..... (Original Signature of Member)

110th CONGRESS 2D Session



To encourage stronger building energy efficiency codes, promote renewable energy technology deployment, and protect the United States from the effects of climate change, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

Mr. INSLEE introduced the following bill; which was referred to the Committee on _____

A BILL

- To encourage stronger building energy efficiency codes, promote renewable energy technology deployment, and protect the United States from the effects of climate change, and for other purposes.
 - 1 Be it enacted by the Senate and House of Representa-
 - 2 tives of the United States of America in Congress assembled,

3 SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

- 4 (a) SHORT TITLE.—This Act may be cited as the
- 5 " Act".
- 6 (b) TABLE OF CONTENTS.—The table of contents for
- 7 this Act is as follows:

Sec. 1. Short title; table of contents.

TITLE I—BUILDING CODES

Sec. 101. Encouraging stronger building codes.

TITLE II—TRANSMISSION

Sec. 201. Findings.

Sec. 202. National renewable energy zones.

TITLE III—EXPEDITED INTERCONNECTION STANDARDS

Sec. 301. Adoption of expedited interconnection standards for small generators.

TITLE IV—BIOENERGY PARTNERSHIP

Sec. 401. National Bioenergy Partnership.

TITLE V—REDUCTION OF BLACK CARBON EMISSIONS TO PRESERVE THE ARCTIC

Sec. 501. Findings.

Sec. 502. Purposes.

Sec. 503. Definitions.

Sec. 504. Black carbon abatement study.

Sec. 505. Authorization of appropriations.

1 TITLE I—BUILDING CODES

2 SEC. 101. ENCOURAGING STRONGER BUILDING CODES.

3 (a) IN GENERAL.—Section 304 of the Energy Con-

4 servation and Production Act (42 U.S.C. 6833) is amend-

5 ed to read as follows:

6 "SEC. 304. UPDATING STATE BUILDING ENERGY EFFI-

7 CIENCY CODES.

8 "(a) UPDATING NATIONAL MODEL BUILDING EN9 ERGY CODES.—

"(1) The Secretary shall support updating the
national model building energy codes and standards
at least every three years to achieve overall energy
savings, compared to the 2006 IECC for residential

1	buildings and ASHRAE Standard 90.1 2007 for
2	commercial buildings, of at least—
3	"(A) 30 percent in editions of each model
4	code or standard released in or after 2010;
5	"(B) 50 percent in editions of each model
6	code or standard released in or after 2020; and
7	"(C) targets for intermediate and subse-
8	quent years to be set by the Secretary at least
9	3 years in advance of each target year, coordi-
10	nated with the IECC and ASHRAE Standard
11	90.1 cycles, at the maximum level of energy ef-
12	ficiency that is technologically feasible and life-
13	cycle cost effective.
14	((2)(A) Whenever the provisions of the IECC
15	or ASHRAE Standard 90.1 regarding building en-
16	ergy use are revised, the Secretary shall, not later
17	than 12 months after the date of such revision, de-
18	termine—
19	"(i) whether such revision will improve en-
20	ergy efficiency in buildings; and
21	"(ii) whether such revision will meet the
22	targets under paragraph (1).
23	"(B) If the Secretary makes a determination
24	under subparagraph (A)(ii) that a code or standard
25	does not meet the targets under paragraph (1), or

1 if a national model code or standard is not updated 2 for more than three years, then the Secretary shall 3 within 12 months establish a modified code or stand-4 ard that meets such targets. Any such modified code 5 or standard— 6 "(i) shall achieve the maximum level of en-7 ergy savings that are technically feasible and 8 economically justified, incorporating available 9 appliances, technologies, and construction prac-10 tices; 11 "(ii) shall be achieved through amend-12 ments or additions to the latest revision of the 13 IECC or ASHRAE Standard 90.1 but may con-14 sider other model codes or standards; and 15 "(iii) shall serve as the baseline for the 16 next determination under subparagraph (A)(i).

"(C) The Secretary shall provide the opportunity for public comment on targets, determinations, and modified codes and standards under this
subsection, and shall publish notice of targets, determinations, and modified codes and standards under
this subsection in the Federal Register.

