

# Foreign Pollution Fee Act: Design Elements, Options, and Policy Decisions

Issue Brief 23-09 by **Milan Elkerbout, Raymond Kopp, and Kevin Rennert** — November 2023

In a recent report, **Carbon Border Adjustments: Design Elements, Options, and Policy Decisions**, we provided a brief overview and comparison of three current border adjustment mechanisms (BAMs) including the European Union’s Carbon Border Adjustment Mechanism (EU CBAM); the **Fair, Affordable, Innovative, and Resilient Transition and Competition Act** (FAIR Act), sponsored by Senator Chris Coons (D-DE); and the **Clean Competition Act** (CCA), by Senator Sheldon Whitehouse (D-RI). A new piece of Senate legislation, the **Foreign Pollution Fee Act** (FPFA), has now been introduced by Senator Bill Cassidy (R-LA), Senator Lindsey Graham (R-SC), and Senator Roger Wicker (R-MS). This issue brief uses the design elements introduced in the previous report to describe the policy reflected in the bill.

The FPFA recognizes in its design and structure that the United States has reduced its industrial greenhouse gas (GHG) emissions substantially over time, primarily through compliance with US regulations of non-GHG co-pollutants from industrial facilities, and that these emissions reductions have incurred costs on domestic manufacturing that are not faced uniformly by many countries US manufacturers compete with. Though US emissions from manufacturing have decreased, the United States is also a significant importer of GHGs embodied in primary commodities and manufactured products from countries that have not taken comparable actions to reduce their emissions.

A primary purpose of the FPFA is to reduce the importation of embodied GHGs over time and to ensure the United States can continue to improve its environmental performance and reduce GHG emissions from its industrial sector without disadvantaging itself

in the international marketplace. The FPFA seeks to accomplish this goal by imposing a fee on embodied imported GHGs for a set of product categories that are highly traded and also have high GHG intensities. The proposed fees are intended to disincentivize US importation of such products from countries with poor environmental performance, incentivize increased importation from countries with high environmental performance, and address concerns about international industrial competitiveness. The exclusive focus on reducing the importation of embedded GHG emissions means that the FPFA does not include provisions to require further reductions in GHG intensity by domestic manufacturers, in contrast to other proposals such as the CCA.

BAMs are complicated and technical policy instruments, and the FPFA is no exception. To describe the FPFA in this brief, we discuss it in terms of the seven design elements of BAMs we laid out in **our earlier report**. We have made every effort to be concise with respect to our descriptions of the policy approach taken in the legislation, but that has required us to abstract from a great deal of detail that exists within the legislative text. This issue brief is intended to provide a roadmap to understanding the approach taken by the FPFA but should not be considered a complete and comprehensive description and review.

## 1. Covered Products

BAMs are intended to ensure the competitiveness of domestic producers as they undertake potentially costly actions to reduce their GHGs. At the same time, BAMs disincentivize the importation of embodied GHGs in

products that are covered by the BAM. In the design of a BAM, one expects to see the list of covered products dominated by primary commodities with relatively high GHG intensities (i.e., tons of embodied GHGs per ton of product).

Any potential increase in the price of primary products resulting from a BAM can be expected to result in an increase in the price of domestic manufactured goods using those primary products as inputs. Without further consideration in the policy design, import fees on primary products can reduce the international competitiveness of such manufactured goods. As a result, BAMs often are designed with provisions that apply import fees to these manufactured goods as well to ensure competitiveness.

The FPFA levies fees on covered primary goods/products as well as two categories of “finished goods” (manufactured products) and identifies several large categories of covered products including aluminum, biofuels, cement, crude oil, glass, hydrogen, methanol, ammonia, iron and steel, lithium-ion batteries, several classes of critical minerals, natural gas, petrochemicals, plastics, pulp and paper products, refined petroleum products, solar cells and panels, and wind turbines. The FPFA then defines the covered products that are subject to the imposed fees within each large category using the six-digit code of the [Harmonized Tariff Schedule of the United States](#). Depending upon the category, a substantial number of products will be subject to fees.

## 2. Fees

A goal of the FPFA is to significantly reduce GHGs embodied in imported products over a 12-year period and then to continue the reduction of imported embodied GHGs over the years to follow. This goal leads the FPFA to have a very different fee structure than the EU CBAM and the CCA discussed in [our earlier report](#).

To assess fees, the FPFA compares the GHG intensity of imported covered products to the mean intensity of the same domestic products. Unlike other BAMs, for example the CCA, the FPFA does not address the GHG intensity of covered products from individual countries of origin, but rather, focuses on the mean intensity of all such products imported to the United States from all countries of origin.

