

This document has been prepared as part of the implementation project of Legal Pathways to Deep Decarbonization (Michael B. Gerrard and John C. Dernbach, eds. Environmental Law Institute [2019]) (LPDD). For background information on the project, see <https://lpdd.org>

[X]th CONGRESS
[X] Session

H. R. [XXXX]

To amend the Internal Revenue Code of 1986 to institute a tax on the greenhouse gas content of fossil fuels used by commercial shipping vessels engaged in international shipping in Arctic Circle waters in the thirty (30) days prior to calling at a United States port.

IN THE HOUSE OF REPRESENTATIVES
[DATE]

[Mr/Ms Congressperson] introduced the following bill; which was referred to the Committee on Ways and Means

A BILL

To amend the Internal Revenue Code of 1986 to institute a tax on the greenhouse gas content of fossil fuels used by commercial shipping vessels in Arctic Circle waters in the thirty (30) days prior to calling at a United States port.

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 “Arctic Shipping Tax Act of [202X].”

SECTION 2. ARCTIC SHIPPING TAX.

(a) Chapter 36 of the Internal Revenue Code of 1986 (26 USC § 4461) is amended by inserting after § 4472 the following new sections:

§ 4473. Imposition of Tax

(a) In general

There is hereby imposed a tax on the greenhouse gas content of covered fuels used by covered vessels in Arctic Circle waters in the thirty (30) days¹ prior to calling at a United States port.² The tax will be exclusively imposed on covered vessels engaged in international shipping.

¹ As the advent of commercial shipping in the Arctic is quite recent, we did not have many precedents regarding the typical length of commercial shipping voyages in Arctic Circle waters to look towards in deliberating the length of the time-keeping provision for this tax. Given we are aiming to address large commercial shipping voyages in this Act as they are likely to cause significant environmental impact by traversing sensitive Arctic ecosystems and environments, we are recommending the imposition of a relatively lengthy time-keeping provision to ensure that commercial shipping voyages crossing Arctic Circle waters in pursuit of a more expedient shipping route than has previously been available will be captured within the scope of the tax. Based on the recent voyage of container ship Venta Maersk on the Northern Sea Route in the Arctic Ocean where the ship sailed from a port in the Russian Far East region to a German port in only 23 days, we recommend the imposition of a tax on the greenhouse gas content of covered fuels used by commercial shipping vessels engaged in international shipping in Arctic Circle waters in the thirty (30) days prior to calling at a United States port, as 30-days will likely be sufficient to cover most, if not all, Arctic shipping voyages.

² Wary of tax avoidance loopholes arising if the tax were imposed on the basis of the use of covered fuels by covered vessels in Arctic Circle waters following departure from the “originating” port of the covered vessel, wherein vessels would dock at the port of another country prior to calling

In this section, the term “international shipping” means all ships calling at United States ports that have called at the port of any other country prior to calling at a U.S. port.

(b) Amount of Tax

The tax imposed by this section is an amount equal to—

- (1) the greenhouse gas content of the covered fuel,³ multiplied by
- (2) the carbon tax rate.

(c) Rate of Tax

(1) IN GENERAL.—The carbon tax rate is subject to an annual ramp-up period and shall be—

- (A) in the case of the first calendar year in which the tax is imposed, \$10, and
- (B) except as provided in paragraph (2), in the case of any calendar year thereafter—

- (i) the tax rate in effect under this subsection for the preceding calendar year, plus
- (ii) \$5.

