

The Boeing Company

Please see attached comments on behalf of The Boeing Company.

15 July 2022

Joshua Grice
Rulemaking Lead
Washington State Department of Ecology
300 Desmond Dr SE
Lacey, WA 98503

Subject: Boeing Comments on the Proposed Rule, Chapter 173-446 WAC, Climate Commitment Act Program (CR-102)

Dear Mr. Grice,

Boeing appreciates the opportunity to respond to the Climate Commitment Act Program rulemaking and provide comments on the Department of Ecology's planned implementation of the statute.

At Boeing, our purpose is to protect, connect, and explore our world, and we do that through the design, production, and servicing of aerospace products. The Boeing Company recognizes that climate change is an urgent challenge and supports the goals of the Paris Climate Agreement. The U.S. recommitment is important to addressing this global challenge.

Boeing achieved net-zero carbon emissions at manufacturing sites and other facilities (Scopes 1 and 2) and in its business travel (Scope 3, Category 6) in 2020 and 2021 by expanding conservation and renewable energy use, the cornerstones of our reduction strategy, while securing responsible offsets for the remaining greenhouse gas (GHG) emissions.

Boeing has several goals related to GHG emissions and to energy use:

- A 25% reduction in GHG emissions from natural gas and electricity at core metrics sites, from 2017 to 2025. We achieved a 25% reduction from 2017 to 2021 at our core metrics sites.
- A 55% reduction in Scope 1 and 2 GHG emissions at all manufacturing and other facilities, from 2017 to 2030. We achieved a 15% absolute GHG emissions reduction at year end 2021 from the 2017 baseline toward this 2030 goal.
- Maintain net zero Scope 1 and 2 GHG emissions through 2030, which, as noted, we achieved in 2020 and 2021.
- A 10% energy reduction associated with natural gas, fuels, and electricity, from 2017 to 2025. As of year-end 2021, we achieved a 12.2% energy reduction.
- A 10% energy intensity reduction, from 2025 to 2030.
- 100% renewable electricity by 2030. We are on our way to this target, with 28% renewable energy across the company in 2021.

Our comments on the proposed rule are presented topically herein.

EITE Emissions Pathways

We are concerned that the language addressing the carbon intensity pathway, with linkage to the recently finalized WAC 173-441, results in an overly prescriptive approach for emissions intensive, trade-exposed industries (EITEs), especially those producing complex and/or multiple products and/or encompassing significant non-manufacturing activities (e.g., research and development). In particular, we believe WAC 173-441 has introduced unmanageable metrics and associated reporting requirements for aerospace manufacturers, regardless of the emissions reduction pathway (i.e., carbon intensity-based or mass-based) under WAC 173-446. Specifically, the reporting data required in Table 050-1 contains two metrics that we believe are infeasible for our manufacturing facilities to use for reporting, as they are not universally measured or measureable and could result in estimates based on numerous assumptions at best and utter lack of data or relevance to GHG emissions at worst: *metric tons of aircraft product and parts produced* or *square meters of external surface area of aircraft*. The linkage of such reporting metrics to the proposed WAC 173-446 cap-and-invest program rule magnifies the impact of these unworkable metrics, by requiring their use by EITEs under the carbon intensity pathway, with no apparent option to demonstrate a more appropriate alternative carbon intensity metric to Ecology. For several months, Boeing mathematics and engineering experts have modeled intensity metric variations to evaluate an appropriate metric, to understand the possibility of doing so and to assess the fidelity of any such metric or combination of metrics. While this work continues, we can state with certainty that most of the diverse array of products manufactured at Boeing Auburn and Boeing Everett are not measured in metric tons and that surface area of aircraft is not applicable at all to the Fabrication (e.g., parts, wiring, interiors) work that is Boeing Auburn's sole focus and Boeing Everett's partial focus. More importantly, even for products for which such information is available (i.e., manufacturer's empty weight of finished aircraft) we expect that the correlation between GHG emissions and the corresponding metric will be too weak to rationally support use of that metric for Boeing Everett. *We request to meet with Ecology to discuss our current intensity metric modeling efforts, with potential amendment of WAC 173-441 Table 050-1, and we strongly urge Ecology to remove the linkage of WAC 173-441 Table 050-1 to proposed WAC 173-446-220(1)(a)(ii) to confirm that EITEs may demonstrate alternative metrics to Ecology for establishing and implementing a carbon intensity-based pathway.*

Furthermore, proposed WAC 173-446-220(1)(a)(iv) is flawed. If an EITE facility is not able to identify an appropriate intensity metric, then it follows that the data required by (iv) are not necessarily available. Indeed, proposed WAC 173-446-220(1)(a)(vi) and (b)(iii) both acknowledge that such infeasibility of an intensity metric may occur and can be demonstrable to Ecology.¹ When a facility makes such a demonstration under (a)(vi) and therefore implements a mass-based pathway, then (a)(ii) and (a)(iv)—and WAC 173-441-050(3)(n)(i)—which presume a carbon-intensity approach, should not apply as a matter of logic. This linkage of WAC 173-441 is also problematic for proposed WAC 173-446-040(1)(d) and -200(2)(b), which allow Ecology to calculate emissions from product data that may be unconnected to emissions or unavailable for aerospace facilities. In summary, the proposed rule places unnecessary burdens on registered entities seeking absolute contraction of emissions (i.e., a mass-based pathway) in order to attempt to comply with the program requirements that should be applied only to facilities using the carbon-intensity pathway. We believe that the proposed structure of the rule concerning the mass-based EITE pathway does not match the legislative intent to provide a viable pathway for absolute emissions contraction.