Specifically, in the first six years after enactment, covered products with a mean GHG intensity greater than 50 percent of mean US production face an *ad valorem* fee sufficient to ensure trade flows of those covered products are altered such that the difference in mean GHG intensity (between US products and imported products) is not greater than 50 percent. Covered products with a mean GHG intensity greater than 25 percent but less than 50 percent of mean US production face an *ad valorem* fee sufficient to ensure trade flows of that commodity are altered such that the difference in mean GHG intensity is not greater than 25 percent. Covered products with a mean GHG intensity not greater than 25 percent of mean US production face an *ad valorem* fee sufficient to ensure trade flows of that commodity are altered such that the difference in mean GHG intensity is not greater than 10 percent. In the subsequent six-year period and beyond, the *ad valorem* fees are adjusted to continue the decline in the GHG intensity of covered imported products in US trade flows.

The level of fees is not specified directly in the FPFA and will depend on a future determination published by the US Secretary of Energy, presumably based on modeling exercises designed to achieve the stated reductions in GHGs embodied in covered products. This structure is unlike the design of the EU CBAM under which the fees are observable in the EU Emissions Trading System (ETS) market or the CCA legislation, which specifies the level of the fees in the text.

## 3. Definition of GHG Intensity

Defining the GHG intensity of a covered product is a foundational element of a BAM. While there are many GHG accounting protocols in existence, GHG accounting in the context of a BAM has its own requirements. BAMs are applied to traded products and not to firms or facilities, and the GHG accounting methods must align with the Harmonized Tariff System that is the basis for customs tariffs worldwide.

We consider BAM GHG accounting in terms of the boundaries used to define the relevant emissions of GHGs. There are three broad categories of emissions that define the boundaries: **1)** direct emissions from the production facility, **2)** emissions from the generation

of grid electricity purchased by production facilities, and **3**) emissions embodied in intermediate products purchased by production facilities for use in the manufacturing of covered products. These boundaries are often termed Scope 1 (direct emissions), Scope 2 (electricity-related emissions), and Scope 3 (upstream supply chain emissions). At this time, we are unaware of any BAM or proposed BAM that expands the emissions boundary to include downstream Scope 3 emissions, beyond the EU CBAM's use of 'precursors'.<sup>1</sup>

The FPFA specifies the determination of the GHG intensity of the domestic benchmark against which the GHG intensity of imported covered products will be compared, as well as the determination of the GHG intensity of imported products.

The FPFA's measure of GHG intensity includes Scopes 1, 2, and 3. Scope 1 emissions are referred to in the FPFA as point source pollution, meaning the emission of greenhouse gases directly from a facility producing a covered product. The FPFA addresses Scope 2 electricity emissions by defining a separate category of inputs termed "contributing parts." A contributing part is a product used in the creation of a covered product, for example, a product used to provide electricity necessary to operate machinery used to create the covered product. The FPFA references upstream pollution—Scope 3—as embodied GHGs in any covered product that is used as an input in the manufacturer of another covered product, as well as any fugitive emissions occurring during the extraction, refining, and transport of the above intermediate covered products. An example would be the fugitive emissions from the extraction, refining, and transport of crude oil that is used as an input in the production of refined petroleum products and petrochemicals.

The FPFA places the burden of calculating the baseline pollution intensity and the pollution intensity of imported covered products on the Secretary of Energy. The legislation states,

*For the purposes of creating a process for calculating the pollution intensity of any covered product the Secretary and the Board shall use the best and most granular data available in the United States to establish the baseline pollution intensity with respect to such product, and in the case of a covered product produced outside the United States, base the calculation of the pollution intensity of such product on the process used to establish the baseline pollution intensity for such product.<sup>2</sup>*

The conclusion one draws from this text is the instructions to the Secretary of Energy are to treat the determination of domestic pollution intensities and those of imported goods in a similar fashion. The FPFA provides the Secretary of Energy with considerable flexibility in the determination of pollution intensity, which stands in contrast to the approach of the CCA that instead provides considerable specificity in its direction to the US Secretary of Treasury with respect to the determination of GHG intensity.

## 4. Baselines

As discussed in our previous report, a baseline is a product-level GHG intensity against which the GHG intensity of an imported product will be compared for the purposes of assessing border fees. When used, baselines can define an exempt level of emissions before BAM charges accrue, or to define categories of GHG intensities for the purposes of assigning BAM fees.

The FPFA specifies a benchmark based on the facility-level pollution intensity of domestic producers of a particular covered product. Differences between the

- 1 Precursors are inputs required in the production of another good, such as sintered ore in the case of primary steel. In the case of the EU CBAM, they are an example of Scope 3 emissions, while from an EU domestic perspective, they are treated as Scope 1 emissions of a given subsector.
- 2 The Board refers to the National Laboratory Advisory Board on Global Pollution Challenges. The Board is composed of the directors from the Idaho National Laboratory, the National Renewable Energy Laboratory, the Pacific Northwest National Laboratory, and the Council on Environmental Quality. In addition, Board members include representatives from the industrial sectors producing covered products, as well as representatives from relevant federal agencies.

pollution intensity of an imported covered product and the baseline intensity are used to assign covered products to different categories. These categories carry with them different *ad valorem* fees to be charged to importers to achieve the goal of reducing US importation of embodied GHGs. Unlike the CCA that specifies within the legislation a schedule used to reduce the benchmark over time to achieve decarbonization goals, the FPFA benchmark changes only when periodically recomputed by the Secretary of Energy to incorporate updated data reflecting the pollution intensities of domestic producers at that time.

