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September 3, 2025

Adrian Young
Cap-and-Invest Industrial Policy Lead
Washington State Department of Ecology
300 Desmond Drive SE
Lacey, WA 98503

Subject: Comments on Documents 1-6 Regarding EITE Allowance Allocation (2035–2050)

Dear Mr. Young,

The Boeing Company appreciates the opportunity to comment on the Department of Ecology's (Ecology) draft documents reviewing best practices, benchmarking alternatives, assessment criteria, allocation methods, and draft recommendations for allowance allocation to emissions-intensive, trade-exposed (EITE) industries for 2035–2050 under the Climate Commitment Act (CCA) program.

In 2017, we set challenging operations-related sustainability targets to guide our actions. In 2023, Boeing achieved our 2025 greenhouse gas (GHG) and energy targets and began working toward our 2030 goals:

2030 Sustainable Operations Targets

GHG
- Reduce Scope 1 and Scope 2 (market-based) emissions by 30% from 2023 base year performance

Energy
- 100% renewable electricity
- 3% natural gas intensity reduction from 2023 base year performance

Our strategy prioritizes avoiding Scope 1 and Scope 2 GHG emissions in the first place, using four primary strategies to advance sustainable operations:

1. Innovation and engagement

Highlights
- Boeing has embedded sustainability within the Boeing Production System and tied it to Lean practices, encouraging employees to identify efficiency opportunities.
- Programs like Conservation Best Practices, ENERGY STAR Battle of the Buildings, Aerospace Sustainability Foundations Training, and the Environmental Sustainability Leadership Awards are designed to drive employee participation and recognition.
- As an example, in a recent Battle of the Buildings competition, employees performed over one million 60-second sustainable actions at 189 sites in 28 countries, exceeding Boeing's stretch goal.

2. Efficiency and conservation

Highlights

- In 2023, Boeing completed projects at the Everett Main Factory, converting 73 acres of manufacturing space to high-efficiency LED lighting.
- The company uses energy performance contracting where possible to finance conservation measures with energy savings.
- Boeing has steadily increased renewable electricity procurement, and more than a third is specifically procured as renewable, going beyond any renewables that are default in the electricity grid.

3. Site infrastructure and investment

Highlights

- Infrastructure modernization has focused on efficiency improvements, lifecycle cost reductions, and LEED certification for new projects.
- Investments target extending equipment life, reducing reliance on fossil fuels and lowering resource use. Boeing launched its Global Enterprise Sustainability Fund to reduce energy use and GHG emissions within the company's operations.

4. Resilience and risk management

Highlights

- Boeing integrates climate change risk into its operational and real estate planning, assessing vulnerabilities like extreme weather and disclosure requirements.[1]
- Site and operational resilience measures include environmental compliance, protection, and remediation of legacy impacts.
- Resilience planning, including planning for climate risks, is part of Business Continuity Management, with strategies to mitigate risks across the supply chain, infrastructure, IT, and the workforce.

Our efforts include increasing the use of renewable electricity and sustainable aviation fuel (SAF) in our operations as the most direct way to reduce our operational emissions.

We encourage the State of Washington to establish a program that aligns with executive and legislative direction to reach the state's targets while maintaining Washington's competitiveness as a hub for aerospace manufacturing. Our comments focus on preserving the legislative intent expressed in the CCA,[2] aligning allocation methods with statutory requirements, addressing purchased-electricity issues, updating benchmarking and baselines to reflect actual emissions drivers, mitigating leakage and broader economic harm risks, enabling mechanisms, and report timing.

[1] More information can be found in the company's TCFD Report.
[2] E2SSB 5126 (2021)

I. Preserving Legislative Intent for Mass-Based Aerospace Covered Entities

Aerospace facilities in Washington face unique growth dynamics that differ from other EITE sectors. While the term "leakage" in the CCA focuses on emissions, it is clear that the legislature means for Ecology to take a broader approach in rulemaking, with the following direction, enacted via E2SHB 2815 (2008) and encoded in 70A.45.005 RCW:

> It is the intent of the legislature that the state will: (a) Limit and reduce emissions of greenhouse gas consistent with the emission reductions established in RCW 70A.45.020; (b) minimize the potential to export pollution, jobs, and economic opportunities; (c) support industry sectors that can act as sequesterers of carbon; and (d) reduce emissions at the lowest cost to Washington's economy, consumers, and businesses.

In addition, legislators specified in Section 13 of the CCA that covered EITEs with a NAICS code beginning with 3364 (aerospace) must be allowed to grow in Washington. To reflect legislative intent and ensure fair treatment, Ecology should safeguard growth parity in allocation design. Boeing can continue to engage with the department on how the aerospace-specific approach can be structured.

