TITLE IV—COAL

TITLE IV—COAL

Subtitle A—Clean Coal Power Initiative

SEC. 401. AUTHORIZATION OF APPROPRIATIONS.

(a) CLEAN COAL POWER INITIATIVE.—There are authorized to be appropriated to the Secretary to carry out the activities authorized by this subtitle $200,000,000 for each of fiscal years 2006 through 2014, to remain available until expended.

(b) REPORT.—The Secretary shall submit to Congress the report required by this subsection not later than March 31, 2007. The report shall include, with respect to subsection (a), a plan containing—

(1) a detailed assessment of whether the aggregate funding levels provided under subsection (a) are the appropriate funding levels for that program;

(2) a detailed description of how proposals will be solicited and evaluated, including a list of all activities expected to be undertaken;

(3) a detailed list of technical milestones for each coal and related technology that will be pursued; and

(4) a detailed description of how the program will avoid problems enumerated in Government Accountability Office reports on the Clean Coal Technology Program, including problems that have resulted in unspent funds and projects that failed either financially or scientifically.

SEC. 402. PROJECT CRITERIA.

(a) IN GENERAL.—To be eligible to receive assistance under this subtitle, a project shall advance efficiency, environmental performance, and cost competitiveness well beyond the level of technologies that are in commercial service or have been demonstrated on a scale that the Secretary determines is sufficient to demonstrate that commercial service is viable as of the date of enactment of this Act.

(b) TECHNICAL CRITERIA FOR CLEAN COAL POWER INITIATIVE.—

(1) GASIFICATION PROJECTS.—

(A) IN GENERAL.—In allocating the funds made available under section 401(a), the Secretary shall ensure that at least 70 percent of the funds are used only to fund projects on coal-based gasification technologies, including—

(i) gasification combined cycle;

(ii) gasification fuel cells and turbine combined cycle;

(iii) gasification coproduction; and

(iv) hybrid gasification and combustion.

(B) TECHNICAL MILESTONES.—

(i) PERIODIC DETERMINATION.—

(I) IN GENERAL.—The Secretary shall periodically set technical milestones specifying the emission and thermal efficiency levels that coal gasification projects under this subtitle shall be designed, and reasonably expected, to achieve.

(II) PRESCRIPTIVE MILESTONES.—The technical milestones shall become more prescriptive during the period of the clean coal power initiative.

(ii) 2020 GOALS.—The Secretary shall establish the periodic milestones so as to achieve by the year 2020 coal gasification projects able—

(I) to remove at least 99 percent of sulfur dioxide;

(II) to emit not more than .05 lbs of NO_x per million Btu;

(III) to achieve at least 95 percent reductions in mercury emissions; and

(IV) to achieve a thermal efficiency of at least—

(aa) 50 percent for coal of more than 9,000 Btu;

(bb) 48 percent for coal of 7,000 to 9,000 Btu; and

(cc) 46 percent for coal of less than 7,000 Btu.

(2) OTHER PROJECTS.—

(A) ALLOCATION OF FUNDS.—The Secretary shall ensure that up to 30 percent of the funds made available under section 401(a) are used to fund projects other than those described in paragraph (1).

(B) TECHNICAL MILESTONES.—

(i) PERIODIC DETERMINATION.—

(I) IN GENERAL.—The Secretary shall periodically establish technical milestones specifying the emission and thermal efficiency levels that projects funded under this paragraph shall be designed, and reasonably expected, to achieve.

(II) PRESCRIPTIVE MILESTONES.—The technical milestones shall become more prescriptive during the period of the clean coal power initiative.

(ii) 2020 GOALS.—The Secretary shall set the periodic milestones so as to achieve by the year 2020 projects able—

(I) to remove at least 97 percent of sulfur dioxide;

(II) to emit no more than .08 lbs of NO_x per million Btu;

(III) to achieve at least 90 percent reductions in mercury emissions; and

(IV) to achieve a thermal efficiency of at least—

(aa) 43 percent for coal of more than 9,000 Btu;

(bb) 41 percent for coal of 7,000 to 9,000 Btu; and

(cc) 39 percent for coal of less than 7,000 Btu.

(3) CONSULTATION.—Before setting the technical milestones under paragraphs (1)(B) and (2)(B), the Secretary shall consult with—

(A) the Administrator of the Environmental Protection Agency; and

(B) interested entities, including—

(i) coal producers;

(ii) industries using coal;

(iii) organizations that promote coal or advanced coal technologies;

(iv) environmental organizations;

(v) organizations representing workers; and

(vi) organizations representing consumers.