(2) EXCEPTIONS.—In the case of the calendar year in which the carbon tax rate reaches \$25, the annual ramp-up period outlined in paragraph (1) will terminate, and the carbon tax rate shall be \$25 for all subsequent calendar years thereafter until the calendar year ten (10) years after the initial imposition of the tax, when the carbon tax rate will increase to \$30 and shall be \$30 for all subsequent calendar years thereafter.⁴

at a U.S. port in order to avoid the tax, we recommend that vessels are taxed on the basis of whether they have traversed Arctic Circle waters in the 30 days prior to calling at a U.S. port. Without such a time-keeping provision, a vessel originating in the port of another country that traverses Arctic Circle waters en route to the U.S. could hypothetically stop at a Canadian port before calling at a U.S. port, thus allowing vessels engaged in Arctic shipping to avoid the tax authorized under this Act. As it stands, this Act does not cover commercial shipping vessels travelling *from* a U.S. port to the port of another country due to concerns over logistical difficulties if the vessel’s voyage were to ultimately differ from its planned route or if actual fuel consumption were to differ from projected fuel consumption, thus affecting the amount of tax due. Without clear answers for how to handle tax rebates or retroactive calculations if the route or fuel consumption deviates from what is anticipated, we think it best to limit the scope of this Act to incoming voyages to the U.S. as they have already occurred. That being said, legislators should consider amending this Act as necessary if it becomes feasible to tax vessels travelling from a U.S. port to the port of another country on the basis of their planned routes and expected fuel consumption.

³ The carbon tax amount imposed by this Act is based on the greenhouse gas content of covered fuels used because this metric addresses the climate impact of all greenhouse gases that contribute to global warming. Though carbon dioxide constitutes the majority of greenhouse gas emissions from commercial shipping activities, other pollutants such as methane are emitted by shipping fuels and have a higher global warming potential than carbon dioxide. As a result, for the Act to serve as an effective deterrent to commercial shipping in the Arctic, it is important the carbon tax amount covers the global warming potential of all greenhouse gas emissions. Subsection (b) of this Act is based on the carbon fee amount set by H.R.763, the Energy Innovation and Carbon Dividend Act of 2019, which was referred to the House Subcommittee on Energy on January 25, 2019. This Act’s definitions for carbon dioxide equivalent, covered fuel, crude oil, global warming potential, greenhouse gas, and greenhouse gas content are also based on those included in H.R.763.

⁴ The final rate of the tax is based on the range of carbon tax rates suggested by the International Monetary Fund and the Organization for Economic Cooperation and Development. The ramp-up period is modelled on the carbon tax imposed under the Carbon Tax Act (S.B.C. 2008, c 40) in British Columbia, Canada. For our purposes, a ramp-up period is utilized in order to allow relevant actors time to prepare for and adapt to the potential economic consequences of the tax. The ramp-up period also takes into account expected increases in the prevalence of Arctic shipping over time as Arctic shipping routes continue to open up further due to thinning polar sea-ice. Because of the relative novelty of Arctic shipping, there is not yet sufficient data on the actual cost and time differentials between Arctic routes and traditional routes that do not pass through Arctic Circle waters, particularly where the routes involve stops at U.S. ports. However, it is clear that as the sea-ice cover continues to diminish, the Arctic is likely to be a faster, more direct route between Asia and ports in Europe and North America during certain seasons. As data on average cost savings from Arctic shipping emerges over time, legislators ought to consider such figures in respect of the rate of the tax and amend subsection (c) as necessary to ensure the rate of the tax acts as a sufficient deterrent to the widespread adoption of Arctic shipping practices.

(3) INFLATION ADJUSTMENT.—In the case of any calendar year after the first calendar year in which the tax is imposed, each of the dollar amounts in paragraphs (1)(A), (1)(B)(ii), and (2) of this subsection shall be increased by an amount equal to—

(A) such dollar amount, multiplied by

(B) the cost-of-living adjustment determined under section 1(f)(3) for the calendar year, determined by substituting the first calendar year in which the tax is imposed for ‘calendar year 2016’ in subparagraph A(ii) thereof.⁵

(d) By whom paid

The tax imposed by this section shall be paid by the owners or agents of covered vessels.

(e) Time of imposition

The tax imposed by this section shall be collected only once before a covered vessel commences its loading or discharging at the U.S. port at which it has docked.⁶

§ 4474. Definitions

For purposes of this section—

(1) Carbon dioxide equivalent or CO₂-e

The term “carbon dioxide equivalent” or “CO₂-e” means the number of metric tons of carbon dioxide emissions with the same global warming potential as one metric ton of another greenhouse gas.

