

# APPLE INC. GREEN BOND

## FRAMEWORK OVERVIEW AND SECOND-PARTY OPINION BY SUSTAINALYTICS

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## 1. PREFACE

Sustainalytics has been retained by Apple Inc. to support, review and provide an opinion on its green bond framework and its alignment with the Green Bond Principles 2015. As part of this engagement, Sustainalytics reviewed relevant public and internal documents, and held conversations with Apple's legal, treasury and sustainability teams to understand the planned use of proceeds, project selection process, and management and reporting for its green bond.

This document contains two sections:

- 1) Framework Overview, which includes a summary of Apple's green bond framework; and
- 2) Sustainalytics' Opinion, which is a second party opinion on the framework.

## 2. FRAMEWORK OVERVIEW

### 2.1 Introduction

Apple is issuing a green bond that aims to fund projects that are focused on environmental sustainability across its global business divisions and operations.

These projects will align with its three environmental priorities<sup>1</sup>:

1. reducing its impact on climate change by using renewable energy sources and driving energy efficiency in its facilities, products and supply chain;
2. pioneering the use of greener materials in its products and processes; and,
3. conserving precious resources.

The following section summarizes Apple's green bond framework including the use of proceeds, the management of proceeds, and reporting.

### 2.2 Use of Proceeds

Apple will allocate an amount equal to the net proceeds from sales of the green bond to investments in one or more projects that are eligible according to the below criteria.

#### *Eligibility Criteria*

In order for a project to be funded with green bond proceeds, the project must meet one or more of the following criteria:

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<sup>1</sup> Environmental Responsibility Report 2015, page 3,  
[http://images.apple.com/ca/environment/pdf/Apple\\_Environmental\\_Responsibility\\_Report\\_2015.pdf](http://images.apple.com/ca/environment/pdf/Apple_Environmental_Responsibility_Report_2015.pdf).

**1. EXPENDITURES RELATED TO NEW AND ONGOING RENEWABLE ENERGY PROJECTS, SUCH AS SOLAR AND WIND PROJECTS, OR THE ASSOCIATED ENERGY STORAGE SOLUTIONS.**

**Context:** As one of its environmental priorities, Apple has identified renewable energy use as a key strategy to reduce its climate change impacts. The company has committed to powering all of its facilities globally, including corporate offices, retail stores and data centres, with 100 percent renewable energy<sup>2</sup>. In its 2015 Environmental Responsibility Report, Apple states that it has to-date made significant progress in fulfilling its operational energy use needs with renewable energy by investing in a diversity of renewable energy technologies including solar, wind, biogas fuel cells, micro-hydro power, and geo-thermal power.

**Use of Proceeds:** Proceeds of the green bond may be allocated to new and ongoing renewable energy projects, including, but not limited to, solar and wind projects. Apple will also consider projects that provide energy storage solutions for renewable energy.

**2. EXPENDITURES RELATED TO PROJECTS THAT HAVE RECEIVED WITHIN THE LAST THREE YEARS, OR ARE EXPECTED TO RECEIVE, CERTIFICATION OF LEED GOLD OR PLATINUM OR BREEAM VERY GOOD, EXCELLENT, OR OUTSTANDING “GREEN BUILDING” STANDARDS.**

**Context:** Apple reports that environmental design, management and operation of facilities are a priority for the company. Its Maiden, North Carolina data center, for example, has already earned LEED Platinum certification.

**Use of Proceeds:** Proceeds of the green bond may be allocated to green buildings that have or are expected to receive either LEED or BREEAM certification at the highest levels: LEED Gold or Platinum, or BREEAM Very Good, Excellent, or Outstanding. For existing buildings, certification must have been received within the last three years.

