Response to the Carbon Border Adjustment Mechanism Request for Information
Submitted by: Climate Leadership Council
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Introduction

These comments are submitted in response to the Request for Information (RFI) initiated on May 20, 2026, on the congressionally directed study to determine the emissions intensity of certain goods produced in the United States and other countries. The study is a timely opportunity to affirm what the Climate Leadership Council ("Council") has identified to be a "carbon advantage" held by American manufacturers. Compared to global competitors, domestic firms manufacture the same goods with much lower greenhouse gas emissions. This carbon advantage can be leveraged into a competitive advantage as countries implement Carbon Border Adjustment Mechanisms (CBAMs)—but only if U.S. performance is documented fairly.

Accurate and fair data will better position U.S. firms to compete globally and the U.S. government to represent their competitive interests in international trade discussions. Next year, 25% of U.S. exports will be bound for economies implementing CBAMs, including the European Union, United Kingdom, Taiwan, and Norway. We have already seen the risks that these policies could pose for American manufacturers if the U.S. fails to develop its own data: early regulations from both the EU and UK CBAMs rely on inaccurately high assumptions for U.S. emissions intensities.[1] These inaccuracies not only diminish the potential competitiveness of efficient American firms but also unjustifiably reward dirtier manufacturers in China and elsewhere. As our trading partners develop their own assumptions about U.S. performance, it is vital that the U.S. maintain its own accurate accounting of emissions for domestic firms and their international competitors.

Suggested Datasets, Models, Tools, and Analysis; Curated Datasets

The existing emissions intensity literature has two categories of useful analysis to draw on: "top down" analysis on the emissions performance of industrial *sectors* based on reported emissions, trade, and economic data, and "bottom up" analysis of the emissions intensity of manufactured *goods* rooted in observations of industrial processes.

Key examples in the top-down analysis include the Council's carbon advantage series and related analysis.[2] The carbon advantage data set is built from internationally reported emissions, trade, and economic data to establish sector-level emissions intensities for 76 national-level economies, the rest of the world, and the world economy as a whole. Important data inputs include the OECD's Inter-Country Input-Output Tables,[3] World Bank economic data,[4] and energy system data from the International Energy Agency (IEA).[5] Similar methodologies are used by the Organization for Economic Cooperation and Development (OECD) in its Greenhouse Gas Footprints products, specifically the "emissions embodied in production by scope"[6] and "emissions embodied in bilateral trade."[7]

The bottom-up process-based analysis is rooted in observations of manufacturing processes, production methods, energy sources, and inputs and the emissions associated with those activities. Among the most notable contributions to this nascent literature are the U.S. International Trade Commission (ITC) study on greenhouse gas intensity at the product level for aluminum and steel[8] and the EU Joint Research Centre study that underpins the EU CBAM defaults.[9]

Hybrid approaches that use benchmarking analysis to determine approximate country-level emissions intensities per unit of manufactured good include the Council's sector-level analysis for the steel[10] and chemical sectors[11] and the suite of benchmarking studies from Global Efficiency Intelligence.[12] Additional relevant resources are described in Appendix 4.

Methodological Recommendations

To meaningfully advance the literature and affirm the U.S. carbon advantage in manufacturing, the Council has four recommendations to shape NETL's analysis.

1. *Address the emissions intensity of covered sectors in both the United States and major trade partner countries*

In House Report 119-213, the House Appropriations Committee requested a study of "the average emissions intensity of certain goods produced in the United States compared to those from other countries."[13] The comparative analysis will require NETL to determine the average emissions intensity for products produced both in the United States and in other countries. The relevant "other countries" should include major producers and exporters of goods in the covered sectors in order assess the potential effects of the CBAM on U.S. manufacturers. As the carbon advantage literature has demonstrated, the results will reflect the relatively low emissions intensity of U.S. manufacturing.

2. *Leverage best available data to affirm the U.S. carbon advantage*

We have identified two categories of analysis in the existing literature: top-down economic and bottom-up process-based. They can each be useful to NETL in this exercise. The Council's carbon advantage analysis and similar studies rely on internationally reported data associated with emissions, trade, and economic activity. A distillation of that analysis for major industrial economies and U.S. trade partners is included in Appendix 1. The data reveal that the United States produces goods with much lower emissions than other economies. Economy-wide, the global average requires more than twice the emissions of greenhouses gases to create the same dollar of value; emissions-intensive manufacturers like China, India, and Russia emit 3-5 times the U.S. average.[14] This carbon advantage is a consequence of three characteristics of the U.S. economy: it is more energy-efficient than rival economies, it has a cleaner electricity mix than rival economies, and its industry uses a more carbon-efficient energy mix than competitors (refer to Figure A2 in Appendix 2).