23 "(b) STATE CERTIFICATION OF BUILDING ENERGY24 CODE UPDATES.—

1	"(1) Not later than 2 years after the date of
2	enactment of the Act,
3	each State shall certify to the Secretary that it has
4	reviewed and updated the provisions of its residen-
5	tial and commercial building codes regarding energy
6	efficiency. Such certification shall include a dem-
7	onstration that such State's code provisions meet or
8	exceed the 2006 IECC for residential buildings and
9	the ASHRAE Standard 90.1-2007 for commercial
10	buildings, or achieve equivalent or greater energy
11	savings.

((2)(A) If the Secretary makes an affirmative 12 13 determination under subsection (a)(2)(A)(i) or es-14 tablishes a modified code or standard under sub-15 section (a)(2)(B), each State shall within 2 years certify that it has reviewed and updated the provi-16 17 sions of its building code regarding energy efficiency. 18 Such certification shall include a demonstration that 19 such State's code provisions meet or exceed the re-20 vised code or standard, or achieve equivalent or 21 greater energy savings.

"(B) If the Secretary fails to make a determination under subsection (a)(2)(A)(i) by the date
specified in subsection (a)(2), or makes a negative
determination, each State shall within 2 years after

the specified date or the date of the determination,
certify that it has reviewed the revised code or
standard, and updated the provisions of its building
code regarding energy efficiency to meet or exceed
any provisions found to improve energy efficiency in
buildings, or to achieve equivalent or greater energy
savings in other ways.

8 "(c) STATE CERTIFICATION OF COMPLIANCE WITH 9 BUILDING CODES.—(1) Each State shall, not later than 10 3 years after a certification under subsection (b), certify that it has achieved compliance with the certified building 11 12 energy code. Such certification shall include documentation of the rate of compliance based on independent in-13 spections of a random sample of the new and renovated 14 15 buildings covered by the code in the preceding year.

16 "(2) A State shall be considered to achieve compli17 ance under paragraph (1) if—

"(A) at least 90 percent of new and renovated
buildings covered by the code in the preceding year
substantially meet all the requirements of the code;
or

22 "(B) the estimated excess energy use of new 23 and renovated buildings that did not meet the code 24 in the preceding year, compared to a baseline of 25 comparable buildings that meet the code, is not more

1	than 10 percent of the estimated energy use of all
2	new and renovated buildings covered by the code in
3	the preceding year.
4	"(d) Failure to Meet Deadlines.—
5	"(1) A State that has not made a certification
6	required under subsection (b) or (c) by the applica-
7	ble deadline shall submit to the Secretary a report
8	on—
9	"(A) the status of the State with respect
10	to meeting the requirements and submitting the
11	certification; and
12	"(B) a plan for meeting and requirements
13	and submitting the certification.
14	"(2) The Secretary shall permit extensions of
15	the deadlines for the certification requirements
16	under subsections (b) and (c) of this section for up
17	to 1 year if a State demonstrates in the report
18	under paragraph (1) that it has made a good faith
19	effort to comply with such requirements and that it
20	has made significant progress in doing so, including
21	by developing and implementing a plan under para-
22	graph (1)(B).
23	"(3) Any State for which the Secretary has not
24	accepted a certification by a deadline under sub-
25	section (b) or (c) of this section, with any extension

granted under paragraph (2), is out of compliance
 with this section.

3 "(4) In any State that is out of compliance with
4 this section, a local government may be in compli5 ance with this section by meeting the certification
6 requirements under subsections (b) and (c) of this
7 section.

8 "(5) The Secretary shall annually submit to 9 Congress, and publish in the Federal Register, a re-10 port on the status of national model building energy 11 codes and standards, the status of code adoption 12 and compliance in the States, and implementation of 13 this section. The report shall include estimates of 14 impacts of past action under this section and poten-15 tial impacts of further action on lifetime energy use 16 by buildings and resulting energy costs to individuals 17 and businesses.

18 "(e) TECHNICAL ASSISTANCE.—

19 "(1) The Secretary shall on a timely basis pro-20 vide technical assistance to model code-setting and 21 standard development organizations. This assistance 22 shall include technical assistance as requested by the 23 organizations in evaluating code or standards pro-24 posals or revisions, building energy analysis and de-25 sign tools, building demonstrations, and design as-

sistance and training. The Secretary shall submit
code and standard amendment proposals, with supporting evidence, sufficient to enable the national
model building energy codes and standards to meet
the targets in subsection (a)(1).

