

# Annual Green Bond Impact Report



Fiscal Year 2021 Update



Since 2018, Apple has sourced all of the electricity for its facilities from 100 percent renewable energy.  
The Turquoise solar project in Nevada is a 50-megawatt project that supports Apple's data center in Reno, Nevada.

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## Apple's green bonds

Apple is committed to leaving the world better than we found it, and that commitment is considered in everything we do — from how we design our products to the processes we use to make and recycle them.

We have long sought to model how businesses can lead in driving the reduction of global carbon emissions. Our green bonds have been an important tool for Apple to demonstrate that leadership. We issued our first \$1.5 billion green bond in February 2016 and our second \$1 billion green bond in June 2017 to help drive projects to mitigate our impact on climate change and inspire others to do the same. Both of these green bonds are now fully allocated.

In November 2019, we proceeded with our third green bond issuance, and our first in Europe — raising €2 billion (approximately \$2.2 billion) across two tranches (the "2019 Green Bond"). The 2019 Green Bond supports Apple's ambitious goal to reach carbon neutrality across our entire carbon footprint, including the full product life cycle, by 2030. We aim to leverage product design and engineering, energy efficiency, renewable energy, and direct emissions abatement to reduce emissions by 75 percent by 2030, compared with fiscal year 2015 levels. We then plan to address residual emissions that are not otherwise avoidable today by investing in carbon removal solutions. The eligibility criteria of the 2019 Green Bond are aligned with the pillars of our 2030 plan.

This year's annual impact report covers the cumulative allocation of Apple's 2019 Green Bond proceeds to environmental projects that incurred spend between September 29, 2019, and September 25, 2021 — Apple's 2020 and 2021 fiscal years.

# \$4.7 billion

Since February 2016, Apple has issued a total of \$4.7 billion in green bonds, with \$3 billion allocated to date.

# Process for selecting projects and quantifying benefits

The 2019 Green Bond proceeds are intended to support the execution of Apple's 2030 carbon neutrality roadmap. Our Environment, Policy and Social Initiatives team leads an annual evaluation and project selection process to identify projects eligible for green bond proceeds. The final allocation of net proceeds to eligible projects is determined by our vice president of Environment, Policy and Social Initiatives, based on each project's alignment with the 2030 carbon neutrality roadmap and projected ability to reduce greenhouse gas emissions across Apple's value chain.<sup>1</sup> All of the selected projects meet at least one of the following 2019 Green Bond eligibility criteria:

- "Low carbon" design and engineering
- Energy efficiency
- Renewable energy
- Carbon mitigation
- Carbon sequestration

Apple allocated proceeds to a variety of project types across the eligible categories, ranging from operational projects with immediate direct environmental benefits, to capacity-building projects that enable suppliers to achieve carbon emissions reductions, as well as to research and development that will unlock future reductions once scaled. For projects with a direct benefit, we've used the expected lifetime of the project and the total estimated carbon emissions reductions we expect to achieve to quantify annualized emissions reductions for the project (that is, average emissions reductions each year). We've also quantified renewable energy capacity and average annual generation based on the terms of our power purchase agreements and generation models provided by project developers.

# 2019 Green Bond Cumulative Allocation

Fiscal year 2021 update

## Projects

50

**\$550.0 million**

(~25% allocated)

## By Eligibility Category (in millions)<sup>2</sup>



\$28.07  
Low-carbon  
design



\$3.68  
Energy  
efficiency



\$504.45  
Renewable  
energy<sup>3</sup>



\$5.18  
Carbon  
mitigation



\$8.61  
Carbon  
sequestration

## Projected Environmental Benefits<sup>4</sup>

The 50 projects to which Apple allocated 2019 Green Bond funds since issuance are estimated to result in the following direct environmental benefits.

**2,883,000**

metric tons CO<sub>2</sub>e

Greenhouse gas emissions  
to be mitigated or offset<sup>5</sup>

**1,854,000 MWh**

Renewable energy generation  
(annual)

**699 MW**

Newly installed renewable  
energy capacity

A number of projects to which 2019 Green Bond proceeds were allocated in fiscal years 2020 and 2021 are dedicated to research and development, capacity building, and policy advocacy. These types of projects have an indirect carbon benefit and therefore are not reflected in the Projected Environmental Benefits quantified in the chart above.

# Featured projects

In fiscal year 2021, we continued to expand the projects that support our 2030 carbon neutrality goal, with investments in R&D, environmental initiatives and renewable energy. What follows are select examples of the projects to which Apple allocated 2019 Green Bond funds in fiscal year 2021. The full list of projects with detailed descriptions and key performance indicators was provided to Sustainalytics for their second-party review, and their review statement can be found in the Appendix.



## Manufacturing efficiency

By reducing material waste and increasing energy efficiency in our product manufacturing processes, we can reduce the carbon intensity of our assembled products. This is an essential element to reducing Apple's overall carbon footprint. In fiscal year 2021, we allocated green bond funds to a number of projects researching improved efficiency in manufacturing processes. These projects are aimed at creating less waste in the processing of different materials, reducing machining time and the associated energy used, more efficiently transforming material into the shapes we need, and maximizing recovery and reprocessing of manufacturing scrap. Once successfully developed, we plan to deploy these improved processes at scale at our supplier facilities.



## Carbon footprint modeling improvements

As our low-carbon manufacturing processes evolve, so do our techniques for measuring Apple's footprint. We allocated green bond funds in fiscal year 2021 to several projects intended to improve the fidelity, scalability, speed, and breadth of Apple's carbon models, and to improve the carbon modeling of Apple's use of new recycled content in products.



## Recycled materials

The use of recycled materials is central to our goal of making carbon-neutral products by 2030. Incorporating recovered materials into our design process has already helped us lower the carbon footprint of the products we create. But to maximize the use of recycled content, additional research and development is needed to address challenges of retaining the material purity necessary for use in Apple products, as impurities are often introduced in the material scrap recovery process. In fiscal year 2021, we allocated green bond funds to projects that are investigating ways to remove such impurities from materials so they can be reused in Apple products instead of being downcycled.



Elysis has advanced a revolutionary new aluminum production method that releases oxygen, rather than greenhouse gasses, during the smelting process — significantly decreasing the material's carbon footprint.



## Low-carbon aluminum

In May 2018, Apple partnered with aluminum companies and the governments of Canada and Quebec to invest in Elysis — a joint venture to commercialize patented technology that eliminates direct greenhouse gas emissions from the traditional smelting process. This is a revolutionary advancement in the manufacturing of one of the world's most widely used metals.

As part of Apple's commitment to reducing the environmental impact of our products through innovation, we helped accelerate the development of this technology by facilitating the joint partnership, and providing initial funding and ongoing technical support. We continue to support this project, disbursing additional funds in fiscal year 2021 toward our original \$10 million commitment.

In spring 2022, Elysis announced it had built out a commercial-scale prototype within its R&D center in Quebec—enabling Elysis to begin producing commercial purity primary aluminum at scale. This milestone for the project prompted Apple to make an additional purchase of the aluminum, with plans to use it for iPhone SE. In 2019, Apple purchased the first-ever commercial batch of aluminum resulting from the joint venture, using it in the production of the 16-inch MacBook Pro.



Apple is investing in two of the world's largest onshore wind turbines near the Danish town of Esbjerg.



## Renewable energy projects to support Apple's facilities

Since 2018, all of our offices, retail stores, and data centers across 44 countries have sourced 100 percent renewable energy. We continue to invest in renewable energy projects to keep pace with the growth of Apple's facilities and add new electricity to the grids in which we operate around the world. In fiscal year 2021, we allocated part of the 2019 Green Bond proceeds to a range of projects to maintain this goal. For projects representing a long-term financial commitment, we allocated 2019 Green Bond proceeds based on the net present value of the project's cost as of the time the project became operational. Select projects to which we allocated 2019 Green Bond proceeds in fiscal year 2021 include:

- **Wind project in Denmark:** To support our data center in Denmark, we secured a power purchase agreement for a 16.8-megawatt (MW) wind project near the town of Esbjerg, Denmark. The project features two 200-meter-tall turbines — the world's largest onshore wind turbines — that are expected to produce 62 gigawatt-hours each year, enough to power almost 20,000 homes. The power produced onsite will support Apple's data center in Viborg, with all surplus energy going into the Danish grid. The project will also act as a test site for powerful offshore wind turbines. Our agreement to purchase the electricity at an established price has helped make this effort financially viable. The project became operational in November 2020.

- **Solar project in Virginia:** Outside of Fredericksburg, Virginia, we've helped to realize a renewable energy aggregation project, which brings together multiple buyers in a single energy transaction. For this 165 MW project, we worked with our partners Akamai, Swiss Re, and Etsy to help attain economies of scale through our collective purchasing power. In fiscal year 2021, we allocated green bond proceeds toward a 133.6 MW portion of this project, which became operational in December 2020.
- **Nevada Turquoise project:** We allocated fiscal year 2021 green bond proceeds to the Nevada Turquoise solar project, which became operational in December 2020. The 50 MW long-term power purchase agreement (PPA) is facilitated by the Nevada Green Rider. Apple helped create this innovative financial deal structure with NV Energy and the Nevada utility commission to further guarantee that there is a green energy option open to all commercial customers, which does not require the customer to fund project development up front. The project supports electricity use at our data center in Reno, Nevada.

## Reducing emissions in Apple's supply chain

The energy used to manufacture Apple products represents over 70 percent of Apple's comprehensive carbon footprint. That's why we're investing in programs that help suppliers reduce their energy use and transition to renewable energy. In fiscal year 2021, we've continued to allocate green bond proceeds to both our Supplier Energy Efficiency Program and our Supplier Clean Energy Program.



### Supplier Energy Efficiency Program

The Supplier Energy Efficiency Program has three aims: to educate suppliers, identify initiatives to reduce energy use, and provide support for successful project completion. Historically, we've prioritized facilities with the highest energy use and potential for improvement. More recently, we've focused on supplier facilities by product line, like iPhone, which represents a significant percentage of Apple's manufacturing footprint. To help suppliers reduce their energy use, we train them to uncover opportunities for energy efficiency and assist them with assessments and technical issues where appropriate. Typical projects may include replacing outdated or inefficient heating, cooling, and lighting systems; repairing compressed air leaks; and recovering waste heat. As of the end of fiscal year 2021, 102 facilities are participating in our Supplier Energy Efficiency Program.



## Supplier Clean Energy Program

The Supplier Clean Energy Program launched in 2015 to help suppliers transition to renewable energy for Apple production. Apple's goal is to transition our entire manufacturing supply chain to 100 percent renewable energy by 2030. As of October 2021, more than 175 manufacturing partners in 24 different countries have committed to 100 percent renewable energy for Apple production.

In fiscal year 2021, we allocated 2019 Green Bond proceeds to the following aspects of the Supplier Clean Energy Program:

- **Capacity building.** We work to share with our suppliers the knowledge we've gained through our own transition to 100 percent renewable energy. We provide suppliers with resources and training materials that contain country-specific information to guide them in their transition to renewables. These tools are available through our Supplier Clean Energy Portal. We also educate suppliers through advanced and customized training with leading experts. And we support the creation and growth of renewable energy industry associations that our suppliers can join to learn about local opportunities.

We're also empowering supplier-facing employees with the tools and training they need to support our mission and speed a supplier's transition to renewable energy. By connecting our suppliers with resources and helping them assess their performance, our teams are scaling impact across our supply chain.

- **Advocating for strong policy.** Government policies and rules can present some of the most significant barriers to transitioning to renewables. We actively support policies that create cost-effective renewable energy markets, and work closely with suppliers and other companies to engage local, regional, and national governments. This advocacy encourages the development of country-specific policies that support scalable renewable energy solutions, with a potential for impact far beyond Apple's supply chain. In fiscal year 2021, we allocated 2019 Green Bond proceeds to policy advocacy efforts in Japan, Vietnam, and South Korea.
- **Expanding renewable energy opportunities.** The transition to renewables involves helping our suppliers find energy solutions and making the right investments to address their specific needs. When we face barriers in accessing cost-effective clean energy, we innovate. That's why we developed the China Clean Energy Fund. The fund enables Apple and our suppliers to invest in clean energy — to date, these projects account for 134 MW in renewable power. We've also invested in a total of nearly 500 MW of renewable energy solutions to cover upstream emissions in our supply chain, including a recent 20 MW project to which we allocated 2019 Green Bond proceeds in fiscal year 2021.



## Nature-based solutions

To reach carbon neutrality for our products by 2030, Apple is investing in projects that create additional carbon removal through Apple's Restore Fund. As we're working to bring these projects online, we're purchasing high-quality carbon offsets to address some of our unavoidable emissions in the short term. In fiscal year 2021, we allocated green bond proceeds to the purchase of high-quality carbon credits from projects in Guatemala and China. The first, a REDD+ coastal conservation project in Guatemala, protects and conserves forests from deforestation and degradation caused by illegal encroachment of subsistence farmers and cattle ranchers into forests. The second project aims to establish forests on about 46,000 hectares of barren land that is not otherwise in use across seven counties in the Guizhou Province of China. Both projects are certified under the Verified Carbon Standard (VCS) and the Climate, Community & Biodiversity Standards (CCBS).

## Report Notes

1. As calculated in Apple's comprehensive carbon footprint, including direct emissions, indirect emissions from electricity, and emissions from corporate travel, employee commute, and the full product life cycle.
2. The green bond allocations above do not capture financial returns from project investments. As a result, the information provided does not capture a full view of the abatement costs to Apple.
3. Renewable energy spend includes equity investments, long-term contracts like power purchase agreements (PPAs) and virtual power purchase agreements (vPPAs), as well as some renewable energy credits. For PPAs/vPPAs, the allocated amount is calculated as the net present value of future cash flows based on estimated annual production in megawatts and power price over the contract term. Because of this allocation methodology, the financial allocations to the 2019 Green Bond use of proceeds may not proportionally match the expected carbon contributions that we expect from each category in Apple's 2030 carbon neutrality roadmap.
4. Notes on Projected Environmental Benefits:
  - We estimated future environmental benefits of projects that are not yet fully operational, including carbon emissions avoided, energy capacity, and annual renewable energy generation. We estimated emissions avoided using regional emissions factors. Avoided emissions are annualized by accounting for the lifetime of the projected benefits. Projects dedicated to research and development or capacity building are not quantified, as they do not have a direct carbon impact at this time.
  - Proceeds from Apple's 2019 Green Bond were allocated to new and ongoing projects. For ongoing, multiyear projects, we included the spend that occurred during the fiscal year allocation period and the estimated environmental benefits of the entire completed project.
5. Projected environmental benefits include projects from both FY2021 and FY2020 allocations. We've calculated for each project the one year projected average annual benefit. Project lifetimes range from 1 to 25 years.

This Green Bond Report (the "Report") contains forward-looking statements, within the meaning of the Private Securities Litigation Reform Act of 1995, that involve risks and uncertainties. Such forward-looking statements provide current expectations of future events based on certain assumptions and include any statement that does not directly relate to any historical or current fact. For example, statements in this Report regarding the potential future impact of allocated projects. Forward-looking statements can also be identified by words such as "future," "anticipates," "believes," "estimates," "expects," "intends," "plans," "predicts," "will," "would," "could," "can," "may," and similar terms. Forward-looking statements are not guarantees of future performance and Apple's actual results may differ significantly from the results discussed in the forward-looking statements. Factors that might cause such differences include, but are not limited to, those discussed in Part I, Item 1A of Apple's Form 10-K under the heading "Risk Factors" as filed with the Securities and Exchange Commission. Apple assumes no obligation to revise or update any forward-looking statements for any reason, except as required by law.

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# **Appendix**

**Sustainalytics Review**

**Ernst & Young LLP Use of Proceeds Examination**

# Apple Inc.

**Type of Engagement:** Annual Review

**Date:** February 1, 2022

**Engagement Team:**

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## Introduction

In November 2019, Apple Inc. ("Apple") issued green bonds aimed at financing projects that have positive environmental impacts, with the goal of reducing the carbon footprint associated with Apple's own operations and more broadly across its entire value chain. In December 2021, Apple engaged Sustainalytics to review the projects to which green bond proceeds were allocated during Apple's fiscal year 2021 and provide an assessment as to whether the projects met the Use of Proceeds criteria and the reporting commitments outlined in the Apple Green Bond Framework (the "Framework")<sup>1</sup>. Sustainalytics provided a Second Party Opinion<sup>2</sup> on the Framework in November 2019 and an annual review of Apple's fiscal year 2020 allocation in December 2020<sup>3</sup>.

## Evaluation Criteria

Sustainalytics evaluated the projects to which green bond proceeds were allocated in Apple's fiscal year 2021 (between September 27, 2020 and September 25, 2021) based on whether the selected projects:

1. Met the Use of Proceeds and Eligibility Criteria outlined in the Framework; and
2. Reported on a Key Performance Indicator (KPI) for each Use of Proceeds criteria outlined in the Framework.

Table 1 lists the Use of Proceeds, Eligibility Criteria, and associated KPIs while Table 2 lists the detailed findings.

**Table 1: Use of Proceeds, Eligibility Criteria, and associated KPIs**

Use of Proceeds	Eligibility Criteria	Key performance indicators (KPIs)
<b>"Low Carbon" Design and Engineering</b>	<ul style="list-style-type: none"> <li>• 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</li> </ul>	<ul style="list-style-type: none"> <li>• Estimated carbon savings/greenhouse gas emissions avoided (metric tonnes of carbon dioxide equivalent)</li> </ul>
<b>Energy Efficiency</b>	<ul style="list-style-type: none"> <li>• 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</li> </ul>	

<sup>1</sup> For Apple's Green Bond Framework, see the section "Use of Proceeds" in the Prospectus Supplement dated November 7, 2019 filed with the U.S. Securities and Exchange Commission and available at

[https://www.sec.gov/Archives/edgar/data/320193/000119312519288412/d804226d424b2.htm#supptoc804226\\_8](https://www.sec.gov/Archives/edgar/data/320193/000119312519288412/d804226d424b2.htm#supptoc804226_8).

<sup>2</sup> The Apple Green Bond Framework Second Party Opinion is available on Sustainalytics' website at: <https://www.sustainalytics.com/corporate-solutions/sustainable-finance-and-lending/published-projects/project/apple-inc/apple-green-bond-framework-second-party-opinion-2019/apple-green-bond-second-party-opinion-pdf>

<sup>3</sup> Sustainalytics' annual review of Apple's Framework for the 2020 fiscal year issued December 2020 is available on Apple's website at: <https://d18rn0p25nwr6d.cloudfront.net/CIK-0000320193/6e7045a3-3df1-4df8-9070-9d22ae55ad18.pdf>

	controls, energy management systems, and facility design, commissioning, and retrofits	
<b>Renewable Energy</b>	<ul style="list-style-type: none"> <li>Expenditures related to the development of renewable energy projects intended to reduce emissions in Apple's corporate facilities and supply chain, such as solar and wind projects, or associated energy storage solutions</li> </ul>	
<b>Carbon Mitigation</b>	<ul style="list-style-type: none"> <li>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 its supplier's operations, such as abating direct emissions from manufacturing or sourcing non-fossil low carbon fuels</li> </ul>	
<b>Carbon Sequestration</b>	<ul style="list-style-type: none"> <li>Expenditures related to the development of projects that sequester carbon, such as habitat restoration and conservation</li> </ul>	

## Issuing Entity's Responsibility

Apple is responsible for providing accurate information and documentation relating to the details of the projects to which green bond proceeds have been allocated, including description of projects, amounts allocated, and project impact.

## Independence and Quality Control

Sustainalytics, a leading provider of ESG and corporate governance research and ratings to investors, conducted the verification of Apple's Green Bond Use of Proceeds. The work undertaken as part of this engagement included collection of documentation from Apple employees and review of documentation to confirm the conformance with the Framework.

Sustainalytics has relied on the information and the facts presented by Apple with respect to projects to which green bond proceeds were allocated for Apple's 2021 fiscal year. Sustainalytics is not responsible nor shall it be held liable if any of the opinions, findings, or conclusions it has set forth herein are not correct due to incorrect or incomplete data provided by Apple.

Sustainalytics made all efforts to ensure the highest quality and rigor during its assessment process and enlisted its Sustainability Bonds Review Committee to provide oversight over the assessment of the review.

## Conclusion

Based on the limited assurance procedures conducted,<sup>4</sup> nothing has come to Sustainalytics' attention that causes us to believe that, in all material respects, the reviewed projects to which green bond proceeds were allocated for Apple's 2021 fiscal year, are not in conformance with the Use of Proceeds and reporting criteria outlined in the Framework. Apple has disclosed to Sustainalytics that 25% of the net green bond proceeds have been allocated as of the close of Apple's 2021 fiscal year.<sup>5</sup>

<sup>4</sup> Sustainalytics limited assurance process includes reviewing the documentation relating to the details of the projects that have been funded, including description of projects, estimated and realized costs of projects, and project impact, which were provided by the Issuer. The Issuer is responsible for providing accurate information. Sustainalytics has not conducted on-site visits to projects.

<sup>5</sup> Information confirmed as at January 31, 2022

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### Detailed Findings

**Table 2: Detailed Findings**

Eligibility Criteria	Procedure Performed	Factual Findings	Error or Exceptions Identified
<b>Use of Proceeds Criteria</b>	Verification of the projects to which green bond proceeds were allocated for FY2021 to determine if projects aligned with the Use of Proceeds criteria outlined in the Framework and above in Table 1.	All projects reviewed complied with the Use of Proceeds criteria.	None
<b>Reporting Criteria</b>	Verification of the projects to which green bond proceeds were allocated for FY2021 to determine if the impact of the projects was reported in line with the KPI outlined in the Framework and above in Table 1.  For a list of KPIs Apple reports against please refer to Appendix 2.	All projects reviewed reported on the KPI per the Use of Proceeds criteria.	None

## Appendices

Between the period of September 27, 2020 to September 25, 2021, Apple has committed a total of USD 220.37 million to 43 projects as outlined in the table below:

### Appendix 1: Allocation Reporting by Eligibility Criteria

Use of Proceeds Category	FY21 Amount Allocated (USD million)	Total Amount Allocated (%)
<b>"Low Carbon" Design and Engineering</b>	15.11	6.86
<b>Energy Efficiency</b>	2.53	1.15
<b>Renewable Energy</b>	194.44	88.23
<b>Carbon Mitigation</b>	3.18	1.44
<b>Carbon Sequestration</b>	5.11	2.32
<b>Total</b>	<b>220.37</b>	<b>100.00</b>

### Appendix 2: Impact Reporting

KPI	FY21 environmental benefits
Carbon emissions mitigated (metric tons CO <sub>2</sub> e per year)	1,962,000
Renewable energy generation (MWh per year) <sup>6</sup>	594,000
Renewable energy capacity (MW) <sup>7</sup>	345
In addition to the above quantified benefits, Apple estimates that a number of projects will have indirect carbon benefits across its supply chain from investments in R&D, supplier capacity building, and renewable energy policy advocacy.	

<sup>6</sup> In addition to the carbon emissions savings KPI provided for in the Framework, Apple voluntarily reports on renewable energy generation and capacity KPIs as part of its impact reporting.

<sup>7</sup> In addition to the carbon emissions savings KPI provided for in the Framework, Apple voluntarily reports on renewable energy generation and capacity KPIs as part of its impact reporting.

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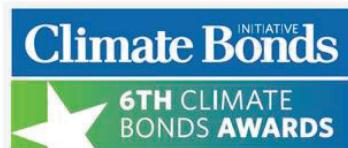
These are based on information made available by the issuer and therefore are not warranted as to their merchantability, completeness, accuracy, up-to-dateness or fitness for a particular purpose. The information and data are provided "as is" and reflect Sustainalytics' opinion at the date of their elaboration and publication. Sustainalytics accepts no liability for damage arising from the use of the information, data or opinions contained herein, in any manner whatsoever, except where explicitly required by law. Any reference to third party names or Third Party Data is for appropriate acknowledgement of their ownership and does not constitute a sponsorship or endorsement by such owner. A list of our third-party data providers and their respective terms of use is available on our website. For more information, visit <http://www.sustainalytics.com/legal-disclaimers>.

The issuer is fully responsible for certifying and ensuring the compliance with its commitments, for their implementation and monitoring.

In case of discrepancies between the English language and translated versions, the English language version shall prevail.

## About Sustainalytics, a Morningstar Company

Sustainalytics, a Morningstar Company, is a leading ESG research, ratings and data firm that supports investors around the world with the development and implementation of responsible investment strategies. The firm works with hundreds of the world's leading asset managers and pension funds who incorporate ESG and corporate governance information and assessments into their investment processes. The world's foremost issuers, from multinational corporations to financial institutions to governments, also rely on Sustainalytics for credible second-party opinions on green, social and sustainable bond frameworks. In 2020, Climate Bonds Initiative named Sustainalytics the "Largest Approved Verifier for Certified Climate Bonds" for the third consecutive year. The firm was also recognized by Environmental Finance as the "Largest External Reviewer" in 2020 for the second consecutive year. For more information, visit [www.sustainalytics.com](http://www.sustainalytics.com).



**Largest Verifier for Certified Climate Bonds in Deal volume in 2020 & Largest External Review Provider in 2020**





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## Report of Independent Accountants

To the Management of Apple Inc.:

We have examined management's assertion, in Exhibit A, that \$550.0 million of net proceeds from the 0.000% notes due 2025 and 0.500% notes due 2031 issued by Apple Inc. ("Apple") were allocated, during the period from September 29, 2019 to September 25, 2021 (the "Reporting Period"), to qualifying Eligible Projects that meet one or more of the Eligibility Criteria (each as defined in the "Use of Proceeds" section of the Prospectus Supplement dated November 7, 2019, to the Prospectus dated November 5, 2018, filed by Apple on November 8, 2019, with the Securities and Exchange Commission pursuant to Rule 424(b)(2) under the Securities Act of 1933, as amended). Apple's management is responsible for the assertion, having a reasonable basis for its assertion, selection of the Eligibility Criteria and the allocation, during the Reporting Period, of amounts to Eligible Projects that meet one or more of the Eligibility Criteria. Our responsibility is to express an opinion on the assertion based on our examination.

Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. Those standards require that we plan and perform the examination to obtain reasonable assurance about whether management's assertion is fairly stated, in all material respects. An examination involves performing procedures to obtain evidence about management's assertion. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risks of material misstatement of management's assertion, whether due to fraud or error. We believe that the evidence we obtained is sufficient and appropriate to provide a reasonable basis for our opinion.

Our examination was not conducted for the purpose of evaluating (i) whether funds in excess of the net proceeds were allocated to Eligible Projects during the Reporting Period, (ii) the amount allocated to each category of Eligible Projects during the Reporting Period, (iii) that any payments made pursuant to any power purchase agreements or virtual power purchase agreements to which amounts were allocated during the Reporting Period were in accordance with such agreements, (iv) the environmental benefits of the Eligible Projects, (v) conformance of any Eligible Projects with any third-party published principles, standards or frameworks, such as the Green Bond Principles, dated June 2018, published by the International Capital Market Association or (vi) any information included in Apple's Annual Green Bond Impact Report, Fiscal Year 2021 Update, other than management's assertion. Accordingly, we do not express an opinion or any other form of assurance other than on management's assertion included in Exhibit A.

In our opinion, management's assertion, included in Exhibit A, that \$550.0 million in net proceeds from the 0.000% notes due 2025 and 0.500% notes due 2031 issued by Apple were allocated during the Reporting Period to qualifying Eligible Projects that met one or more of the Eligibility Criteria is fairly stated, in all material respects.

February 16, 2022  
San Jose, California



## Exhibit A

### **Apple Inc. Management's Assertion**

We assert that \$550.0 million of net proceeds were allocated from our issuance of the 0.000% notes due 2025 and 0.500% notes due 2031, during the period from September 29, 2019 to September 25, 2021 (the "Reporting Period"), to qualifying Eligible Projects that meet one or more of the Eligibility Criteria (each as defined in the "Use of Proceeds" section of the Prospectus Supplement dated November 7, 2019, to the Prospectus dated November 5, 2018, filed by Apple Inc. ("Apple") on November 8, 2019, with the Securities and Exchange Commission pursuant to Rule 424(b)(2) under the Securities Act of 1933, as amended). The Eligibility Criteria are also set forth in Table 1 below. Apple's management is responsible for this assertion, including selection of the Eligibility Criteria and the allocation, during the Reporting Period, of amounts to Eligible Projects that meet one or more of the Eligibility Criteria. We have worked with an outside party, a provider of ESG and corporate governance research and ratings to investors, to provide a second party opinion on the Apple Green Bond framework at the time of issuance. We have engaged them annually thereafter to review the projects to which net proceeds were allocated and provide an assessment as to whether the projects met the Use of Proceeds criteria and the reporting commitments outlined in our Green Bond framework.

**Table 1: Eligibility Criteria**

<b>"Low carbon" design and engineering</b>	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,
<b>Energy efficiency</b>	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,
<b>Renewable energy</b>	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,

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<b>Carbon mitigation</b>	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, and
<b>Carbon sequestration</b>	expenditures related to the development of projects that sequester carbon, such as habitat restoration and conservation.

**Note 1:** Apple Inc. or its subsidiaries directly invest in Eligible Projects in its own operations or its suppliers' operations.

**Note 2:** Proceeds are considered allocated upon the date of commercial operations for power purchase agreements or virtual power purchase agreements. The allocated amount is calculated as the net present value of future cash flows based on estimated annual production in megawatts and power price over the contract term. The determination of the amount to be allocated to the power purchase agreements and virtual power purchase agreements involves estimates. Actual results could differ from those estimates and those differences may be material.

**Note 3:** The net proceeds allocated to carbon sequestration projects include the purchase of carbon offsets.