

LRQA Independent Assurance Statement

Relating to AvalonBay Communities Inc.'s Report for the Calendar Year 2019

This Assurance Statement has been prepared for AvalonBay Communities Inc. in accordance with our contract.

Terms of Engagement

Lloyd's Register Quality Assurance, Inc. (LRQA) was commissioned by AvalonBay Communities Inc. (AvalonBay) to provide independent assurance of its greenhouse gas (GHG) emissions inventory and Environmental Data Assertion ("the Report") for the calendar year 2019 against the assurance criteria below to a limited level of assurance and materiality of the professional judgement of the verifier using LRQA's verification procedure and ISO 14064 - Part 3 for greenhouse gas emissions. LRQA's verification procedure is based on current best practise and is in accordance with ISAE 3000 and ISAE 3410.

Our assurance engagement covered AvalonBay's operations and activities and specifically the following requirements:

- Verifying conformance with:
 - AvalonBay's reporting methodologies for the selected Environmental datasets;
 - World Resources Institute / World Business Council for Sustainable Development Greenhouse Gas Protocol: A corporate accounting and reporting standard, revised edition (otherwise referred to as the WRI/WBCSD GHG Protocol) for the GHG data¹.
 - GRESB 2020 Real Estate Assessment Reference Guide
- Evaluating the accuracy and reliability of data and information for only the selected indicators listed below:
 - Direct (Scope 1), Energy Indirect (Scope 2) and Other Indirect (Scope 3) GHG Emissions, using the operational control consolidation methodology;
 - Scope 3 GHG emissions verified by LRQA only include business travel and employee commuting.
 - Scope 1 energy – operational control;
 - Scope 2 energy – operational control;
 - Water consumption² – financial control; and
 - Waste generated² at 92% of communities – financial control.

The following sources were excluded from the GHG Emissions Inventory on the basis of their de minimis contribution to the total Scope 1 and Scope 2 GHG emissions and sense-checked during the engagement:

- Fugitive release of refrigerant gas; and
- Combustion emissions from burning diesel fuel in emergency generators.

LRQA's responsibility is only to AvalonBay. LRQA disclaims any liability or responsibility to others as explained in the end footnote. AvalonBay's responsibility is for collecting, aggregating, analysing and presenting all the data and information within the Report and for maintaining effective internal controls over the systems from which the Report is derived. Ultimately, the Report has been approved by, and remains the responsibility of AvalonBay.

¹ <http://www.ghgprotocol.org/>

² Reported water consumption and waste generation are post commencement of communities and therefore do not include data from construction operations.

LRQA's Opinion

Based on LRQA's approach nothing has come to our attention that would cause us to believe that AvalonBay has not, in all material respects:

- Met the requirements of the criteria listed above; and
- Disclosed accurate and reliable performance data and information as summarized in Table 1 below.

The opinion expressed is formed on the basis of a limited level of assurance³ and at the materiality of the professional judgement of the verifier.

Table 1. Summary of AvalonBay, GHG Emissions Inventory and Environmental Data for CY 2019:

Parameter	Quantity	Units
Scope 1 Emissions	22,146	Metric Tons CO ₂ e
Scope 2 Emissions Location-Based ¹	58,531	Metric Tons CO ₂ e
Scope 2 Emissions Market-Based ¹	58,531	Metric Tons CO ₂ e
Scope 3 Emissions (business travel)	202	Metric Tons CO ₂ e
Scope 3 Emissions (employee commuting)	5,667	Metric Tons CO ₂ e
Total Scope 1 Energy	121,790	MWh
Total Scope 2 Energy	198,252	MWh
Water Consumption (Communities only) ²	11,504,326	m ³
Subset of Waste Generated (Communities only) ^{3,4}	92,258	Metric Tons

1. Scope 2, Location-based and Scope 2, Market-based are defined in the GHG Protocol Scope 2 Guidance, 2015.

2. Water consumption does not include water consumed by the AvalonBay construction division.

3. Waste generation does not include waste generated by the AvalonBay construction division.

4. Waste generation data is only representative of 92% of AvalonBay communities. 92% was calculated on a square foot basis per GRESB Guidance.

LRQA's Approach

LRQA's assurance engagements are carried out in accordance with our verification procedure. The following tasks were undertaken as part of the evidence gathering process for this assurance engagement:

- interviewing relevant employees of the organization responsible for managing GHG emissions and environmental data and records;
- Assessing AvalonBay's data management systems to confirm they are designed to prevent significant errors, omissions or mis-statements in the Report. We did this by reviewing the effectiveness of data handling procedures, instructions and systems, including those for internal quality control; and
- verifying historical GHG emissions data and records at an aggregated level for the calendar year 2019.

LRQA's Standards and Competence

LRQA implements and maintains a comprehensive management system that meets accreditation requirements for ISO 14065 *Greenhouse gases – Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition* and ISO/IEC 17021 *Conformity assessment – Requirements for bodies providing audit and certification of management systems* that are at least as demanding as the requirements of the International Standard on Quality Control 1 and comply with the *Code of Ethics for Professional Accountants* issued by the International Ethics Standards Board for Accountants.

³ *The extent of evidence-gathering for a limited assurance engagement is less than for a reasonable assurance engagement. Limited assurance engagements focus on aggregated data rather than physically checking source data at sites. Consequently, the level of assurance obtained in a limited assurance engagement is lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.*



LRQA ensures the selection of appropriately qualified individuals based on their qualifications, training and experience. The outcome of all verification and certification assessments is then internally reviewed by senior management to ensure that the approach applied is rigorous and transparent.

Signed

Dated: July 7, 2020

A handwritten signature in black ink, appearing to read 'Derek Markolf', written over a light blue horizontal line.

Derek Markolf
LR Lead Verifier
On behalf of Lloyd's Register Quality Assurance, Inc.,
1330 Enclave Parkway, Suite 200,
Houston, TX 77077

LR Reference: UQA00000422

Lloyd's Register Group Limited, its affiliates and subsidiaries, including Lloyd's Register Quality Assurance, Inc. (LRQA), and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

The English version of this Assurance Statement is the only valid version. Lloyd's Register Group Limited assumes no responsibility for versions translated into other languages.

This Assurance Statement is only valid when published with the Report to which it refers. It may only be reproduced in its entirety.

Copyright © Lloyd's Register Quality Assurance Limited, 2020. A member of the Lloyd's Register Group.