6 "(2) The Secretary shall provide technical as-7 sistance to States to implement the requirements of 8 this section, including procedures for States to dem-9 onstrate that their code provisions achieve equivalent 10 or greater energy savings than the national model 11 codes and standards, and to improve and implement 12 State residential and commercial building energy ef-13 ficiency codes or to otherwise promote the design 14 and construction of energy efficient buildings.

15 "(f) AVAILABILITY OF INCENTIVE FUNDING.—

"(1) The Secretary shall provide incentive fund-16 17 ing to States to implement the requirements of this 18 section, and to improve and implement State resi-19 dential and commercial building energy efficiency 20 codes, including increasing and verifying compliance 21 with such codes. In determining whether, and in 22 what amount, to provide incentive funding under 23 this subsection, the Secretary shall consider the ac-24 tions proposed by the State to implement the re-25 quirements of this section, to improve and imple-

1	ment residential and commercial building energy ef-
2	ficiency codes, and to promote building energy effi-
3	ciency through the use of such codes.
4	"(2) Additional funding shall be provided under
5	this subsection for implementation of a plan to
6	achieve and document at least a 90 percent rate of
7	compliance with residential and commercial building
8	energy efficiency codes, based on energy perform-
9	ance—
10	"(A) to a State that has adopted and is
11	implementing, on a Statewide basis—
12	"(i) a residential building energy effi-
13	ciency code that meets or exceeds the re-
14	quirements of the 2006 IECC, or any suc-
15	ceeding version of that code that has re-
16	ceived an affirmative determination from
17	the Secretary under subsection
18	(a)(2)(A)(i); and
19	"(ii) a commercial building energy ef-
20	ficiency code that meets or exceeds the re-
21	quirements of the ASHRAE Standard
22	90.1-2007, or any succeeding version of
23	that standard that has received an affirma-
24	tive determination from the Secretary
25	under subsection (a)(2)(A)(i); or

1	"(B) in a State in which there is no State-
2	wide energy code either for residential buildings
3	or for commercial buildings, or where State
4	codes fail to comply with subparagraph (A), to
5	a local government that has adopted and is im-
6	plementing residential and commercial building
7	energy efficiency codes, as described in subpara-
8	graph (A).
9	"(3) Of the amounts made available under this
10	subsection, the Secretary may use amounts required,
11	not exceeding \$500,000 for each State, to train
12	State and local officials to implement codes de-
13	scribed in paragraph (2).
14	"(4)(A) There are authorized to be appro-
15	priated to carry out this subsection—
16	"(i) \$35,000,000 for each of fiscal years
17	2009 through 2013 ; and
18	"(ii) such sums as are necessary for fiscal
19	year 2013 and each fiscal year thereafter.
20	"(B) Funding provided to States under para-
21	graph (2) for each fiscal year shall not exceed one-
22	half of the excess of funding under this subsection
23	over \$5,000,000 for the fiscal year.".

(b) DEFINITION.—Section 303 of the Energy Con servation and Production Act (42 U.S.C. 6832) is amend ed by adding at the end the following new paragraph:

4 "(17) The term 'IECC' means the International
5 Energy Conservation Code.".

6 TITLE II—TRANSMISSION

7 SEC. 201. FINDINGS.

8 The Congress finds that—

9 (1) electricity produced from renewable re-10 sources helps to reduce greenhouse gas emissions, 11 and limits emissions of other pollutants regulated 12 pursuant to the Clean Air Act, enhances national en-13 ergy security, and provides substantial economic 14 benefits;

(2) the potential exists for a far greater percentage of electric production in the United States
to be generated through the use of renewable resources than current levels;

19 (3) many of the best potential renewable energy
20 resources are located in rural areas far from popu21 lation centers;

(4) the lack of adequate electric transmission
capacity is one of the primary obstacles to the development of electric generation facilities fueled by renewable energy resources;