**3. EXPENDITURES RELATED TO THE IMPLEMENTATION OF ENVIRONMENTAL DESIGN ELEMENTS FOR NEW OR ONGOING BUILDING DEVELOPMENTS, SUCH AS HIGH PERFORMANCE MECHANICAL SYSTEMS, NATURAL VENTILATION, ON-SITE RENEWABLE ENERGY AND HIGH PERFORMANCE LIGHTING SYSTEMS.**

**Context:** Apple states that considering the environment in the design of a new building or renovations of existing facilities is a priority. The company articulates in its Environmental, Health and Safety Policy<sup>3</sup> a commitment to designing its facilities in a manner that promotes energy efficiency and protects the environment. For example, environmental design is a key consideration in its new Apple campus in Cupertino, where it aims to construct a facility that is highly energy efficient and entirely powered by renewable energy.

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<sup>2</sup> Environmental Responsibility Report,  
[http://images.apple.com/ca/environment/pdf/Apple\\_Environmental\\_Responsibility\\_Report\\_2015.pdf](http://images.apple.com/ca/environment/pdf/Apple_Environmental_Responsibility_Report_2015.pdf).

<sup>3</sup> Apple’s Environmental, Health and Safety Policy Statement,  
[http://images.apple.com/ca/environment/pdf/Apple\\_Environmental\\_Responsibility\\_Report\\_2015.pdf](http://images.apple.com/ca/environment/pdf/Apple_Environmental_Responsibility_Report_2015.pdf).

**Use of Proceeds:** Proceeds of the green bond may be allocated to projects that enable the implementation of environmental design elements into new or ongoing building developments, or renovations. These projects may or may not be part of LEED- or BREEAM-certified buildings or include energy efficiency projects at existing facilities. Projects that meet criteria #2 and/or #4 are excluded in this criterion in order to avoid double counting. Projects may include, but are not limited to, high-performance mechanical systems, natural ventilation, on-site renewable energy and high-performing lighting systems.

**4. EXPENDITURES RELATED TO ENERGY EFFICIENCY PROJECTS AND TECHNOLOGIES AT ITS CORPORATE FACILITIES, SUCH AS HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS UPGRADES, LIGHTING RETROFITS AND ENERGY MONITORS AND CONTROLS.**

**Context:** In its 2015 Environmental Responsibility Report, the company states that it considers energy efficiency to be the first step in achieving net zero energy, and the company views its own facilities, including its corporate campuses, retail offices and data centres, as an important starting point for fulfilling its environmental commitments. In 2014, Apple launched an energy efficiency program for its corporate and retail facilities across Asia, Europe and the United States.

**Use of Proceeds:** Proceeds of the green bond may be allocated to energy efficiency projects and technologies, including but not limited to, heating, ventilation, and air conditioning system upgrades, lighting retrofits, and the installation of energy monitors and controls at the company's existing corporate facilities, retail offices and data centres.

**5. EXPENDITURES RELATED TO WATER EFFICIENCY PROJECTS AND TECHNOLOGIES AT ITS CORPORATE FACILITIES, SUCH AS UPGRADES TO WATER EFFICIENT FIXTURES AND WATER EFFICIENT IRRIGATION AND INCREASED USE OF RECYCLED WATER.**

**Context:** Apple states that it recognizes the importance of conserving natural resources, such as water, as one of its environmental priorities. The company seeks to conserve water by maximizing its use of recycled water, and reducing water use in manufacturing, cooling, landscaping, and sanitation. The company tracks and discloses in its 2015 Environmental Responsibility Report, its company-level water usage, as well as its water use by facility type (data centres, corporate offices, and retail stores).

**Use of Proceeds:** Proceeds of the green bond may be allocated to projects and technologies that lead to greater water efficiencies at its existing corporate facilities, including, but not limited to, upgrading to water efficient fixtures, implementing water efficient irrigation systems, and projects and technologies that increase the use of recycled water.

**6. EXPENDITURES RELATED TO PROJECTS THAT ENHANCE RECYCLING, MATERIAL RECOVERY AND REUSE, AND LANDFILL WASTE DIVERSION FOR ITS PRODUCTS AND FACILITIES.**

**Context:** As reflected in its 2015 Environmental Responsibility Report, Apple is committed to conserving resources, recycling materials, and waste management, both with respect to its products and its facilities. On the product and packaging side, Apple has sought to use more recycled, recyclable and sustainable

plant-based materials; reduce the amount of materials used in its products; and, through its Reuse and Recycling program, enable customers to recycle electronic waste. Within its facilities, the company maintains recycling and composting programs, and in 2014 it achieved a 68 percent rate of diverting waste from landfills at its corporate and retail facilities.

