Second-Party Opinion

Apple Green Bond Framework

Evaluation Summary

Sustainalytics is of the opinion that the Apple Green Bond Framework is credible and impactful and aligns with the four core components of the Green Bond Principles 2018. This assessment is based on the following:

USE OF PROCEEDS The eligible categories for the use of proceeds – (i) Low Carbon Design and Engineering, (ii) Energy Efficiency, (iii) Renewable Energy, (iv) Carbon Mitigation, and (v) Carbon Sequestration – are aligned with those recognized by the Green Bond Principles 2018. Sustainalytics' analysis considers that the eligible projects will lead to positive environmental impacts and advance key UN Sustainable Development Goals, particularly 7, 9, 12, and 15.

PROJECT EVALUATION / SELECTION Apple's Environment, Policy and Social Initiatives team will evaluate and select eligible projects, on an annual basis, in accordance with the company's environmental process with the final approval by Apple's Vice President of Environment, Policy, and Social Initiatives. This is in line with market best practice.

MANAGEMENT OF PROCEEDS Apple's Finance department will track the net proceeds through an internal system. Pending allocation, the net proceeds may be temporarily invested in accordance with Apple's investment portfolio or used to repay existing debt. This is line with market practice.

REPORTING Apple intends to publish a Green Bond Impact Report on its website, on an annual basis, until full allocation, which will include amounts allocated on a project-portfolio basis, as well as estimates of carbon savings. The report will include management's assertion on the allocation of net proceeds and an examination report on such assertion conducted by an independent registered public accounting firm. The report will also include a review from a second-party provider who will assess compliance with the Green Bond Framework. Sustainalytics considers this in line with market best practice.

Evaluation date	November 6, 2019
Issuer Location	Cupertino, California, USA

Report Sections

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Introduction

Apple Inc. ("Apple", the "Company", or the "Issuer") designs, manufactures and markets smartphones, personal computers, tablets, wearables and accessories, and sells a variety of related services. Apple was founded in 1977 and is headquartered in Cupertino, California.

In 2016 and 2017, Apple issued two green bonds to finance new and existing environmental projects across its global business divisions and operations that align with the Company's environmental priorities. The frameworks were created in line with the four core components of the Green Bond Principles 2015 and 2016, respectively. Apple has now created a new Green Bond Framework (the "Framework" or "Green Bond Framework") under which it intends to issue green bonds and use the proceeds to finance, in whole or in part, primarily new and some existing projects that Apple believes will reduce the carbon footprint associated with the company's own operations and across its entire value chain, including manufacturing and product use. The Framework defines eligibility criteria in the following five areas:

1. Low Carbon Design and Engineering
2. Energy Efficiency
3. Renewable Energy
4. Carbon Mitigation
5. Carbon Sequestration

See Appendix 1 for a mapping of Apple's eligibility criteria to the categories of the Green Bond Principles.

Apple engaged Sustainalytics to review the Framework, dated November 2019, and provide a second-party opinion on the Framework's environmental credentials and its alignment with the Green Bond Principles (2018).[1] The Framework will be published as the "Use of Proceeds" in the publicly filed prospectus supplement.

As part of this engagement, Sustainalytics held conversations with various members of Apple's management team to understand the sustainability impact of their business processes and planned use of proceeds, as well as management of proceeds and reporting aspects of the Framework. Sustainalytics also reviewed relevant public documents and non-public information.

This document contains Sustainalytics' opinion of the Apple Green Bond Framework and should be read in conjunction with that Framework.

