AvalonBay Communities - Climate Change 2023

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

As of December 31, 2022, the Company owned or held a direct or indirect ownership interest in 294 apartment communities containing 88,475 apartment homes in 12 states and the District of Columbia, of which 23 communities were under development and one community was under redevelopment. AvalonBay Communities, Inc. is an equity REIT in the business of developing, redeveloping, acquiring and managing multifamily communities primarily in New England, the New York/New Jersey metro area, the MidAtlantic, Southeast Florida, Denver Colorado, the Pacific Northwest, and Northern and Southern California. More information may be found on the Company's website at http://www.avalonbay.com. More information on our ESG (Corporate Responsibility) initiatives, including our recently updated ESG goals, can be found here: https://www.avaloncommunities.com/about-us/corporate-responsibility.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.

Reporting year

Start date
January 1 2022

End date
December 31 2022

Indicate if you are providing emissions data for past reporting years
No

Select the number of past reporting years you will be providing Scope 1 emissions data for
<Not Applicable>

Select the number of past reporting years you will be providing Scope 2 emissions data for
<Not Applicable>

Select the number of past reporting years you will be providing Scope 3 emissions data for
<Not Applicable>

C0.3

(C0.3) Select the countries/areas in which you operate.
United States of America

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.
USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.
Operational control

C-CN0.7/C-RE0.7

(C-CN0.7/C-RE0.7) Which real estate and/or construction activities does your organization engage in?
New construction or major renovation of buildings
Buildings management

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	US0534841012

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual or committee	Responsibilities for climate-related issues
Chief Financial Officer (CFO)	The ESG function reports directly to our Chief Financial Officer (CFO), who reports directly to the CEO. This provides direct oversight including but not limited to our environmental and social performance and programs, including the strategy and programs related to mitigation of climate change, decarbonization, and Scope 1, 2 and 3 emissions reductions. Our CFO also works directly with another sponsor of the ESG function, our Chief Investment Officer (CIO) who holds responsibility for climate and sustainability-related issues relative to the investments made in our 294 property portfolio. Both the CFO and CIO, in conjunction with the rest of the executive team, are responsible for future company direction and strategy, and oversee and ensure that sustainability and climate issues are integrated into the Company's operations and strategy. Good examples of how this structure works includes the decision to set science-based targets, the decision to conduct feasibility on a net zero target, and the decision to evaluate our entire portfolio against 14 climate risk factors and the CRREM tool. These decisions are made in concert with the CFO/CIO and our Sustainability Council who are cross functional group of leaders from different functional areas in the organization focused on driving sustainability programs and projects throughout the organization.
Board-level committee	The VP of ESG, in concert with the CFO and CIO, reports annually on progress against our ESG related goals and current and future ESG related strategy to the following AvalonBay Board of Directors (BOD) Committees: Nominating, Governance, and Corporate Responsibility (NGCR) Committee and the Audit Committee and periodically reports to the full AvalonBay BOD. The NGCR Committee Charter was revised to include the following duties: "Review Matters Pertaining to Corporate Responsibility - At least annually, the Committee shall perform a review and evaluation of: (i) the Company's policy on political contributions and government relations, and its actual activities, contributions, and reporting; (ii) charitable giving policies and activities; (iii) health and safety initiatives and performance; (iv) human capital matters pertaining to (a) diversity and inclusion efforts, performance and reporting, and (b) associate engagement and culture, and such other human capital matters as the Committee deems necessary or appropriate; (v) ESG goals and performance, including goals and performance related to environmental matters, climate change, and sustainable building and operations; and (vi) ESG reporting, including through the Company's annual ESG report." The Audit Committee Charter was revised to include the following duties: "The Audit Committee shall oversee the reliability and adequacy of the Company's public disclosures relating to environmental, social and governance (ESG) matters that are made in filings with the Securities and Exchange Commission or in the Company's annual corporate responsibility report. "

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Overseeing major capital expenditures Overseeing acquisitions, mergers, and divestitures Reviewing innovation/R&D priorities Overseeing and guiding employee incentives Reviewing and guiding strategy Overseeing and guiding scenario analysis Overseeing the setting of corporate targets Monitoring progress towards corporate targets Reviewing and guiding the risk management process Other, please specify (Management policies, Monitoring implementation and performance of objectives.)	<Not Applicable>	The VP of ESG, CIO, CFO and EVP of Capital Markets meet, at a minimum, annually with the NGCR Committee of the AvalonBay BOD and periodically with the full AvalonBay BOD to discuss the ESG program, including climate-related issues. The most recent meeting, for example, included the following agenda items: • 2022 ESG Goals Progress and new 2025, 2027, and 2029 Goals • Achievement plan for our Science-Based Targets • Feasibility of net zero goal • Asset planning process for Building Performance Standards This Board Committee offers input, critique and clarifying questions on the function's strategy and the items on the agenda. When needed, and now that ESG has become a more important subject within the business, we will meet more frequently than the once yearly meeting.

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	No, but we plan to address this within the next two years	<Not Applicable>	Other, please specify (We believe this to be an important competency as evidenced by the various BOD committee charters that have been amended to include ESG related oversight.)	While AvalonBay's Board of Directors has always provided oversight for ESG matters, recently, ESG oversight has been specifically added to 2 Board committees. As our Board gets more familiar with the ESG landscape, we will be looking to add a member with more expertise. To ensure our BOD has the proper competency, we are continually utilizing our in house subject matter experts and industry partnerships to educate our BOD on various material ESG and climate related topics. Given our focus on ESG related issues at the Board level, we will be focusing on ensuring the BOD has the proper education to ensure they can effectively execute their positions.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Position or committee
Chief Financial Officer (CFO)

Climate-related responsibilities of this position
Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
Setting climate-related corporate targets
Managing climate-related risks and opportunities

Coverage of responsibilities
<Not Applicable>

Reporting line
Reports to the board directly

Frequency of reporting to the board on climate-related issues via this reporting line
More frequently than quarterly

Please explain
CFO – Executive sponsor of the ESG Department
CFO - RESPONSIBILITIES: Overall executive sponsor and sponsors all ESG- and Climate-related activities. The ESG function was moved under the CFO in 2020 due to the increasing importance of ESG to our investors and the need to more closely tie it into our overall stakeholder and business strategies. Additionally, this transition was made to more closely tie our financial and risk reporting to ESG.
CFO - WHERE HE SITS: Reports to the CEO

Position or committee
Chief Executive Officer (CEO)

Climate-related responsibilities of this position
Providing climate-related employee incentives
Setting climate-related corporate targets
Assessing climate-related risks and opportunities

Coverage of responsibilities
<Not Applicable>

Reporting line
Reports to the board directly

Frequency of reporting to the board on climate-related issues via this reporting line
Quarterly

Please explain
CEO - RESPONSIBILITIES: Driving overall ESG strategy across the business including new corporate goal setting for decarbonization and key annual corporate priority setting to ensure the correct weight of ESG work is taken into account.
CEO- WHERE HE SITS: Reports to the AvalonBay Board of Directors

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Position or committee
Sustainability committee

Climate-related responsibilities of this position
Managing annual budgets for climate mitigation activities
Developing a climate transition plan
Implementing a climate transition plan
Integrating climate-related issues into the strategy
Conducting climate-related scenario analysis
Setting climate-related corporate targets
Monitoring progress against climate-related corporate targets
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities
<Not Applicable>

Reporting line
Corporate Sustainability/CSR reporting line

Frequency of reporting to the board on climate-related issues via this reporting line
More frequently than quarterly

Please explain
Sustainability Council– Chaired by the VP ESG this cross-functional group of leaders from across the organization that meet monthly to collaborate on and achieve ESG-related goals.
Sustainability Council – RESPONSIBILITIES:
• Ensures all strategic climate-related initiatives are tracked, made operational & measured
• Provides cross-functional input and collaboration to complex implementation issues across the portfolio
Sustainability Council – WHERE IT SITS: Chaired by VP ESG, this cross-functional group meets in our Corporate Headquarters and will periodically provide status updates to the Executive Leadership Team.

Position or committee
Other C-Suite Officer, please specify (Chief Investment Officer)

Climate-related responsibilities of this position
Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
Managing climate-related acquisitions, mergers, and divestitures
Implementing a climate transition plan
Integrating climate-related issues into the strategy
Managing climate-related risks and opportunities

Coverage of responsibilities
<Not Applicable>

Reporting line
CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line
More frequently than quarterly

Please explain
CIO - RESPONSIBILITIES: Interfaces with the CFO and VP of ESG on issues related to our our existing portfolio of buildings and our new developments and acquisitions, including, but not limited to, physical climate risk and portfolio investments relative to resiliency.
CIO - WHERE HE SITS: Reports to the CEO

Position or committee
Business unit manager

Climate-related responsibilities of this position
Managing annual budgets for climate mitigation activities
Developing a climate transition plan
Implementing a climate transition plan
Integrating climate-related issues into the strategy
Conducting climate-related scenario analysis
Setting climate-related corporate targets
Monitoring progress against climate-related corporate targets
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities
<Not Applicable>

Reporting line
Finance - CFO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line
More frequently than quarterly

Please explain
Vice President of ESG (VPESG) – leads the ESG function day-to-day.
VPESG – RESPONSIBILITIES:
• Recommends ESG Goals, including our approved Science-Based Targets (SBTs), net zero feasibility study, and reporting transparently in our ESG Report.
• Implementing ESG programs while monitoring and reporting on issues related to climate risk and opportunity. This includes our renewable energy strategy which has installed 51 operating solar panel installations as of year-end 2022 with an additional 29+ solar installations in feasibility for 2023/2024.
• Regularly reviewing ESG objectives and potential impacts of climate change on our business with the company's CFO.
• Updating our Board of Directors on climate-related issues, including progress on our Science-Based Targets.
• Chairing the Sustainability Counsel and the ESG Disclosure Committee.
VPESG - WHERE IT SITS: Reports to the CFO
The VPESG has full-time responsibility for the ESG function and climate-related issues, and reports directly to the CFO, who, in-turn, reports to the CEO. Responsibility lies in this line of reporting for two reasons:
1) the CEO initialized the function in the company and has responsibility for reporting to the Company's full BOD, and
2) the CFO took over management of the function due to its increasing importance to our stakeholders and to the
Company as a whole. Placing the function in his organization ensures it tied to our investor relations, finance and highest management functions. Continued engagement with
the CIO is ongoing because of the importance of integrating climate-related issues into how we make investments and manage the portfolio.
The VPESG also has dotted line reporting to the EVP Capital Markets which further cements the importance of ESG to our investors and stakeholders.

How Climate-Related Issues are Monitored
The process for identifying and monitoring climate-related issues includes annual strategic planning, industry participation, surveys of customers and associates, and periodic surveying of suppliers and the BOD. Issues are then discussed with the Sustainability Counsel and with the CFO. In addition, the CFO and VPESG report to, and engage in an annual or more frequent dialogue with, the NGCR Committee of the BOD and, with increasing frequency, the AvalonBay full BOD. Progress against our goals

is reviewed, and the Board provides input on strategic direction and issues related to climate change risks and opportunities.

For example, in 2022, given the urgent need for increased climate action, the VPESG commissioned a study to ensure that we are able to achieve our SBTs on time or early and to conduct the feasibility of setting a Net Zero goal. Additionally, we are committed to understanding transitional climate risk like we understand physical climate risk. To achieve this, the CRREM tool was used to understand potential stranding dates as well as trackers of local Building Performance Standards and natural gas bans.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	In 2019 the AvalonBay Board approved a new incentive compensation program for all corporate bonus eligible associates. Included among the metrics of that program is an item related to the ESG performance of the Company. The ESG Metric is the score of our Global Real Estate Sustainability Benchmark (GRESB) score. The bonus relative to this metric is calculated relative to the threshold of score achievement set in the beginning of the year. This ensures that the organization is aware of what is required in order to receive the full bonus relative to the ESG portion which helps incentive associates to continue prioritizing ESG related work. Both AVB Management and the BOD recognize the fundamental importance of ESG performance as evidenced by this incentive program. The GRESB score is based on a series of metrics related to Environmental, Social and Governance performance. Included in those metrics are a series of ratings related to the management of climate-related issues .

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive
Chief Executive Officer (CEO)

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary

Performance indicator(s)
Progress towards a climate-related target
Reduction in emissions intensity
Energy efficiency improvement
Increased share of low-carbon energy in total energy consumption
Increased share of renewable energy in total energy consumption
Reduction in total energy consumption

Incentive plan(s) this incentive is linked to
Short-Term Incentive Plan

Further details of incentive(s)
CEO is subject to a performance bonus based on the achievement of the key priorities set in the beginning of the year including the key priority of acting on our ESG strategy.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
Our CEO is rewarded and evaluated in-part on how well the organization achieves its goals during the year and the progress against the targets defined at the beginning of the year. ESG is among the corporate priorities set at the beginning of the year and advancing on our ESG strategy, annual progress towards our SBTs, and implementation of renewable energy amongst other items are considered when incentive compensation decisions are made.

Entitled to incentive
All employees

Type of incentive
Monetary reward

Incentive(s)
Bonus – set figure

Performance indicator(s)
Progress towards a climate-related target
Implementation of an emissions reduction initiative
Energy efficiency improvement
Reduction in total energy consumption
Other (please specify) (Behavior change related to ESG actions, Water Reduction projects, Progress towards water Reduction projects)

Incentive plan(s) this incentive is linked to
Not part of an existing incentive plan

Further details of incentive(s)
Our monetary Sustainability award is given twice a year to those individual employees or teams who advance AvalonBay's sustainability objectives and support

achievement of our energy and water reduction targets and our Science-Based Targets.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
The Sustainability award incentivizes individual employees or teams to advance AvalonBay's sustainability objectives and support achievement of our energy and water reduction targets and our Science-Based Targets.

Entitled to incentive
Other C-Suite Officer

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary

Performance indicator(s)
Energy efficiency improvement
Increased share of low-carbon energy in total energy consumption
Increased share of renewable energy in total energy consumption
Reduction in total energy consumption
Increased engagement with suppliers on climate-related issues

Incentive plan(s) this incentive is linked to
Short-Term Incentive Plan

Further details of incentive(s)
Our Chief Investment Officer provided important sponsorship to the ESG department and this position is rewarded and evaluated in-part on how well the department/company achieves its goals during the year and how much progress was made against the corporate targets defined by the ESG department, including those related to our approved Science-Based emissions targets.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
This provides increased incentive for the Chief Investment Officer to assist the ESG department in achieving department/company goals and continually increase and expedite progress towards the corporate targets defined by the ESG department.

Entitled to incentive
Chief Financial Officer (CFO)

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary

Performance indicator(s)
Progress towards a climate-related target
Reduction in absolute emissions
Reduction in emissions intensity
Energy efficiency improvement
Increased share of low-carbon energy in total energy consumption
Increased share of renewable energy in total energy consumption
Reduction in total energy consumption
Increased engagement with suppliers on climate-related issues

Incentive plan(s) this incentive is linked to
Short-Term Incentive Plan

Further details of incentive(s)
Our Chief Financial Officer oversees the the ESG department (the ESG team reports directly to the CFO) and is rewarded and evaluated in-part on how well the department/company achieves its goals during the year and how much progress was made against the targets defined by the ESG department, including those related to our approved Science-Based emissions targets.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
This provides increased incentive for the Chief Financial Officer to assist the ESG department in achieving department/company goals and continually increase and expedite progress towards the corporate targets defined by the ESG department.

Entitled to incentive
Corporate executive team

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary

Performance indicator(s)
Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)

Incentive plan(s) this incentive is linked to
Short-Term Incentive Plan

Further details of incentive(s)
In 2019 the AvalonBay Board approved a new incentive compensation program for all corporate bonus eligible associates. Included among the metrics of that program is an item related to the ESG performance of the Company. The ESG Metric is the score of our Global Real Estate Sustainability Benchmark (GRESB) score. The bonus relative to this metric is calculated relative to the threshold of score achievement set in the beginning of the year. This ensures that the organization is aware of what is required in order to receive the full bonus relative to the ESG portion which helps incentive associates to continue prioritizing ESG related work. Both AVB Management and the BOD recognize the fundamental importance of ESG performance as evidenced by this incentive program. The

GRESB score is based on a series of metrics related to Environmental, Social and Governance performance. Included in those metrics are a series of ratings related to the management of climate-related issues .

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
The bonus relative to this metric is calculated relative to the threshold of score achievement set in the beginning of the year. This ensures that the organization is aware of what is required in order to receive the full bonus relative to the ESG portion which helps incentive associates to continue prioritizing ESG related work. Both AVB Management and the BOD recognize the fundamental importance of ESG performance as evidenced by this incentive program.

Entitled to incentive
Management group

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary

Performance indicator(s)
Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)

Incentive plan(s) this incentive is linked to
Short-Term Incentive Plan

Further details of incentive(s)
In 2019 the AvalonBay Board approved a new incentive compensation program for all corporate bonus eligible associates. Included among the metrics of that program is an item related to the ESG performance of the Company. The ESG Metric is the score of our Global Real Estate Sustainability Benchmark (GRESB) score. The bonus relative to this metric is calculated relative to the threshold of score achievement set in the beginning of the year. This ensures that the organization is aware of what is required in order to receive the full bonus relative to the ESG portion which helps incentive associates to continue prioritizing ESG related work. Both AVB Management and the BOD recognize the fundamental importance of ESG performance as evidenced by this incentive program. The
GRESB score is based on a series of metrics related to Environmental, Social and Governance performance. Included in those metrics are a series of ratings related to the management of climate-related issues .

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
The bonus relative to this metric is calculated relative to the threshold of score achievement set in the beginning of the year. This ensures that the organization is aware of what is required in order to receive the full bonus relative to the ESG portion which helps incentive associates to continue prioritizing ESG related work. Both AVB Management and the BOD recognize the fundamental importance of ESG performance as evidenced by this incentive program.

Entitled to incentive
Business unit manager

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary

Performance indicator(s)
Achievement of climate transition plan KPI
Achievement of a climate-related target
Implementation of an emissions reduction initiative
Reduction in absolute emissions
Reduction in emissions intensity
Energy efficiency improvement
Increased share of low-carbon energy in total energy consumption
Increased share of renewable energy in total energy consumption
Reduction in total energy consumption
Increased investment in low-carbon R&D
Increased share of revenue from low-carbon products or services in product or service portfolio
Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)

Incentive plan(s) this incentive is linked to
Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)
The Vice President of ESG is responsible for all programs related to climate change including energy, emissions, and water reduction as well as achievement of the various public facing targets pertaining to these impact areas (including our Science-Based Targets) and achievement and implementation of our ESG strategy and strategy related to climate change and resiliency. A meaningful portion of the VP ESG's incentive compensation package is related to achievement of a variety of climate-related initiatives and goals.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
This provides increased incentive for the VP ESG to plan appropriately and push accordingly to achieve department/company goals and continually increase and expedite progress towards the corporate targets defined by the ESG department.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?
Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	3	Anything up to 3 years is considered short term for planning related to climate-related risks. Generally the Company's internal planning processes align with this definition for all types ofdepartmental and strategic planning.
Medium-term	3	8	Anything between 3 years or more and up to 8 years is considered Medium-Term for planning related to climate-related risks. Generally the Company's internal planning processes align with this definition for all types of departmental and strategic planning.
Long-term	8	20	Anything more than 8 years is considered long-term for planning related to climate-related risks. Generally the Company's internal planning processes align with this definition for all types of departmental and strategic planning.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

AvalonBay identifies and assesses climate-related risks in concert with a definition of "substantive financial or strategic impact" to the business with the following characteristics:
1) The risk, if not mitigated, may affect more than one market in which we do business, or
2) The risk, if not mitigated, may cause a reduction in operating income greater than 2%, or
3) The risk, if not mitigated, may jeopardize our customer loyalty score (Net Promoter Score) by more than 5%, or
4) While the risk, if not mitigated, may only affect one market, it may be so detrimental to either operating income (greater than 10%) or Net Promoter Score (greater than 15%) that we will consider it substantive within that market and require action.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered
Direct operations

Risk management process
Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment
More than once a year

Time horizon(s) covered
Short-term
Medium-term
Long-term

Description of process
The process used to determine which risks and opportunities could have a substantive financial or strategic impact on the organization is outlined here which is led by the VP of ESG who uses the following channels to identify physical and transitional climate-related risks.

Physical Risk Identification
Our climate-risk portfolio analysis, which was updated in 2022 to
evaluate all existing properties (275+) against 14 climate-related risks and provides an in-depth analysis on each property of the potential risk exposures. This analysis is also required for all new developments and acquisitions.

Transitional Risk Identification
1) For an effective understanding of when our assets will be considered stranded relative to their associated decarbonization pathways, we use the CRREM tool to project the estimated stranding years of these assets and show the estimated GAV and GSF at risk.
2) Given the proliferation of building performance standards across the United States and our portfolio, we created our own climate legislation tracker to stay abreast of the changing landscape and better understand the risks our assets in certain markets face.
3) We also have wide-ranging and ongoing discussions with local and state government leaders, sustainability industry experts, non-governmental and real estate specific industry organizations, and various internal stakeholders.

Once identified, risk are then categorized based on their financial or strategic impact to the organization and if they are physical or transitional. They are then grouped into immediate or short-term risks, medium-term risks and long-term risks. We then begin to determine the magnitude of the impact (either financial or strategical). Risk of larger magnitude, regardless of their time horizon, must be integrated into AvalonBay's enterprise risk management (ERM) process. Each year, the VP ESG reviews and discusses enterprise risk management matters with the CFO, and CIO raising them to the level of the Board of Directors as needed. Opportunities are similarly identified, and integrated into the annual capital plan for the ESG department.

If risks fall into a meaningful financial or organizational impact, a plan is established and acted upon to mitigate the risk. If meaningful opportunities are identified, they are put on the plan for investment. If the risks/opportunities fall outside the thresholds we have set for meaningful financial/organizational impact, but are believed to still have the potential for disruption, they are ongoingly monitored to determine if they would cross over that threshold. Opportunities and risk mitigations often require capital funding to achieve/mitigate, therefore, annually, the VP ESG develops a strategic plan for the ESG department and outlines the various initiatives that will be conducted in the coming year. Consequent to this plan is a Capital Expenditure (Capex) plan which outlines the investments to be made on each initiative. As part of this process the VP of ESG engages the multi-disciplinary Sustainability Counsel to review and help plan for the various high-impact (and to be mitigated) climate-related risks and meaningful opportunities. Over the course of several meetings, these risks and opportunities are aligned to the strategies outlined in the annual strategic plan, and initiatives are developed for consideration of near and medium-term funding.

Case Study Transitional - Technology: SITUATION: A Case study example of how this risk/opportunity process has been employed is our all electric HVAC and hot water building pilots. As more jurisdictions set building performance standards increasingly lowering the carbon intensity allowable for buildings, eliminating onsite gas burning (like furnaces and gas water heaters) has been identified as both and opportunity and a risk. This is a risk in that retrofitting existing buildings can be costly and comes with a learning curve for our onsite and maintenance teams possibly rendering these buildings "stranded" but is also an opportunity in that we can potentially reduce the footprint of the building in ways unavailable previously. This case study employed the second track described earlier under the transitional risk category: “Identification and monitoring of building performance standards.” Through this process we determined that many of our markets were moving to pass these new standards. TASK: We determined that piloting all electric HVAC and water heating technologies in new developments would provide out teams a good understating of the engineering, maintenance, space requirements, and costs for these systems. These understanding will educate us as we put together plans for existing assets in markets with looming building performance standards. ACTION and RESULTS: We currently have 2 new developments underway incorporating all electric HVAC and hot water systems in the northeast. We have and still are gathered valuable lessons like space and code requirements as well as viability of products and cost.