**Use of Proceeds:** Proceeds of the green bond may be allocated to projects that enhance recycling, material recovery and reuse, and landfill waste diversion.

**7. EXPENDITURES RELATED TO PROJECTS AND TECHNOLOGIES THAT FACILITATE THE USE OF GREENER MATERIALS IN ITS PRODUCTS THROUGH (I) THE USE OF BIO-BASED MATERIALS, (II) THE USE OF RECYCLABLE MATERIALS OR (III) ELIMINATION OF TOXIC SUBSTANCES THAT ARE COMMONLY USED IN THE INDUSTRY IN ACCORDANCE WITH ITS REGULATED SUBSTANCES SPECIFICATION (AVAILABLE AT [HTTP://WWW.APPLE.COM/ENVIRONMENT/REPORTS/](http://www.apple.com/environment/reports/)).**

**Context:** Using greener materials in its products is an important environmental goal reflected in the company's three environmental priorities.

All of Apple's products must comply with the restrictions listed in its Regulated Substances Specification, which describes Apple's global restrictions on the use of certain chemical substances or materials in its products, accessories, manufacturing processes, and packaging used for shipping products to customers. This Regulated Substances Specification is a comprehensive list of substances with Chemical Abstracts Service (CAS) registry numbers that identify unique substances. Apple requires its suppliers to adhere to this Regulated Substances Specification and to demonstrate compliance by providing test reports from certified labs as proof of compliance. Apple derives these restrictions from international laws or directives, agency or eco-label requirements; and its policies state that in many cases, the company must go beyond minimum legal requirements. Examples of international laws and directives focused on restricting toxic substance use include, but are not limited to:

- REACH SVHCs: EU's Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH). Substances that may have serious and often irreversible effects on human health and the environment can be identified as substances of very high concern (SVHCs).
- Ozone depleting chemicals cited by the Montreal Protocol.
- OSPAR: OSPAR List of Chemicals for Priority Action, OSPAR Convention for the Protection of the Marine Environment of the North-East Atlantic, 2004.
- Clean Production Action (CPA): GreenScreen® for Safer Chemicals, 2014.

Apple has also made progress in incorporating recycled and bio-based content in their products. For example, as reported in the company's 2015 Environmental Responsibility Report the Mac Pro speakers and iPad Air 2 contain 30 percent post-consumer recycled plastic, and the butterfly mechanism of the MacBook keyboard contains 67 percent bio-based content.

**Use of Proceeds:** Proceeds of the green bond may be allocated to projects that increase the use of greener materials in Apple's products. The company defines greener materials as those materials that are bio-

based materials, and/or recyclable materials and are not considered toxic substances (according to its Regulated Substance Specification).

### *Eligible Projects*

Any project that meets the above eligibility criteria, including the new and ongoing developments of such projects, are eligible to be funded in whole or in part by an allocation of the green bond proceeds.

Eligible projects may include projects of Apple's subsidiaries that meet the eligibility criteria.

#### **2.2.1 Project Selection Process**

Apple's Environment, Policy and Social Initiatives (EPSI) team will:

- (i) assess and determine project eligibility; and,
- (ii) recommend an allocation of proceeds to eligible projects.

These projects are developed and managed by central teams, which are primarily based in Cupertino. For example, Apple has a Global Energy Team that manages all corporate renewable energy and energy efficiency projects; centralized Real Estate & Facilities teams that track and plan for all facilities worldwide, including green buildings and its new campus; and a Global Data Centre team that manages the global expansion of its data centres.

