S.C. 77b).

(13) STATE.—The term ''State'' means—

(A) a State;

(B) the District of Columbia;

(C) the Commonwealth of Puerto Rico; and

(D) any other territory or possession of the United States.

(14) TECHNOLOGY RISK.—The term ''technology risk'' means the risks during construction or

operation associated with the design, development, and deployment of clean energy technologies (including the cost, schedule, performance, reliability and maintenance, and accounting for the perceived risk), from the perspective of commercial lenders, that may be increased as a result of the absence of adequate historical construction, operating, or performance data from commercial applications of the technology.

SEC. 104. IMPROVEMENTS TO EXISTING PROGRAMS.

(a) CLEAN ENERGY INVESTMENT FUND.—

(1) ESTABLISHMENT.—There is established in the Treasury of the United States a revolving fund, to be known as the ''Clean Energy Investment Fund'', consisting of—

(A) such amounts as have been appropriated for administrative expenses to carry out title XVII of the Energy Policy Act of 2005 (42 U.S.C. 16511 et seq.);

(B) such amounts as are deposited in the Fund under this subtitle and amendments made by this subtitle; and

(C) such sums as may be appropriated to supplement the Fund.

(2) EXPENDITURES FROM FUND.—

(A) IN GENERAL.—Notwithstanding section 1705(e) of the Energy Policy Act of 2005 (42 U.S.C. 16516(e)), amounts in the Fund shall be available to the Secretary for obligation without fiscal year limitation, to remain available until expended.

(B) ADMINISTRATIVE EXPENSES.—

(i) FEES.—Fees collected for administrative expenses shall be available without limitation to cover applicable expenses.

(ii) FUND.—To the extent that administrative expenses are not reimbursed through fees, an amount not to exceed 1.5 percent of the amounts in the Fund as of the beginning of each fiscal year shall be available to pay the administrative expenses for the fiscal year necessary to carry out title XVII of the Energy Policy Act of 2005 (42 U.S.C. 16511 et seq.).

(3) TRANSFERS OF AMOUNTS.—

(A) IN GENERAL.—The amounts required to be transferred to the Fund under this subsection shall be transferred at least monthly from the general fund of the Treasury to the

Fund on the basis of estimates made by the Secretary of the Treasury.

(B) CASH FLOWS.—Cash flows associated with costs of the Fund described in section 502(5)(B) of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a(5)(B)) shall be transferred to appropriate credit accounts.

(C) ADJUSTMENTS.—Proper adjustment shall be made in amounts subsequently transferred to the extent prior estimates were in excess of or less than the amounts required to be transferred.

(b) REVISIONS TO LOAN GUARANTEE PROGRAM AUTHORITY.—

(1) DEFINITION OF COMMERCIAL TECHNOLOGY.—Section 1701(1) of the Energy Policy Act of 2005 (42 U.S.C. 16511(1)) is amended by striking subparagraph (B) and inserting the following:

''(B) EXCLUSION.—The term 'commercial technology' does not include a technology if the sole use of the technology is in connection with—

''(i) a demonstration project; or

''(ii) a project for which the Secretary approved a loan guarantee.''.

(2) SPECIFIC APPROPRIATION OR CONTRIBUTION.—Section 1702 of the Energy Policy Act of 2005 (42 U.S.C. 16512) is amended by striking subsection (b) and inserting the following:

''(b) SPECIFIC APPROPRIATION OR CONTRIBUTION.—

''(1) IN GENERAL.—No guarantee shall be made unless sufficient amounts to account for the cost are available—

''(A) in unobligated balances within the Clean Energy Investment Fund established under section 104(a) of the 21st Century Energy Technology Deployment Act;

''(B) as a payment from the borrower and the payment is deposited in the Clean Energy Investment Fund; or

''(C) in any combination of balances and payments described in subparagraphs (A) and (B), respectively.

''(2) LIMITATION.—The source of payments received from a borrower under paragraph (1)(B) shall not be a loan or other debt obligation that is made or guaranteed by the Federal Government.

''(3) RELATION TO OTHER LAWS.—Section 504(b) of the Federal Credit Reform Act of 1990 (2

U.S.C. 661c(b)) shall not apply to a loan or loan guarantee under this section.''.

(3) SUBROGATION.—Section 1702(g)(2) of the Energy Policy Act of 2005 (42 U.S.C. 16512(g)(2)) is amended by striking subparagraphs (B) and (C) and inserting the following:

''(B) SUPERIORITY OF RIGHTS.—Except as provided in subparagraph (C), the rights of the Secretary, with respect to any property acquired pursuant to a guarantee or related agreements, shall be superior to the rights of any other person with respect to the property.

''(C) TERMS AND CONDITIONS.—A guarantee agreement shall include such detailed terms and conditions as the Secretary determines appropriate to—

''(i) protect the interests of the United States in the case of default;

''(ii) have available all the patents and technology necessary for any person selected, including the Secretary, to complete and operate the project;

''(iii) provide for sharing the proceeds received from the sale of project assets with other creditors or control the disposi-

tion of project assets if necessary to protect the interests of the United States in the case of default; and

''(iv) provide such lien priority in project assets as necessary to protect the interests of the United States in the case of a default.''.

(4) FEES.—Section 1702(h) of the Energy Policy Act of 2005 (42 U.S.C. 16512(h)) is amended by striking paragraph (2) and inserting the following:

''(2) AVAILABILITY.—Fees collected under this subsection shall—

''(A) be deposited by the Secretary in the Clean Energy Investment Fund established under section 104(a) of the 21st Century Energy Technology Deployment Act; and

''(B) remain available to the Secretary for expenditure, without further appropriation or fiscal year limitation, for administrative expenses incurred in carrying out this title.

''(3) ADJUSTMENT.—The Secretary may adjust the amount or manner of collection of fees under this title as the Secretary determines is necessary to promote, to the maximum extent practicable, eligible projects under this title.

''(4) EXCESS FEES.—Of the amount of a fee imposed on an applicant at the conditional commitment stage, 75 percent of the amount shall be refundable to the applicant if there is no financial close on the application, unless the Secretary determines that the administrative costs of the Department have exceeded the amount retained.

''(5) CREDIT REPORT.—If, in the opinion of the Secretary, the credit rating of an applicant is not relevant to the determination of whether or not support will be provided and the applicant agrees to accept the credit rating assigned to the applicant by the Secretary, the Secretary may waive any requirement to provide a third-party credit report.''.

(5) PROCESSING.—Section 1702 of the Energy Policy Act of 2005 (42 U.S.C. 16512) is amended by adding at the end the following:

''(k) ACCELERATED REVIEWS.—To the maximum extent practicable and consistent with sound business practices, the Secretary shall seek to conduct necessary reviews concurrently of an application for a loan guarantee under this title such that decisions as to whether to enter into a commitment on the application can be issued not later than 180 days after the date of submission of a completed application.''.

(6) WAGE RATES.—Section 1705(c) of the Energy Policy Act of 2005 (42 U.S.C. 16516(c)) is amended by striking ''support under this section'' and inserting ''support under this title''.

SEC. 105. ENERGY TECHNOLOGY DEPLOYMENT GOALS.

(a) GOALS.—Not later than 1 year after the date of enactment of this Act, the Secretary, after consultation with the Advisory Council, shall develop and publish for review and comment in the Federal Register near-, medium-, and long-term goals (including numerical performance targets at appropriate intervals to measure progress toward those goals) for the deployment of clean energy technologies through the credit support programs established by this subtitle (including an amendment made by this subtitle) to promote—

(1) sufficient electric generating capacity using clean energy technologies to meet the energy needs of the United States;

(2) clean energy technologies in vehicles and fuels that will substantially reduce the reliance of the United States on foreign sources of energy and insulate consumers from the volatility of world energy markets;

(3) a domestic commercialization and manufacturing capacity that will establish the United States

as a world leader in clean energy technologies across multiple sectors;

(4) installation of sufficient infrastructure to allow for the cost-effective deployment of clean energy technologies appropriate to each region of the United States;

(5) the transformation of the building stock of the United States to zero net energy consumption;

(6) the recovery, use, and prevention of waste energy;

(7) domestic manufacturing of clean energy technologies on a scale that is sufficient to achieve price parity with conventional energy sources;

(8) domestic production of commodities and materials (such as steel, chemicals, polymers, and cement) using clean energy technologies so that the United States will become a world leader in environmentally sustainable production of the commodities and materials;

(9) a robust, efficient, and interactive electricity transmission grid that will allow for the incorporation of clean energy technologies, distributed generation, and demand-response in each regional electric grid;

(10) sufficient availability of financial products to allow owners and users of residential, retail, commercial, and industrial buildings to make energy efficiency and distributed generation technology investments with reasonable payback periods; and

(11) such other goals as the Secretary, in consultation with the Advisory Council, determines to be consistent with the purposes of this subtitle.

(b) REVISIONS.—The Secretary shall revise the goals established under subsection (a), from time to time as appropriate, to account for advances in technology and changes in energy policy.

SEC. 106. CLEAN ENERGY DEPLOYMENT ADMINISTRATION.

(a) ESTABLISHMENT.—

(1) IN GENERAL.—There is established in the Department of Energy an administration to be known as the Clean Energy Deployment Administration, under the direction of the Administrator and the Board of Directors.

(2) STATUS.—

(A) IN GENERAL.—The Administration (including officers, employees, and agents of the Administration) shall not be responsible to, or subject to the authority, direction, or control of, any other officer, employee, or agent of the De-

partment of Energy other than the Secretary, acting through the Administrator.

(B) EXEMPTION FROM REORGANIZATION.—The Administration shall be exempt from the reorganization authority provided under section 643 of the Department of Energy Reorganization Act (42 U.S.C. 7253).

(C) INSPECTOR GENERAL.—Section 12 of the Inspector General Act of 1978 (5 U.S.C. App.) is amended—

(i) in paragraph (1), by inserting ''the Administrator of the Clean Energy Deployment Administration;'' after ''Export-Import Bank;''; and

(ii) in paragraph (2), by inserting ''the Clean Energy Deployment Administration,'' after ''Export-Import Bank,''.

(3) OFFICES.—

(A) PRINCIPAL OFFICE.—The Administration shall—

(i) maintain the principal office of the Administration in the District of Columbia; and

(ii) for purposes of venue in civil actions, be considered to be a resident of the District of Columbia.

(B) OTHER OFFICES.—The Administration may establish other offices in such other places as the Administration considers necessary or appropriate for the conduct of the business of the Administration.

(b) ADMINISTRATOR.—

(1) IN GENERAL.—The Administrator shall be—

(A) appointed by the President, with the advice and consent of the Senate, for a 5-year term; and

(B) compensated at the annual rate of basic pay prescribed for level II of the Executive Schedule under section 5313 of title 5, United States Code.

(2) DUTIES.—The Administrator shall—

(A) serve as the Chief Executive Officer of the Administration and Chairman of the Board;

(B) ensure that—

(i) the Administration operates in a safe and sound manner, including maintenance of adequate capital and internal con-

trols (consistent with section 404 of the Sarbanes-Oxley Act of 2002 (15 U.S.C. 7262));

(ii) the operations and activities of the Administration foster liquid, efficient, competitive, and resilient energy and energy efficiency finance markets;

(iii) the Administration carries out the purposes of this subtitle only through activities that are authorized under and consistent with this subtitle; and

(iv) the activities of the Administration and the manner in which the Administration is operated are consistent with the public interest;

(C) develop policies and procedures for the Administration that will—

(i) promote a self-sustaining portfolio of investments that will maximize the value of investments to effectively promote clean energy technologies;

(ii) promote transparency and openness in Administration operations;

(iii) afford the Administration with sufficient flexibility to meet the purposes of this subtitle;

(iv) provide for the efficient processing of applications; and

(v) promote, consistent with the purposes of this Act, the participation of private financial institutions and other sources of private capital, on commercially reasonable terms, if and to the extent the capital is available; and

(D) with the concurrence of the Board, set expected loss reserves for the support provided by the Administration consistent with section 107(a)(1)(C).

(c) BOARD OF DIRECTORS.—

(1) IN GENERAL.—The Board of Directors of the Administration shall consist of—

(A) the Secretary or the designee of the Secretary, who shall serve as an ex-officio voting member of the Board of Directors;

(B) the Administrator, who shall serve as the Chairman of the Board of Directors; and

(C) 7 additional members who shall—

(i) be appointed by the President, with the advice and consent of the Senate, for staggered 5-year terms; and

(ii) have experience in banking or financial services relevant to the operations of the Administration, including individuals with substantial experience in the development of energy projects, the electricity generation sector, the transportation sector, the manufacturing sector, and the energy efficiency sector.

(2) DUTIES.—The Board of Directors shall—

(A) oversee the operations of the Administration and ensure industry best practices are followed in all financial transactions involving the Administration;

(B) consult with the Administrator on the general policies and procedures of the Administration to ensure the interests of the taxpayers are protected;

(C) ensure the portfolio of investments are consistent with purposes of this subtitle and with the long-term financial stability of the Administration;

(D) ensure that the operations and activities of the Administration are consistent with the development of a robust private sector that can provide commercial loans or financing products; and

(E) not serve on a full-time basis, except that the Board of Directors shall meet at least quarterly to review, as appropriate, applications for credit support and set policies and procedures as necessary.

(3) REMOVAL.—An appointed member of the Board of Directors may be removed from office by the President for good cause.

(4) VACANCIES.—An appointed seat on the Board of Directors that becomes vacant shall be filled by appointment by the President, but only for the unexpired portion of the term of the vacating member.

(5) COMPENSATION OF MEMBERS.—An appointed member of the Board of Directors shall be compensated at a rate equal to the daily equivalent of the annual rate of basic pay prescribed for level III of the Executive Schedule under section 5314 of title 5, United States Code, for each day (including travel time) during which the member is engaged in

the performance of the duties of the Board of Directors.

(d) ENERGY TECHNOLOGY ADVISORY COUNCIL.—

(1) IN GENERAL.—The Administration shall have an Energy Technology Advisory Council consisting of—

(A) 5 members selected by the Secretary; and

(B) 3 members selected by the Board of Directors of the Administration.

(2) QUALIFICATIONS.—The members of the Advisory Council shall—

(A) have relevant scientific expertise; and

(B) in the case of the members selected by the Secretary under paragraph (1)(A), include representatives of—

(i) the academic community;

(ii) the private research community;

(iii) National Laboratories;

(iv) the technology or project development community; and

(v) the commercial energy financing and operations sector.

(3) DUTIES.—The Advisory Council shall—

(A) develop and publish for comment in the Federal Register a methodology for assessment of clean energy technologies that will allow the Administration to evaluate projects based on the progress likely to be achieved per-dollar invested in maximizing the attributes of the definition of clean energy technology, taking into account the extent to which support for a clean energy technology is likely to accrue subsequent benefits that are attributable to a commercial scale deployment taking place earlier than that which otherwise would have occurred without the support; and

(B) advise on the technological approaches that should be supported by the Administration to meet the technology deployment goals established by the Secretary pursuant to section 105.

(4) TERM.—

(A) IN GENERAL.—Members of the Advisory Council shall have 5-year staggered terms, as determined by the Secretary and the Administrator.

(B) REAPPOINTMENT.—A member of the Advisory Council may be reappointed.

(5) COMPENSATION.—A member of the Advisory Council, who is not otherwise compensated as a Federal employee, shall be compensated at a rate equal to the daily equivalent of the annual rate of basic pay prescribed for level IV of the Executive Schedule under section 5315 of title 5, United States Code, for each day (including travel time) during which the member is engaged in the performance of the duties of the Advisory Council.

(e) STAFF.—

(1) IN GENERAL.—The Administrator, in consultation with the Board of Directors, may—

(A) appoint and terminate such officers, attorneys, employees, and agents as are necessary to carry out this subtitle; and

(B) vest those personnel with such powers and duties as the Administrator may determine.

(2) DIRECT HIRE AUTHORITY.—

(A) IN GENERAL.—Notwithstanding section 3304 and sections 3309 through 3318 of title 5, United States Code, the Administrator may, on a determination that there is a severe shortage of candidates or a critical hiring need for particular positions, recruit and directly appoint highly qualified critical personnel with

specialized knowledge important to the function of the Administration into the competitive service.

(B) EXCEPTION.—The authority granted under subparagraph (A) shall not apply to positions in the excepted service or the Senior Executive Service.

(C) REQUIREMENTS.—In exercising the authority granted under subparagraph (A), the Administrator shall ensure that any action taken by the Administrator—

(i) is consistent with the merit principles of section 2301 of title 5, United States Code; and

(ii) complies with the public notice requirements of section 3327 of title 5, United States Code.

(D) TERMINATION OF EFFECTIVENESS.—The authority provided by this paragraph terminates effective on the date that is 2 years after the date of enactment of this Act.

(3) CRITICAL PAY AUTHORITY.—

(A) IN GENERAL.—Notwithstanding section 5377 of title 5, United States Code, and without regard to the provisions of that title

governing appointments in the competitive service or the Senior Executive Service and chapters 51 and 53 of that title (relating to classification and pay rates), the Administrator may establish, fix the compensation of, and appoint individuals to critical positions needed to carry out the functions of the Administration, if the Administrator certifies that—

(i) the positions require expertise of an extremely high level in a financial, technical, or scientific field;

(ii) the Administration would not successfully accomplish an important mission without such an individual; and

(iii) exercise of the authority is necessary to recruit an individual who is exceptionally well qualified for the position.

(B) LIMITATIONS.—The authority granted under subparagraph (A) shall be subject to the following conditions:

(i) The number of critical positions authorized by subparagraph (A) may not exceed 20 at any 1 time in the Administration.

(ii) The term of an appointment under subparagraph (A) may not exceed 4 years.

(iii) An individual appointed under subparagraph (A) may not have been an Administration employee at any time during the 2-year period preceding the date of appointment.

(iv) Total annual compensation for any individual appointed under subparagraph (A) may not exceed the highest total annual compensation payable at the rate determined under section 104 of title 3, United States Code.

(v) An individual appointed under subparagraph (A) may not be considered to be an employee for purposes of subchapter II of chapter 75 of title 5, United States Code.

(C) NOTIFICATION.—Each year, the Administrator shall submit to Congress a notification that lists each individual appointed under this paragraph.

SEC. 107. ADMINISTRATION FUNCTIONS.

(a) OPERATIONAL UNITS.—

(1) DIRECT SUPPORT.—

(A) IN GENERAL.—The Administration may issue direct loans, letters of credit, loan guarantees, insurance products, or such other credit enhancements or debt instruments (including participation as a co-lender or a member of a syndication) as the Administrator considers appropriate to deploy clean energy technologies if the Administrator has determined that deployment of the technologies would benefit or be accelerated by the support.

(B) ELIGIBILITY CRITERIA.—In carrying out this paragraph and awarding credit support to projects, the Administrator shall account for—

(i) how the technology rates based on an evaluation methodology established by the Advisory Council;

(ii) how the project fits with the goals established under section 105; and

(iii) the potential for the applicant to successfully complete the project.

(C) RISK.—

(i) EXPECTED LOAN LOSS RESERVE.—The Administrator shall establish

an expected loan loss reserve to account for estimated losses attributable to activities under this section that is consistent with the purposes of—

(I) developing breakthrough technologies to the point at which technology risk is largely mitigated;

(II) achieving widespread deployment and advancing the commercial viability of clean energy technologies; and

(III) advancing the goals established under section 105.

(ii) INITIAL EXPECTED LOAN LOSS RESERVE.—Until such time as the Administrator determines sufficient data exist to establish an expected loan loss reserve that is appropriate, the Administrator shall consider establishing an initial rate of 10 percent for the portfolio of investments under this subtitle.

(iii) PORTFOLIO INVESTMENT APPROACH.—The Administration shall—

(I) use a portfolio investment approach to mitigate risk and diversify investments across technologies;

(II) to the maximum extent practicable and consistent with long-term self-sufficiency, weigh the portfolio of investments in projects to advance the goals established under section 105; and

(III) consistent with the expected loan loss reserve established under this subparagraph, the purposes of this subtitle, and section 106(b)(2)(B), provide the maximum practicable percentage of support to promote breakthrough technologies.

(iv) LOSS RATE REVIEW.—

(I) IN GENERAL.—The Board of Directors shall review on an annual basis the loss rates of the portfolio to determine the adequacy of the reserves.

(II) REPORT.—Not later than 90 days after the date of the initiation of the review, the Administrator shall

submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Energy and Commerce of the House of Representatives a report describing the results of the review and any recommended policy changes.

(D) APPLICATION REVIEW.—

(i) IN GENERAL.—To the maximum extent practicable and consistent with sound business practices, the Administration shall seek to consolidate reviews of applications for credit support under this subtitle such that final decisions on applications can generally be issued not later than 180 days after the date of submission of a completed application.

(ii) ENVIRONMENTAL REVIEW.—In carrying out this subtitle, the Administration shall, to the maximum extent practicable—

(I) avoid duplicating efforts that have already been undertaken by other agencies (including State agen-

cies acting under Federal programs); and

(II) with the advice of the Council on Environmental Quality and any other applicable agencies, use the administrative records of similar reviews conducted throughout the executive branch to develop the most expeditious review process practicable.

(E) WAGE RATE REQUIREMENTS.—

(i) IN GENERAL.—No credit support shall be issued under this section unless the borrower has provided to the Administrator reasonable assurances that all laborers and mechanics employed by contractors and subcontractors in the performance of construction work financed in whole or in part by the Administration will be paid wages at rates not less than those prevailing on projects of a character similar to the contract work in the civil subdivision of the State in which the contract work is to be performed as determined by the Secretary of Labor in accordance with sub-

chapter IV of chapter 31 of part A of subtitle II of title 40, United States Code.

(ii) LABOR STANDARDS.—With respect to the labor standards specified in this section, the Secretary of Labor shall have the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (64 Stat. 1267; 5 U.S.C. App.) and section 3145 of title 40, United States Code.

(2) INDIRECT SUPPORT.—

(A) IN GENERAL.—The Administration shall work to develop financial products and arrangements to both promote the widespread deployment of, and mobilize private sector support of credit and investment institutions for, clean energy technologies through securitization, indirect credit support, or other similar means of credit enhancement.

(B) FINANCIAL PRODUCTS.—The Administration—

(i) in cooperation with Federal, State, local, and private sector entities, shall develop debt instruments that provide for the aggregation of, or directly aggregate,

projects for clean energy technology deployments on a scale appropriate for residential or commercial applications; and

(ii) may purchase, and make commitments to purchase, any debt instrument associated with the deployment of clean energy technologies for the purposes of enhancing the availability of private financing for clean energy technology deployments.

(C) DISPOSITION OF DEBT OR INTEREST.—The Administration may acquire, hold, and sell or otherwise dispose of, pursuant to commitments or otherwise, any debt associated with the deployment of clean energy technologies or interest in the debt.

(D) PRICING.—

(i) IN GENERAL.—The Administrator may establish requirements, and impose charges or fees, which may be regarded as elements of pricing, for different classes of sellers, servicers, or services.

(ii) CLASSIFICATION OF SELLERS AND SERVICERS.—For the purpose of clause (i), the Administrator may classify sellers and

servicers as necessary to promote transparency and liquidity and properly characterize the risk of default.

(E) ELIGIBILITY.—The Administrator shall establish—

(i) eligibility criteria for loan originators, sellers, and servicers seeking support for portfolios of financial obligations relating to clean energy technologies so as to ensure the capability of the loan originators, sellers, and servicers to perform the functions required to maintain the expected performance of the portfolios; and

(ii) such criteria, standards, guidelines, and mechanisms such that, to the maximum extent practicable, loan originators and sellers will be able to determine the eligibility of loans for resale at the time of initial lending.

(F) SECONDARY MARKET SUPPORT.—

(i) IN GENERAL.—The Administration may lend on the security of, and make commitments to lend on the security of, any debt that the Administration has

issued or is authorized to purchase under this section.

(ii) AUTHORIZED ACTIONS.—On such terms and conditions as the Administrator may prescribe, the Administration may, with the concurrence of the Board of Directors—

(I) borrow;

(II) give security;

(III) pay interest or other return; and

(IV) issue notes, debentures, bonds, or other obligations or securities.

(G) LENDING ACTIVITIES.—

(i) IN GENERAL.—The Administrator shall determine—

(I) the volume of the lending activities of the Administration; and

(II) the types of loan ratios, risk profiles, interest rates, maturities, and charges or fees in the secondary market operations of the Administration.

(ii) OBJECTIVES.—Determinations under clause (i) shall be consistent with the objectives of—

(I) providing an attractive investment environment for clean energy technologies;

(II) making the operations of the Administration self-supporting over the long term; and

(III) advancing the goals established under section 105.

(H) EXEMPT SECURITIES.—All securities issued or guaranteed by the Administration shall, to the same extent as securities that are direct obligations of or obligations guaranteed as to principal or interest by the United States, be considered to be exempt securities within the meaning of the laws administered by the Securities and Exchange Commission.

(b) OTHER AUTHORIZED PROGRAMS.—

(1) IN GENERAL.—The Secretary may delegate to the Administration the provision of financial services and program management for grant, loan, and other credit enhancement programs authorized under any other provision of law.

(2) ADMINISTRATION.—In administering any other program delegated by the Secretary, the Administration shall, to the maximum extent practicable (as determined by the Administrator)—

(A) administer the program in a manner that is consistent with the terms and conditions of this subtitle; and

(B) minimize the administrative costs to the Federal Government.

SEC. 108. FEDERAL CREDIT AUTHORITY.

(a) TRANSFER OF FUNCTIONS AND AUTHORITY.—

(1) IN GENERAL.—Subject to paragraph (2), on a finding by the Secretary and the Administrator that the Administration is sufficiently ready to assume the functions and that applicants to those programs will not be unduly adversely affected but in no case later than 18 months after the date of enactment of this Act, all of the functions and authority of the Secretary under title XVII of the Energy Policy Act of 2005 (42 U.S.C. 16511 et seq.) and authorities established by this subtitle shall be transferred to the Administration.