Case Study Physical – Understanding Physical Risk Scores
SITUATION: This case study employed our first track described before for identifying risks: Our climate-risk portfolio analysis. Climate risk is becoming an important component of how we assess our portfolio, so in 2022, the VP of ESG updated our assessment (originally done in 2022) of climate risks to include 3 new risk factors bringing the total to 14 risks assessed. Currently our risk assessment provides a low, medium, high grade for each of the above listed risks. We have come to understand that there is a gap in these assessment where the mitigation measures of a site are not considered in the assessment possibly falsely flagging a building for a high risk. TASK: The VP ESG commissioned a study whereby we took a property in the northeast with high identified flooding risks and consulted an outside firm the determine if the asset is equipped for this risk (therefore negating high risk grade given during our climate risk assessments) or if mitigation measures are needed. ACTION and RESULT: Using a property in the northeast affected by large costal storms, we conducted a study to see how reliable climate risk platforms are for our existing portfolio. What we determined is that the risk platforms generate a great risk profile for an area that can be used during development to steer away from certain high risk areas but do not take into account mitigation measures already built into existing buildings making it hard to determine which buildings in our portfolio are actually at risk. In our northeast example, we learned that are building was equipped to handle various levels of common flooding but was not equipped for larger storm systems. This insight is helpful as we determine the future capital needs of our assets. It is also important to know the limitations of our physical climate risk platform as we continue to more accurately understand our risk.

Value chain stage(s) covered
Upstream

Risk management process
Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment
More than once a year

Time horizon(s) covered
Short-term
Medium-term

Description of process
The process used to determine which risks and opportunities could have a substantive financial or strategic impact on the organization is outlined here which is led by the VP of ESG who uses the following channels to identify physical and transitional climate-related risks.

Physical Risk Identification
Our climate-risk portfolio analysis, which was updated in 2022 to
evaluate all existing properties (275+) against 14 climate-related risks and provides an in-depth analysis on each property of the potential risk exposures. This analysis is also required for all new developments and acquisitions.

Transitional Risk Identification
1) For an effective understanding of when our assets will be considered stranded relative to their associated decarbonization pathways, we use the CRREM tool to project the estimated stranding years of these assets and show the estimated GAV and GSF at risk.
2) Given the proliferation of building performance standards across the United States and our portfolio, we created our own climate legislation tracker to stay abreast of the changing landscape and better understand the risks our assets in certain markets face.
3) We also have wide-ranging and ongoing discussions with local and state government leaders, sustainability industry experts, non-governmental and real estate specific industry organizations, and various internal stakeholders.

Once identified, risk are then categorized based on their financial or strategic impact to the organization and if they are physical or transitional. They are then grouped into immediate or short-term risks, medium-term risks and long-term risks. We then begin to determine the magnitude of the impact (either financial or strategical). Risk of larger magnitude, regardless of their time horizon, must be integrated into AvalonBay's enterprise risk management (ERM) process. Each year, the VP ESG reviews and discusses enterprise risk management matters with the CFO, and CIO raising them to the level of the Board of Directors as needed. Opportunities are similarly identified, and integrated into the annual capital plan for the
ESG department.

If risks fall into a meaningful financial or organizational impact, a plan is established and acted upon to mitigate the risk. If meaningful opportunities are identified, they are put on the plan for investment. If the risks/opportunities fall outside the thresholds we have set for meaningful financial/organizational impact, but are believed to still have the potential for disruption, they are ongoingly monitored to determine if they would cross over that threshold. Opportunities and risk mitigations often require capital funding to achieve/mitigate, therefore, annually, the VP ESG develops a strategic plan for the ESG department and outlines the various initiatives that will be conducted in the coming year. Consequent to this plan is a Capital Expenditure (Capex) plan which outlines the investments to be made on each initiative. As part of this process the VP of ESG engages the multi-disciplinary Sustainability Counsel to review and help plan for the various high-impact (and to be mitigated) climate-related risks and meaningful opportunities. Over the course of several meetings, these risks and opportunities are aligned to the strategies outlined in the annual strategic plan, and initiatives are developed for consideration of near and medium-term funding.

Example Transitional - Policies An excellent example of this in terms of upstream risks/opportunities relates to New York's Local Law 97,
which sets increasingly stringent limits on carbon emissions per square foot in 2024. As noted in the preceding section on how we identify risks/opportunities, we regularly have conversations with localities and participate in their programs as a means to identify upcoming risks/opportunities and are constantly scanning or legislation like LL97 that will impact our portfolio. Therefore, through part of our ongoing participation in the NYC Carbon Challenge and Retrofit Accelerator, we were able to begin planning for the new law ahead of its passing, thereby developing a scenario analysis of this law that allowed us to see the impact it could have on our NY portfolio. This planning has served us well in tying our planning together for the emissions reductions of the affected properties and coordinating our response across departments, leveraging what we are already doing to reduce consumption, improve equipment efficiency, and achieve our approved science-based targets.

Example Physical – Frequency and Intensity of Storms
Led by the Vice President of ESG, in 2022 (originally conducted in 2020) we made significant investment with an outside firm to do a much more comprehensive review of our portfolio with respect to climate-related risks. The firm uses multiple data sources and analyzed 275+ existing AvalonBay properties individually against 14 climate-risks. These include: Pluvial Flooding (rainfall), Fluvial Flooding (riverine), Hurricane, FEMA
flood rating, FEMA NRI, Tsunami, Wildfire, Wind, Tornado, Earthquakes, and Tidal Flooding (sea-level rise). In addition, three "future" risks were analyzed, including: Extreme Heat, Extreme Rainfall, and Extreme Drought. As a result of this analysis, we created a combined climate and emissions risk dashboard which shows each property's risk profile and emissions
intensity. This dashboard has been integrated into our investments and asset management decision-making and will be used in our new developments (each new development will undergo the same analysis and be added to the dashboard), dispositions and acquisitions, and capital investment decisions made by our asset management team to make the portfolio more resilient. Further, we now better understand our climate related exposures in each market, and we can help our asset teams make better design and construction decisions to prepare for a low carbon and climate changed future. As our cities and the markets in which we do business continue to move in the direction of better climate mitigation, we know we have a significant role to play in making our buildings responsive to potential regulation or policies relative to climate mitigation. We therefore are looking at a variety of measures, including: Sump pumps, Storm blockers and rapidly deployable flood barriers, window upgrades, temporary door protective barriers, emergency generators (often already on-site) and the potential for emergency backup power generated by a combination of solar and battery, as well as potable water equipment. In this example our analysis can help us mitigate potential future market requirements and take advantage of opportunities to make our properties more resilient.

Value chain stage(s) covered
Downstream

Risk management process
Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment
More than once a year

Time horizon(s) covered
Medium-term
Long-term

Description of process
The process used to determine which risks and opportunities could have a substantive financial or strategic impact on the organization is outlined here which is led by the VP of ESG who uses the following channels to identify physical and transitional climate-related risks.

Physical Risk Identification
Our climate-risk portfolio analysis, which was updated in 2022 to
evaluate all existing properties (275+) against 14 climate-related risks and provides an in-depth analysis on each property of the potential risk exposures. This analysis is also required for all new developments and acquisitions.

Transitional Risk Identification
1) For an effective understanding of when our assets will be considered stranded relative to their associated decarbonization pathways, we use the CRREM tool to project the estimated stranding years of these assets and show the estimated GAV and GSF at risk.
2) Given the proliferation of building performance standards across the United States and our portfolio, we created our own climate legislation tracker to stay abreast of the changing landscape and better understand the risks our assets in certain markets face.
3) We also have wide-ranging and ongoing discussions with local and state government leaders, sustainability industry experts, non-governmental and real estate specific industry organizations, and various internal stakeholders.

Once identified, risk are then categorized based on their financial or strategic impact to the organization and if they are physical or transitional. They are then grouped into immediate or short-term risks, medium-term risks and long-term risks. We then begin to determine the magnitude of the impact (either financial or strategical). Risk of larger magnitude, regardless of their time horizon, must be integrated into AvalonBay's enterprise risk management (ERM) process. Each year, the VP ESG reviews and discusses enterprise risk management matters with the CFO, and CIO raising them to the level of the Board of Directors as needed. Opportunities are similarly identified, and integrated into the annual capital plan for the
ESG department.

If risks fall into a meaningful financial or organizational impact, a plan is established and acted upon to mitigate the risk. If meaningful opportunities are identified, they are put on the plan for investment. If the risks/opportunities fall outside the thresholds we have set for meaningful financial/organizational impact, but are believed to still have the potential for disruption, they are ongoingly monitored to determine if they would cross over that threshold. Opportunities and risk mitigations often require capital funding to achieve/mitigate, therefore, annually, the VP ESG develops a strategic plan for the ESG department and outlines the various initiatives that will be conducted in the coming year. Consequent to this plan is a Capital Expenditure (Capex) plan which outlines the investments to be made on each initiative. As part of this process the VP of ESG engages the multi-disciplinary Sustainability Counsel to review and help plan for the various high-impact (and to be mitigated) climate-related risks and meaningful opportunities. Over the course of several meetings, these risks and opportunities are aligned to the strategies outlined in the annual strategic plan, and initiatives are developed for consideration of near and medium-term funding.

Example Transitional - Market Shift:
An excellent example of this on the opportunity side relates to our residents (our clients) moving toward electric vehicles and less vehicle use. As we saw this trend in our markets through market research, we conducted a major internal study of our parking footprint and utilization of our parking locations. AvalonBay has a large parking footprint across the portfolio which can provide many opportunities and we are considering these opportunities from multiple angles, including increasing car-charging spaces, re-purposing parking structures and parking lots for additional dwelling units as neighborhood density increases and the reliance on vehicles decreases, or allowing the public to park in addition to the Company's resident population. In addition we are working to provide better electric car charging infrastructure in our properties while assessing the possibility of tying those charging stations into our solar and battery technologies. In 2022, similar to the prior year, we again significantly increased our available charging infrastructure while working to continue this expansion over the coming years. . To date we have 673 level 2 charging stations and 1,145 level 2 charging outlets. These investments are expected to continue to increase year-over-year.

Example Physical – Frequency and Intensity of Storms:
Stronger storm activity akin to Hurricane Sandy would have deleterious effects on our communities through flooding and disruption of power and water service. These events are requiring us to think through our design for new construction (e.g., moving critical building infrastructure up several floors, installing flood barriers, raising the overall elevation of the building). And for our residents, we also know that storm disruption is a wider issue that often affects their lives beyond the walls of our communities. That is why our four year, $1M commitment to the American Red Cross is a partnership designed to leverage their disaster planning resources and to better prepare existing communities in the event of these emergencies. This partnership continues to form a cornerstone for preparedness and planning of both our associates and our residents. Their resources provide our residents with both advanced planning tools, as well as the ability to connect with friends and family after a disaster has occurred, providing often life-saving communications and connecting our residents in need with the resources, such as prescription medications, they require.

Value chain stage(s) covered
Direct operations
Upstream
Downstream

Risk management process
A specific climate-related risk management process

Frequency of assessment
Annually

Time horizon(s) covered
Short-term
Medium-term
Long-term

Description of process
The process used to determine which risks and opportunities could have a substantive financial or strategic impact on the organization is outlined here which is led by the VP of ESG who uses the following channels to identify physical and transitional climate-related risks.

Physical Risk Identification
Our climate-risk portfolio analysis, which was updated in 2022 to evaluate all existing properties (275+) against 14 climate-related risks and provides an in-depth analysis on each property of the potential risk exposures. Our portfolio wide assessment is conducted every 2 years or as the underlying data changes materially. This analysis is also required for all new developments and acquisitions which are conducted on a rolling basis during the year as they progress to and through due diligence. The analysis is then required to be included in the investment package for review during decision making conversations.

Transitional Risk Identification
1) For an effective understanding of when our assets will be considered stranded relative to their associated decarbonization pathways, we use the CRREM tool to project the estimated stranding years of these assets and show the estimated GAV and GSF at risk. We are also part of the ULI/CRREM working group tasked with refining the US CRREM model/pathways. We conducted this assessment for the first time in 2022 and plan to update annually once the newest version of the model with the updated US information is available. This information combined with the below regarding building performance standards are part of our asset level capital planning and disposition planning processes.
2) Given the proliferation of building performance standards across the United States and our portfolio, we created our own climate legislation tracker to stay abreast of the changing landscape and better understand the risks our assets in certain markets face. We also use external tools to monitor current and proposed legislation. As mentioned above, these legislations are taken into consideration in the capital planning and disposition processes. We will also consider these for our new construction projects located in areas that current, or may soon have, building performance standards.
3) We also have wide-ranging and ongoing discussions with local and state government leaders, sustainability industry experts, non-governmental and real estate specific industry organizations, and various internal stakeholders to stay abreast of the evolving requirements across our ESG platform.
The above risks are identified on an ongoing basis throughout the year as information becomes available and new legislations are passed.

Once identified, risk are then categorized based on their financial or strategic impact to the organization and if they are physical or transitional. They are then grouped into immediate or short-term risks, medium-term risks and long-term risks. We then begin to determine the magnitude of the impact (either financial or strategical). Risk of larger magnitude, regardless of their time horizon, must be integrated into AvalonBay's enterprise risk management (ERM) process. Each year, the VP ESG reviews and discusses enterprise risk management matters with the CFO, and CIO raising them to the level of the Board of Directors as needed. Opportunities are similarly identified, and integrated into the annual capital plan for the
ESG department.

If risks fall into a meaningful financial or organizational impact, a plan is established and acted upon to mitigate the risk. If meaningful opportunities are identified, they are put on the plan for investment. If the risks/opportunities fall outside the thresholds we have set for meaningful financial/organizational impact, but are believed to still have the potential for disruption, they are ongoingly monitored to determine if they would cross over that threshold. Opportunities and risk mitigations often require capital funding to achieve/mitigate, therefore, annually, the VP ESG develops a strategic plan for the ESG department and outlines the various initiatives that will be conducted in the coming year. Consequent to this plan is a Capital Expenditure (Capex) plan which outlines the investments to be made on each initiative. As part of this process the VP of ESG engages the multi-disciplinary Sustainability Counsel to review and help plan for the various high-impact (and to be mitigated) climate-related risks and meaningful opportunities. Over the course of several meetings, these risks and opportunities are aligned to the strategies outlined in the annual strategic plan, and initiatives are developed for consideration of near and medium-term funding.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	An example of this relates to New York's Local Law 97, which sets increasingly stringent limits on carbon emissions per square foot in 2024. As part of our ongoing participation in the NYC Carbon Challenge and Retrofit Accelerator, we were able to begin planning for the new law ahead of its passing, thereby developing a scenario analysis of this law that allowed us to see the impact it could have on our NY portfolio. This planning has served us well in tying our planning together for the emissions reductions of the affected properties and coordinate our response across departments, leveraging what we are already doing to reduce consumption, improve equipment efficiency, and achieve our approved science-based targets. In addition, we are leveraging what we learned here in other markets that are considering similar legislation, such as Washington, DC, Boston, and California.
Emerging regulation	Relevant, always included	An example of this relates to the current conversations the VP of CR is having with Boston's Green Ribbon Commission relative to new climate change and building resiliency statutes that the city is considering to improve resiliency related to sea level rise and stronger, more frequent storms. We anticipate that this will affect a number of our Boston properties, including the most recent, Avalon North Point. In 2019 we created a task force (which continued into 2020) to address these Boston regulations, comprised of a cross-functional group from CR, Engineering, Residential Services' maintenance teams and our development teams. This Task Force is a good example of how the climate-related risk analysis related to emerging regulations translates into business planning to address them. And we are leveraging this for other regions and markets considering similar regulations.
Technology	Relevant, sometimes included	Example of Risk: In 2020 our first commercial battery went live at our Avalon White Plains community. This technology will form an essential part of our ability both to increase resiliency of our communities, and to decarbonize our buildings by connecting the battery to onsite solar generation. In 2023, we plan to conduct a study of battery applicability across our portfolio, starting with how we can leverage batteries at the 51 communities which currently have onsite solar as of the end of 2022.
Legal	Relevant, sometimes included	Example of Risk: An example here includes our ongoing monitoring to ensure that the statements we are making about our emissions offsets due to solar are stated correctly. For example, in our Washington, DC region we monetize our SREC income generated from the 7 solar installations we have on the portfolio. Therefore, we do not claim those credits against our emissions and science-based target calculations. We do this to ensure that we stay ahead of any legal risk from organizations that are more actively challenging corporate claims around emissions reductions and offsets.
Market	Relevant, always included	An example here includes how our residents are moving toward electric vehicles and/or less vehicle use. AvalonBay has a large parking footprint across the portfolio which can provide many opportunities and we are considering these opportunities from multiple angles, including increasing car-charging spaces, re-purposing parking structures and parking lots for additional dwelling units as neighborhood density increases and the reliance on vehicles decreases, or allowing the public to park in addition to the Company's resident population. In addition we are working to provide better electric car charging infrastructure, and , in 2022, we have 673 level 2 charging stations and 1,145 level 2 charging outlets. These investments are expected to continue to increase year-over-year as we continue to monitor this market shift.
Reputation	Relevant, sometimes included	Example of Risk: As US investors and consumers are increasing their focus on more accessible and comparable climate and emissions related information, we anticipate increased reputational exposure to those who want to see AvalonBay decarbonize and address climate-related risks. As we continue to monitor the SEC's pending emissions reporting ruling, we believe that we will be in good standing from a reputational perspective having used many pervious years to firm up our reporting procedures and increase our reporting accuracy and comprehensiveness. Additionally, we have shown our commitment to doing our part in fighting climate change by setting and making measurable progress towards our science based targets and ensuring our residents will have a safe place to live by understanding the climate risk at our properties. In 2022, (originally completed in 2020) we consulted an outside firm to do a comprehensive review of our portfolio with respect to climate-related risks. The firm uses multiple data sources and analyzed 275+ existing AvalonBay properties individually against 14 climate-risks. These include: Pluvial Flooding (rainfall), Fluvial Flooding (riverine), Hurricane, FEMA flood rating, FEMA NRI, Tsunami, Wildfire, Wind, Tornado, Earthquakes, and Tidal Flooding (sea-level rise). In addition, three “future” risks were analyzed, including: Extreme Heat, Extreme Rainfall, and Extreme Drought. Anyone who looks “under the covers’ of AvalonBay from a reputational standpoint will see a Company making significant investments in and taking committed, serious steps toward decarbonization and addressing climate change.
Acute physical	Relevant, always included	Example of Risk: In 2022 the VP of ESG, in conjunction with our outside consultant, increase the number of climate related risk factors we included as part of our portfolio assessment to further get a more comprehensive look at how at risk our portfolio is. This updated analysis was conducted at all existing properties (275+) individually against 14 climate-risks. These include: Pluvial Flooding (rainfall), Fluvial Flooding (riverine), Hurricane, FEMA flood rating, FEMA NRI, Tsunami, Wildfire, Wind, Tornado, Earthquakes, and Tidal Flooding (sea-level rise). In addition, three “future” risks were analyzed, including: Extreme Heat, Extreme Rainfall, and Extreme Drought. As a result of this analysis, we created a combined climate and emissions risk dashboard which shows each property’s risk profile and emissions intensity. This dashboard has been integrated into our investments and asset management decision-making and will be used in our new developments (each new development will undergo the same analysis and be added to the dashboard), dispositions and acquisitions, and capital investment decisions made by our asset management team to make the portfolio more resilient.
Chronic physical	Relevant, always included	Example of Risk: In 2022 the VP of ESG, in conjunction with our outside consultant, increase the number of climate related risk factors we included as part of our portfolio assessment to further get a more comprehensive look at how at risk our portfolio is. This updated analysis was conducted at all existing properties (275+) individually against 14 climate-risks. These include: Pluvial Flooding (rainfall), Fluvial Flooding (riverine), Hurricane, FEMA flood rating, FEMA NRI, Tsunami, Wildfire, Wind, Tornado, Earthquakes, and Tidal Flooding (sea-level rise). In addition, three “future” risks were analyzed, including: Extreme Heat, Extreme Rainfall, and Extreme Drought. As a result of this analysis, we created a combined climate and emissions risk dashboard which shows each property’s risk profile and emissions intensity. This dashboard has been integrated into our investments and asset management decision-making and will be used in our new developments (each new development will undergo the same analysis and be added to the dashboard), dispositions and acquisitions, and capital investment decisions made by our asset management team to make the portfolio more resilient.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Chronic physical	Heat stress

Primary potential financial impact

Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

As seen in the past couple years, the average annual temperature is on the rise due to climate change. This is felt more significantly during summer months as we are

seeing higher peak temperatures around the work and longer and more frequent heat waves. This means we are increasing the amount of space cooling in our buildings and reducing the amount of heating. In times of heat waves, we are also seeing rolling brown outs as the demand for cooling energy from the grid is larger then the grid can handle. Specifically in our Northeastern and California locations, our properties are experiencing the effects of heat stress and we project these locations to be subject to future heat stress. In order to mitigate the effects of heat stress we are employing two approaches 1) ensure that the cooling systems for our properties are in good operating order, sized appropriately, and can handle the required load. 2) participate in demand response to hopefully prevent brownouts and keep the power grid operational.

Time horizon
Long-term

Likelihood
Likely

Magnitude of impact
Low

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
0

Potential financial impact figure – maximum (currency)
6200000

Explanation of financial impact figure
We anticipate the increase in heat stress will wear on our HVAC equipment and require increase maintenance or artificially expedite obsolescence. We came to the provided estimated range based on the cost of HVAC related repairs and replacements that took place in 2022. The maximum value in the range is 1.5x the cost of current repairs and replacements which is representative of the amount of additional properties that may be impacted in the future. We believe this range to be representative of the types of repairs we expect to see in the future at a potentially expedited pace.

Cost of response to risk
237000

Description of response and explanation of cost calculation
We have two recent examples of ways in which we are preparing our buildings for heat stress. The first is our implementation of HVAC energy management systems at our Avalon Clinton South property in NYC. This system costs $72,000 and will provide monitoring and active control of the buildings HVAC systems. This allows us to ensure the system is operating optimally, prepare in advance for heat waves, maintain the system to avoid downtime, and participate in demand response events. In a separate example at our Avalon Brighton property in MA, we piloted the use of a product that improved the air tightness of the envelope of the building which decreased the transmission of energy between the inside and outside of the building at a cost of $165,000. Increase air tightness means that potentially less cooling will be needed in the space since there will be less heat intrusion or less cooling loss. We believe this will help maintain a comfortable indoor temperature during peak heat days and heat waves. The financial figure provided is the sum of the cost of these 2 initiatives as we are assessing the implementations of these programs at more properties in these impacted areas.