¹ We note here as well that legislative intent was for the EITE to make such a determination rather than being subject to Ecology's discretion, and this is not reflected in the requirement to submit information supporting an EITE's "claim" that a carbon intensity benchmark is infeasible under proposed WAC 173-446-220(1)(a)(iv). From the session law (emphasis added): "If an emissions-intensive and trade-exposed facility is not able to feasibly determine a carbon intensity benchmark based on its unique circumstances, the entity may elect to use a mass-based baseline that does not vary based on changes in production volumes."

Program Account Requirements

We believe that additional clarity and cybersecurity protections need to be incorporated into the Program Account Requirements covered by proposed WAC 173-446-100 to -150. The sentence “The applicant cannot be subsidiary to or controlled by another associated entity within the direct corporate association” in proposed WAC 173-446-100(2) is unclear, particularly for a large, global company like Boeing. For instance, we are unsure whether a subsidiary with multiple facilities (covered entities) can apply for a consolidated entity account for those facilities aggregated at the subsidiary’s corporate level. We do not believe that Ecology intends to prohibit such an approach, but the language needs to be clarified.

The proposed language also presents cybersecurity concerns and questions about the usefulness of the required information. For instance, in proposed WAC 173-446-120(1)(h) the requirement to provide “[n]ames and contact information for all employees of the party with knowledge of the party’s ... current and expected covered emissions” is essentially all Boeing company employees, as we disclose our emissions data publicly. Instead of the proposed approach in 120(1)(h), which has little to do with corporate associations but rather employees with knowledge of the party’s planned or likely auction behavior, we suggest that it would be more sensible to request parties to designate by name or position the person(s) responsible for the registrant’s acquisition (by auction or otherwise) and holding of compliance instruments. This disclosure requirement is also a cybersecurity concern if this information is not treated as confidential business information (CBI) and properly secured; disclosing this information publicly would be an invitation to hackers. This same information protection concern, as well as personal security concerns, applies to the personal information (e.g., home addresses, dates of birth) required under WAC 173-446-130. Just this year, the Washington Department of Licensing was subject to hacking that resulted in personal data from at least 650,000 individuals being stolen. This incident followed millions of other records being breached in 2020 and 2017 in other State electronic systems. We argue that the personal data requested under WAC 173-446-130 is unnecessary, as is the residency requirement under this section.

In this proposed section, we also would urge Ecology to change (1)(b)(v) to limit the criminal offense disclosure requirement to offenses meeting the criteria of set out in proposed WAC 173-446-130(9) (a criminal offense involving fraud, dishonesty, deceit, or misrepresentation, or any other criminal offense connected with the activities for which designation or authorization is requested) for consistency. The requirement in WAC 173-446-130(1)(d) for “an attestation from an attorney confirming the link between an account representative and the registered entity” is odd – particularly in that there is no requirement that the attorney be connected with the registered entity. We suggest that an attestation from an officer of the registered entity responsible for making the designation of the account representative would be more appropriate. Finally, in proposed WAC 173-446-140(2)(c), the requirement to attest to the conduct of a viewing agent seems to be an over-reach, considering the limited (no-action) capacity afforded a viewing agent.

Renewable Natural Gas

The proposed rule’s definition of “biomass-derived fuels,” “biomass fuels,” or “biofuels” seems to include renewable natural gas (RNG), although it is unclear in the definition whether all potential sources of RNG are covered or whether the definition is limiting. If it is not intended to be limiting, we suggest inserting the words “but not limited to” after “including” in the definition. As we consider our potential future renewable energy options, we want to understand clearly how RNG will be treated under the program. It is not obvious to us how the requirement for RNG to be 40% lower in life-cycle carbon emissions than non-renewable natural gas will be satisfied, and we are concerned that this requirement will discourage development and use of RNG resources,

including resources that would otherwise be thermally destroyed without energy recovery or merely released to the atmosphere. In addition, the language of proposed WAC 173-446-040(2)(a)(i) seems to require inclusion of non-CO₂ GHG combustion emissions for biomass and renewable fuels, and we question this regulatory treatment. Importantly, proposed WAC 173-446-040(2) and (3) leave the treatment of purchased (not generated on-site) RNG unclear, since (2)(a)(i) indicates that non-CO₂ RNG emissions are covered but (3)(a) would appear to include such non-CO₂ RNG emissions for a facility only if the facility generates the RNG on site (otherwise, the non-CO₂ emissions would presumably be a supplier's emissions, but there is no supplier category in (3)(b) - (3)(f) that seems to apply to RNG). Finally, similar to renewable electricity, the delivery of purchased RNG is not tracked physically, therm-by-therm, but tracked through certificates and other chain-of-custody methods. We urge Ecology to incorporate the well established methods for tracking RNG imports and purchases in WAC 173-446 and through linkage to the proposed Washington clean fuel standards.