(2) FAILURE TO TRANSFER FUNCTIONS.—If the functions and authorities are not transferred to the Administration in accordance with paragraph (1),

the Secretary and the Administrator shall submit to Congress a report on the reasons for delay and an expected timetable for transfer of the functions and authorities to the Administration.

(3) EFFECT ON EXISTING RIGHTS AND OBLIGATIONS.—The transfer of functions and authority under this subsection shall not affect the rights and obligations of any party that arise under a predecessor program or authority prior to the transfer under this subsection.

(4) TRANSFER OF FUND AUTHORITY.—

(A) IN GENERAL.—On transfer of functions pursuant to paragraph (1), the Administration shall have all authorities to make use of the Fund reserved for the Secretary before the transfer.

(B) ADMINISTRATIVE EXPENSES.—Effective beginning on the date of enactment of this Act, the Administrator may make use of up to 1.5 percent of the amounts in the Fund as of the beginning of each fiscal year to pay administrative expenses for that fiscal year to carry out the purposes of this Act.

(5) USE.—Amounts in the Fund shall be available for discharge of liabilities and all other expenses

of the Administration, including subsequent transfer to the respective credit program accounts.

(6) INITIAL INVESTMENT.—

(A) IN GENERAL.—On transfer of functions pursuant to paragraph (1), out of any funds in the Treasury not otherwise appropriated, the Secretary of the Treasury shall transfer to the Fund to carry out this subtitle $10,000,000,000, to remain available until expended.

(B) RECEIPT AND ACCEPTANCE.—The Fund shall be entitled to receive and shall accept, and shall be used to carry out this subtitle, the funds transferred to the Fund under subparagraph (A), without further appropriation.

(7) AUTHORIZATION OF APPROPRIATIONS.—In addition to funds made available by paragraphs (1) through (6), there are authorized to be appropriated to the Fund such sums as are necessary to carry out this subtitle.

(b) PAYMENTS OF LIABILITIES.—

(1) IN GENERAL.—Any payment made to discharge liabilities arising from agreements under this

subtitle shall be paid out of the Fund or the associated credit program account, as appropriate.

(2) SECURITY.—The full faith and credit of the United States is pledged to the payment of all obligations entered into by the Administration pursuant to this subtitle.

(c) FEES.—

(1) IN GENERAL.—Consistent with achieving the purposes of this subtitle, the Administrator shall charge fees or collect compensation generally in accordance with commercial rates.

(2) AVAILABILITY OF FEES.—All fees collected by the Administration may be retained by the Administration and placed in the Fund and may remain available to the Administration, without further appropriation or fiscal year limitation, for use in carrying out the purposes of this subtitle.

(3) BREAKTHROUGH TECHNOLOGIES.—The Administration shall charge the minimum amount in fees or compensation practicable for breakthrough technologies, consistent with the long-term viability of the Administration, unless the Administration first determines that a higher charge will not impede the development of the technology.

(4) ALTERNATIVE FEE ARRANGEMENTS.—The Administration may use such alternative arrangements (such as profit participation, contingent fees, and other valuable contingent interests) as the Administration considers appropriate to compensate the Administration for the expenses of the Administration and the risk inherent in the support of the Administration.

(d) COST TRANSFER AUTHORITY.—Amounts collected by the Administration for the cost of a loan or loan guarantee shall be transferred by the Administration to the respective credit program accounts.

(e) SUPPLEMENTAL BORROWING AUTHORITY.—In order to maintain sufficient liquidity for activities authorized under section 107(a)(2), the Administration may issue notes, debentures, bonds, or other obligations for purchase by the Secretary of the Treasury.

(f) PUBLIC DEBT TRANSACTIONS.—For the purpose of subsection (e)—

(1) the Secretary of the Treasury may use as a public debt transaction the proceeds of the sale of any securities issued under chapter 31 of title 31, United States Code; and

(2) the purposes for which securities may be issued under that chapter are extended to include any purchase under this subsection.

(g) MAXIMUM OUTSTANDING HOLDING.—The Secretary of the Treasury shall purchase instruments issued under subsection (e) to the extent that the purchase would not increase the aggregate principal amount of the outstanding holdings of obligations under subsection (e) by the Secretary of the Treasury to an amount that is greater than $2,000,000,000.

(h) RATE OF RETURN.—Each purchase of obligations by the Secretary of the Treasury under this section shall be on terms and conditions established to yield a rate of return determined by the Secretary of the Treasury to be appropriate, taking into account the current average rate on outstanding marketable obligations of the United States as of the last day of the month preceding the purchase.

(i) SALE OF OBLIGATIONS.—The Secretary of the Treasury may at any time sell, on terms and conditions and at prices determined by the Secretary of the Treasury, any of the obligations acquired by the Secretary of the Treasury under this section.

(j) PUBLIC DEBT TRANSACTIONS.—All redemptions, purchases, and sales by the Secretary of the Treasury of

obligations under this section shall be treated as public debt transactions of the United States.

SEC. 109. GENERAL PROVISIONS.

(a) IMMUNITY FROM IMPAIRMENT, LIMITATION, OR RESTRICTION.—

(1) IN GENERAL.—All rights and remedies of the Administration (including any rights and remedies of the Administration on, under, or with respect to any mortgage or any obligation secured by a mortgage) shall be immune from impairment, limitation, or restriction by or under—

(A) any law (other than a law enacted by Congress expressly in limitation of this paragraph) that becomes effective after the acquisition by the Administration of the subject or property on, under, or with respect to which the right or remedy arises or exists or would so arise or exist in the absence of the law; or

(B) any administrative or other action that becomes effective after the acquisition.

(2) STATE LAW.—The Administrator may conduct the business of the Administration without regard to any qualification or law of any State relating to incorporation.

(b) USE OF OTHER AGENCIES.—With the consent of a department, establishment, or instrumentality (including any field office), the Administration may—

(1) use and act through any department, establishment, or instrumentality; or

(2) use, and pay compensation for, information, services, facilities, and personnel of the department, establishment, or instrumentality.

(c) PROCUREMENT.—The Administrator shall be the senior procurement officer for the Administration for purposes of section 16(a) of the Office of Federal Procurement Policy Act (41 U.S.C. 414(a)).

(d) FINANCIAL MATTERS.—

(1) INVESTMENTS.—Funds of the Administration may be invested in such investments as the Board of Directors may prescribe.

(2) FISCAL AGENTS.—Any Federal Reserve bank or any bank as to which at the time of the designation of the bank by the Administrator there is outstanding a designation by the Secretary of the Treasury as a general or other depository of public money, may be designated by the Administrator as a depositary or custodian or as a fiscal or other agent of the Administration.

(e) JURISDICTION.—Notwithstanding section 1349 of title 28, United States Code, or any other provision of law—

(1) the Administration shall be considered a corporation covered by sections 1345 and 1442 of title 28, United States Code;

(2) all civil actions to which the Administration is a party shall be considered to arise under the laws of the United States, and the district courts of the United States shall have original jurisdiction of all such actions, without regard to amount or value; and

(3) any civil or other action, case or controversy in a court of a State, or in any court other than a district court of the United States, to which the Administration is a party may at any time before trial be removed by the Administration, without the giving of any bond or security and by following any procedure for removal of causes in effect at the time of the removal—

(A) to the district court of the United States for the district and division embracing the place in which the same is pending; or

(B) if there is no such district court, to the district court of the United States for the dis-

trict in which the principal office of the Administration is located.

(f) PERIODIC REPORTS.—Not later than 1 year after commencement of operation of the Administration and at least biannually thereafter, the Administrator shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Energy and Commerce of the House of Representatives a report that includes a description of—

(1) the technologies supported by activities of the Administration and how the activities advance the purposes of this subtitle; and

(2) the performance of the Administration on meeting the goals established under section 105.

(g) AUDITS BY THE COMPTROLLER GENERAL.—

(1) IN GENERAL.—The programs, activities, receipts, expenditures, and financial transactions of the Administration shall be subject to audit by the Comptroller General of the United States under such rules and regulations as may be prescribed by the Comptroller General.

(2) ACCESS.—The representatives of the Government Accountability Office shall—

(A) have access to the personnel and to all books, accounts, documents, records (including

electronic records), reports, files, and all other papers, automated data, things, or property belonging to, under the control of, or in use by the Administration, or any agent, representative, attorney, advisor, or consultant retained by the Administration, and necessary to facilitate the audit;

(B) be afforded full facilities for verifying transactions with the balances or securities held by depositories, fiscal agents, and custodians;

(C) be authorized to obtain and duplicate any such books, accounts, documents, records, working papers, automated data and files, or other information relevant to the audit without cost to the Comptroller General; and

(D) have the right of access of the Comptroller General to such information pursuant to section 716(c) of title 31, United States Code.

(3) ASSISTANCE AND COST.—

(A) IN GENERAL.—For the purpose of conducting an audit under this subsection, the Comptroller General may, in the discretion of the Comptroller General, employ by contract, without regard to section 3709 of the Revised Statutes (41 U.S.C. 5), professional services of

firms and organizations of certified public accountants for temporary periods or for special purposes.

(B) REIMBURSEMENT.—

(i) IN GENERAL.—On the request of the Comptroller General, the Administration shall reimburse the General Accountability Office for the full cost of any audit conducted by the Comptroller General under this subsection.

(ii) CREDITING.—Such reimbursements shall—

(I) be credited to the appropriation account entitled ''Salaries and Expenses, Government Accountability Office'' at the time at which the payment is received; and

(II) remain available until expended.

(h) ANNUAL INDEPENDENT AUDITS.—

(1) IN GENERAL.—The Administrator shall—

(A) have an annual independent audit made of the financial statements of the Administration by an independent public accountant

in accordance with generally accepted auditing standards; and

(B) submit to the Secretary the results of the audit.

(2) CONTENT.—In conducting an audit under this subsection, the independent public accountant shall determine and report on whether the financial statements of the Administration—

(A) are presented fairly in accordance with generally accepted accounting principles; and

(B) comply with any disclosure requirements imposed under this subtitle.

(i) FINANCIAL REPORTS.—

(1) IN GENERAL.—The Administrator shall submit to the Secretary annual and quarterly reports of the financial condition and operations of the Administration, which shall be in such form, contain such information, and be submitted on such dates as the Secretary shall require.

(2) CONTENTS OF ANNUAL REPORTS.—Each annual report shall include—

(A) financial statements prepared in accordance with generally accepted accounting principles;

(B) any supplemental information or alternative presentation that the Secretary may require; and

(C) an assessment (as of the end of the most recent fiscal year of the Administration), signed by the chief executive officer and chief accounting or financial officer of the Administration, of—

(i) the effectiveness of the internal control structure and procedures of the Administration; and

(ii) the compliance of the Administration with applicable safety and soundness laws.

(3) SPECIAL REPORTS.—The Secretary may require the Administrator to submit other reports on the condition (including financial condition), management, activities, or operations of the Administration, as the Secretary considers appropriate.

(4) ACCURACY.—Each report of financial condition shall contain a declaration by the Administrator or any other officer designated by the Board of Directors of the Administration to make the declaration, that the report is true and correct to the best of the knowledge and belief of the officer.

(5) AVAILABILITY OF REPORTS.—Reports required under this section shall be published and made publicly available as soon as is practicable after receipt by the Secretary.

(j) SCOPE AND TERMINATION OF AUTHORITY.—

(1) NEW OBLIGATIONS.—The Administrator shall not initiate any new obligations under this subtitle on or after January 1, 2029.

(2) REVERSION TO SECRETARY.—The authorities and obligations of the Administration shall revert to the Secretary on January 1, 2029.

Subtitle B—Improved Transmission Siting

SEC. 121. SITING OF INTERSTATE ELECTRIC TRANSMISSION FACILITIES.

Section 216 of the Federal Power Act (16 U.S.C. 824p) is amended to read as follows:

"SEC. 216. SITING OF INTERSTATE ELECTRIC TRANSMISSION FACILITIES.

''(a) POLICY.—It is the policy of the United States that the national interstate transmission system should be guided by the goal of maximizing the net benefits of the electricity system, taking into consideration—

''(1) support for the development of new renewable energy generation capacity, including renewable

energy generation located distant from load centers and other location-constrained resources;

''(2) opportunities for reduced emissions from regional power production;

''(3) cost savings resulting from—

''(A) reduced transmission congestion;

''(B) enhanced opportunities for intraregional and interregional electricity trades;

''(C) reduced line losses;

''(D) generation resource-sharing; and

''(E) enhanced fuel diversity;

''(4) reliability benefits, including satisfying reliability standards and guidelines for resource adequacy and system security;

''(5) diversification of risk relating to events affecting fuel supply or generating resources in a particular region;

''(6) the enhancement of competition in electricity markets and mitigation of market power;

''(7) the ability to collocate facilities on existing rights-of-way;

''(8) competing land use priorities, including land protected under Federal or State law;

''(9) the requirements of section 217(b)(4); and

''(10) the contribution of demand side management (including energy efficiency and demand response), energy storage, distributed generation resources, and smart grid investments.

''(b) DEFINITIONS.—In this section:

''(1) HIGH-PRIORITY NATIONAL TRANSMISSION PROJECT.—The term 'high-priority national transmission project' means an overhead or underground transmission facility, consisting of conductors or cables, towers, manhole duct systems, phase shifting transformers, reactors, capacitors, and any ancillary facilities and equipment necessary for the proper operation of the facility, that—

''(A)(i) operates at or above—

''(I) a voltage of 345 kilovolts alternating current; or

''(II) in the case of a very high current conductor or superconducting cable, a power equivalent to the power of a conventional transmission cable operating at 345 kilovolts alternating current;

''(ii) operates at or above—

''(I) a voltage of 300 kilovolts direct current; or

''(II) in the case of a very high current conductor or superconducting cable, a power equivalent to the power of a conventional transmission cable operating at 300 kilovolts direct current; or

''(iii) is a renewable feeder line that transmits electricity directly to a transmission facility that operates at or above a voltage of 345 kilovolts alternating current or 300 kilovolts direct current; and

''(B) is included in a regional plan pursuant to subsection (c).

''(2) INDIAN TRIBE.—The term 'Indian tribe' means any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village or regional or village corporation (as defined in or established pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601 et seq.)), which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

''(3) LOAD-SERVING ENTITY.—Except as otherwise provided in this section, the term 'load-serving entity' means any person, Federal, State, or local

agency or instrumentality, or electric cooperative that delivers electric energy to end-use customers.

''(4) LOCATION-CONSTRAINED RESOURCE.—

''(A) IN GENERAL.—The term 'location-constrained resource' means a low-carbon resource used to produce electricity that is geographically constrained such that the resource cannot be relocated to an existing transmission line.

''(B) INCLUSIONS.—The term 'location-constrained resource' includes the following types of resources described in subparagraph (A):

''(i) Renewable energy, including offshore resources.

''(ii) A fossil fuel electricity plant equipped with carbon capture technology that is located at a site that is appropriate for carbon storage or beneficial reuse.

''(5) RENEWABLE ENERGY.—The term 'renewable energy' means electric energy generated from—

''(A) solar energy;

''(B) wind energy;

''(C) marine and hydrokinetic renewable energy;

''(D) geothermal energy;

''(E) hydropower;

''(F) biomass; or

''(G) landfill gas.

''(6) RENEWABLE FEEDER LINE.—The term 'renewable feeder line' means a transmission line that—

''(A) operates at a voltage of 100 kilovolts or greater; and

''(B) is identified in the applicable Interconnection-wide transmission plan or by the Commission as a facility that is to be developed to facilitate collection of electric energy produced by renewable energy.

''(7) SECRETARY.—The term 'Secretary' means the Secretary of Energy.

''(c) PLANS FOR NATIONAL INTERSTATE TRANSMISSION SYSTEM.—

''(1) IN GENERAL.—The Commission shall coordinate regional planning to ensure that regional plans are integrated into an Interconnection-wide transmission plan with respect to high-priority national transmission projects, that achieves the policy established under subsection (a).

''(2) PLANNING PRINCIPLES.—

''(A) IN GENERAL.—Not later than 180 days after the date of enactment of the American Clean Energy Leadership Act of 2009, the Commission shall issue, by rule, after notice and opportunity for comment, national electricity grid planning principles pursuant to the policy established under subsection (a).

''(B) CONTENT.—The principles shall—

''(i) address how the utilities should fully incorporate consideration of the need for high-priority national transmission projects into planning efforts;

''(ii) address how the utilities should coordinate with each other, States, Indian tribes, and other planning efforts in the applicable Interconnection to effectively develop an Interconnection-wide analysis to identify needed additions or modifications to high-priority national transmission projects, with particular attention to identifying needs that can be most efficiently and effectively addressed with high-priority national transmission projects that cross multiple utilities, Regional Transmission

Organizations, or Independent System Operators;

''(iii)(I) address alternatives to high-priority national transmission projects, based on the factors described in subparagraph (C)(iii); and

''(II) determine whether alternative investments can provide a more expedient means of improving electricity system capacity or reliability or reduced costs for end-users; and

''(iv) include mechanisms for soliciting input from the Secretary, Federal transmitting utilities, the Secretary of the Interior, States, Indian tribes, electric reliability organizations, regional entities, entities described in section 201(f), generators, load-serving entities, other interested parties, and the public.

''(C) FACTORS.—Plans for the development and improvement of high-priority national transmission projects into a national high-capacity transmission grid shall take into consideration—

''(i) the location of load centers;

"(ii) the location of generation and potential generation development, including location-constrained resources;

"(iii) existing and potential demand side management (including energy efficiency and demand response), energy storage, distributed generation resources, and smart grid investments;

"(iv) the plans of Regional Transmission Organizations, Independent System Operators, State authorities, Indian tribes, transmission owners, load-serving entities, and others in the region;

"(v) the needs and long-term rights described in section 217(b); and

"(vi) costs to consumers of high priority national transmission projects, including considering the cost of reasonable alternatives.

"(3) SUBMISSION OF PLANS.—

"(A) IN GENERAL.—

"(i) IN GENERAL.—One or more public utilities, transmitting utilities, Regional Transmission Organizations, Independent System Operators, regional entities (as de-

fined in section 215(a)), or other multistate organizations or entities (including entities described in section 201(f)) may develop a regional plan relating to 1 or more high-priority national transmission projects that is consistent with the planning principles established by the Commission.

''(ii) OTHER PLANS.—

''(I) IN GENERAL.—Any public utility or transmitting utility that does not participate in 1 of the regional plans developed under clause (i) shall develop its own plan relating to any high priority national transmission project planned for the system of the utility.

''(II) PLANNING PRINCIPLES.—The plan shall be consistent with the planning principles established by the Commission.

''(iii) TIMING.—Any plan developed under clause (i) or (ii) shall be submitted to the Commission—

''(I) as soon as practicable, but not later than 2 years, after the date of enactment of the American Clean Energy Leadership Act of 2009; and

''(II) periodically thereafter as prescribed by the Commission.

''(B) COORDINATION.—

''(i) JOINT SUBMISSIONS.—The requirements of subparagraph (A) may be satisfied by a joint submission.

''(ii) SINGLE INTERCONNECTION-WIDE PLAN.—The Commission shall encourage coordination that would permit submission of a single Interconnection-wide plan for high priority national transmission projects.

''(C) MODIFICATIONS.—The Commission may require modification of a submitted plan to the extent that the Commission determines that the modification is necessary—

''(i) to reconcile inconsistencies between plans submitted; or

''(ii) to achieve the policy goals established under subsection (a).

''(4) APPLICABILITY.—The transmission planning principles and requirements of this subsection shall apply to each transmission owner and transmission planning entity in the United States portion of the Eastern and Western Interconnections, including an entity described in section 201(f).

''(d) SITING.—

''(1) PURPOSES.—The purpose of this subsection is to ensure that high-priority national transmission projects are in the public interest and advance the policy established under subsection (a).

''(2) DESIGNATION OF ELIGIBILITY.—The Commission may grant an applicant that submits an application for a proposed project a designation of eligibility for consideration under this subsection if the Commission finds that the proposed project is a high-priority national transmission project.

''(3) STATE REVIEW OF PROJECT SITING.—

''(A) IN GENERAL.—No developer of a high-priority national transmission project may seek a certificate for construction under subsection (e) unless the developer first seeks authorization to construct the high-priority national transmission project under applicable

State law concerning authorization and routing of transmission facilities.

''(B) FEDERAL AUTHORITY.—The Commission may authorize, in accordance with subsection (e), construction of a high-priority national transmission project that the Commission finds to be in the public interest and in accordance with this section if a State—

''(i) fails to approve construction and authorize routing of a high-priority national transmission project not later than 1 year after the date the applicant submits a completed application for authorization to the State;

''(ii) rejects the application for a high-priority national transmission project; or

''(iii) authorizes the high-priority national transmission project subject to conditions that unreasonably interfere with the development of a high-priority national transmission project contrary to the purposes of this section.

''(e) CONSTRUCTION.—

''(1) APPLICATION FOR CERTIFICATE.—

''(A) IN GENERAL.—An applicant for a high-priority national transmission project may apply to the Commission for a certificate of public convenience and necessity with respect to construction of the high-priority national transmission project within a State affected by the high-priority national transmission project if the State—

''(i) fails to authorize construction of the high-priority national transmission project under State law not later than 1 year after the date the developer submits a completed application for authorization to the State;

''(ii) rejects the application for the high-priority national transmission project; or

''(iii) authorizes the high-priority national transmission project subject to conditions that unreasonably interfere with the development of a high-priority national transmission project contrary to the purposes of this section.

''(B) FORM.—The application for a certificate shall be made in writing in such form and

containing such information as the Commission may by regulation require.

''(C) HEARING.—On receipt of an application under this paragraph, the Commission—

''(i) shall provide notice to interested persons and opportunity for hearing; and

''(ii) may approve (with or without conditions) or disapprove the application, in accordance with paragraph (2).

''(2) GRANT OF CERTIFICATE.—

''(A) IN GENERAL.—A certificate shall be issued to a qualified applicant for a certificate authorizing the whole or partial operation, construction, acquisition, or modification covered by the application, only if the Commission determines that—

''(i) the applicant is able and willing—

''(I) to do the acts and to perform the service proposed; and

''(II) to comply with this Act (including regulations);

''(ii) the applicant has—

''(I) completed a detailed study on alternatives to the high-priority na-

tional transmission project, based on the factors described in subsection (c)(2)(C)(iii); and

''(II) determined that pursuing any studied alternative does not provide a more expedient means to improve electricity system reliability, reduce congestion, or lower costs for end-users; and

''(iii) the proposed operation, construction, acquisition, or modification, to the extent authorized by the certificate, is or will be required by the present or future public convenience and necessity.

''(B) TERMS AND CONDITIONS.—The Commission shall have the power to attach to the issuance of a certificate under this paragraph and to the exercise of the rights granted under the certificate such reasonable terms and conditions as the public convenience and necessity may require.

''(C) USE OF STATE WORK.—If 1 or more States reject or fail to act on a high-priority national transmission project and the Commission has siting authority for the high-priority na-

tional transmission project under this section, the Commission shall give due weight to—

"(i) the environmental record and results of the siting process of a State that did complete the siting process of the State under this section; and

"(ii) the information that had been submitted by an applicant to the State under this section.

"(D) EVALUATION OF ABILITIES OF APPLICANT.—

"(i) IN GENERAL.—In evaluating the ability of an applicant described in subparagraph (A)(i), the Commission shall consider whether the financial and technical capabilities of the applicant are adequate to support construction and operation of the high-priority national transmission project proposed in the application.

"(ii) JOINT OWNERSHIP PROJECTS.—In evaluating applications under paragraph (1), the Commission shall consider benefits from the greater diversification of financial risk inherent in the applications involving

joint ownership projects by multiple load-serving entities.

''(E) PUBLIC CONVENIENCE AND NECESSITY.—In making a determination with respect to public convenience and necessity described in subparagraph (A)(ii), the Commission shall—

''(i) consider whether the facilities covered by an application are included in an Interconnection-wide transmission grid plan for a high-priority national transmission project developed pursuant to subsection (c); and

''(ii) determine whether the facilities covered by the application are in the public interest.

''(3) RIGHT OF EMINENT DOMAIN.—

''(A) IN GENERAL.—If any holder of a certificate issued under paragraph (2) cannot acquire by contract, or is unable to agree with the owner of property on the compensation to be paid for, the necessary right-of-way to construct, operate, and maintain the high-priority national transmission project to which the certificate relates, and the necessary land or other property necessary to the proper operation of

the high-priority national transmission project, the holder may acquire the right-of-way by the exercise of the right of eminent domain in—

"(i) the United States district court for the district in which the property is located; or

"(ii) a State court.

"(B) PRACTICE AND PROCEDURE.—The practice and procedure for any action or proceeding described in subparagraph (A) in a United States district court shall conform, to the maximum extent practicable, to the practice and procedure for similar actions or proceedings in the courts of the State in which the property is located.

"(4) STATE AND TRIBAL RECOMMENDATIONS.—In granting a certificate under paragraph (2), the Commission shall—

"(A) permit State regulatory agencies and affected Indian tribes to recommend mitigation measures, based on habitat protection, environmental considerations, or cultural site protection; and

"(B)(i) incorporate those identified mitigation measures as conditions on the certificate; or

"(ii) if the Commission determines that a recommended mitigation measure is inconsistent with the purposes of this section, infeasible, or not cost-effective—

"(I) consult with State regulatory agencies and affected Indian tribes to seek to resolve the issue;

"(II) incorporate as conditions on the certificate such recommended mitigation measures as are determined to be appropriate by the Commission, based on consultation by the Commission with State regulatory agencies and affected Indian tribes, the purposes of this section, and the record before the Commission; and

"(III) if, after consultation, the Commission does not adopt in whole or in part a recommendation of an agency or affected Indian tribe, publish a statement of a finding that the adoption of the recommendation is infeasible, not cost-effective, or in-

consistent with this section or other applicable provisions of law.

