TITLE XVI—CLIMATE CHANGE

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Subtitle A—National Climate Change Technology Deployment

SEC. 1601. GREENHOUSE GAS INTENSITY REDUCING TECHNOLOGY STRATEGIES.

Title XVI of the Energy Policy Act of 1992 (42 U.S.C. 13381 et seq.) is amended by adding at the end the following:

"SEC. 1610. GREENHOUSE GAS INTENSITY REDUCING STRATEGIES.

''(a) DEFINITIONS.—In this section:

''(1) ADVISORY COMMITTEE.—The term 'Advisory Committee' means the Climate Change Technology Advisory Committee established under subsection (f)(1).

''(2) CARBON SEQUESTRATION.—The term 'carbon sequestration' means the capture of carbon dioxide through terrestrial, geological, biological, or

other means, which prevents the release of carbon dioxide into the atmosphere.

''(3) COMMITTEE.—The term 'Committee' means the Committee on Climate Change Technology established under subsection (b)(1).

''(4) DEVELOPING COUNTRY.—The term 'developing country' has the meaning given the term in section 1608(m).

''(5) GREENHOUSE GAS.—The term 'greenhouse gas' means—

''(A) carbon dioxide;

''(B) methane;

''(C) nitrous oxide;

''(D) hydrofluorocarbons;

''(E) perfluorocarbons; and

''(F) sulfur hexafluoride.

''(6) GREENHOUSE GAS INTENSITY.—The term 'greenhouse gas intensity' means the ratio of greenhouse gas emissions to economic output.

''(7) NATIONAL LABORATORY.—The term 'National Laboratory' has the meaning given the term in section 3(3) of the Energy Policy Act of 2005.

''(b) COMMITTEE ON CLIMATE CHANGE TECHNOLOGY.—

''(1) IN GENERAL.—Not later than 180 days after the date of enactment of this section, the President shall establish a Committee on Climate Change Technology to—

''(A) integrate current Federal climate reports; and

''(B) coordinate Federal climate change technology activities and programs carried out in furtherance of the strategy developed under subsection (c)(1).

''(2) MEMBERSHIP.—The Committee shall be composed of at least 7 members, including—

''(A) the Secretary, who shall chair the Committee;

''(B) the Secretary of Commerce;

''(C) the Chairman of the Council on Environmental Quality;

''(D) the Secretary of Agriculture;

''(E) the Administrator of the Environmental Protection Agency;

''(F) the Secretary of Transportation;

''(G) the Director of the Office of Science and Technology Policy; and

''(H) other representatives as may be determined by the President.

''(3) STAFF.—The members of the Committee shall provide such personnel as are necessary to enable the Committee to perform its duties.

''(c) NATIONAL CLIMATE CHANGE TECHNOLOGY POLICY.—

''(1) IN GENERAL.—Not later than 18 months after the date of enactment of this section, the Committee shall, based on applicable Federal climate reports, submit to the Secretary and the President a national strategy to promote the deployment and commercialization of greenhouse gas intensity reducing technologies and practices developed through research and development programs conducted by the National Laboratories, other Federal research facilities, institutions of higher education, and the private sector.

''(2) UPDATES.—The Committee shall—

''(A) at the time of submission of the strategy to the President under paragraph (1), also make the strategy available to the public; and

''(B) update the strategy every 5 years, or more frequently as the Committee determines to be necessary.

''(d) CLIMATE CHANGE TECHNOLOGY PROGRAM.—Not later than 180 days after the date on which the Committee is established under subsection (b)(1), the Secretary, in consultation with the Committee, shall establish within the Department of Energy the Climate Change Technology Program to—

''(1) assist the Committee in the interagency coordination of climate change technology research, development, demonstration, and deployment to reduce greenhouse gas intensity; and

''(2) carry out the programs authorized under this section.

''(e) TECHNOLOGY INVENTORY.—

''(1) IN GENERAL.—The Secretary shall conduct and make public an inventory and evaluation of greenhouse gas intensity reducing technologies that have been developed, or are under development, by the National Laboratories, other Federal research facilities, institutions of higher education, and the private sector to determine which technologies are suitable for commercialization and deployment.

''(2) REPORT.—Not later than 180 days after the completion of the inventory under paragraph (1), the Secretary shall submit to Congress a report that

includes the results of the completed inventory and any recommendations of the Secretary.

''(3) USE.—The Secretary shall use the results of the inventory as guidance in the commercialization and deployment of greenhouse gas intensity reducing technologies.

''(4) UPDATED INVENTORY.—The Secretary shall—

''(A) periodically update the inventory under paragraph (1), including when determined necessary by the Committee; and

''(B) make the updated inventory available to the public.

