

National Energy Technology Laboratory

U.S. Department of Energy

CBAMStudyRFI@netl.doe.gov

Request for Information

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These comments oppose treating the requested emissions-intensity study as a foundation for U.S. carbon taxes, border carbon adjustments, or tariff schedules. They respond to the RFI's requests on methodology and how any results should be presented. No confidential business information is included. Submission of these comments is voluntary.

Executive Summary & Core Position

IER strongly opposes treating this emissions-intensity study. The study's design originates from non-binding committee report language that revives the core architecture of the failed PROVE IT Act, and its purpose is to support a U.S. carbon tax and a U.S. carbon border adjustment mechanism (BCAM), and related harmful tariffs. Collapsing complex facility-level manufacturing data into national product averages organized by tariff codes creates an arbitrary, politically vulnerable metric designed to operationalize domestic energy taxes and trade protectionism. If the Department of Energy (DOE) and the National Energy Technology Laboratory (NETL) proceed, the study must be narrowly scoped and highlight methodological flaws, data uncertainty, and the regressive economic harms of carbon-tax frameworks.

Statutory Scope and Policy Context

House Report 119-213 attached to the FY2026 Energy and Water appropriations measure was signed in late January 2026 and requests NETL to compare average emissions intensity of goods implicated by the EU Carbon Border Adjustment Mechanism (CBAM) and to list products by Harmonized Tariff Schedule heading.¹ That language revives the core architecture of the PROVE IT Act after the standalone bill failed to become law.² Therefore, this directive is structured as the foundational work for a U.S. carbon border tax and, by implication, a domestic energy tax. That backdrop should govern how NETL scopes the study.

NETL begins the RFI with an important misstatement of the law. NETL states, "The purpose of this RFI is to gather data necessary for NETL to conduct a Congressionally directed study as requested by H.R. 6938 (published in H.R. 119-213[1])." This statement is inaccurate because this is not a "congressionally directed study as requested by H.R. 6938." Nothing in the statute requires NETL or DOE to produce this study. Rather, the committee report requested the study. Committee reports are not statutory. They are not binding requirements on NETL or the Department of Energy.

The relevant literature is already public and cuts against treating product-level "national averages" as a reliable policy input.³ Policies that would operationalize the data from the

¹ U.S. House Committee on Appropriations, Energy and Water Development and Related Agencies Appropriations Bill, 2026, H. Rep. 119-213 (Washington, DC: Government Publishing Office, 2025), 112, <https://www.congress.gov/119/crpt/hrpt213/CRPT-119hrpt213.pdf>.

² Providing Reliable, Objective, Verifiable Emissions Intensity and Transparency Act of 2024, S. 1863, 118th Cong. (2023–2024), <https://www.congress.gov/bill/118th-congress/senate-bill/1863>.

³ Thomas Pyle et al. to Hon. Chris Wright, February 2, 2026, American Energy Alliance, <https://www.americanenergyalliance.org/wp-content/uploads/2026/02/PROVE-IT-Letter-to-Secretary-Wright-from-AEA.pdf>. See also American Energy Alliance, "Coalition to Secretary Wright: Senate Carbon Tax Crowd Wants You to Help Them Implement New Energy Taxes," February 2, 2026, <https://www.americanenergyalliance.org/2026/02/coalition-to-secretary-wright-senate-carbon-tax-crowd-wants-you-to-help-them-implement-new-energy-taxes/>.

requested report would lead directly to domestic output losses.⁴ Modeling of U.S. proposals that use national or sector averages as a performance standard already shows domestic output losses in the same sectors this RFI covers. Resources for the Future's assessment of the Clean Competition Act projects reductions in U.S. output of aluminum (–1.9 percent) and iron and steel (–0.6 percent), with small additional losses downstream because higher-cost inputs raise prices for construction and equipment.⁵ A “neutral” federal intensity number is the input those policies need in order to be operationalized. NETL should not produce it in a form that can be dropped into a fee schedule.