''(5) STATE OR LOCAL AUTHORIZATIONS.—An applicant receiving a certificate under this subsection with respect to construction or modification of a high-priority national transmission project in a State shall not require a separate siting authorization from the State or any local authority within the State.

''(f) COORDINATION OF FEDERAL AUTHORIZATIONS FOR TRANSMISSION FACILITIES.—

''(1) DEFINITION OF FEDERAL AUTHORIZATION.—In this subsection, the term 'Federal authorization' means any authorization required under Federal law in order to site a transmission facility on Federal land, including such permits, special use authorizations, certifications, opinions, or other approvals as may be required under Federal law in order to site a transmission facility.

''(2) LEAD AGENCY.—If a Federal authorization for a high-priority national transmission project involves land under the jurisdiction of the Department of the Interior and any other Federal agency, the Secretary of the Interior shall act as the lead agency for purposes of coordinating all applicable

Federal authorizations and related environmental reviews.

''(3) COORDINATION.—To the maximum extent practicable under applicable Federal law, the Secretary of the Interior shall coordinate the Federal authorization and review process under this subsection with the Commission, and with any Indian tribes, multistate entities, and State agencies that are responsible for conducting any separate permitting and environmental reviews of the facility, to ensure timely and efficient review and permit decisions.

''(4) MILESTONES AND DEADLINES.—

''(A) IN GENERAL.—As the lead agency, the Secretary of the Interior, in consultation with the Commission and any other agency responsible for Federal authorizations and, as appropriate, with Indian tribes, multistate entities, and State agencies that are willing to coordinate their own separate permitting and environmental reviews with the Federal authorization and environmental reviews, shall establish prompt and binding intermediate milestones and ultimate deadlines for the review of, and Federal authorization decisions relating to, the

proposed high-priority national transmission project.

''(B) DEADLINE.—The Secretary of the Interior shall ensure that, once an application has been submitted with such data as the Commission and the Secretaries with jurisdiction over the affected land consider necessary, all permit decisions and related environmental reviews under all applicable Federal laws shall be completed not later than 1 year after the date of submission.

''(C) PREAPPLICATION INFORMATION.—The Secretary of the Interior, in consultation with the Commission, shall provide an expeditious preapplication mechanism for prospective applicants to confer with the agencies involved to have each such agency determine and communicate to the prospective applicant not later than 60 days after the prospective applicant submits a request for such information concerning—

''(i) the likelihood of approval for a potential facility; and

''(ii) key issues of concern to the agencies and public.

"(5) ENVIRONMENTAL REVIEW DOCUMENT.—

"(A) IN GENERAL.—As lead agency, the Secretary of the Interior, in consultation with the Commission and any affected agency, shall prepare a single environmental review document, which shall be used as the basis for all decisions on the proposed high-priority national transmission project under Federal law.

"(B) STREAMLINING.—The Secretary of the Interior and the Secretary of Agriculture, in consultation with the Commission, shall streamline the review and permitting of transmission within corridors designated under section 503 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1763) or section 368 of the Energy Policy Act of 2005 (42 U.S.C. 15926) by fully taking into account prior analyses and decisions relating to the corridors.

"(C) COMMENTS.—If the high-priority national transmission project includes Federal land that is not under the jurisdiction of the Department of the Interior, the document shall include comments made by the Secretary with jurisdiction over the affected land on matters

necessary for the protection of the land or required under applicable law.

''(6) ISSUANCE OR DENIAL OF AUTHORIZATION BY PRESIDENT.—

''(A) IN GENERAL.—Subject to paragraph (7), if any agency has denied a Federal authorization required for a transmission facility within an energy right-of-way corridor on Federal land designated pursuant to section 368 of the Energy Policy Act of 2005 (42 U.S.C. 15926), or has failed to act by the deadline established by the Secretary of the Interior pursuant to this section for deciding whether to issue the authorization, the applicant or any State in which the facility would be located may file an appeal with the President, who shall, in consultation with the affected agency, review the denial or failure to take action on the pending application.

''(B) OPTIONS.—Based on the overall record and in consultation with the affected agency, the President may—

''(i) issue the necessary authorization with any appropriate conditions; or

''(ii) deny the application.

''(C) DEADLINE.—The President shall issue a decision not later than 90 days after the date of the filing of the appeal.

''(D) FEDERAL REQUIREMENTS.—In making a decision under this paragraph, the President shall comply with applicable requirements of Federal law, including any requirements of—

''(i) the National Forest Management Act of 1976 (16 U.S.C. 1600 et seq.);

''(ii) the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.);

''(iii) the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.);

''(iv) the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.); and

''(v) the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.).

''(7) ISSUANCE OR DENIAL OF AUTHORIZATION BY PRESIDENT.—Paragraph (6) shall not apply to—

''(A) a unit of the National Park System;

''(B) a unit of the National Wildlife Refuge System;

"(C) a component of the National Wild and Scenic Rivers System;

"(D) a component of the National Trails System;

"(E) a component of the National Wilderness Preservation System;

"(F) a National Monument;

"(G) any part of the National Landscape Conservation System;

"(H) a National Preserve;

"(I) a National Scenic Area; or

"(J) a National Recreation Area.

"(8) ENERGY RIGHT-OF-WAY CORRIDORS ON FEDERAL LAND.—

"(A) IN GENERAL.—In carrying out this subsection, the Secretary with jurisdiction over the land shall, to the maximum extent practicable, use the energy right-of-way corridors designated in accordance with section 368 of the Energy Policy Act of 2005 (42 U.S.C. 15926).

"(B) ADDITIONAL CORRIDORS.—If the Secretary is unable to use an energy right-of-way corridor described in subparagraph (A), the Secretary shall establish an additional corridor

in accordance with section 368(c) of the Energy Policy Act of 2005 (42 U.S.C. 15926(c)).

''(9) DURATION.—

''(A) IN GENERAL.—Each Federal land use authorization for an electricity transmission facility shall be issued—

''(i) for a duration, as determined by the Secretary with jurisdiction over the land, commensurate with the anticipated use of the facility;

''(ii) with appropriate authority to manage the right-of-way for reliability and environmental protection; and

''(iii) consistent with the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.) and other applicable law.

''(B) RENEWAL.—On the expiration of the authorization (including an authorization issued before the date of enactment of the American Clean Energy Leadership Act of 2009), the authorization shall be reviewed for renewal—

''(i) taking fully into account reliance on the electricity infrastructure; and

"(ii) recognizing the importance of the authorization for public health, safety, and economic welfare and as a legitimate use of Federal land.

"(10) CONSULTATION.—In exercising the responsibilities under this section, the Secretary of the Interior and the Commission shall consult regularly with—

"(A) electric reliability organizations (including related regional entities) approved by the Commission;

"(B) Transmission Organizations approved by the Commission; and

"(C) transmission owners and users and other interested parties.

"(11) INDIAN LAND.—

"(A) DEFINITION OF INDIAN LAND.—In this paragraph, the term 'Indian land' means land—

"(i) title to which is held by the United States in trust for an Indian tribe or individual; or

"(ii) that is held by an Indian tribe or individual subject to a restriction by the

United States against alienation or encumbrance.

''(B) RIGHTS-OF-WAY.—In the case of a right-of way over Indian land, a certificate holder under this section shall comply with the requirements of Federal law for obtaining rights-of-way over Indian land.

''(12) IMPLEMENTATION.—

''(A) REGULATIONS.—Not later than 18 months after the date of enactment of the American Clean Energy Leadership Act of 2009, the Secretary of the Interior and the Commission shall issue any regulations necessary to carry out this subsection.

''(B) FEDERAL STAFF AND RESOURCES.—The head of each Federal agency with authority to issue a Federal authorization shall designate a senior official responsible for, and dedicate sufficient other staff and resources to ensure, full implementation of the regulations and memorandum required under this paragraph.

''(g) EVALUATION AND RECOMMENDATIONS.—The Commission shall—

''(1) periodically evaluate whether high-priority national transmission projects are being constructed

in accordance with the Interconnection-wide transmission grid plan for high-priority national transmission projects for both the Western and Eastern Interconnection areas;

''(2) take any necessary actions, pursuant to applicable law, to address any identified obstacles to investment, siting, and construction of high-priority national transmission projects identified as needed under an Interconnection-wide plan; and

''(3) not later than 2 years after the date of enactment of the American Clean Energy Leadership Act of 2009, submit to Congress recommendations for any further actions or authority needed to ensure the effective and timely development of—

''(A) high-priority national transmission projects; and

''(B) transmission projects to access regional and offshore renewable energy generation.

''(h) REPORT OF SECRETARY.—Not later than 2 years after the date of enactment of the American Clean Energy Leadership Act of 2009, the Secretary shall submit to Congress recommendations for any further actions or authority needed to ensure the effective and timely development of—

''(1) demand response;

''(2) energy storage;

''(3) distributed generation;

''(4) energy efficiency; and

''(5) other areas necessary to carry out the policy established under subsection (a).

''(i) COST ALLOCATION.—

''(1) IN GENERAL.—Not later than 270 days after the date of enactment of the American Clean Energy Leadership Act of 2009, the Commission—

''(A) shall establish by rule an appropriate methodology for allocation of the costs of high-priority national transmission projects, subject to the requirement that any cost allocation methodology, and any rates affected by the cost allocation methodology, shall be just, reasonable, and not unduly discriminatory or preferential;

''(B) may permit allocation of costs for high-priority national transmission projects to load-serving entities within all or a part of a region, except that costs shall not be allocated to a region, or subregion, unless the costs are reasonably proportionate to measurable economic and reliability benefits;

''(C) may permit allocation of costs to generators of electricity connected by a high-priority national transmission project; and

''(D) shall provide for due deference to cost allocation proposals supported by broad agreement among affected States.

''(2) MECHANISM FOR COLLECTION OF COSTS.—The Commission shall adopt such rules and require inclusion of such provisions in transmission tariffs as are required to provide for—

''(A) the efficient collection of allocated costs for development and operation of high-priority national transmission projects; and

''(B) the distribution of those revenues to owners of the high-priority national transmission projects.

''(j) RELATIONSHIP TO OTHER LAWS.—

''(1) IN GENERAL.—Except as specifically provided in this section, nothing in this section affects any requirement of an environmental or historic preservation law of the United States, including—

''(A) the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.);

''(B) the Wilderness Act (16 U.S.C. 1131 et seq.); or

''(C) the National Historic Preservation Act (16 U.S.C. 470 et seq.).

''(2) STATE LAW.—Nothing in this section precludes any person from constructing or modifying any transmission facility in accordance with State law.

''(k) TRANSMISSION RIGHTS TO SUPPORT NEW GENERATION DEVELOPMENT.—Subject to section 217(b)(4), it is the policy of the United States that long-term transmission rights of firmness and duration sufficient to support generation investment (or equivalent tradable or financial long-term transmission rights), shall be available under appropriate terms and conditions to load-serving entities (as defined in section 217(a)(2)) for long-term power supply arrangements for new generation facilities using renewable energy.

''(l) RESOURCE ASSESSMENTS.—

''(1) IN GENERAL.—The Secretary shall conduct nationwide assessments to identify areas with a significant potential for the development of location-constrained resources.

''(2) FORMATS.—The resource assessments shall be made available to the public in multiple formats, including in a Geographical Information System compatible format.

''(3) TIMING.—The Secretary shall—

''(A) make the initial resource assessment required under this subsection not later than 180 days after the date of enactment of the American Clean Energy Leadership Act of 2009; and

''(B) refine the resource assessment on a regular basis that is consistent with regional planning cycles.

''(4) TECHNICAL ASSISTANCE.—The Secretary shall provide technical assistance to regional planning authorities, on request, to assist the authorities in carrying out this subsection.

''(m) CONGESTION STUDIES.—Not later than 1 year after the date of enactment of the American Clean Energy Leadership Act of 2009 and every 3 years thereafter, the Secretary, in consultation with affected States and Indian tribes, shall—

''(1) conduct a study of electric transmission congestion; and

''(2) submit to the appropriate committees of Congress a report that describes the results of the study.

''(n) APPLICABILITY.—

''(1) IN GENERAL.—Except as otherwise provided in this subsection, the authority of the Commission under this section to approve transmission plans and to allocate costs incurred pursuant to the plans applies to all transmission providers, generators, and users, owners, and operators of the power system within the Eastern and Western Interconnections of the United States, including entities described in section 201(f).

''(2) REGIONAL PLANNING ENTITIES.—The Commission shall have authority over regional planning entities to the extent necessary to carry out this section.

''(3) PROJECT DEVELOPERS.—Nothing in this section precludes the development, subject to applicable regulatory requirements, of transmission projects that are not included in plans developed under this section.

''(4) COMMISSION-APPROVED PLANNING PROCESSES.—Nothing in this section affects the approval, siting, or cost allocation for a project that is authorized pursuant to planning processes that have been approved by the Commission.

''(5) EXCLUSIONS.—This section does not apply in the State of Alaska or Hawaii or to the Electric

Reliability Council of Texas, unless the State or the Council voluntarily elects to participate in a cost allocation plan under this section.''.

[Subtitle C—Renewable Electricity Standard and Biomass]

[SEC. 131. RESERVED.]

Subtitle D—Energy and Water Integration

SEC. 141. SHORT TITLE.

This subtitle may be cited as the ''Energy and Water Integration Act of 2009''.

SEC. 142. ENERGY WATER NEXUS STUDY.

(a) IN GENERAL.—Not later than 90 days after the date of enactment of this Act, the Secretary, in consultation with the Secretary of the Interior and the Administrator of the Environmental Protection Agency, shall enter into an arrangement with the National Academy of Sciences under which the Academy shall conduct an in-depth analysis of the impact of energy development and production on the water resources of the United States.

(b) SCOPE OF STUDY.—

(1) IN GENERAL.—The study described in subsection (a) shall be comprised of each assessment described in paragraphs (2) through (4).

(2) TRANSPORTATION SECTOR ASSESSMENT.—

(A) IN GENERAL.—The study shall include a lifecycle assessment of the quantity of water withdrawn and consumed in the production of transportation fuels, or electricity used as a fuel source, to evaluate the ratio that—

(i) the quantity of water withdrawn and consumed in the production of transportation fuels (measured in gallons), or electricity (measured in kilowatt-hours); bears to

(ii) the total distance (measured in miles) that may be traveled as a result of the consumption of transportation fuels, or electricity.

(B) SCOPE OF ASSESSMENT.—

(i) IN GENERAL.—The assessment shall include, as applicable—

(I) the exploration for, and extraction or growing of, energy feedstock;

(II) the processing of energy feedstock into transportation fuel;

(III) the generation, transportation, and storage of electricity for transportation; and

(IV) the conduct of an analysis of the efficiency with which the transportation fuel is consumed.

(ii) FUELS.—The assessment shall contain an analysis of transportation fuel sources, including—

(I) domestically produced crude oil (including products derived from domestically produced crude oil);

(II) imported crude oil (including products derived from imported crude oil);

(III) domestically produced natural gas (including liquid fuels derived from natural gas);

(IV) imported natural gas (including liquid fuels derived from natural gas);

(V) oil shale;

(VI) tar sands;

(VII) domestically produced corn-based ethanol;

(VIII) imported corn-based ethanol;

(IX) advanced biofuels (including cellulosic- and algae-based biofuels);

(X) coal to liquids (including aviation fuel, diesel, and gasoline products);

(XI) electricity consumed in—

(aa) fully electric drive vehicles; and

(bb) plug-in hybrid vehicles;

(XII) hydrogen; and

(XIII) any reasonably foreseeable combination of any transportation fuel source described in subclauses (I) through (XII).

(3) ELECTRICITY SECTOR ASSESSMENT.—

(A) IN GENERAL.—The study shall include a lifecycle assessment of the quantity of water withdrawn and consumed in the production of electricity to evaluate the ratio that—

(i) the quantity of water used and consumed in the production of electricity (measured in gallons); bears to

(ii) the quantity of electricity that is produced (measured in kilowatt-hours).

(B) SCOPE OF ASSESSMENT.—The assessment shall include, as applicable—

(i) the exploration for, or extraction or growing of, energy feedstock;

(ii) the processing of energy feedstock for electricity production; and

(iii) the production of electricity.

(C) GENERATION TYPES.—The assessment shall contain an evaluation and analysis of electricity generation facilities that are constructed in accordance with different plant designs (including different cooling technologies such as water, air, and hybrid systems, and technologies designed to minimize carbon dioxide releases) based on the fuel used by the facility, including—

(i) coal;

(ii) natural gas;

(iii) oil;

(iv) nuclear energy;

(v) solar energy;

(vi) wind energy;

(vii) geothermal energy;

(viii) biomass;

(ix) the beneficial use of waste heat; and

(x) any reasonably foreseeable combination of any fuel described in clauses (i) through (ix).

(4) ASSESSMENT OF ADDITIONAL IMPACTS.—In addition to the impacts associated with the direct use and consumption of water resources in the transportation and electricity sectors described in paragraphs (2) and (3), the study shall contain an identification and analysis of any unique water impact associated with a specific fuel source, including an impact resulting from—

(A) any extraction or mining practice;

(B) the transportation of feedstocks from the point of extraction to the point of processing;

(C) the transportation of fuel and power from the point of processing to the point of consumption; and

(D) the location of a specific fuel source that is limited to 1 or more specific geographical regions.

(c) REPORT TO SECRETARY.—Not later than 18 months after the date of enactment of this Act, the National Academy of Sciences shall submit to the Secretary a report that contains a summary of the results of the study conducted under this section.

(d) AVAILABILITY OF RESULTS OF STUDY.—On the date on which the National Academy of Sciences completes the study under this section, the National Academy of Sciences shall make available to the public the results of the study.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary such sums as are necessary to carry out this section.

SEC. 143. POWER PLANT WATER AND ENERGY EFFICIENCY.

(a) IN GENERAL.—To protect water supplies and promote the efficient use of water in the electricity production sector, the Secretary, in consultation with the Secretary of the Interior and the Administrator of the Environmental Protection Agency, shall conduct a study to identify alternative technologies and related strategies to optimize water and energy efficiency in the production of electricity by each type of generation.

(b) GENERATION TYPES.—The study shall include an evaluation of different types of generation facilities, including—

(1) coal facilities, under which the evaluation shall account for—

(A) different types of coal and associated generating technologies; and

(B) the use of technologies designed to minimize and sequester carbon dioxide releases;

(2) oil and natural gas facilities, under which the evaluation shall account for the use of technologies designed to minimize and sequester carbon dioxide releases;

(3) hydropower, including turbine upgrades, incremental hydropower, in-stream hydropower, and pump-storage projects;

(4) thermal solar facilities; and

(5) nuclear facilities.

(c) REPORT TO CONGRESS.—Not later than 18 months after the date of enactment of this Act, the Secretary shall submit to the appropriate committees of Congress a report that contains a description of the results of the study conducted under this section (including an assessment of any region-specific factor, such as water availability and energy reliability, that should be considered in evaluating the results).

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary such

sums as are necessary to carry out this section, to remain available until expended.

SEC. 144. RECLAMATION WATER CONSERVATION AND ENERGY SAVINGS STUDY.

(a) DEFINITIONS.—In this section:

(1) MAJOR RECLAMATION PROJECT.—The term ''major Reclamation project'' means a multipurpose project authorized by the Federal Government and carried out by the Bureau of Reclamation.

(2) SECRETARY.—The term ''Secretary'' means the Secretary of the Interior, acting through the Commissioner of Reclamation.

(b) STUDY.—

(1) IN GENERAL.—In accordance with paragraph (2), to promote the efficient use of energy in water distribution systems, the Secretary shall conduct a study to evaluate the quantities of energy used in water storage and delivery operations in major Reclamation projects.

(2) ELEMENTS.—In conducting the study, the Secretary shall—

(A) with respect to each major Reclamation project—

(i) assess and estimate the annual energy consumption associated with the major Reclamation project; and

(ii) identify—

(I) each major Reclamation project that consumes the greatest quantity of energy; and

(II) the aspect of the operation of each major Reclamation project described in subclause (I) that is the most energy intensive (including water storage and releases, water delivery, and administrative operations); and

(B) identify opportunities to significantly reduce current energy consumption and costs with respect to each major Reclamation project described in subparagraph (A), including, as applicable, through—

(i) reduced groundwater pumping;

(ii) improved reservoir operations;

(iii) infrastructure rehabilitation;

(iv) water reuse; and

(v) the integration of renewable energy generation with project operations.

(c) REPORT TO CONGRESS.—Not later than 18 months after the date of enactment of this Act, the Secretary shall submit to the appropriate committees of Congress a report that contains a description of the results of the study conducted under this section.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary such sums as are necessary to carry out this section, to remain available until expended.

SEC. 145. BRACKISH GROUNDWATER NATIONAL DESALINATION RESEARCH FACILITY.

(a) DEFINITIONS.—In this section:

(1) FACILITY.—The term ''facility'' means the Brackish Groundwater National Desalination Research Facility, located in Otero County, New Mexico.

(2) SECRETARY.—The term ''Secretary'' means the Secretary of the Interior.

(b) DUTY OF SECRETARY.—The Secretary shall operate, manage, and maintain the facility to carry out research, development, and demonstration activities to develop technologies and methods that promote brackish groundwater desalination as a viable method to increase water supply in a cost-effective manner.

(c) OBJECTIVES; ACTIVITIES.—

(1) OBJECTIVES.—The Secretary shall operate and manage the facility as a state-of-the-art desalination research center—

(A) to develop new water and energy technologies with widespread applicability; and

(B) to create new supplies of usable water for municipal, agricultural, industrial, or environmental purposes.

(2) ACTIVITIES.—In operating, managing, and maintaining the facility under subsection (b), the Secretary shall carry out—

(A) as a priority, the development of renewable energy technologies for integration with desalination technologies—

(i) to reduce the capital and operational costs of desalination;

(ii) to minimize the environmental impacts of desalination; and

(iii) to increase public acceptance of desalination as a viable water supply process;

(B) research regarding various desalination processes, including improvements in reverse and forward osmosis technologies;

(C) the development of innovative methods and technologies to reduce the volume and cost of desalination concentrated wastes (including the disposal of desalination concentrated wastes) in an environmentally sound manner;

(D) an outreach program to create partnerships with States, academic institutions, private entities, and other appropriate organizations to conduct research, development, and demonstration activities, including the establishment of rental and other charges to provide revenue to help offset the costs of operating and maintaining the facility; and

(E) an outreach program to educate the public on—

(i) desalination and renewable energy technologies; and

(ii) the benefits of using water in an efficient manner.

(d) AUTHORITY OF SECRETARY.—The Secretary may enter into contracts or other agreements with, or make grants to, appropriate entities to manage, operate, or otherwise carry out this section, including an agreement with a local or regional academic institution or a consortium of institutions to manage research activities at the facility.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this section, to remain available until expended.

SEC. 146. ENHANCED INFORMATION ON WATER-RELATED ENERGY CONSUMPTION.

Section 205 of the Department of Energy Organization Act (42 U.S.C. 7135) is amended by adding at the end the following:

''(n) WATER-RELATED ENERGY CONSUMPTION.—

''(1) IN GENERAL.—Not less than once during each 3-year period, to aid in the understanding and reduction of the quantity of energy used in association with the use of water, the Administrator shall conduct an assessment under which the Administrator shall collect information on energy use in various sectors of the economy that are associated with the procurement, treatment, or delivery of water.

''(2) REQUIRED SECTORS.—An assessment described in paragraph (1) shall contain an analysis of water-related energy use for all relevant sectors of the economy, including water used for—

''(A) agricultural purposes;

''(B) municipal purposes;

''(C) industrial purposes; and

''(D) domestic purposes.

''(3) EFFECT.—Nothing in this subsection affects the authority of the Administrator to collect data under section 52 of the Federal Energy Administration Act of 1974 (15 U.S.C. 790a).''.

SEC. 147. ENERGY-WATER RESEARCH AND DEVELOPMENT ROADMAP.

(a) IN GENERAL.—Not later than 90 days after the date of enactment of this Act, the Secretary shall develop a document to be known as the ''Energy-Water Research and Development Roadmap'' to define the future research, development, demonstration, and commercialization efforts that are required to address emerging water-related challenges to future, cost-effective, reliable, and sustainable energy generation and production.

(b) REPORT.—Not later than 120 days after the date of enactment of this Act, the Secretary shall submit to the appropriate committees of Congress a report describing the document described in subsection (a), including recommendations for any future action with respect to the document.

SEC. 148. ENERGY-WATER CLEAN TECHNOLOGY GRANT PROGRAM.

(a) DEFINITIONS.—In this section:

(1) ELIGIBLE ENTITY.—The term ''eligible entity'' means—

(A) an eligible unit of local government;

(B) an Indian tribe; and

(C) a water or wastewater agency of a State or local government.

(2) ELIGIBLE UNIT OF LOCAL GOVERNMENT.—The term ''eligible unit of local government'' has the meaning given the term in section 541 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17151).

(3) INDIAN TRIBE.—The term ''Indian tribe'' has the meaning given the term in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450b).

(b) GRANT PROGRAM.—In accordance with subsection (c), the Secretary may carry out a competitive grant program under which the Secretary may provide grants to eligible entities to demonstrate the deployment of technologies that reduce the consumption of, or conserve, energy supplies through energy savings and water conservation activities in commercial, residential, and mixed-use development projects.