(4) EXISTING UNITS.—In the case of projects at units in existence on the date of enactment of this Act, in lieu of the thermal efficiency requirements described in paragraphs (1)(B)(ii)(IV) and (2)(B)(ii)(IV), the milestones shall be designed to achieve an overall thermal design efficiency improvement, compared to the efficiency of the unit as operated, of not less than—

(A) 7 percent for coal of more than 9,000 Btu;

(B) 6 percent for coal of 7,000 to 9,000 Btu; or

(C) 4 percent for coal of less than 7,000 Btu.

(5) ADMINISTRATION.—

(A) ELEVATION OF SITE.—In evaluating project proposals to achieve thermal efficiency levels established under paragraphs (1)(B)(i) and (2)(B)(i) and in determining progress towards thermal efficiency milestones under paragraphs (1)(B)(ii)(IV), (2)(B)(ii)(IV), and (4), the Secretary shall take into account and make adjustments for the elevation of the site at which a project is proposed to be constructed.

(B) APPLICABILITY OF MILESTONES.—In applying the thermal efficiency milestones under paragraphs (1)(B)(ii)(IV), (2)(B)(ii)(IV), and (4) to projects that separate and capture at least 50 percent of the potential emissions of carbon dioxide by a facility, the energy used for separation and capture of carbon dioxide shall not be counted in calculating the thermal efficiency.

(C) PERMITTED USES.—In carrying out this section, the Secretary may give priority to projects that include, as part of the project—

(i) the separation or capture of carbon dioxide; or

(ii) the reduction of the demand for natural gas if deployed.

(c) FINANCIAL CRITERIA.—The Secretary shall not provide financial assistance under this subtitle for a project unless the recipient documents to the satisfaction of the Secretary that—

(1) the recipient is financially responsible;

(2) the recipient will provide sufficient information to the Secretary to enable the Secretary to en-

sure that the funds are spent efficiently and effectively; and

(3) a market exists for the technology being demonstrated or applied, as evidenced by statements of interest in writing from potential purchasers of the technology.

(d) FINANCIAL ASSISTANCE.—The Secretary shall provide financial assistance to projects that, as determined by the Secretary—

(1) meet the requirements of subsections (a), (b), and (c); and

(2) are likely—

(A) to achieve overall cost reductions in the use of coal to generate useful forms of energy or chemical feedstocks;

(B) to improve the competitiveness of coal among various forms of energy in order to maintain a diversity of fuel choices in the United States to meet electricity generation requirements; and

(C) to demonstrate methods and equipment that are applicable to 25 percent of the electricity generating facilities, using various types of coal, that use coal as the primary feedstock as of the date of enactment of this Act.

(e) COST-SHARING.—In carrying out this subtitle, the Secretary shall require cost sharing in accordance with section 1002.

(f) SCHEDULED COMPLETION OF SELECTED PROJECTS.—

(1) IN GENERAL.—In selecting a project for financial assistance under this section, the Secretary shall establish a reasonable period of time during which the owner or operator of the project shall complete the construction or demonstration phase of the project, as the Secretary determines to be appropriate.

(2) CONDITION OF FINANCIAL ASSISTANCE.—The Secretary shall require as a condition of receipt of any financial assistance under this subtitle that the recipient of the assistance enter into an agreement with the Secretary not to request an extension of the time period established for the project by the Secretary under paragraph (1).

(3) EXTENSION OF TIME PERIOD.—

(A) IN GENERAL.—Subject to subparagraph (B), the Secretary may extend the time period established under paragraph (1) if the Secretary determines, in the sole discretion of the Secretary, that the owner or operator of the project cannot complete the construction or demonstration phase of the project within the time period due to circumstances beyond the control of the owner or operator.

(B) LIMITATION.—The Secretary shall not extend a time period under subparagraph (A) by more than 4 years.

(g) FEE TITLE.—The Secretary may vest fee title or other property interests acquired under cost-share clean coal power initiative agreements under this subtitle in any entity, including the United States.

(h) DATA PROTECTION.—For a period not exceeding 5 years after completion of the operations phase of a cooperative agreement, the Secretary may provide appropriate protections (including exemptions from subchapter II of chapter 5 of title 5, United States Code) against the dissemination of information that—

(1) results from demonstration activities carried out under the clean coal power initiative program; and

(2) would be a trade secret or commercial or financial information that is privileged or confidential if the information had been obtained from and first produced by a non-Federal party participating in a clean coal power initiative project.

