



# LRQA Independent Assurance Statement

## Relating to AvalonBay Communities Inc.'s Report for the 2023 Fiscal and Calendar Year

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

### Terms of Engagement

LRQA was commissioned by Resource Energy Systems, LLC to provide independent assurance of AvalonBay Communities Inc. (AvalonBay) greenhouse gas (GHG) emissions and environmental metrics reported in its ESG Report (the Report) for the fiscal and calendar year 2023 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 North American 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 emissions data<sup>1</sup>; and
  - GRESB 2023 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, employee commuting, and downstream leased assets;
  - Scope 1 energy consumption – operational control;
  - Scope 2 energy consumption – operational control;
  - Water consumption<sup>2</sup> – financial control; and
  - Waste generated<sup>2</sup> for 83.5% of the communities, based on square footage – 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
- Stationary combustion emissions from burning diesel fuel in emergency generators.

Our assurance engagement excluded the data and information of AvalonBay's suppliers, contractors and any third-parties mentioned in the report.

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.

### 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.

<sup>1</sup> <http://www.ghgprotocol.org/>

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



The opinion expressed is formed on the basis of a limited level of assurance<sup>3</sup> and at the materiality of the professional judgement of the verifier.

### Basis for Qualified Opinion

Reference and calculation functions mistakes resulting in relatively small errors were identified in the evidence submitted for verification. The two remaining inconsistencies are not material.

**Table 1. AvalonBay, GHG Emissions Inventory and Environmental Data for CY 2023**

Parameter	Quantity	Units
Scope 1 GHG emissions	14,241	Tonnes CO <sub>2</sub> e
Scope 2 GHG emissions (Location-based) <sup>1</sup>	47,461	Tonnes CO <sub>2</sub> e
Scope 2 GHG emissions (Market-based) <sup>1</sup>	21,396	Tonnes CO <sub>2</sub> e
Scope 3 – Employee Commuting	4,634	Tonnes CO <sub>2</sub> e
Scope 3 – Business Travel	178	Tonnes CO <sub>2</sub> e
Scope 3 – Downstream Leased Assets	231,391	Tonnes CO <sub>2</sub> e
Total Scope 1 Energy	78,547	MWh
Total Scope 2 Energy	168,193	MWh
Water Consumption (Communities only) <sup>2</sup>	12,361,276	Cubic Meters
Subset of Waste Generated (Communities only) <sup>3</sup>	71,498	Metric Tons

1. Scope 2, Location-based and Scope 2, Market-based are defined in the WRI/WBCSD 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 and includes recycled and composted waste in the total value.

### 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;
- Verifying AvalonBay’s base year recalculation policy conforms with the criteria, and that a base year recalculation was not required; and
- verifying historical GHG emissions data and records at an aggregated level for the fiscal and calendar year 2023.

### Observations

LRQA observed a number of opportunities for improvements that can improve the process of monitoring and reporting:

- AvalonBay should consider a more precise method for Employee Commuting that can get individual input. As stated in the last paragraph of the methodology document, the emissions are likely overstated "given that it assumes that each employee commutes by car and always commutes alone to work and providing a low estimate of additional unscheduled days worked remotely";
- Multiple spreadsheets in the emissions workbook are linked to a live document and the solar production data was entered manually, both of which are potential points of accuracy failure.
- AvalonBay should keep the emission factor references consistent for Scope 3 air travel because the use of both the EPA air travel S3 emission factors and DEFRA WTT air travel emission factors has the potential of double counting since the EPA values reference DEFRA but not whether it includes WTT values as well.
- AvalonBay should create additional documentation to support awareness of changes that would trigger base year recalculation. This would help clarify and confirm that the net change from annual acquisitions and divestments do not reach the stated threshold.

<sup>3</sup> 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'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.

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: June 30, 2024

A handwritten signature in black ink, appearing to read 'Allison Muehe', written in a cursive style.

Allison Muehe  
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