''(f) CLIMATE CHANGE TECHNOLOGY ADVISORY COMMITTEE.—

''(1) IN GENERAL.—The Secretary, in consultation with the Committee, may establish under section 624 of the Department of Energy Organization Act (42 U.S.C. 7234) a Climate Change Technology Advisory Committee to identify statutory, regulatory, economic, and other barriers to the commercialization and deployment of greenhouse gas intensity reducing technologies and practices in the United States.

''(2) COMPOSITION.—The Advisory Committee shall be composed of the following members, to be appointed by the Secretary, in consultation with the Committee:

''(A) 1 representative shall be appointed from each National Laboratory.

''(B) 3 members shall be representatives of energy-producing trade organizations.

''(C) 3 members shall represent energy-intensive trade organizations.

''(D) 3 members shall represent groups that represent end-use energy and other consumers.

''(E) 3 members shall be employees of the Federal Government who are experts in energy technology, intellectual property, and tax.

''(F) 3 members shall be representatives of institutions of higher education with expertise in energy technology development that are recommended by the National Academy of Engineering.

''(3) REPORT.—Not later than 1 year after the date of enactment of this section and annually thereafter, the Advisory Committee shall submit to the Committee a report that describes—

"(A) the findings of the Advisory Committee; and

"(B) any recommendations of the Advisory Committee for the removal or reduction of barriers to commercialization, deployment, and increasing the use of greenhouse gas intensity reducing technologies and practices.

"(g) GREENHOUSE GAS INTENSITY REDUCING TECHNOLOGY DEPLOYMENT.—

"(1) IN GENERAL.—Based on the strategy developed under subsection (c)(1), the technology inventory conducted under subsection (e)(1), the greenhouse gas intensity reducing technology study report submitted under subsection (e)(2), and reports under subsection (f)(3), if any, the Committee shall develop recommendations that would provide for the removal of domestic barriers to the commercialization and deployment of greenhouse gas intensity reducing technologies and practices.

"(2) REQUIREMENTS.—In developing the recommendations under paragraph (1), the Committee shall consider in the aggregate—

"(A) the cost-effectiveness of the technology;

"(B) fiscal and regulatory barriers;

''(C) statutory and other barriers; and

''(D) intellectual property issues.

''(3) DEMONSTRATION PROJECTS.—In developing recommendations under paragraph (1), the Committee may identify the need for climate change technology demonstration projects.

''(4) REPORT.—Not later than 18 months after the date of enactment of this section, the Committee shall submit to the President and Congress a report that—

''(A) identifies, based on the report submitted under subsection (f)(3), any barriers to, and commercial risks associated with, the deployment of greenhouse gas intensity reducing technologies; and

''(B) includes a plan for carrying out demonstration projects.

''(5) UPDATES.—The Committee shall—

''(A) at the time of submission of the report to Congress under paragraph (4), also make the report available to the public; and

''(B) update the report every 5 years, or more frequently as the Committee determines to be necessary.

''(h) PROCEDURES FOR CALCULATING, MONITORING, AND ANALYZING GREENHOUSE GAS INTENSITY.—The Secretary, in collaboration with the Committee and the National Institute of Standards and Technology and after public notice and opportunity for comment, shall develop standards and best practices for calculating, monitoring, and analyzing greenhouse gas intensity.

''(i) DEMONSTRATION PROJECTS.—

''(1) IN GENERAL.—The Secretary shall, subject to the availability of appropriations, support demonstration projects that—

''(A) increase the reduction of the greenhouse gas intensity to levels below that which would be achieved by technologies being used in the United States as of the date of enactment of this section;

''(B) maximize the potential return on Federal investment;

''(C) demonstrate distinct roles in public-private partnerships;

''(D) produce a large-scale reduction of greenhouse gas intensity if commercialization occurred; and

''(E) support a diversified portfolio to mitigate the uncertainty associated with a single technology.

''(2) COST SHARING.—In supporting a demonstration project under this subsection, the Secretary shall require cost-sharing in accordance with section 988 of the Energy Policy Act of 2005.

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

''(j) COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENTS.—In carrying out greenhouse gas intensity reduction research and technology deployment activities under this subtitle, the Secretary may enter into cooperative research and development agreements under section 12 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3710a).''.

Subtitle B—Climate Change Technology Deployment in Developing Countries

SEC. 1611. CLIMATE CHANGE TECHNOLOGY DEPLOYMENT IN DEVELOPING COUNTRIES.

The Global Environmental Protection Assistance Act of 1989 (Public Law 101–240; 103 Stat. 2521) is amending by adding at the end the following:

"PART C—TECHNOLOGY DEPLOYMENT IN DEVELOPING COUNTRIES

"SEC. 731. DEFINITIONS.