(c) REQUIREMENTS.—

(1) PROVISION OF ASSISTANCE.—In carrying out the program under subsection (b), the Secretary shall provide assistance to eligible entities that carry out projects that—

(A) have the potential to be replicated in other locations;

(B) are of sufficient size to demonstrate deployment of the project at scale; and

(C) are likely to accelerate and expand investment in cost-effective technologies that demonstrate sustained reductions in energy consumption or conservation of energy supplies, including the deployment of renewable energy and water reuse technologies.

(2) PRIORITIZATION.—In selecting eligible entities under paragraph (1), the Secretary shall give priority to each eligible entity that carries out a project that has the potential to create sustained energy reductions that are greater than 50 percent for the project development, as compared to similar project developments that do not include the technology used by the project that is the subject of the demonstration.

(3) COST-SHARING.—Each demonstration activity carried out under a project under this program

shall be subject to each cost-sharing requirement described in section 988 of the Energy Policy Act of 2005 (42 U.S.C. 16352).

(4) PUBLIC-PRIVATE PARTNERSHIPS.—The Secretary shall provide a grant under this section only to an eligible entity that uses a public-private partnership to design and carry-out the project of the eligible entity.

(5) LIMITATION ON FUNDS.—Funds provided through a grant made by the Secretary under this section shall not be used by the recipient eligible entity for any operation or maintenance cost of the eligible entity.

(6) REPORT.—The Secretary shall require each eligible entity that receives a grant from the Secretary under this section to submit to the Secretary on a date not later than 1 year after the date on which the eligible entity completes the project of the eligible entity a report that contains a description of—

(A) the estimated reductions in water use achieved by the project of the entity;

(B) the reductions in energy consumption achieved by the project of the entity;

(C) the comprehensive environmental benefits achieved by the project of the entity; and

(D) the manner by which each reduction or benefit described in subparagraphs (A) through (C) compare to the original estimates of the eligible entity.

(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this section $100,000,000 for each of fiscal years 2010 through 2015, to remain available until expended.

SEC. 149. RURAL WATER UTILITIES ENERGY AND WATER EFFICIENCY PROGRAM.

(a) DUTY OF SECRETARY.—As soon as practicable after the date of enactment of this Act, the Secretary shall establish and carry out a program similar to, and consistent with, the national rural water and wastewater circuit rider program established under section 306(a)(22) of the Consolidated Farm and Rural Development Act (7 U.S.C. 1926(a)(22)) (including the authority to make grants)—

(1) to provide on-site technical assistance to rural drinking water and wastewater utilities (including utilities serving an Indian tribe (as defined in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450b))); and

(2) to improve energy efficiency, identify and develop alternative and renewable energy supplies, and conserve water in the operation of rural drinking water and wastewater utilities.

(b) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this section $7,000,000 for each of fiscal years 2010 through 2015.

SEC. 150. COMPREHENSIVE WATER USE AND ENERGY SAVINGS STUDY.

(a) IN GENERAL.—As soon as practicable after the date of enactment of this Act, in consultation with other Federal agencies and appropriate entities, and incorporating available governmental and nongovernmental data as appropriate, the Secretary shall conduct a comprehensive study to determine the interrelated nature of water and energy use (including energy consumption in water-related processes and the manner by which to reduce water-related energy consumption) to promote the efficient use of water and energy.

(b) REQUIRED COMPONENTS.—

(1) IN GENERAL.—In conducting the study under subsection (a), the Secretary shall include each component described in paragraphs (2) through (5).

(2) INDUSTRIAL WATER.—In accordance with paragraph (1), the Secretary shall—

(A) assess the annual industrial water use of the United States through a comparison, as the Secretary determines to be appropriate, of the differences in usage among—

(i) various regions of the United States;

(ii) industry types and processes; and

(iii) the use of in-plant waste treatment facilities; and

(B) identify opportunities to reduce significantly industrial energy consumption and associated costs through the use of—

(i) water management strategies;

(ii) water conservation using technologies in existence as of the date of enactment of this Act; and

(iii) reused water, particularly with respect to industrial energy applications.

(3) PEAK DEMAND.—In accordance with paragraph (1), the Secretary shall identify options to reduce energy use by water treatment and delivery systems during peak electric demand periods, including through—

(A) the use of increased water storage facilities;

(B) the aggregation of water system utility accounts;

(C) the installation of supervisory control and data acquisition systems; and

(D) improvements made to primary and secondary water and wastewater treatment.

(4) NONPOTABLE WATER SOURCES.—In accordance with paragraph (1), the Secretary shall identify and assess—

(A) the applications and uses for nonfreshwater sources of water supply in industrial, commercial, and residential applications; and

(B) the potential energy conservation that may result from the use of nonfreshwater supplies, including—

(i) recycled and reclaimed water;

(ii) produced water; and

(iii) other nontraditional water sources.

(5) EMBEDDED ENERGY.—In accordance with paragraph (1), to facilitate an understanding of the potential energy savings associated with water conservation and efficiency, the Secretary shall assess

and estimate the quantity and type of energy consumed in the procurement, transport, and treatment of water supplies and wastewater that serve industrial, commercial, and residential uses, including variations relating to differences in geography and types of supply and wastewater processes.

(c) REPORT.—Not later than 18 months after the date of enactment of this Act, the Secretary shall submit to the appropriate committees of Congress a report that contains a description of—

(1) the results of the study conducted by the Secretary under this section; and

(2) the means by which to incorporate, and the benefits of incorporating, the results of the study into related reports prepared by the Secretary.

TITLE II—ENHANCED ENERGY EFFICIENCY

Subtitle A—Manufacturing Energy Efficiency

SEC. 201. SHORT TITLE.

This subtitle may be cited as the ''Restoring America's Manufacturing Leadership through Energy Efficiency Act of 2009''.

SEC. 202. STATE PARTNERSHIP INDUSTRIAL ENERGY EFFICIENCY REVOLVING LOAN PROGRAM.

Section 399A of the Energy Policy and Conservation Act (42 U.S.C. 6371h–1) is amended—

(1) in the section heading, by inserting ''**AND INDUSTRY**'' before the period at the end;

(2) by redesignating subsections (h) and (i) as subsections (i) and (j), respectively; and

(3) by inserting after subsection (g) the following:

''(h) STATE PARTNERSHIP INDUSTRIAL ENERGY EFFICIENCY REVOLVING LOAN PROGRAM.—

''(1) IN GENERAL.—The Secretary shall carry out a program under which the Secretary shall provide grants to eligible lenders to pay the Federal share of creating a revolving loan program under which loans are provided to commercial and industrial manufacturers to implement commercially available technologies or processes that significantly—

''(A) reduce systems energy intensity, including the use of energy intensive feedstocks; and

''(B) improve the industrial competitiveness of the United States.

''(2) ELIGIBLE LENDERS.—To be eligible to receive cost-matched Federal funds under this subsection, a lender shall—

''(A) be a community and economic development lender that the Secretary certifies meets the requirements of this subsection;

''(B) lead a partnership that includes participation by, at a minimum—

''(i) a State government agency; and

''(ii) a private financial institution or other provider of loan capital;

''(C) submit an application to the Secretary, and receive the approval of the Secretary, for cost-matched Federal funds to carry out a loan program described in paragraph (1); and

''(D) ensure that non-Federal funds are provided to match, on at least a dollar-for-dollar basis, the amount of Federal funds that are provided to carry out a revolving loan program described in paragraph (1).

''(3) AWARD.—The amount of cost-matched Federal funds provided to an eligible lender shall not exceed $100,000,000 for any fiscal year.

''(4) ELIGIBLE PROJECTS.—A program for which cost-matched Federal funds are provided under this subsection shall be designed to accelerate the implementation of industrial and commercial applications of technologies or processes that—

''(A) improve energy efficiency;

''(B) enhance the industrial competitiveness of the United States; and

''(C) achieve such other goals as the Secretary determines to be appropriate.

''(5) EVALUATION.—The Secretary shall evaluate applications for cost-matched Federal funds under this subsection on the basis of—

''(A) the description of the program to be carried out with the cost-matched Federal funds;

''(B) the commitment to provide non-Federal funds in accordance with paragraph (2)(D);

''(C) program sustainability over a 10-year period;

''(D) the capability of the applicant;

''(E) the quantity of energy savings or energy feedstock minimization;

"(F) the advancement of the goal under this Act of 25-percent energy avoidance;

"(G) the ability to fund energy efficient projects not later than 120 days after the date of the grant award; and

"(H) such other factors as the Secretary determines appropriate.

"(6) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this subsection $500,000,000 for each of fiscal years 2010 through 2012.".

SEC. 203. COORDINATION OF RESEARCH AND DEVELOPMENT OF ENERGY EFFICIENT TECHNOLOGIES FOR INDUSTRY.

(a) IN GENERAL.—As part of the research and development activities of the Industrial Technologies Program of the Department of Energy, the Secretary shall establish, as appropriate, collaborative research and development partnerships with other programs within the Office of Energy Efficiency and Renewable Energy, including the Building Technologies Program, the Office of Electricity Delivery and Energy Reliability, and programs of the Office of Science—

(1) to leverage the research and development expertise of those programs to promote early stage energy efficiency technology development; and

(2) to apply the knowledge and expertise of the Industrial Technologies Program to help achieve the program goals of the other programs.

(b) REPORTS.—Not later than 2 years after the date of enactment of this Act and biennially thereafter, the Secretary shall submit to Congress a report that describes actions taken to carry out subsection (a) and the results of those actions.

SEC. 204. ENERGY EFFICIENT TECHNOLOGIES ASSESSMENT.

(a) IN GENERAL.—Not later than 60 days after the date of enactment of this Act, the Secretary shall commence an assessment of commercially available, cost competitive energy efficiency technologies that are not widely implemented within the United States for the energy intensive industries of—

(1) steel;

(2) aluminum;

(3) forest and paper products;

(4) food processing;

(5) metal casting;

(6) glass;

(7) chemicals;

(8) petroleum refining;

(9) cement;

(10) information and communication technologies; and

(11) other industries that (as determined by the Secretary)—

(A) use large quantities of energy;

(B) emit large quantities of greenhouse gases; or

(C) use a rapidly increasing quantity of energy.

(b) REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretary shall publish a report, based on the assessment conducted under subsection (a), that contains—

(1) a detailed inventory describing the cost, energy, and greenhouse gas emission savings of each technology described in subsection (a);

(2) for each technology, the total cost, energy, and greenhouse gas emissions savings if the technology is implemented throughout the industry of the United States;

(3) for each industry, an assessment of total possible cost, energy, and greenhouse gas emissions

savings possible if state-of-the art, cost-competitive, commercial energy efficiency technologies were adopted; and

(4) for each industry, a comparison to the European Union, Japan, and other appropriate countries of energy efficiency technology adoption rates, as determined by the Secretary.

SEC. 205. FUTURE OF INDUSTRY PROGRAM.

(a) IN GENERAL.—Section 452(c)(2) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111(c)(2)) is amended by striking the section heading and inserting the following: ''**FUTURE OF INDUSTRY PROGRAM**''.

(b) INDUSTRY-SPECIFIC ROAD MAPS.—Section 452(c)(2) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111(c)(2)) is amended—

(1) in subparagraph (E), by striking ''and'' at the end;

(2) by redesignating subparagraph (F) as subparagraph (G); and

(3) by inserting after subparagraph (E) the following:

''(F) research to establish (through the Industrial Technologies Program and in collabora-

tion with energy-intensive industries) a road map process under which—

''(i) industry-specific studies are conducted to determine the intensity of energy use, greenhouse gas emissions, and waste and operating costs, by process and subprocess;

''(ii) near-, mid-, and long-term targets of opportunity are established for synergistic improvements in efficiency, sustainability, and resilience; and

''(iii) public/private actionable plans are created to achieve roadmap goals; and''.

(c) INDUSTRIAL RESEARCH AND ASSESSMENT CENTERS.—

(1) IN GENERAL.—Section 452(e) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111(e)) is amended—

(A) by redesignating paragraphs (1) through (5) as subparagraphs (A) through (E), respectively, and indenting appropriately;

(B) by striking ''The Secretary'' and inserting the following:

''(1) IN GENERAL.—The Secretary'';

(C) in subparagraph (A) (as redesignated by subparagraph (A)), by inserting before the semicolon at the end the following: ", including assessments of sustainable manufacturing goals and the implementation of information technology advancements for supply chain analysis, logistics, industrial and manufacturing processes, and other purposes''; and

(D) by adding at the end the following:

''(2) CENTERS OF EXCELLENCE.—

''(A) IN GENERAL.—The Secretary shall establish a Center of Excellence at up to 10 of the highest performing industrial research and assessment centers, as determined by the Secretary.

''(B) DUTIES.—A Center of Excellence shall coordinate with and advise the industrial research and assessment centers located in the region of the Center of Excellence.

''(C) FUNDING.—Subject to the availability of appropriations, of the funds made available under subsection (f), the Secretary shall use to support each Center of Excellence not less than $500,000 for fiscal year 2010 and each fiscal year thereafter, as determined by the Secretary.

''(3) EXPANSION OF CENTERS.—The Secretary shall provide funding to establish additional industrial research and assessment centers at institutions of higher education that do not have industrial research and assessment centers established under paragraph (1), taking into account the size of, and potential energy efficiency savings for, the manufacturing base within the region of the proposed center.

''(4) COORDINATION.—

''(A) IN GENERAL.—To increase the value and capabilities of the industrial research and assessment centers, the centers shall—

''(i) coordinate with Manufacturing Extension Partnership Centers of the National Institute of Science and Technology;

''(ii) coordinate with the Building Technologies Program of the Department of Energy to provide building assessment services to manufacturers;

''(iii) increase partnerships with the National Laboratories of the Department of Energy to leverage the expertise and technologies of the National Laboratories for national industrial and manufacturing needs;

"(iv) identify opportunities for reducing greenhouse gas emissions; and

"(v) promote sustainable manufacturing practices for small- and medium-sized manufacturers.

"(5) OUTREACH.—The Secretary shall provide funding for—

"(A) outreach activities by the industrial research and assessment centers to inform small- and medium-sized manufacturers of the information, technologies, and services available; and

"(B) a full-time equivalent employee at each center of excellence whose primary mission shall be to coordinate and leverage the efforts of the center with—

"(i) Federal and State efforts;

"(ii) the efforts of utilities; and

"(iii) the efforts of other centers in the region of the center of excellence.

"(6) WORKFORCE TRAINING.—

"(A) IN GENERAL.—The Secretary shall pay the Federal share of associated internship programs under which students work with industries and manufactures to implement the

recommendations of industrial research and assessment centers.

''(B) FEDERAL SHARE.—The Federal share of the cost of carrying out internship programs described in subparagraph (A) shall be 50 percent.

''(C) FUNDING.—Subject to the availability of appropriations, of the funds made available under subsection (f), the Secretary shall use to carry out this paragraph not less than $5,000,000 for fiscal year 2010 and each fiscal year thereafter.

''(7) SMALL BUSINESS LOANS.—The Administrator of the Small Business Administration shall, to the maximum practicable, expedite consideration of applications from eligible small business concerns for loans under the Small Business Act (15 U.S.C. 631 et seq.) for loans to implement recommendations of industrial research and assessment centers established under paragraph (1).''.

(d) FUTURE OF INDUSTRY PROGRAM.—Section 452(f) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111(f)) is amended—

(1) in paragraph (1)—

(A) in subparagraph (C), by striking ''$196,000,000'' and inserting ''$216,000,000'';

(B) in subparagraph (D), by striking ''$202,000,000'' and inserting ''$232,000,000''; and

(C) in subparagraph (E), by striking ''$208,000,000'' and inserting ''$248,000,000''; and

(2) by adding at the end the following:

''(4) INDUSTRIAL RESEARCH AND ASSESSMENT CENTERS.—Of the amounts made available under paragraph (1), the Secretary shall use to provide funding to industrial research and assessment centers under subsection (e) not less than—

''(A) $20,000,000 for fiscal year 2010;

''(B) $30,000,000 for fiscal year 2011; and

''(C) $40,000,000 for fiscal year 2012 and each fiscal year thereafter.''.

SEC. 206. SUSTAINABLE MANUFACTURING INITIATIVE.

(a) IN GENERAL.—Part E of title III of the Energy Policy and Conservation Act (42 U.S.C. 6341) is amended by adding at the end the following:

''SEC. 376. SUSTAINABLE MANUFACTURING INITIATIVE.

''(a) IN GENERAL.—As part of the Industrial Technologies Program of the Department of Energy, the Sec-

retary shall carry out a sustainable manufacturing initiative under which the Secretary, on the request of a manufacturer, shall conduct onsite technical assessments to identify opportunities for—

''(1) maximizing the energy efficiency of systems;

''(2) preventing pollution and minimizing waste;

''(3) reducing the use of water in manufacturing processes;

''(4) conserving natural resources; and

''(5) achieving such other goals as the Secretary determines to be appropriate.

''(b) COORDINATION.—The Secretary shall carry out the initiative in coordination with appropriate agencies, including the National Institute of Standards and Technology.

''(c) RESEARCH AND DEVELOPMENT PROGRAM FOR SUSTAINABLE MANUFACTURING AND INDUSTRIAL TECHNOLOGIES AND PROCESSES.—As part of the Industrial Technologies Program of the Department of Energy, the Secretary shall carry out a joint industry-government partnership program to conduct research and development of new sustainable manufacturing and industrial technologies and processes that maximize the energy efficiency

of systems, reduce pollution, and conserve natural resources.

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

(b) TABLE OF CONTENTS.—The table of contents of the Energy Policy and Conservation Act (42 U.S.C. prec. 6201) is amended by adding at the end of the items relating to part E of title III the following:

''Sec. 376. Sustainable manufacturing initiative.''.

SEC. 207. INNOVATION IN INDUSTRY GRANTS.

Section 1008 of the Energy Policy Act of 2005 (42 U.S.C. 16396) is amended by adding at the end the following:

''(g) INNOVATION IN INDUSTRY GRANTS.—

''(1) IN GENERAL.—As part of the program under this section, the Secretary shall carry out a program to pay the Federal share of competitively awarding grants to State-industry partnerships in accordance with this subsection to develop, demonstrate, and commercialize new technologies or processes for industries that significantly—

''(A) reduce energy use and energy intensive feedstocks;

''(B) reduce pollution and greenhouse gas emissions;

''(C) reduce industrial waste; and

''(D) improve domestic industrial cost competitiveness.

''(2) ADMINISTRATION.—

''(A) APPLICATIONS.—A State-industry partnership seeking a grant under this subsection shall submit to the Secretary an application for a grant to carry out a project to demonstrate an innovative energy efficiency technology or process described in paragraph (1).

''(B) COST SHARING.—To be eligible to receive a grant under this subsection, a State-industry partnership shall agree to match, on at least a dollar-for-dollar basis, the amount of Federal funds that are provided to carry out the project.

''(C) GRANT.—The Secretary shall provide to a State-industry partnership selected under this subsection a 1-time grant of not more than $500,000 to initiate the project.

''(3) ELIGIBLE PROJECTS.—A project for which a grant is received under this subsection shall be designed to demonstrate successful—

''(A) industrial applications of energy efficient technologies or processes that reduce costs

to industry and prevent pollution and greenhouse gas releases; or

''(B) energy efficiency improvements in material inputs, processes, or waste streams to enhance the industrial competitiveness of the United States.

''(4) EVALUATION.—The Secretary shall evaluate applications for grants under this subsection on the basis of—

''(A) the description of the concept;

''(B) cost-efficiency;

''(C) the capability of the applicant;

''(D) the quantity of energy savings;

''(E) the commercialization or marketing plan; and

''(F) such other factors as the Secretary determines to be appropriate.''.

SEC. 208. STUDY OF ADVANCED ENERGY TECHNOLOGY MANUFACTURING CAPABILITIES IN THE UNITED STATES.

(a) IN GENERAL.—Not later than 60 days after the date of enactment of this Act, the Secretary shall enter into an arrangement with the National Academy of Sciences under which the Academy shall conduct a study

of the development of advanced manufacturing capabilities for various energy technologies, including—

(1) an assessment of the manufacturing supply chains of established and emerging industries;

(2) an analysis of—

(A) the manner in which supply chains have changed over the 25-year period ending on the date of enactment of this Act;

(B) current trends in supply chains; and

(C) the energy intensity of each part of the supply chain and opportunities for improvement;

(3) for each technology or manufacturing sector, an analysis of which sections of the supply chain are critical for the United States to retain or develop to be competitive in the manufacturing of the technology;

(4) an assessment of which emerging energy technologies the United States should focus on to create or enhance manufacturing capabilities; and

(5) recommendations on leveraging the expertise of energy efficiency and renewable energy user facilities so that best materials and manufacturing practices are designed and implemented.

(b) REPORT.—Not later than 2 years after the date on which the Secretary enters into the agreement with the Academy described in subsection (a), the Academy shall submit to the Committee on Energy and Natural Resources of the Senate, the Committee on Energy and Commerce of the House of Representatives, and the Secretary a report describing the results of the study required under this section, including any findings and recommendations.

SEC. 209. INDUSTRIAL TECHNOLOGIES STEERING COMMITTEE.

The Secretary shall establish an advisory steering committee to provide recommendations to the Secretary on planning and implementation of the Industrial Technologies Program of the Department of Energy.

SEC. 210. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Secretary such sums as are necessary to carry out this subtitle.

Subtitle B—Improved Efficiency in Appliances and Equipment

SEC. 221. SHORT TITLE.

This subtitle may be cited as the ''Appliance Standards Improvement Act of 2009''.

SEC. 222. TEST PROCEDURE PETITION PROCESS.

(a) CONSUMER PRODUCTS OTHER THAN AUTOMOBILES.—Section 323(b)(1) of the Energy Policy and Conservation Act (42 U.S.C. 6293(b)(1)) is amended—

(1) in subparagraph (A)(i), by striking ''amend'' and inserting ''publish in the Federal Register amended''; and

(2) by adding at the end the following:

''(B) PETITIONS.—

''(i) IN GENERAL.—In the case of any covered product, any person may petition the Secretary to conduct a rulemaking—

''(I) to prescribe a test procedure for the covered product; or

''(II) to amend the test procedures applicable to the covered product to more accurately or fully comply with paragraph (3).

''(ii) DETERMINATION.—The Secretary shall—

''(I) not later than 90 days after the date of receipt of the petition, publish the petition in the Federal Register; and

"(II) not later than 180 days after the date of receipt of the petition, grant or deny the petition.

"(iii) BASIS.—The Secretary shall grant a petition if the Secretary finds that the petition contains evidence that, assuming no other evidence was considered, provides an adequate basis for determining that an amended test method would more accurately or fully comply with paragraph (3).

"(iv) EFFECT ON OTHER REQUIREMENTS.—The granting of a petition by the Secretary under this subparagraph shall create no presumption with respect to the determination of the Secretary that the proposed test procedure meets the requirements of paragraph (3).

"(v) RULEMAKING.—

"(I) IN GENERAL.—Except as provided in subclause (II), not later than the end of the 18-month period beginning on the date of granting a petition, the Secretary shall publish an amended test method or a deter-

mination not to amend the test method.

''(II) EXTENSION.—The Secretary may extend the period described in subclause (I) for 1 additional year.

''(III) DIRECT FINAL RULE.—The Secretary may adopt a consensus test procedure in accordance with the direct final rule procedure established under section 325(p)(4).''.

(b) CERTAIN INDUSTRIAL EQUIPMENT.—Section 343 of the Energy Policy and Conservation Act (42 U.S.C. 6314) is amended—

(1) in subsection (a), by striking paragraph (1) and inserting the following:

''(1) AMENDMENT AND PETITION PROCESS.—

''(A) IN GENERAL.—At least once every 7 years, the Secretary shall review test procedures for all covered equipment and—

''(i) publish in the Federal Register amended test procedures with respect to any covered equipment, if the Secretary determines that amended test procedures

would more accurately or fully comply with paragraphs (2) and (3); or

''(ii) publish notice in the Federal Register of any determination not to amend a test procedure.

''(B) PETITIONS.—

''(i) IN GENERAL.—In the case of any class or category of covered equipment, any person may petition the Secretary to conduct a rulemaking—

''(I) to prescribe a test procedure for the covered equipment; or

''(II) to amend the test procedures applicable to the covered equipment to more accurately or fully comply with paragraphs (2) and (3).

''(ii) DETERMINATION.—The Secretary shall—

''(I) not later than 90 days after the date of receipt of the petition, publish the petition in the Federal Register; and

''(II) not later than 180 days after the date of receipt of the petition, grant or deny the petition.

"(iii) BASIS.—The Secretary shall grant a petition if the Secretary finds that the petition contains evidence that, assuming no other evidence was considered, provides an adequate basis for determining that an amended test method would more accurately promote energy or water use efficiency.

"(iv) EFFECT ON OTHER REQUIREMENTS.—The granting of a petition by the Secretary under this paragraph shall create no presumption with respect to the determination of the Secretary that the proposed test procedure meets the requirements of paragraphs (2) and (3).

"(v) RULEMAKING.—

"(I) IN GENERAL.—Except as provided in subclause (II), not later than the end of the 18-month period beginning on the date of granting a petition, the Secretary shall publish an amended test method or a determination not to amend the test method.

''(II) EXTENSION.—The Secretary may extend the period described in subclause (I) for 1 additional year.

''(III) DIRECT FINAL RULE.—The Secretary may adopt a consensus test procedure in accordance with the direct final rule procedure established under section 325(p).'';

(2) by striking subsection (c); and

(3) by redesignating subsections (d) and (e) as subsections (c) and (d), respectively.

SEC. 223. ENERGY STAR PROGRAM.

