



# ENVIRONMENTAL MANAGEMENT SYSTEM

2021

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# 1| Introduction

AvalonBay's publicly available Environmental Management System is aligned with ISO 14001 and is designed to guide our environmental sustainability efforts. We align with ISO 14001 to show clearly how we plan, carry out, check, and revise our sustainability initiatives throughout the year.

## **OUR ENVIRONMENTAL SUSTAINABILITY POLICY**

By developing, operating and investing in high density housing, we contribute to more efficient land use patterns and enable our residents to reduce their environmental footprint. Our goal is to ensure prudent environmental stewardship through a holistic approach that focuses on maximizing resource efficiencies, mitigating climate change risks, reducing greenhouse gas emissions, and reducing waste streams, while ensuring an effective use of energy, water and non-renewable resources. We also recognize that we have a role to play in communicating good environmental practices to all our stakeholders.

We work with associates, partners, suppliers and our residents to deliver on our environmental policy objectives. In order to accomplish these objectives, we endeavor to:

- Establish long-term goals and programs that drive energy, water, waste and Greenhouse Gas Emissions reductions, among other CR goals, implementing improved efficiencies into our communities and reporting publicly and annually on our progress toward these goals
- Independently audit and verify our energy, water, and waste data
- Develop and implement an energy management system (EMS)
- Develop and implement an energy use measurement and monitoring program
- Analyze the portfolio for risks associated with climate change and stronger storm cycles, and determine resiliency strategies to mitigate these risks
- Promote recycling and use of recycled materials, while striving to reduce the consumption of all materials wherever possible
- Work closely with and consult our key stakeholders to develop and implement environmental improvement initiatives and stay ahead of environmental issues
- Enhance our supply chain's environmental sustainability and, where practicable, engage with and encourage suppliers and contractors who are actively minimizing their impact on the environment
- Support resident endeavors to achieve their environmental objectives, through developing and offering market-leading sustainable buildings with improvements in apartment operating efficiency
- Provide an environmentally sound workplace for our associates and establish standards that promote the use of environmentally friendly processes and materials that complement and enhance existing safety standards
- Communicate our Environmental Sustainability Policy and our commitment to environmental best practices to associates, residents and other stakeholders, and make the policy and our commitment known to the public

# CR FRAMEWORK

AvalonBay has a clearly defined Corporate Responsibility framework which highlights the importance of environmental, social and governance programs as part of the overall CR structure. The framework organizes the focus areas of the program with regard to their impact on our most important stakeholders. At the heart of all we do are our three core values, and the outcomes of the CR Program are shown as well: business impact, transparency and company reputation.



## 2| Planning

Our environmental management system is framed and established through a planning process that includes the following sequential elements:

- Materiality analysis: *What's most important to the Company and our stakeholders?*
- Long-Term goals: *What are our long-term targets for what's most important?*
- Annual strategic planning and objective setting: *How do we get there?*
- Funding: *How do we pay for getting there?*

The following sections describe each of these elements in more detail.

### MATERIALITY ANALYSIS

In 2018, as a refresh to our original 2014 materiality analysis, we established a new foundation for our efforts by determining what CR factors are of most significance to our stakeholders. We conducted an in-depth materiality analysis by surveying associates, residents, suppliers, investors and the AvalonBay Board of Directors, as well as reaching out to community representatives and public officials in our markets. We chose to survey these stakeholders because they have a long-term, abiding stake in the success of the company, and/or they directly impact our environmental, social and governance (ESG) progress. The results of the analysis are seen in the following figure.



