

DNV GL 2021 Assurance Statements for GHG Emissions and Water Withdrawal

	Page
1. DNV Assurance Statement for Scope 1, Scope 2, and Scope 3 (Business Travel and Use of Sold Products from the Boeing Commercial Airplanes (BCA))	<u>2</u>
2. DNV Assurance Statement Scope 3 GHG Emissions from Use of Sold Products by the Boeing Defense Space & Security (BDS)	<u>5</u>
3. DNV Assurance Statement 2021 Water	<u>8</u>



STATEMENT

Introduction

DNV Business Assurance USA, Inc. (DNV) has been commissioned by the management of The Boeing Company (Boeing) to carry out independent verification of its GHG emissions (*Scope 1, Scope 2, and Scope 3 (Business Travel and Use of Sold Products from the Boeing Commercial Airplanes BCA)*) unit. These assertions are relevant to the 2017-2021 calendar years.

Boeing has sole responsibility for the preparation of the data and external reports. DNV, in performing our assurance work, is responsible for the management of Boeing. Our assurance statement, however, represents our independent opinion and is intended to inform all stakeholders including Boeing.

Verification Objective

The objective of this verification is to verify conformance with applicable verification criteria, including the principles and requirements of relevant standards or GHG programs, within the scope of the verification; The organization's GHG inventory of GHG emissions; any significant changes in the organization's GHG inventory since the last reporting period; and the organization's GHG-related controls.

Verification Scope

The verification scope includes The Boeing Company's Scope 1, 2, and 3 (business travel and Use of Sold Products (BCA)) greenhouse gas (GHG) emissions inventory for its global locations under its operational control, without known exclusion.

Verification Level of Assurance

The verification was conducted by DNV to a limited level of assurance with the qualification reported in the below Verification Conclusions.

Materiality Level

Errors/omissions which represent, single or aggregated, the 5% of total emissions are considered material.

Verification Criteria

- World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD) Greenhouse Gas Protocol, Corporate Accounting and Reporting Standard (Scope 1, 2, & 3)

- World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD) Greenhouse Gas Protocol, Corporate Value Chain (Scope 3) Accounting and Reporting Standard

Verification Protocols

- ISO 14064-3: 2019: Greenhouse gases—Part 3: Specification with guidance for the verification and validation of greenhouse gas statements

Operational Boundary

- Operational control
- Global sites
- Use of Sold Products includes products sold by the Boeing Commercial Airplanes unit
- Reporting Periods:
 - 1 January 2017 to 31 Dec 2017
 - 1 January 2018 to 31 Dec 2018
 - 1 January 2019 to 31 Dec 2019
 - 1 January 2020 to 31 Dec 2020
 - 1 January 2021 to 31 Dec 2021

Data Verified

Scope	Greenhouse Gas Emissions (MtCO ₂ e)					
	2017	2018	2019	2020	2021	
Scope 1 Emissions	634,000	622,000	609,000	554,000	612,000	
Scope 2 Emissions (Location-based)	886,000	881,000	907,000	761,000	756,000	
Scope 2 Emissions (Market based)	609,000	593,000	606,000	526,000	446,000	
Scope 3 Emissions (Business travel)	285,000	320,000	290,000	92,000	52,000	
Scope 3 Emissions (Use of Sold Products - BCA) ^{1,2}	Direct	647,000,000	618,000,000	414,000,000	194,000,000	242,000,000
	Indirect	96,000,000	92,000,000	61,000,000	29,000,000	36,000,000
	<i>Total</i>	<i>743,000,000</i>	<i>709,000,000</i>	<i>475,000,000</i>	<i>223,000,000</i>	<i>278,000,000</i>

¹ Emissions from Use of Sold Products includes the lifetime emissions associated with use of airplanes sold by BCA in the respective year. For instance, if an airplane has a lifetime of 20 years, Use of Sold Products includes the emissions associated with airplane usage over 20 years.

² Totals may not appear to match sum of direct & indirect emissions because of rounding.

Scope	(MWh)				
	2017	2018	2019	2020	2021
Renewable Energy Certificates Purchased	349,000	392,000	405,000	392,000	574,000

Assurance Opinion

Based on the verification process conducted by DNV, we provide a Limited Assurance of the GHG Emissions Inventory for *1/1/2017-12/31/2021*. DNV found no evidence that the assertion:

- is not materially correct;
- is not a fair representation of the GHG emissions information; and
- is not prepared in accordance with the *Reporting Criteria*

Based on the verification process conducted, DNV found that:

- there is sufficient and appropriate evidence to support material emissions, removals or storage;
- the criteria are applied appropriately for material emissions, removals or storage; and
- the effectiveness of controls has been evaluated when the verifier intends to rely on those controls.