[1] The Green Bond Principles are administered by the International Capital Market Association and are available at https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/

Sustainalytics' Opinion

Section 1: Sustainalytics' Opinion on the Apple Green Bond Framework

Summary

Sustainalytics is of the opinion that the Apple Green Bond Framework is credible and impactful, and aligns with the four core components of the Green Bond Principles (2018). Sustainalytics highlights the following elements of the Framework:

- Use of Proceeds:
  - The five green categories for the use of proceeds are recognized as impactful by the Green Bond Principles (2018). These five categories all relate to Apple's objective to reduce its greenhouse gas (GHG) emissions across its entire value chain.
  - Apple's "Low Carbon Design and Engineering" category includes expenditures related to the procurement of low-carbon materials with an intent to reduce product energy usage and/or increase the use of recycled and low (embodied) carbon materials. Sustainalytics views favorably such efforts to reduce the carbon footprint of the company's portfolio of products. Refer to Section 2 for a summary of Apple's sustainability efforts on material efficiency and Section 3 for the impact of Apple's low-carbon initiatives.
  - The "Energy Efficiency" category includes expenditures related to projects at Apple and/or supply chain facilities. Potential projects include the installation of equipment such as sensors, controls and energy management systems; as well as building design, commissioning and retrofits. For installation and optimization of equipment, Sustainalytics positively views Apple's intention to pursue third-party verification for projects under this eligible category, as well as to report on energy efficiency improvements.
  - The "Renewable Energy" category considers direct investment, investment in renewable energy funds, and procurement of renewable energy, along with associated energy storage solutions. While Apple plans to focus primarily on solar and wind power projects, the Framework allows for renewable energy investments in other areas as well. In the event that Apple invests in renewable energy projects other than solar and wind power projects, Sustainalytics encourages the company to establish an emissions intensity threshold[2] and to ensure, in the case of any biomass or waste biomass-to-energy projects, that feedstock be sourced sustainably.
  - In the event Apple purchases renewable energy credits, these would be directly tied to specific and identifiable new projects and purchased on an annual rather than one-time basis. This category also includes projects to advance market structures, regulation and policy. Sustainalytics notes positively training and capacity building initiatives so long as such initiatives are educational, rather than political, in nature.
  - The "Carbon Mitigation" and "Carbon Sequestration" categories include expenditures related to (i) emissions abatement assessment and technologies; (ii) low-carbon fuel sourcing;[3] and (iii) carbon sequestration projects.[4]
- Project Evaluation and Selection:
  - Apple's Environment, Policy and Social Initiatives team will evaluate and select eligible projects, on an annual basis, in accordance with the company's environmental planning process. Apple's Vice President of Environment, Policy, and Social Initiatives will provide final approval of all projects. This is in line with market practice.
- Management of Proceeds:
  - Apple's Finance department will track the net proceeds through an internal system. Pending allocation, the net proceeds may be temporarily invested in accordance with Apple's investment portfolio or used to repay existing debt. This is line with market practice.
- Reporting:
  - Apple intends to publish a Green Bond Impact Report on its website, on an annual basis, until full allocation. The reporting will be accompanied with management's assertion on the allocation of net proceeds and an examination report on such assertion conducted by an

[2] Sustainalytics regards a direct emissions threshold of less than 100g CO_2/kWh as credible and aligned with international targets for GHG emissions reduction as well as with market practice.
[3] Apple excludes all fossil fuels for the purpose of defining eligibility for sourcing low carbon fuels.
[4] Apple has communicated to Sustainalytics that it will prioritize natural carbon sequestration projects where positive environmental impacts can be quantified. In case of future allocations to such projects, the company aims to pursue third-party verification and reporting on impact under existing protocol or methodology, where feasible.

independent registered public accounting firm. The report will also include a review from a second-party provider who will assess compliance with the Green Bond Framework. Sustainalytics considers this in line with market best practice.
- The allocation reporting will include amounts allocated on a project-portfolio basis.
- The impact reporting will include an estimate of total carbon savings aggregated from projects implemented that year.

Alignment with Green Bond Principles 2018

Sustainalytics has determined that the Apple Green Bond Framework aligns to the four core components of the Green Bond Principles (2018). For detailed information please refer to Appendix 2: Green Bond/Green Bond Programme External Review Form.

