Carbon Neutral Report: Sport Loop, Alpine Loop, and Trail Loop

September 2023

ARCHIVED

Carbon Neutral

Our carbon neutrality strategy for Sport Loop, Alpine Loop, and Trail Loop Apple Watch bands

Our goal is for Apple's manufacturing supply chain and all the products we make to be carbon neutral by 2030, reducing our total carbon emissions to no more than 9.6 million metric tons—at least a 75 percent reduction against our 2015 baseline. The only way to reach this ambitious goal is to substantially decarbonize our products.

Our rigorous strategy to decarbonize products focuses on transitioning to clean electricity, designing with recycled and renewable materials, and prioritizing lower-carbon ways of shipping products, like with ocean freight. Only after we've substantially reduced emissions will we apply carbon credits from high-quality projects to achieve carbon neutrality.

Here is our approach to drastically reduce carbon emissions directly associated with creating Sport Loop, Alpine Loop, and Trail Loop Apple Watch bands.

ARCHIVED

How we reduced emissions

- **Transitioned to 100% clean electricity for manufacturing:** To reduce emissions from the electricity used to make products, we're working to transition our entire supply chain to 100 percent clean electricity and prioritizing energy efficiency in manufacturing. For Sport Loop, Alpine Loop, and Trail Loop Apple Watch bands, 100 percent of manufacturing electricity is sourced from clean energy.[1]
- **Increased non-air transportation:** To reduce emissions from transporting products, we're shifting from air-shipping to lower-carbon modes, like ocean or rail. Across the combined weight of all carbon neutral Apple Watch products including watches and bands, we've shipped 50 percent or more by non-air modes from our final assembly sites to their next destination, primarily regional distribution hubs.[2]
- **Used recycled and renewable materials:** To address emissions generated by using primary materials, we're increasing the recycled content of our products, maximizing material and manufacturing efficiencies, and improving yields. And where we've not yet fully transitioned to recycled content, we're prioritizing renewable and low-carbon materials, such as aluminum smelted with hydroelectricity. These three Apple Watch bands have more than 30 percent total recycled content by weight.[3]

How we reached net zero emissions for these bands

To address remaining emissions we cannot avoid, we deploy nature-based solutions, through programs like the Restore Fund, that result in high-quality carbon credits. These play an important role in addressing the climate crisis, as nature-based solutions contribute to the health of ecosystems remove carbon from the atmosphere. We are aligned with the scientific consensus that these carbon credits should only be applied after aggressive efforts to reduce emissions and increase efficiency have been implemented. Apple uses credits from projects that align with international standards such as Verra, the Climate, Community & Biodiversity (CCB) Standard, and the Forest Stewardship Council (FSC), which ensure projects are real, additional, measurable, quantified, and have systems in place to avoid double-counting and ensure permanence. Carbon credits applied are retired after the end of each fiscal year, to correspond to the remaining emissions from the total number of products sold in the prior fiscal year. Apple uses an independent third party to confirm that the correct number have been retired.