This analysis has been replicated by the Organization for Economic Cooperation and Development, whose data confirm that the U.S. economy is considerably more emissions-efficient than competitors. However, by necessity the analysis reports emissions intensities by value of industrial output, or emissions per dollar. NETL is pursuing emissions intensity data by quantities of industrial output, or emissions per ton. Nevertheless, the carbon advantage literature is a vital and near-comprehensive plausibility check for other analytical approaches.

3. Create a new source of rigorous data to support American industry and lower emissions

The RFI indicates that NETL will use bottom-up, process-based analysis to determine the emissions intensity of trade-exposed goods by quantity of industrial output. The most relevant studies that have attempted this effort come from ITC and JRC.

The ITC report is relevant to steel and aluminum, two of the largest sectors covered by the NETL study, and reflects the most rigorous methodology to date. It is based on detailed primary data from U.S. producers, differentiates between production pathways, and provides data at the tariff heading and subheading levels. These features are consistent with the requirements laid out by the Appropriations Committee in H. Rept. 119-213.[15]

The JRC report covers all CBAM sectors and reports figures for the EU's major trading partners. It is marred by serious methodological flaws, which are reflected in the CBAM default values. Relevant to NETL analysis, some JRC estimates for U.S. emissions intensity (and the related CBAM values) are demonstrably inaccurate because they are based exclusively on the highest-intensity production pathway.[16] This considerably overstates U.S. emissions intensity because it fails to reflect the prevalence of different production processes American manufacturers employ.

NETL therefore has an opportunity to approach the breadth of the JRC analysis while maintaining the rigor of the ITC analysis. We encourage NETL to rely on primary data, like that contained in the ITC report, whenever available. NETL should also collaborate directly with affected industry who maintain detailed emissions records and often work with third-party groups that develop benchmark or industry-wide assessments of the emissions intensity of manufactured goods.[17]

4. Consider a new methodology to create comprehensive data sets

The study's most immediate use will be to substantiate lower, more accurate average emissions intensity values for U.S. products under the EU CBAM[18] and future CBAMs from other jurisdictions, including the United Kingdom, Norway, and Taiwan next year, and markets like Australia, Canada, Japan, and others in future years.[19]

Given that countries may take different approaches to measuring emissions, we suggest NETL integrate two processes into its methodologies. First, report data in broad, disaggregated figures for parameters like covered gases, scope of emissions, system boundaries, covered precursors, and others. Even if other countries measure emissions intensity differently than the EU CBAM, the NETL study will equip American firms and policymakers with a comprehensive, interoperable resource.[20]

Second, we encourage NETL to consider a ledger-based approach to emissions measurement. Ledger-based carbon accounting is rooted in the principles of financial accounting and would allow manufacturers across a supply chain to accurately measure the emissions intensity of manufactured products. Promising scholarship has already been developed in this area, which the Council encourages NETL to consider. Resources include the proto-standard developed by the E-Ledgers Institute[21] and product-level assessments conducted by the Energy Futures Initiative.[22] U.S. leadership in a move toward a ledger-based system on a global basis would allow for more accurate product-level emissions determinations and further cement the U.S. carbon advantage.