Section 2: Sustainability Performance of the Issuer

Contribution of the Framework to Apple's sustainability strategy

Sustainalytics is of the opinion that Apple demonstrates a strong commitment to sustainability within its own operations and its supply chain with a focus on three key environmental areas: (i) addressing "climate change", (ii) conserving "resources", and (iii) utilizing "smarter chemistry". Some examples of sustainability progress and initiatives, as outlined in Apple's Environmental Responsibility Report 2019,[5] include:

- **GHG Emissions Reduction:**
  - In 2018, Apple achieved a 64% reduction in Scope 1 and Scope 2 GHG emissions from its direct operations, relative to a 2011 baseline, and a 35% reduction in the company's overall footprint, compared to a 2015 baseline.
  - Apple calculates its emissions using a product lifecycle carbon assessment approach. This allows the Company to prioritize projects that reduce emissions from product manufacturing, use, and specific materials and components.
  - Apple partnered with aluminum manufacturers, such as Alcoa Corporation and Rio Tinto Aluminum, to commercialize technology that eliminates direct GHG emissions from conventional smelting process. The company, both of its partners, and the governments of Canada and Quebec, collectively planned to invest USD144 million in research and development related to carbon-free aluminum smelting.
- **Renewable Energy:**
  - The company sources 100% renewable energy for the electricity used at its global facilities. As a non-energy company, Apple is one of the largest direct investors in renewable energy (over 600 MW as of April 2019).[5] Apple also seeks to procure renewable energy with rigorous measurement and tracking procedures, and to use third-party registries and certification programs such as Green-e Energy.
  - Apple announced its Supplier Clean Energy Program in 2015, with an aim to make "world-class products with greener manufacturing." The company is on track to exceed its 2020 goal of bringing online 4 GW of new clean energy in its supply chain, with 44 suppliers, as of April 2019, committed to 100% renewable energy for Apple production. Additionally, Apple launched the China Clean Energy Fund to connect its suppliers with renewable energy sources and will be jointly investing nearly USD300 million between 2019 and 2022.
- **Energy Efficiency:**
  - Apple achieved a 70% reduction in average product energy consumption between 2009-2019 and saved 41.5 million kWh in fiscal year 2018 through energy efficiency initiatives at its global facilities.
  - In 2018, Apple's 11-inch iPad Pro models were reported to be approximately 69% more energy efficient than equivalent products certified by the ENERGY STAR standard.
  - After conducting a review of its carbon emissions, Apple found that integrated circuits contribute to a significant portion of its manufacturing carbon footprint as the process of transforming a silicon wafer into an integrated circuit is highly energy intensive. Through the process of design and re-engineered manufacturing, Apple was able to reduce the amount of silicon used in chips, without losing the quality of their performance, resulting in 160,000 metric tons of avoided CO_2 emissions reduction in 2018.

[5] Apple, Environmental Responsibility Report- 2019 Progress Report: https://www.apple.com/environment/pdf/Apple_Environmental_Responsibility_Report_2019.pdf

