111TH CONGRESS
1ST SESSION

S. 1539

To authorize the National Oceanic and Atmospheric Administration to establish a comprehensive greenhouse gas observation and analysis system, and for other purposes.

IN THE SENATE OF THE UNITED STATES

JULY 29, 2009

Mr. ROCKEFELLER (for himself and Mr. NELSON of Florida) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

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A BILL

To authorize the National Oceanic and Atmospheric Administration to establish a comprehensive greenhouse gas observation and analysis system, 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.

This Act may be cited as the ''Greenhouse Gas Observation and Analysis System Act''.

SEC. 2. PURPOSES.

The purposes of this Act are—

(1) to establish a comprehensive national greenhouse gas observation and analysis system to support verification of greenhouse gas emissions;

(2) to establish a baseline characterizing the influence of current and past greenhouse gas emissions on atmospheric composition; and

(3) to provide a scientifically robust record of atmospheric greenhouse gas concentrations.

SEC. 3. ESTABLISHMENT OF GREENHOUSE GAS OBSERVATION AND ANALYSIS SYSTEM.

(a) IN GENERAL.—The Administrator shall establish a greenhouse gas observation and analysis system that will offer the resolution and widespread coverage required to verify reduction and mitigation of greenhouse gases. In establishing the system, the Administrator shall coordinate with the Department of Commerce's National Institute of Standards and Technology, the National Aeronautics and Space Administration, the National Science Foundation, the Department of Energy, the Department of Agriculture, and the United States Geological Survey.

(b) SYSTEM COMPONENTS.—The system—

(1) shall be an operational and scientifically robust greenhouse gas observation and analysis system that includes local and regional ground-based observations, space-based observations, carbon-cycle mod-

eling, greenhouse gas inventories, meta-analysis, and extensive data integration and distribution to provide quantitative information about sources, sinks, and fluxes of greenhouse gases at relevant temporal and spatial scales; and

(2) shall be capable of—

(A) differentiating between source and sink exchanges;

(B) identifying types of emissions (fossil-fuel and non-fossil fuel sources); and

(C) tracking agricultural and other sinks; and

(3) shall include—

(A) sustained ground, sea, and air-based measurements;

(B) sustained space-based observations;

(C) measurements of tracer, including isotopes and non-carbon dioxide gases;

(D) carbon cycle monitoring;

(E) carbon cycle modeling;

(F) traceability to the International System of Units; and

(G) data assimilation and analysis.

(c) COORDINATION.—The Administrator shall, to the extent appropriate—

(1) facilitate coordination of—

(A) observations and modeling;

(B) data and information management systems, including archive and access; and

(C) the development and transfer of technologies to facilitate the evaluation of greenhouse gas emission reductions, offsets, and other mitigation strategies;

(2) coordinate with the National Institute of Standards and Technology to make sure that the greenhouse gas observation and analysis system is based upon quantitative measurements traceable to international standards; and

(3) coordinate with other Federal agencies and international organizations and agencies involved in international or domestic programs.

SEC. 4. SYSTEM PLAN.

(a) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the Administrator shall, in coordination with the agencies described in section 3, develop and submit a plan for an integrated and comprehensive greenhouse gas observation and analysis system to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science and Technology.

(b) PLAN REQUIREMENTS.—The plan shall—

(1) identify and describe current national and international greenhouse gas observation networks, modeling, and data analysis efforts;

(2) contain an inventory of agency data relevant to greenhouse gases;

(3) assess gaps, conflicts, and opportunities with respect to the matters described in paragraphs (1) and (2);

(4) establish priorities, define agency roles, and make recommendations on necessary capacity and capabilities for—

(A) ground, sea, and air-based measurements;

(B) sustained space-based observations;

(C) measurements of tracer, including isotopes and non-carbon dioxide gases;

(D) carbon cycle monitoring;

(E) carbon cycle modeling;

(F) measurement traceability and comparability;

(G) data assimilation and analysis; and

(H) data archive management and data access; and

(5) establish and define mechanisms for ensuring continuity of domestic and international greenhouse gas measurements, and contribute to international efforts to build and operate a global greenhouse gas information system, in coordination with the World Meteorological Organization and other international organizations and agencies, as appropriate.

SEC. 5. REPORTS.

The Administrator shall, not less than every 4 years after the date of enactment of this Act and in coordination with the agencies described in section 3, submit a report to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science and Technology that includes—

(1) an analysis of the progress made toward achieving the goals and objectives of the plan outlined in section 4;

(2) an evaluation of the effectiveness of the system;

(3) recommendations concerning modifications to the system;

(4) an analysis of the consistency of reported greenhouse gas emission reductions with inde-

pendent observations of atmospheric and Earth-system trends; and

(5) an update on changes or trends in Earth-system sources and sinks of greenhouse gases.

SEC. 6. AGREEMENTS.

(a) IN GENERAL.—The Administrator may enter into and perform such contracts, leases, grants, cooperative agreements, or other agreements as may be necessary to carry out the purposes of this Act.

(b) SPECIFIC AUTHORITY.—Notwithstanding any other provision of law, the Administrator may—

(1) enter into long-term leases of up to 20 years for the use of unimproved land to site small shelter facilities, antennae, and equipment including weather, tide, tidal currents, river, and air sampling or measuring equipment;

(2) enter into long-term licenses of up to 20 years at no cost to site facilities and equipment including weather, tide, tidal currents, river, and air sampling or measuring equipment;

(3) acquire (by purchase, lease, or otherwise), lease, sell, and dispose of or convey services, money, securities, or property (whether real, personal, intellectual, or of any other kind) or an interest therein;

(4) construct, improve, repair, operate, maintain, outgrant, and dispose of real or personal property, including buildings, facilities, and land; and

(5) waive capital lease scoring requirements for any lease of space on commercial antennas to support weather radio equipment, air sampling, or measuring equipment.

(c) CERTAIN LEASED EQUIPMENT.—Notwithstanding any other provision of law, rule, or regulation, leases of antenna or equipment on towers or other structures shall be considered operating leases for the purpose of capital lease scoring.

SEC. 7. EFFECT ON OTHER LAWS.

Nothing in this Act shall be construed to supersede or alter the existing authorities of any Federal agency with respect to Earth science research or greenhouse gas mitigation.

SEC. 8. DEFINITIONS.

In this Act:

(1) ADMINISTRATOR.—The term ''Administrator'' means the Administrator of the National Oceanic and Atmospheric Administration.

(2) EARTH-SYSTEM.—The term ''Earth-system'' means the Earth's biosphere, including the

ocean, atmosphere, and soils that influence the amounts of greenhouse gas in the atmosphere.

(3) GREENHOUSE GAS.—The term ''greenhouse gas'' means a gas in the atmosphere that increases the radiative forcing of the Earth-atmosphere system.

(4) INTERNATIONAL SYSTEM OF UNITS.—The term ''International System of Units'' means the modern metric system of units established in 1960 by the 11th General Conference on Weight and Measures.

(5) RADIATIVE FORCING.—The term ''radiative forcing'' means the measure of the influence that a substance or process has in altering the balance of incoming and outgoing energy in the Earth-system.

(6) SINK.—The term ''sink'' means the removal of a greenhouse gas from the atmosphere.

(7) SOURCE.—The term ''source'' means the emission of a greenhouse gas into the atmosphere.

(8) SYSTEM.—The term ''system'' means the national greenhouse gas observation and analysis system established under section 3.

(9) TRACER.—The term ''tracer'' means an atmospheric substance that can be used to assess or determine the origin of a greenhouse gas.

SEC. 9. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Secretary of Commerce such sums as appropriate to carry out this Act.

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