

Calendar No. 553

110TH CONGRESS }
1st Session }

SENATE

{ REPORT
110-254

AMENDING THE CLEAN AIR ACT TO REDUCE EMISSIONS OF CARBON DIOXIDE FROM THE CAPITOL POWER PLANT

DECEMBER 19, 2007.—Ordered to be printed

Mrs. BOXER, from the Committee on Environment and Public
Works, submitted the following

R E P O R T

[To accompany S. 1523]

[Including cost estimate of the Congressional Budget Office]

The Committee on Environment and Public Works, to which was referred a bill (S. 1523) to amend the Clean Air Act to reduce emissions of carbon dioxide from the Capitol power plant, having considered the same reports favorably thereon and recommends that the bill do pass.

GENERAL STATEMENT AND BACKGROUND

SUMMARY AND NEED FOR LEGISLATION

The Capitol Power Plant currently burns primarily coal and natural gas to help heat and cool the Capitol Complex, resulting in emission of carbon dioxide and other air pollutants. According to the Government Accountability Office's April 2007 report Legislative Branch: Energy Audits Are Key to Strategy for Reducing Greenhouse Gas Emissions, the Capitol Power Plant accounts for approximately one-third of legislative branch greenhouse gas emissions, primarily from the combustion of fossil fuels used to generate steam for heat and to make chilled water to cool the buildings. The power plant's boilers use coal for about half of its output, natural gas for most of the rest of its output, and a relatively small amount of oil.

Technologies available today can help capture and/or use the carbon dioxide that is released when coal is burned and reduce emissions of greenhouse gases and potentially of other air pollutants.

The Capitol Power Plant provides an excellent opportunity to demonstrate such technologies.

S. 1523, the Boxer-Alexander bill creates a demonstration project at the Capitol power plant for the capture or use of CO₂ emissions from coal burned at the plant.

The project would authorize \$3 million dollars to be awarded by EPA on a competitive basis for a two-year project that captures, stores or uses carbon dioxide emitted from the plant when coal is burned.

Factors EPA is to consider in providing the grants include the ability of such a project to convert the carbon dioxide into a useful product, such as a transportation fuel, and the ability of the project to reduce levels of multiple air pollutants. In addition, the carbon dioxide energy efficiency of the proposed project is to be taken into account. EPA is to carry out the demonstration project in consultation and with the concurrence of the Architect of the Capitol. The program is to use technology that has been used at least 3 other facilities on a scale that is at least five times the size of the Capitol Powerplant project that is proposed. The project must reduce or eliminate greenhouse gas emissions into the atmosphere. Bonuses can be provided for days of continuous operation.

OBJECTIVES OF THE LEGISLATION

The goal of the legislation is to demonstrate that greenhouse gas emissions from a fossil fuel-fired power plant such as the Capitol Power Plant can be reduced through the use of new technologies. The thrust of the bill is to show that the government can lead by example, demonstrating in a high-profile way that cutting-edge technological solutions can help to reduce greenhouse gas and potentially other air pollutant emissions.

SECTION-BY-SECTION ANALYSIS

Section 1. Definitions and establishment of demonstration program

Section 1 amends the Clean Air Act by adding a new subsection 118(e) requiring the establishment of a demonstration program for control of greenhouses gas emissions from the Capitol Power Plant.

Subsection (e)(1) includes definitions of the “Capitol Power Plant,” “carbon dioxide energy efficiency,” and “program.”

Subsection (e)(2) requires the EPA Administrator to establish a competitive grant demonstration program under which the EPA must provide grants to eligible entities to carry out projects to demonstrate, during the 2-year period beginning on the date of enactment, the capture and storage or use of carbon dioxide emitted from the Capitol power plant as a result of burning coal.

Subsection (e)(3) requires that EPA provide the grants under the program on a competitive basis. In providing grants under the program, EPA is required to take into consideration the practicability of the potential conversion of carbon dioxide captured in the project into useful products, such as transportation fuel. EPA also is to consider the carbon dioxide energy efficiency of the proposed project, and whether the proposed project is able to reduce more than one air pollutant, in addition to carbon dioxide, that is regulated under the Clean Air Act. Any entity receiving a grant is required to use the funds to carry out a project using a technology

that is in existence on the date of enactment, that is designed to reduce or eliminate emissions of carbon dioxide, and that has been used at three or more other facilities (including a coal-fired power plant). The entity also must show it has used the technology on a scale of five or more times the size of the proposed project at the Capitol power plant (the project at the Capitol Power Plant need not capture all of the carbon dioxide emitted by that plant). The project is to be carried out in consultation with, and with the concurrence with the Architect of the Capitol.

Subsection (e)(4) provides that in addition to the grant under the previous paragraphs, EPA may provide to an entity that receives such a grant an incentive award in an amount equal to not more than \$50,000 for sustained operation of the project. Of these funds, \$15,000 shall be provided if EPA determines that the project has sustained operation for a period of 100 days, \$15,000 shall be provided if the project has sustained operation for a period of 200 days, and \$20,000 shall be provided if it has sustained operation for a period of 300 days, as determined by the Administrator.

Subsection (e)(5) provides that the program shall terminate two years after the date of enactment.

Subsection (e)(6) authorizes to be appropriated three million dollars to carry out this program.

LEGISLATIVE HISTORY

S. 1523 was introduced on May 24, 2007, by Senators Boxer and Alexander as original cosponsors. Additional cosponsors include Senators Warner, McConnell, and Lieberman. The bill was referred to the Committee on Environment and Public Works, and was ordered reported favorably out of the Committee without amendment on June 6, 2007.

ROLLCALL VOTES

S. 1523 was approved by the Committee on Environment and Public Works by voice vote without amendment on June 6, 2007.

REGULATORY IMPACT STATEMENT

In compliance with section 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee makes evaluation of the regulatory impact of the reported bill.

The bill does not create any additional regulatory burdens, nor will it cause any adverse impact on the personal privacy of individuals.

MANDATES ASSESSMENT

In compliance with the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4), the Committee finds that S. 1523 would impose no Federal intergovernmental unfunded mandates on State, local, or tribal governments.

CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

Summary: S. 1523 would authorize the Environmental Protection Agency (EPA) to provide grants for projects demonstrating the capture and storage of carbon dioxide emitted from the Capitol power

plant in Washington, D.C. Assuming appropriation of the authorized amount, CBO estimates that administering the program would cost \$3 million over the 2008–2009 period. Enacting the legislation would not affect direct spending or revenues.

S. 1523 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would impose no costs on State, local, or tribal governments.

Estimated costs to the Federal Government: The estimated budgetary impact of S. 1523 is shown in the following table. The costs of this legislation would fall within budget function 300 (natural resources and environment).

	By fiscal year, in millions of dollars—				
	2008	2009	2010	2011	2012
CHANGES IN SPENDING SUBJECT TO APPROPRIATION					
Estimated Authorization Level	2	1	0	0	0
Estimated Outlays	2	1	0	0	0

Basis of estimate: For this estimate, CBO assumes that S. 1523 will be enacted by the start of 2008 and that the authorized amount will be appropriated in 2008 and 2009. The bill would amend section 118 of the Clean Air Act to authorize EPA to award grants to eligible entities for projects that demonstrate the capture and storage or use of carbon dioxide emitted from the Capitol power plant over a two-year period. The power plant is located in the vicinity of and provides power to the Capitol Complex in Washington, D.C. CBO estimates that implementing the bill would cost \$3 million over the 2008–2009 period.

Intergovernmental and private-sector impact: S. 1523 contains no intergovernmental or private-sector mandates as defined in UMRA and would impose no costs on State, local, or tribal governments.

Estimate prepared by: Federal costs: Susanne S. Mehlman and David Reynolds; Impact on State, local, and tribal governments: Neil Hood; Impact on the Private Sector: Amy Petz.

Estimate approved by: Peter H. Fontaine, Deputy Assistant Director for Budget Analysis.

CHANGES IN EXISTING LAW

In compliance with section 12 of rule XXVI of the Standing Rules of the Senate, changes in existing law made by the bill as reported are shown as follows: Existing law proposed to be omitted is enclosed in black brackets, new matter is printed in *italic*, existing law in which no change is proposed is shown in roman:

* * * * *

CLEAN AIR ACT

* * * * *

CONTROL OF POLLUTION FROM FEDERAL FACILITIES

SEC. 118. (a) GENERAL COMPLIANCE.—Each department, agency, and instrumentality of executive, legislative, and judicial branches of the Federal Government (1) having jurisdiction over

any property or facility, or (2) engaged in any activity resulting, or which may result, in the discharge of air pollutants, and each officer, agent, or employee thereof, shall be subject to, and comply with, all Federal, State, interstate, and local requirements, administrative authority, and process and sanctions respecting the control and abatement of air pollution in the same manner, and to the same extent as any nongovernmental entity. The preceding sentence shall apply (A) to any requirement whether substantive or procedural (including any recordkeeping or reporting requirement, any requirement respecting permits and any other requirement whatsoever), (B) to any requirement to pay a fee or charge imposed by any State or local agency to defray the costs of its air pollution regulatory program, (C) to the exercise of any Federal, State, or local administrative authority, and (D) to any process and sanction, whether enforced in Federal, State, or local courts, or in any other manner. This subsection shall apply notwithstanding any immunity of such agencies, officers, agents, or employees under any law or rule of law. No officer, agent, or employee of the United States shall be personally liable for any civil penalty for which he is not otherwise liable.

(b) * * *

* * * * *

(d) VEHICLES OPERATED ON FEDERAL INSTALLATIONS.—Each department, agency, and instrumentality of executive, legislative, and judicial branches of the Federal Government having jurisdiction over any property or facility shall require all employees which operate motor vehicles on the property or facility to furnish proof of compliance with the applicable requirements of any vehicle inspection and maintenance program established under the provisions of subpart 2 of part D or subpart 3 of part D for the State in which such property or facility is located (without regard to whether such vehicles are registered in the State). The installation shall use one of the following methods to establish proof of compliance—

(1) presentation by the vehicle owner of a valid certificate of compliance from the vehicle inspection and maintenance program;

(2) presentation by the vehicle owner of proof of vehicle registration within the geographic area covered by the vehicle inspection and maintenance program (except for any program whose enforcement mechanism is not through the denial of vehicle registration);

(3) another method approved by the vehicle inspection and maintenance program administrator.

(e) CAPITOL POWER PLANT CARBON DIOXIDE EMISSIONS DEMONSTRATION PROGRAM.—

(1) DEFINITIONS.—In this subsection:

(A) CAPITOL POWER PLANT.—The term “Capitol power plant” means the power plant constructed in the vicinity of the Capitol Complex, Washington, DC, pursuant to the first section of the Act of April 28, 1904 (33 Stat. 479, chapter 1762), and designated under the first section of the Act of March 4, 1911 (2 U.S.C. 2162).

(B) CARBON DIOXIDE ENERGY EFFICIENCY.—The term “carbon dioxide energy efficiency”, with respect to a project,

means the quantity of electricity used to power equipment for carbon dioxide capture and storage or use.

(C) PROGRAM.—The term “program” means the competitive grant demonstration program established under paragraph (2).

(2) ESTABLISHMENT OF PROGRAM.—The Administrator shall establish a competitive grant demonstration program under which the Administrator shall provide to eligible entities, as determined by the Administrator, grants to carry out projects to demonstrate, during the 2-year period beginning on the date of enactment of this subsection, the capture and storage or use of carbon dioxide emitted from the Capitol power plant as a result of burning coal.

(3) REQUIREMENTS.—

(A) PROVISION OF GRANTS.—

(i) IN GENERAL.—The Administrator shall provide the grants under the program on a competitive basis.

(ii) FACTORS FOR CONSIDERATION.—In providing grants under the program, the Administrator shall take into consideration—

(I) the practicability of conversion by the proposed project of carbon dioxide into useful products, such as transportation fuel;

(II) the carbon dioxide energy efficiency of the proposed project; and

(III) whether the proposed project is able to reduce more than 1 air pollutant regulated under this Act.

(B) REQUIREMENTS FOR ENTITIES.—An entity that receives a grant under the program shall—

(i) use to carry out the project of the entity a technology designed to reduce or eliminate emission of carbon dioxide that is in existence on the date of enactment of this subsection that has been used—

(I) by not less than 3 other facilities (including a coal-fired power plant); and

(II) on a scale of not less than 5 times the size of the proposed project of the entity at the Capitol power plant; and

(ii) carry out the project of the entity in consultation and concurrence with the Architect of the Capitol.

(4) INCENTIVE.—In addition to the grant under this subsection, the Administrator may provide to an entity that receives such a grant an incentive award in an amount equal to not more than \$50,000, of which—

(A) \$15,000 shall be provided after the project of the entity has sustained operation for a period of 100 days, as determined by the Administrator;

(B) \$15,000 shall be provided after the project of the entity has sustained operation for a period of 200 days, as determined by the Administrator; and

(C) \$20,000 shall be provided after the project of the entity has sustained operation for a period of 300 days, as determined by the Administrator.

(5) *TERMINATION.*—*The program shall terminate on the date that is 2 years after the date of enactment of this subsection.*

(6) *AUTHORIZATION OF APPROPRIATIONS.*—*There is authorized to be appropriated to carry out the program \$3,000,000.*

* * * * *

○