Deficiencies of the EU CBAM Framework

The EU CBAM is a fiscal mechanism tied to the EU Emissions Trading System (ETS), not a neutral scientific inventory of emissions intensity, and adapting its framework introduces severe biases. A single U.S. average for “steel,” “aluminum,” or “cement” hides the differences that determine actual emissions and commercial competitiveness. Scrap-based and ore-based routes are not the same product for carbon accounting, even when they share a heading. Regional electricity mixes differ. On-site generation, power-purchase arrangements, and feedstock origin change results. Averaging them produces a political artifact, a number precise enough to put in a table for political gamemanship, but not one that tells us anything useful about the emissions intensity of U.S. goods.

That problem is worse at the border. Embedded-emissions accounting across global supply chains requires judgment on boundaries, allocation, indirect electricity factors, and default values. U.S. manufacturing also depends on imported intermediates. NIST analysis of BEA input-output data finds that in 2023 the United States imported about 18.7 percent of manufacturing intermediate goods (11.6 percent of total industry output).⁶ A border charge keyed to carbon intensity would raise input costs and pass through to downstream prices, and NETL should not present averages as if U.S. goods were produced in a closed system.

The main defects of the EU CBAM framework for U.S. purposes are:

- Default values and mark-ups. Where actual verified data are missing, importers must use conservative defaults. Those defaults are designed to overstate emissions. Using them, or building a U.S. “average” that Europe can treat as a counterpart default, institutionalizes a penalty structure the United States did not enact.
- Leakage and reshuffling. Border adjustments do not automatically cut global emissions. “Cleaner” consignments can be steered to regulated markets while higher-intensity

⁴ Jordan McGillis, “Carbon Border Adjustment Policy Brief,” Institute for Energy Research, May 11, 2022, <https://www.instituteforenergyresearch.org/climate-change/carbon-border-adjustment-policy-brief/>.

⁵ Kevin Rennert, Mun Ho, Katarina Nehrkorn, and Milan Elkerbout, Projected Effects of the Clean Competition Act of 2025, RFF Report 25-19 (Washington, DC: Resources for the Future, December 2025), <https://www.rff.org/publications/reports/projected-effects-of-the-clean-competition-act-of-2025/>.

⁶ Douglas S. Thomas, Annual Report on U.S. Manufacturing Industry Statistics: 2024, NIST Advanced Manufacturing Series 100-76 (Gaithersburg, MD: National Institute of Standards and Technology, 2025), <https://doi.org/10.6028/NIST.AMS.100-76>.

output is sold elsewhere. RFF and MIT CEEPR work on CBAM design flags this reshuffling risk, as measured “progress” in the regulated market can leave global emissions largely unchanged.⁷

- The RFF and MIT CEEPR work fall short of a full analysis as they only warn of the potential for flawed policy design. However, voter psychology and political and bureaucratic incentives will inevitably lead to political rent-seeking and inefficient tax designs that fail to meet theoretical goals.⁸
- Administrative burden. Actual, verified, product-level data impose costs that large integrated firms can sometimes meet, but smaller exporters, traders, and midstream processors often cannot.⁹
- Non-price policies are ignored or poorly credited. U.S. producers already face environmental regulation, permitting, and fuel-mix constraints that are not an ETS allowance price. A methodology that only “counts” an explicit carbon price will systematically misstate U.S. policies and can be used to argue that Washington must adopt an equivalent domestic tax to satisfy WTO national-treatment theories.

Additionally, legal and economic critiques have long warned that this discretion invites opportunistic manipulation and turns an alleged environmental metric into a figure that invites rent-seeking.¹⁰ Several analyses describe carbon border adjustments as a pathway to cronyism and protectionism rather than a simple accounting instrument.¹¹ Institute for Energy Research work has made the related point that supply-chain complexity makes “embedded carbon” calculations arbitrary in practice.¹²

⁷ Kimberly Clausing, Milan Elkerbout, Katarina Nehrkorn, and Catherine Wolfram, How Carbon Border Adjustments Might Drive Global Climate Policy Momentum, RFF Report 24-20 (Washington, DC: Resources for the Future, October 2024), <https://www.rff.org/publications/reports/how-carbon-border-adjustments-might-drive-global-climate-policy-momentum/>. See also MIT CEEPR’s climate-and-trade page collecting related CBAM/BCA papers: <https://mitsloan.mit.edu/centers-initiatives/climate-policy-center/climate-and-trade>; and Eunseong Park, Sebastian Rausch, and Valerie J. Karplus, “Environmental Ambition and Economic Protectionism: The Design of Border Carbon Adjustments,” MIT CEEPR Working Paper (June 2026), <https://ceepr.mit.edu/workingpaper/environmental-ambition-and-economic-protectionism-the-design-of-border-carbon-adjustments/>.