1	(5) the economies of many rural areas would
2	substantially benefit from the increased development
3	of electric generation facilities fueled by renewable
4	energy resources; and
5	(6) it is in the national interest for the Federal
6	Government to implement policies that will enhance
7	the amount of electric transmission capacity avail-
8	able to take full advantage of renewable energy re-
9	sources to generate electricity.
10	SEC. 202. NATIONAL RENEWABLE ENERGY ZONES.
11	Title II of the Federal Power Act (16 U.S.C. 824
12	et seq.) is amended as follows:
13	(1) By inserting before the section heading of
14	section 201 (16 U.S.C. 824 et seq.) the following:
15	"Subtitle A—Regulation of Electric
16	Utility Companies".
17	(2) By adding at the end the following:
18	"Subtitle B—National Renewable
19	Energy Zones
20	"SEC. 231. DEFINITIONS.
21	"In this subtitle:
22	"(1) The term 'Commission' means the Federal
23	Energy Regulatory Commission.
24	((2) The term 'electricity from renewable en-
25	ergy' means electric energy generated from—

1	"(A) solar, wind, geothermal, or marine
2	and hydrokinetic renewable energy;
3	"(B) biomass (as defined in section 203(b)
4	of the Energy Policy Act of 2005);
5	"(C) landfill gas; or
6	"(D) qualified hydropower.
7	"(3) The term 'marine and hydrokinetic renew-
8	able energy' means energy derived from—
9	"(A) waves, tides, and currents in oceans,
10	estuaries, and tidal areas;
11	"(B) free flowing water in rivers, lakes,
12	and streams;
13	"(C) free flowing water in an irrigation
14	system, canal, or other man-made channel, in-
15	cluding projects that utilize nonmechanical
16	structures to accelerate the flow of water for
17	electric power production purposes; or
18	"(D) differentials in ocean temperature
19	(ocean thermal energy conversion).
20	"(4) The term 'geothermal energy' means en-
21	ergy derived from a geothermal deposit (within the
22	meaning of section $613(e)(2)$ of the Internal Rev-
23	enue Code of 1986).
24	"(5) The term 'qualified hydropower' means—

1	"(A) incremental hydropower generation
2	that is achieved from increased efficiency or ad-
3	ditions of capacity made on or after the earlier
4	of January 1, 2001, or the effective date of an
5	existing applicable State renewable portfolio
6	standard program at a hydroelectric facility
7	that was placed in service before that date; or
8	"(B) additions of capacity made on or
9	after the earlier of January 1, 2001, or the ef-
10	fective date of an existing applicable State re-
11	newable portfolio standard program at an exist-
12	ing nonhydroelectric dam, provided that—
13	"(i) the hydroelectric project installed
14	on the nonhydroelectric dam is licensed by
15	the Federal Energy Regulatory Commis-
16	sion and meets all other applicable environ-
17	mental, licensing, and regulatory require-
18	ments, including applicable fish passage re-
19	quirements;
20	"(ii) the nonhydroelectric dam was
21	placed in service before the date of the en-
22	actment of this paragraph and operated
23	for flood control, navigation, or water sup-
24	ply purposes and did not produce hydro-

- electric power on the date of the enactment
 of this paragraph; and
 "(iii) the hydroelectric project is oper ated so that the water surface elevation at
 any given location and time that would
 have occurred in the absence of the hydro electric project is maintained, subject to
- 8 any license requirements imposed under 9 applicable law that change the water sur-10 face elevation for the purpose of improving 11 the environmental quality of the affected 12 waterway.
- 13 "SEC. 232. DESIGNATION OF NATIONAL RENEWABLE EN14 ERGY ZONES.

15 "(a) REPORT.—Within 1 year after the date of enact-16 ment of this subtitle, the President shall report to Con-17 gress on the barriers to constructing new transmission 18 lines that would increase renewable electric power genera-19 tion capacity in the United States.

"(b) DESIGNATION.—Within 18 months after the
date of enactment of this subtitle, the President shall designate as a National Renewable Energy Zone each area
that meets each of the following conditions:

24 "(1) The potential to generate in excess of one25 gigawatt of electric power from renewable energy if

there were a sufficient level of electric transmission
 capacity without having a material detrimental im pact on reliability.

4 "(2) An insufficient level of electric trans5 mission capacity to enable one or more load centers
6 to access the potential renewable electric power gen7 eration capacity identified pursuant to paragraph
8 (1).

9 "(3) Substantial demand in one or more load
10 centers for renewable energy that would be gen11 erated in the National Renewable Energy Zone if
12 there were a sufficient level of transmission capacity.
13 "(c) FACTORS.—In making the designations required
14 by subsection (b), the President shall take into account
15 each of the following:

"(1) Federal and State requirements for utilities to incorporate renewable energy as part of the
load of electric generating facilities.

