



# Product Environmental Report

(International)

Product  
2022

## Made with better materials

100% 100%

100% recycled aluminum in enclosure  
100% recycled rPET in enclosure

## Energy efficient

56%

56% energy consumption  
ENERGY STAR  
qualified



## Tackling climate change

100%

100% committed to joining our net-zero manufacturing supply chain by 2030

## Smarter chemistry<sup>1</sup>

- 100% nickel-free dye
- 100% copper-free
- 100% formaldehyde-free
- 100% C-free
- 100% chromium-free

## Responsible packaging

100% 97%

100% of wood fiber comes from responsibly managed forests  
97% of recycled fiber-based packaging is made from recycled material

## Apple Trade In

Round-trip shipping included with Trade In

## Enclosure made with 100% recycled aluminum

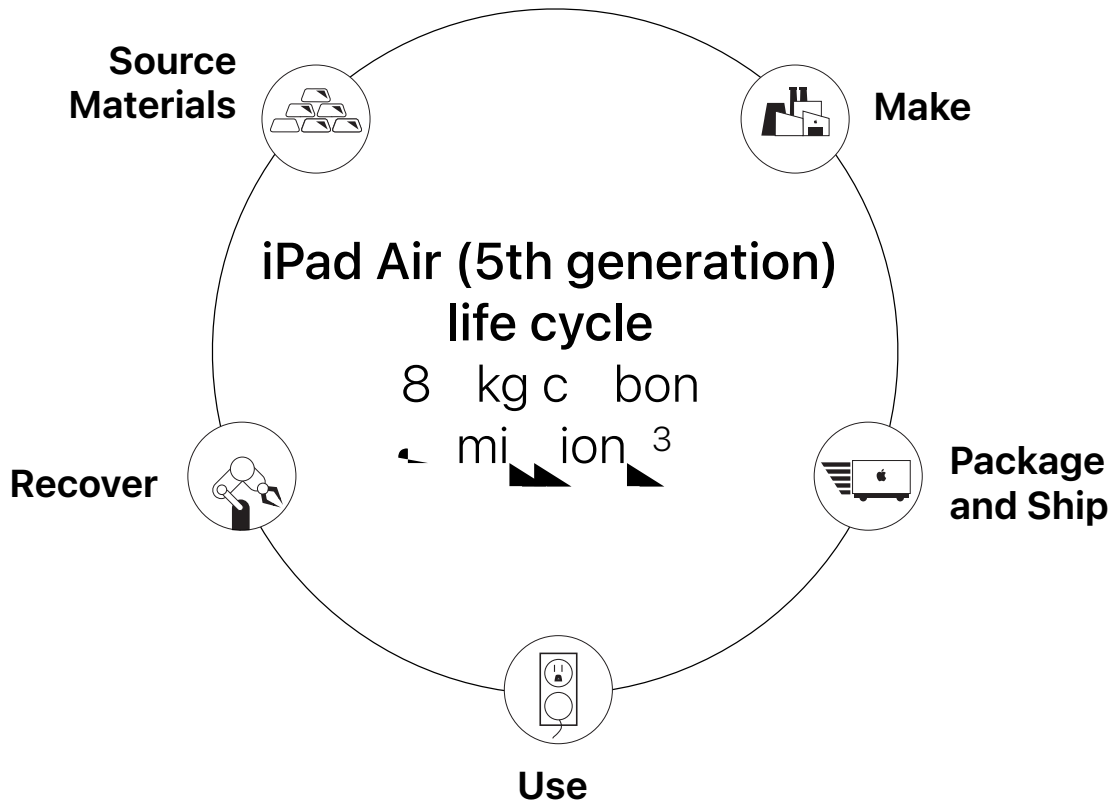
1. This report includes data for the product line shown on the U.S. configuration of the product.



# Taking responsibility for our products at every stage

We take responsibility for our products throughout their lifecycle—including the materials we use, the way we make them, how we package and ship them, and how we focus on recovering them. We work on making big differences for our products, reducing our impact on climate change, including our own.

**We sell millions of products. So making even small adjustments can have a meaningful impact.**



## Carbon footprint

We continue to work on reducing our carbon footprint by focusing on making a greener product, with a lower carbon footprint and with a greener supply chain. We are also working on reducing our carbon footprint in our buildings, with a focus on energy efficiency. We are committed to reducing our carbon footprint and are working on making a greener product, with a lower carbon footprint and with a greener supply chain.

## iPad Air (5th generation) life cycle carbon emissions

- 70% Production
- 7% Distribution
- 14% Use
- 9% End-of-life recycling



# Source Materials

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 ...c e d uminum.

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 ...ou c on... c e d o... a w l a m e i... in ou, o d u c... nd... w m k... i... n i o n  
 ...w e m in c o m m i... d o... e... s... on i l a... o u c i n g o f... i m... m e i... W m, m n m e i  
 ...o m a o... e m i a... o u c... n d... b i... e... i a... n d d f o r a... n d... f i a...  
 ...s... e... o... q u i... 1... e... c n o f i d n i f i d i n... n u m u n g... n g o d c o b... n d i u m  
 ...r a... n d... f i a... o... i c i... e... i n... i d... s... u d i... W... e... o u d o b... e... c o g n i... d...  
 ...w o d w i d... e... d... i n... e... s... on i l a... o u c i n g o f m i a... i n o u... s... o d u c... u... s... o d u c... d... i g n...  
 ...o c o n i d... e... f... o f... a... w o m k... u... n d... c... e... o u... s... o d u c... e... i c i n g... e... u...  
 ...o f... u n d... d... o f... m f u... u b... n c... u... n d... d... g o b... o n d w... '... e... q u i... d... b... w... o... s... a... c...  
 ...e... q... e... n d... e... n i o n... r a... n... .