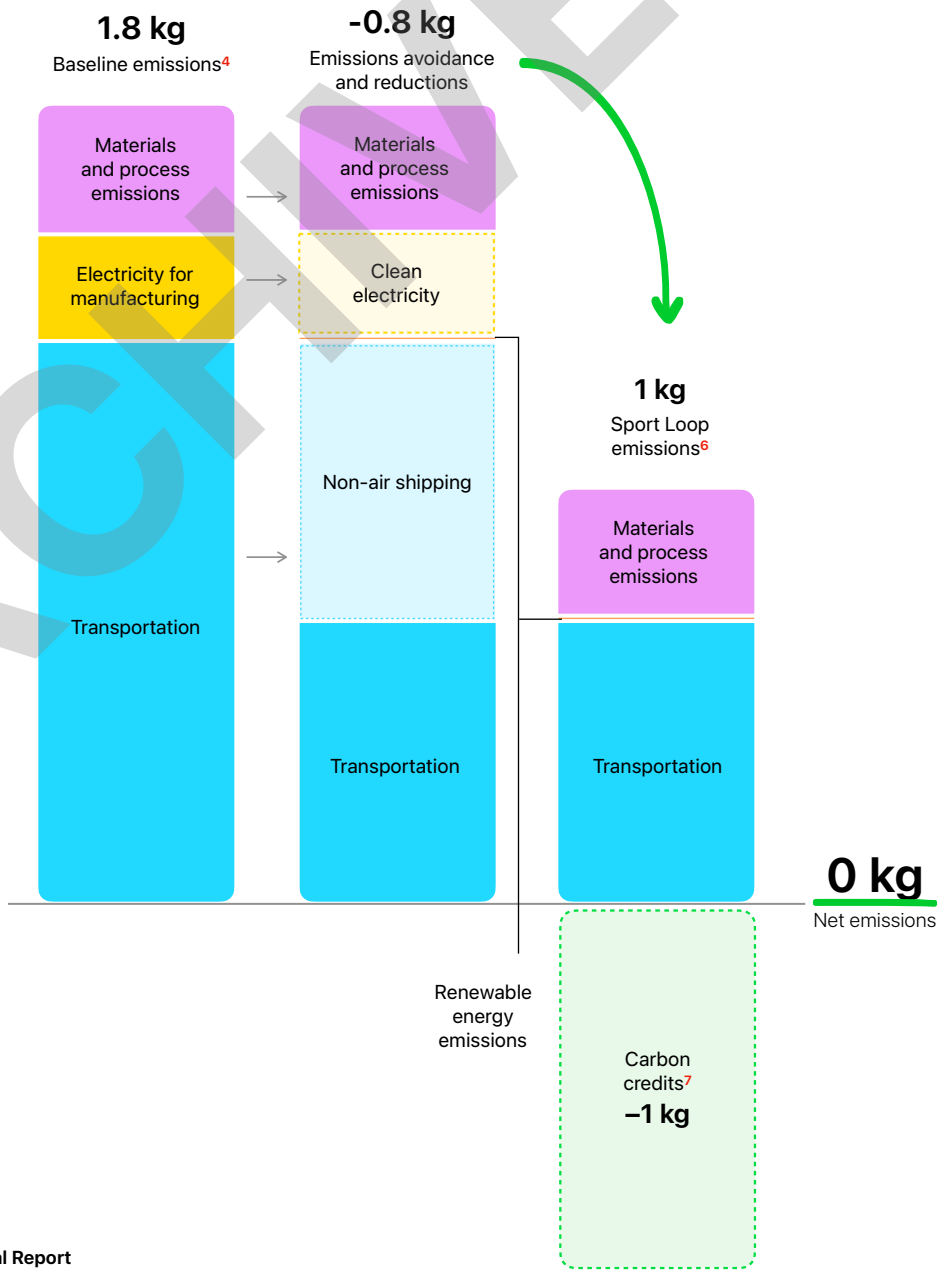
How we're demonstrating progress

We first calculate the carbon footprint of the product using a life cycle carbon analysis approach, in accordance with international standards. To help ensure our work is translating to real reductions, we consider what emissions would have been without our actions. We apply the following assumptions to create this baseline scenario:

- No use of clean electricity for manufacturing or product use, beyond what is already available on the grid (based on regional emissions factors).
- Apple's carbon intensity of key materials as of 2015. Carbon intensity of materials reflects use of recycled content and production technology.
- Apple's average mix of transportation modes (air, rail, ocean, ground) by product line across three years (fiscal years 2017 to 2019) to best capture the baseline transportation emissions of our products.