- **Material Efficiency and Circular Economy:**
  - The Company promotes a circular supply chain and aims to one day make its products only from recycled and renewable materials in the future, in particular, by using aluminum, cobalt, tin, paper, and plastics from recycled or responsibly sourced bio-based feedstocks. Between 2015 and 2018, Apple reduced its plastic use in its US product packaging by 48%, and in fiscal year 2018, the company used 50% recycled paper and implemented a policy requiring virgin paper be sourced from responsibly managed forests, or Forest Stewardship Council (FSC) certified sources. In September 2019, Apple announced the use of recycled rare earth elements in a key component of its recently launched iPhone devices (iPhone 11, iPhone 11 Pro, and iPhone 11 Pro Max).[6]
  - Apple has reported that since 2015 the carbon footprint of aluminum enclosures of MacBook computers has steadily decreased, due to sourcing power from hydro-powered smelters, improved material efficiency of manufacturing processes, as well as an increase in recycled content in its products.
  - The company has also lowered its environmental impact by using 100% recycled aluminum for the enclosure of a number of products, including the new MacBook Air with Retina display (released in October 2018), cutting the product's carbon footprint in half.
- **Other Environmental Initiatives:**
  - Apple diverted 74% of its waste from landfill through recycling and composting in fiscal year 2018 and strives to pursue a goal of "zero waste to landfill" at more than 450 corporate facilities, 500 retail stores, and five data centers. In 2018, the company also achieved UL Zero Waste certification[7] for 100% of final assembly sites for many of Apple's major product lines (e.g. iPhone, iPad, Mac, Apple Watch, AirPods, and HomePod).[8]
  - Apple's Clean Water Program promotes the installation of low-flow fixtures, use of water meters, and employee education to achieve water savings in its supply chain. In 2018, Apple's suppliers had conserved approximately 21 billion gallons of water since 2013. Apple's facilities used approximately 63 million gallons of recycled water, as well as captured and reused approximately 4 million gallons of rainwater in fiscal year 2018 for cooling, irrigation, and construction needs of a data center and corporate offices.
  - The company is constructing more than 12 million square feet of green building space globally and aiming for certification standards such as LEED and BREEAM.

Sustainalytics is of the opinion that the Apple Green Bond Framework is aligned with the company's overall sustainability strategy and initiatives and will further the Company's action on its key environmental priorities.

Well positioned to address common environmental and social risks associated with the projects

While Sustainalytics recognizes that the use of proceeds from the Framework will be directed towards eligible projects that are recognized by the Green Bond Principles (2018) to have positive environmental impact, Sustainalytics is aware that such eligible projects could also lead to negative environmental and social outcomes. Some key environmental and social risks associated with the eligible projects within Apple's own operations and within its value chain, could include lack of pollution control and occupational health and safety. Sustainalytics is of the opinion that Apple is able to manage and/or mitigate potential risks through implementation of the following:

- The Apple Chemical Management Program includes risk assessment and control procedures related to chemical exposures to supply chain employees. Apple also collects comprehensive chemical data for a significant proportion (by mass) of several flagship products and has implemented the Apple Regulated Substances Specification (RSS)[9] to evaluate supplier compliance on the restricted use of certain chemicals. Furthermore, the Company launched the Full Material Disclosure (FMD) program in 2016, which aimed at comprehensively understanding the chemical composition of all substances used to make Apple's product parts so that less harmful alternatives could be substituted.
- Apple's suppliers must meet the Apple Supplier Responsibility Standards[10] in order to comply with the Apple Supplier Code of Conduct. The Standards incorporate compliance with the requirements outlined

[6] Reuters, Apple taps recycled rare earth elements for iPhone parts: https://www.reuters.com/article/us-apple-rareearths/apple-taps-recycled-rare-earth-elements-for-iphone-parts-idUSKBN1W31JG
[7] The UL waste diversion validation program "focuses on monitoring and measuring material flows that are not part of an organization's final product," and offers claim validation to recognize companies that manage their waste in environmentally responsible ways. UL, Landfill Waste Diversion Validation: https://www.ul.com/offerings/landfill-waste-diversion-validation
[8] Apple, Supplier Responsibility- 2019 Progress Report: https://www.apple.com/supplier-responsibility/pdf/Apple_SR_2019_Progress_Report.pdf
[9] Apple, Apple Regulated Substances Specification: https://www.apple.com/environment/pdf/Apple_Regulated_Substances_Specification_Sept2018.pdf
[10] Apple, Apple Supplier Responsibility Standards: https://www.apple.com/supplier-responsibility/pdf/Apple-Supplier-Responsible-Standards.pdf

for environmental and social policies and procedures, including Air Emissions Management, Hazardous Waste Management, Occupational Health and Safety Management, and Responsible Sourcing of Materials. The assessments against the Apple Supplier Responsibility Standards include multi-day onsite visits followed by close partnership and capacity building to ensure implementation of all corrective actions. In 2018, a total of 770 assessments were completed at facilities, including manufacturing facilities, and logistics and repair centers, with an observed yearly increase of 30% in the number of high performers in the supply chain.