This analysis was used to inform our strategic planning and goal-setting process, and is a key ongoing input to our GRI-G4 reporting scope for our annual CR Reports, which can be viewed here: <http://www.avaloncommunities.com/about-us/corporate-responsibility/cr-reports>

## LONG-TERM GOALS

With the foundation established through our materiality analysis, we set out to establish a set of goals for the Company. Our 2020 CR Goals, established in 2015, were closed out at the end of 2020 and include the following:

GOAL	PROGRESS												
<p><b>Science-Based Targets</b> 53% reduction in scope 1 and 2 greenhouse gas (GHG) emissions and 47% reduction in scope 3 emissions by 2030</p>	<table border="1"> <tr> <td>Scope 1 &amp; 2 2020</td> <td><b>3.90</b></td> <td>Scope 3 2020</td> <td><b>4.64</b></td> </tr> <tr> <td>Scope 1 &amp; 2 2017 Baseline</td> <td><b>4.61</b></td> <td>Scope 3 2017 Baseline</td> <td><b>5.52</b></td> </tr> <tr> <td>2030 Goal: <b>2.16(kgCO2e/sq.ft)</b></td> <td></td> <td>2030 Goal: <b>2.93(kgCO2e/sq.ft)</b></td> <td></td> </tr> </table>	Scope 1 & 2 2020	<b>3.90</b>	Scope 3 2020	<b>4.64</b>	Scope 1 & 2 2017 Baseline	<b>4.61</b>	Scope 3 2017 Baseline	<b>5.52</b>	2030 Goal: <b>2.16(kgCO2e/sq.ft)</b>		2030 Goal: <b>2.93(kgCO2e/sq.ft)</b>	
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<p><b>Water<sup>1</sup></b> 15% reduction in water use intensity (WUI) of the entire portfolio</p>	<table border="1"> <tr> <td>2020</td> <td><b>41.61</b></td> </tr> <tr> <td>2019</td> <td><b>39.33</b></td> </tr> <tr> <td>2013 Baseline</td> <td><b>45.21</b></td> </tr> <tr> <td></td> <td>2020 Goal: <b>38.39(Kgal/unit)</b></td> </tr> </table>	2020	<b>41.61</b>	2019	<b>39.33</b>	2013 Baseline	<b>45.21</b>		2020 Goal: <b>38.39(Kgal/unit)</b>				
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<p><b>Waste<sup>2</sup></b> 20% reduction in landfill-bound waste intensity across our portfolio by 2023<sup>2</sup></p>	<table border="1"> <tr> <td>2020</td> <td><b>1674</b></td> </tr> <tr> <td>2019</td> <td><b>1773</b></td> </tr> <tr> <td>2017 Baseline</td> <td><b>1671</b></td> </tr> <tr> <td></td> <td>2023 Goal: <b>1631(lbs./apt.)</b></td> </tr> </table>	2020	<b>1674</b>	2019	<b>1773</b>	2017 Baseline	<b>1671</b>		2023 Goal: <b>1631(lbs./apt.)</b>				
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<p><b>Residents<sup>3</sup></b> 33% increase in our Net Promoter Score</p> <p><b>GOAL ACHIEVED!</b></p>	<table border="1"> <tr> <td>2020</td> <td><b>27</b></td> </tr> <tr> <td>2019</td> <td><b>31</b></td> </tr> <tr> <td>2014 Baseline</td> <td><b>15</b></td> </tr> <tr> <td></td> <td>2020 Goal: <b>20</b></td> </tr> </table>	2020	<b>27</b>	2019	<b>31</b>	2014 Baseline	<b>15</b>		2020 Goal: <b>20</b>				
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<p><b>Community</b> Increase annual community investment to \$2.2M total cash and in-kind</p> <p><b>GOAL ACHIEVED!</b></p>	<table border="1"> <tr> <td>2020</td> <td><b>\$2.4M</b></td> </tr> <tr> <td>2019</td> <td><b>\$2.2M</b></td> </tr> <tr> <td>2015 Baseline</td> <td><b>\$1.1M</b></td> </tr> <tr> <td></td> <td>2020 Goal: <b>\$2.2M</b></td> </tr> </table>	2020	<b>\$2.4M</b>	2019	<b>\$2.2M</b>	2015 Baseline	<b>\$1.1M</b>		2020 Goal: <b>\$2.2M</b>				
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<p><b>Associates<sup>4</sup></b> Achieve 75th percentile or better on associate engagement and satisfaction</p> <p><b>GOAL ACHIEVED!</b></p>	<table border="1"> <tr> <td>2020</td> <td><b>86TH PERCENTILE</b></td> </tr> <tr> <td>2019</td> <td><b>90TH PERCENTILE</b></td> </tr> <tr> <td></td> <td>2020 Goal: <b>75th percentile</b></td> </tr> </table>	2020	<b>86TH PERCENTILE</b>	2019	<b>90TH PERCENTILE</b>		2020 Goal: <b>75th percentile</b>						
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<sup>1</sup> We calculate water use intensity on properties that are stabilized for a full two-year period and use whole-building data. The consumption is then divided by the number of apartment homes. Graphs not drawn to scale.