(a) DIVISION OF RESPONSIBILITIES.—Section 324A(b) of the Energy Policy and Conservation Act (42 U.S.C. 6294a(b)) is amended—

(1) by striking ''Responsibilities'' and inserting the following:

''(1) IN GENERAL.—Responsibilities''; and

(2) by adding at the end the following:

''(2) UPDATE.—Not later than 180 days after the date of enactment of this paragraph, the Secretary and the Administrator shall update the agreements described in paragraph (1), including agreements on provisions that provide—

"(A) a clear delineation of the roles and responsibilities of each agency that is based on the resources and areas of expertise of each agency;

"(B) a formal process for high-level decisionmaking that allows each agency to make specific programmatic decisions based on the program approaches of each agency;

"(C) a facilitated annual planning meeting that establishes strategic priorities and goals for the coming year;

"(D) a prescribed course of action to work through differences and disagreements;

"(E) a facilitated biannual program review conducted by a third-party that—

"(i) incorporates an assessment of program progress, partner acceptance, the achievement of program goals, and future strategic planning; and

"(ii) is evaluated by the Council on Environmental Quality, which shall appraise the findings in the review and work with the agencies to resolve any negative findings; and

''(F) a sunset date for the new agreement and a timetable for establishing future agreements based on priorities at that time.''.

(b) DUTIES.—Section 324A(c) of the Energy Policy and Conservation Act (42 U.S.C. 6294a(c)) is amended—

(1) in paragraph (6), by striking ''and'' after the semicolon at the end;

(2) in paragraph (7), by striking the period at the end and inserting a semicolon; and

(3) by adding at the end the following:

''(8)(A) review each product category—

''(i) at least once every 3 years; or

''(ii) when market share for an Energy Star product category reaches 35 percent;

''(B) based on the review—

''(i) update and publish the Energy Star product criteria for the category; or

''(ii) publish a finding that no update is justified with the explanation for the finding; and

''(C) during the initial review for each product category, establish an alternative market share to trigger subsequent reviews, based on product-specific technology and market attributes;

''(9) require a demonstration of compliance with the Energy Star criteria by qualified products, except that—

''(A) the demonstration shall be conducted in accordance with appropriate methods determined for each product type by the Secretary or the Administrator of the Environmental Protection Agency (as appropriate), including—

''(i) third-party verification;

''(ii) third-party certification;

''(iii) purchase and testing of products from the market; or

''(iv) other verified testing and compliance approaches; and

''(B) the Secretary or Administrator may exempt specific types of products from the requirements of this subparagraph if the Secretary or Administrator finds that—

''(i) the benefits to the Energy Star program of verifying product performance are substantially exceeded by the burdens; or

''(ii) there are no benefits to the Energy Star program; and

''(10) develop and publish standardized building energy audit methods.''.

(c) FUNDING.—Section 324A of the Energy Policy and Conservation Act (42 U.S.C. 6294a) is amended by adding at the end the following:

''(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section—

''(1) to the Department of Energy $25,000,000 for each fiscal year; and

''(2) to the Environmental Protection Agency $100,000,000 for each fiscal year.''.

SEC. 224. PETITION FOR AMENDED STANDARDS.

Section 325(n) of the Energy Policy and Conservation Act (42 U.S.C. 6295(n)) is amended—

(1) by redesignating paragraph (3) as paragraph (5); and

(2) by inserting after paragraph (2) the following:

''(3) NOTICE OF DECISION.—Not later than 180 days after the date of receiving a petition, the Secretary shall publish in the Federal Register a notice of, and explanation for, the decision of the Secretary to grant or deny the petition.

''(4) NEW OR AMENDED STANDARDS.—Not later than 3 years after the date of granting a petition for new or amended standards, the Secretary shall publish in the Federal Register—

''(A) a final rule that contains the new or amended standards; or

''(B) a determination that no new or amended standards are necessary.''.

SEC. 225. PORTABLE LIGHT FIXTURES.

(a) DEFINITIONS.—Section 321 of the Energy Policy and Conservation Act (42 U.S.C. 6291) is amended by adding at the end the following:

''(67) ART WORK LIGHT FIXTURE.—The term 'art work light fixture' means a light fixture designed only to be mounted directly to an art work and for the purpose of illuminating that art work.

''(68) LED LIGHT ENGINE.—The term 'LED light engine' or 'LED light engine with integral heat sink' means a subsystem of an LED light fixture that—

''(A) includes 1 or more LED components, including—

''(i) an LED driver power source with electrical and mechanical interfaces; and

"(ii) an integral heat sink to provide thermal dissipation; and

"(B) may be designed to accept additional components that provide aesthetic, optical, and environmental control.

"(69) LED LIGHT FIXTURE.—The term 'LED light fixture' means a complete lighting unit consisting of—

"(A) an LED light source with 1 or more LED lamps or LED light engines; and

"(B) parts—

"(i) to distribute the light;

"(ii) to position and protect the light source; and

"(iii) to connect the light source to electrical power.

"(70) LIGHT FIXTURE.—The term 'light fixture' means a product designed to provide light that includes—

"(A) at least 1 lamp socket; and

"(B) parts—

"(i) to distribute the light;

"(ii) position and protect 1 or more lamps; and

"(iii) to connect 1 or more lamps to a power supply.

"(71) PORTABLE LIGHT FIXTURE.—

"(A) IN GENERAL.—The term 'portable light fixture' means a light fixture that has a flexible cord and an attachment plug for connection to a nominal 120-volt circuit that—

"(i) allows the user to relocate the product without any rewiring; and

"(ii) typically can be controlled with a switch located on the product or the power cord of the product.

"(B) EXCLUSIONS.—The term 'portable light fixture' does not include—

"(i) direct plug-in night lights, sun or heat lamps, medical or dental lights, portable electric hand lamps, signs or commercial advertising displays, photographic lamps, germicidal lamps, or light fixtures for marine use or for use in hazardous locations (as those terms are defined in ANSI/NFPA 70 of the National Electrical Code); or

"(ii) decorative lighting strings, decorative lighting outfits, or electric candles or

candelabra without lamp shades that are covered by Underwriter Laboratories (UL) standard 588, 'Seasonal and Holiday Decorative Products'.''.

(b) COVERAGE.—

(1) IN GENERAL.—Section 322(a) of the Energy Policy and Conservation Act (42 U.S.C. 6292(a)) is amended—

(A) by redesignating paragraph (20) as paragraph (21); and

(B) by inserting after paragraph (19) the following:

''(20) Portable light fixtures.''.

(2) CONFORMING AMENDMENTS.—Section 325(l) of the Energy Policy and Conservation Act (42 U.S.C. 6295(l)) is amended by striking ''paragraph (19)'' each place it appears in paragraphs (1) and (2) and inserting ''paragraph (21)''.

(c) TEST PROCEDURES.—Section 323(b) of the Energy Policy and Conservation Act (42 U.S.C. 6293(b)) is amended by adding at the end the following:

''(19) LED FIXTURES AND LED LIGHT ENGINES.—Test procedures for LED fixtures and LED light engines shall be based on Illuminating Engineering Society of North America test procedure

LM–79, Approved Method for Electrical and Photometric Testing of Solid-State Lighting Devices and an IES-approved test procedure for testing LED light engines.''.

(d) STANDARDS.—Section 325 of the Energy Policy and Conservation Act (42 U.S.C. 6295) is amended—

(1) by redesignating subsection (ii) as subsection (kk); and

(2) by inserting after subsection (hh) the following:

''(ii) PORTABLE LIGHT FIXTURES.—

''(1) IN GENERAL.—Subject to paragraphs (2) and (3), portable light fixtures manufactured on or after January 1, 2012, shall meet 1 or more of the following requirements:

''(A) Be a fluorescent light fixture that meets the requirements of the Energy Star Program for Residential Light Fixtures, Version 4.2.

''(B) Be equipped with only 1 or more GU–24 line-voltage sockets, not be rated for use with incandescent lamps of any type (as defined in ANSI standards), and meet the requirements of version 4.2 of the Energy Star program for residential light fixtures.

''(C) Be an LED light fixture or a light fixture with an LED light engine and comply with the following minimum requirements:

''(i) Minimum light output: 200 lumens (initial).

''(ii) Minimum LED light engine efficacy: 40 lumens/watt installed in fixtures that meet the minimum light fixture efficacy of 29 lumens/watt or, alternatively, a minimum LED light engine efficacy of 60 lumens/watt for fixtures that do not meet the minimum light fixture efficacy of 29 lumens/watt.

''(iii) All portable fixtures shall have a minimum LED light fixture efficacy of 29 lumens/watt and a minimum LED light engine efficacy of 60 lumens/watt by January 1, 2016.

''(iv) Color Correlated Temperature (CCT): 2700K through 4000K.

''(v) Minimum Color Rendering Index (CRI): 75.

''(vi) Power factor equal to or greater than 0.70.

"(vii) Portable luminaries that have internal power supplies shall have zero standby power when the luminaire is turned off.

"(viii) LED light sources shall deliver at least 70 percent of initial lumens for at least 25,000 hours.

"(D)(i) Be equipped with an ANSI-designated E12, E17, or E26 screw-based socket and be prepackaged and sold together with 1 screw-based compact fluorescent lamp or screw-based LED lamp for each screw-based socket on the portable light fixture.

"(ii) The compact fluorescent or LED lamps prepackaged with the light fixture shall be fully compatible with any light fixture controls incorporated into the light fixture (for example, light fixtures with dimmers shall be packed with dimmable lamps).

"(iii) Compact fluorescent lamps prepackaged with light fixtures shall meet the requirements of the Energy Star Program for CFLs Version 4.0.

''(iv) Screw-based LED lamps shall comply with the minimum requirements described in subparagraph (C).

''(E) Be equipped with 1 or more single-ended, non-screw based halogen lamp sockets (line or low voltage), a dimmer control or high-low control, and be rated for a maximum of 100 watts.

''(2) REVIEW.—

''(A) REVIEW.—The Secretary shall review the criteria and standards established under paragraph (1) to determine if revised standards are technologically feasible and economically justified.

''(B) COMPONENTS.—The review shall include consideration of—

''(i) whether a separate compliance procedure is still needed for halogen fixtures described in subparagraph (E) and, if necessary, what an appropriate standard for halogen fixtures shall be;

''(ii) which of the specific technical criteria described in subparagraphs (A), (C), and (D)(iii) should be modified; and

''(iii) which fixtures should be exempted from the light fixture efficacy standard as of January 1, 2016, because the fixtures are primarily decorative in nature (as defined by the Secretary) and, even if exempted, are likely to be sold in limited quantities.

''(C) TIMING.—

''(i) DETERMINATION.—Not later than January 1, 2014, the Secretary shall publish amended standards, or a determination that no amended standards are justified, under this subsection.

''(ii) STANDARDS.—Any standards under this subsection take effect on January 1, 2016.

''(3) ART WORK LIGHT FIXTURES.—Art work light fixtures manufactured on or after January 1, 2012, shall—

''(A) comply with paragraph (1); or

''(B)(i) contain only ANSI-designated E12 screw-based line-voltage sockets;

''(ii) have not more than 3 sockets;

''(iii) be controlled with an integral high/low switch;

"(iv) be rated for not more than 25 watts if fitted with 1 socket; and

"(v) be rated for not more than 15 watts per socket if fitted with 2 or 3 sockets.

"(4) EXCEPTION FROM PREEMPTION.—Notwithstanding section 327, Federal preemption shall not apply to a regulation concerning portable light fixtures adopted by the California Energy Commission on or before January 1, 2014.".

SEC. 226. GU–24 BASE LAMPS.

(a) DEFINITIONS.—Section 321 of the Energy Policy and Conservation Act (42 U.S.C. 6291) (as amended by section 225(a)) is amended by adding at the end the following:

"(72) GU–24.—The term 'GU–24'" means the designation of a lamp socket, based on a coding system by the International Electrotechnical Commission, under which—

"(A) 'G' indicates a holder and socket type with 2 or more projecting contacts, such as pins or posts;

"(B) 'U' distinguishes between lamp and holder designs of similar type that are not interchangeable due to electrical or mechanical requirements; and

''(C) 24 indicates the distance in millimeters between the electrical contact posts.

''(73) GU–24 ADAPTOR.—

''(A) IN GENERAL.—The term 'GU–24 Adaptor' means a 1-piece device, pig-tail, wiring harness, or other such socket or base attachment that—

''(i) connects to a GU–24 socket on 1 end and provides a different type of socket or connection on the other end; and

''(ii) does not alter the voltage.

''(B) EXCLUSION.—The term 'GU–24 Adaptor' does not include a fluorescent ballast with a GU–24 base.

''(74) GU–24 BASE LAMP.—'GU–24 base lamp' means a light bulb designed to fit in a GU–24 socket.''.

(b) STANDARDS.—Section 325 of the Energy Policy and Conservation Act (42 U.S.C. 6295) (as amended by section 225(d)) is amended by inserting after subsection (ii) the following:

''(jj) GU–24 BASE LAMPS.—

''(1) IN GENERAL.—A GU–24 base lamp shall not be an incandescent lamp as defined by ANSI.

''(2) GU–24 ADAPTORS.—GU–24 adaptors shall not adapt a GU–24 socket to any other line voltage socket.''.

SEC. 227. STANDARDS FOR CERTAIN INCANDESCENT REFLECTOR LAMPS AND REFLECTOR LAMPS.

Section 325(i) of the Energy Policy and Conservation Act (42 U.S.C. 6295(i)) is amended by adding at the end the following:

''(9) CERTAIN INCANDESCENT REFLECTOR LAMPS.—

''(A) IN GENERAL.—Not later than July 1, 2011, the Secretary shall publish a final rule establishing standards for incandescent reflector lamp types described in paragraph (1)(C).

''(B) EFFECTIVE DATE.—The standards described in subparagraph (A) shall take effect on July 1, 2013.

''(C) STANDARDS.—In conducting a rulemaking for incandescent reflector lamps under this paragraph after the date of enactment of this paragraph, the Secretary shall consider the standards for all incandescent reflector lamps, including lamp types described in paragraph (1)(C).

''(10) REFLECTOR LAMPS.—

''(A) IN GENERAL.—Not later than January 1, 2015, the Secretary shall publish a final rule establishing and amending standards for reflector lamps, including incandescent reflector lamps.

''(B) ADMINISTRATION.—In conducting the rulemaking for reflector lamps under this paragraph, the Secretary shall consider—

''(i) incandescent and nonincandescent technologies; and

''(ii) a new metric, other than lumens per watt, that is based on the photometric distribution of those lamps.

''(C) EFFECTIVE DATE.—The standards described in subparagraph (A) shall take effect not earlier than the date that is 3 years after the date of publication of the final rule, as determined by the Secretary.''.

SEC. 228. STANDARDS FOR COMMERCIAL FURNACES.

Section 342(a) of the Energy Policy and Conservation Act (42 U.S.C. 6313(a)) is amended by adding at the end the following:

''(11) Warm air furnaces with an input rating of 225,000 Btu per hour or more and manufactured

after January 1, 2011, shall meet the following standard levels:

''(A) Gas-fired units shall—

''(i) have a minimum combustion efficiency of 80 percent;

''(ii) include an interrupted or intermittent ignition device;

''(iii) have jacket losses not exceeding 0.75 percent of the input rating; and

''(iv) have power venting or a flue damper.

''(B) Oil-fired units shall have—

''(i) a minimum thermal efficiency of 81 percent;

''(ii) jacket losses not exceeding 0.75 percent of the input rating; and

''(iii) power venting or a flue damper.''.

SEC. 229. MOTOR EFFICIENCY REBATE PROGRAM.

(a) IN GENERAL.—Part C of title III of the Energy Policy and Conservation Act (42 U.S.C. 6311 et seq.) is amended by adding at the end the following:

''SEC. 347. MOTOR EFFICIENCY REBATE PROGRAM.

''(a) ESTABLISHMENT.—By not later than January 1, 2010, in accordance with subsection (b), the Secretary

shall establish a program to provide rebates for expenditures made by entities—

''(1) for the purchase and installation of a new electric motor that has a nominal full load efficiency that is not less than the nominal full load efficiency as defined in—

''(A) table 12–12 of NEMA Standards Publication MG 1–2006 for random wound motors rated 600 volts or lower; or

''(B) table 12–13 of NEMA Standards Publication MG 1–2006 for form wound motors rated 5000 volts or lower; and

''(2) to replace an installed motor of the entity the specifications of which are established by the Secretary by a date that is not later than 90 days after the date of enactment of this section.

''(b) REQUIREMENTS.—

''(1) APPLICATION.—To be eligible to receive a rebate under this section, an entity shall submit to the Secretary an application in such form, at such time, and containing such information as the Secretary may require, including—

''(A) demonstrated evidence that the entity purchased an electric motor described in sub-

section (a)(1) to replace an installed motor described in subsection (a)(2);

''(B) demonstrated evidence that the entity—

''(i) removed the installed motor of the entity from service; and

''(ii) properly disposed the installed motor of the entity; and

''(C) the physical nameplate of the installed motor of the entity.

''(2) AUTHORIZED AMOUNT OF REBATE.—The Secretary may provide to an entity that meets each requirement under paragraph (1) a rebate the amount of which shall be equal to the product obtained by multiplying—

''(A) the nameplate horsepower of the electric motor purchased by the entity in accordance with subsection (a)(1); and

''(B) $25.00.

''(3) PAYMENTS TO DISTRIBUTORS OF QUALIFYING ELECTRIC MOTORS.—To assist in the payment for expenses relating to processing and motor core disposal costs, the Secretary shall provide to the distributor of an electric motor described in subsection (a)(1), the purchaser of which received a re-

bate under this section, an amount equal to the product obtained by multiplying—

''(A) the nameplate horsepower of the electric motor; and

''(B) $5.00.

''(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section, to remain available until expended—

''(1) $80,000,000 for fiscal year 2010;

''(2) $75,000,000 for fiscal year 2011;

''(3) $70,000,000 for fiscal year 2012;

''(4) $65,000,000 for fiscal year 2013; and

''(5) $60,000,000 for fiscal year 2014.''.

(b) TABLE OF CONTENTS.—The table of contents of the Energy Policy and Conservation Act (42 U.S.C. prec. 6201) is amended by adding at the end of the items relating to part C of title III the following:

''Sec. 347. Motor efficiency rebate program.''.

SEC. 230. STUDY OF COMPLIANCE WITH ENERGY STANDARDS FOR APPLIANCES.

(a) IN GENERAL.—The Secretary shall conduct a study of the degree of compliance with energy standards for appliances, including an investigation of compliance rates and options for improving compliance, including enforcement.

(b) REPORT.—Not later than 18 months after the date of enactment of this Act, the Secretary shall submit to the appropriate committees of Congress a report describing the results of the study, including any recommendations.

SEC. 231. STUDY OF DIRECT CURRENT ELECTRICITY SUPPLY IN CERTAIN BUILDINGS.

(a) IN GENERAL.—The Secretary shall conduct a study—

(1) of the costs and benefits (including significant energy efficiency, power quality, and other power grid, safety, and environmental benefits) of requiring high-quality, direct current electricity supply in certain buildings; and

(2) to determine, if the requirement described in paragraph (1) is imposed, what the policy and role of the Federal Government should be in realizing those benefits.

(b) REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to the appropriate committees of Congress a report describing the results of the study, including any recommendations.

SEC. 232. MOTOR MARKET ASSESSMENT AND COMMERCIAL AWARENESS PROGRAM.

(a) FINDINGS.—Congress finds that—

(1) electric motor systems account for about half of the electricity used in the United States;

(2) electric motor energy use is determined by both the efficiency of the motor and the system in which the motor operates;

(3) Federal Government research on motor end use and efficiency opportunities is more than a decade old; and

(4) the Census Bureau has discontinued collection of data on motor and generator importation, manufacture, shipment, and sales.

(b) DEFINITIONS.—In this section:

(1) DEPARTMENT.—The term ''Department'' means the Department of Energy.

(2) INTERESTED PARTIES.—The term ''interested parties'' includes—

(A) trade associations;

(B) motor manufacturers;

(C) motor end users;

(D) electric utilities; and

(E) individuals and entities that conduct energy efficiency programs.

(3) SECRETARY.—The term ''Secretary'' means the Secretary of Energy, in consultation with interested parties.

(c) ASSESSMENT.—The Secretary shall conduct an assessment of electric motors and the electric motor market in the United States that shall—

(1) include important subsectors of the industrial and commercial electric motor market (as determined by the Secretary), including—

(A) the stock of motors and motor-driven equipment;

(B) efficiency categories of the motor population; and

(C) motor systems that use drives, servos, and other control technologies;

(2) characterize and estimate the opportunities for improvement in the energy efficiency of motor systems by market segment, including opportunities for—

(A) expanded use of drives, servos, and other control technologies;

(B) expanded use of process control, pumps, compressors, fans or blowers, and material handling components; and

(C) substitution of existing motor designs with existing and future advanced motor designs, including electronically commutated permanent magnet, interior permanent magnet, and switched reluctance motors; and

(3) develop an updated profile of motor system purchase and maintenance practices, including surveying the number of companies that have motor purchase and repair specifications, by company size, number of employees, and sales.

(d) RECOMMENDATIONS; UPDATE.—Based on the assessment conducted under subsection (c), the Secretary shall—

(1) develop—

(A) recommendations to update the detailed motor profile on a periodic basis;

(B) methods to estimate the energy savings and market penetration that is attributable to the Save Energy Now Program of the Department; and

(C) recommendations for the Director of the Census Bureau on market surveys that should be undertaken in support of the motor system activities of the Department; and

(2) prepare an update to the Motor Master+ program of the Department.

(e) PROGRAM.—Based on the assessment, recommendations, and update required under subsections (c) and (d), the Secretary shall establish a proactive, national program targeted at motor end-users and delivered in cooperation with interested parties to increase awareness of—

(1) the energy and cost-saving opportunities in commercial and industrial facilities using higher efficiency electric motors;

(2) improvements in motor system procurement and management procedures in the selection of higher efficiency electric motors and motor-system components, including drives, controls, and driven equipment; and

(3) criteria for making decisions for new, replacement, or repair motor and motor system components.

SEC. 233. STUDY REGARDING ENERGY SUPERSTAR CONCEPT.

Section 324A of the Energy Policy and Conservation Act (42 U.S.C. 6294a) is amended by adding at the end the following:

''(e) STUDY REGARDING ENERGY SUPERSTAR CONCEPT.—

''(1) STUDY.—

''(A) IN GENERAL.—As soon as practicable after the date of enactment of this subsection, in accordance with subparagraph (B), the Secretary and the Administrator of the Environmental Protection Agency (referred to in this subsection as the 'heads of the Federal agencies concerned') shall carry out jointly a study to determine the feasibility and advisability of adding to the Energy Star program of the Environmental Protection Agency and the Department of Energy a component to be known as the 'Energy Superstar tier' under which—

''(i) the tier would recognize the top-performing products and buildings (which would include the top approximately 5 percent of the market) that are determined to be products that are cost-effective to consumers; and

''(ii) at least a portion of the Energy Star product categories would be included under the tier.

''(B) REQUIREMENTS.—In carrying out the study under subparagraph (A), the heads of the Federal agencies concerned shall—

''(i) examine the costs and benefits, and advantages and disadvantages, of establishing the Energy Superstar tier;

''(ii) survey a sample of program participants (including builders, manufacturers, energy efficiency program operators, and other interested parties) to determine the opinions of the program participants regarding the potential usefulness of the Energy Superstar tier; and

''(iii) conduct an examination to determine whether the Energy Superstar tier will cause an undesirable dilution of the Energy Star brand.

''(2) REPORT.—Not later than 1 year after the date of enactment of this subsection, the heads of the Federal agencies concerned shall jointly submit to the appropriate committees of Congress a report that contains each recommendation of the heads of the Federal agencies concerned regarding—

''(A) whether the Energy Superstar tier should be established; and

''(B) if the heads of the Federal agencies concerned recommend the establishment of the Energy Superstar tier under subparagraph (A), a proposed schedule and budget for the establishment and implementation of the Energy Superstar tier.''.

SEC. 234. TECHNICAL AMENDMENT.

Section 343(a) of the Energy Policy and Conservation Act (42 U.S.C. 6314(a)) is amended by striking ''Air-Conditioning and Refrigeration Institute'' each place it appears in paragraphs (4)(A) and (7) and inserting ''Air-Conditioning, Heating, and Refrigeration Institute''.

[Subtitle C—Improved Efficiency in Buildings]

[SEC. 241. RESERVED.]

TITLE III—IMPROVED ENERGY SECURITY

Subtitle A—Cyber Security of the Electric Transmission Grid

SEC. 301. CRITICAL ELECTRIC INFRASTRUCTURE.

Part II of the Federal Power Act (16 U.S.C. 824 et seq.) is amended by adding at the end the following:

''SEC. 224. CRITICAL ELECTRIC INFRASTRUCTURE.

''(a) DEFINITIONS.—In this section:

''(1) CRITICAL ELECTRIC INFRASTRUCTURE.—The term 'critical electric infrastructure' means systems and assets, whether physical or virtual, used for the generation, transmission, or distribution of electric energy affecting interstate commerce that, as determined by the Commission or the Secretary (as appropriate), are so vital to the United States that the incapacity or destruction of the systems and assets would have a debilitating impact on national security, national economic security, or national public health or safety.

''(2) CRITICAL ELECTRIC INFRASTRUCTURE INFORMATION.—The term 'critical electric infrastructure information' means critical infrastructure information relating to critical electric infrastructure.

''(3) CRITICAL INFRASTRUCTURE INFORMATION.—The term 'critical infrastructure information' has the meaning given the term in section 212 of the Critical Infrastructure Information Act of 2002 (6 U.S.C. 131).

''(4) CYBER SECURITY THREAT.—The term 'cyber security threat' means the imminent danger of an act that disrupts, attempts to disrupt, or poses a significant risk of disrupting the operation of programmable electronic devices or communications net-

works (including hardware, software, and data) essential to the reliable operation of critical electric infrastructure.