- Apple also committed to responsible sourcing with identification of "Relevant Materials" in its products and associated due diligence management system – (i) risk identification, (ii) risk prevention and mitigation, (iii) third-party verifications or audits of Supply Chain due diligence, and (iv) mechanism for reporting applicable risks – designed to conform in all material respects to the OECD Due Diligence Guidance for Responsible Supply Chain of Minerals from Conflict-Affected and High-Risk Areas (the "OECD Guidance"). In 2018, the company's Conflict Minerals Report[11] stated that 100% of Apple's supply chain for all applicable products participated in an independent third-party conflict minerals audit program for tantalum, tin, and tungsten (3TG) and cobalt.
- As a part of the OECD Guidance, Apple also utilized the Risk Readiness Assessment (RRA)[12] to identify and report on each supplier company's risk readiness across number of different risk issue areas. In 2018, 85% of 3TG smelters and refiners and 100% of cobalt refiners completed the RRA.

Based on these policies, standards and assessments, Sustainalytics is of the opinion that Apple has implemented sufficient measures and is well positioned to manage and mitigate environmental and social risks commonly associated with the eligible categories.

Section 3: Impact of Use of Proceeds

All five green categories for the use of proceeds are recognized as impactful by the Green Bond Principles (2018).

The importance of carbon reduction initiatives in Apple's operations and its supply chain

Traditionally, the technology sector has included emission sources that generate significant amounts of GHGs in the manufacturing and supply chain for such products. Apple has taken a proactive approach towards integrating low-carbon practices at its own facilities, and its suppliers' facilities, including in manufacturing processes. As highlighted in its 2019 Environmental Responsibility Report,[5] Apple tracks energy and carbon across five stages of its supply chain: (i) corporate facilities, (ii) product manufacturing, (iii) product use, (iv) product transportation, and (v) product end-of-life processing.

As a result of Apple's efforts towards implementing low carbon practices across its value chain, the Company has been able to reduce carbon emissions from its direct operations (Scope 1 and 2) by 64% from a 2011 baseline, and by 35% for the Company's entire footprint, including its value chain, from a 2015 baseline.[5]

The following projects that Apple has implemented, several of which are summarized in Section 2, provide a basis for the potential impact of projects that will be funded by proceeds from future bonds issued pursuant to this Green Bond Framework:

- Apple sources 100% renewable energy for all the electricity used at its global facilities in 43 countries worldwide. Future projects include solar, wind and energy storage investments in corporate and supplier facilities.
- In 2015, Apple launched the Supplier Clean Energy Program[13] in order to advance the use of clean energy across its entire supply chain and operations, and in 2019 the Company announced that 44 of its manufacturing partners in 16 countries have committed to 100% renewable energy for Apple production. Since its inception in 2015, the Suppler Clean Energy Program has secured 5.3 gigawatts of clean energy commitments, which once completed, will help avoid over 8.6 million metric tons of CO2e annually.
- After discovering that integrated circuits contribute to a significant portion of its manufacturing carbon footprint as the process of transforming a silicon wafer into an integrated circuit is highly energy intensive, Apple re-engineered its manufacturing process and was subsequently able to reduce the amount of silicon used in chips, without losing the quality of their performance, resulting in 160,000 metric tons of avoided CO_2 emissions reduction in 2018.