⁸ Gary M. Lucas Jr., “Behavioral Public Choice and the Carbon Tax,” Utah Law Review 2017, no. 1 (2017): 115–58, <https://dc.law.utah.edu/ulr/vol2017/iss1/3/>.

⁹ F. Bachmann and F. J. G. Nellen, “A Critical Analysis of the Carbon Border Adjustment Mechanism,” Global Trade and Customs Journal 20, no. 9 (2025): 519–29, <https://doi.org/10.54648/gtcj2025082>.

¹⁰ Peter Holmes, Tom Reilly, and Jim Rollo, “Border Carbon Adjustments and the Potential for Protectionism,” Climate Policy 11, no. 2 (2011): 883–900, <https://doi.org/10.3763/cpol.2009.0071>.

¹¹ Gabriella Beaumont-Smith, “Are Carbon Border Adjustments a Dream Climate Policy or Protectionist Nightmare?,” Cato Institute Policy Analysis no. 978 (July 30, 2024), <https://www.cato.org/policy-analysis/are-carbon-border-adjustments-dream-climate-policy-or-protectionist-nightmare>.

¹² Robert P. Murphy, “The Problem of Carbon Tax Border Adjustments,” Institute for Energy Research, April 21, 2016, <https://www.instituteforenergyresearch.org/regulation/problem-carbon-tax-border-adjustments/>.

The through-line of this body of work is that a product-level emissions-intensity dataset keyed to tariff codes is the foundational input a carbon border adjustment requires, and ultimately a domestic carbon price as well. That concern is not speculative. The standalone PROVE IT Act failed to become law in the 118th Congress on precisely this objection, and at the January 2024 Senate Environment and Public Works markup, the bill's supporters voted down an amendment that would have created a budget point of order against using the resulting data to justify a domestic carbon tax.¹³ A safeguard against the tax use was offered and refused. Because NETL is nonetheless under request to conduct the study, the remainder of this response addresses how it should be scoped and conducted.

Proposed alternatives or adjustments

If DOE proceeds at all, the study should be tightly limited and should not publish a single official intensity per tariff line. Additional recommended constraints:

1. No official national average as a policy parameter. Report ranges by process route, region, and scrap share. State that no figure in the report is a benchmark, baseline, or tax base.
2. Do not treat Social Cost of Carbon or “CO₂ per tonne” as a price. SCC estimates are sensitive to discount rates, damage functions, and model choice.¹⁴ Publication-bias and structural-uncertainty critiques are sufficient reason not to convert this study into a valuation exercise.^{15 16 17}
3. Separate physical process data from trade policy. If exporters need help against EU defaults, the useful product is facility- or route-specific evidence they can choose to disclose to EU importers, not a federal average that Brussels or a future Congress can adopt.
4. Account for leakage explicitly. Any comparison with foreign goods should discuss relocation, resource shuffling, and the fact that taxing U.S. or EU consumption of “clean” tons does not prevent “carbon intensive” tons produced for other markets.

¹³ Bakst, Daren. 2024. “Why the PROVE IT Act Would Result in Carbon Taxes.” *Competitive Enterprise Institute*, April 29, 2024. <https://cei.org/blog/why-the-prove-it-act-would-result-in-carbon-taxes/>.

¹⁴ Richard S. J. Tol, “Trends and Biases in the Social Cost of Carbon,” *Annals of the New York Academy of Sciences* 1548, no. 1 (2025): 63–72? / 248ff., <https://doi.org/10.1111/nyas.15340>.

¹⁵ Robert P. Murphy, Patrick J. Michaels, and Paul C. Knappenberger, “The Case Against a U.S. Carbon Tax,” *Cato Institute Policy Analysis* no. 801 (October 17, 2016), <https://www.cato.org/policy-analysis/case-against-us-carbon-tax>.