(2) Covered fuel

The term “covered fuel” means crude oil, natural gas, coal, or any other product derived from crude oil, natural gas, or coal which shall be used so as to emit greenhouse gases to the atmosphere.

(3) Covered vessel

(A) In general

The term “covered vessel” refers to a commercial shipping vessel, which means any vessel used—

(i) in transporting commercial cargo by water for compensation or hire; or

(ii) in transporting commercial cargo by water in the business of the owner, lessee, or operator of the vessel.

⁵ This subsection is modelled on the inflation adjustment provision included in H.R.763.

⁶ With regard to the mechanism for collecting and processing the tax payment, our research has indicated that United States ports will most likely already have the necessary infrastructure in place. For example, at ports under the jurisdiction of the Port Authority of NY and NJ and at the port of Alaska in Anchorage, it appears that tariffs are often levied on vessels calling at the ports. The New York Terminal Conference (NYTC) has the right to require payment in full of any and all charges before such cargo leaves the terminal facility.

(B) Exceptions

The term "commercial vessel" does not include—

- (i) the government vessel of any sovereign state;
- (ii) any vessels operating exclusively for the purpose of research; or
- (iii) any vessels that are not in port voluntarily as a result of distress or other circumstances.

The term "commercial cargo" does not include—

- (i) bunker fuel, ship's stores, sea stores, or the legitimate equipment necessary to the operation of the vessel.

(4) Crude oil

The term "crude oil" means unrefined petroleum.

(5) Global warming potential or GWP

The term "global warming potential" means the ratio of the time-integrated radiative forcing from the instantaneous release of one kilogram of a trace substance relative to that one kilogram of carbon dioxide.

(6) Greenhouse gas or GHG

The term "greenhouse gas" means carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons (HFCs), or perfluorocarbons (PFCs).⁷

(7) Greenhouse gas content

The term "greenhouse gas content" means the amount of GHGs, expressed in metric tons of CO₂-e, which would be emitted to the atmosphere by the use of a covered fuel and shall include, nonexclusively, emissions of CO₂, N₂O, CH₄, and HFCs.

(8) Port

(A) In general

The term "port" means any channel or harbor (or component thereof) in the United States, which—

- (i) is not an inland waterway; and
- (ii) is open to public navigation.

(B) Exceptions

⁷ As additional information on GHGs emerges over time, legislators ought to consider whether there are any other GHGs that should be covered and amend this definition as necessary to include those GHGs.

The term "port" does not include any channel or harbor with respect to which no Federal funds have been used since 2010 for construction, maintenance, or operation, or which was de-authorized by Federal law before 2020.

§ 4475. Enforcement

(a) In general

This tax shall be assessed by self-disclosure of the calculations used to determine the carbon tax amount due for the voyage, but the captain's log of any covered vessel as well as any invoices for covered fuels shall be subject to inspection by U.S. Customs and Border Protection (CBP). If CBP suspects inaccurate reporting, they shall be authorized to examine the captain's log or any invoices of covered fuels to ascertain whether the vessel traversed Arctic Circle waters in the thirty (30) days prior to calling at a United States port and to determine the amount of covered fuels used by such vessel while in Arctic Circle waters.

(b) Recordkeeping

Each covered vessel is required to keep an accurate record of its use of covered fuels, including the amount of covered fuels used during the course of its voyage through Arctic Circle waters. Each covered vessel is required to be equipped with the appropriate devices for tracking its geographical location and fuel usage along the covered vessel's maritime route.

(c) Penalties

In the event of inaccurate disclosure or failure to pay the full amount of the tax, the owner, operator, or lessee of the vessel shall be subject to a fine of \$75 per unit of greenhouse gas content of covered fuels used in Arctic Circle waters in the thirty (30) days prior to calling at a United States port, or \$75,000, whichever amount is greater.