<sup>2</sup> To normalize data and to control for any shifts in waste and recycling numbers related to portfolio changes, we will calculate this goal using pounds per apartment (lbs./apt) intensity metric, normalizing the waste generation to a per residential unit number.

<sup>3</sup> In 2020, COVID-19 limited our associates' ability to deliver the service levels we are accustomed to providing, and our residents felt it. With that, our total portfolio NPS decreased four points to 27, from 31 in 2019. In 2021 we are already seeing improvements in our NPS as we re-open amenities and return to a more normal operating environment.

<sup>4</sup> We use external benchmarks from our vendor as well as historical three-year average data in arriving at our engagement percentage thresholds. The full survey is conducted every year. We calculate the target on properties that are stabilized for a full two-year period.

As we entered a new decade and closed out our 2020 Goals, we set new long-term targets, aligned with eight of the United Nations Sustainable Development Goals (SDGs), which are goals created as the blueprint to achieve a better and more sustainable future for all. These include:

<p><b>SCIENCE-BASED TARGETS</b></p> <p><b>53%</b> Reduction in Scope 1 &amp; 2 GHG Emissions per square foot by 2030 (2.16 kgCO<sub>2</sub>e/sq. ft)</p> <p><b>47%</b> Reduction in Scope 3 GHG Emissions per square foot by 2030 (2.93 kgCO<sub>2</sub>e/sq. ft)</p> <p><b>SDG</b></p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>7 AFFORDABLE AND CLEAN ENERGY</p>  </div> <div style="text-align: center;"> <p>13 CLIMATE ACTION</p>  </div> </div>		<p><b>WATER</b></p> <p><b>2025</b> Goal currently being researched and will be introduced in the 2021 report</p> <p><b>SDG</b></p> <div style="text-align: center;"> <p>6 CLEAN WATER AND SANITATION</p>  </div>	<p><b>WASTE</b></p> <p><b>20%</b> Reduction in landfill-bound waste intensity by 2023 (1,631 lbs/apt)</p> <p><b>SDG</b></p> <div style="text-align: center;"> <p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p>  </div>
<p><b>INCLUSION &amp; DIVERSITY</b></p> <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><b>ACHIEVE GENDER PARITY</b></p> <p>Increase women in leadership** to achieve <b>gender parity*</b> by 2025</p> </div> <div style="width: 30%;"> <p><b>INCREASE UNDERREPRESENTED MINORITIES</b></p> <p>Increase of underrepresented minorities in leadership** <b>to 20% by 2025 and 25% by 2030</b></p> </div> <div style="width: 30%;"> <p><b>SDG</b></p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>5 GENDER EQUALITY</p>  </div> <div style="text-align: center;"> <p>10 REDUCED INEQUALITIES</p>  </div> </div> </div> </div>			
<p><b>RESIDENTS</b></p> <p><b>33</b> Achieve NPS (Net Promoter Score) of 33 by 2025</p>	<p><b>ASSOCIATES</b></p> <p><b>90th+</b> Achieve 90th percentile or better on <b>associate engagement and satisfaction by 2025</b></p>	<p><b>COMMUNITY</b></p> <p><b>\$2.75M</b> Increase annual community investment to <b>\$2.75M total cash and in-kind by 2025</b></p> <p><b>SDG</b></p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>1 NO POVERTY</p>  </div> <div style="text-align: center;"> <p>11 SUSTAINABLE CITIES AND COMMUNITIES</p>  </div> </div>	

\* Please note that parity is defined as achieving a level within +/-2% of the available workforce (currently 41%) as documented by third-party resources by level, function and geography. Source: Derived using TalentNeuron (which uses Census NAICS industry codes, years of experience, education, and 65K sources of data including Census, job boards, proprietary database and Gartner Insights).