Schedule

The timing outlined in proposed WAC 173-446-120 is problematic not only in the brevity but in the fact that certain events trigger what are essentially countdowns for disclosures. To allow registered entities sufficient time to make the required disclosures, we recommend the following schedule in proposed WAC 173-446-120(4):

- (a) 90 days instead of 30
- (b) 30 days instead of 10

It is much more feasible for registered entities to make annual reports at set deadlines than to have potentially numerous countdown timers for elements of the disclosure requirements. To this end, we suggest that (4)(c) regarding the creation of a new direct or indirect corporate association be an annual disclosure or be timed to be no later than 30 days before participating in an auction.² We urge Ecology to change (4)(d) and (f) to be annual reports rather than relying on a one-year countdown.

Department Discretion

Sections of the proposed rule allow Ecology to make decisions about a source's emissions, production, carbon intensity, and other matters. Conferring with a source before final decisions are made about such data should be required in the final rule. For example, as stated above, the proposed use of metric tons of aircraft product and parts produced or square meters of external surface area of aircraft as a measure of production to establish a carbon intensity metric for aerospace manufacturing operations' carbon intensity pathways reflects undervaluation of the complexity of aerospace manufacturing facilities. Conferring with affected sources when Ecology uses "other sources of information" that it deems significant in the Department's "best professional judgment" (e.g., under proposed WAC 173-446-200(b)(iv) or -220(1)(b)(i)) may provide the agency with the context to make the appropriate decisions or to understand the data submitted by regulated entities. It is also unclear how an entity will "demonstrate to Ecology's satisfaction" how exempt fuels, such as jet fuel, are used for aviation purposes, and we would like to better understand our compliance obligations under proposed WAC 173-446-040(2)(b)(i). In light of the significant discretion asserted by Ecology by the proposed rulemaking, Ecology needs to explain the route for appealing any decision made in the baseline-setting, pathway-setting, or allocation process.

² If Ecology does not elect to incorporate our recommendation for (4)(c) above, then the Department should change the timing to 90 days instead of 30 days.

Miscellaneous Comments

The following comments are offered for overall improvement of the rule:

- To include the gases regulated under this program and to match the very terminology of the phrases being defined, we recommend revising the definition of "carbon dioxide removal" or "greenhouse gas removal" to be as follows: "Carbon dioxide removal" or "greenhouse gas removal" means deliberate human activities removing carbon dioxide or other greenhouse gases from the atmosphere and durably storing the gas or gases in geological, terrestrial, or ocean reservoirs, or in products. This definition includes existing and potential anthropogenic enhancement of biological or geochemical sinks and including, but not limited to, carbon mineralization and direct air capture and storage.
- We urge Ecology to add "or exceeded" after the word "offset" in the definition of "leakage." Leakage of manufacturing to locations with higher-CO₂e/Mw energy grids than Washington's will result in foreign emissions that more than "offset" the reduced emissions from displacing domestic manufacturing—offset typically means an equaling or counterbalancing—but as leakage occurs, overall emissions are likely to grow rather than be balanced out.
- In proposed WAC 173-446-120(4)(d), we suggest that Ecology clarify to what the word "modification" is referring (e.g., the list of associated but not registered parties)
- We question whether the baseline for facilities entering the program in later compliance periods should be three years (e.g., in proposed WAC 173-446-200(3)(b)), instead of the four-year baseline for entities registered at the outset of the program.
- Proposed WAC 173-446-220(2)(d)(ii) indicates that Ecology may make an upward adjustment of the next compliance period's "reduction schedule." The statute allows Ecology to make an upward adjustment of the benchmark, and the proposed language does not appear to reflect legislative intent. We do not see in the statute the authority to increase the reduction schedule (i.e., to require more reduction), and the statute gives affected parties the right to seek upward adjustment of the benchmark (i.e., to allow more emissions or higher emissions intensity), which does not appear to be incorporated into the proposed rule but should be.
- We note that there are numerous definitions in the proposed rule that are not in the statute, several that have been changed from the statute (e.g., "offset protocols"), and several that are in the statute but not in the proposed rule (e.g., "climate resilience"), and we urge Ecology to ensure that the rule is consistent with statute.

Boeing welcomes the opportunity to provide this information and to discuss the company's analysis of our GHG emissions reduction pathway with the Department. Please reach out with any questions about our comments or aspects of the rule that are specific to aerospace.

Sincerely,



Steven L. Shestag
The Boeing Company
Director, Global Enterprise Sustainability – Environment Operations