Independence

DNV was not involved in the preparation of any part of *The Boeing Company's* data or report. We adopt a balanced approach toward all stakeholders when performing our evaluation.

DNV Business Assurance USA, Inc.
June 15, 2022



Lead Verifier
Kyle Silon



Technical Reviewer
Weidong Yang



Approver
David Tellez
 Regional Manager Supply Chain &
 Assurance Services



STATEMENT

Introduction

DNV Business Assurance USA, Inc. (DNV) has been commissioned by the management of The Boeing Company (Boeing) to carry out an independent verification of its *Scope 3 GHG Emissions from Use of Sold Products* by the Boeing Defense Space & Security (BDS) unit. This assertion is relevant to the 2017 - 2021 calendar years.

Boeing has sole responsibility for preparation of the data and external report. DNV, in performing our assurance work, is responsible to the management of Boeing. Our assurance statement, however, represents our independent opinion and is intended to inform all stakeholders including Boeing.

Verification Objective

The objective of this verification is to verify conformance with applicable verification criteria, including the principles and requirements of relevant standards or GHG programmes, within the scope of the verification; The organization's GHG inventory of GHG emissions; any significant changes in the organization's GHG inventory since the last reporting period; and the organization's GHG-related controls.

Verification Scope

The verification scope includes The Boeing Company's Scope 3 greenhouse gas (GHG) emissions from Use of Sold Products from Boeing Defense Space & Security (BDS) unit, without known exclusion.

Verification Level of Assurance

The verification was conducted by DNV to a limited level of assurance with the qualification reported in the below Verification Conclusions.

Materiality Level

Errors / omissions which represent, single or aggregated, the 5% of total emissions are considered material.

Verification Criteria

- World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD) Greenhouse Gas Protocol, Corporate Accounting and Reporting Standard
- World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD) Greenhouse Gas Protocol, Corporate Value Chain (Scope 3) Accounting and Reporting Standard

Verification Protocols

- ISO 14064-3: 2019: Greenhouse gases—Part 3: Specification with guidance for the verification and validation of greenhouse gas statements

Operational Boundary

- Operational control
- Global sites
- Use of Sold Products sold by the Boeing Defense Space & Security (BDS) Reporting Periods:
 - 1 January 2017 to 31 Dec 2017
 - 1 January 2018 to 31 Dec 2018
 - 1 January 2019 to 31 Dec 2019
 - 1 January 2020 to 31 Dec 2020
 - 1 January 2021 to 31 Dec 2021

Data Verified

Scope		Greenhouse Gas Emissions (MtCO ₂ e)				
		2017	2018	2019	2020	2021
Scope 3 Emissions (Use of Sold Products - BDS) ^{1,2}	Direct	13,000,000	9,000,000	31,000,000	18,000,000	19,000,000
	Indirect	2,000,000	1,000,000	5,000,000	3,000,000	3,000,000
	<i>Total</i>	<i>15,000,000</i>	<i>10,000,000</i>	<i>35,000,000</i>	<i>20,000,000</i>	<i>22,000,000</i>

Assurance Opinion

Based on the verification process conducted by DNV, we provide a Limited Assurance of the GHG Emissions Inventory for 1/1/2017-12/31/2021. DNV found no evidence that the assertion:

¹ Emissions from Use of Sold Products includes the lifetime emissions associated with use of airplanes sold by BDS in each year. For instance, if an airplane has a lifetime of 20 years, Use of Sold Products includes the emissions associated with airplane usage over 20 years. The verified data include direct fuel combustion emissions and indirect emissions from the upstream production of fuel.

² Totals may not appear to match sum of direct & indirect emissions because of rounding.

- is not materially correct;
- is not a fair representation of the GHG emissions information; and
- is not prepared in accordance with the *Reporting Criteria*

Based on the verification process conducted, DNV found that:

- there is sufficient and appropriate evidence to support material emissions, removals or storage;
- the criteria are applied appropriately for material emissions, removals or storage; and
- the effectiveness of controls has been evaluated when the verifier intends to rely on those controls.

Independence

DNV was not involved in the preparation of any part of *The Boeing Company's* data or report. We adopt a balanced approach toward all stakeholders when performing our evaluation.