\*\* Leadership is defined as director-level associates and above.

## **ANNUAL STRATEGIC PLANNING AND OBJECTIVE SETTING**

Each year the Vice President of Corporate Responsibility and Energy Management (VPCR) establishes an annual strategic plan that includes objectives for our environmental sustainability initiatives. These objectives cover:

- Energy and GHG reduction projects
- Water reduction projects
- Resident and associate engagement activities
- Building certifications
- Rebate and incentive capture

This annual objective setting is done in the context of our materiality analysis and the outcomes from each objective are tied to achievement of the CR goals.

## **FUNDING**

Once the strategic plan is set for the year, the VPCR establishes a dedicated capital improvements budget for the initiatives identified in the plan. The budget is reviewed by senior management and presented to the CR Committee. Once approved each project goes through a rigorous internal ROI analysis to ensure sustainability and economic return thresholds are met before funding is released. Once released the project is tracked for a minimum of two years after implementation to confirm that performance improvements are delivered as expected.

## 3| Implementation and Operation

### MANAGEMENT APPROACH

Our materiality analysis is an important component of our approach to managing CR progress and reporting. In general, our management approach consists of:

- Determining materiality (based on internal and external stakeholder input) with periodic updates
- Establishing long-term goals aligned with our materiality analysis
- Establishing annual objectives that put in place initiatives and strategies to achieve our CR goals

The mechanisms in place for monitoring the effectiveness of this approach include internal stakeholder feedback and benchmarking against industry peers. We also track progress and gaps against our submissions to external raters like GRESB and the CDP. Results are communicated to our associates via quarterly updates and externally in our annual CR report.

Each year, we establish a CR plan to guide our efforts during the year. The plan is reviewed with our Board of Directors and key internal stakeholders. A corresponding budget is prepared that enables dedicated capital spend on CR initiatives, with a design to fund high-return projects in water and energy efficiency as well as the strategic philanthropy plan.

### CORPORATE RESPONSIBILITY GOVERNANCE

The vice president of corporate responsibility (VPCR) reports to our chief financial officer (CFO) and leads both the environmental sustainability and strategic philanthropy programs for AvalonBay. The VPCR is responsible for implementing all programming and transparently reporting on progress. He regularly reviews CR objectives and the potential impacts of climate change on our business with the CFO. The VPCR keeps an active watch for business-related CR risks and opportunities. The process includes integration of asset-level concerns and initiatives designed to either mitigate risks or take advantage of opportunities (or both), which are paid for through redevelopment funds or a dedicated Sustainability Capex Fund.

In our process, a 20% target for internal rate of return is typically used to prioritize the larger sustainability projects with the most promising returns. These projects often entail energy/water consumption reduction and reduction of our carbon footprint related to building construction and operation. The process for identifying risks/opportunities includes an annual survey of company officers and less frequent surveys of a wider group of company stakeholders including customers, associates, suppliers and board members, among others.

#### CR GOVERNANCE INCLUDES THE FOLLOWING DELIBERATIVE BODIES:

**CR COMMITTEE:** A select interdisciplinary group representing multiple functional groups, the CR Committee is responsible for implementing the CR strategy and steering initiatives throughout the year. It meets every month.

**PHILANTHROPY COMMITTEE:** Chaired by the VPCR, the Philanthropy Committee meets twice a year and steers our strategic philanthropy investments and Building Strong Communities program. It consists of the CEO, CIO, CFO, COO, Sr. VP of Human

Resources, Senior Vice President of Brand and Marketing and Sr. Manager of Corporate Responsibility.