How we reached carbon neutral with Sport Loop

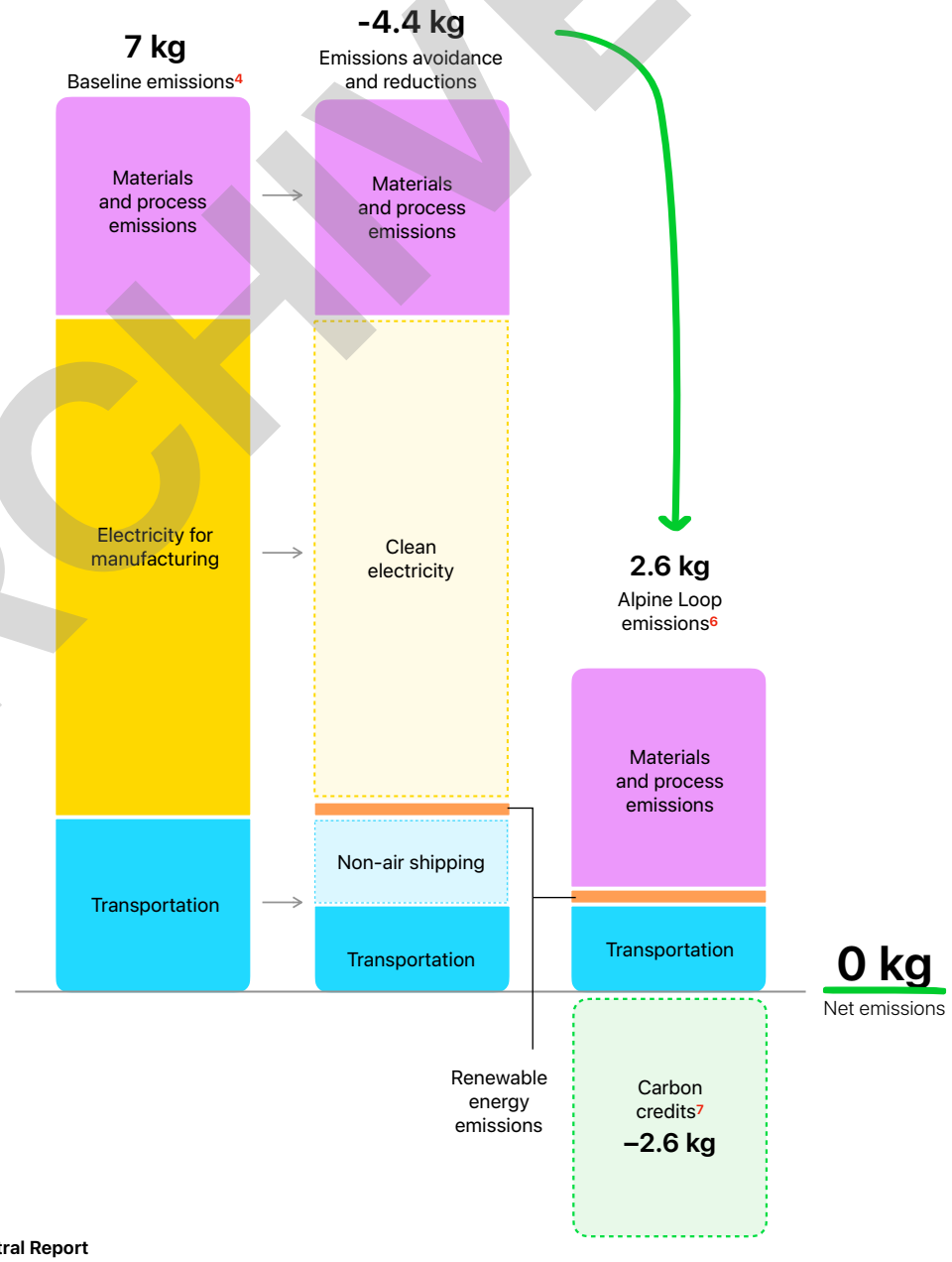
We've avoided and reduced emissions for Sport Loop by 44 percent against our baseline.[4] This band contains 45 percent recycled content, and 100 percent of manufacturing electricity[5] to produce this product is covered by clean electricity. In our carbon footprint calculations, we also account for the emissions necessary to generate clean electricity, specifically to manufacture and maintain renewable energy infrastructure, like wind and solar farms. We've also reduced transportation-related emissions with a logistics plan for 50 percent or more of all carbon neutral Apple Watch products by weight to be shipped via non-air modes of transportation over the lifetime of the products.[2] Only after these efforts do we cover residual emissions through high-quality carbon credits that are real, additional, measurable, quantified, and have systems in place to avoid double-counting and ensure permanence.