Comment
No additional comment

Identifier
Risk 2

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation	Mandates on and regulation of existing products and services

Primary potential financial impact
Increased capital expenditures

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
In 2021, created a Climate, Energy, and Emission Legislation Tracking Dashboard which allows us to view and track current and potential future Climate, Energy, and Emission Legislations that would impact our current portfolio of potential new developments. Through our efforts in keeping track of these types of legislation we have identified that our Seattle portfolio may be at risk given the city has proposed implementing new climate change and building emissions performance statutes that require increase energy efficiency and decreased emissions following city defined timelines. This will affect a number of our Seattle properties. We have estimated how these regulations will impact our portfolio based on the current iteration of the law to help understand what fines we will face and how significantly we will need to reduce or emissions. The proposed Seattle building performance standards is slated to have buildings reach an emissions intensity of zero by 2046.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)

3653837.5

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
An example of this risk can be seen in Seattle where certain cities have discusses implementing new climate change and building emissions performance statutes that require increase energy efficiency and decreased emissions following city defined timelines. This will affect a number of our Seattle properties. The proposed legislation states a $2.50/sf fine for buildings in noncompliance. Using the gross square feet of the buildings we believe will not be in compliance, we were able to determine the estimated fine.

Cost of response to risk
14615350

Description of response and explanation of cost calculation
Given that the proposed ruling in Seattle will require buildings to drop their emissions to zero, we believe that we may possible have to remove any natural gas fired equipment in our buildings. Because of this, we have estimated $10/sf of CapEx needed to execute the work needed in these buildings. Since this is a significant amount of CapEx, we are currently establishing the process internally to handle the impacts of this standard should it be enacted as proposed. In 2022 we created a task force to address emerging regulations titled the Emissions Regulations Taskforce, comprised of a cross-functional group from CR, Engineering, and Asset Management. This Task Force is a good example of how the climate-related risk analysis related to emerging regulations translates into business planning to address them. And we are leveraging this for other regions and markets considering similar regulations.

Comment
No additional comment

Identifier
Risk 3

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Acute physical	Flood (coastal, fluvial, pluvial, groundwater)

Primary potential financial impact
Increased capital expenditures

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
In 2022 we built on an already strong understanding of physical climate risks in our portfolio updating our climate risk analysis of our existing communities to include 3 additional risk factors. We then reevaluated all existing properties (274+) against the previous 11 climate-related risks plus the 3 new risks. These include: Pluvial Flooding (rainfall), Fluvial Flooding (riverine), Hurricane, FEMA flood rating, FEMA NRI, Tsunami, Wildfire, Wind, Tornado, Earthquakes, and Tidal Flooding (sea-level rise). In addition, three “future” risks were analyzed, including: Extreme Heat, Extreme Rainfall, and Extreme Drought. The results of these studies show that we do have risk in our eastern markets related to stronger storms and flooding. Events related to flooding and extreme weather could lead to multiple challenges, including disruption of power and water service. As such we are integrating these risks into our decision making around new construction design (e.g., moving critical building infrastructure up several floors, installing flood barriers, raising the overall elevation of the building) in our northeast and SE Florida markets. Additionally, we are looking at how to better prepare operationally. Our four-year, $1M commitment to the American Red Cross is a partnership designed to leverage their disaster planning resources and to better prepare existing communities in the event of these emergencies related to climate risk.

Time horizon
Short-term

Likelihood
Likely

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
0

Potential financial impact figure – maximum (currency)
2300000

Explanation of financial impact figure
Estimating construction expense increases for disaster preparedness and resiliency are dependent on the building type, location, and design. Therefore the costs to improve resiliency through activities like improving storm water runoff, raising the building and designing equipment to reside on higher floors as part of the design/construction process can vary widely. Generally we estimate them to run anywhere from 0% to 3% of the total construction cost depending on the factors outlined above. Using a sample development in the northeast with an estimated cost of $117M, using the 0%-3% cost estimates would result in $0 - $2.3M. In addition, we know from the experience of Hurricane Sandy that the cost to repair storm damage can be variable depending on the location of the property and the amount of resiliency built into the property and repairs can be very costly.

Cost of response to risk
250000

Description of response and explanation of cost calculation
We are managing this on two fronts: 1) through our climate and emissions risk dashboard which includes the 14 climate-related risks and the emissions intensities of each property. This dashboard will be maintained and used for investment/divestment decisions and for asset management decisions. 2) AvalonBay has a team of regional liaisons that he meets with bi-monthly to coordinate disaster preparedness activities in coordination with the American Red Cross in each region. We have budgeted a $250,000 annual donation to the American Red Cross which supports preparedness activities. Given the varying costs of mitigation efforts for existing buildings and new developments. We have stuck to the hard cost we can identify through our American Red Cross partnership.

Comment
No additional comment

Identifier
Risk 4

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Current regulation	Mandates on and regulation of existing products and services

Primary potential financial impact
Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
In 2021, created a Climate, Energy, and Emission Legislation Tracking Dashboard which allows us to view and track current and potential future Climate, Energy, and Emission Legislations that would impact our current portfolio of potential new developments. An example of one of these legislations that we tracked and prepared for would be New York Cities Local Law 97 (LL97). LL97 set increasingly stringent limits on carbon emissions/square foot in 2024 and ramps those up in 2030 for buildings larger than 25,000 square feet. LL97 requires buildings larger than 25,000 square feet to meet these emissions limits or risk being fined each year they do not meet them. AvalonBay has done an in-depth study of our portfolio and determined that eight properties are at potent risk of not meeting the 2030 requirements. Missing the 2030 emissions reductions targets for these eight buildings would mean one million dollars in fines annually. We are constantly reviewing additional measures and investments that will enable compliance with the law and reduce emissions. These could include: energy conservation measures, renewable energy + battery technology and/or operational changes similar to what we already enact as part of our building automation and demand response program. Other jurisdictions/markets where we operate in are creating similar laws including Washington, DC, California, and Boston. Our climate and emissions risk dashboard will provide key support to this work as we monitor current and future risks.

Time horizon
Short-term

Likelihood
Virtually certain

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
5038440

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
If we do nothing the penalties for the eight properties where the NY LL97 fines could occur are estimated to be:
Bowery Place I: $63,135
Bowery Place II: $59,400
Clinton North: $191,506
Clinton South: $127, 708
Midtown West: $248,566
Riverview: $136,593
Riverview North: $111,481
Fort Greene: $69,299
These aggregates to a total penalty for starting in 2031 through 2036 of (5 years x $1,007,688) = $5,038,440

Cost of response to risk
1600000

Description of response and explanation of cost calculation
Given the expected impact of LL97 we brought in a third party industry expert to assess our portfolio to assist in understanding which of our properties will comply with this law in 2024 and 2031 which will not. All properties will be in compliance for the first phase of the law based on current projections but either will be out of compliance for the second round of the law starting in 2031. Having identified the properties mentioned in an earlier response as at potential risk, we have started comprehensive studies of the potential measures that we can implement to bring these buildings into compliance. These costs are just estimates it will take time to implement suggested measures and the availability and pricing of certain technologies will shift over time. We estimate the costs to bring the emissions of eight buildings down into compliance at a one-time cost of approximately $200,000/building. These costs were estimated through the above-mentioned study that we conducted on these properties and based on our knowledge of the cost of some of the suggested reduction methods. These estimated costs are subject to increase or decrease as we determine the individual plans for each asset. Cost estimates do not include costs related to onsite solar generation combined with battery technology which may be considered based on building type, size, location, and available space. Additionally, in 2021 we began to shift our NYC procurable load to 100% renewable wind energy.

Comment
No Additional Comment

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?
Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier
Opp1

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Resource efficiency

Primary climate-related opportunity driver
Reduced water usage and consumption

Primary potential financial impact
Reduced indirect (operating) costs

Company-specific description
In areas experiencing extreme droughts, or in areas where water costs are rising rapidly (which is the case in almost all of our markets), we are finding good return on investment in implementing more efficient weather-based irrigation controls. This is enabling us to implement more efficient watering systems thereby reducing our overall watering costs significantly. It is also a potential attraction point for prospective residents as we move to increase water efficiency in our apartment homes and lower their costs. Beyond irrigation systems, the ongoing challenges with water scarcity and cost are opportunities for us to look at water consumption more holistically and determine other additional ways to reduce consumption such as minimizing landscape that requires irrigation. In 2023, our Water Reduction Task Force will be assessing and piloting turf reduction products to determine feasibility for broader rollout.

Time horizon
Short-term

Likelihood
Virtually certain

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
1500000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
We are seeing significant savings in water bills associated with more efficient weather-based irrigation systems. Our 62 locations are savings us $1,500,000 and over 158 Million gallons of water based on actual data from the systems output reports. The annual savings are calculated by comparing the irrigation consumption from a one month to that month's consumption from one year ago, and then multiplying it by the water rate of that given year, and adding all 12 months for an annual number. This number is significant when multiplied across the total number of communities where we plan to implement these more efficient systems. In addition, the implementation of water task force recommendations on additional water saving measures will continue to drop our water consumption. and add to these savings and the financial impact.

Cost to realize opportunity
1150000

Strategy to realize opportunity and explanation of cost calculation
We determined that the best strategy for realizing this opportunity and gain consensus across the organization was through a multi-disciplinary task force. This task force is led by our VP ESG, and includes members of Asset Management, Energy & Utilities Management, and Engineering
CASE STUDY SITUATION: Water costs are increasing in many of our markets as the costs to upgrade old infrastructure get rolled into the utility charges. We are also monitoring for potential lengthy droughts and water restrictions in our California portfolio. In addition, we have our own water use intensity goal which is designed to reduce consumption in areas of water stress.
TASK: The task was to identify as many areas of potential water savings as possible, both in existing buildings and in our new construction standards.
ACTION/RESULT: The multi-disciplinary water task force identified a series of opportunities for improving our construction standards and reducing water consumption. One of the biggest areas related to irrigation water. Hence the task force recommended we increase our weather-based irrigation systems and make it a construction standard that is mandatory in certain water-stressed areas. At year end 2022, based on installations in 2020 and 2021, we had weather based irrigation systems operating at 62 locations. Through our sustainability capex funds, these installations are now completed. We receive a weekly report on how the weather-based irrigation systems are performing, including any alerts and outliers that may show leakage. We use the report data to influence other activities to reduce water consumption across the portfolio.
COST EXPLANATION: We budgeted roughly $1.15M for weather-based irrigation systems in 2020-21 based on proposals/feasibility assessment provided by our vendor. We believe this to be indicative of the cost we can expect as we continue to assess the implementation across the portfolio.

Comment

No additional comment

Identifier
Opp2

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Energy source

Primary climate-related opportunity driver
Use of lower-emission sources of energy

Primary potential financial impact
Reduced indirect (operating) costs

Company-specific description
As the markets we do business in set goals to move to low carbon, low emissions future, we have significant opportunity to play our part and move our own sources of energy to a renewable, lower emissions sources. In 2022 we installed solar on 13 communities, adding 2.25 Megawatts of renewable power to our portfolio. This is in addition to the previous 39 communities generating over 4.7 Megawatts of solar power. In 2023/2024 we are finishing and starting onsite solar projects at 29 more communities representing an additional 8.79 Megawatts of renewable solar. If all of these projects are completed, AvalonBay would have 81 solar panel systems generating 15.76 Megawatts of renewable power, saving us 13.89 metric tons of CO2. Note that we have removed from this number the communities in DC and NJ where we monetize the SRECs so as to not double count those RECs. These 81 projects would save $3.26M in annual electricity costs. In 2020 we created a strategic plan to achieve our Science-Based Targets, with three foci: 1) a focus on onsite common area and resident renewable energy while shifting our procurable load to renewables, 2) a focus on embedded carbon in our construction materials, and, 3) engagement with our residents on renewable procurement and renewable energy. The opportunities here reflect our commitment to move to a fundamentally low carbon operating model. In fact, in 2022, we were able to increase to 95% of our common area procurable electric load to renewable wind energy.

Time horizon
Short-term

Likelihood
Virtually certain

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
3260000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
The financial impact of solar on the company is now estimated to be a return of $3.26M annually. This is based on the above 81 solar panel systems generating 15.76 Megawatts of renewable power, saving us 13.89 metric tons of CO2. Note that we have removed from this number the communities in DC and NJ where we monetize the SRECs so as to not double count those RECs. This is a figure which represents the U.S. Federal Tax Credit, Depreciation, and the savings in utilities from the solar itself. We expect this figure to continue to rise as we start to combine solar and battery technologies, increase our participation in demand response programs (which themselves are on the rise with utilities in our markets), and install more renewable energy across the portfolio.

Cost to realize opportunity
32293812

Strategy to realize opportunity and explanation of cost calculation
There are three components to our strategy to increasing renewables:
1) Increase the use of onsite renewable energy for our common areas and increase the amount of renewable energy within our procurable energy.
2) Increase the amount of solar power that we can provide to our residents. In markets like California, we are able to install onsite solar and provide the energy directly to our residents.
And, 3) Engage in community solar in markets where we can such as our mid-Atlantic portfolio.
Together, this renewable energy strategy will ultimately support the achievement of our approved Science-Based Targets. In addition to the above strategy, we plan to assess the viability of battery storage across our portfolio. In order to realize the opportunity we have of installing solar across our portfolio, we ran feasibility assessment on those properties located in the most attractive areas and structured an execution plan that would run in phases starting back in 2017 with the next phase of projects starting and completing in 2023/2024. Through our vendors modeling, feasibility assessments, and years of experience working with our portfolio, we were able to determine that the cost to realize the slated 9 projects in 2023/2024 would cost $32.3M. Concurrent to these projects, we have an operations/maintenance vendors who can maintain the systems ongoing. These operations and maintenance costs have not been included.

Comment
No additional comment

Identifier
Opp3

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Products and services

Primary climate-related opportunity driver
Shift in consumer preferences

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
AvalonBay has an opportunity to lead in the multi-family space when it comes to the sustainable design, development, construction and operation of our communities. In taking a position of leadership we have an opportunity to improve our reputation with key stakeholders, including those looking to reduce their energy costs by renting with a more efficient and greener multi-family builder. We are continually experimenting with innovative ways to drive value for residents while reducing environmental impact. Examples of this are our Resident Solar pilot projects in California and our Community Solar pilots in the mid-Atlantic. Both pilots will provide renewable energy to residents at a reduced cost compared to market rates thus reducing their environmental impact and saving them money. We believe this to be attractive to prospective residents in those areas who care about greener buildings and apartment homes. Additionally, in NYC, we expanded our demand response program to enable residents to participate which allows them to earn income and participate
in utility demand response programs, reducing their load a peak event periods. Ultimately we see real opportunity to extend the environmental sustainability efforts focused on a low/no carbon future to our residents in ways that have a material effect on their utility bills and carbon footprint. We believe this will be a real attraction point to residents and increase demand for sustainable living solutions in their apartment homes.

Time horizon
Medium-term

Likelihood
More likely than not

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)
1000000

Explanation of financial impact figure
Improving the preference of both prospects and existing residents for the AvalonBay brand has, in certain markets, the potential to increase resident retention 0-2% and has some impact on our ability to lease-up new communities more quickly and to retain existing residents at lease-end. This calculation is based on data regarding resident retention which shows the correlation between our net promoter score and retention rates. We know that our positive brand impressions lead to net promoter scores which are higher, and hence we conservatively estimate the 0-2% retention impact as a result which translates into a range of $0-$1,000,000 in additional rent. Also, a recent survey of our residents showed that they are more likely to recommend AvalonBay based on our ESG initiatives and performance which is another component of how we calculated this percentage.

Cost to realize opportunity
8108476

Strategy to realize opportunity and explanation of cost calculation
Our ESG team in coordination with our brand, marketing, communications, and PR team manages how sustainability initiatives could support brand uplift. The ESG team actively works with our marketing team throughout the year on various forms of communications and campaigns to provide residents with information regarding the ways AvalonBay is reducing our impact and helping residents reduce theirs while saving them money in utility bills. Therefore, we are working with our marketing and local community management teams to ensure that when solar is installed we are communicating our sustainability commitments effectively to our residents. Examples of this are our Resident Solar pilot projects in California and our Community Solar pilots in the mid-Atlantic. Both pilots will provide renewable energy to residents at a reduced cost compared to market rates thus reducing their environmental impact and saving them money. We believe this to be attractive to prospective residents in those areas who care about greener buildings and apartment homes. The cost of installation for our Resident Solar projects is estimated to be roughly $8M and will take roughly 2 years to implement properly. Installing these systems will provide our residents utility savings which we believe will make our properties more attractive and increase resident retention. We are monitoring legislation in the rest of our portfolio so that we are prepared to act when we are able to execute this program in other markets.

Comment
No additional comment

C3. Business Strategy

C3.1

(C3.1) Does your organization's strategy include a climate transition plan that aligns with a 1.5°C world?

Row 1

Climate transition plan

No, but our strategy has been influenced by climate-related risks and opportunities, and we are developing a climate transition plan within two years

Publicly available climate transition plan

<Not Applicable>

Mechanism by which feedback is collected from shareholders on your climate transition plan

<Not Applicable>

Description of feedback mechanism

<Not Applicable>

Frequency of feedback collection

<Not Applicable>

Attach any relevant documents which detail your climate transition plan (optional)

<Not Applicable>

Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world and any plans to develop one in the future

Our current transition plan/decarbonization plan is centered around our two approved science-based targets that are currently aligned to 2°C. We are currently in the process of understanding the implications of a transition of our science-based targets from 2°C to 1.5°C. Once we understand the required level of decarbonization, we will begin redrafting our company-wide transition plan accordingly. This work is currently taking place in 2023.

Explain why climate-related risks and opportunities have not influenced your strategy

<Not Applicable>

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy	Primary reason why your organization does not use climate-related scenario analysis to inform its strategy	Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future
Row 1	Yes, qualitative and quantitative	<Not Applicable>	<Not Applicable>

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Physical climate scenarios: RCP 4.5	Company-wide	<Not Applicable>	In 2020, we completed a quantitative climate risk assessment of 274+ communities across 11 climate risk indicators including 3 future risks. These include: Pluvial Flooding (rainfall), Fluvial Flooding (riverine), Hurricane, FEMA flood rating, Wind, Tornado, Earthquakes, and Tidal Flooding (sea-level rise). In addition, three "future" risks were analyzed, including: Extreme Heat, Extreme Rainfall, and Extreme Drought. In 2022, we expanded the number of indicators used to 14 adding FEMA NRI, Tsunami, and Wildfire risks. Two of the future risks below have been assessed using the RCP 4.5 and 8.5 scenarios: Extreme Heat: Extreme heat risks related to the projected increase in maximum daily air temperature. Datasets from Representative Concentration Pathways 4.5 and 8.5 are used to determine the percentage change in number of days per year for annual maximum daily air temperature greater than 85°F (~29.44° Celsius) averaged over 2026-2030, 2036-2040 and 2046-2050 compared with no. of days per year averaged over 2021-2025. Extreme Rainfall: Extreme rainfall risks related to the projected increase in maximum daily rainfall (precipitation). Datasets from Representative Concentration Pathway 4.5 and 8.5 are used to determine the percentage change in annual maximum daily precipitation averaged over 2026-2030, 2036-2040 and 2046-2050 compared with the annual maximum daily precipitation averaged over 2021-2025. This assessment directly impacts the way we manage our properties informing us of communities that may need mitigation measures as well as markets to be weary of in the future. This assessment is required for all new development and acquisition properties so that we can incorporate this risk assessment when making investment decisions. For example, due in part to the above physical risk assessment, we put together disposition plans for assets in certain regions that are more impacted by certain risks. For example, we heavily weight the impacts of flooding on our NYC portfolio when looking to make disposition decisions.
Physical climate scenarios: RCP 8.5	Company-wide	<Not Applicable>	In 2020, we completed a quantitative climate risk assessment of 274+ communities across 11 climate risk indicators including 3 future risks. These include: Pluvial Flooding (rainfall), Fluvial Flooding (riverine), Hurricane, FEMA flood rating, Wind, Tornado, Earthquakes, and Tidal Flooding (sea-level rise). In addition, three "future" risks were analyzed, including: Extreme Heat, Extreme Rainfall, and Extreme Drought. In 2022, we expanded the number of indicators used to 14 adding FEMA NRI, Tsunami, and Wildfire risks. Two of the future risks below have been assessed using the RCP 4.5 and 8.5 scenarios: Extreme Heat: Extreme heat risks related to the projected increase in maximum daily air temperature. Datasets from Representative Concentration Pathways 4.5 and 8.5 are used to determine the percentage change in number of days per year for annual maximum daily air temperature greater than 85°F (~29.44° Celsius) averaged over 2026-2030, 2036-2040 and 2046-2050 compared with no. of days per year averaged over 2021-2025. Extreme Rainfall: Extreme rainfall risks related to the projected increase in maximum daily rainfall (precipitation). Datasets from Representative Concentration Pathway 4.5 and 8.5 are used to determine the percentage change in annual maximum daily precipitation averaged over 2026-2030, 2036-2040 and 2046-2050 compared with the annual maximum daily precipitation averaged over 2021-2025. This assessment directly impacts the way we manage our properties informing us of communities that may need mitigation measures as well as markets to be weary of in the future. This assessment is required for all new development and acquisition properties so that we can incorporate this risk assessment when making investment decisions. For example, due in part to the above physical risk assessment, we put together disposition plans for assets in certain regions that are more impacted by certain risks. For example, we heavily weight the impacts of flooding on our NYC portfolio when looking to make disposition decisions.
Transition scenarios: Customized publicly available transition scenario	Company-wide	1.5ºC	In 2022, utilizing the data input for GRESB, AvalonBay commissioned a transition risk report that input asset level data into the CRREM tool to provide estimated stranding dates of assets based on decarbonization pathways. The model adopts two global warming scenarios aimed at complying with COP21-targets: 2°C and 1.5°C maximum warming by 2100. The associated anthropogenic carbon budgets and emission pathways to achieve these climate targets are calculated by the IEA 2DS and 1.5°C FotE . Budgets define the amount of GHG emissions that can be emitted until 2050 in order not to exceed defined warming limits. We used the CRREM tool to assess the projected stranding date of all assets currently in our portfolio as well as the GAV and GSF at risk. This assessment also helps us triage our portfolio to determine where we should focus first (those at risk of stranding first). Using this assessment, our internal Sustainability Council is now putting teams together to do asset level vulnerability assessments and mitigation planning.

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

At AvalonBay communities, some of the questions we seek answers to per our climate related scenario assessments are as follows:
1. What climate related impact can we expect from changing climate on our existing and development portfolio?
2. How can we use climate related understanding to guide development, acquisition, and disposition information?
3. How might legislation geared towards lowering climate change impact revenue?