''(5) CYBER SECURITY VULNERABILITY.—The term 'cyber security vulnerability' means a weakness or flaw in the design or operation of any programmable electronic device or communication network that exposes critical electric infrastructure to a cyber security threat.

''(6) SECRETARY.—The term 'Secretary' means the Secretary of Energy.

''(b) AUTHORITY OF COMMISSION.—

''(1) IN GENERAL.—The Commission shall issue such rules or orders as are necessary to protect critical electric infrastructure from cyber security vulnerabilities.

''(2) EXPEDITED PROCEDURES.—The Commission may issue a rule or order without prior notice or hearing if the Commission determines the rule or order must be issued immediately to protect critical electric infrastructure from a cyber security vulnerability.

''(3) CONSULTATION.—Before issuing a rule or order under paragraph (2), to the extent practicable, taking into account the nature of the threat and ur-

gency of need for action, the Commission shall consult with the entities described in subsection (e)(1) and with officials at other Federal agencies, as appropriate, regarding implementation of actions that will effectively address the identified cyber security vulnerabilities.

''(4) TERMINATION OF RULES OR ORDERS.—A rule or order issued to address a cyber security vulnerability under this subsection shall expire on the effective date of a standard developed and approved pursuant to section 215 to address the cyber security vulnerability.

''(c) EMERGENCY AUTHORITY OF SECRETARY.—

''(1) IN GENERAL.—If the Secretary determines that immediate action is necessary to protect critical electric infrastructure from a cyber security threat, the Secretary may require, by order, with or without notice, persons subject to the jurisdiction of the Commission under this section to take such actions as the Secretary determines will best avert or mitigate the cyber security threat.

''(2) COORDINATION WITH CANADA AND MEXICO.—In exercising the authority granted under this subsection, the Secretary is encouraged to consult and coordinate with the appropriate officials in Can-

ada and Mexico responsible for the protection of cyber security of the interconnected North American electricity grid.

''(3) CONSULTATION.—Before exercising the authority granted under this subsection, to the extent practicable, taking into account the nature of the threat and urgency of need for action, the Secretary shall consult with the entities described in subsection (e)(1) and with officials at other Federal agencies, as appropriate, regarding implementation of actions that will effectively address the identified cyber security threat.

''(4) COST RECOVERY.—The Commission shall establish a mechanism that permits public utilities to recover prudently incurred costs required to implement immediate actions ordered by the Secretary under this subsection.

''(d) DURATION OF EXPEDITED OR EMERGENCY RULES OR ORDERS.—Any rule or order issued by the Commission without prior notice or hearing under subsection (b)(2) or any order issued by the Secretary under subsection (c) shall remain effective for not more than 90 days unless, during the 90 day-period, the Commission—

''(1) gives interested persons an opportunity to submit written data, views, or arguments (with or without opportunity for oral presentation); and

''(2) affirms, amends, or repeals the rule or order.

''(e) JURISDICTION.—

''(1) IN GENERAL.—Notwithstanding section 201, this section shall apply to any entity that owns, controls, or operates critical electric infrastructure.

''(2) COVERED ENTITIES.—

''(A) IN GENERAL.—An entity described in paragraph (1) shall be subject to the jurisdiction of the Commission for purposes of—

''(i) carrying out this section; and

''(ii) applying the enforcement authorities of this Act with respect to this section.

''(B) JURISDICTION.—This subsection shall not make an electric utility or any other entity subject to the jurisdiction of the Commission for any other purpose.

''(3) ALASKA AND HAWAII EXCLUDED.—Except as provided in subsection (f), nothing in this section shall apply in the State of Alaska or Hawaii.

''(f) DEFENSE FACILITIES.—Not later than 1 year after the date of enactment of this section, the Secretary of Defense shall prepare, in consultation with the Secretary, the States of Alaska and Hawaii, the Territory of Guam, and the electric utilities that serve national defense facilities in those States and Territory, a comprehensive plan that identifies the emergency measures or actions that will be taken to protect the reliability of the electric power supply of the national defense facilities located in those States and Territory in the event of an imminent cybersecurity threat.

''(g) PROTECTION OF CRITICAL ELECTRIC INFRASTRUCTURE INFORMATION.—

''(1) IN GENERAL.—Section 214 of the Critical Infrastructure Information Act of 2002 (6 U.S.C. 133) shall apply to critical electric infrastructure information submitted to the Commission or the Secretary under this section to the same extent as that section applies to critical infrastructure information voluntarily submitted to the Department of Homeland Security under that Act (6 U.S.C. 131 et seq.).

''(2) RULES PROHIBITING DISCLOSURE.—Notwithstanding section 552 of title 5, United States Code, the Secretary and the Commission shall prescribe regulations prohibiting disclosure of informa-

tion obtained or developed in ensuring cyber security under this section if the Secretary or Commission, as appropriate, decides disclosing the information would be detrimental to the security of critical electric infrastructure.

''(3) PROCEDURES FOR SHARING INFORMATION.—

''(A) IN GENERAL.—The Secretary and the Commission shall establish procedures on the release of critical infrastructure information to entities subject to this section, to the extent necessary to enable the entities to implement rules or orders of the Commission or the Secretary.

''(B) REQUIREMENTS.—The procedures shall—

''(i) limit the redissemination of information described in subparagraph (A) to ensure that the information is not used for an unauthorized purpose;

''(ii) ensure the security and confidentiality of the information;

''(iii) protect the constitutional and statutory rights of any individuals who are subjects of the information; and

''(iv) provide data integrity through the timely removal and destruction of obsolete or erroneous names and information.''.

Subtitle B—Nuclear Waste Management

SEC. 311. NATIONAL COMMISSION ON NUCLEAR WASTE.

The Nuclear Waste Policy Act of 1982 (42 U.S.C. 10101 et seq.) is amended by adding at the end the following:

''TITLE VI—NATIONAL COMMISSION ON NUCLEAR WASTE

''SEC. 601. ESTABLISHMENT OF COMMISSION.

''There is established a Federal advisory committee to be known as the 'National Commission on Nuclear Waste' (referred to in this title as the 'National Commission').

''SEC. 602. PURPOSES.

''The purposes of the National Commission are—

''(1) to conduct a comprehensive study of alternative means of safely managing or disposing of spent nuclear fuel and high-level radioactive waste from civilian nuclear activity and atomic energy defense activity; and

''(2) to recommend to Congress such legislative or other action as may be necessary to manage or

dispose of spent nuclear fuel and high-level radioactive waste successfully and safely.

"SEC. 603. COMPOSITION OF THE NATIONAL COMMISSION.

''(a) MEMBERS.—The National Commission shall be composed of 11 members appointed by the President from among prominent United States citizens with national recognition and significant depth of experience in such professions as government service, public administration, natural or physical sciences, engineering, and public health and safety.

''(b) EXCLUSION.—An officer or employee of the Federal Government or any State or local government may not serve as a member of the National Commission.

''(c) BALANCE.—The membership of the National Commission shall be fairly balanced in terms of the points of view represented and functions to be performed by the National Commission. Not more than 6 members of the National Commission shall be members of the same political party.

''(d) INDEPENDENCE.—The advice and recommendations of the National Commission shall result from the National Commission's independent judgment and shall not be inappropriately influenced by any special interest.

''(e) CHAIRMAN.—The President shall designate a chairman (referred to in this title as the 'Chairman') from among the members of the National Commission.

"SEC. 604. FUNCTIONS.

''(a) STUDY OF ALTERNATIVE WASTE MANAGEMENT STRATEGIES.—The National Commission shall—

''(1) examine alternative means of safely managing and disposing of spent nuclear fuel and high-level radioactive waste from civilian nuclear activity and atomic defense activity, including—

''(A) deep geologic disposal of spent nuclear fuel and high-level radioactive waste in a repository;

''(B) long-term storage of spent nuclear fuel and high-level radioactive waste at the sites where it is currently stored or being generated;

''(C) long-term storage of spent nuclear fuel and high-level radioactive waste at 1 or more regional storage facilities;

''(D) chemical reprocessing of spent nuclear fuel with uranium and plutonium recycling; and

''(E) such other alternatives or combination of alternatives to managing and disposing of spent nuclear fuel and high-level radioactive

waste as the National Commission determines to be reasonable; and

''(2) evaluate, for each of the alternatives considered under paragraph (1)—

''(A) the degree to which the alternative will isolate spent nuclear fuel and high-level radioactive waste from the public and the environment;

''(B) the degree to which the alternative will expose workers, the general public, and the environment to radiation during the handling, treatment, or processing of spent nuclear fuel and high-level radioactive waste prior to final disposition;

''(C) the degree to which the alternative will be secure from attack or intrusion;

''(D) the risk of nuclear proliferation posed by the alternative;

''(E) the total life cycle cost of the alternative;

''(F) the length of time needed to site, license, and construct necessary facilities;

''(G) the degree to which spent nuclear fuel and high-level radioactive waste will need to be transported between facilities; and

"(H) the cumulative effect of the alternative on the environment, and measures that can be taken to avoid or minimize adverse effects of the alternative on the environment.

"(b) REVIEW OF PRIOR REPOSITORY PROGRAM.—The National Commission shall—

"(1) review the efforts of the Department to implement the programs under title I and identify any deficiencies in the implementation of those programs; and

"(2) recommend any measures to ensure that future efforts to site a repository or storage facility will—

"(A) provide a reasonable assurance that the public and the environment will be adequately protected from the hazards posed by spent nuclear fuel or high-level radioactive waste stored or disposed of in the facility; and

"(B) be acceptable to the public.

"(c) REVIEW OF REPROCESSING AND ADVANCED FUEL CYCLE PROGRAMS.—The National Commission shall—

"(1) review foreign and domestic programs to reprocess commercial spent nuclear fuel;

''(2) assess the technical challenges of developing and validating the safe operation of the processes and systems required to recycle commercial spent nuclear fuel without separating plutonium, including the time and funding resources likely to be required;

''(3) evaluate the regulatory adequacy of health and safety standards for radionuclide release from recycling facilities and recycled fuel fabrication facilities;

''(4) assess the probable forms of the final wastes resulting from reprocessing operations, including how such wastes would be stored and maintained pending disposal; and

''(5) analyze the technical, economic, environmental, and health and safety advantages and disadvantages of reprocessing spent nuclear fuel compared to disposal in a geologic repository.

''(d) STUDY OF INCENTIVES PROGRAM.—The National Commission shall—

''(1) examine the economic and other impacts of hosting a nuclear waste repository, reprocessing facility, or regional storage facility on the host State, any affected Indian tribe, and any affected unit of local government; and

''(2) recommend measures it determines necessary or advisable to provide economic compensation and incentives to a State, Indian tribe, or unit of local government that agrees to host a repository, reprocessing facility, or regional storage facility.

''(e) STUDY OF ALTERNATIVE MEANS OF MANAGING AND OPERATING THE NUCLEAR WASTE PROGRAM.—The National Commission shall—

''(1) study alternative approaches to managing the construction and operation of civilian nuclear waste management facilities, including the feasibility of establishing a private corporation for such purposes; and

''(2) recommend whether responsibility for managing the siting, construction, and operation, and monitoring of civilian nuclear waste management facilities should continue to be vested in the Secretary or whether it should be transferred to an alternative Federal agency or entity.

''(f) STUDY OF ALTERNATIVE MEANS OF FINANCING.—The National Commission shall—

''(1) examine the cost of carrying out nuclear waste management activities;

''(2) evaluate the adequacy of the Waste Fund; and

''(3) recommend measures the National Commission determines necessary or advisable for—

''(A) the disposition of balances remaining in the Waste Fund; and

''(B) the collection and disposition of any additional fees that may be needed to ensure that the cost of carrying out nuclear waste disposal activities are fully recovered from the persons responsible for generating such waste.

''SEC. 605. ADMINISTRATION.

''(a) COMPENSATION.—Each member of the National Commission shall be compensated at the daily equivalent of the annual rate of basic pay in effect for a position at level IV of the Executive Schedule under section 5315 of title 5, United States Code, for each day the member is engaged in the work of the National Commission.

''(b) TRAVEL EXPENSES.—Each member of the National Commission may receive travel expenses, including per diem in lieu of subsistence, in the same manner as person employed intermittently in the Federal Government service under section 5703 of title 5, United States Code.

''(c) STAFF.—The Chairman is authorized to appoint and fix the compensation of a staff director and such other personnel as may be necessary to enable the National Commission to carry out its functions, subject to the appli-

cable provisions of the Federal Advisory Committee Act (5 U.S.C. App.) and title 5, United States Code.

''(d) DETAILEES.—

''(1) IN GENERAL.—Any Federal Government employee may be detailed to the National Commission without reimbursement from the National Commission.

''(2) EXCEPTION.—Notwithstanding paragraph (1), no employee of the Department may be detailed to the National Commission.

''(3) EFFECT ON DETAILEE.—Any such detailee shall retain the rights, status, and privileges of his or her regular employment without interruption.

''(e) CONSULTANTS.—The National Commission may procure the services of experts and consultants in accordance with section 3109 of title 5, United States Code.

''(f) CONTRACTING.—The National Commission may, to the extent funds are available under this title or subsequent appropriation Acts, enter into contracts to enable the National Commission to discharge its duties under this title.

''(g) INFORMATION FROM FEDERAL AGENCIES.—The National Commission may request any Federal agency, including the Nuclear Waste Technical Review Board, to furnish such information, advice, or assistance as it de-

termines necessary to carry out its functions, and each such agency shall, to the extent permitted by law, furnish such information, advice, or assistance upon the request of the Chairman.

''(h) ASSISTANCE FROM THE GENERAL SERVICES ADMINISTRATION.—The Administrator of General Services shall, upon the request of the Chairman, provide the National Commission with necessary administrative services, facilities, and support, on a reimbursable basis.

''(i) POSTAL SERVICES.—The National Commission may use the United States mails in the same manner and under the same conditions as a Federal agency.

''SEC. 606. REPORT.

''The National Commission shall submit to the President and Congress a final report containing the National Commission's findings, conclusions, and recommendations not later than 2 years after the date of enactment of this Act.

''SEC. 607. FUNDING.

''(a) TRANSFER OF FUNDS.—Notwithstanding section 302(d), of the amounts authorized to be appropriated to the Secretaryfrom the Waste Fund under the heading 'NUCLEAR WASTE DISPOSAL' under title III of division C of the Omnibus Appropriations Act, 2009 (Public Law 111–8; 123 Stat. 618), $3,000,000 shall be transferred

to the National Commission for purposes of carrying out this title.

''(b) DURATION OF AVAILABILITY.—Except as provided in section 608(b), amounts made available to the National Commission under subsection (a) shall remain available until expended or the termination of the National Commission.

''SEC. 608. TERMINATION.

''(a) IN GENERAL.—The National Commission, and all authorities under this title, shall terminate 60 days after the date on which the final report is submitted under section 606.

''(b) UNEXPENDED FUNDS.—Any funds made available to the National Commission under section 607 that are not expended by the National Commission by the date on which the National Commission is terminated under subsection (a) shall be deposited in the general fund of the Treasury.''.

Subtitle C—Improving United States Strategic Reserves

SEC. 321. PETROLEUM PRODUCT RESERVE.

(a) STRATEGIC PETROLEUM RESERVE.—Section 154(a) of the Energy Policy and Conservation Act (42 U.S.C. 6234(a)) is amended by striking ''1 billion barrels of petroleum products'' and inserting ''1,000,000,000 bar-

rels of petroleum products (including at least 30,000,000 barrels of refined petroleum products)''.

(b) PLAN.—Title I of the Energy Policy and Conservation Act is amended by inserting after section 154 (42 U.S.C. 6234) the following:

''SEC. 155. PLAN.

''Not later than 180 days after the date of enactment of this section, the Secretary shall submit to the President and, if the President approves, to Congress, a plan to include refined petroleum products in the Strategic Petroleum Reserve, including a description of—

''(1) the disposition of refined petroleum products that shall be stored in the Reserve, which shall be selected—

''(A) to alleviate shortages that might be expected to result from hurricanes, earthquakes, or other acts of nature; and

''(B) to minimize the number of different kinds of refined petroleum products that shall be stored;

''(2) the method of acquisition of refined petroleum products for storage in the Reserve, which shall—

''(A) be intended to minimize both the cost and market disruption associated with the acquisition; and

''(B) include—

''(i) an analysis of the option of exchanging crude oil from the Reserve for refined petroleum products; and

''(ii) the anticipated time requirement for building the inventory of refined petroleum products;

''(3) storage facility options for the storage of refined petroleum products, including the anticipated location of existing or new facilities;

''(4) the estimated costs of establishment, maintenance, and operation of the refined petroleum product component of the Reserve;

''(5) efforts the Department will take to ensure that distributors and importers are not discouraged from maintaining and increasing supplies of refined petroleum products; and

''(6) actions that will be taken to ensure quality of refined petroleum products in the Reserve, including the rotation of products stored.''.

(c) DRAWDOWN AND SALE.—Section 161 of the Energy Policy and Conservation Act (42 U.S.C. 6241) is amended—

(1) by striking subsection (d) and inserting the following:

''(d) LIMITATION ON DRAWDOWN AND SALE.—

''(1) IN GENERAL.—The drawdown and sale of petroleum products from the Strategic Petroleum Reserve may not be made unless the Secretary determines that—

''(A) the drawdown and sale are required by—

''(i) a severe energy market supply disruption; or

''(ii) obligations of the United States under the international energy program; or

''(B) in the case of the refined petroleum product component of the Reserve, a sale of refined petroleum products will mitigate the impacts of weather-related events or other acts of nature that have resulted in a severe energy market supply disruption.

''(2) SEVERE ENERGY MARKET SUPPLY DISRUPTION.—For purpose of this subsection, a severe en-

ergy market supply disruption shall be considered to exist if the Secretary determines that—

''(A) an emergency situation exists and there is a disruption in global oil markets of significant scope and duration;

''(B) a severe increase in the price of petroleum products has resulted, or is likely to result, from the emergency situation; and

''(C) the price increase is likely to cause a major adverse impact on the national economy.''; and

(2) in subsections (h)(1) and (i), by striking ''President'' each place it appears and inserting ''Secretary''.

SEC. 322. PETROLEUM EXCHANGE AUTHORITY.

(a) PETROLEUM PRODUCTS FOR STORAGE IN STRATEGIC PETROLEUM RESERVE.—Section 160(a) of the Energy Policy and Conservation Act (42 U.S.C. 6240(a)) is amended—

(1) by redesignating paragraphs (1) through (3) as subparagraphs (A) through (C), respectively, and indenting the subparagraphs appropriately;

(2) in subparagraph (A) (as redesignated by paragraph (1)), by inserting a semicolon at the end;

(3) in subparagraph (C) (as redesignated by paragraph (1)), by inserting ''in accordance with paragraph (2),'' before ''petroleum products'';

(4) by striking ''(a) The Secretary'' and inserting the following:

''(a) AUTHORITY OF SECRETARY.—

''(1) IN GENERAL.—The Secretary''; and

(5) by adding at the end the following:

''(2) MONETARY COMPENSATION.—In acquiring petroleum products under paragraph (1)(C), the Secretary may accept monetary compensation for differences in volume, quality, or time of delivery as a result of—

''(A) exchanges or deferrals of deliveries in the event that the reserve inventory is at the rated capacity of the reserve inventory; or

''(B) discrepancies in delivered volumes with respect to contractual volumes.''.

(b) AUTHORITY OF SECRETARY OF ENERGY.—Section 161(h)(1) of the Energy Policy and Conservation Act (42 U.S.C. 6241(h)(1)) is amended in the matter preceding subparagraph (A) by striking ''the President'' and inserting ''the Secretary''.

(c) SPR PETROLEUM ACCOUNT.—Section 167(b) of the Energy Policy and Conservation Act (42 U.S.C. 6247(b)) is amended—

(1) by redesignating paragraphs (2) and (3) as paragraphs (1) and (2), respectively;

(2) in paragraph (1) (as redesignated by paragraph (1)), by striking ''; and'' and inserting a semicolon;

(3) in paragraph (2) (as redesignated by paragraph (1)), by striking the period at the end and inserting ''; and''; and

(4) by adding at the end the following:

''(3) notwithstanding section 660 of the Department of Energy Organization Act (42 U.S.C. 7270), for each fiscal year, in an aggregate amount equal to the aggregate amount of the receipts to the United States from any exchange of petroleum products or discrepancies in delivered volume under section 160 (including section 160(a)(1)(C)).''.

TITLE IV—ENERGY INNOVATION AND WORKFORCE DEVELOPMENT

SEC. 401. SHORT TITLE.

This title may be cited as the ''Energy Innovation and Workforce Development Act of 2009''.

Subtitle A—Funding

SEC. 411. AUTHORIZATION OF APPROPRIATIONS FOR ENERGY RESEARCH, DEVELOPMENT, DEMONSTRATION, AND COMMERCIAL APPLICATION ACTIVITIES.

(a) ENERGY EFFICIENCY; DISTRIBUTED ENERGY AND ELECTRIC ENERGY SYSTEMS; RENEWABLE ENERGY.—

(1) IN GENERAL.—There are authorized to be appropriated to the Secretary to carry out research, development, demonstration, and commercial application activities described in paragraph (2)—

(A) $1,974,000,000 for fiscal year 2010;

(B) $2,388,000,000 for fiscal year 2011;

(C) $2,821,000,000 for fiscal year 2012; and

(D) $3,258,000,000 for fiscal year 2013.

(2) ACTIVITIES.—Paragraph (1) applies to—

(A) energy efficiency and conservation research, development, demonstration, and commercial application activities, including activities authorized under subtitle A of title IX of the Energy Policy Act of 2005 (42 U.S.C. 16191 et seq.);

(B) distributed energy and electric energy system activities, including activities authorized under subtitle B of title IX of that Act (42 U.S.C. 16211 et seq.); and

(C) renewable energy research, development, demonstration, and commercial application activities, including activities authorized under subtitle C of title IX of that Act (42 U.S.C. 16231 et seq.).

(b) NUCLEAR ENERGY.—Section 951 of the Energy Policy Act of 2005 (42 U.S.C. 16271) is amended by striking subsection (b) and inserting the following:

''(b) AUTHORIZATION OF APPROPRIATIONS FOR CORE PROGRAMS.—There are authorized to be appropriated to the Secretary to carry out nuclear energy research, development, demonstration, and commercial application activities, including activities authorized under this subtitle—

''(1) $998,000,000 for fiscal year 2010;

''(2) $1,196,000,000 for fiscal year 2011;

''(3) $1,394,000,000 for fiscal year 2012; and

''(4) $1,592,000,000 for fiscal year 2013.''.

(c) FOSSIL ENERGY.—Section 961(b) of the Energy Policy Act of 2005 (42 U.S.C. 16291(b)) is amended—

(1) in paragraph (2), by striking ''and'' after the semicolon at the end;

(2) in paragraph (3), by striking the period at the end and inserting a semicolon; and

(3) by adding at the end the following:

''(4) $1,074,000,000 for fiscal year 2010;

''(5) $1,272,000,000 for fiscal year 2011;

''(6) $1,470,000,000 for fiscal year 2012; and

''(7) $1,668,000,000 for fiscal year 2013.''.

(d) OFFICE OF SCIENCE.—Section 971(b) of the Energy Policy Act of 2005 (42 U.S.C. 16311(b)) is amended—

(1) in paragraph (3), by striking ''and'' after the semicolon at the end; and

(2) by striking paragraph (4) and inserting the following:

''(4) $5,800,000,000 for fiscal year 2010;

''(5) $6,468,740,000 for fiscal year 2011;

''(6) $7,214,586,000 for fiscal year 2012; and

''(7) $8,046,427,000 for fiscal year 2013.''.

Subtitle B—Grand Energy Challenges Research Initiative

SEC. 421. SHORT TITLE.

This subtitle may be cited as the ''Grand Energy Challenges Research Initiative Act''.

SEC. 422. GRAND ENERGY CHALLENGES RESEARCH INITIATIVE.

(a) ESTABLISHMENT.—The Secretary, acting through the Under Secretary for Science and the Under Secretary for Energy (referred to in this section as the ''Under Secretaries''), shall establish a Grand Energy Challenges Research Initiative for the purposes of accelerating the solutions to Grand Energy Challenges through the establishment of large-scale, multidisciplinary activities that blend research in basic, applied, and engineering sciences, technology development, and other relevant disciplines.

(b) ADMINISTRATION.—The Under Secretaries shall initiate large-scale research activities that bring together the skills and talents of multiple investigators to enable high-risk, cross-cutting research of a scope and complexity that would not be practicable with individual investigators.

(c) GRAND ENERGY CHALLENGES.—Not later than 180 days after the date of enactment of this Act, the Under Secretaries shall publish in the Federal Register a description of Grand Challenges in Energy that includes—

(1) the Challenges described in the Basic Research Needs Workshops reports published by the Office of Basic Energy Sciences of the Office of Science of the Department of Energy;

(2) the Challenges described in the reports entitled ''Directing Matter and Energy: Five Challenges for Science and the Imagination'' and ''New Science for a Secure and Sustainable Energy Future'' of the Basic Energy Sciences Advisory Committee of the Department of Energy; and

(3) the energy-related Challenges described in the report entitled ''Grand Challenges for Engineering'' of the National Academy of Engineering.

(d) GRAND CHALLENGE RESEARCH GRANTS.—

(1) IN GENERAL.—The Department of Energy shall carry out the research activities of the Initiative by competitively awarding grants to, entering into cooperative agreements with, or executing other transactions with (consistent with section 1007(g) of the Energy Policy Act of 2005 (42 U.S.C. 7256(g)) consortiums that clearly indicate to the Department the manner by which the proposed research—

(A) is motivated by and is designed to address 1 or more of the Grand Energy Challenges described in subsection (c);

(B) will contribute to fundamental scientific, engineering, and technology understanding; and

(C) will integrate diverse approaches to solving 1 or more of the Grand Energy Challenges through a robust management plan designed to achieve success.