(i) APPLICABILITY.—No technology, or level of emission reduction, solely by reason of the use of the technology, or the achievement of the emission reduction, by 1 or more facilities receiving assistance under this Act, shall be considered to be—

(1) adequately demonstrated for purposes of section 111 of the Clean Air Act (42 U.S.C. 7411);

(2) achievable for purposes of section 169 of that Act (42 U.S.C. 7479); or

(3) achievable in practice for purposes of section 171 of that Act (42 U.S.C. 7501).

SEC. 403. REPORT.

Not later than 1 year after the date of enactment of this Act, and once every 2 years thereafter through 2014, the Secretary, in consultation with other appropriate Federal agencies, shall submit to Congress a report describing—

(1) the technical milestones set forth in section 402 and how those milestones ensure progress toward meeting the requirements of subsections (b)(1)(B) and (b)(2) of section 402; and

(2) the status of projects funded under this subtitle.

SEC. 404. CLEAN COAL CENTERS OF EXCELLENCE.

(a) IN GENERAL.—As part of the clean coal power initiative, the Secretary shall award competitive, merit-based grants to institutions of higher education for the establishment of centers of excellence for energy systems of the future.

(b) BASIS FOR GRANTS.—The Secretary shall award grants under this section to institutions of higher education that show the greatest potential for advancing new clean coal technologies.

Subtitle B—Clean Power Projects

SEC. 411. INTEGRATED COAL/RENEWABLE ENERGY SYSTEM.

(a) IN GENERAL.—Subject to the availability of appropriations, the Secretary may provide loan guarantees for a project to produce energy from coal of less than 7,000 Btu/lb using appropriate advanced integrated gasification combined cycle technology, including repowering of existing facilities, that—

(1) is combined with wind and other renewable sources;

(2) minimizes and offers the potential to sequester carbon dioxide emissions; and

(3) provides a ready source of hydrogen for near-site fuel cell demonstrations.

(b) REQUIREMENTS.—The facility—

(1) may be built in stages;

(2) shall have a combined output of at least 200 megawatts at successively more competitive rates; and

(3) shall be located in the Upper Great Plains.

(c) TECHNICAL CRITERIA.—Technical criteria described in section 402(b) shall apply to the facility.

(d) INVESTMENT TAX CREDITS.—

(1) IN GENERAL.—The loan guarantees provided under this section do not preclude the facility from receiving an allocation for investment tax credits under section 48A of the Internal Revenue Code of 1986.

(2) OTHER FUNDING.—Use of the investment tax credit described in paragraph (1) does not prohibit the use of other clean coal program funding.

SEC. 412. LOAN TO PLACE ALASKA CLEAN COAL TECHNOLOGY FACILITY IN SERVICE.

(a) DEFINITIONS.—In this section:

(1) BORROWER.—The term ''borrower'' means the owner of the clean coal technology plant.

(2) CLEAN COAL TECHNOLOGY PLANT.—The term ''clean coal technology plant'' means the plant located near Healy, Alaska, constructed under De-

partment cooperative agreement number DE–FC–22–91PC90544.

(3) COST OF A DIRECT LOAN.—The term ''cost of a direct loan'' has the meaning given the term in section 502(5)(B) of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a(5)(B)).

(b) AUTHORIZATION.—Subject to subsection (c), the Secretary shall use amounts made available under subsection (e) to provide the cost of a direct loan to the borrower for purposes of placing the clean coal technology plant into reliable operation for the generation of electricity.

(c) REQUIREMENTS.—

(1) MAXIMUM LOAN AMOUNT.—The amount of the direct loan provided under subsection (b) shall not exceed $80,000,000.

(2) DETERMINATIONS BY SECRETARY.—Before providing the direct loan to the borrower under subsection (b), the Secretary shall determine that—

(A) the plan of the borrower for placing the clean coal technology plant in reliable operation has a reasonable prospect of success;

(B) the amount of the loan (when combined with amounts available to the borrower from other sources) will be sufficient to carry out the project; and

(C) there is a reasonable prospect that the borrower will repay the principal and interest on the loan.

(3) INTEREST; TERM.—The direct loan provided under subsection (b) shall bear interest at a rate and for a term that the Secretary determines appropriate, after consultation with the Secretary of the Treasury, taking into account the needs and capacities of the borrower and the prevailing rate of interest for similar loans made by public and private lenders.

(4) ADDITIONAL TERMS AND CONDITIONS.—The Secretary may require any other terms and conditions that the Secretary determines to be appropriate.

(d) USE OF PAYMENTS.—The Secretary shall retain any payments of principal and interest on the direct loan provided under subsection (b) to support energy research and development activities, to remain available until expended, subject to any other conditions in an applicable appropriations Act.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to provide the cost of a direct loan under subsection (b).

SEC. 413. WESTERN INTEGRATED COAL GASIFICATION DEMONSTRATION PROJECT.