''In this part:

''(1) CARBON SEQUESTRATION.—The term 'carbon sequestration' means the capture of carbon dioxide through terrestrial, geological, biological, or other means, which prevents the release of carbon dioxide into the atmosphere.

''(2) GREENHOUSE GAS.—The term 'greenhouse gas' means carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

''(3) GREENHOUSE GAS INTENSITY.—The term 'greenhouse gas intensity' means the ratio of greenhouse gas emissions to economic output.

"SEC. 732. REDUCTION OF GREENHOUSE GAS INTENSITY.

''(a) LEAD AGENCY.—

''(1) IN GENERAL.—The Department of State shall act as the lead agency for integrating into United States foreign policy the goal of reducing greenhouse gas intensity in developing countries.

''(2) REPORTS.—

''(A) INITIAL REPORT.—Not later than 180 days after the date of enactment of this part, the Secretary of State shall submit to the

appropriate authorizing and appropriating committees of Congress an initial report, based on the most recent information available to the Secretary from reliable public sources, that identifies the 25 developing countries that are the greenhouse gas emitters, including for each country—

''(i) an estimate of the quantity and types of energy used;

''(ii) an estimate of the greenhouse gas intensity of the energy, manufacturing, agricultural, and transportation sectors;

''(iii) a description the progress of any significant projects undertaken to reduce greenhouse gas intensity;

''(iv) a description of the potential for undertaking projects to reduce greenhouse gas intensity;

''(v) a description of any obstacles to the reduction of greenhouse gas intensity; and

''(vi) a description of the best practices learned by the Agency for International Development from conducting pre-

vious pilot and demonstration projects to reduce greenhouse gas intensity.

''(B) UPDATE.—Not later than 18 months after the date on which the initial report is submitted under subparagraph (A), the Secretary shall submit to the appropriate authorizing and appropriating committees of Congress, based on the best information available to the Secretary, an update of the information provided in the initial report.

''(C) USE.—

''(i) INITIAL REPORT.—The Secretary of State shall use the initial report submitted under subparagraph (A) to establish baselines for the developing countries identified in the report with respect to the information provided under clauses (i) and (ii) of that subparagraph.

''(ii) ANNUAL REPORTS.—The Secretary of State shall use the annual reports prepared under subparagraph (B) and any other information available to the Secretary to track the progress of the developing countries with respect to reducing greenhouse gas intensity.

''(b) PROJECTS.—The Secretary of State, in coordination with Administrator of the United States Agency for International Development, shall (directly or through agreements with the World Bank, the International Monetary Fund, the Overseas Private Investment Corporation, and other development institutions) provide assistance to developing countries specifically for projects to reduce greenhouse gas intensity, including projects to—

''(1) leverage, through bilateral agreements, funds for reduction of greenhouse gas intensity;

''(2) increase private investment in projects and activities to reduce greenhouse gas intensity; and

''(3) expedite the deployment of technology to reduce greenhouse gas intensity.

''(c) FOCUS.—In providing assistance under subsection (b), the Secretary of State shall focus on—

''(1) promoting the rule of law, property rights, contract protection, and economic freedom; and

''(2) increasing capacity, infrastructure, and training.

''(d) PRIORITY.—In providing assistance under subsection (b), the Secretary of State shall give priority to projects in the 25 developing countries identified in the report submitted under subsection (a)(2)(A).

"SEC. 733. TECHNOLOGY INVENTORY FOR DEVELOPING COUNTRIES.

''(a) IN GENERAL.—The Secretary of Energy, in coordination with the Secretary of State and the Secretary of Commerce, shall conduct an inventory of greenhouse gas intensity reducing technologies that are developed, or under development in the United States, to identify technologies that are suitable for transfer to, deployment in, and commercialization in the developing countries identified in the report submitted under section 732(a)(2)(A).

''(b) REPORT.—Not later than 180 days after the completion of the inventory under subsection (a), the Secretary of State and the Secretary of Energy shall jointly submit to Congress a report that—

''(1) includes the results of the completed inventory;

''(2) identifies obstacles to the transfer, deployment, and commercialization of the inventoried technologies;

''(3) includes results from previous Federal reports related to the inventoried technologies; and

''(4) includes an analysis of market forces related to the inventoried technologies.

"SEC. 734. TRADE-RELATED BARRIERS TO EXPORT OF GREENHOUSE GAS INTENSITY REDUCING TECHNOLOGIES.