Apple's finance department will track the allocation of the green bond proceeds and produce an internal quarterly report that will be reviewed by members of Apple's EPSI team. This internal report will include details for projects that have been recommended for allocation, such as a brief description of the project, the country in which the project is located, and the amount of proceeds allocated to the project. Apple's EPSI team will allocate green bond proceeds on a semi-annual basis and ensure that each project meets the eligibility criteria and at least one of Apple's three environmental priorities.

The company's Vice President of Environment, Policy and Social Initiatives will approve the final allocation of proceeds.

#### **2.2.2 Management of Proceeds**

The proceeds from the green bond will be managed by Apple's finance department. Pending the allocation of the green bond proceeds, the company will temporarily invest an amount equal to the balance of the proceeds in cash, cash equivalents and/or U.S. treasury securities. Payment of principal and interest on the green bond will be made from the company's general funds and will not be directly linked to the performance of any eligible projects.

Apple expects to spend the majority of green bond proceeds within two years of the date of issuance.

### 2.2.3 Reporting

Throughout the term of the green bond, until the proceeds have been fully allocated to eligible projects, Apple commits to publishing annual updates of the allocation of the proceeds and impact of projects that have received allocations. The annual allocation and expected impact evaluation will be reported as a separate green bond report. These updates will be published on the company's website at investor.apple.com.

Apple may include its green bond report either by reference or as an appendix in its annual Environmental Responsibility Report.

#### *Allocation Reporting*

Apple commits to publishing an annual report detailing the aggregate allocation of the proceeds.

To the extent practicable, Apple also intends to report the allocation to eligible projects at a category level, which is consistent with the eligibility criteria, subject to confidentiality obligations. These reports will be accompanied by:

- a. A letter from Sustainalytics, with respect to the compliance of projects, with the eligibility criteria (see section 2.2.4 Compliance Review for further details);
- b. An assertion by management that the net proceeds of this offering were allocated to qualifying eligible projects; and
- c. A report from an independent registered public accounting firm in respect of its examination of management's assertion conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants.

Allocation reporting will be available to the investors within one year from the date of the green bond's issuance, and annually thereafter.

#### *Impact Reporting*

In addition to its allocation reporting, Apple commits to publishing annual updates on the environmental impacts of the projects funded with green bond proceeds.

Where relevant, Apple will report on the following Key Performance Indicators (KPIs) in aggregate for green bond projects:



Key Performance Indicators	
<b>Renewable Energy</b>	<ul style="list-style-type: none"><li>• Renewable energy installed capacity (kW or MW)</li><li>• Energy produced from renewable sources (kWh or MWh)</li><li>• GHG emissions avoided (in CO2e tons)</li></ul>
<b>Energy Efficiency</b>	<ul style="list-style-type: none"><li>• Energy saved aggregate (kWh)</li><li>• Energy saved due to building retrofits or design (kW)</li></ul>
<b>Water</b>	<ul style="list-style-type: none"><li>• Water use savings (gallons)</li></ul>
<b>Waste</b>	<ul style="list-style-type: none"><li>• Waste diverted from landfills (tons or % diversion)</li><li>• Waste recycled or composted (tons)</li></ul>
<b>Resource Use</b>	<ul style="list-style-type: none"><li>• Bio-based material use (% of material in product)</li><li>• Recycled content use (% material in product)</li></ul>

In addition, if relevant, Apple will provide a list of buildings that are certified, or are expected to become certified, LEED Gold or Platinum, or BREEAM Very Good, Excellent, or Outstanding, to which bond proceeds have been allocated; and will report the number and type of toxic substances removed from its products and accessories.

*Project Reporting*

Subject to confidentiality considerations, Apple will provide additional descriptions of select projects funded with green bond proceeds.

**2.2.4 Compliance Review**

In addition to its own annual reporting, Apple will obtain a letter from Sustainalytics, with respect to Apple’s green bond projects’ compliance with the eligibility criteria. Sustainalytics will review a broad sample of projects from the total allocated projects in order to determine whether they meet the use of proceeds criteria defined in the framework. Sustainalytics will provide a report of the evaluation, which Apple may disclose publicly. In an unlikely event that a project does not meet the eligibility criteria, Apple will reallocate the green bond proceeds to a different project that meets the criteria.