Results of the climate-related scenario analysis with respect to the focal questions

1. What climate related impact can we expect from changing climate on our existing and development portfolio?
In 2020, we conducted an initial climate risk assessment of 274 existing assets in our portfolio against 11 climate risk indicators including 3 future risks. These include: Pluvial Flooding (rainfall), Fluvial Flooding (riverine), Hurricane, FEMA flood rating, Wind, Tornado, Earthquakes, and Tidal Flooding (sea-level rise). In addition, three "future" risks were analyzed, including: Extreme Heat, Extreme Rainfall, and Extreme Drought. In 2022, we updated this analysis to include 3 additional climate risk indicators: FEMA NRI, Tsunami, and Wildfire. These assessments have allowed us to understand which properties or regions are more at risk than others and for what climate related risks. Using this knowledge, we have begun to undergo mitigation measures analysis to understand what can be done to improve resiliency.
2. How can we use climate related understanding to guide development, acquisition, and disposition information?
In 2021, we published a policy that requires all new development and acquisitions to undergo the above mentioned climate risk assessment. For new development, this helps us understand what areas we may want to avoid and what risks we may face at a particular location should we decide to develop there. For developments and acquisitions, this helps us map any potential mitigation measures we need to build in. For dispositions, this assessment has helped inform what locations are not suitable for our communities in the long term.
3. How might legislation geared towards lowering climate change impact revenue?
As more and more cities across the country are adopting building performance standards, we recognize this to be a potential significant risk to our portfolio. To keep track of the locations and extent of these new standards, we have created a Climate and Energy Legislation Tracker. This helps us keep tabs on and stay ahead of any future legislation while monitoring existing legislation to understand it's impact on our portfolio. ACTION: In 2022, we put together a cross-functional group geared towards assessing the impact of legislation in Boston and NYC to determine the best path of compliance with associated costs or if the asset should be considered for disposition given these new regulations. This group is setting the path for how other areas of the portfolio will handle these regulations if/when they arrive. Additionally, in 2022, utilizing the data input for GRESB, AvalonBay commissioned a transition risk report that input asset level data into the CRREM tool to provide estimated stranding dates of assets based on decarbonization pathways. The model adopts two global warming scenarios aimed at complying with COP21-targets: 2°C and 1.5°C maximum warming by 2100. The associated anthropogenic carbon budgets and emission pathways to achieve these climate targets are calculated by the IEA 2DS and 1.5°C FotE .

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	As the markets in which we do business mitigate climate change and require low carbon buildings, they are changing codes and regulations. We identified this as a Current Regulation Risk (CurrRegRisk1) and Emerging Regulatory Risk [EmRegRisk1]. These requirements directly impact our products and services (the apartment communities we build and operate) and require greater investment in lower carbon building materials, more efficient systems, and onsite/local renewable energy combined with battery technology. This activity also supports an opportunity with a direct effect on operational costs. We identified this as a Resource Efficiency Opportunity (ResEffOpp1). More efficient properties lead to higher Net Operating Income (NOI) and lower operational costs. The best example of the interplay between this risk and opportunity has been our investment in solar renewable energy. TIME HORIZON: The time horizon for these activities is both short-term and medium-term. As a result of new building performance standards with lower emissions requirements, we have made a significant strategic decision to establish two main tracks that will help achieve our science-based targets: TRACK 1: invest in renewable energy and battery technology and TRACK 2: evaluate and transition our high embedded carbon materials to lower embedded carbon alternatives. In addition, we made a strategic decision to better integrate climate science into our investment decisions through climate risk reports on a per-property basis. We engaged a third party and made a substantial investment in 2020 in evaluating 274 properties against 11 climate-risk factors. This study was updated in 2022 to include 3 additional risks. Our new Climate and Emissions Risk Dashboard now centralizes this data and supports our investments, divestitures, and capital asset allocation decisions all with an eye toward mitigating against climate change and achieving our science-based targets. Taken together these strategic decisions have set a decarbonization/climate mitigation course for the 2020s that is a direct result of the identified risks and opportunities.
Supply chain and/or value chain	Yes	How our strategy has been influenced by climate-related risks and opportunities and time horizon: As we mitigate the risks we identified under chronic physical and acute physical categories (CPRisk1 and APRisk1), we have found that there is an opportunity to engage our supply chain and suppliers. In fact, our own science-based targets require us now to focus on Scope 3, which directly implicates our suppliers. That is why we created, as a framework for supplier expectations and engagement, our Responsible Supply Chain program and the principles associated with this program (found here: https://www.avaloncommunities.com/~/media/Files/CorporateResponsibility/SupplyChainPolicy.pdf?la=en). And in 2020 we conducted a study of the highest embedded carbon materials in our supply chain, identifying 3 materials that contribute the most to our embedded emissions: Concrete, Steel Rebar, and Gypsum Core Drywall. In 2022-2023, we will be enacting a policy that will require the tracking of embodied carbon on all new developments so that we can create the foundation for reduction. TIME HORIZON: The time horizon for our supply chain strategy is short- and medium-term as we make the shift to low embedded carbon materials. There is a direct correlation between climate change mitigation and lowering our carbon emissions through supplier engagement in the construction of our apartment communities. Our most important strategic decision here is the work to understand our high embedded carbon materials. Directly tied to our science-based targets implementation and the risks we identified related to acuate physical and chronic physical categories, we are working now to address carbon in the supply chain and achieve our ambitious scope 3 targets. CASE STUDY: SITUATION: We set two primary tracks for achieving our science-based targets and one of them involved embedded carbon in our construction materials. This track heavily implicates our vendor management and engagement approach. TASK: Engaged our vendors on low embedded carbon materials in the top emission materials, including concrete (#1) and rebar (#2). ACTION/RESULTS: We have established a cross-functional committee to investigate lower embedded material alternatives and are in the initial stages of determining what vendors can source these materials and how they perform.
Investment in R&D	Yes	How our strategy has been influenced by climate-related risks and opportunities and time horizon: As we take advantage of opportunities to build and operate our communities more efficiently and to lower our scope 1, 2 and 3 emissions (particularly the risks CPRisk1 and APRisk1 and ResEffOpp2 opportunity), we have significant opportunity to innovate and invest in our properties and in our construction processes. Our strategy has been significantly influenced here by these risks and opportunities in that our plan to achieve our science-based targets is going to focus investment on R&D in our new developments. Below are some examples of R&D that we are conducting in our new developments. 1. Avalon Brighton aerosolized caulking. In an effort to increase the air tightness of the envelope of our building, we piloted the use of an aerosolized caulk that seals any gaps between materials. This is important because a tighter envelope needs less HAVC input to maintain the temperature. This can result in potential reduced cooling and heating loads in both common areas and residents units reducing our Scope 2 & 3 emissions. 2. AVA Arts District reduced embodied carbon concrete. To get familiar with low embodied carbon concrete, our teams tested the use low embodied carbon concrete from 2 different vendors in our corridors concrete overpours and all onsite hardscape/flatwork concrete. Testing different products allows our team to gain the comfort needed to more broadly roll out the use of these products. This will also reduce out total scope 3 embodied carbon emissions. In the meantime, we plan to release a policy in 2023 requiring all new developments to track their embodied carbon using LCA. This will be the foundation by which we create a reduction goal in the coming years. 3. Resident Solar - At 3 communities in California, we are piloting the installation of solar panel systems that will be large enough to cover the full resident electrical load . We will be able to provide residents with 100% renewable energy at a discounted rate compared to market rates. This will reduce the residents environmental impact while saving them money and reducing our scope 3 emissions. These projects should be operational starting in 2023/2024. We will then gather data and conduct feasibility for broader roll out.
Operations	Yes	How our strategy has been influenced by climate-related risks and opportunities and time horizon: Undoubtedly every risk and opportunity outlined has influenced our strategies related to operational improvements and change. We have invested heavily in efficiency measures to reduce our carbon emissions and energy and water consumption and costs. And we are replacing common area electricity with onsite solar generation. In 2022 we installed solar on 13 communities, adding 2.25 Megawatts of renewable power to our portfolio. This is in addition to the previous 39 communities generating over 4.7 Megawatts of solar power. In 2023/2024 we are finishing and starting onsite solar projects at 29 more communities representing an additional 8.79 Megawatts of renewable solar. If all of these projects are completed, AvalonBay would have 81 solar panel systems generating 15.76 Megawatts of renewable power, saving us 13.89 metric tons of CO2. The total cost of the operating and in development systems will be rough $55M excluding operating and maintenance costs. These 81 projects would save $3.26M in annual electricity costs. Additionally, we are seeing operational efficiencies in water consumption as, at year end 2022, we had weather based irrigation systems operating at 62 locations savings us $1,500,000 and over 158 Million gallons of water based on actual data from the systems output reports. TIME HORIZON: The time horizon for this strategy around operations encompasses all three: Short- Medium- and Long-term. Operationally the biggest strategic decisions influenced by our risks and opportunities include reviewing our properties for exposure to physical climate risks and developing climate mitigation and adaptation plans for the properties most at risk. Also, we are strategizing around building electrification, and are installing significant onsite solar generation, and moving our procurable electric load to renewable sources. CASE STUDY: SITUATION: Operationally we need to move to a low-carbon/low-emissions platform. TASK: Install as much onsite solar generation as possible. ACTIONS/RESULTS: We have now installed or are now installing onsite solar at 81 communities. Ultimately we will have 15.76MW of solar saving us over $3.26M annually and offsetting roughly 14,000 metric tons of CO2.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Capital expenditures	Capital Expenditures Details on how climate-related risks and opportunities have influenced the capital expenditures element of our financial planning and their related time-horizons can be found below. Our typical time horizon for capital planning is short and medium-term. Annually, the VP ESG develops a strategic plan, which accounts for climate-related risks and opportunities and outlines initiatives, their time horizon, and the capitol allocation required to achieve the plan for the specified time horizon. As the markets in which we do business move to reduce their emissions requiring buildings in their cities to significantly reduce emissions, our capital expenditures, and the planning related to them, are proactively shifting in the following areas designed to mitigate these risks and take advantage of opportunities: 1. Renewable Energy Generation - A good case study of this is our shift in capital expenditure is our solar strategy created in 2016, and now in execution during the past 6 years. In 2022 we installed solar on 13 communities, adding 2.25 Megawatts of renewable power to our portfolio. This is in addition to the 38 communities generating 4.72 Megawatt of solar power that were built between 2017-2021. In 2023-2024, we will be adding an additional 29 solar projects totaling 8.79 Megawatts of additional power. If all of these projects are completed, AvalonBay would own 80 solar generation systems representing 15.76 Megawatts of renewable power, saving us over 11.24 metric tons of CO2 annually. Note that we have removed from this number the communities in DC and NJ where we monetize the SRECs so as to not double count those RECs. These 80 projects would $3.26M in annual electricity costs. This particular program's achievements offer insight into how our climate risk planning influenced large capital decisions, as follows: a. A risk was identified regarding our markets moving toward a low carbon future and that energy costs are on the rise. Solar was identified as opportunity due to lowering panel costs and that some of our markets are favorable for solar. b. The VP ESG engaged the cross-disciplinary Sustainability Council to discuss this risk/opportunity, and it was determined that we should engage a consultant to establish a solar strategy and begin to install solar on our properties, which we began in 2016 c. When the strategy was complete, it was presented to senior management, who gave the green light to fund phase I of solar. As we proved out this first phase we began to incrementally shift and increase capital expenditures in preparation for all subsequent phases. 2. Climate Risk Assessments - As climate risk and the need for climate mitigation becomes more pronounced, we have made a significant change to our new development and acquisition due-diligence to take into account climate-related risk. In addition, as we look to divest properties, we are taking into account their carbon footprint and looking for ways to remove older, less efficient and higher-emitting buildings from our portfolio. The time horizon for this shift is medium-term, as our new development, acquisition, and divestment activity varies year to year. In 2022 we updated an analysis previously conducted in 2020 where we invested in an outside firm to analyze 274 properties individually against 11 climate-risks. These include: Pluvial Flooding (rainfall), Fluvial Flooding (riverine), Hurricane, FEMA flood rating, Wind, Tornado, Earthquakes, and Tidal Flooding (sea-level rise). In addition, three "future" risks were analyzed, including: Extreme Heat, Extreme Rainfall, and Extreme Drought. In 2022, we updated this analysis to include 3 additional climate risk indicators: FEMA NRI, Tsunami, and Wildfire. As a result of this analysis, we created a combined climate and emissions risk dashboard which shows each property's risk profile and emissions intensity. This dashboard helps track and triage our portfolio of existing communities and plan for capital investment decisions made by our asset management team to make the portfolio more resilient. Additionally this dashboard helps with new acquisitions since we can use the results of the climate risk assessment for the acquisition as well as our other buildings in the area to truly determine what capital expenditures for mitigation measures will be required, if any. An excellent case study of how climate-related risks and opportunities are influencing our acquisitions can be seen in climate risk report we completed on a potential acquisition in Florida. Using our vendor's risk tool, we conducted a climate risk report as part of our due diligence on the potential acquisition. We used this report in conjunction with floodplain and elevation data prior to our investment to confirm the potential risk of the assets micro location and understand the potential risk building infrastructure may face. 3. Building Performance Standards - As mentioned above, many of the markets we operate in are setting goals to reduce their carbon emission and aim to be net zero. To accomplish these goals, cities are enacting "Building Performance Standards" requiring existing buildings to meet emissions reduction thresholds. We are currently seeing these standards in many opf he markets we operate in and are expecting them to spread across our portfolio. In preparation, we are conducting analysis to model the potential impact these building performance standards would have on our portfolio and plan our capital expenditures accordinly on systems or products that will help reduce the buildings emissions to the required level within the specified time horizon. A good example of how building performance standards are impacting our capital expenditures can be seen in NYC in response to LL97. To get ahead of LL97's requirements and potential fines, we assessed how our portfolio is currently performing relative to the first emissions reductions threshold as part of LL97. This allowed us to see which buildings were at risk of not meeting the first emissions reductions threshold allowing us time to do deeper analysis to determine possible pathways to compliance and what their associated costs would be so that we can incorporate in our annual capital expenditure planning process. Similarly, we are doing similar assessments across the portfolio in locations with active or potential building performance standards.

C3.5

(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?

	Identification of spending/revenue that is aligned with your organization's climate transition	Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy
Row 1	No, but we plan to in the next two years	<Not Applicable>

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Intensity target

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number

Int 1

Is this a science-based target?

Yes, and this target has been approved by the Science Based Targets initiative

Target ambition
2°C aligned

Year target was set
2019

Target coverage
Company-wide

Scope(s)
Scope 1
Scope 2

Scope 2 accounting method
Market-based

Scope 3 category(ies)
<Not Applicable>

Intensity metric
Metric tons CO2e per square foot

Base year
2017

Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)
0.9283

Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)
3.114

Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for total Scope 3 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)
4.04

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure
100

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

100

% of total base year emissions in Scope 3, Category 1: Purchased goods and services covered by this Scope 3, Category 1: Purchased goods and services intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 2: Capital goods covered by this Scope 3, Category 2: Capital goods intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution covered by this Scope 3, Category 4: Upstream transportation and distribution intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 5: Waste generated in operations covered by this Scope 3, Category 5: Waste generated in operations intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 8: Upstream leased assets covered by this Scope 3, Category 8: Upstream leased assets intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution covered by this Scope 3, Category 9: Downstream transportation and distribution intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 10: Processing of sold products covered by this Scope 3, Category 10: Processing of sold products intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 11: Use of sold products covered by this Scope 3, Category 11: Use of sold products intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products covered by this Scope 3, Category 12: End-of-life treatment of sold products intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 13: Downstream leased assets covered by this Scope 3, Category 13: Downstream leased assets intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 14: Franchises covered by this Scope 3, Category 14: Franchises intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 15: Investments covered by this Scope 3, Category 15: Investments intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Other (upstream) covered by this Scope 3, Other (upstream) intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Other (downstream) covered by this Scope 3, Other (downstream) intensity figure
<Not Applicable>

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this total Scope 3 intensity figure
<Not Applicable>

% of total base year emissions in all selected Scopes covered by this intensity figure
100

Target year
2030

Targeted reduction from base year (%)
53

Intensity figure in target year for all selected Scopes (metric tons CO2e per unit of activity) [auto-calculated]
1.8988

% change anticipated in absolute Scope 1+2 emissions
-48.4

% change anticipated in absolute Scope 3 emissions
0

Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)
0.84

Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)
1.44

Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for total Scope 3 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)
2.28

Does this target cover any land-related emissions?
No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]
82.1968989351766

Target status in reporting year
Underway

Please explain target coverage and identify any exclusions
AvalonBay commits to reduce scope 1 and 2 GHG emissions by 53% per square foot and scope 3 emissions by 47% per square foot by 2030 from a 2017 base-year.

Plan for achieving target, and progress made to the end of the reporting year
Plan for achieving our scope 1+2 and scope 3 science-based target, and progress made to the end of the reporting year:
In 2022 we updated our strategic plan to achieve our Science-Based Targets, with the following foci:

1) Renewable Energy:
a. Focus on onsite renewable energy for our common areas and resident load (where legislation allows) to reduce our scope 2 & 3 while reducing residents environmental footprint.
b. Engage in community solar to help residents reduce their environmental footprint while reducing our scope 3 emissions.
c. Shift our procurable electric load to renewables where possible
2) Embodied Carbon
a. Focus on understanding, tracking and ultimately reducing the embedded carbon in our construction materials to reduce our scope 3 emissions associated with our new development.
3) Operational Efficiency
a. Focus on improving the efficiency of our new construction as well as existing buildings focusing on the worst performing building to reduce all scopes of emissions.

The above foci and the opportunities within are not comprehensive but rather provide direction and reflect our commitment to move to a fundamentally low carbon operating model.

In 2022, we were able to expand our current procurable common area electric load to 95% renewable wind energy. We also completed LCA studies to better understand the impact of the embodied carbon in our developments to better establish ways to reduce.

Below are a list of emissions reduction initiatives which contributed most to achieving our scope 1+2 and scope 3 targets in the reporting year:

1. In 2022, we completed the installation of 13 solar projects adding 2.25MW of renewable energy to our existing 38 solar projects currently producing 4.72MW of solar. We have an additional 29 solar projects scheduled for 2023-2024 that will produce 8.79MWs. These include 3 projects which will cover the entire resident electricity load.
2. 2022, we began piloting reductions in embodied carbon concrete. We also began finalizing a policy requiring the tracking of embodied carbon through LCA in our development process. This policy will be fully enacted in 2023.
3. Installation of newer equipment and piloting the use of products like aerosolized caulk and building HVAC energy management tools helped drive reduction in our targets.

List the emissions reduction initiatives which contributed most to achieving this target
<Not Applicable>

Target reference number
Int 2

Is this a science-based target?
Yes, and this target has been approved by the Science Based Targets initiative

Target ambition
2°C aligned

Year target was set
2019

Target coverage
Company-wide

Scope(s)
Scope 3

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
Category 1: Purchased goods and services
Category 5: Waste generated in operations
Category 13: Downstream leased assets

Intensity metric
Metric tons CO2e per square foot

Base year
2017

Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)
1.78

Intensity figure in base year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)
0.54

Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)
3.2

Intensity figure in base year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for total Scope 3 (metric tons CO2e per unit of activity)
5.52

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)
5.52

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure
<Not Applicable>

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 1: Purchased goods and services covered by this Scope 3, Category 1: Purchased goods and services intensity figure
79.77

% of total base year emissions in Scope 3, Category 2: Capital goods covered by this Scope 3, Category 2: Capital goods intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution covered by this Scope 3, Category 4: Upstream transportation and distribution intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 5: Waste generated in operations covered by this Scope 3, Category 5: Waste generated in operations intensity figure
92

% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 8: Upstream leased assets covered by this Scope 3, Category 8: Upstream leased assets intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution covered by this Scope 3, Category 9: Downstream transportation and distribution intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 10: Processing of sold products covered by this Scope 3, Category 10: Processing of sold products intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 11: Use of sold products covered by this Scope 3, Category 11: Use of sold products intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products covered by this Scope 3, Category 12: End-of-life treatment of sold products intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 13: Downstream leased assets covered by this Scope 3, Category 13: Downstream leased assets intensity figure
100

% of total base year emissions in Scope 3, Category 14: Franchises covered by this Scope 3, Category 14: Franchises intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 15: Investments covered by this Scope 3, Category 15: Investments intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Other (upstream) covered by this Scope 3, Other (upstream) intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Other (downstream) covered by this Scope 3, Other (downstream) intensity figure
<Not Applicable>

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this total Scope 3 intensity figure
91

% of total base year emissions in all selected Scopes covered by this intensity figure
91

Target year
2030

Targeted reduction from base year (%)
47

Intensity figure in target year for all selected Scopes (metric tons CO2e per unit of activity) [auto-calculated]
2.9256

% change anticipated in absolute Scope 1+2 emissions
0

% change anticipated in absolute Scope 3 emissions
-45.9

Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)
1.51

Intensity figure in reporting year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)
0.48

Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)
2.77

Intensity figure in reporting year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for total Scope 3 (metric tons CO2e per unit of activity)
4.76

Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)
4.76

Does this target cover any land-related emissions?
No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]
29.2938637064446

Target status in reporting year
Underway

Please explain target coverage and identify any exclusions
AvalonBay commits to reduce scope 1 and 2 GHG emissions by 53% per square foot and scope 3 emissions by 47% per square foot by 2030 from a 2017 base-year.

Plan for achieving target, and progress made to the end of the reporting year
Plan for achieving our scope 1+2 and scope 3 science-based target, and progress made to the end of the reporting year:
In 2022 we updated our strategic plan to achieve our Science-Based Targets, with the following foci:

1) Renewable Energy:
a. Focus on onsite renewable energy for our common areas and resident load (where legislation allows) to reduce our scope 2 & 3 while reducing residents environmental

footprint.
b. Engage in community solar to help residents reduce their environmental footprint while reducing our scope 3 emissions.
c. Shift our procurable electric load to renewables where possible
2) Embodied Carbon
a. Focus on understanding, tracking and ultimately reducing the embedded carbon in our construction materials to reduce our scope 3 emissions associated with our new development.
3) Operational Efficiency
a. Focus on improving the efficiency of our new construction as well as existing buildings focusing on the worst performing building to reduce all scopes of emissions.

The above foci and the opportunities within are not comprehensive but rather provide direction and reflect our commitment to move to a fundamentally low carbon operating model.

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Below are a list of emissions reduction initiatives which contributed most to achieving our scope 1+2 and scope 3 targets in the reporting year:
1. In 2022, we completed the installation of 13 solar projects adding 2.25MW of renewable energy to our existing 38 solar projects currently producing 4.72MW of solar. We have an additional 29 solar projects scheduled for 2023-2024 that will produce 8.79MWs. These include 3 projects which will cover the entire resident electricity load.
2. 2022, we began piloting reductions in embodied carbon concrete. We also began finalizing a policy requiring the tracking of embodied carbon through LCA in our development process. This policy will be fully enacted in 2023.
3. Installation of newer equipment and piloting the use of products like aerosolized caulk and building HVAC energy management tools helped drive reduction in our targets.

List the emissions reduction initiatives which contributed most to achieving this target
<Not Applicable>

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?
Other climate-related target(s)

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number
Oth 1

Year target was set
2018

Target coverage
Company-wide

Target type: absolute or intensity
Intensity

Target type: category & Metric (target numerator if reporting an intensity target)

Waste management	Other, please specify (Pounds)

Target denominator (intensity targets only)
Other, please specify (Per Apartment Home)

Base year
2017

Figure or percentage in base year
2039

Target year
2023

Figure or percentage in target year
1639

Figure or percentage in reporting year
1613

% of target achieved relative to base year [auto-calculated]
106.5

Target status in reporting year
Achieved

Is this target part of an emissions target?
Our waste goal is also being integrated into the plan and progress reporting for our approved science-based emissions target.