## 5. Information Resources and Methods

The FPFA assigns the Secretary of Energy the responsibility of developing estimates of baseline pollution intensity of covered products and the pollution intensity of covered products from any country of origin. The Secretary may base estimates of pollution intensity on economic, statistical, or engineering models; pollution data from facilities and a wide range of monitoring tools; voluntarily reported data; information on technology performance; and information that may be specific to a particular covered product. The FPFA directs the Secretary of Energy to evaluate pollution intensities for imported covered products using calculations based on the same process used to establish the pollution intensity for domestic production of the same covered product (i.e. the baseline pollution intensity).

In general, the calculation of pollution intensities of imported and domestic covered products poses a significant technical challenge in the imposition of a BAM. The FPFA puts the responsibility for calculating these pollution intensities on the Secretary of Energy without imposing further reporting requirements on other entities to supply data to support the calculations. In contrast, the CCA imposes GHG intensity reporting requirements on domestic manufacturers to support its assessment of domestic carbon intensities. Domestic manufacturers must report information to the Secretary of Treasury and the Administrator of the US Environmental Protection Agency on eligible facility emissions, product production, and other relevant

information needed for the Secretary of Energy to calculate the GHG intensity at the level of the eligible facility. Under the CCA, the Secretary is also responsible for the calculation of GHG intensities for all covered primary commodities imported into the United States.

## 6. Domestic Emissions Reduction Strategies

The only BAM in effect now is the EU CBAM. It was designed to work in concert with the ETS, a workhorse for the decarbonization of the EU in general, including the EU's industrial sector. The CCA is also a BAM designed to work in concert with a new domestic regulatory program intended to reduce GHG emissions from the industrial sector using a “performance standard.”

A key distinction of the FPFA from the above two approaches is that the FPFA does not include a new regulatory program to reduce industrial emissions. This is in line with the FPFA's objective to reduce the importation of embodied GHGs within US trade flows rather than focus on further reductions in emissions from domestic sources.

## 7. Clubs, Alliances, and Exemptions

In the July 2022 issue brief “**Industrial Decarbonization and Competitiveness: Building a Performance Alliance**,” we distinguished between a policy club and a performance club where the most rudimentary club is a collection of countries where transactions and trade in primary commodities are not subject to environmentally based fees or tariffs.

The FPFA provides an extensive section on international agreements and partnership that can be characterized as clubs. Under the FPFA, the US trade representative is authorized to engage with countries to encourage the establishment and expansion of international partnerships. Such partnerships may include one or more covered products, countries, or groups of countries, e.g., the Organisation for Economic Co-operation and

Development (OECD) and the G7. Partnerships would facilitate the creation of compatible methods to promote pollution reduction through trade mechanisms by focusing on the pollution intensity differences between countries (suggesting a performance club).

Each partner country would continue to develop its own sovereign methods for pollution reduction. Importantly, the international agreement would eliminate any fees or charges between partner countries suggesting the EU cannot become a partner due to its CBAM requirement that importers purchase ETS allowances. Partners would work to eliminate any fees or reduce other tariffs, import fees, and trade barriers maintained by the country relative to the covered products. Low and middle-income countries would be exempt from fees by joining an international agreement.

Under the FPFA, international agreements are intended to provide interoperability by developing compatible pollution monitoring, creating reporting and verification methods among partners that allow for similar methods to be used to calculate pollution intensity of covered products, and increasing transparency to the calculations or partner countries. International agreements may not be forged with non-market economies that are upper-middle- or high-income countries. Authority to develop international agreements does not include the authority to negotiate agreements that would establish carbon taxes, fees, pricing, or other mechanisms on domestic producers of the United States.

## 8. Takeaways

The goal of the FPFA is to reduce the United States' "consumption" of GHGs embodied in imported goods and provide a new lens through which to view the alignment of international trade with climate objectives. Like other border adjustment mechanisms, the FPFA seeks to ameliorate international competitiveness pressure on domestic industries as they decarbonize over the coming years.

The FPFA focuses on the importation of embodied GHGs into the United States. The goal of reducing such consumption is to reduce the size of the global market for high GHG intensity products and thereby reduce

their global production and associated emissions. The development and expansion of international agreements and partnerships with like-minded nations is designed to further reduce trade in high GHG intensity products.

The approach of the FPFA is in many ways novel, and at present it is unknown how effective the FPFA will be in achieving the goal of reducing global industrial emissions. RFF and our research partners have additional analysis underway to help inform our understanding of the effects of the proposal in the coming months. The introduction of the FPFA represents another important milestone in the development and consideration by the US Congress of border adjustment mechanisms and can be expected to play an influential role in the continuing congressional debate about such policies and the role of trade measures to reduce emissions. The FPFA's exclusive focus is on reducing imported embodied emissions. However, it can be expected to lead to a call for further additions to the proposal by stakeholders and nations looking to the United States to take further domestic regulatory action to reduce GHG emissions from its own industrial sector.

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