[11] Apple, Conflict Minerals Report: https://www.apple.com/supplier-responsibility/pdf/Apple-Conflict-Minerals-Report.pdf
[12] Apple, Smelter and Refiner List: https://www.apple.com/ca/supplier-responsibility/pdf/Apple-Smelter-and-Refiner-List.pdf
[13] Apple, Supplier Clean Energy: https://www.apple.com/environment/pdf/Apple_Supplier_Clean_Energy_Program_Update_April_2019.pdf

- Apple is lowering its carbon emissions by sourcing recycled and renewable materials for its products. The company has lowered its environmental impact by using 100% recycled aluminum for the enclosure of a number of products, including the new MacBook Air with Retina display (released in October 2018), cutting the product's carbon footprint in half.
- In the area of carbon sequestration, in 2018, Apple announced a conservation project in Colombia focused on protecting and restoring a 27,000-acre mangrove forest.[14] The project is expected to sequester 1,000,000 metric tons of CO2 over its lifetime.

Sustainalytics is of the opinion that Apple's financing of low-carbon design and engineering, energy efficiency, carbon mitigation and carbon sequestration projects will significantly reduce carbon emissions across Apple's value chain, leading to an overall positive environmental impact.

Alignment with/contribution to SDGs

The Sustainable Development Goals (SDGs) were set in September 2015 and form an agenda for achieving sustainable development by the year 2030. Sustainalytics believes that bonds issued under this Green Bond Framework can be expected to advance following SDG goals and targets:

Use of Proceeds Category	SDG	SDG target
Low Carbon Design and Engineering	12. Responsible Consumption and Production	12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment. 12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.
Energy Efficiency	7. Affordable and Clean Energy 9. Industry, Innovation and Infrastructure	7.3 By 2030, double the global rate of improvement in energy efficiency. 9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.
Renewable Energy	7. Affordable and Clean Energy	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix.
Carbon Mitigation Carbon Sequestration	12. Responsible Consumption and Production 15. Life on Land	12.2 By 2030, achieve the sustainable management and efficient use of natural resources. 15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.

[14] Conservation International, A Critical Investment in 'Blue Carbon': https://www.conservation.org/stories/critical-investment-in-blue-carbon

Conclusion

Apple has developed the Apple Green Bond Framework under which it intends to issue green bonds to finance, in whole or in part, primarily new and some existing projects that Apple believes will reduce the carbon footprint associated with the Company's own operations and across its entire value chain. Sustainalytics believes that the Apple Green Bond Framework is aligned with Apple's overall sustainability strategy and efforts and will advance the UN Sustainable Development Goals, particularly 7, 9, 12 and 15. Additionally, Sustainalytics is of the opinion that Apple is well positioned to identify, manage and mitigate environmental and social risks commonly associated with the eligible projects funded by the use of proceeds.

Overall, Sustainalytics is of the opinion that the Apple Green Bond Framework is robust, transparent, and in alignment with the four core components of the Green Bond Principles 2018.

Appendices

Appendix 1: List of Projects by Eligible Category

Apple's Project Category	Eligible Category under the Green Bond Principles (2018)	Apple's Project Description
Low Carbon Design and Engineering	Eco-efficient products and low carbon buildings	• expenditures related to the development or procurement of less carbon-intensive products and materials (compared to an established "pre-activity" baseline), such as improving product power usage efficiency, using materials produced from manufacturing processes requiring lesser greenhouse gas emissions, or sourcing materials with recycled or renewable content.
Energy Efficiency	Energy Efficiency	• expenditures related to the development of energy efficiency projects intended to reduce emissions in new or existing corporate and supply chain facilities, such as sensors and controls, energy management systems, and facility design, commissioning, and retrofits.
Renewable Energy	Renewable Energy	• building on our successful transition to 100% renewable electricity at our facilities, expenditures related to the development of renewable energy projects intended to reduce emissions in our corporate facilities and supply chain, such as solar and wind projects, or associated energy storage solutions, including work to advance market structures, regulations and policy that support renewable energy through coalition and capacity building.
Carbon Mitigation	Pollution Prevention and Control	• expenditures related to the development of projects intended to reduce direct and process emissions (compared to an established "pre-activity" baseline) from Apple's and our supplier's operations, such as abating direct emissions from manufacturing or sourcing non-fossil low carbon fuels.
Carbon Sequestration		• expenditures related to the development of projects that sequester carbon, such as habitat restoration and conservation.