Is this target part of an overarching initiative?
Science Based targets initiative - other

Please explain target coverage and identify any exclusions
Please explain target coverage and identify any exclusions:
In 2019 we set approved science-based emissions targets for scope 1+2 and scope 3. Category 5: Waste in operations is included in our scope 3 science-based target. This target is applicable company wide and is inclusive of our resident waste.

Plan for achieving target, and progress made to the end of the reporting year:
Since we established our waste goal in 2018 (2017 baseline), the landscape for recycling has changed significantly. With countries accepting less “dirty” recycled materials, certain jurisdictions requiring increased diversion and separation, and the introduction of new fine schedules for "dirty" recycling, we are finding that the markets in which we do business can vary significantly from each other in terms of availability of recycling or regulations around recycling. To help address recycling and waste reduction more broadly across the portfolio, we have increased communications regarding recycling procedures in each market and are ensuring accessibility to recycling facilities at our properties.

Plan for achieving target, and progress made to the end of the reporting year
<Not Applicable>

List the actions which contributed most to achieving this target
List the actions which contributed most to achieving this target:
In 2020 we started a Waste Task Force which is looking at a variety of ways to improve diversion rates and reduce the amount of unclean recycling. For example, throughout 2020 and 2021, we have been running a pilot with a vendor partner to do a more intensive recycling sorting to reduce unclean recycling in our recycle stream. We have seen dramatic results from this pilot and plan to expand it with additional partners in 2021. In 2022, we conducted an equipment audit at all of our properties to understand what equipment and waste/recycling resources existing at all of our properties. We will be using this information as we tailor our plan for achievement in 2023 and as we consider setting a new waste goal. We also hope to expand our Green Drop partnership in 2023 to help expand the recycling of used household donations, which included a large amount of waste that may have otherwise go into a landfill.

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.
Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	29	8325
Implementation commenced*	0	0
Implemented*	13	2065.17
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Low-carbon energy generation	Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)
2065.17

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
432369

Investment required (unit currency – as specified in C0.4)
6652964

Payback period
11-15 years

Estimated lifetime of the initiative
16-20 years

Comment
The above solar PV was installed as part of our portfolio-wide solar installation initiative.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Dedicated budget for energy efficiency	Our dedicated sustainability capex budget funded an additional $6.65M in renewable energy projects in 2022. This $6.65M represents 13 new solar panel projects which added 2.25MWs renewable power to our portfolio. This is in addition to the 38 communities already generating over 4.72 Megawatts of solar power. In 2023/2024 we will be finishing and starting an additional 29 onsite solar projects which will contribute an additional 8.79 Megawatts of renewable power. If all of these projects are completed, AvalonBay would have 80 solar generation systems that would generate 15.76 Megawatts of renewable power, saving us roughly 11.24 metric tons of CO2. Note that we have removed from this number the communities in DC and NJ where we monetize the SRECs so as to not double count those RECs. These 85 projects would save $3.26M in annual electricity costs. Within the group of solar projects slated for 2023, we are piloting 3 resident solar projects where the onsite solar panel system will generate enough power to offset the entire resident load. This means that we will be able to directly provide our residents with access to renewable energy at a discounted rate relative to the current market rate. The following are solar projects installed during 2022: AVA Studio City II (69kW), Avalon Acton Leachfield (243kW), Avalon Alderwood Mall (40kW), Avalon at Chestnut Hill Building #1 (112kW), Avalon at Florham Park (38kW), Avalon at Newton Highlands Building #2 (202kW), Avalon Bloomingdale (103kW), Avalon La Jolla Colony (87kW), Avalon Roseland (31kW), Avalon Wharton (449kW), Avalon Woburn (344kW), Eaves West Valley (209kW), and Eaves Woodland Hills (312kW). The investments we are making through our dedicated sustainability capex budget will continue to grow as we execute on plans to achieve our approved science-based targets.
Employee engagement	Our VP ESG engages our employees in a variety of sustainability initiatives throughout the year designed to lower energy consumption and reduce emissions. A good example of this is our data-driven demand response and smart building data program. This program aligns operational behaviors to demand response programs and reduces carbon emissions at the respective properties. This program includes 26 properties across NT, MA and CA. Utilization of our continuous demand management generated $267,000 in annual savings from demand response payments, load reduction, and utility tariff rate optimization. AvalonBay associates actions now support a 2MW reduction in utility grid stress during demand response events. This program ties directly into our energy supply procurement program which can now translate summer peak demand management reductions into lower supply rates executed on an online reverse auction platform that support renewable energy credits. Our smart building operations platform monitors our fleet of CHP generation coast-to-coast to maximize energy conservation and carbon reductions, and now supports battery storage dispatch optimization.
Lower return on investment (ROI) specification	Our dedicated sustainability capex budget has an internal threshold of 6.5 years simple return on investment on our sustainability-related initiatives. Although with certain types of projects, like Solar, we have additional metrics we track like IRR. We will also adjust ROI's in cases where we are testing new technologies or trying something innovative and new.
Internal incentives/recognition programs	Our bi-annual sustainability awards support and encourage employee innovation and action relative to emissions reductions in our portfolio.
Compliance with regulatory requirements/standards	An example of this relates to New York's Local Law 97 (LL97), which sets increasingly stringent limits on carbon emissions per square foot starting in 2024. As part of our ongoing participation in the NYC Carbon Challenge and Retrofit Accelerator, we were able to model the implications of the new law ahead of its passing, thereby developing a scenario analysis of the impact it could have on our NY portfolio. We have been able to update this analysis as the law has taken shape to more accurately understand where our buildings sit relative to the emissions limits. This modelling has served us well in allowing us to plan for the capex needed for the associated pathways each building will follow to decarbonize to the required level. Coordination of the planned needed for execution or the decarbonization of these buildings brought together a cross departmental group with the ability to leveraging different strengths to successfully meet LL97s requirements while also helping achieve our approved science-based targets. In addition, we are leveraging what we learned here in other markets that are considering similar legislation, such as Washington, DC, Boston, and California.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?
Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation
Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon
Green Bond Principles (ICMA)

Type of product(s) or service(s)

Buildings construction and renovation	Other, please specify (High Density, Environmentally Preferable Housing)

Description of product(s) or service(s)
By providing high density housing located in close proximity to transit, we enable our customers to minimize their carbon footprint by providing housing locations that don't require a vehicle or favor walking, biking, mass transit, ride sharing, and other alternatives to single occupancy vehicle (SOV) transportation. This thereby reduces our residents overall energy use and carbon emissions. We also provide highly efficient multifamily housing options certified to green building standards like LEED or ENERGY STAR which generate fewer emissions per resident than larger, less efficient single family housing in lower density formats. In addition, we are driving energy and water efficiency in our apartment homes, thereby reducing our residents' scope 2 emissions (our scope 3) by reducing their energy and water consumption. Also, we are focusing on starting to reducing the embodied carbon of the buildings that we build by selecting environmentally preferable materials, specifically those with high impact like concrete, drywall and rebar/steel. All above actions contribute towards the achievement of our science-based targets.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)
No

Methodology used to calculate avoided emissions
<Not Applicable>

Life cycle stage(s) covered for the low-carbon product(s) or services(s)
<Not Applicable>

Functional unit used
<Not Applicable>

Reference product/service or baseline scenario used
<Not Applicable>

Life cycle stage(s) covered for the reference product/service or baseline scenario
<Not Applicable>

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario
<Not Applicable>

Explain your calculation of avoided emissions, including any assumptions
<Not Applicable>

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year
20

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?
No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?
No

Name of organization(s) acquired, divested from, or merged with
<Not Applicable>

Details of structural change(s), including completion dates
<Not Applicable>

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	No	<Not Applicable>

C5.2

(C5.2) Provide your base year and base year emissions.

Scope 1

Base year start
January 1 2017

Base year end
December 31 2017

Base year emissions (metric tons CO2e)
15396

Comment
No additional comment

Scope 2 (location-based)

Base year start
January 1 2017

Base year end
December 31 2017

Base year emissions (metric tons CO2e)
51651

Comment
No additional comment

Scope 2 (market-based)

Base year start
January 1 2017

Base year end
December 31 2017

Base year emissions (metric tons CO2e)
51651

Comment
No additional comment

Scope 3 category 1: Purchased goods and services

Base year start
January 1 2017

Base year end
December 31 2017

Base year emissions (metric tons CO2e)
157052

Comment
This includes upstream emissions from construction materials and activity as well as maintenance materials and services. Both are estimated using spend and DEFRA's input output factors.

Scope 3 category 2: Capital goods

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment
This category has been marked as not relevant. Any capital goods purchased are reported as Category 1: Purchased Goods and Services when we are able to collect and report on this information. This category is marked as not relevant as to not double count.

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start
January 1 2017

Base year end
December 31 2017

Base year emissions (metric tons CO2e)
571

Comment
Calculated based on electricity and fuel use activity data with emissions upstream well-to-tank/T&D emissions factors from DEFRA

Scope 3 category 4: Upstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment
This category has been marked as not relevant. We do not produce physical products. We do not receive any significant amount of supplies from upstream transportation and distribution outside of the upstream materials and activities associated with our construction and development work which is captured in Category 1: Purchased Goods & Services. This category is marked as not relevant as to not double count.

Scope 3 category 5: Waste generated in operations

Base year start
January 1 2017

Base year end
December 31 2017

Base year emissions (metric tons CO2e)
38176

Comment
Emissions are calculated using total solid waste and water use data and the appropriate solid waste/wastewater treatment emission factors from DEFRA.

Scope 3 category 6: Business travel

Base year start
January 1 2017

Base year end
December 31 2017

Base year emissions (metric tons CO2e)
376

Comment
We use the distance methodology to calculate flights and rental car emissions. Hotel use is calculated per night stay. Reporting is limited to travel booked through AvalonBay Communities' travel vendor.

Scope 3 category 7: Employee commuting

Base year start
January 1 2017

Base year end
December 31 2017

Base year emissions (metric tons CO2e)
5891

Comment
No additional comment.

Scope 3 category 8: Upstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment
This category has been marked as not relevant. Emissions related to upstream leased assets have been captured in our scope 2 reporting. This category is marked as not relevant as to not double count.

Scope 3 category 9: Downstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

This category has been marked as not relevant. AvalonBay Communities is part of the real estate industry and does not process a significant amount of physical products for sale. Our products are our buildings (assets). There is minimal, if any, downstream transportation/distribution activities associated with owning and managing assets. Most of the activities occur upstream and are captured in Category 1: Purchased Goods and Services. Category 5: Waste Generated in Operations also captures the impacts associated with our downstream waste activities. This category is marked as not relevant as to not double count.

Scope 3 category 10: Processing of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

This category has been marked as not relevant. AvalonBay Communities is part of the real estate industry and does not process a significant amount of physical products for sale. Our products are our buildings (assets). Any processing associated with our buildings would be during the construction/development stage which is captured as part of Category 1: Purchased Goods and Services. This category is marked as not relevant as to not double count.

Scope 3 category 11: Use of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

This category has been marked as not relevant. AvalonBay Communities is part of the real estate industry and does not process a significant amount of physical products for sale or for customer use. Our products are our buildings (assets). The use of our assets would be the energy associated with our residents living in our buildings. The impact of these activities can be found in Category 13: Downstream Leased Assets. This category is marked as not relevant as to not double count.

Scope 3 category 12: End of life treatment of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

This category has been marked as not relevant. AvalonBay Communities is part of the real estate industry and does not process a significant amount of physical products for sale or for customer use. Our products are our buildings (assets) which include apartment units for rent, not sale. We do however capture the end of life impacts of the construction materials used to build our buildings through the embodied carbon assessment method used in Category 1: Purchased Goods and Services. This category is marked as not relevant as to not double count.

Scope 3 category 13: Downstream leased assets

Base year start

January 1 2017

Base year end

December 31 2017

Base year emissions (metric tons CO2e)

224729

Comment

For leased space in the portfolio, energy bills were collected by a third party data provider. The leased space energy consumption was then evaluated using the same methodology as Scope 1 and 2 calculations to provide emissions for the leased space.

Scope 3 category 14: Franchises

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

This category has been marked as not relevant. AvalonBay does not have franchises. We develop, own, and manage our own buildings. As such, we do not have any emissions from franchises as they are not part of our business model and operation.

Scope 3 category 15: Investments

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

This category has been marked as not relevant. We have included any Investment related emissions as part of our Category 13: Downstream Leased Assets. Since our assets are our product, we invest significantly in the construction/development of new buildings as well as the acquisition of existing buildings. The impact of the operation of these investments can be found in Category 13: Downstream Leased Assets and the emissions from the construction/development activities can be found in Category1: Purchased Goods and Services. We do not have significant amounts of additional Investments outside our physical assets. This category is marked as not relevant as to not double count.

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Not relevant as there are no "other" upstream items.

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Not relevant as there are no "other" downstream items.

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

Defra Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance, 2019
IEA CO2 Emissions from Fuel Combustion
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Standard
US EPA Emissions & Generation Resource Integrated Database (eGRID)

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

15285

Start date

<Not Applicable>

End date

<Not Applicable>

Comment

No additional comment.

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based
We are reporting a Scope 2, location-based figure

Scope 2, market-based
We are reporting a Scope 2, market-based figure

Comment
No additional comment

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based
49442

Scope 2, market-based (if applicable)
26274

Start date
<Not Applicable>

End date
<Not Applicable>

Comment
No additional comment

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?
No

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
157507

Emissions calculation methodology
Spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Our calculations includes upstream emissions from construction materials and activity as well as maintenance materials and services. Both are estimated using spend and DEFRA's input output factors.

Capital goods

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Any capital goods purchased are reported as Category 1: Purchased Goods and Services when we are able to collect and report on this information. This category is marked as not relevant as to not double count.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
999

Emissions calculation methodology
Other, please specify (Fuel use activity data is calculated with emissions upstream well-to-tank/T&D emissions factors from DEFRA, 2022 and electricity use activity data is calculated with emissions upstream well-to-tank/T&D emissions factors from XXX)

Percentage of emissions calculated using data obtained from suppliers or value chain partners
25

Please explain
Fuel use activity data is calculated with emissions upstream well-to-tank/T&D emissions factors from DEFRA, 2022 and electricity use activity data is calculated with emissions upstream well-to-tank/T&D emissions factors from US EPA.

Upstream transportation and distribution

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
We do not produce physical products. We do not receive any significant amount of supplies from upstream transportation and distribution outside of the upstream materials and activities associated with our construction and development work which is captured in Category 1: Purchased Goods & Services. This category is marked as not relevant as to not double count.

Waste generated in operations

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
37545

Emissions calculation methodology
Waste-type-specific method
Other, please specify (Emissions are calculated using total solid waste data and the appropriate solid waste emission factors from DEFRA, 2022.)

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
Emissions are calculated using total solid waste data and the appropriate solid waste emission factors from DEFRA, 2022.

Business travel

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
174

Emissions calculation methodology
Distance-based method
Other, please specify (We use the distance methodology to calculate flights and rental car emissions. Hotel use is calculated per night stay. Business travel breakdown: Flights 164 MTCO2e - Rental car 2.21 MTCO2e - Hotel 7.69 MTCO2e)

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
Reporting is limited to travel booked through AvalonBay Communities' travel vendor. This travel breaks out as follows: Flights 164 MTCO2e - Rental car 2.21 MTCO2e - Hotel 7.69 MTCO2e

Employee commuting

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
5387.23

Emissions calculation methodology
Distance-based method
Other, please specify (Please see explanation below)

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Our explanation is broken out between this response and the "Emissions Calculation Methodology" response. Please read the "Emissions Calculation Methodology" for the first half the response before below reading the below continuation.

Office Staff: We estimate that our employees work a total of 156 days per year, which assumes a three-day work week, excludes weekends, and includes an average of 2 weeks off and 10 paid holidays. Factoring in our 90% attendance adjustment, this is roughly 122 days of attendance/commuting.

We calculate the number of round trip commutes taken by an employee using both time-average assumptions above, and then multiply by their one way commuting distance to gather total miles driven. We then factor in PTO, holidays, and our 90% attendance factor to refine the number of miles driven. This is done individually for each employee and summed to a final number of 15,552,720 miles.

We estimate the average fuel economy of our employee cars to be 25.4 miles per gallon. (Fuel economy numbers are based on the “Real-World Fuel Economy” calculations in this report (see table 2.1 on page 11 of the following: https://www.epa.gov/system/files/documents/2022-12/420r22029.pdf

Consequently, to calculate the CO2e emissions based on the annual distance
travelled by employees during their commute, AvalonBay utilizes the Carbon Offsets to Alleviate Poverty (COTAP) Carbon Emissions Calculator (http://cotap.org/carbon-footprint-calculator)

The calculation results in 5,387.23 metric tonnes CO2e or roughly
1.95 metric tonnes CO2e per employee annually (5,387.23 / 2,767 = 1.95).

2022: Therefore, the total Scope 3 emissions for employee commuting in 2022 for our 2,968 employees (2,767 after outliers) equals 5,387.23 metric tonnes CO2 (vs. 2021 number of 5,135.54 metric tonnes CO2). This total likely overestimates AvalonBay’s Scope 3 emissions for employee commuting 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.

Upstream leased assets

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Emissions related to upstream leased assets have been captured in our scope 2 reporting. This category is marked as not relevant as to not double count.

Downstream transportation and distribution

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
AvalonBay Communities is part of the real estate industry and does not process a significant amount of physical products for sale. Our products are our buildings (assets). There is minimal, if any, downstream transportation/distribution activities associated with owning and managing assets. Most of the activities occur upstream and are captured in Category 1: Purchased Goods and Services. Category 5: Waste Generated in Operations also captures the impacts associated with our downstream waste activities. This category is marked as not relevant as to not double count.

Processing of sold products

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
AvalonBay Communities is part of the real estate industry and does not process a significant amount of physical products for sale. Our products are our buildings (assets). Any processing associated with our buildings would be during the construction/development stage which is captured as part of Category 1: Purchased Goods and Services. This category is marked as not relevant as to not double count.

Use of sold products

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
AvalonBay Communities is part of the real estate industry and does not process a significant amount of physical products for sale or for customer use. Our products are our buildings (assets). The use of our assets would be the energy associated with our residents living in our buildings. The impact of these activities can be found in Category 13: Downstream Leased Assets. This category is marked as not relevant as to not double count.

End of life treatment of sold products

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
AvalonBay Communities is part of the real estate industry and does not process a significant amount of physical products for sale or for customer use. Our products are our buildings (assets) which include apartment units for rent, not sale. We do however capture the end of life impacts of the construction materials used to build our buildings through the embodied carbon assessment method used in Category 1: Purchased Goods and Services. This category is marked as not relevant as to not double count.

Downstream leased assets

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
219143

Emissions calculation methodology
Other, please specify (Please se explanation below)

Percentage of emissions calculated using data obtained from suppliers or value chain partners
25

Please explain
These emissions are calculated via 2 method described below which are both based on consumption.

(i) Energy utilities provide whole building data for which we are able to remove the consumption controlled by AvalonBay leaving us with the consumption for the downstream leased asset. Local grid factors are used to calculate final emissions.

(ii) For locations where we are unable to procure whole building data, we use a national consumption proxy which draws from known consumption for buildings of similar type, size, and occupancy to estimate the downstream leased asset emissions. Local grid factors are used to calculate final emissions.

Franchises

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
AvalonBay does not have franchises. We develop, own, and manage our own buildings. As such, we do not have any emissions from franchises as they are not part of our business model and operation.

Investments

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
We have included any Investment related emissions as part of our Category 13: Downstream Leased Assets. Since our assets are our product, we invest significantly in the construction/development of new buildings as well as the acquisition of existing buildings. The impact of the operation of these investments can be found in Category 13: Downstream Leased Assets and the emissions from the construction/development activities can be found in Category1: Purchased Goods and Services. We do not have significant amounts of additional Investments outside our physical assets. This category is marked as not relevant as to not double count.

Other (upstream)

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Not relevant as there are no "other" upstream items.

Other (downstream)

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Not relevant as there are no "other" downstream items.

C-CN6.6/C-RE6.6

(C-CN6.6/C-RE6.6) Does your organization assess the life cycle emissions of new construction or major renovation projects?

	Assessment of life cycle emissions	Comment
Row 1	No, but we plan to for upcoming projects	Our new construction projects are governed by a set of comprehensive construction standards which outline everything from building system equipment to fit and finish for all three product types, mid-rise, high-rise and garden-style walk-up apartment communities. In 2019 we began understanding embodied carbon for our building typology. In 2020, we analyzed the study completed in 2019 to assess what areas of our construction cause the most impact in terms of embodied carbon. In 2022, we began putting together a policy that will require the tracking of embodied carbon on all new developments. We plan to enact this policy in 2023. We believe understanding our embodied carbon impact on all new developments will help unlock the potential for reduction while helping achieve our science based targets.

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?
No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure
0.000016

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
41559

Metric denominator
unit total revenue

Metric denominator: Unit total
2593446000

Scope 2 figure used
Market-based

% change from previous year
26.2

Direction of change
Decreased

Reason(s) for change
Change in renewable energy consumption
Change in revenue

Please explain
In 2022 we made progress on three fronts in reducing our emissions:

1) We continued to invest in emissions reduction activities through equipment efficiency (e.g., LED's, more efficient HVAC, building envelope improvements, air tightness improvements, etc.).
2) We shifted a large part of our procurable load to green e-certified wind energy, and
3) We had 13 additional solar projects under our renewable strategy come online.

These contributed to our 26.2% decrease in Scope 1 and Scope 2 emissions/unit of revenue this year.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?
Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	14243.4	IPCC Sixth Assessment Report (AR6 - 100 year)
CH4	946.9	IPCC Sixth Assessment Report (AR6 - 100 year)
N2O	94.7	IPCC Sixth Assessment Report (AR6 - 100 year)

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/area/region.

Country/area/region	Scope 1 emissions (metric tons CO2e)
United States of America	15285

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By facility
By activity

C7.3b

(C7.3b) Break down your total gross global Scope 1 emissions by business facility.