19 "(2) Compatibility with State and regional20 transmission plans.

"(d) ADDITIONAL FACILITIES.—Within 3 years after
the date of enactment of this subtitle, the President shall
identify, and provide public notice of, specific new transmission facilities that, if constructed, could substantially
increase the generation of electricity from renewable en-

ergy within the National Renewable Energy Zone. In iden tifying such facilities, the President shall take into account
 the ability of the facility to provide transmission capacity
 from the National Renewable Energy Zone to multiple
 load centers.

6 "(e) EXCLUSIONS.—The President shall not include 7 in any National Renewable Energy Zone designated under 8 subsection (b), or identify facilities under subsection (d) 9 on, any Federal land that is designated as a wilderness study area, Wilderness Area, unit of the National Park 10 System, national monument, national wildlife refuge, unit 11 of the National Landscape Conservation System, Inven-12 toried Roadless Area within the National Forest System, 13 Wild and Scenic River, National Marine Sanctuary, or 14 15 unit of the National System of Trails.

16 "(f) PUBLIC VIEWS AND CONSULTATION.—Before
17 making any designation under subsection (b) or identi18 fying facilities under subsection (d), the President shall
19 consult with—

20 "(1) the Governors of affected States;

21 ((2) the public;

22 "(3) electric utilities and owners and operators
23 of transmission facilities;

24 "(4) public utilities commissions and regional
25 electricity planning organizations;

1	"(5) Federal and State land management and
	"(5) Federal and State land management and
2	energy and environmental agencies;
3	"(6) renewable energy companies;
4	"(7) local government officials;
5	"(8) renewable energy and energy efficiency in-
6	terest groups;
7	"(9) Indian tribes; and
8	"(10) environmental protection and land, water,
9	and wildlife conservation groups.
10	"(g) EXPANSION.—The President shall, every 3 years
11	after the date of enactment of this subtitle, consider
12	whether to expand an existing National Renewable Energy
13	Zone or designate a new National Renewable Energy Zone
14	pursuant to the criteria set forth in subsection (b).
15	"(h) Delisting.—The President, after opportunity
16	for public comment, shall every 9 years review the Na-
17	tional Renewable Energy Zones designated pursuant to
18	subsection (b) and delist those Zones that no longer meet
19	the criteria specified in that subsection.
20	"(i) Authorization of Appropriations.—There
21	are authorized to be appropriated for fiscal years 2009
22	through 2012 such sums as may be necessary to carry
23	out this section.".

TITLE III—EXPEDITED INTERCONNECTION STANDARDS

3 SEC. 301. ADOPTION OF EXPEDITED INTERCONNECTION 4 STANDARDS FOR SMALL GENERATORS.

5 (a) INTERCONNECTION FOR UTILITIES NOT SUB6 JECT TO FEDERAL POWER ACT JURISDICTION.— Section
7 113(b) of the Public Utility Regulatory Policy Act of 1978
8 (16 U.S.C. 2623(b)) is amended by adding the following
9 at the end thereof:

10 "(6) INTERCONNECTION STANDARDS.—

11 "(A) IN GENERAL.—Each electric utility 12 shall provide interconnection service to devices 13 used for the production of electricity having a 14 capacity of no more than 20 megawatts. Such 15 interconnection shall be consistent with the 16 standards promulgated by the Federal Energy 17 Regulatory Commission through Order Number 18 2006.

19"(B) PURPOSES OF STANDARDS.—The20standard adopted under this paragraph shall be21designed to—

22 "(i) encourage the use of distributed
23 renewable and combined heat and power
24 electricity generation; and

"(ii) ensure the safety and reliability
 of devices used for the production of elec tricity and the local distribution systems
 interconnected with devices used for the
 production of electricity.

6 "(C) EXPEDITED PROCEDURES.—Each 7 standard under this section shall include sepa-8 rate expedited procedures for interconnecting 9 devices used for the production of electricity 10 having a capacity of up to at least 10 kilowatts 11 and a separate standard that expedites inter-12 connection for devices used for the production 13 of electricity having a capacity of no more than 14 2000 kilowatts. In designing such expedited 15 procedures, each State regulatory authority 16 (with respect to each electric utility for which it 17 has ratemaking authority) and each nonregu-18 lated utility shall consider model interconnec-19 tion rules published by the Interstate Renew-20 able Energy Council.