Appendix 2: Green Bond / Green Bond Programme - External Review Form
Section 1. Basic Information

Issuer name:	Apple Inc. (Apple)
Green Bond ISIN or Issuer Green Bond Framework Name, if applicable: ***[specify as appropriate]***	Apple Green Bond Framework
Review provider's name:	Sustainalytics
Completion date of this form:	November 2019
Publication date of review publication: ***[where appropriate, specify if it is an update and add reference to earlier relevant review]***	

Section 2. Review overview

SCOPE OF REVIEW

The following may be used or adapted, where appropriate, to summarize the scope of the review.

The review assessed the following elements and confirmed their alignment with the GBPs:

☒	Use of Proceeds	☒	Process for Project Evaluation and Selection
☒	Management of Proceeds	☒	Reporting

ROLE(S) OF REVIEW PROVIDER

☒	Consultancy (incl. 2nd opinion)	☐	Certification
☐	Verification	☐	Rating
☐	Other *(please specify)*:		

Note: In case of multiple reviews / different providers, please provide separate forms for each review.

EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW *(if applicable)*

Please refer to Evaluation Summary above.

Section 3. Detailed review

Reviewers are encouraged to provide the information below to the extent possible and use the comment section to explain the scope of their review.

1. USE OF PROCEEDS

Overall comment on section *(if applicable)*:

The eligible categories for the use of proceeds – (i) Low Carbon Design and Engineering, (ii) Energy Efficiency, (iii) Renewable Energy, (iv) Carbon Mitigation, and (v) Carbon Sequestration – are aligned with those recognized by the Green Bond Principles 2018. Sustainalytics' mapping analysis considers that the eligible projects will lead to positive environmental impacts and advance key UN Sustainable Development Goals, particularly 7, 9, 12, and 15.

Use of proceeds categories as per GBP:

☒	Renewable energy	☒	Energy efficiency
☐	Pollution prevention and control	☐	Environmentally sustainable management of living natural resources and land use
☐	Terrestrial and aquatic biodiversity conservation	☐	Clean transportation
☐	Sustainable water and wastewater management	☐	Climate change adaptation
☐	Eco-efficient and/or circular economy adapted products, production technologies and processes	☐	Green buildings
☐	Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBPs	☒	Other *(please specify)*: low carbon design and engineering; carbon mitigation; and carbon sequestration.

If applicable please specify the environmental taxonomy, if other than GBPs:

2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section (if applicable):

Apple's Environment, Policy and Social Initiatives team will evaluate and select eligible projects, on an annual basis, in accordance with the company's environmental process with the final approval by Apple's Vice President of Environment, Policy, and Social Initiatives. This is in line with market best practice.

Evaluation and selection

☒	Credentials on the issuer's environmental sustainability objectives	☒	Documented process to determine that projects fit within defined categories
☒	Defined and transparent criteria for projects eligible for Green Bond proceeds	☐	Documented process to identify and manage potential ESG risks associated with the project

☐ Summary criteria for project evaluation and selection publicly available

☐ Other *(please specify):*

Information on Responsibilities and Accountability

☒ Evaluation / Selection criteria subject to external advice or verification

☐ In-house assessment

☐ Other (please specify):

3. MANAGEMENT OF PROCEEDS

Overall comment on section *(if applicable)*:

Apple's Finance department will track the net proceeds through an internal system. Pending allocation, the net proceeds may be temporarily invested in accordance with Apple's investment portfolio or used to repay existing debt. This is line with market practice.