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
NJ033_Avalon Somerville Station	0.011	40.566058	-74.615533
MA059_Avalon Easton II	0.193	42.027147	-71.145007
DC003_AVA H Street	0.428	38.901537	-77.000913
NJ030_Avalon Teaneck	0.474	40.911322	-74.001276
MA020_Avalon Chestnut Hill	0.476	42.31958	-71.17373
NC001_Avalon South End	0.581	35.207439	-80.865684
CA053_Eaves Fremont	0.671	37.493385	-121.926741
DC518_AVA Van Ness	0.884	38.9428	-77.061268
MD017_AVA Wheaton	0.958	39.043039	-77.050907
NC002_AVA South End	0.996	35.211892	-80.864832
MA038_Avalon at Assembly Row	1.011	42.395619	-71.08082
MA062_Avalon Brighton	1.667	42.346069	-71.145748
MA058_Avalon Marlborough II	1.863	42.329537	-71.583522
VA563_Avalon Arlington North	1.952	38.896149	-77.122371
CA005_Avalon Campbell	2.158	37.28201	-121.945817
NJ007_Avalon at Edgewater	2.437	40.820701	-73.978531
CA049_Avalon Mountain View	3.084	37.39794	-122.087524
NY038_Avalon Green III	3.27	41.05442	-73.831924
MA028_Avalon Acton II	3.476	42.525017	-71.424788
NY003_Avalon Green	3.533	41.05442	-73.831924
CT026_Avalon East Norwalk	3.733	41.111488	-73.392966
VA032_Avalon Potomac Yards	3.75	38.831276	-77.04852
MD024_Avalon Laurel	3.929	39.080747	-76.88714
MD025_Avalon Towson	4.036	39.402346	-76.60043
NY032_Avalon Green Phase II	4.348	41.05442	-73.831924
NJ014_Avalon at West Long Branch	4.67	40.292337	-74.025472
CT014_Avalon New Canaan	7.006	41.146305	-73.495626
NY035_Avalon Ossining	7.252	41.173946	-73.867508
MD030_Avalon 555 President	8.327	39.284994	-76.602512
CT005_Avalon Wilton 1	8.432	41.188224	-73.431736
NJ022_Avalon Bloomfield Station	8.478	40.792741	-74.198589
NC003_Avalon Hawk	8.851	35.211698	-80.861454
CA121_Avalon Public Market II	9.282	37.842992	-122.293926
MA057_Avalon Norwood	9.359	42.190166	-71.198427
CT017_Avalon Darien	9.665	41.069079	-73.501127
CA563_eaves Thousand Oaks	9.98	34.182699	-118.869351
NJ028_Avalon Maplewood	10.122	40.723678	-74.252138
VA566_Avalon Falls Church	10.496	38.874946	-77.169062
NY036_Avalon Huntington Station	10.589	40.852324	-73.401813
MA014_Avalon at Newton Highlands	10.948	42.314319	-71.212749
MD006_Eaves Washingtonian Center 1	10.958	39.113386	-77.197615
CA101_Avalon Playa Vista	11.254	33.980166	-118.41498
NJ024_Avalon Princeton	11.301	40.356726	-74.661898
VA031_Avalon Mosaic District	11.689	38.869506	-77.231231
NJ029_Avalon Boonton	11.827	40.9038	-74.397196
CA077_Avalon Encino	12.192	34.156914	-118.48929
MA029_Avalon Sharon	12.225	42.14682	-71.199349
CA010_Eaves San Jose	12.602	37.402324	-121.881228
CA027_Eaves Union City	12.66	37.585785	-122.022285
NJ016_Avalon at Wesmont Station	12.91	40.861631	-74.089565
CAC50_Avalon Studio 4041	12.941	34.146266	-118.39252
NJ020_Avalon Bloomingdale - Union Av	13.442	41.016855	-74.31369
MA502_AVA North Point	13.47	42.370556	-71.074213
NJ023_Avalon Roseland	13.896	40.815281	-74.321873
NY033_Avalon Garden City	14.505	40.734544	-73.594114
NY044_Avalon Somers	14.574	41.341617	-73.761029
MD542_Avalon Russett	14.957	39.106498	-76.79447

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
NJ017_Avalon Hackensack at Riverside	15.078	40.908358	-74.031581
MD023_Avalon Hunt Valley	15.438	39.498566	-76.652177
WA026_AVA Capitol Hill	15.618	47.614305	-122.324138
NY031_Avalon Rockville Centre	15.827	40.660878	-73.65187
MA512_Avalon Bear Hill	15.854	42.377972	-71.272184
CA554_Avalon Santa Monica on Main	16.01	34.006599	-118.488787
CA562_eaves Old Town Pasadena	16.025	34.140176	-118.14325
CA095_eaves Rancho Penasquitos	16.211	32.951827	-117.109478
CA074_Avalon Wilshire	16.268	34.062351	-118.341153
NJ015_Avalon North Bergen	16.483	40.789622	-74.024073
CA124_Avalon Cerritos	16.688	33.873744	-118.062015
WA023_AVA Ballard	16.703	47.669076	-122.373968
WA033_Avalon North Creek	16.813	47.8192	-122.2087
VA001_Eaves Fair Lakes	17.097	38.859205	-77.398941
NJ026_Avalon Union	17.413	40.708251	-74.278328
MA002_Avalon Oaks	17.962	42.58084	-71.158846
VA014_Avalon Tysons Corner	18.04	38.927478	-77.228714
CO008_Avalon Flatirons	18.16	39.987052	-105.137633
MA046_Avalon Burlington	18.203	42.503074	-71.176471
MA001_Avalon at Lexington	18.281	42.414925	-71.233536
CA591_Avalon Pasadena	18.455	34.145479	-118.135421
CA009_AVA Nob Hill	18.633	37.788085	-122.416103
CA097_AVA Pasadena	18.724	34.139241	-118.12958
NY050_Avalon Harbor Isle	18.769	40.597655	-73.663275
MA049_Avalon Framingham	18.988	42.32833	-71.386448
MA052_Avalon Easton	19.607	42.025607	-71.14398
NJ021_Avalon Wharton	19.721	40.905789	-74.579658
CA021_AVA Newport	19.756	33.634678	-117.914153
CA588_Avalon Berkeley	19.826	37.865916	-122.301284
CA094_eaves San Marcos	20.02	33.133503	-117.120685
FL003_Avalon West Palm Beach	20.168	26.710653	-80.053378
NJ008_Avalon at Florham Park	20.198	40.783619	-74.373882
MA010_Avalon Oaks West	20.508	42.575962	-71.18116
NJ032_Avalon Old Bridge	20.675	40.38654	-74.323038
MA025_Avalon Acton	22.029	42.524288	-71.425015
CA092_eaves San Dimas	22.063	34.107044	-117.798945
CA125_Avalon Monrovia	22.75	34.14287	-118.00151
CA584_Avalon San Bruno II	22.857	37.634545	-122.421312
CA002_Eaves Dublin	22.898	37.729027	-121.911734
WA032_Avalon Newcastle Commons II	23.074	47.544662	-122.162336
WA010_Avalon ParcSquare	23.407	47.67889	-122.12617
MAC67_Avalon Station 250	23.436	42.228867	-71.176285
CA104_Avalon Hayes Valley	23.889	37.774817	-122.424241
VA023_Avalon at Arlington Square	23.968	38.84562	-77.076347
CO002_Avalon Castle Rock	24.035	39.404782	-104.888492
MA047_Avalon Marlborough	24.301	42.110696	-72.54998
NY501_Avalon Westbury	24.947	33.020682	-97.029408
CA522_eaves La Mesa	26.185	32.785496	-117.003112
CA059_Eaves Huntington Beach	26.533	33.714776	-118.012025
CA087_AVA Little Tokyo	26.563	34.065317	-117.749141
CA110_Avalon Dublin Station II	27.129	37.704592	-121.899852
NY006_Avalon Mamaroneck	27.278	40.956534	-73.739414
MA030_Avalon Northborough	27.408	42.248748	-72.162014
CA100_AVA at 55 Ninth	27.533	37.777117	-122.415166
CA090_Avalon Ocean Avenue	27.587	37.723984	-122.455629
CA118_AVA North Hollywood	27.856	34.162883	-118.373422
MA016_Avalon at The Pinehills	27.923	41.879988	-70.603645
DC520_AVA NoMa	27.945	38.905387	-77.006906
CA078_Avalon Warner Place	28.182	34.193107	-118.592071
VA561_Avalon Courthouse Place	28.216	38.88881	-77.085464
CA099_Eaves Cerritos	28.714	33.863128	-118.090255
CA067_Avalon at Mission Bay North	28.739	37.776454	-122.393294
MA019_Avalon at Bedford Center	28.771	42.494486	-71.291172
MA040_AVA Back Bay	29.117	42.34811	-71.080427
CA561_Avalon La Jolla Colony	29.161	32.862802	-117.2287
CA556_Avalon Del Mar Station	29.214	34.141618	-118.147985
WA031_AVA Esterra Park	29.794	47.634075	-122.137386
CA122_Avalon Walnut Creek II	30.114	37.927442	-122.055611
MA054_Avalon Sudbury	30.912	42.377178	-71.40055
CA103_Avalon San Dimas	31	34.108102	-117.79446
CA072_Avalon Camarillo	31.907	34.232218	-119.014072

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
NY049_Avalon Harrison	32.339	40.969357	-73.710297
CA119_Avalon Public Market I	33.069	37.843365	-122.294111
VA004_AVA Ballston	33.455	38.884889	-77.11808
CA084_Avalon at Mission Bay PhaseIII	33.593	37.774542	-122.395725
CA113_Avalon Mission Oaks	33.726	34.230346	-118.999968
CA068_Avalon at Glendale	33.822	34.162906	-118.256946
CA587_Avalon Walnut Ridge II	33.89	37.929888	-122.05216
NJ031_Avalon Piscataway	33.927	40.563057	-74.455079
WA021_AVA Queen Anne	34.02	47.621387	-122.360576
WA007_Avalon RockMeadow	34.046	47.817943	-122.206556
MDC52_Avalon Grosvenor Tower	34.297	39.026087	-77.106704
CA023_Avalon Mission Viejo	34.441	33.599416	-117.655907
CA093_eaves San Dimas Canyon	34.596	34.103682	-117.794628
WA025_Avalon Alderwood Phase I	34.811	47.849876	-122.269368
VA565_Avalon Reston Landing	35.12	38.966963	-77.360578
CA098_Avalon Dublin Station	35.424	37.703888	-121.897898
MD033_Avalon Arundel Crossing East	35.487	39.203955	-76.675191
CA564_Avalon Walnut Ridge I	35.778	37.930727	-122.051487
MA055_Avalon Saugus	36.427	42.474429	-71.025023
CA800_Avalon at Mission Bay North II	36.441	37.775844	-122.393869
CA062_Avalon at Cahill Park	36.662	37.331588	-121.905141
MA053_Avalon Hingham Shipyard	36.807	42.249829	-70.915484
CA007_Eaves Daly City	37.029	37.654611	-122.454349
MA027_Avalon at Hingham Shipyard	37.193	42.25027	-70.917924
CA033_Eaves Foster City	38.46	37.530548	-122.245657
CA001_Avalon Fremont	38.541	37.543396	-121.971798
NY001_Avalon Commons	40.872	40.851143	-73.169068
WA509_eaves Redmond Campus	41.373	47.647698	-122.13012
NY821_Avalon Bowery Place II	41.56	40.724641	-73.991247
CA055_Eaves Creekside	42.078	37.390986	-122.071734
CA026_Eaves Mission Ridge	42.339	32.792377	-117.154315
FL008_Avalon Fort Lauderdale	42.502	26.101096	-80.137892
CA029_Avalon on the Alameda	42.931	37.333674	-121.911249
WA003_Avalon at Bear Creek	43.343	47.701534	-122.095699
WA030_Avalon Belltown Towers	44.602	47.615624	-122.347777
CA102_Avalon Morrison Park	45.207	37.334257	-121.908434
CA050_Eaves Santa Margarita	46.292	33.644552	-117.595879
MA050_Avalon Quincy	46.763	42.247134	-71.017401
CA107_Avalon Vista	47.006	33.190476	-117.260613
CA116_Avalon Chino Hills	47.02	33.953091	-117.682903
CA581_Avalon Thousand Oaks Plaza	48.214	34.177467	-118.844118
MD016_Avalon at Traville	48.361	39.089931	-77.205522
DC001_Avalon at Foxhall	48.621	38.934949	-77.081889
MA036_Avalon Exeter	50.001	42.348686	-71.079643
CA096_eaves Lake Forest	50.29	33.63265	-117.711138
CA085_Avalon Walnut Creek	50.334	37.927442	-122.055611
CA056_Eaves Warner Center	50.902	34.174563	-118.598368
WA027_Avalon Esterra Park	50.963	47.6338	-122.137324
CA106_Avalon Glendora	51.003	34.129512	-117.862911
WA006_Avalon Bellevue	51.639	47.619586	-122.192814
CO001_Denver West	52.772	39.743886	-105.161368
NY007_Avalon Court	53.703	40.76191	-73.413802
VA034_Avalon Columbia Pike	54.545	38.861861	-77.087162
MA039_AVA Somerville	55.164	42.395141	-71.079302
CA592_Avalon Studio City	55.208	34.142351	-118.369856
CA575_eaves Mt. View at Middlefield	55.757	37.398639	-122.071849
WA029_Avalon Newcastle Commons I	55.876	47.543283	-122.161745
NJ002_Avalon Cove	56.105	40.722542	-74.035446
CA024_Eaves South Coast	56.303	33.681665	-117.880088
CA064_Avalon Towers on the Peninsula	57.172	37.398588	-122.107473
CA583_Avalon San Bruno	58.137	37.634545	-122.421312
CA022_AVA Burbank	58.313	34.156466	-118.34656
CO005_AVA RiNo	60.709	39.757946	-104.983948
CA086_Avalon Irvine II	61.116	33.689717	-117.832225
CA019_Eaves Pleasanton	62.009	37.695776	-121.87992
MD031_Portico at Silver Spring	62.531	38.995784	-77.030374
CA585_Avalon San Bruno III	63.172	37.634545	-122.421312
CA039_Eaves Pacifica	63.553	37.662857	-122.479249
CA504_eaves Walnut Creek	63.606	37.926952	-122.052031
CA109_Avalon Irvine III	64.456	33.690294	-117.833726
DC519_Avalon First and M	64.937	38.905277	-77.006211

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
MA037_Avalon Natick	65.085	42.305458	-71.379255
CA590_Huntington Beach	65.527	33.732896	-117.998662
CA117_Avalon Dogpatch	65.646	37.759207	-122.391606
CA069_Avalon Burbank	66.432	34.179858	-118.306104
CA569_eaves West Valley	67.898	37.313397	-121.976708
FL002_Avalon Doral	69.727	25.810735	-80.326112
CA082_Avalon Union City	70.176	37.589402	-122.016267
MA060_Avalon Woburn	70.361	42.50508	-71.134554
NY040_Avalon Great Neck	71.37	40.796572	-73.711238
CA123_Avalon Brea Place	72.556	33.918311	-117.88304
DC509_eaves Tunlaw Gardens	74.052	38.923798	-77.077873
DC511_eaves Glover Park	75.115	38.925004	-77.077065
NY043_Avalon Rockville Centre II	75.268	40.659584	-73.650402
CA510_Avalon Simi Valley	78.775	34.285714	-118.767324
NJ042_Avalon at Edgewater Phase II	79.254	40.820701	-73.978531
MA018_Eaves Peabody	80.038	42.54271	-70.949569
CA108_Avalon Baker Ranch	80.095	33.677928	-117.676643
CA551_Avalon Oak Creek	82.621	34.14775	-118.758274
CA091_eaves Phillips Ranch	84.271	34.045594	-117.796744
CA048_Avalon Woodland Hills	85.232	34.166817	-118.579264
CA025_AVA Pacific Beach	85.856	32.79077	-117.236925
CA524_Avalon Studio City II	90.609	34.142351	-118.369856
MA024_Avalon at Lexington Hills	91.124	42.408223	-71.212441
NY047_Avalon Yonkers	95.884	40.940161	-73.902357
CA571_eaves Seal Beach	98.09	33.749275	-118.10785
CA541_Avalon Calabasas	101.095	34.128349	-118.706815
NY039_Avalon Willoughby	102.373	40.691771	-73.984302
WA019_Avalon Towers Bellevue	102.782	47.619021	-122.202741
CO003_Avalon Red Rocks	103.168	39.621259	-105.008521
DC002_Avalon at Gallery Place I	103.918	38.898811	-77.019187
NY829_West Chelsea	105.132	40.752242	-74.004166
MA003_Eaves Quincy	107.212	42.247082	-71.01794
MA044_AVA Theater District	107.784	42.351072	-71.064032
CA540_Avalon Willow Glen	111.679	37.279082	-121.874752
NY041_Avalon Brooklyn Bay	113.212	40.585908	-73.95379
VA033_Avalon Clarendon	114.629	38.887523	-77.092072
MD015_Avalon at Grosvenor Station	115.189	39.02607	-77.101988
NY815_Avalon Bowery Place	117.694	40.724349	-73.991712
CA539_Avalon Studio City III	119.938	34.142351	-118.369856
CA047_Avalon Silicon Valley	123.033	37.388608	-121.993803
DC510_Avalon The Statesman	124.466	38.896852	-77.046068
CA566_eaves Los Feliz	130.379	34.112801	-118.268472
CA083_Avalon Irvine	140.097	33.689717	-117.832225
NY823_Avalon Morningside Park	143.151	40.802312	-73.961303
CA043_Avalon Sunset Towers	147.228	37.759087	-122.462898
NY534_Avalon Clinton South	151.276	40.766499	-73.991614
NY022_Avalon White Plains	157.817	41.035782	-73.769237
NY037_AVA DoBro	162.092	40.6919	-73.984613
VA559_Avalon Ballston Square	171.326	38.880389	-77.109258
NY533_Avalon Clinton North	172.266	40.766499	-73.991614
MA043_Eaves Burlington	173.569	42.502194	-71.19137
CA574_eaves Woodland Hills	176.48	34.185127	-118.608857
NJ027_Avalon Hoboken	177.748	40.747753	-74.037037
CA573_AVA Toluca Hills	188.542	34.141728	-118.340665
DC504_Avalon The Albemarle	199.781	38.948461	-77.065232
NY834_AVA High Line	199.981	40.751582	-74.003209
MA048_Avalon North Station	202.625	42.365742	-71.063543
CO004_Avalon Southlands	229.341	39.592204	-104.690001
NY011_Avalon Riverview I	256.538	40.740786	-73.943254
CA111_Avalon West Hollywood	257.899	34.090741	-118.349386
WA802 Avalon Alderwood Place	264.406	47.829824	-122.269862
NY525_Avalon Midtown West	265.026	40.761986	-73.985676
NY026_Avalon Fort Greene	276.422	40.694099	-73.982859
NY018_Avalon Riverview North	306.496	40.744902	-73.956844
MD032_Avalon Foundry Row	370.411	39.409347	-76.770261
CA120_AVA Hollywood	501.691	34.091053	-118.33596

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude

C7.3c

(C7.3c) Break down your total gross global Scope 1 emissions by business activity.

Activity	Scope 1 emissions (metric tons CO2e)
Natural Gas	15015
Propane	25

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/area/region.

Country/area/region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
United States of America	49442	26274

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By facility
By activity

C7.6b

(C7.6b) Break down your total gross global Scope 2 emissions by business facility.

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
NY018_Avalon Riverview North	575.169	0
MA050_Avalon Quincy	190.499	0
MA048_Avalon North Station	577.605	0
NJ002_Avalon Cove	245.68	0
CA590_Huntington Beach	68.576	0
NJ015_Avalon North Bergen	195.723	0
NY041_Avalon Brooklyn Bay	324.519	0
CA551_Avalon Oak Creek	108.976	0
MA038_Avalon at Assembly Row	220.249	0
DC509_eaves Tunlaw Gardens	30.36	0
DC511_eaves Glover Park	51.32	0
MA043_Eaves Burlington	52.028	0
NJ019_Avalon at Wesmont Station II	89.442	0
CA086_Avalon Irvine II	91.024	0
CA124_Avalon Cerritos	101.813	0
MAC67_Avalon Station 250	109.545	0
MA046_Avalon Burlington	115.578	0
NJ007_Avalon at Edgewater	151.992	0
NY022_Avalon White Plains	192.103	0
NY039_Avalon Willoughby	215.814	0
MD033_Avalon Arundel Crossing East	181.13	0
NY823_Avalon Morningside Park	225.826	0
MD023_Avalon Hunt Valley	196.511	0
NY006_Avalon Mamaroneck	247.804	0
NJ017_Avalon Hackensack at Riverside	206.027	0
NJ030_Avalon Teaneck	214.205	0

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
NJ022_Avalon Bloomfield Station	216.808	0
NY829_West Chelsea	295.024	0
NY821_Avalon Bowery Place II	306.558	0
NY834_AVA High Line	332.686	0
NY037_AVA DoBro	341.707	0
MA039_AVA Somerville	252.027	0
NY534_Avalon Clinton South	388.324	0
MD030_Avalon 555 President	1095.217	0
NY035_Avalon Ossining	19.118	0.002
NJ028_Avalon Maplewood	183.59	0.018
NY815_Avalon Bowery Place	276.172	0.055
MA037_Avalon Natick	139.761	0.056
MA502_AVA North Point	151.351	0.076
NJ016_Avalon at Wesmont Station	249.816	0.1
MA003_Eaves Quincy	105.654	0.116
CA106_Avalon Glendora	120.325	0.12
NY026_Avalon Fort Greene	405.374	0.365
MD025_Avalon Towson	581.068	0.407
MA001_Avalon at Lexington	76.711	0.506
CA021_AVA Newport	11.164	0.961
NY038_Avalon Green III	12.109	1.681
MA044_AVA Theater District	587.819	1.776
NJ042_Avalon at Edgewater Phase II	267.359	1.885
CA090_Avalon Ocean Avenue	74.936	2.504
NY011_Avalon Riverview I	238.444	2.647
DC520_AVA NoMa	664.316	3.454
CA097_AVA Pasadena	3.864	3.864
CA584_Avalon San Bruno II	48.765	4.013
CA104_Avalon Hayes Valley	55.517	4.277
MD032_Avalon Foundry Row	493.898	4.445
CA113_Avalon Mission Oaks	14.888	4.599
CA562_eaves Old Town Pasadena	4.855	4.855
NJ027_Avalon Hoboken	184.525	5.093
CA585_Avalon San Bruno III	73.772	6.182
CA564_Avalon Walnut Ridge I	6.223	6.223
CA561_Avalon La Jolla Colony	6.736	6.736
CA002_Eaves Dublin	6.849	6.849
CA083_Avalon Irvine	129.754	7.033
MA029_Avalon Sharon	53.265	7.612
CA005_Avalon Campbell	7.663	7.663
CA522_eaves La Mesa	7.81	7.81
CA009_AVA Nob Hill	71.022	8.828
MA049_Avalon Framingham	48.268	8.881
CA100_AVA at 55 Ninth	127.154	9.168
CA059_Eaves Huntington Beach	24.824	9.191
MA059_Avalon Easton II	9.289	9.289
CA082_Avalon Union City	118.718	9.592
CA563_eaves Thousand Oaks	27.713	9.755
NY533_Avalon Clinton North	320.228	10.087
CA556_Avalon Del Mar Station	11.129	11.129
NJ014_Avalon at West Long Branch	11.209	11.209
CA092_eaves San Dimas	19.999	11.936
CA084_Avalon at Mission Bay PhaseIII	142.139	11.954
NJ026_Avalon Union	81.584	12.458
MA036_Avalon Exeter	374.859	13.008
CA583_Avalon San Bruno	143.641	13.244
CA064_Avalon Towers on the Peninsula	169.802	13.448
CA033_Eaves Foster City	13.776	13.776
MA052_Avalon Easton	138.482	14.014
CA055_Eaves Creekside	14.076	14.076
CA095_eaves Rancho Penasquitos	14.199	14.199
CA072_Avalon Camarillo	36.157	14.535
CA049_Avalon Mountain View	15.133	15.133
MD542_Avalon Russett	36.34	15.67
CA067_Avalon at Mission Bay North	153.316	15.929
CA007_Eaves Daly City	22.254	15.959
CA800_Avalon at Mission Bay North II	198.135	16.188
CA053_Eaves Fremont	21.111	16.669
WA028_Avalon Alderwood II	16.903	16.903
CA024_Eaves South Coast	34.074	17.27
NJ008_Avalon at Florham Park	36.797	17.578