ARCHIVED

How we reached carbon neutral with Alpine Loop

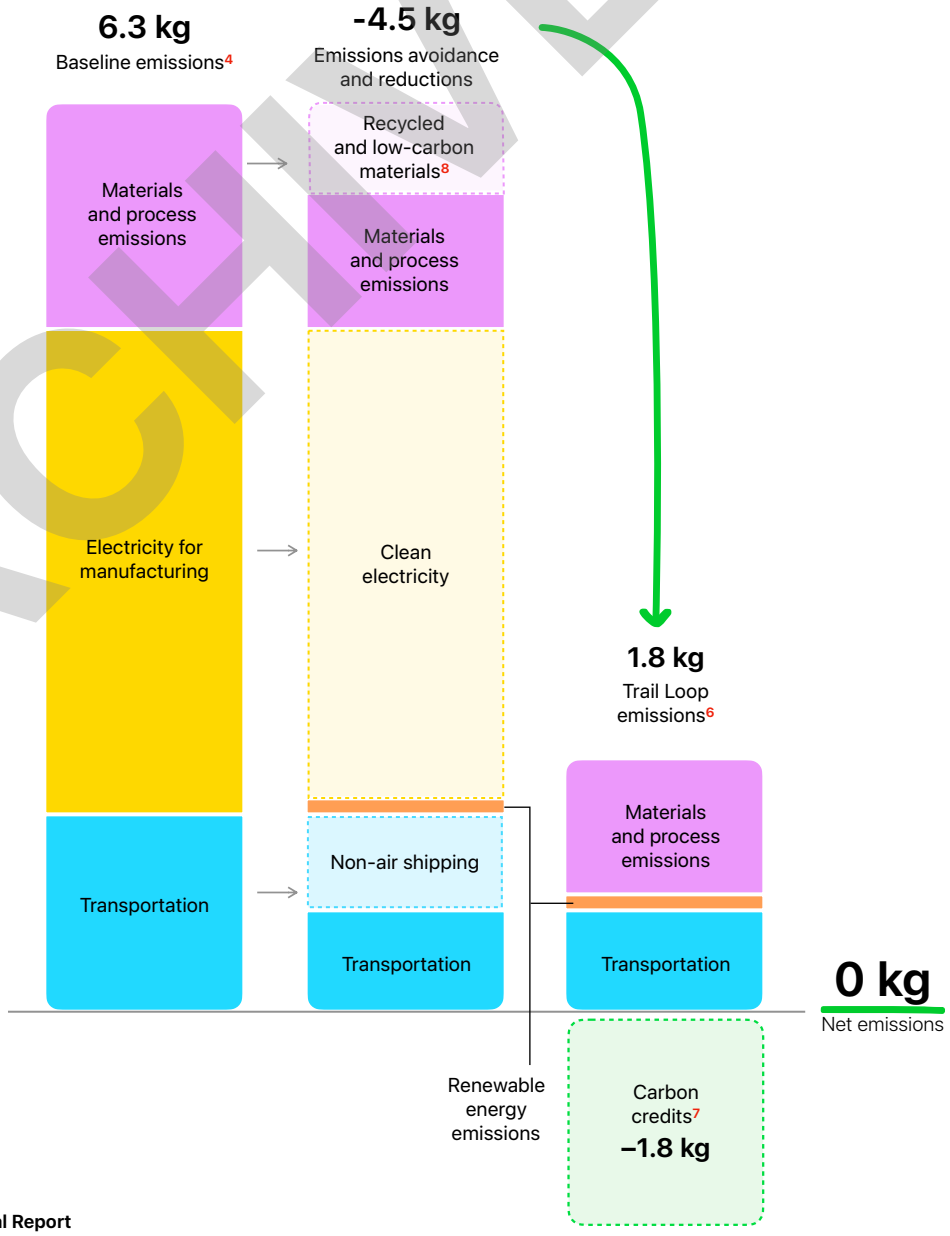
We've avoided and reduced emissions for Apple Loop by 62 percent against our baseline.[4] This band contains 43 percent recycled content, and 100 percent of manufacturing electricity to produce this product is covered by clean electricity. In our carbon footprint calculations, we also account for the emissions necessary to generate clean electricity, specifically to manufacture and maintain renewable energy infrastructure, like wind and solar farms. We've also reduced transportation-related emissions with a logistics plan for 50 percent or more of all carbon neutral Apple Watch products by weight to be shipped via non-air modes of transportation over the lifetime of the products. Only after these efforts do we cover residual emissions through high-quality carbon credits that are real, additional, measurable, quantified, and have systems in place to avoid double-counting and ensure permanence.



ARCHIVED

How we reached carbon neutral with Trail Loop

We've avoided and reduced emissions for Trail Loop by 71 percent against our baseline.[4] Trail Loop contains 32 percent recycled content, which reduced emissions from materials by over 9 percent. This band contains 32 percent recycled content, and 100 percent of manufacturing electricity to produce this product is covered by clean electricity. In our carbon footprint calculations, we also account for the emissions necessary to generate clean electricity, specifically to manufacture and maintain renewable energy infrastructure, like wind and solar farms. We've also reduced transportation-related emissions with a logistics plan for 50 percent or more of all carbon neutral Apple Watch products by weight to be shipped via non-air modes of transportation over the lifetime of the products. Only after these efforts do we cover residual emissions through high-quality carbon credits that are real, additional, measurable, quantified, and have systems in place to avoid double-counting and ensure permanence.