Tracking of proceeds:

☒ Green Bond proceeds segregated or tracked by the issuer in an appropriate manner

☐ Disclosure of intended types of temporary investment instruments for unallocated proceeds

☐ Other *(please specify)*:

Additional disclosure:

☐ Allocations to future investments only

☒ Allocations to both existing and future investments

☐ Allocation to individual disbursements

☒ Allocation to a portfolio of disbursements

☐ Disclosure of portfolio balance of unallocated proceeds

☐ Other *(please specify)*:

4. REPORTING

Overall comment on section (if applicable):

Apple intends to publish a Green Bond Impact Report on its website, on an annual basis, until full allocation, which will include amounts allocated on a project-portfolio basis, as well as estimates of carbon savings. The report will include management's assertion on the allocation of net proceeds and an examination report on such assertion conducted by an independent registered public accounting firm. The report will also include a review from a second-party provider who will assess compliance with the Green Bond Framework. Sustainalytics considers this in line with market best practice.

Use of proceeds reporting:

☐ Project-by-project ☒ On a project portfolio basis

☐ Linkage to individual bond(s) ☐ Other *(please specify):*

Information reported:

☒ Allocated amounts ☐ Green Bond financed share of total investment

☐ Other *(please specify):*

Frequency:

☒ Annual ☐ Semi-annual

☐ Other (please specify):

Impact reporting:

☐ Project-by-project ☒ On a project portfolio basis

☐ Linkage to individual bond(s) ☐ Other (please specify):

Frequency:

☒ Annual ☐ Semi-annual

☐ Other (please specify):

Information reported (expected or ex-post):

☒ GHG Emissions / Savings ☐ Energy Savings

☐ Decrease in water use ☐ Other ESG indicators (please specify):

Means of Disclosure

☐ Information published in financial report ☐ Information published in sustainability report

☐ Information published in ad hoc documents ☒ Other (please specify): Information published in Green Bond Impact Report on Apple's website: http://investor.apple.com

☐ Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review):

Where appropriate, please specify name and date of publication in the useful links section.

USEFUL LINKS (e.g. to review provider methodology or credentials, to issuer's documentation, etc.)

SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE

Type(s) of Review provided:

☒ Consultancy (incl. 2nd opinion)	☐ Certification
☒ Verification / Audit: examination report on management assertion to be conducted by an independent registered public accounting firm.	☐ Rating
☐ Other *(please specify):*	

Review provider(s): **Date of publication:**

ABOUT ROLE(S) OF INDEPENDENT REVIEW PROVIDERS AS DEFINED BY THE GBP

i. Second Party Opinion: An institution with environmental expertise, that is independent from the issuer may issue a Second Party Opinion. The institution should be independent from the issuer's adviser for its Green Bond framework, or appropriate procedures, such as information barriers, will have been implemented within the institution to ensure the independence of the Second Party Opinion. It normally entails an assessment of the alignment with the Green Bond Principles. In particular, it can include an assessment of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability, and an evaluation of the environmental features of the type of projects intended for the Use of Proceeds.

ii. Verification: An issuer can obtain independent verification against a designated set of criteria, typically pertaining to business processes and/or environmental criteria. Verification may focus on alignment with internal or external standards or claims made by the issuer. Also, evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria. Assurance or attestation regarding an issuer's internal tracking method for use of proceeds, allocation of funds from Green Bond proceeds, statement of environmental impact or alignment of reporting with the GBP, may also be termed verification.

iii. Certification: An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against a recognised external green standard or label. A standard or label defines specific criteria, and alignment with such criteria is normally tested by qualified, accredited third parties, which may verify consistency with the certification criteria.

iv. Green Bond Scoring/Rating: An issuer can have its Green Bond, associated Green Bond framework or a key feature such as Use of Proceeds evaluated or assessed by qualified third parties, such as specialised research providers or rating agencies, according to an established scoring/rating methodology. The output may include a focus on environmental performance data, the process relative to the GBP, or another benchmark, such as a 2-degree climate change scenario. Such scoring/rating is distinct from credit ratings, which may nonetheless reflect material environmental risks.

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Sustainalytics

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