"(D) SAFETY, RELIABILITY, PERFORM-ANCE, AND COST.—Each standard under this section shall establish those measures for the safety and reliability of the affected equipment and transmission systems as may be appro-

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1 priate. Such standards shall be consistent with 2 the reliability standards under section 215 of the Federal Power Act and all applicable safety 3 4 and performance standards established by the 5 National Electrical Code, the Institute of Elec-6 trical and Electronics Engineers, Underwriters 7 Laboratories, or the American National Stand-8 ards Institute, and the North American Electric 9 Reliability Corporation, yet constitute the min-10 imum cost and technical burdens to the inter-11 connecting devices used for the production of 12 electricity.

"(E) ADDITIONAL CHARGES.—The standards under this section shall prohibit the imposition of additional charges by the owners or
operators of electric utilities for equipment or
services for interconnection that are additional
to those necessary to achieve the objectives of
this paragraph.

20 "(F) EXEMPTIONS.—Notwithstanding any
21 other provision of this section, any State regu22 latory authority or electric utility that adopted
23 standards consistent with this paragraph before
24 the enactment of this paragraph shall not be re25 quired to take any additional action under this

1 paragraph. Such an exemption shall be effective 2 upon the issuance by the State regulatory authority (or the electric utility, in the case of a 3 4 nonregulated electric utility) within 120 days 5 after the date of enactment of this paragraph 6 of a public notice demonstrating that such 7 interconnection standards have been adopted.". 8 (b) CONFORMING AMENDMENT.— Section 113(a) of 9 the Public Utility Regulatory Policy Act of 1978 (16) U.S.C. 2623(a)) is amended by adding the following at 10 11 the end thereof: "For the purpose of applying this sub-12 section to the standard under paragraph (6) of subsection (b), the date of the enactment of such paragraph (6) shall 13 be substituted for the date of the enactment of this Act.". 14

TITLE IV—BIOENERGY PARTNERSHIP 16

17 SEC. 401. NATIONAL BIOENERGY PARTNERSHIP.

18 (a) IN GENERAL.—The Secretary of Energy shall establish a National Bioenergy Partnership to provide co-19 20 ordination among programs of State governments, the 21 Federal Government, and the private sector that support 22 the institutional and physical infrastructure necessary to 23 promote the deployment of sustainable biomass fuels and 24 bioenergy technologies for the United States.

(b) PROGRAM.—The National Bioenergy Partnership
 shall consist of five regions, to be administered by the
 CONEG Policy Research Center, the Council of Great
 Lakes Governors, the Southern States Energy Board, the
 Western Governors Association, and the Pacific Regional
 Biomass Energy Partnership led by the Washington State
 University Energy Program.

8 (c) AUTHORIZATION OF APPROPRIATIONS.—There
9 are authorized to be appropriated for each of fiscal years
10 2009 through 2013 to carry out this section—

(1) \$20,000,000, to be allocated among the 5
regions described in subsection (b) on the basis of
the number of States in each region, for distribution
among the member States of that region based on
procedures developed by the member States of the
region; and

17 (2) \$5,000,000, to be allocated equally among
18 the 5 regions described in subsection (b) for region19 wide activities, including technical assistance and re20 gional studies and coordination.

21 TITLE V—REDUCTION OF BLACK 22 CARBON EMISSIONS TO PRE23 SERVE THE ARCTIC

24 SEC. 501. FINDINGS.

25 The Congress finds the following:

1 (1) Black carbon is a largely unregulated green-2 house particulate pollutant that contributes signifi-3 cantly to overall greenhouse pollution by attracting 4 the sun's heat and has a particularly detrimental ef-5 fect when it falls onto the Arctic and other ice be-6 cause it increases the absorption of solar radiation, 7 reducing the albedo effect, and leads to faster ice 8 heating and melting. The atmospheric residence of 9 black carbon is less than 2 weeks, making this pol-10 lutant a candidate for immediate greenhouse-effect 11 amelioration.

12 (2) Through various clean air programs, the 13 United States has reduced much of its black carbon 14 pollution, though some industries (e.g., commercial 15 shipping and certain other diesel-engine powered 16 machines) could improve and help spur technological 17 innovation in other countries where major black car-18 bon pollution still occurs through industrial activi-19 ties, agriculture and forestry practices, and residen-20 tial cooking with dirty fuels.