DNV Business Assurance USA, Inc.
June 15, 2022



Lead Verifier
Kyle Silon



Technical Reviewer
Weidong Yang



Approver
David Tellez
Regional Manager Supply Chain &
Assurance Services

The purpose of the DNV group of companies is to promote safe and sustainable futures. The USA & Canada Sustainability team is part of DNV Business Assurance, a global provider of certification, verification, assessment and training services, helping customers to build sustainable business performance. www.dnvglsustainability.com



Independent Assurance Statement

Introduction

DNV Business Assurance USA, Inc. (DNV) has been commissioned by the Boeing Company (Boeing) to carry out an independent verification of its 2021 environmental assertions related to Water. These assertions are relevant to the 2021 calendar year.

Boeing has sole responsibility for preparation of the data and external report. DNV, in performing our assurance work, is responsible to the management of Boeing. Our assurance statement, however, represents our independent opinion and is intended to inform all stakeholders including Boeing.

Scope of Assurance

The scope of work agreed with Boeing includes the following:

- 2021 Water Withdrawal for 36 facilities with available information

Level of Assurance

We performed a limited assurance engagement in accordance with the *International Standard on Assurance Engagements (ISAE) 3000 revised – ‘Assurance Engagements other than Audits and Reviews of Historical Financial Information’*, issued by the International Auditing and Assurance Standards Board. This standard requires that we comply with ethical requirements and plan and perform the assurance engagement to obtain limited assurance.

DNV applies its own management standards and compliance policies for quality control, in accordance with ISO/IEC 17021-1:2015 - Conformity Assessment Requirements for bodies providing audit and certification of management systems, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

The procedures performed in a limited assurance engagement vary in nature and timing, and are less detailed than those undertaken during a reasonable assurance engagement, so the level of assurance obtained is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. We planned and performed our work to obtain the evidence we considered sufficient to provide a basis for our opinion, so that the risk of this conclusion being in error is reduced, but not eliminated completely.

DNV’s assurance engagements are based on the assumption that the data and information provided by the client to us as part of our review have been provided in good faith. This includes but is not limited to sales and acquisitions, square footage, data coverage, and operational control. DNV expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Independent Assurance Statement.

Assurance Team

Role	Name
Project Manager	Shruthi Poonacha
Lead Verifier	Kyle Silon
Technical Reviewer	Weidong Yang

Assurance Methodology

DNV is a leading provider of sustainability services, including verification of GHG emissions data and other environmental metrics. Our environmental and social assurance specialists work in over 100 countries.

In that respect, the environmental footprint inventories have been evaluated against the following reporting criteria:

- World Business Council for Sustainable Development (WBCSD) / World Resources Institute (WRI) Greenhouse Gas Protocol, Corporate Accounting Standard REVISED EDITION

DNV used a risk-based approach throughout the assurance engagement, concentrating on the areas that we believe are most material for both Boeing and its stakeholders. DNV applied a materiality threshold of five percent for Water Withdrawal. DNV applied International Standards Organization (ISO) guidance for determining the sample size.

The following methods were applied during the assurance of Boeing's environmental footprint inventories and management processes, the data that supports the company's environmental footprint inventories including assertions and claims presented by the company:

- Review of documentation, data records and sources relating to the corporate environmental footprint data claims;
- Review of the processes and tools used to collect, aggregate, and report on all environmental data and metrics;
- Interview of managers and data users representing relevant functions for supporting the environmental inventory management process;
- Assessment of environmental information systems and controls, including:
- Selection and management of all relevant environmental data and information;
 - o Processes for collecting, processing, consolidating, and reporting the environmental data and information;
 - o Systems and processes that ensure the accuracy of the environmental data and information;
 - o Design and maintenance of the environmental information system;
 - o Systems and processes that support the environmental information system;
- Performance of sample-based audits of the processes for generating, gathering, and managing the data;
- Examination of the environmental data and information to develop evidence for the assessment of the environmental claims and assertions made;
- Evaluation of whether the organization conforms to the reporting criteria;
- Evaluation of whether the evidence and data are sufficient and support Boeing's environmental claims.
- Review of the Water Withdrawal methodology;
- Conduct data checks for the water data collected, transferred and calculated;
- Perform sample-based assessment of data reported against the source data water consumed provided by utility company and metered data.

Data Verified

The environmental footprint assertions for Boeing are as follows:

Water

2021 Total Water Withdrawal

1,095,816 kgal

Assurance Opinion

Based on the processes and procedures conducted with a limited assurance, there is no evidence that the environmental claims and assertions listed are not materially correct and are not a fair representation of environmental data and information, and have not been prepared in accordance with the calculation method referenced.

Independence

DNV was not involved in the preparation of any part of Boeing's data or report. We adopt a balanced approach toward all stakeholders when performing our evaluation.

DNV Business Assurance USA, Inc.

May 13, 2022



Lead Verifier
Kyle Silon



Technical Reviewer
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