

FEBRUARY 1, 2022

**TO:** Washington Department of Ecology

**FROM:** Barry Malmberg Ph.D., Principal Research Scientist - Water and Energy Sustainability

**CC:** Kirsten Vice, Adam Costanza (NCASI)

**SUBJECT:** Comments on Washington's Chapter 173-446A WAC, Criteria for Emissions-Intensive, Trade-Exposed Industries

NCASI welcomes the opportunity to comment on Washington's Chapter 173-446A WAC, Criteria for Emissions-Intensive, Trade-Exposed Industries<sup>1</sup>.

NCASI is a non-profit environmental research institute that seeks to create credible scientific information required to address the environmental information needs of the forest products industry in North America. NCASI conducts surveys, provides advice regarding technically appropriate methods of conducting environmental field measurements, undertakes technical studies such as scientific literature reviews and research compilations, and sponsors scientific research by universities and others to document the environmental performance of industry facility operations and forest management, and to gain insight into opportunities for further improvement in meeting sustainability goals. The nature of our research provides us with a unique lens on the development of metrics related to documenting the performance of forest products industry operations, given our research into the development and field application of sampling and analytical test methods, along with nearly 80 years of experience in reviewing and treating data that characterize environmental releases from the sector.

### **Emission Intensity Equation**

Ecology is proposing equation 040-1 to determine the emission intensity for a facility. The units for equation 040-1 are metric ton CO<sub>2</sub>e/year, and the equation includes onsite emissions as reported per WAC 173-441-120. This equation is not an intensity measure but a mass emission measure. In other jurisdictions that have conducted EITE assessments, emission intensity is

<sup>1</sup> <https://ecology.wa.gov/DOE/files/93/93c6cb0c-9378-4cdc-a00e-a024476210a4.pdf>

determined by greenhouse gas emission amount divided by the gross value added (GVA)<sup>2</sup>. Gross value added in the denominator term has been used in EITE assessments within California<sup>3</sup>, the European Union<sup>4</sup>, at the federal level when national cap and trade was being considered<sup>5</sup>, within Alberta<sup>6</sup>, and at the federal level in Canada<sup>7</sup>. To be consistent with EITE assessments from other jurisdictions, it is suggested that Ecology modify its emission intensity equation (equation 040-1) to include gross value added in the denominator. In addition, emission intensity assessments from other jurisdictions include emission contributions from purchased electricity. To be consistent with EITE assessments from other jurisdictions, it is suggested that Ecology modify its emission intensity equation (equation 040-1) to include emission contributions from purchased electricity.

The purpose of EITE assessments is to determine if facilities within a sector may be at risk of leakage due to carbon policy. Leakage risk can be determined through either energy intensity or emission intensity. When cap and trade was being considered at the national level, emission intensity **OR** energy intensity, in addition to a measure of trade exposure, was used as the metric to determine EITE status. The pertinent language on EITE criteria from the US Government's inter-agency report is extracted below:

H.R. 2454 considers an industry to be "presumptively eligible" for emission allowance allocations (or "rebates") to "trade-vulnerable" industries if the industry's energy intensity or its greenhouse gas intensity is at least 5 percent, and its trade intensity is at least 15 percent. An industry's energy intensity is defined as its energy expenditures as a share of the value of its domestic production. An industry's greenhouse gas intensity is defined as its total greenhouse gas emissions (including indirect emissions from electricity consumption) times \$20 per ton of emissions, divided by the value of the industry's domestic production. An industry's trade intensity is defined as the combined value of its exports and imports as a share of the value of its domestic production and imports.

One of the reasons an either/or approach was used was that emission intensity determinations (assuming that gross value added is used to calculate emission intensity) are based upon a carbon price, which fluctuates. It is recommended that Ecology consider both emission intensity and energy intensity when determining EITE status, as was done at the federal level when national cap and trade was being considered.

Finally, EITE assessments in other jurisdictions have been determined at the sector level, usually by either 6-digit or 3-digit North American Industrial Classification System (NAICS) code in North American jurisdictions, or by NACE<sup>8</sup> code in the European Union. To be consistent with EITE assessments from other jurisdictions, it is suggested that Ecology base EITE determinations at the sector level versus facility level.

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<sup>2</sup> Gross Value Added (GVA) is an economics productivity measure. GVA is equal to the gross domestic product + any subsidies - taxes on products.

<sup>3</sup> <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2010/capandtrade10/capv4appk.pdf>

<sup>4</sup> [https://ec.europa.eu/smart-regulation/impact/ia\\_carried\\_out/docs/ia\\_2009/sec\\_2009\\_1710\\_en.pdf](https://ec.europa.eu/smart-regulation/impact/ia_carried_out/docs/ia_2009/sec_2009_1710_en.pdf)

<sup>5</sup> [https://www.epa.gov/sites/default/files/2016-07/documents/interagencyreport\\_competitiveness-emissionleakage.pdf](https://www.epa.gov/sites/default/files/2016-07/documents/interagencyreport_competitiveness-emissionleakage.pdf)

<sup>6</sup> <https://open.alberta.ca/dataset/c7d90ca6-88b3-4b71-9ba8-0ebe6d70c065/resource/97ba67a2-caa1-42a7-9d9f-28d60b65e5ea/download/standard-for-establishing-and-assigning-benchmarks-v2.3.pdf>

<sup>7</sup> <https://www.canada.ca/content/dam/eccc/documents/pdf/reports/OBPS%20consultation%20-%20Report%20EN.pdf>

<sup>8</sup> for the French term "nomenclature statistique des activités économiques dans la Communauté européenne"