''(a) IN GENERAL.—Not later than 1 year after the date of enactment of this part, the United States Trade Representative shall (as appropriate and consistent with applicable bilateral, regional, and mutual trade agreements)—

''(1) identify trade-relations barriers maintained by foreign countries to the export of greenhouse gas intensity reducing technologies and practices from the United States to the developing countries identified in the report submitted under section 732(a)(2)(A); and

''(2) negotiate with foreign countries for the removal of those barriers.

''(b) ANNUAL REPORT.—Not later than 1 year after the date on which a report is submitted under subsection (a)(1) and annually thereafter, the United States Trade Representative shall submit to Congress a report that describes any progress made with respect to removing the barriers identified by the United States Trade Representative under subsection (a)(1).

"SEC. 735. GREENHOUSE GAS INTENSITY REDUCING TECHNOLOGY EXPORT INITIATIVE.

''(a) IN GENERAL.—There is established an interagency working group to carry out a Greenhouse Gas Intensity Reducing Technology Export Initiative to—

''(1) promote the export of greenhouse gas intensity reducing technologies and practices from the United States;

''(2) identify developing countries that should be designated as priority countries for the purpose of exporting greenhouse gas intensity reducing technologies and practices, based on the report submitted under section 732(a)(2)(A);

''(3) identify potential barriers to adoption of exported greenhouse gas intensity reducing technologies and practices based on the reports submitted under section 734; and

''(4) identify previous efforts to export energy technologies to learn best practices.

''(b) COMPOSITION.—The working group shall be composed of—

''(1) the Secretary of State, who shall act as the head of the working group;

''(2) the Administrator of the United States Agency for International Development;

''(3) the United States Trade Representative;

''(4) a designee of the Secretary of Energy; and

''(5) a designee of the Secretary of Commerce.

''(c) PERFORMANCE REVIEWS AND REPORTS.—Not later than 180 days after the date of enactment of this part and each year thereafter, the interagency working group shall—

''(1) conduct a performance review of actions taken and results achieved by the Federal Government (including each of the agencies represented on the interagency working group) to promote the export of greenhouse gas intensity reducing technologies and practices from the United States; and

''(2) submit to the appropriate authorizing and appropriating committees of Congress a report that describes the results of the performance reviews and evaluates progress in promoting the export of greenhouse gas intensity reducing technologies and practices from the United States, including any recommendations for increasing the export of the technologies and practices.

''SEC. 736. TECHNOLOGY DEMONSTRATION PROJECTS.

''(a) IN GENERAL.—The Secretary of State, in coordination with the Secretary of Energy and the Administrator of the United States Agency for International Development, shall promote the adoption of technologies and

practices that reduce greenhouse gas intensity in developing countries in accordance with this section.

''(b) DEMONSTRATION PROJECTS.—

''(1) IN GENERAL.—The Secretaries and the Administrator shall plan, coordinate, and carry out, or provide assistance for the planning, coordination, or carrying out of, demonstration projects under this section in at least 10 eligible countries, as determined by the Secretaries and the Administrator.

''(2) ELIGIBILITY.—A country shall be eligible for assistance under this subsection if the Secretaries and the Administrator determine that the country has demonstrated a commitment to—

''(A) just governance, including—

''(i) promoting the rule of law;

''(ii) respecting human and civil rights;

''(iii) protecting private property rights; and

''(iv) combating corruption; and

''(B) economic freedom, including economic policies that—

''(i) encourage citizens and firms to participate in global trade and international capital markets;

''(ii) promote private sector growth and the sustainable management of natural resources; and

''(iii) strengthen market forces in the economy.

''(3) SELECTION.—In determining which eligible countries to provide assistance to under paragraph (1), the Secretaries and the Administrator shall consider—

''(A) the opportunity to reduce greenhouse gas intensity in the eligible country; and

''(B) the opportunity to generate economic growth in the eligible country.

''(4) TYPES OF PROJECTS.—Demonstration projects under this section may include—

''(A) coal gasification, coal liquefaction, and clean coal projects;

''(B) carbon sequestration projects;

''(C) cogeneration technology initiatives;

''(D) renewable projects; and

''(E) lower emission transportation.

''SEC. 737. FELLOWSHIP AND EXCHANGE PROGRAMS.

''The Secretary of State, in coordination with the Secretary of Energy, the Secretary of Commerce, and the Administrator of the Environmental Protection Agency,

shall carry out fellowship and exchange programs under which officials from developing countries visit the United States to acquire expertise and knowledge of best practices to reduce greenhouse gas intensity in their countries.

''SEC. 738. AUTHORIZATION OF APPROPRIATIONS.

''There are authorized to be appropriated such sums as are necessary to carry out this part.

''SEC. 739. EFFECTIVE DATE.

''Except as otherwise provided in this part, this part takes effect on October 1, 2005.''.