- Codify a distinct growth mechanism for aerospace (NAICS 3364) facilities on mass-based baselines, using data that connect to emissions.
- Provide a prospective baseline-adjustment option when sustained growth (e.g., greater than 10% above baseline for two consecutive years) is forecast.
- Add "preserves statutory growth parity for mass-based aerospace" as a screening criterion in Ecology's allocation framework.

II. Cap Alignment and Allowance Decline

Allocation of no-cost allowances must remain consistent with overall direction provided in the CCA, which includes achieving state GHG targets while providing feasible pathways for EITE sectors. To maintain the integrity of the cap-and-trade system while preventing economic harm to EITEs, allocation levels must remain aligned with the overall legislative intent and must be carefully calibrated.

- Support adoption of a cap-adjustment factor post-2034 to keep allocation of no-cost allowances to EITEs aligned with legislative intent.
- Ensure any decline factor explicitly preserves growth parity for mass-based entities.

III. Addressing Purchased-Electricity Issues

Electrification under the CCA or industrial conversions could raise electricity costs disproportionately for EITEs. Even with the Clean Energy Transformation Act (CETA) requiring carbon-neutral and renewable electricity, manufacturing customers may face higher delivered costs, without corresponding emissions benefits, due to regional imports, grid dynamics, or infrastructure constraints. Furthermore, if transmission and distribution capacity lags demand, facilities could be left with reliability challenges or stranded-cost risks, another form of economic harm. Ecology should establish a mechanism to prevent this potential for electricity cost increases.

- Implement a purchased-electricity cost increase mechanism (allowances or credits) linked to verifiable cost pass-through and documented consumption; this safeguard is particularly important where Clean Buildings Act (CBA) compliance or electrification increases industrial electricity demand.
- Guard against regional displacement of emissions during the CETA transition years (2030-2045).
- Recognize grid import dynamics that can undermine the program's global effectiveness.

IV. Benchmarking and Baseline Updates

While product benchmarking may work in certain sectors, it is infeasible for aerospace, particularly with the intensity measures that Ecology adopted in WAC 173-441 Table 050-1 (metric tons of aircraft product and parts produced or square meters of external surface area of aircraft, which are not indexed in a statistically meaningful way to emissions from Boeing Auburn or Everett). This disconnect between emissions and the adopted measures of production in the GHG reporting program is important because it undercuts both fairness and accuracy in allocation.

- Retain facility-specific baselines for aerospace, where product benchmarking is infeasible.
- Explore product benchmarks only where robust, multi-facility data exist and in similar economies.
- Use Best Available Technology (BAT) as an adjustment pathway rather than the primary allocation method.

V. Mismatch Between Product Intensity Bases and Actual Emissions Drivers

As stated above, the current intensity-based metrics in WAC 173-441 for aerospace do not meaningfully correlate with GHG emissions at Boeing Auburn and Boeing Everett. At these sites, reportable emissions are tied exclusively to natural gas use, with statistical association with only heating degree days (HDD)—not to production activity (e.g., number of airplanes or parts produced), labor, facility size, or cooling degree days. Therefore, using production-based metrics to assess emissions would be both inaccurate and inequitable.

This mismatch creates issues of fairness and compatibility, as intensity metrics tied to production volumes or product weights could make facilities appear more or less efficient based on market demand cycles or product mix, even though these factors do not drive emissions. The disconnect could also affect accuracy of emission reduction pathway analysis. Product-based benchmarks suggest that emissions can be reduced through changes in production processes, when in fact the only meaningful lever for a facility might be electrification of heating systems, which can be constrained by utility infrastructure, including regional electrical supply capacity and availability—factors outside of a covered entity's control.

- Ecology should recognize that for certain sectors, including aerospace, absolute baselines or facility-specific intensity metrics are more appropriate than generic

production-based benchmarks. Failure to do so could lead to distorted compliance obligations, leakage risks, and misaligned investment signals.
- Ecology should consider using heating degree days as a facility-specific emissions driver for natural gas use, rather than product output.
- Ecology should allow sector-specific flexibility in benchmarking where emissions are not production-driven.
- Ecology should ensure that allocation methodologies do not penalize facilities for cyclical production changes or business recovery trends following major global events (e.g., the COVID-19 pandemic) unrelated to emissions performance.

VI. Consignment

Consignment can provide a useful flexibility mechanism, but it should not become an added cost without clear reinvestment pathways. We recommend that proceeds from consignment, if pursued, be reinvested in ways that directly support industrial decarbonization and compliance. This ensures the mechanism functions as intended rather than becoming a hidden cost.

- If consignment is pursued, ensure revenues are ring-fenced for on-site decarbonization projects at covered facilities.
- Avoid simultaneous adoption of multiple complex mechanisms that add burden without clear climate benefit.