**INCLUSION & DIVERSITY STEERING COMMITTEE:** The committee provides oversight and streamlines the approval process for new programs and initiatives. It consists of includes the Director of Corporate Responsibility, Inclusion & Diversity (chair), CIO (I&D Executive Sponsor), SVP of Operations (co-chair), SVB of Human Resources, SVP of Brand Strategy & Marketing, SVP- Associate General Counsel, SVP-Chief Digital Officer, VP of Human Resources and the VPCR

**INCLUSION & DIVERSITY COUNCIL:** Chaired by the Director of Corporate Responsibility, Inclusion & Diversity, this includes 20 associates from diverse personal, functional and geographic backgrounds. The purpose of the Council is to drive the I&D strategy and programming to promote and create an inclusive and diverse environment where everyone can thrive

**AVALONBAY BOARD:** Annually, the CIO and VPCR engage in a dialogue with the AvalonBay Board of Directors. Progress against our CR goals is reviewed, and the board provides input on strategic direction.

## **COMMUNICATION, TRAINING AND AWARENESS**

The annual plan is reviewed by the CR Committee and select senior management, and presented in summary to the AvalonBay Board. The VPCR then communicates it more widely via a variety of communication and training efforts, including:

**QUARTERLY UPDATES:** Each quarter the CR team provides an update to the entire Company via the AvalonBay's newsletter/magazine, Connections. This provides an update to associates on CR Progress, including achievement of annual objectives and CR Goals.

**DEPARTMENTAL AND STAKEHOLDER PRESENTATIONS:** The VPCR presents to a variety of internal and external departments and organizations throughout the year, including our Design, Construction and Redevelopment teams and investors in the Company.

**ANNUAL EVENTS:** Webinars and events throughout the year, including our celebration of Earth Day, further communicate the CR goals and initiatives to all associates.

## **DOCUMENTATION AND CONTROL OF DOCUMENTS**

A central repository is used to store all CR-related documentation and foster cross-company collaboration. This repository is accessible to all associates who are engaged in CR activities. In addition, the company intranet (Sharepoint) is used to store CR-related information for all AVB associates. Public documents are available on the company website, here:

<http://www.avaloncommunities.com/about-us/corporate-responsibility>

## 4| Checking

### **MONITORING AND MEASUREMENT**

Progress against the company's CR goals is reported publicly in the annual [Corporate Responsibility Report](#). Data for the energy and water-use intensity goals is collected on an annual basis by the Company's environmental management team and the VPCR. The data is uploaded into EnergyStar's Portfolio Manager tool, and weather normalized. Data for the company's associate and resident goals is collected by the HR and Marketing departments, respectively. The VPCR leads the strategic philanthropy program, *Building Strong Communities*, and establishes the annual philanthropy budget and in-kind targets for each year in conjunction with the Philanthropy Committee. This budget and the in-kind targets are designed to increase each year incrementally to achieve the CR goal in philanthropy.

### **NONCONFORMITY, CORRECTIVE ACTION AND PREVENTIVE ACTION**

The VPCR reviews quarterly reports to monitor progress on energy, water and associate in-kind giving. These reports provide insight into how the company is performing against the annual plan and CR goals. The energy and water reports also identify outliers that enable corrective actions to address leaks or performance issues resulting in consumption spikes.

As the availability of real-time data becomes more prevalent it is the plan of the VPCR to improve quarterly monitoring on some buildings (high-rise, mid-rise) to a more real-time view.

## 5| Related Policies

### **BUILDING CERTIFIED**

As a means to drive greater efficiency and sustainability in our new developments, AvalonBay recently released a new policy that requires third-party environmental certification of all high- and mid-rise communities. The policy also has requirements for third-party commissioning of these buildings and our garden apartment communities.

### **RESPONSIBLE SUPPLY CHAIN**

AvalonBay has put in place a structured framework to work with our key suppliers, enabling an understanding of the supply chain risks with an aim to develop long term relationships to influence the performance of suppliers. A set of principles has been established, and we have integrated these principles into all of our contract vehicle templates. We are working toward annual surveys for existing and new suppliers to check adherence to these principles.

These principles cover the following areas:

- Respect for Basic Human Rights of Employees
- Labor Standards and Prohibition of Child Labor
- Prohibition of Corruption and Bribery
- Environmental Protection
- Equality, Diversity and Inclusion

Our Responsible Supply Chain Principles can be read in more detail on our website: [here](#).