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
DC003_AVA H Street	165.652	18.414
MA024_Avalon at Lexington Hills	228.095	18.635
NY003_Avalon Green	50.893	18.942
CA023_Avalon Mission Viejo	31.418	19.246
NY032_Avalon Green Phase II	84.598	19.948
CA108_Avalon Baker Ranch	69.826	20.632
MA030_Avalon Northborough	101.254	20.889
CA027_Eaves Union City	21.057	21.057
DC002_Avalon at Gallery Place I	196.677	21.336
MA019_Avalon at Bedford Center	41.824	21.623
MA061_Avalon North Andover	21.724	21.724
CA039_Eaves Pacifica	22.124	22.124
MA028_Avalon Acton II	22.301	22.301
CA085_Avalon Walnut Creek	227.509	22.592
MA062_Avalon Brighton	22.71	22.71
CA099_Eaves Cerritos	22.831	22.831
CA056_Eaves Warner Center	23.223	23.223
NC005_Avalon Highland Creek	23.506	23.506
MA058_Avalon Marlborough II	23.525	23.525
CT005_Avalon Wilton 1	23.732	23.732
CA103_Avalon San Dimas	46.569	24.248
CT026_Avalon East Norwalk	25.205	25.205
CA094_eaves San Marcos	25.233	25.233
CA571_eaves Seal Beach	103.915	25.35
CA116_Avalon Chino Hills	81.355	26.896
CA093_eaves San Dimas Canyon	27.142	27.142
CA107_Avalon Vista	28.366	28.366
CA069_Avalon Burbank	29.207	29.207
MD024_Avalon Laurel	88.933	29.979
CA096_eaves Lake Forest	51.571	30.05
CA540_Avalon Willow Glen	31.084	31.084
DC519_Avalon First and M	767.229	31.485
CA026_Eaves Mission Ridge	31.707	31.707
CA121_Avalon Public Market II	32.053	32.053
NJ006_Avalon Princeton Junction	149.137	32.407
NJ031_Avalon Piscataway	159.831	32.973
CA019_Eaves Pleasanton	33.022	33.022
DC510_Avalon The Statesman	127.485	33.16
VA001_Eaves Fair Lakes	33.254	33.254
MD027_Avalon Fairway Hills - Woods	79.172	33.45
NJ032_Avalon Old Bridge	158.883	33.636
NJ023_Avalon Roseland	45.93	35.181
CA588_Avalon Berkeley	35.286	35.286
WA539_Archstone Redmond Lakeview	37.602	37.602
CA001_Avalon Fremont	80.387	38.385
MA016_Avalon at The Pinehills	72.76	38.519
CA050_Eaves Santa Margarita	54.046	38.697
VA556_eavesTysons Corner	38.8	38.8
NJ029_Avalon Boonton	354.657	40.183
CA098_Avalon Dublin Station	40.282	40.282
CA062_Avalon at Cahill Park	40.91	40.91
MA025_Avalon Acton	191.119	42.47
CA043_Avalon Sunset Towers	42.485	42.485
MD029_Avalon Arundel Crossing	159.051	42.928
CA575_eaves Mt. View at Middlefield	43.289	43.289
NY044_Avalon Somers	43.45	43.45
WA007_Avalon RockMeadow	44.579	44.579
MA512_Avalon Bear Hill	79.802	45.048
CA010_Eaves San Jose	45.806	45.806
VA012_Eaves Fairfax City	46.567	46.567
CA029_Avalon on the Alameda	47.454	47.454
MD026_Avalon Fairway Hills - Meadows	47.69	47.69
CA102_Avalon Morrison Park	47.738	47.738
MD006_Eaves Washingtonian Center 1	68.603	48.077
DC001_Avalon at Foxhall	554.622	48.145
CA504_eaves Walnut Creek	48.264	48.264
MA014_Avalon at Newton Highlands	194.865	48.316
CA524_Avalon Studio City II	49.277	49.277
WA003_Avalon at Bear Creek	49.463	49.463
CA581_Avalon Thousand Oaks Plaza	49.725	49.725
CT017_Avalon Darien	49.863	49.863

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
MD012_Eaves Columbia Town Center 2	75.208	51.6
CAC50_Avalon Studio 4041	51.786	51.786
CA110_Avalon Dublin Station II	52.419	52.419
CA125_Avalon Monrovia	53.146	53.146
DC504_Avalon The Albemarle	173.226	54.53
CA111_Avalon West Hollywood	261.573	56.005
MA010_Avalon Oaks West	56.202	56.202
CT014_Avalon New Canaan	56.919	56.919
NJ024_Avalon Princeton	242.844	59.477
MA020_Avalon Chestnut Hill	184.875	59.771
CA587_Avalon Walnut Ridge II	60.549	60.549
CA022_AVA Burbank	62.602	62.602
NY525_Avalon Midtown West	556.77	63.416
NC003_Avalon Hawk	63.978	63.978
CA541_Avalon Calabasas	65.788	65.788
MA054_Avalon Sudbury	77.105	66.071
CA119_Avalon Public Market I	67.41	67.41
CA074_Avalon Wilshire	67.898	67.898
WA010_Avalon ParcSquare	74.766	74.766
CA109_Avalon Irvine III	74.841	74.841
CA118_AVA North Hollywood	76.73	76.73
NJ020_Avalon Bloomingdale - Union Av	76.969	76.969
MA057_Avalon Norwood	77.972	77.972
CA566_eaves Los Feliz	78.186	78.186
CO002_Avalon Castle Rock	79.889	79.889
CA077_Avalon Encino	80.042	80.042
CA068_Avalon at Glendale	81.906	81.906
NY001_Avalon Commons	82.012	82.012
CA554_Avalon Santa Monica on Main	84.413	84.413
CA078_Avalon Warner Place	84.839	84.839
CA047_Avalon Silicon Valley	235.832	85.858
NJ033_Avalon Somerville Station	86.511	86.511
DC518_AVA Van Ness	262.111	86.937
MA018_Eaves Peabody	89.379	89.379
MA002_Avalon Oaks	90.637	90.637
CA574_eaves Woodland Hills	90.883	90.883
CA591_Avalon Pasadena	93.083	93.083
CA091_eaves Phillips Ranch	93.217	93.217
VA565_Avalon Reston Landing	93.677	93.677
NY050_Avalon Harbor Isle	94.071	94.071
WA014_AVA Belltown	94.492	94.492
CA569_eaves West Valley	94.727	94.727
WA023_AVA Ballard	94.968	94.968
MA047_Avalon Marlborough	169.233	96.499
WA509_eaves Redmond Campus	103.371	103.371
CA101_Avalon Playa Vista	104.655	104.655
CO003_Avalon Red Rocks	104.817	104.817
CA539_Avalon Studio City III	105.123	105.123
FL005_Avalon Toscana	107.676	107.676
CA510_Avalon Simi Valley	107.689	107.689
CA122_Avalon Walnut Creek II	109.869	109.869
NC002_AVA South End	109.903	109.903
VA014_Avalon Tysons Corner	117.687	117.687
MDC52_Avalon Grosvenor Tower	144.856	118.159
MD031_Portico at Silver Spring	156.48	118.283
CA592_Avalon Studio City	118.626	118.626
NJ021_Avalon Wharton	153.69	118.813
MD018_Kanso Twinbrook	119.452	119.452
MA041_Avalon Prudential Center 2	881.281	123.307
MA060_Avalon Woburn	181.824	123.382
VA004_AVA Ballston	125.239	125.239
WA025_Avalon Alderwood Phase I	127.702	127.702
VA566_Avalon Falls Church	130.709	130.709
MA040_AVA Back Bay	459.992	133.077
WA026_AVA Capitol Hill	133.454	133.454
WA021_AVA Queen Anne	133.845	133.845
NC001_Avalon South End	134.685	134.685
MA053_Avalon Hingham Shipyard	135.15	135.15
CA025_AVA Pacific Beach	136.082	136.082
MA027_Avalon at Hingham Shipyard	137.705	137.705

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
MD017_AVA Wheaton	205.46	143.555
NY047_Avalon Yonkers	574.734	145.005
MA042_Avalon Prudential Center 1	551.868	146.743
CA117_Avalon Dogpatch	147.861	147.861
WA032_Avalon Newcastle Commons II	152.868	152.868
CA123_Avalon Brea Place	152.976	152.976
WA006_Avalon Bellevue	154.303	154.303
MD016_Avalon at Traville	202.748	156.501
WA802 Avalon Alderwood Place	161.957	161.957
NY007_Avalon Court	164.259	164.259
WA033_Avalon North Creek	164.84	164.84
FL010_Avalon Miramar Park Place	170.76	170.76
WA031_AVA Esterra Park	174.828	174.828
MA055_Avalon Saugus	183.591	176.625
CA048_Avalon Woodland Hills	178.965	178.965
NY033_Avalon Garden City	183.005	183.005
MD015_Avalon at Grosvenor Station	278.9	189.233
FL004_Avalon Bonterra	192.697	192.697
WA018_Avalon Meydenbauer	199.202	199.202
FL001_Avalon 850 Boca	199.891	199.891
CO008_Avalon Flatirons	204.803	204.803
VA563_Avalon Arlington North	207.578	207.578
CO004_Avalon Southlands	209.869	209.869
NY049_Avalon Harrison	211.613	211.613
CA087_AVA Little Tokyo	226.863	226.863
NY501_Avalon Westbury	228.799	228.799
VA023_Avalon at Arlington Square	231.612	231.612
NY036_Avalon Huntington Station	233.95	233.95
VA031_Avalon Mosaic District	248.462	248.462
WA027_Avalon Esterra Park	251.318	251.318
WA029_Avalon Newcastle Commons I	251.581	251.581
FL009_Avalon Miramar	254.184	254.184
CO005_AVA RiNo	274.036	274.036
NY043_Avalon Rockville Centre II	300.786	300.786
VA033_Avalon Clarendon	307.93	307.93
CO001_Denver West	323.204	323.204
WA030_Avalon Belltown Towers	326.902	326.902
CA120_AVA Hollywood	342.444	342.444
WA019_Avalon Towers Bellevue	356.452	356.452
VA035_Avalon Dunn Loring	371.239	371.239
NY040_Avalon Great Neck	378.055	378.055
CA573_AVA Toluca Hills	381.264	381.264
VA032_Avalon Potomac Yards	381.559	381.559
VA034_Avalon Columbia Pike	406.884	406.884
VA030_Eaves Fairfax Towers	418.37	418.37
VA561_Avalon Courthouse Place	429.678	429.678
11 West 61st Street	435.409	435.409
NY031_Avalon Rockville Centre	508.279	508.279
FL003_Avalon West Palm Beach	574.959	574.959
FL008_Avalon Fort Lauderdale	623.173	623.173
FL002_Avalon Doral	629.08	629.08
VA559_Avalon Ballston Square	1234.712	1234.712
Construction Data	1308.552	1308.552

C7.6c

(C7.6c) Break down your total gross global Scope 2 emissions by business activity.

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Electricity	49039	25871
Steam	403	403

C7.7

(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?
Not relevant as we do not have any subsidiaries

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?
Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	6064	Decreased	12.8	Our sustainability capex budget funded roughly $6.65M in renewable energy projects in 2022, including 13 solar projects. By YE 2022 we had 6.97mW of solar for a total investment of $22.24M. In 2023/2024 we will add 8.79mW for an additional investment of $32.29M . In total, this amounts to 15.76mW of solar. Also moved our procurable electric load to renewable energy, with 95% now green e-certified. The change between our gross global scope 1+2 emissions between 2022 and 2021 is 8,251mTCO2e for a year over year reduction of 12.3%. This reduction is comprised of 4 main drivers: REC purchasing, Portfolio Efficiency Improvements, Grid Greening, and Onsite Solar Generation. Please see calculations below for each items individual contribution to our 12.3% decrease in emissions: 2021 scope 1+2 emissions (49,810mTCO2e) minus 2022 scope 1+2 emissions (41,559mTCO2e) = 8,251mTCO2e (12.3% reduction) 1. REC purchasing: This contributed a reduction of 6,064mtCO2e which represents 73.5% of the overall reduction. Emissions Value: (6,064/49,810)*100 = 12.1743% 2. Portfolio Efficiency Improvements: This contributed a reduction of 1,048mtCO2e which represents 12.7% of the overall reduction. Emissions Value: (1,048/49,810)*100 = 2.104% 3. Grid Greening: This contributed a reduction of 825mtCO2e which represents 10.0% of the overall reduction. Emissions Value: (825/49,810)*100=1.6563% 4. Onsite Solar Generation: This contributed a reduction of 313mtCO2e which represents 3.8% of the overall reduction. Emissions Value: (313/49,810)*100 = 0.6284% For the purpose of this question REC Purchasing and Onsite Solar Generation have been combined in the row " Change in renewable energy consumption". This is as follows ((6064+313)/49810)*100 = 12.8027% For the purpose of this question Portfolio Efficiency Improvements can be found in row "Other emissions reduction activities" as follows: (1,048/49,810)*100 = 2.104% For the purpose of this question Grid Greening can be found in row "Other" as follows: (825/49,810)*100=1.6563% Please advise the 2021 scope 1+2 emissions number is slightly revised from what was reported in the previous CDP response. 48.942,23 reported in previous response. 49,810 is the revised 2021 number used above.
Other emissions reduction activities	1048	Decreased	2.1	Our sustainability capex budget funded roughly $6.65M in renewable energy projects in 2022, including 13 solar projects. By YE 2022 we had 6.97mW of solar for a total investment of $22.24M. In 2023/2024 we will add 8.79mW for an additional investment of $32.29M . In total, this amounts to 15.76mW of solar. Also moved our procurable electric load to renewable energy, with 95% now green e-certified. The change between our gross global scope 1+2 emissions between 2022 and 2021 is 8,251mTCO2e for a year over year reduction of 12.3%. This reduction is comprised of 4 main drivers: REC purchasing, Portfolio Efficiency Improvements, Grid Greening, and Onsite Solar Generation. Please see calculations below for each items individual contribution to our 12.3% decrease in emissions: 2021 scope 1+2 emissions (49,810mTCO2e) minus 2022 scope 1+2 emissions (41,559mTCO2e) = 8,251mTCO2e (12.3% reduction) 1. REC purchasing: This contributed a reduction of 6,064mtCO2e which represents 73.5% of the overall reduction. Emissions Value: (6,064/49,810)*100 = 12.1743% 2. Portfolio Efficiency Improvements: This contributed a reduction of 1,048mtCO2e which represents 12.7% of the overall reduction. Emissions Value: (1,048/49,810)*100 = 2.104% 3. Grid Greening: This contributed a reduction of 825mtCO2e which represents 10.0% of the overall reduction. Emissions Value: (825/49,810)*100=1.6563% 4. Onsite Solar Generation: This contributed a reduction of 313mtCO2e which represents 3.8% of the overall reduction. Emissions Value: (313/49,810)*100 = 0.6284% For the purpose of this question REC Purchasing and Onsite Solar Generation have been combined in the row " Change in renewable energy consumption". This is as follows ((6064+313)/49810)*100 = 12.8027% For the purpose of this question Portfolio Efficiency Improvements can be found in row "Other emissions reduction activities" as follows: (1,048/49,810)*100 = 2.104% For the purpose of this question Grid Greening can be found in row "Other" as follows: (825/49,810)*100=1.6563% Please advise the 2021 scope 1+2 emissions number is slightly revised from what was reported in the previous CDP response. 48.942,23 reported in previous response. 49,810 is the revised 2021 number used above.
Divestment		<Not Applicable>		
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output		<Not Applicable>		
Change in methodology		<Not Applicable>		

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in boundary		<Not Applicable>		
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable>		
Other	825	Decreased	1.66	Our sustainability capex budget funded roughly $6.65M in renewable energy projects in 2022, including 13 solar projects. By YE 2022 we had 6.97mW of solar for a total investment of $22.24M. In 2023/2024 we will add 8.79mW for an additional investment of $32.29M . In total, this amounts to 15.76mW of solar. Also moved our procurable electric load to renewable energy, with 95% now green e-certified. The change between our gross global scope 1+2 emissions between 2022 and 2021 is 8,251mTCO2e for a year over year reduction of 12.3%. This reduction is comprised of 4 main drivers: REC purchasing, Portfolio Efficiency Improvements, Grid Greening, and Onsite Solar Generation. Please see calculations below for each items individual contribution to our 12.3% decrease in emissions: 2021 scope 1+2 emissions (49,810mTCO2e) minus 2022 scope 1+2 emissions (41,559mTCO2e) = 8,251mTCO2e (12.3% reduction) 1. REC purchasing: This contributed a reduction of 6,064mtCO2e which represents 73.5% of the overall reduction. Emissions Value: (6,064/49,810)*100 = 12.1743% 2. Portfolio Efficiency Improvements: This contributed a reduction of 1,048mtCO2e which represents 12.7% of the overall reduction. Emissions Value: (1,048/49,810)*100 = 2.104% 3. Grid Greening: This contributed a reduction of 825mtCO2e which represents 10.0% of the overall reduction. Emissions Value: (825/49,810)*100=1.6563% 4. Onsite Solar Generation: This contributed a reduction of 313mtCO2e which represents 3.8% of the overall reduction. Emissions Value: (313/49,810)*100 = 0.6284% For the purpose of this question REC Purchasing and Onsite Solar Generation have been combined in the row " Change in renewable energy consumption". This is as follows ((6064+313)/49810)*100 = 12.8027% For the purpose of this question Portfolio Efficiency Improvements can be found in row "Other emissions reduction activities" as follows: (1,048/49,810)*100 = 2.104% For the purpose of this question Grid Greening can be found in row "Other" as follows: (825/49,810)*100=1.6563% Please advise the 2021 scope 1+2 emissions number is slightly revised from what was reported in the previous CDP response. 48.942,23 reported in previous response. 49,810 is the revised 2021 number used above.

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 5% but less than or equal to 10%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	Unable to confirm heating value	0	475280	475280
Consumption of purchased or acquired electricity	<Not Applicable>	91359	570212	661571
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	0	11657	11657
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	7342	<Not Applicable>	7342
Total energy consumption	<Not Applicable>	98701	1057149	1155850

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	No
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	Yes

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Sustainable biomass

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
0

Comment
No Sustainable Biomass Used

Other biomass

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
0

Comment
No Biomass Used

Other renewable fuels (e.g. renewable hydrogen)

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
0

Comment
No Renewable Fuels Used

Coal

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
0

Comment
No Coal Used

Oil

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
0

Comment
No Oil Used

Gas

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
475280

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
447312

MWh fuel consumed for self-generation of steam
7906

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
20062

Comment
No Additional Comment

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
0

Comment
No Other non-renewable fuels used.

Total fuel

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
475280

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
447312

MWh fuel consumed for self-generation of steam
7906

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
20062

Comment
No Additinoal Comment.

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	7342	7342	7342	7342
Heat	447312	447312	0	0
Steam	7906	7906	0	0
Cooling	0	0	0	0

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in C6.3.

Country/area of low-carbon energy consumption
United States of America

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Electricity

Low-carbon technology type
Wind

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
91359

Tracking instrument used
US-REC

Country/area of origin (generation) of the low-carbon energy or energy attribute
United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment
In 2022 we shifted 95% of our procurable electric load to renewable energy through green e-certified wind energy.

C8.2g

(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.

Country/area
United States of America

Consumption of purchased electricity (MWh)
661571

Consumption of self-generated electricity (MWh)
7342

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
11657

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
680570

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description
Waste

Metric value
1613

Metric numerator
Lbs

Metric denominator (intensity metric only)
Apartment Home

% change from previous year
1.26

Direction of change
Decreased

Please explain
In a year when our residents started getting back to their pre-pandemic lifestyle, some still majorly lived and worked from their apartment homes full-time. We were pleased that our waste decreased by 1.26% achieving our 2023 waste goal of an overall waste intensity reduction of 20% by 2023. This is primarily due to increased recycling efforts across our portfolios in addition to more strict requirements from recycling in some jurisdictions in which we operate.

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	AvalonBay invests time and money into the research and development of the creation of low-carbon multi-family buildings. Our investment in R&D o low carbon products typically follows one of 2 paths: the first is searching, finding, assessing, and testing the use of new products or technologies in our buildings, the second is through our venture investments in nascent start-up companies focused on bringing new low carbon products to market. Below are a few examples from each of these 2 pathways of R&D investment. Path 1: Some examples of our direct assessment of and investment in new products or technologies can be seen through the following: - Solar: In 2016, we began assessing the viability of onsite solar in our portfolio. Since then, we have invested over $22M in onsite solar projects representing 51 solar projects through year end 2022. - In 2021, we piloted the use of large scale battery storage at our Avalon White Plains community which resulted in many lessons learned which are being used to inform our overall battery strategy - Building Envelope: In 2022, we found and tested the use of a new product which is an aerosolized caulk that, when used, sealed small holes and penetrations to improve air tightness thus improving energy efficiency. - Low Carbon Concrete: In 2022, we started testing the use of lower embodied carbon concrete at one of our developments to better understand the viability of use across our portfolio. These examples of investing in nascent products help these products fund and scale their growth so that low carbon products can become more accessible in the market place Path 2: In 2021 AvalonBay established investments in Energy Impact Partners (EIP), a venture capital firm at the forefront of ESG innovation. Through these investments, AvalonBay will be supporting new companies, products and technologies focused on deep decarbonization, building electrification and the energy transition. We entered two partnership entities in 2021 and expect that we will be an active participant in evaluating new technologies and products that will impact our industry with a long-term goal of continued ESG innovation on our platform, within our industry and with vendor partners.

C-CN9.6a/C-RE9.6a

(C-CN9.6a/C-RE9.6a) Provide details of your organization's investments in low-carbon R&D for real estate and construction activities over the last three years.

Technology area
Other, please specify (Integration of renewable energy sources in buildings)

Stage of development in the reporting year
Large scale commercial deployment

Average % of total R&D investment over the last 3 years
20

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)
19000000

Average % of total R&D investment planned over the next 5 years
30

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan
As the markets in which we do business set goals to move to a low carbon, low emission future, we have significant opportunity to play our part and move our own sources of energy to a renewable, lower emissions energy source. In 2022 we installed 13 solar panel systems, adding 2.25mW of renewable power to our portfolio. This is in addition to the 38 systems generating over 4.72mW of solar power. In 2023/2024 we are finishing and starting 29 more onsite solar projects. These will contribute an additional 8.79mWs of renewable power. We are currently in feasibility assessment for the next phase of our solar rollout across the portfolio as we continue to increase of renewable energy generation. If all current projects are completed, AvalonBay would have a solar generation system at 80 communities which would generate 15.76mWs of renewable power, saving us roughly 11 metric tons of CO2 and $3.26M in annual electricity costs. Note that we have removed solar panel systems in DC and NJ from the carbon calculation as we monetize the SRECs. Further, we are researching the best methods to tie these solar systems into battery at scale having finished our first battery install in 2021.