[1] *See* Climate Leadership Council, *UK CBAM Technical Consultation Response* at 4 (May 19, 2026), https://clcouncil.org/report/uk-cbam-comments/; Greg Bertelsen, *The EU CBAM's Rocky Debut—and Why the U.S. Should Lead the Next Phase* (Jan. 28, 2026), https://clcouncil.org/blog/eu-cbam-debut/
[2] *See* Catrina Rorke, Scott Nystrom, and Daniel Hoenig, *America's Carbon Advantage 2025*, Climate Leadership Council (March 2025) ("Carbon Advantage Report"), https://clcouncil.org/wp-content/uploads/2025/06/2025-Carbon-Advantage_report-1.pdf *for the most recent piece of analysis.*
[3] "Inter-Country Input-Output Tables," *OECD*, https://www.oecd.org/en/data/datasets/inter-country-input-output-tables.html
[4] "Industry (including construction), value added (% of GDP)," *World Bank*, https://data.worldbank.org/indicator/NV.IND.TOTL.ZS
[5] "World Energy Balances," *International Energy Agency* (April 2026), https://www.iea.org/data-and-statistics/data-product/world-energy-balances
[6] "Greenhouse Gas Footprints (GHGFP) 2025 edition: Emissions embodied in production by scope," *OECD* (April 29, 2026), https://tinyurl.com/59nhhy7u
[7] "Greenhouse Gas Footprints (GHGFP) 2025 edition: Emissions embodied in bilateral trade," *OECD* (April 29, 2026), https://tinyurl.com/yj8spebc
[8] U.S. International Trade Commission, *Greenhouse Gas Emissions Intensities of the U.S. Steel and Aluminum Industries at the Product Level* (February 2025) ("ITC report"), https://www.usitc.gov/publications/332/pub5584_0.pdf
[9] Danko Vidovic, *et. al., JRC Technical Report: Greenhouse gas emission intensities of the steel, fertilisers, aluminium and cement industries in the EU and its main trading partners*, Joint Research Centre (2023) ("JRC report"), https://publications.jrc.ec.europa.eu/repository/handle/JRC134682
[10] *See* CRU Consulting, *Opportunities for US-EU Steel Trade Agreement—Executive Summary* (Dec. 22, 2022), https://clcouncil.org/report/opportunities-for-us-eu-steel-trade-agreement/
[11] *See* Catrina Rorke, *The U.S. Carbon Advantage in Chemicals Manufacturing*, Climate Leadership Council, (Sept. 13, 2022), https://clcouncil.org/report/the-u-s-carbon-advantage-in-chemicals-manufacturing/
[12] *See* Ali Hasanbeigi, *Steel Climate Impact 2025*, Global Efficiency Intelligence, https://www.globalefficiencyintel.com/steel-climate-impact-2025-an-international-benchmarking-of-energy-and-ghg-intensities *among other studies*
[13] H. Rept. 119-213 (p. 112) (emphasis added), https://www.congress.gov/committee-report/119th-congress/house-report/213/1
[14] Carbon Advantage Report.
[15] *See* ITC report at 75 n.9.
[16] *See* JRC report at 16 ("When there are several production pathways possible for a CN code, the final GHG emission intensity corresponds to the production pathway with the highest GHG emission intensity.").
[17] *For example, the Council's analysis into the emissions intensity of global steel manufacturing relied on data held by CRU Group, a global market intelligence firm. See* CRU Consulting, *supra.*
[18] *See Commission Implementing Regulation (EU) 2025/2621 of 16 December 2025 laying down rules for the application of Regulation (EU) 2023/956 of the European Parliament and the Council as regards the establishment of default values*, Recital 11. ("The default values and mark-ups shall be revised by December 2027 at the latest. The Commission should make all necessary efforts, in close collaboration with the Member States and based on a systematic and holistic review, to ensure that a revision of the default values can already be carried out in 2026.")
[19] *See UK CBAM Technical Consultation Response, supra.*
[20] *See generally* Matthew C. Porterfield, Daniel Hoenig, and Holly Rooper, *An Approach to Interoperability of U.S. and EU Systems for Determining GHG Emissions Intensity of Steel,* Climate Leadership Council (April 2025), https://clcouncil.org/report/interoperability-carbon-accounting
[21] Karthik Ramanna et al., *A Proto-Standard for Carbon Removals Accounting and Auditing using the E-asset Method* (June 2026), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6925499.
[22] *See several reports from the EFI Foundation, including,* Minji Jeong, *et. al., Towards Harmonized Carbon Accounting: Challenges and Opportunities*, EFI Foundation (March 2026), https://efifoundation.org/wp-content/uploads/sites/3/2026/03/EFIFoundation-HarmonizedCA-Report.pdf; Minji Jeong, *et. al.*, *Integrated Product- and Entity-Level Carbon Accounting Case Study: Steel Production Using Blast Furnace-Basic Oxygen Furnace*, EFI Foundation (April 2026), https://efifoundation.org/wp-content/uploads/sites/3/2026/04/EFIFoundation-CaseStudy-Steel-BF-BOF.pdf; *and* Ernest J. Moniz, *et al., Carbon Accounting Case Study: Sustainable Aviation Fuel Using HEFA*, EFI Foundation (January 2026), https://efifoundation.org/reports/saf-hefa/ *among others.*