ARCHIVED

Carbon footprint

Greenhouse gas emissions were calculated using a life cycle assessment (LCA) methodology in accordance with ISO 14040, 14044, and 14067 standards and based on Sport Loop, Alpine Loop, and Trail Loop Apple Watch bands. The LCA boundary for these products includes the physical product and all of its components, as well as all in-box accessories.

Greenhouse gas emissions	Sport Loop
Apple emissions from utility-purchased electricity (scope 2)	0 kg CO_2e
Life cycle product emissions (scope 3)	1 kg CO_2e
· Production	25%
– *Generation of renewable electricity*	*1%*
· Transportation	68%
· Product use	N/A
· End-of-life processing	8%
GHG reductions achieved[4]	↓44%
Product footprint before carbon credits	**1 kg CO_2e**
Carbon credits applied (per product)	1 kg CO_2e
Total product footprint after carbon credits	**0 kg CO_2e**

Greenhouse gas emissions	Alpine Loop
Apple emissions from utility-purchased electricity (scope 2)	0 kg CO_2e
Life cycle product emissions (scope 3)	2.6 kg CO_2e
· Production	70%
– *Generation of renewable electricity*	*5%*
· Transportation	28%
· Product use	N/A
· End-of-life processing	2%
GHG reductions achieved[4]	↓62%
Product footprint before carbon credits	**2.6 kg CO_2e**
Carbon credits applied (per product)	2.6 kg CO_2e
Total product footprint after carbon credits	**0 kg CO_2e**

Greenhouse gas emissions	Trail Loop
Apple emissions from utility-purchased electricity (scope 2)	0 kg CO_2e
Life cycle product emissions (scope 3)	1.8 kg CO_2e
· Production	57%
– *Generation of renewable electricity*	*6%*
· Transportation	40%
· Product use	N/A
· End-of-life processing	4%
GHG reductions achieved[4]	↓71%
Product footprint before carbon credits	**1.8 kg CO_2e**
Carbon credits applied (per product)	1.8 kg CO_2e
Total product footprint after carbon credits	**0 kg CO_2e**

Note: Percentages may not total 100 due to rounding.

ARCHIVED

High Quality Carbon Removal and Offsets

We plan to reach our goal of becoming carbon neutral across our entire value chain by 2030, using a wide range of solutions, prioritizing significant emissions avoidance and reductions as well as long-term carbon removal initiatives like the Restore Fund.

In 2021, we partnered with Conservation International and Goldman Sachs to create the Restore Fund, investing up to $200 million in nature-based projects—like forests, wetlands, and grasslands, that restore critical ecosystems, support local communities, and also generate a financial return. This fund is unique because it aims to change carbon removal from a cost to a profitable investment. By creating a fund that generates both a financial return as well as real and measurable carbon impact, we aim to drive broader change in the future—encouraging capital investment in carbon removal around the globe.

The first phase of our innovative fund has focused on blending responsible forestry practices with carbon removal. We're working with forestry managers to create sustainably managed forests that are optimized for both carbon and wood production in order to create revenue from timber and generate high-quality carbon credits. The projects also seek to maximize positive environmental impact, including carbon, hydrology, and habitat restoration. In October 2022, Apple announced three new projects through the Restore Fund. Apple has invested with three high-quality forestry managers in Brazil and Paraguay with the goal of restoring 150,000 acres of certified sustainable working forests and protecting around 100,000 acres of native forests, grasslands, and wetlands. Together, these initial forestry projects are forecast to remove one million metric tons of carbon dioxide from the atmosphere starting in 2025.

As the projects in the Restore Fund come online, we're also working to address difficult-to-avoid emissions in the short term. We're intentional about identifying avoided deforestation and removal projects that are of the highest standard and that achieve meaningful impact. We often originate our own projects working with a reputable partner, like Conservation International, or we carefully select projects from third-party certified registries. Apple uses credits from projects that align with international standards such as Verra, the Climate, Community & Biodiversity (CCB) Standard, and the Forest Stewardship Council (FSC). These standards ensure that the projects generating credits are real, additional, measurable, quantified, and have systems in place to avoid double-counting and ensure permanence.

Carbon credits applied are retired after the end of each fiscal year, to correspond to the remaining emissions from the total number of products sold in the prior fiscal year. Apple uses an independent third party to confirm that the correct number of credits has been retired.

The high-quality carbon credit projects used to compensate the remaining emissions may include the following:

Project name	Project description	Accounting methodology used	Registry link
Forestal Apepu Carbon Project	Forestal Apepu S.A. is a company established in 2019 by an international forestry fund to conduct sustainable reforestation in Eastern Paraguay. The aim of the company is the sequestration of carbon and the production of quality timber in a highly deforested landscape. Forestal Apepu purchased two contiguous properties of 2,658 ha in the Department of San Pedro. As most private properties in the region, the land was deforested decades ago and then used for agriculture and beef production. Currently, the property maintains around 20% of its area with natural forest cover, albeit heavily degraded due to the informal extraction of biomass and other forest resources. Through fast-growing eucalypt plantations, trials of plantations with native species, and the strict protection of the remaining natural forest, Forestal Apepu aims at restoring forest cover. A target production area of 1,850 ha of forest plantations is planned to be established until 2021, of which 1,126 ha were already planted in 2019 and 2020 (first instance). The company may expand even further in the future, upon identification of potential expansion areas in the region.	AR-ACM0003 Afforestation and reforestation of lands except wetlands	https://registry.verra.org/app/projectDetail/VCS/2369

ARCHIVED

Endnotes

[1] Our manufacturing electricity is sourced from clean electricity, including a mix of supplier and Apple clean energy projects.

[2] 50 percent of all carbon neutral Apple Watch products by weight are planned, as of product launch, to be shipped via non-air modes of transportation over the lifetime of the products.

[3] Product recycled or renewable content is the mass of certified recycled material relative to the overall mass of the device, not including packaging or in-box accessories.

[4] Carbon reductions are calculated against a baseline scenario: 1) No use of clean electricity for manufacturing or product use, beyond what is already available on the grid (based on regional emissions factors). 2) Apple's carbon intensity of key materials as of 2015 (our baseline year for our 2030 product carbon neutrality goal). Carbon intensity of materials reflects use of recycled content and production technology. 3) Apple's average mix of transportation modes (air, rail, ocean, trucking) by product line across three years (fiscal years 2017 to 2019) to best capture the baseline transportation emissions of our products.

[5] We estimate the percentage of electricity-related emissions in our manufacturing that is sourced from clean electricity by attributing to our carbon model clean energy procured by our suppliers in the prior fiscal year, based on the supplier manufacturing allocations at time of product launch. Included in this number is only clean electricity that Apple or its suppliers have procured as part of Apple's Supplier Clean Energy Program.

[6] Greenhouse gas emissions were calculated using a life cycle assessment methodology in accordance with ISO 14040, 14044, and 14067 standards and based on Sport Loop, Alpine Loop, and Trail Loop Apple Watch bands. The life cycle assessment boundary for this product includes the physical product and all of its components, as well as all in-box accessories.

[7] Apple uses credits from projects that align with international standards such as Verra, the Climate, Community & Biodiversity (CCB) Standard, and the Forest Stewardship Council (FSC). These standards ensure that the projects generating credits are real, additional, measurable, quantified, and have measures in place to avoid double-counting and ensure permanence.

[8] We calculate emissions savings from the use of recycled or low-carbon materials in our products by comparing the carbon intensity of key materials today with their 2015 baseline for Apple products. We currently only quantify the carbon savings from the use of recycled aluminum, titanium, and stainless steel in the enclosure, which means the actual emissions avoided are likely larger. We plan to improve our accounting of recycled content over time.

ARCHIVED

© 2023 Apple Inc. All rights reserved. Apple and the Apple logo are trademarks of Apple Inc., registered in the U.S. and other countries and regions.

SCS Global Services *does hereby certify that an independent assessment has been conducted for:*

Apple Inc.

1 Apple Park Way, Cupertino, California 95014, United States

Sport Loop

May be used as a representative proxy for all colors and sizes, and for optional configurations with same or lower environmental impact (e.g. smaller on-board storage configurations)

CARBON NEUTRAL™ CERTIFIED
SCS GLOBAL SERVICES

Certification Scope:

Validation of Apple Inc.'s 2025 declaration of commitment to Carbon Neutral Certification based on the Cradle-to-Grave Greenhouse Gas emission for its Sport Loop product.

Certification Criteria:

- SCS -108 Certification Standard for Carbon Neutral Entities, Buildings, Products and Services: Version 1.1.
- ISO 14067:2018 Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification

TOTAL ESTIMATED EMISSIONS VERIFIED: 0.97 KGS OF CO_2e PER UNIT
TOTAL ESTIMATED EMISSIONS TO OFFSET: 0.97 KGS OF CO_2e PER UNIT

Carbon Neutral Certification, based on the declaration of commitment made by Apple Inc. for its Sport Loop product, in accordance with the SCS-108 Carbon Neutral Standard for the period of October 1, 2024 through September 30, 2026.

Certificate # SCS-CN-00112
Achievement Date: 09-01-2024 to 09-30-2024
Commitment Date: 10-01-2024 to 09-30-2026

Diana Kirsanova Phillips, Chief Assurance Officer,
SCS Global Services
2000 Powell Street, Ste. 600, Emeryville, CA 94608 USA

ARCHIVED

SCS Global Services *does hereby certify that an independent assessment has been conducted for:*

Apple Inc.

1 Apple Park Way, Cupertino, California 95014, United States

Alpine Loop

May be used as a representative proxy for all colors and sizes, and for optional configurations with same or lower environmental impact (e.g. smaller on-board storage configurations)

CARBON NEUTRAL CERTIFIED
SCS GLOBAL SERVICES

Certification Scope:

Validation of Apple Inc.'s 2025 declaration of commitment to Carbon Neutral Certification based on the Cradle-to-Grave Greenhouse Gas emission for its Alpine Loop product.

Certification Criteria:

- SCS -108 Certification Standard for Carbon Neutral Entities, Buildings, Products and Services: Version 1.1.
- ISO 14067:2018 Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification

TOTAL ESTIMATED EMISSIONS VERIFIED: 2.58 KGS OF CO_2e PER UNIT
TOTAL ESTIMATED EMISSIONS TO OFFSET: 2.58 KGS OF CO_2e PER UNIT

Carbon Neutral Certification, based on the declaration of commitment made by Apple Inc. for its Alpine Loop product, in accordance with the SCS-108 Carbon Neutral Standard for the period of October 1, 2024 through September 30, 2026.

Certificate # SCS-CN-00116

Achievement Date: 09-01-2024 to 09-30-2024
Commitment Date: 10-01-2024 to 09-30-2026

Diana Kirsanova Phillips, Chief Assurance Officer,
SCS Global Services
2000 Powell Street, Ste. 600, Emeryville, CA 94608 USA

ARCHIVED

SCS Global Services *does hereby certify that an independent assessment has been conducted for:*

Apple Inc.

1 Apple Park Way, Cupertino, California 95014, United States

Trail Loop

May be used as a representative proxy for all colors and sizes, and for optional configurations with same or lower environmental impact (e.g. smaller on-board storage configurations)

CARBON NEUTRAL CERTIFIED
SCS GLOBAL SERVICES

Certification Scope:

Validation of Apple Inc.'s 2025 declaration of commitment to Carbon Neutral Certification based on the Cradle-to-Grave Greenhouse Gas emission for its Trail Loop product.

Certification Criteria:

- SCS -108 Certification Standard for Carbon Neutral Entities, Buildings, Products and Services: Version 1.1.
- ISO 14067:2018 Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification

TOTAL ESTIMATED EMISSIONS VERIFIED: 1.77 KGS OF CO_2e PER UNIT
TOTAL ESTIMATED EMISSIONS TO OFFSET: 1.77 KGS OF CO_2e PER UNIT

Carbon Neutral Certification, based on the declaration of commitment made by Apple Inc. for its Trail Loop product, in accordance with the SCS-108 Carbon Neutral Standard for the period of October 1, 2024 through September 30, 2026.

Certificate # SCS-CN-00111

Achievement Date: 09-01-2024 to 09-30-2024
Commitment Date: 10-01-2024 to 09-30-2026

Diana Kirsanova Phillips, Chief Assurance Officer,
SCS Global Services
2000 Powell Street, Ste. 600, Emeryville, CA 94608 USA

ARCHIVED