¹⁶ Robert P. Murphy, “Should We Trust the Climate Models? Part 1 of 3,” *Institute for Energy Research*, December 20, 2019, <https://www.instituteforenergyresearch.org/climate-change/should-we-trust-the-climate-models-part-1-of-3/>; “Part 2 of 3,” January 3, 2020, <https://www.instituteforenergyresearch.org/climate-change/should-we-trust-the-climate-models-part-2-of-3/>; “Part 3 of 3,” January 13, 2020, <https://www.instituteforenergyresearch.org/climate-change/should-we-trust-the-climate-models-part-3-of-3/>.

¹⁷ Jonathan A. Lesser, *The Social Cost of Carbon: A Flawed Measure for Energy Policy* (National Center for Energy Analytics, April 23, 2025), <https://energyanalytics.org/research/cost-of-carbon>. PDF: <https://energyanalytics.org/wp-content/uploads/2025/04/2025-04-NCEA-Social-Cost-of-Carbon-Lesser.pdf>.

5. Do not imply that WTO-safe border fees require a U.S. carbon tax, and do not build the dataset those proposals need. Legal commentary on U.S. BCA concepts has repeatedly argued that variable border charges without an equivalent internal carbon tax sit uneasily with most-favored-nation and national-treatment principles. The wrong response is to create the domestic price. The right response is not to start down that path.
6. Present consumer and distributional costs of domestic carbon taxes and CBAMs. NBER research on EU carbon-price shocks finds that tighter carbon policy raises energy prices and reduces activity, with larger consumption and income losses for lower-income households.¹⁸ Those costs arrive through utility bills, freight, food, and housing, and through job and wage effects, not only through a line-item “climate fee.” Economy-wide carbon taxes on a system still dominated by traditional energy function as a regressive tax on essentials.

How results should be presented—if published at all

Publish a short technical memorandum, not a glossy “carbon advantage” scoreboard.

- Lead with limitations, uncertainty, and intra-U.S. heterogeneity.
- Focus the discussion on the limitations of carbon taxes, CBAMs, and environmental taxes and tariffs. Emphasize NBER research that demonstrates how carbon pricing is regressive in practice once you include jobs and incomes, not only the direct energy-share arithmetic.
- Include a boxed disclaimer: This document is not a determination of liability, a customs value, a WTO justification, or a recommendation for a U.S. carbon tax or border adjustment.
- Do not rank countries in a way that invites tariff differentials.
- Do not map intensities onto HTS lines as if each heading had one true factor.
- Transmit the report to Congress with submitted objections in the record.

Curated datasets

No dataset is attached. If NETL uses third-party sources, it should treat them as contested, not as a national inventory. Notably, facility-level intensity varies by process route (blast furnace vs. electric-arc furnace; primary vs. secondary aluminum), scrap share, fuel mix, grid mix, and coproduct allocation. Collapsing that variation into one number is a political choice, not a valid measurement.

Policy context NETL should not ignore

This Administration has rejected domestic carbon taxes and opposed international carbon-pricing schemes, including the IMO Net-Zero Framework as a global shipping levy.

¹⁸ Diego R. Känzig, “The Unequal Economic Consequences of Carbon Pricing,” NBER Working Paper no. 31221 (May 2023; rev. 2025), <https://doi.org/10.3386/w31221>. Author PDF: https://www.nber.org/system/files/working_papers/w31221/w31221.pdf.

Building a CBAM-aligned product-intensity catalog is in tension with that position. Diplomacy, the challenge of EU default values, and ordinary trade tools do not require DOE to assemble the measurement system for an energy tax.

Conclusion

The proponents of this study would like the DOE to generate information that can be operationalized to implement regressive carbon tax and tariff policies. Furthermore, product-level national averages by tariff code are not scientifically robust enough for regulation and are politically useful to those who want to implement a U.S. carbon tax and CBAM, as the policy would confer concentrated benefits. The literature on legal vulnerability, leakage, modeling bias, and household incidence all point the same way: this study, if done expansively, would lead to policies that raise costs, distort trade, and shift burdens onto working households. If DOE publishes anything, it should be a cautionary comparison with hard limits on reuse, not a foundation for the next energy tax.