(a) IN GENERAL.—Subject to the availability of appropriations, the Secretary shall carry out a project to demonstrate production of energy from coal mined in the western United States using integrated gasification combined cycle technology (referred to in this section as the "demonstration project").

(b) COMPONENTS.—The demonstration project—

(1) may include repowering of existing facilities;

(2) shall be designed to demonstrate the ability to use coal with an energy content of not more than 9,000 Btu/lb.; and

(3) shall be capable of removing and sequestering carbon dioxide emissions.

(c) ALL TYPES OF WESTERN COALS.—Notwithstanding the foregoing, and to the extent economically feasible, the demonstration project shall also be designed to demonstrate the ability to use a variety of types of coal (including subbituminous and bituminous coal with an energy content of up to 13,000 Btu/lb.) mined in the western United States.

(d) LOCATION.—The demonstration project shall be located in a western State at an altitude of greater than 4,000 feet above sea level.

(e) COST SHARING.—The Federal share of the cost of the demonstration project shall be determined in accordance with section 1002.

(f) LOAN GUARANTEES.—Notwithstanding title XIV, the demonstration project shall not be eligible for Federal loan guarantees.

SEC. 414. COAL GASIFICATION.

The Secretary is authorized to provide loan guarantees for a project to produce energy from a plant using integrated gasification combined cycle technology of at least 400 megawatts in capacity that produces power at competitive rates in deregulated energy generation markets and that does not receive any subsidy (direct or indirect) from ratepayers.

SEC. 415. PETROLEUM COKE GASIFICATION.

The Secretary is authorized to provide loan guarantees for at least 5 petroleum coke gasification projects.

SEC. 416. ELECTRON SCRUBBING DEMONSTRATION.

The Secretary shall use $5,000,000 from amounts appropriated to initiate, through the Chicago Operations Office, a project to demonstrate the viability of high-energy electron scrubbing technology on commercial-scale electrical generation using high-sulfur coal.

SEC. 417. DEPARTMENT OF ENERGY TRANSPORTATION FUELS FROM ILLINOIS BASIN COAL.

(a) IN GENERAL.—The Secretary shall carry out a program to evaluate the commercial and technical viability of advanced technologies for the production of Fischer-Tropsch transportation fuels, and other transportation fuels, manufactured from Illinois basin coal, including the capital modification of existing facilities and the construction of testing facilities under subsection (b).

(b) FACILITIES.—For the purpose of evaluating the commercial and technical viability of different processes for producing Fischer-Tropsch transportation fuels, and other transportation fuels, from Illinois basin coal, the Secretary shall support the use and capital modification of existing facilities and the construction of new facilities at—

(1) Southern Illinois University Coal Research Center;

(2) University of Kentucky Center for Applied Energy Research; and

(3) Energy Center at Purdue University.

(c) GASIFICATION PRODUCTS TEST CENTER.—In conjunction with the activities described in subsections (a) and (b), the Secretary shall construct a test center to evaluate and confirm liquid and gas products from syngas catalysis in order that the system has an output of at least 500 gallons of Fischer-Tropsch transportation fuel per day in a 24-hour operation.

(d) MILESTONES.—

(1) SELECTION OF PROCESSES.—Not later than 180 days after the date of enactment of this Act, the Secretary shall select processes for evaluating the commercial and technical viability of different processes of producing Fischer-Tropsch transportation fuels, and other transportation fuels, from Illinois basin coal.

(2) AGREEMENTS.—Not later than 1 year after the date of enactment of this Act, the Secretary shall offer to enter into agreements—

(A) to carry out the activities described in this section, at the facilities described in subsection (b); and

(B) for the capital modifications or construction of the facilities at the locations described in subsection (b).

(3) EVALUATIONS.—Not later than 3 years after the date of enactment of the Act, the Secretary shall begin, at the facilities described in subsection

(b), evaluation of the technical and commercial viability of different processes of producing Fischer-Tropsch transportation fuels, and other transportation fuels, from Illinois basin coal.

(4) CONSTRUCTION OF FACILITIES.—

(A) IN GENERAL.—The Secretary shall construct the facilities described in subsection (b) at the lowest cost practicable.

(B) GRANTS OR AGREEMENTS.—The Secretary may make grants or enter into agreements or contracts with the institutions of higher education described in subsection (b).

(e) COST SHARING.—The cost of making grants under this section shall be shared in accordance with section 1002.

(f) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $85,000,000 for the period of fiscal years 2006 through 2010.

Subtitle C—Coal and Related Programs

[SEC. 421. CLEAN AIR COAL PROGRAM.