VII. Interpretation of Economic Harm

Ecology's current framing of "economic harm" appears narrowly tied to competitiveness. This definition fails to capture the broader spectrum of economic impacts that regulated entities and their communities may face. For instance, compliance costs, adjustment costs, and sector-specific transition risks are distinct from direct competitiveness concerns, yet they may still constitute economic harm in a meaningful sense.[3]

Compliance costs can include capital expenditures for new abatement technologies, retrofits, or reporting requirements. Adjustment costs may also be significant, as the transition to lower-carbon operations often creates short-term disruption, workforce displacement, or reduced margins in individual product lines. These impacts are not strictly "competitiveness" issues, but they can represent real economic harm to businesses, workers, and communities.

Experience in other carbon markets highlights additional risks of leakage, whereby emissions reductions in Washington State are offset by production shifts to jurisdictions with less stringent rules. In such cases global environmental benefit is limited, but local economic harm—through lost jobs, reduced production, or a diminished tax base—is substantial. If Ecology restricts its assessment to competitiveness alone, these harms may be overlooked.

- Ecology should broaden its definition of economic harm to include compliance costs, transition and adjustment costs, risks of carbon leakage, and impacts to local communities.

[3] See, for instance, Southern California Edison's Comments on Allowance Allocation in California.

- This broader framing would better align with economic reality, give legislators and other stakeholders more accurate visibility into the full range of potential consequences, and provide a sounder basis for tailoring allowance allocation, leakage protections, and related program design.

VIII. Enablers

In addition to allowance allocation design, enabling mechanisms will allow Ecology to enhance program effectiveness by achieving emissions reductions while reducing economic harm. These enablers could include the following:

- Supporting public-private partnerships for utility infrastructure upgrades that enable industrial electrification, including support of microgrids and cooperative approaches.
- Prioritizing grant and incubator funding for industrial decarbonization technologies.
- Advancing renewable natural gas (RNG) to boost supply and ensuring RNG is a legitimate pathway to decarbonize and reduce emissions.
- Direct natural-gas utility allowance proceeds toward industrial electrification and efficiency projects that satisfy both CCA and CBA objectives.

IX. Timing of Report Submission

Ecology has indicated that it intends to submit its report to the legislature a full year before the statutory deadline. While we appreciate proactive planning, early submission would foreclose valuable opportunities for additional stakeholder engagement, including consideration by and inputs from the EITE Industries Advisory Group, and technical refinement. EITE industries, including aerospace, continue to recover from global market disruptions and are only now developing the data needed to inform a robust 2035-2050 allocation framework.

We encourage Ecology to use the full period provided under the CCA to complete this work. Additional time would allow for a deeper analysis of leakage and economic harm; testing of allocation methods against real-world production and energy data; and more extensive inclusion of EITE Industries Advisory Group member input. Indeed, more tangible allocation scenarios will help EITEs and other stakeholders build financial models, and those potential financial models can be used to inform both the legislature and the Department. A full deliberative process will better serve both the legislature and success of the program.

Conclusion

The aerospace industry is a key component of Washington's economy, but it operates in a highly competitive global market, making it very sensitive to production cost increases relative to its international competitors. The U.S. aerospace industry is significantly trade-exposed. According to the Aerospace Industries Association, U.S. aerospace and defense exports totaled approximately $139 billion in 2024, while imports were about $65 billion. When compared with the Federal Reserve's data showing industry output of nearly $184 billion, this yields a trade intensity of roughly 82%, meaning that more than four-fifths of the industry's output is directly linked to international trade. This level of trade exposure is far above typical EITE thresholds, underscoring the importance of safeguarding U.S. aerospace competitiveness in a global marketplace.

Boeing supports a balanced allowance-allocation framework that reduces GHG intensity, honors legislative intent, protects competitiveness, and ensures Washington remains a global aerospace leader. We particularly urge Ecology to:

- Codify statutory protections for mass-based covered EITEs with a NAICS code beginning with 3364, preserving growth parity consistent with legislative intent.
- Support cap alignment and allowance decline mechanisms that maintain allocation integrity and fairness.
- Implement purchased-electricity safeguards to prevent disproportionate impacts and GHG increases.
- Retain facility-specific benchmarking and baseline approaches that reflect actual emissions drivers.
- Adopt leakage safeguards that recognize the legislative intent to treat EITEs distinctly while still driving toward the state's emission targets.
- Recognize the multiple potential facets of economic harm beyond competitiveness.
- Allow sufficient time to conduct quantitative leakage and economic harm analyses to inform the legislature and future policy decisions.

We look forward to continued engagement with Ecology as it finalizes its recommendations and subsequent rulemaking.

Respectfully submitted,

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