Technology area

Demand response

Stage of development in the reporting year
Large scale commercial deployment

Average % of total R&D investment over the last 3 years
20

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)
0

Average % of total R&D investment planned over the next 5 years
15

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan
Our demand response and smart building data program includes 51 communities. Utilization of our continuous demand management generated $475,000 in net annual savings in 2022 from demand response payments, capacity cost reductions, and savings associated with the implementation of various energy efficiency measures that reduced energy consumption and peak demand. AvalonBay associates enable a 2MW reduction in electrical utility grid stress by planning in advance of demand response events and adjusting items like the HVAC system accordingly. Additionally, our demand response and smart building data program supports residential demand response in portions of New York. In New York City, our residents can download the free GridRewards mobile app which enables them to track energy usage, utility cost and carbon footprint by the hour. This app leverages smart meter data for personalized energy efficiency insights and recommended actions to lower energy costs and carbon emissions. The app identifies the time of day when electricity has the highest carbon content and notifies residents when reduced electricity usage will have the biggest impact on reducing their carbon emissions. We plan to continue pursuing GridRewards in other markets as the program expands into California and Texas.

Technology area
Other, please specify (Deep building decarbonization)

Stage of development in the reporting year
Applied research and development

Average % of total R&D investment over the last 3 years
25

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)
25000000

Average % of total R&D investment planned over the next 5 years
50

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan
In 2021 AvalonBay established investments in Energy Impact Partners (EIP), a venture capital firm at the forefront of ESG innovation. Through these investments, AvalonBay will be supporting new companies, products and technologies focused on deep decarbonization, building electrification and the energy transition. We entered two partnership entities in 2021 and expect that we will be an active participant in evaluating new technologies and products that will impact our industry with a long-term goal of continued ESG innovation on our platform, within our industry and with vendor partners.

Technology area
Other, please specify (Low/Reduced Embodied Carbon Concrete)

Stage of development in the reporting year
Pilot demonstration

Average % of total R&D investment over the last 3 years
0.5

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)
10000

Average % of total R&D investment planned over the next 5 years
5

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan
One of the largest areas of Scope 3 emissions for AvalonBay is the emissions associated with the embodied carbon of our new development communities. As part of our plan to decarbonize and achieve our science based targets, we have begun researching and testing new construction materials including using 2 different types of reduced embodied carbon concrete in specific controlled locations at our AVA Arts District development. We are using this pilot to help us understand cost, availability, workability, and performance of the different concrete materials.

C-RE9.9

(C-RE9.9) Does your organization manage net zero carbon buildings?
No, but we plan to in the future

C-CN9.10/C-RE9.10

(C-CN9.10/C-RE9.10) Did your organization complete new construction or major renovations projects designed as net zero carbon in the last three years?
No, but we plan to in the future

C-CN9.11/C-RE9.11

(C-CN9.11/C-RE9.11) Explain your organization's plan to manage, develop or construct net zero carbon buildings, or explain why you do not plan to do so.

As both a developer and a manager, this answer applies to both the management of and construction of net zero buildings. In 2016 we established a solar strategy and began R&D on onsite solar. This major investment over the past 6 years has resulted in new construction standards and policies
for solar applicability in a multi-family environment. As a result, In 2022, we installed solar on 13 communities, adding 2.25mW of renewable power to our portfolio. This is in addition to the 38 current solar projects generating over 4.72mW of solar power. In 2023/2024 we are finishing and starting 29 additional onsite solar projects that will contribute an additional 8.79mWs of renewable power. If all of these projects are completed, AvalonBay would have 80 solar generation systems which would generate 15.76mWs of renewable power, saving us roughly 11 metric tons of CO2 and $3.26M in annual electricity costs. Note that we have removed DC and NJ solar panel systems from the carbon savings estimate where we monetize the SRECs. This commercial deployment of solar is now being extended to include community solar and resident solar where we will generate enough renewable power to be able to offer our residents direct onsite renewable energy. Further we are "greening" our energy procurement in the regions where we have choice. 95% of our procurable energy load is green e-certified at year end 2022. With this progress in renewable energy, and with our approved science- based targets and the concurrent plan to achieve them, we are now close to being able to operationalize a net-zero building and offset a large majority of our carbon emissions. That is a step in our journey that we anticipate achieving in the next 2-5 years as part of the plan to achieve our SBTs.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Y
AvalonBay CY22 Assurance Statement.pdf

Page/ section reference
All pages.

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach
Scope 2 market-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Y
AvalonBay CY22 Assurance Statement.pdf

Page/ section reference
All Pages

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category
Scope 3: Waste generated in operations
Scope 3: Business travel
Scope 3: Employee commuting

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Y
AvalonBay CY22 Assurance Statement.pdf

Page/section reference
All Pages

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
10

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?
Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C9. Additional metrics	Other, please specify (Water Data)	ISO 14064-3	Please see attached assurnace statement. AvalonBay CY22 Assurance Statement.pdf

AvalonBay CY22 Assurance Statement.pdf

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

No, but we anticipate being regulated in the next three years

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

In anticipation of potential regulation around carbon pricing our Vice President of Corporate Responsibility is working with our VP of Taxation and our risk management committee to watch this issue. We note that we anticipate being regulated here in the next three years, and would see that regulation in a US context as possible with the passage of a climate bill in the first two years of the Biden administration. If that were to come to pass, we have several fronts on which we are acting:

1) We conducted a set of scenario plans around carbon taxes that provide insight into how such a tax would effect us. We focused on two scenarios:
- Scenario 1: The Business Climate Leaders (an action team of Citizens' Climate Lobby) which proposes a $15 per ton of CO2 equivalent carbon tax, covering all principal greenhouse gases, and result in equal charges for each ton of CO2 equivalent emissions potential in each type of fuel or greenhouse gas. This tax would increase at $10 per year and the "entry point" would be at the point where GHGs first enter the economy.
- Scenario 2: The conservative Climate Leadership Council's proposal is for a $40 carbon tax per ton of CO2 emissions covering only emissions from fossil fuel combustion. This tax is proposed to increase each year, and for the purposes of this scenario we modeled it increasing at 2% per year. The "entry point" would be at the refinery or first point fossil fuels enter the economy. The tax in these two scenarios was modeled over a five-year period using the AvalonBay GHG emissions from a 2019 baseline. Our science-based targets modeling was used for input on emissions. We found that the tax would have a negligible effect on AvalonBay in either scenario. In Scenario 1 the Scope 1 and Scope 2 modeling (most likely scenario to affect AvalonBay) would see the tax go from $1.2M to $4.35M from 2021 to 2025. However, the revenue needed to offset that tax would only be 0.07% in 2021, 0.12% in 2022, 0.17% in 2023, 0.22% in 2024 and 0.27% in 2025. In Scenario 2 the Scope 1 and Scope 2 modeling (most likely scenario to affect AvalonBay) would see the tax go from $3.17M to $3.43M from 2021 to 2025. However, the revenue needed to offset that tax would only be 0.2% in 2021, 0.2% in 2022, 0.2% in 2023, 0.21% in 2024 and 0.21% in 2025. We therefore think that should a climate-related GHG tax come to pass it would be of negligible impact to AvalonBay, while possibly providing a good deal of benefit overall to the industry and other industries.

2) We set science-based emission reduction targets and are now working to reduce our Scope 1, 2 and 3 emissions to achieve these targets. There are two main fronts in play here: 1) Renewable Energy, and 2) Construction materials. We anticipate that this component will fundamentally address much of our carbon footprint and be a substantial means for complying with any carbon pricing systems and regulations

3) We are continuing to reduce our emission footprint through efficiency in our properties, both by retrofitting existing buildings and by building more efficiency into our design and construction processes. Again, we anticipate that this component will address a component of our carbon footprint and be a means for complying with any carbon pricing systems and regulations.

4) We are monitoring and reacting appropriately to building performance standards (BPSs) in the jurisdictions where we do business. These BPSs are setting emissions caps and distribute fines if the emissions cap is breached. This is a form of a carbon tax that we are currently seeing in our markets. While compliance cycles of these BPSs have not yet occurred, they will within the next couple years. We are planning appropriately so that we can mitigate fines and reduce emissions.

C11.2

(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

No, but we anticipate doing so in the next two years

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, our customers/clients

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement
Innovation & collaboration (changing markets)

Details of engagement
Run a campaign to encourage innovation to reduce climate impacts on products and services

% of suppliers by number
10

% total procurement spend (direct and indirect)
10

% of supplier-related Scope 3 emissions as reported in C6.5
10

Rationale for the coverage of your engagement
These innovation efforts start as pilots and support the implementation of our Science-Based Targets achievement plan. For embedded carbon in materials, we are focusing on concrete and rebar vendors. The rationale for this coverage is that these two material types represent vast majority of the embedded carbon in our construction materials. For supplier diversity and climate justice, we are focusing on the Mid-Atlantic and West Coast supply chain. We anticipate that the percentage of suppliers engaged and the percentage of spend will increase over time. The rationale for this coverage is that the Mid-Atlantic suppliers are located most closely to our corporate headquarters and we can more easily monitor and manage this pilot program and the West Coast suppliers are more readily informed on embodied carbon reduction.

Impact of engagement, including measures of success
Since implementation of our climate-related supplier engagement strategy we have seen the following impacts:
1) It has raised the awareness of our key suppliers that AvalonBay cares about these issues
2) We have opened dialogues with these suppliers on the topic and increased engagement on issues related to climate change . An example of this is our relationship with Ferguson. This vendor supplies us with various appliances and fixtures for new and existing developments. We have conducted an analysis of our purchase with them to determined how "green" or energy efficient the products we are purchasing actually are, and held a meeting with them to set a path forward to increase our ability to procure energy efficient products from them. Another example includes the work we are doing to reduce embedded carbon in construction materials. In 2020 we analyzed our top materials for embedded carbon and began to target suppliers for discussion on how to reduce emissions in those materials. Our first step was to see if alternatives exist in concrete and rebar that could be purchased now. In 2022, we piloted the use of 2 different types of low embodied carbon concrete at one of our developments. Additionally, In 2021, we established investments in Energy Impact Partners (EIP), a venture capital firm at the forefront of ESG innovation. Through these investments, AvalonBay will be supporting new companies, products and technologies focused on deep decarbonization, building electrification and the energy transition. We entered two partnership entities in 2021 and expect that we will be an active participant in evaluating new technologies and products that will impact our industry with a long-term goal of continued ESG innovation on our platform, within our industry and with vendor partners. We are actively working with the organizations we are invested in through EIP to pilot some of their products or help them better understand the use case or use hurdles in our building type so that they can refine their products for broader applicability. MEASURES OF SUCCESS: 1) Ensure we have zero known environmental noncompliance issues. 2) Increase engagement with key suppliers to move what we purchase from them to a more environmentally sound, low carbon set of options. Work with suppliers to source more locally to reduce travel emissions.

Comment
No additional comment.

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement & Details of engagement

Education/information sharing	Share information about your products and relevant certification schemes (i.e. Energy STAR)

% of customers by number
100

% of customer - related Scope 3 emissions as reported in C6.5
75

Please explain the rationale for selecting this group of customers and scope of engagement
Our residents represent a size-able portion of our Scope 3 emissions. In the Multifamily sector they represent the largest portion of a building's potential emissions followed by the embodied carbon of our new developments. Therefore, engaging them is critically important and is an important strategy in achieving our science-based targets. This is why we have launched a communications campaign specifically geared towards informing our residents on their impact, ways to reduce it, and how we are helping to facilitate their reduction through installation of energy efficient appliances, LED lights, recycling programs, and new onsite and offsite renewable energy options.

Impact of engagement, including measures of success
Impact of Engaging our Residents (Customers): The fundamental impact we hope to achieve by engaging our customers is to lower their emissions and provide them with ways to move to renewable power, thereby lowering our scope 3 emissions. Further we look to impact our customers knowledge of climate risk/change and building emissions in particular by supplying them with a number of educational programs throughout the year. In summary, the IMPACT here is: to reduce our scope 3 emissions , increase knowledge on climate risk/change and increase their understanding of how our buildings can help contributes to energy and water savings. Success Measures: Our success measures related to education are to reach 100% of our residents with our educational materials. Regarding renewable energy and energy efficiency, we are anticipating that our engagement program will result in two major outcomes (success measures): 1) Support our achievement of our Scope 3 emissions reduction target of a 47% drop in Scope 3 emissions by 2030 2) Increase the number of residents who are choosing or enroll in greener electricity supply each year in the markets where choice is available, and 3) Scope solar systems large enough to provide certain communities with 100% renewable energy, or enough to provide all residents solar power. We begin piloting this on 3 communities in 2022.

Type of engagement & Details of engagement

Collaboration & innovation	Run a campaign to encourage innovation to reduce climate change impacts

% of customers by number
3

% of customer - related Scope 3 emissions as reported in C6.5
3

Please explain the rationale for selecting this group of customers and scope of engagement
Our residents represent a size-able portion of our Scope 3 emissions. In the Multifamily sector they represent the largest portion of a building's potential emissions followed by the embodied carbon of our new developments. Therefore, engaging them is critically important and is an important strategy in achieving our science-based targets. This is why we are focused on providing them better access to renewable energy.

Impact of engagement, including measures of success
Impact of Engaging our Residents (Customers): The fundamental impact we hope to achieve by engaging our customers is to lower their emissions and provide them with ways to move to renewable power, thereby lowering our scope 3 emissions. We plan to increase our residents access to renewable energy by piloting two new programs. 1. Make community solar available at our properties. We began assessing the feasibility in 2022 and plan to begin sourcing community solar at certain properties in our mid-Atlantic region in 2023.

2. Bring renewable energy to our residents through our resident solar pilot. In this pilot, we will be installing onsite solar panel systems large enough to cover the entire load from our residents and providing them access to the renewable energy at a reduced cost compared to market rates.

In summary, the IMPACT here is: to reduce our scope 3 emissions by increasing our residents access to renewable energy. Our resident solar pilot alone has the potential to save 2,230mT of emissions annually. Success Measures: Our success measures regarding renewable energy access for our residents will be the execution of our community and resident solar pilots and the successful enrollment of the majority of the residents at the communities where the pilots are conducted. Enrollment will require collaborative communication with our residents to ensure they are provided accurate and concise instructions. This program will support the achievement of our Scope 3 science-based emissions reduction target of a 47% drop in Scope 3 emissions by 2030.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?
Yes, climate-related requirements are included in our supplier contracts

C12.2a

(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.

Climate-related requirement
Waste reduction and material circularity

Description of this climate related requirement
All AvalonBay vendors must agree to and sign-off on our public responsible procurement principles and agree to be audited periodically against them. In 2020, we surveyed 37 AVB vendors of strategic importance against our principles and ensured compliance with their intent. As part of our Responsible Procurement Principles (found here: https://www.avaloncommunities.com/about-us/corporate-responsibility/-/media/ea7a783755184af3bb45ff01186d5ab2.ashx), All suppliers are required to minimize their environmental impacts in the areas of pollution, waste, and hazardous materials.

% suppliers by procurement spend that have to comply with this climate-related requirement
100

% suppliers by procurement spend in compliance with this climate-related requirement
100

Mechanisms for monitoring compliance with this climate-related requirement
Supplier self-assessment

Response to supplier non-compliance with this climate-related requirement
No response

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate
Yes, we engage directly with policy makers
Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?
Yes

Attach commitment or position statement(s)
Please see the emissions section of the attached report and our approved science-based targets.
2022 Annual ESG Report - FInal 7.21.2023.pdf

Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan
We have three main processes in place that ensure all of our direct and indirect activities that influence policy are consistent with our overall climate change strategy:
1) Procedural consistency: Generally, all of our Company's procedures are governed by our corporate governance policies and principles, such as the Code of Business Conduct and Ethics and Corporate Governance Guidelines, which provide safeguards against practices that are inconsistent with the Company's objectives and govern direct and indirect activities external to the company (e.g., influencing policy).
2) ESG Reporting Relationship and Internal Engagement: Additionally, our VP ESG reports directly to our Chief Financial Officer and regularly interfaces with our Chief Investment Officer (CIO). Through these meetings the VP ESG ensures that their knowledge of and participation in trade associations and advocacy is consistent with our overall climate change strategy.
3) Board Engagement: Further, through regular updates on ESG to the AvalonBay Board of Directors we ensure complete alignment at the top around the activities both internal and external (policy influence, for one) related to our climate change strategy.

Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate
<Not Applicable>

Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate
<Not Applicable>

C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Specify the policy, law, or regulation on which your organization is engaging with policy makers
DC - Building Energy Performance Standards (BEPS)
NY - Local Law 97
MA - Boston Building Emissions Reduction and Disclosure Ordinance (BERDO)
WA - Seattle Building Emissions Performance Standards Policy

Category of policy, law, or regulation that may impact the climate
Climate change mitigation

Focus area of policy, law, or regulation that may impact the climate
Climate-related reporting
Climate-related targets
Emissions – CO2

Policy, law, or regulation geographic coverage
Regional

Country/area/region the policy, law, or regulation applies to
United States of America

Your organization's position on the policy, law, or regulation
Support with minor exceptions

Description of engagement with policy makers
Many of our markets have implemented or are discussing the implementation of lower carbon emissions and building energy reduction requirements. AvalonBay has been engaged in supporting the execution of this legislation. The following examples outline our support and engagement in these public policy activities:
1) We are working with New York City's Retrofit Accelerator Program with two buildings enrolled in the program. We will work with the city over the coming years to test and implement technologies to deeply cut emissions in these buildings and help the city achieve it's goal of an 80% emissions reduction by 2050. Our participation in the program will help the city better understand how buildings can be retrofitted to dramatically reduce carbon emissions.
2) In addition, in late 2019 we offered two properties to be studied by Boston's Green Ribbon commission in support of the city's goal of carbon neutrality by 2050. These buildings will serve as pilot projects to advance the understanding of the challenges and advantages of performing deep carbon emissions retrofits in a multi-family context.
3) In Washington DC we are supporting the city's Department of Energy and Environment as they establish their first set of Building Energy Performance Standards through input and comment on the new legislation as its implementation component is formed.
Lastly, we are following the development of the Seattle Building Emissions Performance Standards Policy development to evaluate its impact on our portfolio. We have attended various webinars to understand the proposal and provide feedback.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation
AvalonBay has 3 main product types, High-rise, Mid-rise, and Garden style properties. Our High and Mid-rise properties, in some cases, include mixed use or retail spaces that are leased out to third party organizations. These organizations may include supermarkets, dry cleaners, or even restaurants. The way certain policies are written eliminate our ability to separate out the emissions generated by these third party lease organizations from those associated with our own operational controls. This means AvalonBay would be responsible for the possible noncompliance of these spaces without being able to implement improvements or reduce consumption. While we are working with policy makers to state our case, we are also drafting new green lease language for new or renewing tenants to make sure they are aware of and working towards the emissions reduction standards.

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?
<Not Applicable>

C12.3b

(C12.3b) Provide details of the trade associations your organization is a member of, or engages with, which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association
Other, please specify (NAREIT)

Is your organization's position on climate change policy consistent with theirs?
Consistent

Has your organization attempted to influence their position in the reporting year?
Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position
NAREIT fundamentally believes that climate change is real and needs to be addressed. In addition, the built environment has a significant role to play in mitigating climate risk and moving to a low-carbon future.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)
0

Describe the aim of your organization's funding
<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication
In mainstream reports

Status
Complete

Attach the document
Y
2022-annual-report-letter-wrap-final (1).pdf

Page/Section reference
Page 3-5, "Environmental, Social & Governance" Section

Content elements
Governance
Strategy
Emission targets
Other metrics

Comment
No additional comment.

Publication
In voluntary sustainability report

Status
Complete

Attach the document
Y
2022 Annual ESG Report - FInal 7.21.2023.pdf

Page/Section reference
- Emission Figures: Page 71-73,
- Environmental Performance & Strategy section: Page 10-23
- Governance: Page 52-53
- Emission targets: Page 5

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment
Strategy: We outline our ESG strategies throughout our annual ESG report. Each components has a chapter, with the "E" starting on page 10, the "S" starting on page 24 and the "G" starting on page 48. We also publish a comprehensive set of ESG metrics in the appendix and throughout the report. Emission targets: See our annual accounting on page 5 and 12 of our Science-Based Emission Reduction Targets.

C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	Science Based Targets Network (SBTN) Task Force on Climate-related Financial Disclosures (TCFD)	Science Based Targets Network (SBTN) - We have 2 approved science-based targets. Task Force on Climate-related Financial Disclosures (TCFD) - We actively report against this framework. You can view this in our annual ESG Report.

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	Yes, executive management-level responsibility	The ESG team reports directly to the Chief Financial Officer (CFO) with additional oversight from the Executive Vice President, Capital Markets. Our activities pertaining to biodiversity were approved ad are now overseen by these executive leaders as well as through our newly formed Sustainability Council which is composed of various leaders across the organization including our Chief Investment Officer (CIO). This group assist with oversight, strategic planning, and execution of various programs including our biodiversity assessment initiative. The objective of this program is to better understand our impact on biodiversity and mitigate our impact where possible with emphasis on our new developments.	<Not Applicable>

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	No, but we plan to do so within the next 2 years	<Not Applicable>	<Not Applicable>

C15.3

(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

Impacts on biodiversity

Indicate whether your organization undertakes this type of assessment
Yes

Value chain stage(s) covered
Direct operations

Portfolio activity
<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity
IBAT – Integrated Biodiversity Assessment Tool

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)
AvalonBay conducted a portfolio wide assessment of the biodiversity impacts of our existing buildings in 2022 using the IBAT – Integrated Biodiversity Assessment Tool and STAR – Species Threat Abatement and Restoration metric. Using these tool, we were able to understand what areas of our portfolio had the greatest impact and greatest potential beneficial impact on the persistence of biodiversity. Some key data points included the STAR score and number of ICUN red list species, key biodiversity areas, and protected lands amongst others that are within proximity to our properties. Using our benchmark assessment of our existing portfolio, we plan to implement a policy in 2023 that will require all new developments and acquisitions to run this assessment and have the properties with the greatest impact/potential take actions to mitigate impact on or restore biodiversity.

Dependencies on biodiversity

Indicate whether your organization undertakes this type of assessment
No, but we plan to within the next two years

Value chain stage(s) covered
<Not Applicable>

Portfolio activity
<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity
<Not Applicable>

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)
<Not Applicable>

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity- sensitive areas in the reporting year?
Yes

C15.4a

(C15.4a) Provide details of your organization's activities in the reporting year located in or near to biodiversity -sensitive areas.

Classification of biodiversity -sensitive area
Key Biodiversity Area (KBAs)

Country/area
United States of America

Name of the biodiversity-sensitive area
Mission Bay - San Diego River Estuary - California
Orange Coast Wetlands - California
Bolsa Chica - California
Orange Coast Wetlands - California
Pequannock Watershed - New Jersey
West Hempstead Bay/Jones Beach West - New York

Proximity
Up to 5 km

Briefly describe your organization's activities in the reporting year located in or near to the selected area
AvalonBay is an owner and operator of multifamily buildings.

Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity
No

Mitigation measures implemented within the selected area
<Not Applicable>

Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented
AvalonBay is an owner and operator of multifamily buildings. As such, we do not have operations at these locations that would directly impact these key biodiversity areas.

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Education & awareness

C15.6

(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	No, we do not use indicators, but plan to within the next two years	Pressure indicators Response indicators

C15.7

(C15.7) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Content of biodiversity-related policies or commitments Biodiversity strategy	Please see pages 16- 17 of the attached 2022 ESG Report.pdf AVB_2022 ESG Report_R8[94].pdf

C16. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

No additional comment.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	VP - ESG	Business unit manager

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms