117TH CONGRESS
1ST SESSION

S. 645

To require the Secretary of the Treasury to levy a fee on methane emissions from oil and natural gas facilities, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MARCH 9, 2021

Mr. WHITEHOUSE (for himself, Mr. BOOKER, and Mr. SCHATZ) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

---

A BILL

To require the Secretary of the Treasury to levy a fee on methane emissions from oil and natural gas facilities, 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 ''Methane Emissions Reduction Act of 2021''.

SEC. 2. FINDINGS.

Congress finds that—

(1) methane is a potent heat-trapping gas that absorbs 28 to 36 times the quantity of energy that carbon dioxide absorbs over a 100-year period;

(2) increased methane concentrations in the atmosphere are responsible for approximately 25 percent of observed global warming;

(3) approximately ⅓ of global anthropogenic methane emissions are produced by the production and transmission of fossil fuels;

(4) recent estimates suggest that methane emissions from oil and natural gas operations in the United States are 60 percent higher than previously believed, representing 2.3 percent of natural gas production;

(5) methane emissions from oil and natural gas operations in the United States represent approximately $2,000,000,000 in lost natural gas that could be used to fuel 10,000,000 homes;

(6) estimates from the International Energy Agency suggest that ½ of methane emissions from global oil and natural gas supply chains may be eliminated at zero net cost;

(7) some oil and natural gas companies have announced plans to reduce methane emissions from the operations of those companies to below 0.2 per-

cent of production, demonstrating that significant reductions in methane emissions are technically and economically feasible; and

(8) numerous companies in the United States are developing innovative technologies to allow oil and natural gas companies to more cost-effectively detect and reduce methane emissions.

SEC. 3. DEFINITIONS.

In this Act:

(1) BASIN.—The term ''basin'' means a geologic province (as defined by the American Association of Petroleum Geologists).

(2) EMPIRICALLY DETERMINED.—The term ''empirically determined'' means determined through the collection of sufficient data in situ, including measurement on the ground or by drone, airplane, or satellite, for the purpose of accurately estimating the quantity of methane emissions from a basin.

(3) METHANE.—The term ''methane'' means a chemical compound with the chemical formula CH_4.

(4) METHANE EMISSION.—The term ''methane emission'' means the release of methane from the extraction, production, gathering, processing, compression, transmission, or storage of—

(A) oil; or

(B) natural gas.

(5) METHANE FEE FACTOR.—The term ''methane fee factor'' means the amount calculated under section 4(b)(2)(D) for the applicable calendar year.

(6) NATURAL GAS.—The term ''natural gas'' has the meaning given the term in section 3 of the Deepwater Port Act of 1974 (33 U.S.C. 1502).

(7) OIL.—The term ''oil'' has the meaning given the term in section 3 of the Deepwater Port Act of 1974 (33 U.S.C. 1502).

(8) PERCENTAGE OF VOLUME LOST TO THE ATMOSPHERE.—The term ''percentage of volume lost to the atmosphere'' means, for any 1 company with respect to any 1 basin—

(A) for companies that use the fee calculated under section 4(b)(2)(B)(i), the percentage determined for the basin under the program established under section 4(a); and

(B) for companies that use the fee calculated under clause (iii) of section 4(b)(2)(C), the quotient obtained by dividing—

(i) the methane emissions in the basin during the applicable calendar year, as determined by the company using a protocol validated by the Secretary under clause (ii) of that section; by

(ii) the total quantity of natural gas produced, gathered, processed, transmitted, or released and lost to the atmosphere by the company in the basin during the applicable calendar year, as determined by the company using a protocol validated by the Secretary under clause (ii) of that section.

(9) SECRETARY.—The term ''Secretary'' means the Secretary of the Treasury.

SEC. 4. FEE ON METHANE EMISSIONS.

(a) ESTIMATE OF METHANE EMISSIONS.—Not later than December 31, 2022, the Secretary, in consultation with the Administrator of the Environmental Protection Agency and the Administrator of the National Oceanic and Atmospheric Administration, shall establish and implement a program to estimate, based on empirically determined, peer-reviewed methane emission rates, annual methane emissions, and methane emission rates (expressed in percentage of natural gas production), from each oil and natural gas producing basin.

(b) FEE.—

(1) IN GENERAL.—For calendar year 2023 and each calendar year thereafter, the Secretary shall levy a fee on methane emissions on each company that produces, gathers, processes, or transmits oil or natural gas.

(2) AMOUNT.—

(A) IN GENERAL.—The fee under paragraph (1) shall be calculated in accordance with subparagraph (B) or (C), as applicable.

(B) PROPORTIONAL FEE CALCULATION.—

(i) IN GENERAL.—Subject to subparagraph (C), the fee under paragraph (1) for a basin in which a company produces, gathers, processes, or transmits oil or natural gas for a calendar year shall be the sum obtained by adding—

(I) the product obtained by multiplying—

(aa) the difference between—

(AA) the percentage of volume lost to the atmosphere in the basin during the calendar year; and

(BB) 0.2 percent;

(bb) the total quantity of natural gas produced or released and lost to the atmosphere during oil or natural gas production by the company in the basin during the calendar year; and

(cc) the methane fee factor for the applicable calendar year; and

(II) the product obtained by multiplying—

(aa) the difference between—

(AA) the percentage of volume lost to the atmosphere in the basin during the calendar year; and

(BB) 0.1 percent;

(bb) the total quantity of natural gas gathered, processed, or transmitted by the company in the basin during the calendar year; and

(cc) the methane fee factor for the applicable calendar year.

(ii) REQUIREMENT.—The fee calculated under clause (i) for a company shall be determined on a basin-by-basin basis for each basin in which the company produces, gathers, processes, or transmits oil or natural gas.

(C) ALTERNATIVE FEE CALCULATION.—

(i) OPT OUT.—A company may opt out of the fee calculated under subparagraph (B) if—

(I) the company submits to the Secretary a peer-reviewed protocol for empirically determining, on a basin-by-basin basis for all basins, the total amount of methane emissions that result from oil and natural gas facilities—

(aa) that the company operates; or

(bb) in which the company has an ownership interest; and

(II) the Secretary validates the protocol in accordance with clause (ii).

(ii) VALIDATION.—

(I) IN GENERAL.—The Secretary may validate a protocol submitted under clause (i)(I) if—

(aa) the Secretary determines that the protocol is an accurate and comprehensive empirical method for calculating the methane emissions of the company submitting the protocol;

(bb) the protocol—

(AA) is peer-reviewed by independent scientists;

(BB) is available to the public in its entirety; and

(CC) requires the regular collection of data;

(cc) all underlying data collected under the protocol are available to the public; and

(dd) the Secretary determines that—

(AA) to the maximum extent practicable, the company has installed state-of-the-art technologies to detect and eliminate methane leaks from all oil and natural gas facilities the company owns or operates; and

(BB) subject to subclause (III), the company has prohibited the venting and flaring of methane, except in emergency circumstances.

(II) TIMELINE.—A protocol described in clause (i)(I) shall be submitted to the Secretary for validation under subclause (I) not later than June 30 of the calendar year before the calendar year for which the company is seeking to opt out of the fee calculated under subparagraph (B).

(III) EMERGENCY CIRCUMSTANCES.—An emergency circumstance for which the venting or flaring of methane is authorized under subclause (I)(dd)(BB) does not include—

(aa) venting or flaring of methane from oil wells because the company has failed to develop the infrastructure necessary to capture, process, and transmit methane associated with oil production; or

(bb) any claim of economic necessity.

(iii) CALCULATION.—For a company that has opted out of the fee calculated under subparagraph (B) in accordance with clause (i), the fee under paragraph (1) for a basin in which the company produces, gathers, processes, or transmits oil or natural gas for a calendar year shall be the sum obtained by adding—

(I) the product obtained by multiplying—

(aa) the difference between—

(AA) the percentage of volume lost to the atmosphere in the basin during the calendar year; and

(BB) 0.2 percent;

(bb) the total quantity of natural gas produced or released and lost to the atmosphere during oil or natural gas production by the company in the basin during the calendar year; and

(cc) the methane fee factor for the applicable calendar year; and

(II) the product obtained by multiplying—

(aa) the difference between—

(AA) the percentage of volume lost to the atmosphere in the basin during the calendar year; and

(BB) 0.1 percent;

(bb) the total quantity of natural gas gathered, processed, or transmitted by the company in the basin during the calendar year; and (cc) the methane fee factor for the applicable calendar year.

(iv) REQUIREMENT.—The fee calculated under clause (iii) for a company that opted out of a fee calculated under subparagraph (B) shall be determined on a basin-by-basin basis for each basin in which the company produces, gathers, processes, or transmits oil or natural gas.

(D) METHANE FEE FACTOR.—

(i) INITIAL COST.—For calendar year 2023, the methane fee factor shall be $1,800 per ton.

(ii) ANNUAL ADJUSTMENT.—For each calendar year after 2023, the methane fee factor shall be adjusted to an amount that is equal to the product obtained by multiplying—

(I) the methane fee factor for the preceding calendar year; and

(II) the percentage obtained by adding—

(aa) 102 percent; and

(bb) the percentage by which the Consumer Price Index for the calendar year exceeds the Consumer Price Index for the preceding calendar year.

(3) TIMING.—Not later than July 1 of each year, the Secretary shall calculate and levy the fee under paragraph (1) for the preceding calendar year.

(4) NATIONAL COASTAL RESILIENCE FUND.—Notwithstanding section 10(b)(2) of the National Fish and Wildlife Foundation Establishment Act (16 U.S.C. 3709(b)(2)), the Secretary shall, on an annual basis, transfer an amount equal to the amounts collected under the fee under paragraph (1) to the National Fish and Wildlife Foundation to provide grants through the National Coastal Resilience Fund of the National Fish and Wildlife Foundation (or a successor program).

SEC. 5. SAVINGS.

Nothing in this Act—

(1) affects the ability to regulate methane emissions under any other provision of law; or

(2) preempts a State from regulating or assessing a fee on methane emissions from oil and gas facilities.

○