(3) The Committee on Oversight and Government Reform of the House of Representatives received testimony establishing that black carbon is a
serious threat to health and that reductions in black
carbon will produce immediate health improvements.

(4) Black carbon is not explicitly regulated by
 the United Nations Framework Convention on Cli mate Change, other international instruments, or by
 present United States Federal law.

5 (5) The United States foreign policies and as6 sistance programs, as well as directions to multilat7 eral lending organizations such as the World Bank,
8 possess the potential to significantly reduce black
9 carbon pollution globally.

10 (6) Taking immediate cost-effective and techno-11 logically feasible action to protect the Arctic, espe-12 cially by significantly reducing black carbon pollu-13 tion, will protect an ecosystem under imminent 14 threat due to global warming and will establish a 15 strong foundation for further United States leader-16 ship in combating global warming.

17 SEC. 502. PURPOSES.

18 The purposes of this title are—

(1) to immediately identify ways to reduce black
carbon emissions and pollution, both in the United
States and world-wide at low cost, to stem and reverse the melting of Arctic Sea ice, as well as contribute to reduction of overall global warming; and
(2) to establish the United States as a leader
in protecting the Arctic environment.

1 SEC. 503. DEFINITIONS.

2 As used in this title:

3 (1) The term "Administrator" means the head
4 of the Environmental Protection Agency, or that
5 person's designee.

(2) The term "black carbon" means the soot-6 7 based absorbing component of carbonaceous 8 aerosols, known to attract the sun's rays and in-9 crease global warming, and includes black carbon 10 and organic carbon complexes that induce net global 11 warming.

12 (3) The term "person" means any individual, 13 corporation, partnership, trust, association, or any 14 other private entity, or any officer, employee, agent, 15 department, or instrumentality of the Federal Gov-16 ernment or of any State, municipality, or political 17 subdivision of a State, or of any foreign government, 18 any State, municipality, or political subdivision of a 19 State, or any other entity subject to the jurisdiction 20 of the United States.

(4) The term "soot" means the carbonaceous
aerosol product of incomplete combustion, including
both black carbon and organic carbon.

(5) The term "technologically feasible" means
practices and technology that have been experimentally demonstrated to reduce greenhouse gas

emissions. The term includes promising new tech nology that has not yet been implemented by any
 person.

4 SEC. 504. BLACK CARBON ABATEMENT STUDY.

5 (a) STUDY.—The Administrator shall conduct a 6 study of black carbon emissions in consultation with the 7 National Oceanic and Atmospheric Administration, the 8 National Aeronautics and Space Administration, the 9 Agency for International Development, the Department of 10 the Interior, and other agencies. The study shall include 11 each of the following:

- 12 (1) An identification of—
- 13 (A) the latest scientific data relevant to the
 14 climate-related impacts of black carbon emis15 sions from diesel engines and other sources;

16 (B) the major sources of black carbon
17 emissions in the United States and worldwide,
18 and an estimate of black carbon emissions from
19 those sources;

20 (C) the diesel and other direct emission
21 control technologies, operations, or strategies to
22 remove or reduce emissions of black carbon, in23 cluding estimates of the costs and effectiveness
24 of the measures;

1	(D) the entire lifecycle and net climate im-
2	pacts of installation of diesel particulate filters
3	on existing heavy-duty diesel engines; and
4	(E) control technologies, operations, or
5	strategies for black carbon emissions from resi-
6	dential cookstoves, forest burning, and other
7	agriculture-based burning, including estimates
8	of the costs and effectiveness of the measures.
9	(2) Recommendations of the Administrator re-
10	garding-
11	(A) areas of focus for additional research
12	for technologies, operations, and strategies with
13	the highest potential to reduce emissions of
14	black carbon; and
15	(B) actions the Federal Government could
16	carry out to encourage or require additional
17	black carbon emission reductions.
18	(b) REPORT.—Not later than 180 days after the date
19	of enactment of this Act, the Administrator shall submit
20	to Congress a report describing the results of the study.
21	SEC. 505. AUTHORIZATION OF APPROPRIATIONS.
22	There are authorized to be appropriated \$3,000,000
23	to carry out this title.