



# ENVIRONMENTAL MANAGEMENT SYSTEM

2018

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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**

The objectives of AvalonBay's Environmental Sustainability Policy are to maximize resource efficiencies and reduce waste streams, while ensuring an effective use of energy, water and non-renewable resources. By developing and investing in high density housing, we can also contribute to more efficient land use patterns and enable our residents to reduce their environmental footprint. Our goal is to ensure prudent environmental stewardship across our operating and investment activities by focusing on a holistic approach. 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 environmental policy objectives. In order to accomplish these objectives, we will:

- Establish long-term goals that drive energy and water efficiency, among other CR goals, implementing continuously improving efficiencies into our communities
- Develop and implement an energy use measurement and monitoring program
- Promote recycling and use of recycled materials, while striving to reduce the consumption of all materials wherever possible
- Work closely with our associates to develop and implement environmental improvement initiatives
- 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:

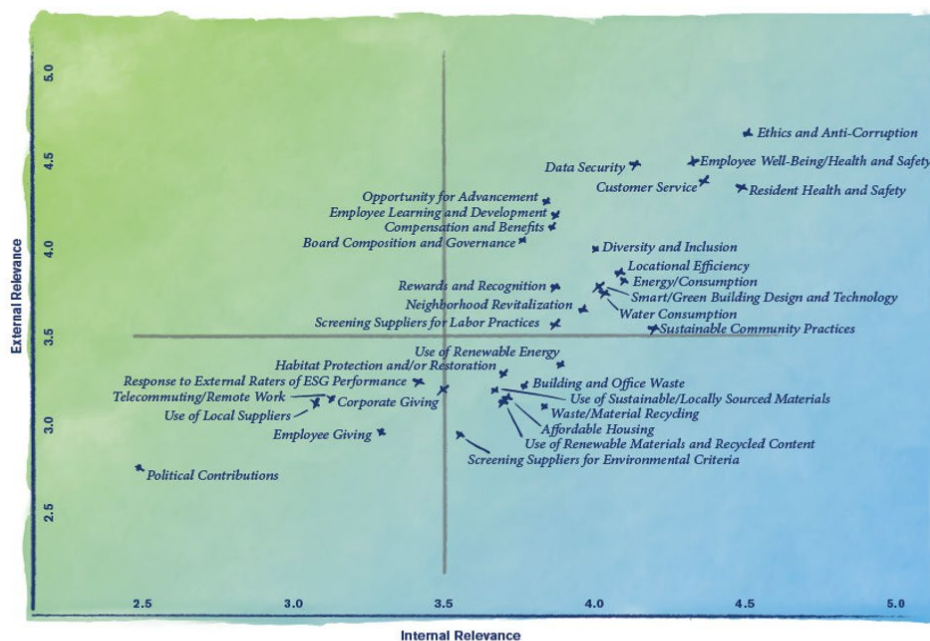
- Materiality analysis: *What's most important to the Company and our stakeholders?*
- Long-Term goals: *What are our long-term targets for what's most important?*
- Annual strategic planning and objective setting: *How do we get there?*
- Funding: *How do we pay for getting there?*

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

### MATERIALITY ANALYSIS

In 2014, 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.

AVB MATERIALITY MATRIX



- Internal group: directors, officers and Board of Directors. External group: suppliers, investors, residents and local government/community
- Scores for each subgroup within internal and external groups given equal weight in combined results
- Top right quadrant represents most significant areas

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, are as follows:

- Energy: 15% reduction in Energy Use Intensity (EUI) of the entire portfolio
- Water: 15% reduction in Water Use Intensity (WUI) of the entire portfolio
- Residents: 20% increase in our Net Promoter Score from a 2014 baseline
- Associates: 75th percentile or better on associate engagement
- Community: Increase annual community investment to \$2.2M total cash and in-kind

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

Each year the Senior Director of Corporate Responsibility (SDCR) 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 2020 goals.

## **FUNDING**

Once the strategic plan is set for the year, the SDCR 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 2020 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 senior director of corporate responsibility (SDCR) reports to our chief investment officer (CIO) and leads both the environmental sustainability and strategic philanthropy programs for AvalonBay. The SDCR 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 CIO. The SDCR 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 FORUM:** A working team open to all associates and dedicated to advancing CR with discrete projects throughout the year. The forum enables communication and dialogue with associates in each region in a variety of roles. It meets every other month.

**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 SDCR, the Philanthropy Committee meets three times a year and steers our strategic philanthropy investments and Building Strong Communities program. It consists of the CEO, CIO, CAO, Sr. VP of Human Resources and Senior Vice President of Brand and Marketing.

**AVALONBAY BOARD:** Annually, the CIO and SDCR 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 SDCR then communicates it more widely via a variety of communication and training efforts, including:

**CR FORUM:** The plan is presented to the CR Forum and forum participants volunteer to execute one or more projects associated with the plan. They are also encouraged to communicate the plan back to their regions.

**QUARTERLY UPDATES:** Each quarter the SDCR communicates a CR Quarterly Update to the entire Company, which updates associates on CR Progress, including achievement of annual objectives and 2020 Goals.

**DEPARTMENTAL AND STAKEHOLDER PRESENTATIONS:** The SDCR 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 2020 goals and CR 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, a company training platform, AvalonBay University (AVBU), 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 2020 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 SDCR. 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 SDCR 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 2020 goal in philanthropy.

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

The SDCR 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 2020 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 SDCR 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 at <http://www.avaloncommunities.com/~media/Images/Corp/CorporateResponsibilityRevamp/AvalonBay-Responsible-Procurement-Principles.pdf?la=en>