### 3. SUSTAINALYTICS' OPINION

**Environmental Priorities and ESG Performance:** In its 2015 Environmental Responsibility Report, Apple outlines three environmental priorities: (1) reducing its impact on climate change by using renewable energy and achieving energy efficiency in its products; (2) conserving precious resources; and (3) using greener materials in its products and services. Apple's green bond aligns with its environmental priorities: each one of Apple's green bond eligibility criteria supports at least one of its three environmental priorities. In addition, the company has not been involved in any significant environmental controversies. Taking into consideration its strategic approach, commitments, and overall ESG rating, Sustainalytics believes that Apple is well positioned to issue a green bond.

**Use of Proceeds:** Apple's project eligibility criteria address specific areas for environmental impact including renewable energy; green building design, construction and retrofit; energy and water efficiency; and waste management. Its green building eligibility criteria is based on third party certification standards of LEED and BREEAM, and the company is aligning with industry best practices by focusing on LEED Gold or Platinum, or BREEAM Very Good, Excellent, or Outstanding, levels of certification. Further, after reviewing the use of proceeds criteria regarding projects and technologies that facilitate the use of greener materials in its products through: (i) the use of bio-based materials, (ii) the use of recyclable materials or (iii) elimination of toxic substances that are commonly used in the industry, Sustainalytics believes that these projects are likely to positively impact the sustainability of Apple's products. Overall, Sustainalytics is of the opinion that Apple's project eligibility criteria are credible and robust, and that by selecting projects based on these criteria, Apple is effectively targeting its green bond proceeds at projects that will contribute to reducing Apple's overall environmental impact.

**Project Selection Process:** Apple has a centralized accounting and finance system that captures budgets and actual spend for all eligible project categories. In addition, these projects are managed by central teams, which are primarily based in Cupertino, California. For example, Apple has a Global Energy Team that manages all corporate renewable energy and energy efficiency projects; and centralized Real Estate & Facilities teams that track and plan projects for its facilities worldwide. Having a centralized accounting system, and centralized management and oversight for projects that receive an allocation of the green bond proceeds will ensure consistency in complying with the eligibility criteria. The aforementioned project selection processes and commitments are green bond market best practices.

**Management of Proceeds:** Pending allocation of green bond proceeds, the management of green bond proceeds is in line with accepted practices of a green bond issuance and with Green Bond Principles 2015.

**Reporting:** Apple will publish annual updates on the allocation of its green bond proceeds and the estimated environmental impact of projects that have received allocation. Due to confidentiality concerns, where possible Apple intends to disclose its allocation at an aggregate, category-level, consistent with the eligibility criteria. In addition, on a case-by-case basis, Apple will provide additional descriptions of select projects that have received allocations. Apple's commitment to undertake an annual third party compliance review and third party use of proceeds attestation assures investors that the selected projects meet the eligibility criteria and that the funds are properly allocated. Finally,

Sustainalytics believes that Apple has selected Key Performance Indicators (KPIs) that will provide a meaningful measure of the environmental benefits of its green bond.

**Conclusion:** Through its green bond, Apple aims to invest in projects that contribute to achieving its environmental priorities across its global operations and products. Apple's green bond framework aligns with the four pillars of the Green Bond Principles 2015. The company has established clear project eligibility criteria that align with its environmental priorities and support its efforts to reduce its overall environmental impact. Apple's plan to use the proceeds of the green bond for renewable energy, green building, energy and water efficiency, and waste management projects aligns with green bond best practices. The company's plan to undertake projects that eliminate the use of toxic substances in its products that adversely impact human health and the environment is especially noteworthy. Finally, the company's approach to selecting projects and managing green bond proceeds is robust, and its reporting on the use of proceeds, with KPIs that capture environmental impact, is reasonably transparent. These processes will provide assurance to investors that funds are being appropriately tracked, managed and allocated. Based on the above considerations, Sustainalytics is of the view that Apple's green bond is robust and credible.

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