(2) CONSORTIUMS.—To be eligible for a Grand Energy Challenge research grant, cooperative agreement, or other transaction, a consortium shall—

(A) be made up of 1 or more of the following groups—

(i) institutions of higher education;

(ii) National Laboratories of the Department of Energy;

(iii) Federally-funded research and development centers;

(iv) private industry; and

(v) not-for-profit institutions;

(B) be comprised of at least 1 non-Federal entity; and

(C) develop a multiyear road map that provides achievable metrics for overcoming the Grand Energy Challenges described in subsection (c).

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to such sums as are nec-

essary to carry out this section for each of fiscal years 2010 through 2019.

Subtitle C—Improvements to Existing Energy Research and Development Programs

SEC. 431. ADVANCED RESEARCH PROJECTS AGENCY—ENERGY.

Section 5012 of the America COMPETES Act (42 U.S.C. 16538) is amended—

(1) in subsection (a)(3), by striking ''subsection (m)(1)'' and inserting ''subsection (n)(1)'';

(2) in subsection (c)(1)(A)—

(A) in the matter preceding clause (i), by striking ''energy technologies'' and inserting ''technologies''; and

(B) in clause (ii), by striking '', including greenhouse gases'' and inserting ''and greenhouse gas emissions from all sources'';

(3) in subsection (e)(1), by striking ''all'' and inserting ''the initiation of'';

(4) by redesignating subsections (f) through (m) as subsections (g) through (n), respectively;

(5) by inserting after subsection (e) the following:

''(f) ADMINISTRATION.—In carrying out this section, ARPA-E may initiate and execute grants, contracts, cooperative agreements, and other transactions separate from the Department of Energy.'';

(6) in subsection (g)(1)(B)(iv) (as redesignated by paragraph (4)), by striking ''subsection (j)'' and inserting ''subsection (k)'';

(7) in subsection (h)(2) (as redesignated by paragraph (4))—

(A) by striking ''2008'' and inserting ''2009''; and

(B) by striking ''2011'' and inserting ''2012''; and

(8) in subsection (l)(1) (as redesignated by paragraph (4)), by striking ''4 years'' and inserting ''7 years''; and

(9) in subsection (n)(2)(B) (as redesignated by paragraph (4)), by striking ''and 2010'' and inserting ''through 2020''.

SEC. 432. DOMESTIC VEHICLE BATTERY MANUFACTURING RESEARCH.

The United States Energy Storage Competitiveness Act of 2007 (42 U.S.C. 17231) is amended—

(1) by redesignating subsections (l) through (p) as subsections (m) through (q), respectively;

(2) by inserting after subsection (k) the following:

''(l) DOMESTIC VEHICLE BATTERY MANUFACTURING RESEARCH.—

''(1) IN GENERAL.—The Secretary, acting through the Assistant Secretary for Energy Efficiency and Renewable Energy, shall conduct a research program on manufacturing batteries and battery systems to support electric drive vehicles.

''(2) PURPOSES.—The purpose of the program shall be to improve existing processes, or develop new manufacturing processes, to enable higher quality and less expensive energy batteries for electric drive vehicles.

''(3) PARTICIPANTS.—The program shall be conducted by teams of researchers, which may include—

''(A) energy storage systems manufacturers;

''(B) material and equipment suppliers of battery and battery system manufacturers;

''(C) electric drive vehicle manufacturers;

''(D) National Laboratories;

''(E) other Federal agencies;

''(F) State and local governments; and

''(G) institutions of higher education.'';

(3) in subsection (n) (as redesignated by paragraph (1)), by striking ''and (k)'' and inserting ''(k), and (l)''; and

(4) in subsection (q) (as redesignated by paragraph (1))—

(A) in paragraph (5), by striking ''and'' at the end;

(B) in paragraph (6), by striking the period at the end and inserting ''; and''; and

(C) by adding at the end the following:

''(7) the domestic vehicle energy storage manufacturing research program under subsection (l) such sums as are necessary for each of fiscal years 2009 through 2018.''.

SEC. 433. LIGHTWEIGHT MATERIALS RESEARCH AND DEVELOPMENT.

Section 651 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17241) is amended by striking subsection (b) and inserting the following:

''(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section $100,000,000 for the period of fiscal years 2010 through 2013.''.

SEC. 434. AMENDMENTS TO THE METHANE HYDRATE RESEARCH AND DEVELOPMENT ACT OF 2000.

(a) FINDINGS.—Section 2 of the Methane Hydrate Research and Development Act of 2000 (30 U.S.C. 2001) is amended—

(1) in paragraph (4), by striking ''and'' at the end;

(2) in paragraph (5), by striking the period at the end and inserting a semicolon; and

(3) by adding at the end the following:

''(6) methane is a powerful greenhouse gas that may be exchanged between terrestrial methane hydrate reservoirs and the atmosphere by natural or anthropogenic processes; and

''(7) the short- and long-term release of methane from arctic or marine reservoirs may have significant environmental effects, including global climate change.''.

(b) METHANE HYDRATE RESEARCH AND DEVELOPMENT PROGRAM.—

(1) IN GENERAL.—Section 4 of the Methane Hydrate Research and Development Act of 2000 (30 U.S.C. 2003) is amended by striking subsection (b) and inserting the following:

''(b) GRANTS, CONTRACTS, COOPERATIVE AGREEMENTS, INTERAGENCY FUNDS TRANSFER AGREEMENTS, AND FIELD WORK PROPOSALS.—

''(1) ASSISTANCE AND COORDINATION.—In carrying out the program of methane hydrate research and development authorized by this section, the Secretary may award grants to, or enter into contracts or cooperative agreements with, institutions that—

''(A) conduct basic and applied research to identify, explore, assess, and develop methane hydrate as a commercially viable source of energy;

''(B) identify and characterize methane hydrate resources using remote sensing and seismic data;

''(C) develop technologies required for efficient and environmentally sound development of methane hydrate resources;

''(D) conduct basic and applied research to assess and mitigate the environmental impact of hydrate degassing (including natural degassing and degassing associated with commercial development);

''(E) develop technologies to reduce the risks of drilling through methane hydrates;

''(F) conduct exploratory drilling, well testing, and production testing operations on permafrost and nonpermafrost gas hydrates in support of the activities authorized by this paragraph, including drilling of 3 or more full-scale production test wells; or

''(G) expand education and training programs in methane hydrate resource research and resource development through fellowships or other means for graduate education and training.

''(2) ENVIRONMENTAL MONITORING.—The Secretary shall conduct a long-term environmental monitoring program to study the effects of production from methane hydrate reservoirs.

''(3) COMPETITIVE PEER REVIEW.—Funds made available under paragraphs (1) and (2) shall be made available based on a competitive process using external scientific peer review of proposed research.''.

(2) CONFORMING AMENDMENT.—Section 4(e) of the Methane Hydrate Research and Development Act of 2000 (30 U.S.C. 2003(e)) is amended in the matter preceding paragraph (1) by striking ''sub-

section (b)(1)'' and inserting ''paragraphs (1) and (2) of subsection (b)''.

(c) AUTHORIZATION OF APPROPRIATIONS.—The Methane Hydrate Research and Development Act of 2000 is amended by striking section 7 (30 U.S.C. 2006) and inserting the following:

''SEC. 7. AUTHORIZATION OF APPROPRIATIONS.

''There are authorized to be appropriated to the Secretary to carry out this Act, to remain available until expended—

''(1) for use in carrying out section 4(b)(1)—

''(A) $60,000,000 for fiscal year 2011;

''(B) $70,000,000 for fiscal year 2012;

''(C) $80,000,000 for fiscal year 2013;

''(D) $90,000,000 for fiscal year 2014; and

''(E) $90,000,000 for fiscal year 2015; and

''(2) for use in carrying out section 4(b)(2), $10,000,000 for each of fiscal years 2010 through 2015.''.

SEC. 435. PROGRAM TO EXPLOIT LOW-BTU GAS AND CONSERVE HELIUM RESOURCES.

(a) DEFINITION OF LOW-BTU GAS.—In this section, the term ''low-Btu gas'' means a fuel gas with a heating value of less than 250 Btu per cubic foot measured as

the higher heating value resulting from the inclusion of noncombustible gases, including nitrogen, helium, argon, and carbon dioxide.

(b) AUTHORIZATION.—The Secretary shall support programs of research, development, commercial application, and conservation to expand the domestic production of low-Btu gas and helium resources, including the programs described in subsection (c).

(c) PROGRAMS.—

(1) MEMBRANE TECHNOLOGY RESEARCH.—The Secretary, in consultation with other appropriate agencies, shall support a civilian research program to develop advanced membrane technology that is used in the separation of gases from applications, including those that—

(A) pull off constituent gases that lower the Btu content of natural gas; or

(B) pull gases from landfills and separate out methane.

(2) HELIUM SEPARATION TECHNOLOGY.—The Secretary shall support a research program to develop technologies for separating, gathering, and processing helium in low concentrations that occurs naturally in geologic reservoirs or formations, including low-Btu gas production streams.

(3) INDUSTRIAL HELIUM PROGRAM.—The Secretary, working through the Industrial Technologies Program of the Department of Energy, shall support a research program—

(A) to develop technologies for recycling, reprocessing, and reusing helium; and

(B) to develop industrial gathering technologies to capture helium from other chemical processing, including ammonia processing.

(d) INCENTIVES FOR INNOVATIVE TECHNOLOGIES.—Section 1703(b) of the Energy Policy Act of 2005 (42 U.S.C. 16513(b)) is amended by adding at the end the following:

''(11) Low-Btu gas (as defined in section 436(a) of the Energy Innovation and Workforce Development Act of 2009) and helium gas projects.''.

SEC. 436. OFFICE OF ARCTIC ENERGY.

(a) IN GENERAL.—Title II of the Department of Energy Organization Act (42 U.S.C. 7131 et seq.) is amended by adding at the end the following:

''SEC. 218. OFFICE OF ARCTIC ENERGY.

''(a) ESTABLISHMENT.—The Secretary may establish within the Department an Office of Arctic Energy (referred to in this section as the 'Office').

''(b) PURPOSES.—The purposes of the Office shall be—

''(1) to promote research, development, and deployment of electric power technology that is cost-effective and especially well suited to meet the needs of rural and remote regions of the United States, especially regions in which permafrost is present or located nearby;

''(2) to promote research, development, and deployment in regions described in paragraph (1) of—

''(A) enhanced oil recovery technology, including heavy oil recovery, reinjection of carbon, and extended reach drilling technologies;

''(B) gas-to-liquids technology and liquified natural gas (including associated transportation systems);

''(C) small hydroelectric facilities, river turbines, and tidal power; and

''(D) natural gas hydrates, coal bed methane, and shallow bed natural gas; and

''(3) to promote research, development, and deployment in those regions of cold weather of alternative energy research, including wind, geothermal, fuel cells, biomass, ocean hydrokinetic energy, and solar energy.

''(c) LOCATION.—The Secretary shall locate the Office at an institution of higher education with expertise and experience in the matters described in subsection (b).

''(d) ANNUAL REPORTS.—The Secretary shall submit to Congress an annual report that describes the research program that is proposed to carry out subsection (b)(3).

''(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out this section—

''(1) $15,000,000 for fiscal year 2010;

''(2) $20,000,000 for fiscal year 2011; and

''(3) $22,500,000 for fiscal year 2012 and each fiscal year thereafter.''.

(b) CONFORMING AMENDMENTS.—

(1) Section 3197 of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (42 U.S.C. 7144d) is repealed.

(2) The table of contents in the first section of the Department of Energy Organization Act (42 U.S.C. 7101) is amended by adding at the end of the items relating to title II the following:

''Sec. 218. Office of Arctic Energy.''.

Subtitle D—Energy Workforce Development

SEC. 441. SHORT TITLE.

This subtitle may be cited as the ''Energy Workforce Development Act of 2009''.

SEC. 442. BEST PRACTICES FOR ENERGY CAREER ACADEMIES.

Section 3164 of the Department of Energy Science Education Enhancement Act (42 U.S.C. 7381a) is amended—

(1) by redesignating subsections (c) through (f) as subsections (d) through (g), respectively; and

(2) by inserting after subsection (b) the following:

''(c) ENERGY CAREER ACADEMIES.—The Director of Science, Engineering, and Mathematics Education shall disseminate best practices for career pathway programs at public secondary schools that—

''(1) prepare students for careers in the energy technology industry (as defined in section 1101 of the Energy Policy Act of 2005 (42 U.S.C. 16411); and

''(2) provide sufficient training to allow academy graduates to secure entry-level employment or apprenticeships in the energy technology industry.''.

SEC. 443. ENERGY CAREER ACADEMIES.

The Department of Energy Science Education Enhancement Act is amended—

(1) by redesignating sections 3168 and 3169 (42 U.S.C. 7381d, 7381e) as sections 3169 and 3170, respectively; and

(2) by inserting after section 3167 (42 U.S.C. 7381c–1) the following:

"SEC. 3168. ENERGY CAREER ACADEMIES.

''(a) PURPOSE.—The purpose of this section is to establish a program of grants to State educational agencies to help local educational agencies create or expand energy career academies.

''(b) DEFINITIONS.—In this section:

''(1) COMMUNITY COLLEGE.—The term 'community college' means—

''(A) a junior or community college (as defined in section 312(f) of the Higher Education Act of 1965 (20 U.S.C. 1058(f))); and

''(B) an institution of higher education at which more than 35 percent of all degrees are awarded at the 2-year level or below.

''(2) DIRECTOR.—The term 'Director' means the Director of Science, Engineering, and Mathematics Education.

''(3) ENERGY CAREER ACADEMY.—The term 'energy career academy' means a public secondary school that meets the best practices determined by the Director under section 3164(c).

''(4) LOCAL EDUCATIONAL AGENCY.—The term 'local educational agency' has the meaning given the term in section 9101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801).

''(5) SECONDARY SCHOOL.—The term 'secondary school' has the meaning given the term in section 9101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801).

''(6) STATE EDUCATIONAL AGENCY.—The term 'State educational agency' has the meaning given the term in section 9101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801).

''(c) GRANTS.—From the amounts made available under subsection (h), the Secretary, acting through the Director and in consultation with the Secretary of Labor, shall award renewable 5-year grants to State educational agencies on a competitive basis, to provide assistance to local educational agencies for the costs of establishing or expanding energy career academies.

''(d) FEDERAL AND NON-FEDERAL SHARES.—

''(1) FEDERAL SHARE.—The Federal share of the costs described in subsection (c) shall not exceed 33 percent.

''(2) NON-FEDERAL SHARE.—The non-Federal share of the costs described in subsection (c) shall be—

''(A) not less than 67 percent; and

''(B) provided from non-Federal sources, in cash or in kind, fairly evaluated, including services.

''(3) MAINTENANCE OF EFFORT.—A State educational agency shall provide assurances to the Secretary that funds provided to the State under this section will be used only to supplement, not to supplant, the amount of Federal, State, and local funds otherwise expended for activities covered by this section in the State.

''(e) APPLICATION.—To be eligible to receive a grant under this section, a State educational agency shall submit to the Director an application at such time, in such manner, and containing such information as the Director may require that describes—

''(1) the process by which, and selection criteria with which, the State educational agency will select

and designate a public secondary school to host the proposed energy career academy;

''(2) how the State educational agency will ensure that funds made available under this section are used to establish or expand an energy career academy;

''(3) how the State educational agency will use technical assistance and support from the Department, industry partners, community colleges, and other entities with experience and expertise in energy workforce training;

''(4) the curricula and materials to be used in the energy career academy;

''(5) the availability of funds from non-Federal sources for the costs of the activities authorized under this section; and

''(6) a plan to sustain the program without Federal funding.

''(f) DISTRIBUTION.—In awarding grants under this section, the Director shall ensure a wide, equitable distribution of grants among regions of the United States.

''(g) EVALUATION AND REPORT.—

''(1) EVALUATION.—Each State educational agency that receives a grant under this section shall develop and carry out an evaluation and account-

ability plan for the activities funded through the grant that measures the impact of the activities, including measurable objectives for student academic achievement, and job placement statistics for academy graduates.

''(2) REPORT TO DIRECTOR.—The State educational agency shall submit to the Director a report describing the results of the evaluation and accountability plan.

''(3) REPORT TO CONGRESS.—Not later than 2 years after the date of enactment of the Energy Workforce Development Act of 2009, the Director shall submit a report describing the impact of the activities assisted with funds made available under this section to—

''(A) the Committee on Science and Technology of the House of Representatives;

''(B) the Committee on Energy and Commerce of the House of Representatives;

''(C) the Committee on Education and Labor of the House of Representatives;

''(D) the Committee on Energy and Natural Resources of the Senate; and

''(E) the Committee on Health, Education, Labor, and Pensions of the Senate.

''(h) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section—

''(1) $14,000,000 for fiscal year 2009;

''(2) $22,500,000 for fiscal year 2010; and

''(3) $30,000,000 for fiscal year 2011.''.

SEC. 444. ENERGY UTILITY TRADES PROGRAM FOR COMMUNITY COLLEGES.

The Protecting America's Competitive Edge Through Energy Act (42 U.S.C. 16531 et seq.) is amended—

(1) by redesignating sections 5006 through 5012 (42 U.S.C. 16534 through 16538) as sections 5007 through 5013, respectively; and

(2) by inserting after section 5005 (42 U.S.C. 16533) the following:

''SEC. 5006. ENERGY UTILITY TRADES PROGRAM FOR COMMUNITY COLLEGES.

''(a) PURPOSE.—The purpose of this section is to address the decline in the number of qualified employees for the energy utility industry.

''(b) DEFINITION OF COMMUNITY COLLEGE.—In this section, the term 'community college' means—

''(1) a junior or community college (as defined in section 312(f) of the Higher Education Act of 1965 (20 U.S.C. 1058(f))); and

''(2) n institution of higher education at which more than 35 percent of all degrees are awarded at the 2-year level or below.

''(c) ESTABLISHMENT.—The Secretary shall establish, in accordance with this section, a program to expand and enhance the educational capabilities of community colleges to prepare students for careers in trades relevant to the energy utility industry.

''(d) GRANTS.—The Secretary shall award competitive grants to community colleges that establish or expand academic degree programs in the energy utility trades, including technicians in the nuclear utilities industry.

''(e) PRIORITY.—In evaluating grants under this section, the Secretary shall give priority to proposals that involve existing or new partnerships with private industry or other eligible energy utility entities or involve schools with underserved populations, as determined by the Secretary.

''(f) CRITERIA.—Criteria for a grant awarded under this section shall be based on—

''(1) the potential to attract students to program;

''(2) the ability to offer hands-on learning opportunities (including internships and apprenticeship) in the energy utility sector;

''(3) a demonstrated commitment to partner with secondary schools to promote careers in the energy utility industry; and

''(4) the long-term sustainability of the program without Federal funding.

''(g) DURATION AND AMOUNT.—

''(1) DURATION.—A grant under this section may be—

''(A) up to 5 years in duration; and

''(B) renewed subject to the criteria described in subsection (f).

''(2) AMOUNT.—A community college that receives a grant under this section shall be eligible for up to $500,000 for each year of the grant period.

''(h) USE OF FUNDS.—A community college that receives a grant under this section may use the grant to—

''(1) recruit and retain new faculty;

''(2) develop core and specialized course content;

''(3) encourage collaboration between faculty and industry partners;

''(4) support outreach efforts to recruit students; and

''(5) provide scholarships to participating students.''.

SEC. 445. STUDENT AWARENESS OF ENERGY CAREER OPPORTUNITIES.

Section 1101 of the Energy Policy Act of 2005 (42 U.S.C. 16411) is amended—

(1) in subsection (a)—

(A) by redesignating paragraphs (1) and (2) as paragraphs (2) and (3), respectively; and

(B) by inserting before paragraph (2) (as so redesignated) the following:

''(1) COMMUNITY COLLEGE.—The term 'community college' means—

''(A) a junior or community college (as defined in section 312(f) of the Higher Education Act of 1965 (20 U.S.C. 1058(f))); and

''(B) an institution of higher education at which more than 35 percent of all degrees are awarded at the 2-year level or below.'';

(2) by redesignating subsection (d) as subsection (f); and

(3) by inserting after subsection (c) the following:

''(d) CAREER COUNSELOR OUTREACH.—The Secretary, in consultation with the Secretary of Labor, shall establish a program to communicate information collected under subsection (b) on a nationwide basis to—

''(1) guidance counselors at secondary schools;

''(2) career development offices at community colleges and institutions of higher education; and

''(3) principals and district superintendents.

''(e) STUDENT AWARENESS OF ENERGY CAREER OPPORTUNITIES.—The Secretary shall create and maintain a website, and interface with Federal Trio programs, GEAR UP programs, or similar programs, to provide secondary and postsecondary school students with information on careers in energy technology industries, including—

''(1) career information and job descriptions for the energy technology industry;

''(2) projected workforce shortages in the energy technology industry;

''(3) a comprehensive listing and description of institutions of higher education providing degrees with a specific focus on the energy technology industry;

''(4) a comprehensive listing and description of community colleges and career training programs with a particular focus on the energy technology industry; and

''(5) sources of scholarships and other forms of financial aid with particular relevance to the energy technology industry.''.

SEC. 446. COORDINATION OF ENERGY WORKFORCE TRAINING PROGRAMS.

(a) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the Director of the Office of Science and Technology Policy shall submit to Congress a report that surveys energy workforce training programs funded by Federal agencies, including—

(1) programs for training skilled technical personnel (as defined in section 1101(a) of the Energy Policy Act of 2005 (42 U.S.C. 16411(a)));

(2) undergraduate and graduate degree programs with course curricula related to the production, transmission, and use of energy; and

(3) secondary school programs with course curricula relating to the production, transmission, and use of energy.

(b) COORDINATION PLAN.—The plan shall provide—

(1) a coordinated Federal strategy for supporting the training of a domestic workforce to support the production, transmission, and use of energy in the United States; and

(2) a 5-year budget profile to support the strategy.

SEC. 447. DIRECT HIRE AUTHORITY.

(a) IN GENERAL.—Notwithstanding sections 3304 and 3309 through 3318 of title 5, United States Code,

the Secretary may, upon a determination that there is a severe shortage of candidates or a critical hiring need for particular positions, recruit and directly appoint highly qualified scientists, engineers, or critical technical personnel into the competitive service.

(b) EXCEPTION.—The authority granted under subsection (a) shall not apply to positions in the excepted service or the Senior Executive Service.

(c) REQUIREMENTS.—In exercising the authority granted under subsection (a), the Secretary shall ensure that any action taken by the Secretary—

(1) is consistent with the merit principles of section 2301 of title 5, United States Code; and

(2) complies with the public notice requirements of section 3327 of title 5, United States Code.

(d) TERMINATION OF EFFECTIVENESS.—The authority provided by this section terminates effective on the date that is 2 years after the date of enactment of this Act.

SEC. 448. CRITICAL PAY AUTHORITY.

(a) IN GENERAL.—Notwithstanding section 5377 of title 5, United States Code, and without regard to the provisions of that title governing appointments in the competitive service or the Senior Executive Service and chapters 51 and 53 of that title (relating to classification and

pay rates), the Secretary may establish, fix the compensation of, and appoint individuals to critical positions needed to carry out the functions of the Department of Energy, if the Secretary certifies that—

(1) the positions—

(A) require expertise of an extremely high level in a scientific or technical field; and

(B) the Department of Energy would not successfully accomplish an important mission without such an individual; and

(2) exercise of the authority is necessary to recruit an individual exceptionally well qualified for the position.

(b) LIMITATIONS.—The authority granted under subsection (a) shall be subject to the following conditions:

(1) The number of critical positions authorized by subsection (a) may not exceed 40 at any 1 time in the Department of Energy.

(2) The term of an appointment under subsection (a) may not exceed 4 years.

(3) An individual appointed under subsection (a) may not have been a Department of Energy employee within the 2 years prior to the date of appointment.

(4) Total annual compensation for any individual appointed under subsection (a) may not exceed the highest total annual compensation payable at the rate determined under section 104 of title 3, United States Code.

(5) An individual appointed under subsection (a) may not be considered to be an employee for purposes of subchapter II of chapter 75 of title 5, United States Code.

(c) NOTIFICATION.—Each year, the Secretary shall submit to Congress a notification that lists each individual appointed under this section.

SEC. 449. REEMPLOYMENT OF CIVILIAN RETIREES.

(a) IN GENERAL.—Notwithstanding part 553 of title 5, Code of Federal Regulations (relating to reemployment of civilian retirees to meet exceptional employment needs), or successor regulations, the Secretary may approve the reemployment of an individual to a particular position without reduction or termination of annuity if the hiring of the individual is necessary to carry out a critical function of the Department of Energy for which suitably qualified candidates do not exist.

(b) LIMITATIONS.—An annuitant hired with full salary and annuities under the authority granted by subsection (a)—

(1) shall not be considered an employee for purposes of subchapter III of chapter 83 and chapter 84 of title 5, United States Code;

(2) may not elect to have retirement contributions withheld from the pay of the annuitant;

(3) may not use any employment under this section as a basis for a supplemental or recomputed annuity; and

(4) may not participate in the Thrift Savings Plan under subchapter III of chapter 84 of title 5, United States Code.

(c) LIMITATION ON TERM.—The term of employment of any individual hired under subsection (a) may not exceed an initial term of 2 years, with an additional 2-year appointment under exceptional circumstances.

SEC. 450. SUSTAINABLE ENERGY TRAINING PROGRAM FOR COMMUNITY COLLEGES.

(a) DEFINITION OF COMMUNITY COLLEGE.—In this Act, the term ''community college'' means an institution of higher education, as defined in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)), that—

(1) provides a 2–year program of instruction for which the institution awards an associate degree; and

(2) primarily awards associate degrees.