Publications related to CBAM

The RFI requests a copy or hyperlink to publications produced by your organization related to CBAM or to the comparison of U.S. industrial emissions intensity against international benchmarks. The following publications from the Institute for Energy Research, the American Energy Alliance, and other organizations are responsive and are incorporated into this submission by reference:

American Energy Alliance. 2026. "Coalition Letter to Secretary Wright." February 2, 2026.
<https://www.americanenergyalliance.org/wp-content/uploads/2026/02/PROVE-IT-Letter-to-Secretary-Wright-from-AEA.pdf>.

Murphy, Robert P. 2016. "The Problem with a Carbon Tax and Border Adjustments." Institute for Energy Research, June 28, 2016.
<https://www.instituteforenergyresearch.org/regulation/problem-carbon-tax-border-adjustments/>.

Bakst, Daren. 2024. "Why the PROVE IT Act Would Result in Carbon Taxes." *Competitive Enterprise Institute*, April 29, 2024.
<https://cei.org/blog/why-the-prove-it-act-would-result-in-carbon-taxes/>.

Cato Institute. 2026. "Are Carbon Border Adjustments a Dream Climate Policy or Protectionist Nightmare?" Policy Analysis.
<https://www.cato.org/policy-analysis/are-carbon-border-adjustments-dream-climate-policy-or-protectionist-nightmare>.

Institute for Energy Research. 2022. "Europe's Carbon Border Adjustment Mechanism." December 2022.
<https://www.instituteforenergyresearch.org/international-issues/europes-carbon-border-adjustment-mechanism/>.

Institute for Energy Research. 2026. "The EU's Carbon Border Tax Took Effect on January 1." January 16, 2026.

<https://www.instituteforenergyresearch.org/international-issues/the-eus-carbon-border-tax-took-effect-on-january-1/>.

McGillis, Jordan. 2022. "Carbon Border Adjustment Policy Brief." Institute for Energy Research, May 2022.

<https://www.instituteforenergyresearch.org/climate-change/carbon-border-adjustment-policy-brief/>.

Pyle, Thomas. 2023. "'Prove It' Act Lays the Groundwork for a Carbon Tariff." American Energy Alliance, June 28, 2023.

<https://www.americanenergyalliance.org/2023/06/prove-it-act-lays-the-groundwork-for-a->

Pyle, Thomas, and Alex Stevens. 2026. "How the PROVE IT Act Got a Second Life, and Why It Could Tax Americans Anyway." Institute for Energy Research, March 12, 2026.

<https://www.instituteforenergyresearch.org/climate-change/how-the-prove-it-act-got-a-second-life-and-why-it-could-tax-americans-anyway/>.

American Energy Alliance. "Border Adjustment Tax Initiative." Accessed September 1, 2026.

<https://www.americanenergyalliance.org/initiatives/border-adjustment-tax/>.

Murphy, Robert P. 2019. "New Study Admits Even Modest Carbon Tax Would Hurt the Next Two Generations." Institute for Energy Research, October 30, 2019.

<https://www.instituteforenergyresearch.org/climate-change/new-study-admits-even-modest-carbon-tax-would-hurt-the-next-two-generations/>.

Tol, Richard S. J. 2024. "Trends and Biases in the Social Cost of Carbon." *PMC*, National Library of Medicine. <https://pmc.ncbi.nlm.nih.gov/articles/PMC12220299/>.

Känzig, Diego R. 2025. "The Unequal Economic Consequences of Carbon Pricing." NBER Working Paper No. 31221, National Bureau of Economic Research, Cambridge, MA.

https://www.nber.org/system/files/working_papers/w31221/w31221.pdf.

Climate Policy. 2026. "Carbon Leakage in Emissions Trading Systems: A Global Systematic Review." *Climate Policy*. <https://www.tandfonline.com/doi/full/10.1080/14693062.2026.2627750>.

Bachmann, R., and A. Nellen. 2025. "A Critical Analysis of the Carbon Border Adjustment Mechanism." Maastricht University.

<https://cris.maastrichtuniversity.nl/en/publications/a-critical-analysis-of-the-carbon-border-adjustment-mechanism/>.

Bradley, Robert, Jr. 2026. "CO2 Border Tariff? Don't Even Think About It, DOE!"

MasterResource, February 4, 2026.

<https://www.masterresource.org/co2-tariffs-border-adjustments/co2-border-tariff-no-doe/>.