(b) WORKFORCE TRAINING AND EDUCATION IN SUSTAINABLE ENERGY.—From funds made available under subsection (d), the Secretary of Energy, in coordination with the Secretary of Labor, shall carry out a joint sustainable energy workforce training and education program. In carrying out the program, the Secretary of Energy, in coordination with the Secretary of Labor, shall award grants to community colleges to provide workforce training and education in industries and practices such as—

(1) alternative energy, including wind, geothermal, biomass, ocean hydrokinetic energy, and solar energy;

(2) energy efficient construction, retrofitting, and design;

(3) sustainable energy technologies, including chemical technology, nanotechnology, and electrical technology;

(4) water and energy conservation;

(5) recycling and waste reduction;

(6) sustainable agriculture and farming; and

(7) nuclear energy technology.

(c) AWARD CONSIDERATIONS.—Of the funds made available under subsection (d) for a fiscal year, not less

than one-half of such funds shall be awarded to community colleges with existing (as of the date of the award) sustainability programs that lead to certificates or degrees in 1 or more of the industries and practices described in paragraphs (1) through (6) of subsection (b).

(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $100,000,000 for each of the fiscal years 2010 through 2015.

Subtitle E—Strengthening Education and Training in the Subsurface Geosciences and Engineering for Energy Development

SEC. 461. SHORT TITLE.

This subtitle may be cited as the ''Strengthening Subsurface Geosciences and Engineering for Energy Development Act of 2009.''

SEC. 462. DEFINITIONS.

In this subtitle:

(1) ABET.—The term ''ABET'' means ABET, Inc., a nationally recognized accreditation organization for college and university engineering programs.

(2) ADVISORY COMMITTEE.—The term ''Advisory Committee'' means the Advisory Committee established under section 468.

(3) CONSORTIUM.—The term ''consortium'' means a research and educational partnership that may include—

(A) institutions of higher education;

(B) professional societies or foundations;

(C) industry associations;

(D) individual business entities;

(E) State agencies;

(F) federally recognized multistate commissions and regional organizations;

(G) Federal agencies;

(H) national laboratories;

(I) nongovernmental organizations; and

(J) individuals.

(4) INSTITUTION OF HIGHER EDUCATION.—The term ''institution of higher education'' has the meaning given the term in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)).

(5) MINORITY-SERVING INSTITUTION.—The term ''minority-serving institution'' means—

(A) a part B institution (as defined in section 322 of the Higher Education Act of 1965 (20 U.S.C. 1061));

(B) a Hispanic-serving institution (as defined in section 502(a) of that Act (20 U.S.C. 1101a(a)));

(C) a Tribal College or University;

(D) an Alaska Native-serving institution (as defined in section 317(b) of that Act (20 U.S.C. 1059d(b)));

(E) a Native Hawaiian-serving institution (as defined in section 317(b) of that Act (20 U.S.C. 1059d(b))); and

(F) a Native American-serving, nontribal institution (as defined in section 319(b) of that Act (20 U.S.C. 1059f(b))).

(6) RECOGNIZED PROGRAM.—The term ''recognized program'' means a program at an institution of higher education that is—

(A) an engineering program with subsurface applications that is—

(i) accredited by the Engineering Accreditation Committee or Technology Accreditation Commission of ABET; and

(ii) focused on petroleum or natural gas production, ground water, geothermal resources, the production of mineral resources, the development of permanent underground workings, and the long-term storage of carbon dioxide in subsurface areas, as demonstrated by the curriculum and the expertise of its faculty; or

(B) a program in geology or geophysics that—

(i) includes undergraduate or graduate programs of research and education applicable to energy, ground water, and mineral development;

(ii) includes programs of research or education in exploration for, and production of, such deposits and resources; and

(iii) the Secretary, after review by the Advisory Committee of the program and its outcomes, determines to be appropriate for funding under this subtitle.

(7) SECRETARY.—The term ''Secretary'' means the Secretary of the Interior.

(8) TRIBAL COLLEGE OR UNIVERSITY.—The term ''Tribal College or University'' has the meaning

given the term in section 316(b) of the Higher Education Act of 1965 (20 U.S.C. 1059c(b)).

SEC. 463. POLICY.

It is the policy of the United States to maintain and expand the human capital needed to preserve and foster the security of economically viable clean energy, ground water, and mineral resources of the United States, through financial assistance for science and technology programs that educate, train, and retrain the personnel needed for United States energy, ground water, and mineral resources security.

SEC. 464. RESEARCH PERSONNEL AND PROGRAMS.

(a) IN GENERAL.—In support of the policy described in section 463, the Secretary shall provide research funds to institutions of higher education to assist recognized programs in subsurface geosciences and engineering, including programs in energy (including geological carbon storage), petroleum, ground water, economic geology, mining, and mineral and geological engineering education and research.

(b) CONDITIONS.—All funds provided under subsection (a) shall be—

(1) directed only to programs recognized by the Secretary; and

(2) subject to this subtitle.

(c) TYPES OF RESEARCH.—Research conducted using funds provided under subsection (a) shall include studies and research—

(1) to enhance basic science and engineering;

(2) to provide data to test and improve scientific or engineering hypotheses; and

(3) to determine scientific or engineering feasibility to enhance discovery, development, and production of energy, ground water, and mineral resources while minimizing environmental impacts.

(d) DURATION OF PROGRAM; NUMBER OF STUDENTS.—Each institution of higher education receiving funds under subsection (a) shall—

(1) maintain the program for which the funds are provided for a period of at least 10 years beginning on the date of the last receipt of those funds; and

(2) take steps described in the application for research funding submitted to the Secretary to increase the number of undergraduate students enrolled in and completing the programs of study in recognized programs with subsurface applications.

(e) MINORITY-SERVING INSTITUTIONS.—The Secretary shall give particular consideration to minority-serving institutions that have an established recognized pro-

gram or that propose to establish a recognized program, including by—

(1) assigning appropriate employees to serve as mentors and adjunct faculty;

(2) transferring appropriate equipment to the programs; and

(3) allowing faculty or students at those institutions free access to appropriate Department training.

(f) CONSORTIA.—Where appropriate, the Secretary may make funds available to consortia to conduct projects of broad application that could not otherwise be undertaken, including national and regional projects in subsurface geosciences and engineering, on the condition that funds provided to any consortium shall be given only to a single eligible institution of higher education with a recognized program which shall be responsible for distribution, monitoring, and reporting on the activities of the consortium, as required by the Secretary.

SEC. 465. SCHOLARSHIPS AND FELLOWSHIPS.

(a) IN GENERAL.—The Secretary shall provide funds to institutions of higher education with recognized programs for the purpose of providing merit-based scholarships for undergraduate geoscience or engineering education with general subsurface applications, and graduate

fellowships in the applied geosciences and subsurface engineering, including applications relating to—

(1) petroleum, chemical, mining, geological (such as geological carbon storage), geophysical, ground water, or mineral engineering;

(2) petroleum geology;

(3) geothermal geology;

(4) mining and economic geology;

(5) petroleum, ground water, and mining geophysics;

(6) mineral economics;

(7) hydrogeology or ground water science; or

(8) produced water treatment and reuse.

(b) VETERANS AND SERVICE MEMBERS.—In awarding scholarships and fellowships under this section, an institution of higher education shall give preference to applications from veterans and service members who have received or will receive the Afghanistan Campaign Medal or the Iraq Campaign Medal as authorized by Public Law 108–234 (10 U.S.C. 1121 note; 118 Stat. 655) and Executive Order No. 13363.

(c) REQUIREMENTS FOR RECEIPT OF SCHOLARSHIP OR FELLOWSHIP.—To receive a scholarship or a graduate fellowship, an individual student shall—

(1) be a lawful permanent resident of the United States or a United States citizen or national; and

(2) agree in writing to complete a course of studies and receive a degree in a recognized program in an area specified in subsection (a).

(d) REQUIREMENTS FOR RETENTION OF SCHOLARSHIP OR FELLOWSHIP.—

(1) IN GENERAL.—To retain a scholarship or graduate fellowship awarded under this section, an individual shall, as determined by the applicable institution of higher education—

(A) continue in 1 of the courses of studies authorized by this section; and

(B) remain in good academic standing.

(2) REINSTATEMENT.—An institution of higher education may allow for reinstatement of a scholarship or graduate fellowship in a case in which an individual failed to maintain good academic standing but subsequently regained such standing.

(e) APPLICATION OF INSTITUTION OF HIGHER EDUCATION.—An institution of higher education seeking funds under this section shall describe, in the application of the institution of higher education submitted to the Secretary for the funding—

(1) the number of students that would be awarded scholarships or fellowships if the application were to be approved;

(2) the manner in which those students would be selected; and

(3) the ways in which the requirements of this section would be enforced.

SEC. 466. CAREER TECHNICAL AND COMMUNITY COLLEGE EDUCATION.

(a) IN GENERAL.—The Secretary shall support programs in subsurface geosciences and engineering that—

(1) are focused on technology or skill development and the use of that technology or skills in energy, ground water science or hydrogeology, and mineral production, and related maintenance, operational safety, or energy infrastructure protection and security;

(2) prepare students for advanced or supervisory roles in the geothermal, petroleum, mining, geological carbon storage, ground water, or mineral mining industries;

(3) grant an associate's degree, a certificate, or a baccalaureate degree; and

(4) prepare students for further higher education in the recognized programs.

(b) ELIGIBLE PROGRAMS.—

(1) IN GENERAL.—Programs that are eligible to receive support under this section are those that provide training for individuals seeking to enter the industries described in subsection (a)(2), such as—

(A) joint apprenticeship programs;

(B) internships in industry, Federal, State, or tribal offices;

(C) research experiences at national laboratories authorized by Federal law; and

(D) other programs at institutions of higher education (including community colleges).

(2) CONSIDERATION.—The Secretary shall give particular consideration to supporting programs that provide training for a progressive career path in the industries described in subsection (a)(2).

(3) ESSENTIAL SUPPORT.—The Secretary, after consultation with the Advisory Committee, may offer support to programs that grant degrees or certificates in programs that provide training in disciplines that provide essential support for the industries described in subsection (a)(2), including the disciplines listed in paragraph (4), even if those programs are not purposely designed to provide personnel for the industries described in subsection (a)(2).

(4) DISCIPLINES.—The disciplines referred to in paragraph (3) are—

(A) power transmission and operation;

(B) pipeline construction and operation;

(C) maintenance and maintenance logistics;

(D) construction;

(E) manufacturing;

(F) transportation and warehousing;

(G) technical support activities (including data collection, reduction, and analysis) and laboratory support; and

(H) produced water treatment or distribution.

(c) ADDITIONAL REQUIREMENTS.—An institution of higher education that receives funds under this section—

(1) shall demonstrate to the Secretary evidence—

(A) of an institutional commitment for the purposes of career technical education; and

(B) that the institution of higher education has received or will receive industry cooperation in the form of equipment, employee time, or donations of funds to support the activities carried out under this section;

(2) shall agree to maintain the programs for which the funding is sought for a period of 10 years beginning on the date on which the institution of higher education receives the funds, unless the Secretary finds that a shorter period of time is appropriate for the local labor market or is required by State authorities; and

(3) may combine the funds with State funds, and other Federal funds as allowed by applicable law, to carry out programs described in this section, on the condition that the use of funds received under this section is reported to the Secretary not less than annually.

(d) ADVICE.—The Secretary shall seek the advice of the Advisory Committee in determining the criteria used to carry out this section.

SEC. 467. USE OF FUNDS BY INSTITUTIONS.

(a) COST-SHARING.—The Secretary—

(1) shall not require cost-sharing by a non-Federal source for—

(A) any research activity that is of a basic or fundamental nature, as determined by the appropriate officer of the Department of the Interior; or

(B) any scholarship or fellowship program; and

(2) shall require appropriate cost-sharing for research and development activities that are of an applied, demonstration, or commercial nature, as so determined.

(b) PROHIBITED USES OF FUNDS.—No funds made available under this subtitle shall be applied to—

(1) the acquisition by purchase or lease of any land or interest in land; or

(2) the rental, purchase, construction, preservation, or repair of any building.

(c) MAINTENANCE AND UPGRADING.—Funds made available under this subtitle may be used—

(1) with the express approval of the Secretary, for proposals to maintain or upgrade existing laboratories, laboratory equipment, or field equipment related to the funded research; and

(2) for maintaining and upgrading mines, oil and gas drilling rigs, and other appropriate equipment that are used for undergraduate and graduate training and worker safety training and that are owned by—

(A) a recognized program funded under this subtitle; or

(B) by the institution of higher education in which the recognized program is located.

(d) OFFICER.—Each institution of higher education that receives funds under this subtitle shall have an officer appointed by the governing authority of the institution of higher education who shall—

(1) receive and account for all funds paid under this subtitle; and

(2) submit to the Secretary, on or before the first day of September of each year, an annual report that includes—

(A) a description of work accomplished and the status of projects underway, together with a detailed statement of the amounts received under this subtitle, during the preceding fiscal year; and

(B) an accounting of amounts disbursed on schedules prescribed by the Secretary.

(e) PUBLIC AVAILABILITY OF INFORMATION.—All uses, products, processes, and other developments resulting from any research, demonstration, or experiment funded in whole or in part under this subtitle shall be made available promptly to the general public, subject to—

(1) such exceptions or limitations as the Secretary may determine to be necessary in the interest of national security; and

(2) the applicable Federal law governing patents.

SEC. 468. ADVISORY COMMITTEE.

(a) ESTABLISHMENT OF ADVISORY COMMITTEE.—

(1) IN GENERAL.—The Secretary shall establish an Advisory Committee on Geosciences and Geoengineering Education to advise the Secretary in carrying out this subtitle.

(2) MEMBERSHIP.—

(A) VOTING MEMBERS.—The Advisory Committee shall be composed of 19 voting members, including—

(i) the Deputy Secretary of the Interior who shall serve as the Chairperson of the Advisory Committee; and

(ii) not more than 18 additional individuals, appointed by the Secretary, in consultation with interested parties, who are knowledgeable in the fields of energy, petroleum, geothermal, ground water, mining, and mineral resources research, including—

(I) 2 individuals who are university leaders from an institution of higher education with at least 1 recognized program;

(II) 1 individual who is a community or technical college administrator;

(III) 1 individual who is a Tribal College or University administrator;

(IV) 1 individual who is a career technical education educator;

(V) 5 individuals who are representatives equally distributed from the energy, mining, and aggregate or ground water industries;

(VI) 1 individual who is a working miner;

(VII) 1 individual who is a working oilfield worker;

(VIII) 1 individual who is a representative of the Interstate Oil and Gas Compact Commission;

(IX) 1 individual who is a representative of the Interstate Mining Compact Commission;

(X) 1 individual who is a representative of State geologists;

(XI) 2 individuals who are representatives of the general public; and

(XII) 1 individual who is an administrator of a part B institution (as defined in section 322 of the Higher Education Act of 1965 (20 U.S.C. 1061)).

(B) NONVOTING ADVISORS.—The Chairperson of the Advisory Committee may have present during meetings individuals who shall serve as nonvoting, technical advisors to the Advisory Committee, such as representatives of Federal agencies with responsibility for—

(i) energy, ground water, and minerals resources management;

(ii) energy, ground water, and mineral resource investigations;

(iii) energy, ground water, and mineral commodity information;

(iv) international trade in energy, ground water, and mineral commodities;

(v) mining safety regulation and mine safety research; and

(vi) research into the development, production, and use of energy, ground water, and mineral commodities.

(C) PROHIBITION ON FEDERAL GOVERNMENT EMPLOYMENT.—The member of the Advisory Committee appointed under subparagraph (A)(ii) shall not be an employee of the Federal Government.

(3) TERM; VACANCIES.—

(A) TERM.—Subject to subparagraph (B), the term of a member the Advisory Committee shall be 3 years.

(B) REAPPOINTMENT.—A member of the Advisory Committee may be appointed for not more than 2 3-year terms.

(C) VACANCIES.—A vacancy on the Advisory Committee—

(i) shall not affect the powers of the Advisory Committee; and

(ii) shall be filled in the same manner as the original appointment was made.

(4) INITIAL MEETING.—Not later than 45 days after the date on which all members of the Advisory Committee have been appointed, the Advisory Com-

mittee shall hold the initial meeting of the Advisory Committee.

(5) MEETINGS.—The Advisory Committee shall meet at the call of the Chairperson but not less than once per year.

(6) QUORUM.—A majority of the members of the Advisory Committee shall constitute a quorum, but a lesser number of members may hold meetings and hearings.

(b) DUTIES.—The Advisory Committee—

(1) shall advise the Secretary on the development and implementation of programs under this subtitle;

(2) shall, following completion of the report required by section 385(c) of the Energy Policy Act of 2005 (Public Law 109–58; 119 Stat. 744)—

(A) consider the recommendations of the report;

(B) formulate and recommend a national plan for using the fiscal resources provided under this subtitle; and

(C) submit the plan to the Secretary for approval and use by the Secretary, as determined by the Secretary, in carrying out this subtitle;

(3) shall make recommendations to the Secretary regarding the long-term and short-term viability of the faculty at schools with recognized programs; and

(4) may recommend the awarding of graduate fellowships and postdoctoral fellowships to those students who declare their intent to seek roles as future faculty at the recognized programs.

(c) INFORMATION FROM FEDERAL AGENCIES.—

(1) IN GENERAL.—The Advisory Committee may secure directly from a Federal agency such information as the Advisory Committee considers necessary to carry out this subtitle.

(2) PROVISION OF INFORMATION.—On request of the Chairperson of the Advisory Committee, the head of the agency shall provide the information to the Advisory Committee.

(d) ADVISORY COMMITTEE PERSONNEL MATTERS.—

(1) TRAVEL EXPENSES.—A member of the Advisory Committee shall be allowed travel expenses, including per diem in lieu of subsistence, at rates authorized for an employee of an agency under subchapter I of chapter 57 of title 5, United States Code, while away from the home or regular place of

business of the member in the performance of the duties of the Advisory Committee.

(2) DETAIL OF FEDERAL GOVERNMENT EMPLOYEES.—

(A) IN GENERAL.—An employee of the Federal Government may be detailed to the Advisory Committee without reimbursement.

(B) CIVIL SERVICE STATUS.—The detail of the employee shall be without interruption or loss of civil service status or privilege.

(3) PROCUREMENT OF TEMPORARY AND INTERMITTENT SERVICES.—The Chairperson of the Advisory Committee may procure temporary and intermittent services in accordance with section 3109(b) of title 5, United States Code, at rates for individuals that do not exceed the daily equivalent of the annual rate of basic pay prescribed for level V of the Executive Schedule under section 5316 of that title.

SEC. 469. OFFICE; REGULATIONS.

Not later than 1 year after the date of enactment of this Act, the Secretary shall establish a separate office to administer, and to promulgate such regulations as are necessary to carry out, this subtitle.

SEC. 470. AUTHORIZATION OF APPROPRIATIONS.

There is authorized to be appropriated to carry out this subtitle $200,000,000 for each of fiscal years 2010 through 2020, to remain available until expended

SEC. 471. STUDY OF AVAILABILITY OF SKILLED WORKERS.

Section 1830 of the Energy Policy Act of 2005 (Public Law 109–58; 119 Stat. 1137) is amended to read as follows:

"SEC. 1830. STUDY OF AVAILABILITY OF SKILLED WORKERS.

''(a) IN GENERAL.—The Secretary of the Interior, in cooperation with the Secretary of Labor, shall enter into an arrangement with the National Academies under which the National Academies shall conduct a study of the short-term and long-term availability of skilled workers to meet the energy and mineral security requirements of the United States.

''(b) INCLUSIONS.—The study shall include—

''(1) an analysis of the need for and availability of workers for the oil, natural gas, coal, nonfuel mineral, ground water, nuclear, geothermal, solar, wind, and electric utility industries;

''(2) an analysis of the availability of skilled labor at both entry level and more senior levels;

''(3) recommendations for actions needed to meet future labor requirements;

''(4) a description of current and projected education and training programs for those workers at community and technical colleges and universities or through other job-specific training initiatives;

''(5) an analysis of the potential for skilled foreign labor to meet projected sectoral labor requirements;

''(6) an assessment of potential job health and safety impacts, national security, and domestic economic impacts of a long-term workforce shortage or surplus; and

''(7) a description and evaluation of data sources available, Federal data collection and coordination, and potential research initiatives for future decisionmaking relating to workforce issues.

''(c) REPORT.—Not later than December 31, 2012, the Secretary shall submit to Congress a report that describes the results of the study.

''(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this section $2,000,000.''.

Subtitle F—Miscellaneous

SEC. 481. OTHER TRANSACTIONS AUTHORITY.

(a) IN GENERAL.—Section 646 of the Department of Energy Organization Act (42 U.S.C. 7256) is amended by striking subsection (g) and inserting the following:

''(g) AUTHORITY TO ENTER INTO OTHER TRANSACTIONS.—

''(1) IN GENERAL.—In addition to any other authority granted to the Secretary to enter into procurement contracts, leases, cooperative agreements, grants, and certain arrangements, the Secretary may enter into other transactions with public agencies, private organizations, or other persons on such terms as the Secretary considers appropriate to further functions vested in the Secretary, including research, development, or demonstration projects.

''(2) ADVANCE PROJECTS.—Notwithstanding any other provision of law, the Secretary may exercise authority provided under paragraph (1) without regard to section 3324 of title 31, United States Code.

''(3) RELATIONSHIP TO OTHER LAW.—The authority of the Secretary under paragraph (1) shall not be subject to—

"(A) section 9 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5908); or

"(B) section 152 of the Atomic Energy Act of 1954 (42 U.S.C. 2182).

"(4) PROTECTION OF CERTAIN INFORMATION FROM DISCLOSURE.—

"(A) IN GENERAL.—Notwithstanding any other provision of law, disclosure of information described in subparagraph (B) is not required, and may not be compelled, under section 552 of title 5, United States Code, during the 5-year period beginning on the date on which the information is received by the Department.

"(B) AWARD INFORMATION.—The information described in this subparagraph is information in the records of the Department that—

"(i) was submitted—

"(I) to the Department as part of a competitive or noncompetitive process with the potential to result in an award to the person submitting the information; and

"(II) in conjunction with a transaction entered into by the Secretary pursuant to paragraph (1); and

"(ii) is—

"(I) a proposal, proposal abstract, and supporting documents;

"(II) a business plan submitted on a confidential basis; or

"(III) technical information submitted on a confidential basis.

"(5) REQUIREMENTS.—

"(A) SELECTION PROCEDURES.—In entering into transactions under paragraph (1), the Secretary shall use such competitive, merit-based selection procedures as the Secretary determines in writing to be practicable.

"(B) DETERMINATION.—Before entering into a transaction under paragraph (1), the Secretary shall determine in writing that the use of a standard contract, grant, or cooperative agreement for the project is not feasible or appropriate.

"(C) COST SHARING.—A transaction under paragraph (1) shall be subject to cost sharing

in accordance with section 988 of the Energy Policy Act of 2005 (42 U.S.C. 16352).

''(D) LIMITATION ON DELEGATION.—The authority of the Secretary under this subsection may be delegated only to an officer of the Department who is appointed by the President by and with the advice and consent of the Senate and may not be redelegated to any other person.

''(6) ANNUAL REPORTS.—The Secretary shall submit to Congress an annual report on the use by the Department of authorities under this section.

''(7) REPORT.—

''(A) DEFINITION OF NONTRADITIONAL GOVERNMENT CONTRACTOR.—In this paragraph, the term 'nontraditional Government contractor' has the meaning given the term 'nontraditional defense contractor' in section 845(f) of the National Defense Authorization Act for Fiscal Year 1994 (Public Law 103–160; 10 U.S.C. 2371 note).

''(B) REPORT.—Not later than 2 years after the date of enactment of this subparagraph, and 2 years thereafter, the Comptroller

General of the United States shall submit to Congress a report describing—

"(i) the use by the Department of authorities under this section, including the ability to attract nontraditional Government contractors; and

"(ii) whether additional safeguards are necessary to carry out the authorities.".

(b) IMPLEMENTATION.—

(1) IN GENERAL.—The final rule of the Department of Energy entitled "Assistance Regulations" (71 Fed. Reg. 27158 (May 9, 2006)) shall be applicable to transactions under section 646 of the Department of Energy Organization Act (42 U.S.C. 7256) (as amended by subsection (a)).

(2) REGULATIONS.—The Secretary may revise, supplement, or replace such regulations as the Secretary determines necessary to implement the amendment made by subsection (a).

SEC. 482. DEFINITION OF NATIONAL LABORATORY.

Section 2(3) of the Energy Policy Act of 2005 (42 U.S.C. 15801(3)) is amended by striking subparagraph (P) and inserting the following:

"(P) SLAC National Accelerator Laboratory.".

SEC. 483. PROTECTION OF RESULTS.

(a) IN GENERAL.—Subject to subsection (b) and notwithstanding any other provision of law, during a period of not more than 5 years after the development of information in any transaction authorized to be entered into by the Department of Energy, the Secretary may provide appropriate protections against the dissemination of the information, including exemption from subchapter II of chapter 5 of title 5, United States Code.

(b) APPLICABLE INFORMATION.—This section applies to information that—

(1) results from a transaction entered into by the Secretary pursuant to this title or an amendment made by this title; and

(2) is of a character that would be protected from disclosure under section 552(b)(4) of title 5, United States Code, if the information had been obtained from a person other than an agent or employee of the Federal Government.

[TITLE V—MORE TRANSPARENT ENERGY MARKETS]

[SEC. 501. RESERVED.]

[TITLE VI—POLICY STUDIES AND REPORTS]

[SEC. 601. RESERVED.]