**Aluminum**

...s... e... d... n... u m i n u m... o... m... d... o f... 1... e... c... n... c... i... f... i... d...  
 ...c... e... d... u m i n u m... w... i... c... w...  
 ...u... f... o... e... n... c... o... u... o f... e...  
 ...i... d... i... g... n... i... o n... )... o... -... i...  
 ...o... d... i... e... r a... e... n g...  
 ...d u b i... n d f... w... f i n i... -  
 ...w... i... o u... m i n i n g... n... a... w... b... u... i...  
 ...l... u m i n u m... a... )... f... o m... e... .



**Rare earth elements**

W... u... 1... e... c... n... e... c... e... d...  
 ...e... e... e... r a... n... i... n... e...  
 ...n... c... o... u... n d... u d i... o m... g a...  
 ...e... e... n... i n g... o... e... c... n... o f... e...  
 ...o... e... e... e... r a... n...  
 ...i... n... e... d... i... c... .



**Plastic**

W... l... n... i... o n... i n g... f... o m... f... o... i...  
 ...f... u... -... b... e... d... s... ,... i... c... o... o...  
 ...m... d... f... o m... e... a... w... l... a... o...  
 ...c... e... d... o... u... c... .... o... i... d... i...  
 ...l... g... n... i... o n... )... w... u...  
 ...3... e... c... n... o... m... a... e... c... e... d...  
 ...s... ,... i... c... i... n... f... i... c... o m... p... o s... i... t... i... o n... .



**Tin**

W... u... 1... e... c... n... e... c... e... d...  
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 ...o g... i... c... b... o... d... .

## Smarter chemistry

i d i g n ion) i f e of m f u u b n c k b i u m b o m i n e d f r a  
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 ...W... g... o... b... o n d... w... '... e... q... u... i... d... b... i... m... i... n... g... o... u... n d... n... d... e... n... o... n... e... g... u... e... d... u... b... n... c... i... a... e...  
 ...s... o f... e... s... o d u c... -... r... a... f... f... o... e... q... u... i... n... i... n... d... u... e... d... i... n... g... e... o f... n... e... n... c... o u g...  
 ...e... n... i... u... s... c... i... n... W... c... o... n... j... e... n... i... d... n... i... f... e... m... k... u... o f... a... 7... e... c... n... b... m... o f...  
 ...i... d... i... c... .





# Make

Apple's Supplier Code of Conduct is designed to ensure the production of our products in a way that respects the environment and the well-being of our suppliers' employees and the communities in which they operate.

We work with our suppliers to identify and work to reduce the environmental impact of our products. Our suppliers are required to follow the Apple Supplier Code of Conduct, which includes the following requirements:

## Greener chemicals

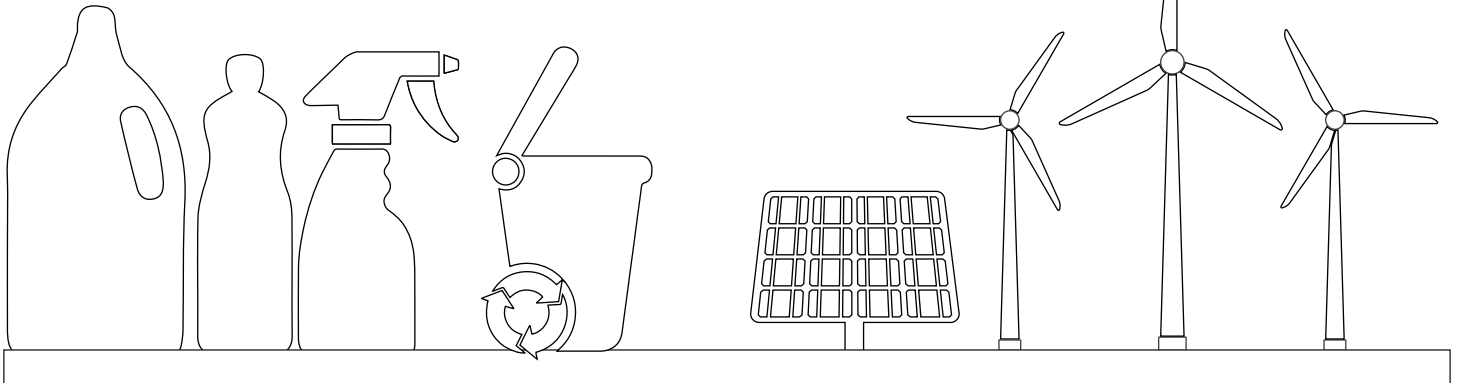
Apple is committed to reducing the use of hazardous chemicals in our products. We are working with our suppliers to identify and eliminate hazardous chemicals from our products. We are also working with our suppliers to identify and eliminate hazardous chemicals from our products.

## Zero Waste to Landfill

Apple is committed to reducing the amount of waste sent to landfill. We are working with our suppliers to identify and eliminate waste from our products. We are also working with our suppliers to identify and eliminate waste from our products.

## Supplier energy use

Apple is committed to reducing the amount of energy used in our products. We are working with our suppliers to identify and eliminate energy from our products. We are also working with our suppliers to identify and eliminate energy from our products.





# Package and Ship

iPad Air (5th generation) packaging is made with 100% recycled cardboard and 36% recycled wood fiber.

Using recycled cardboard and 36% recycled wood fiber in our iPad Air packaging is a key part of our commitment to reducing our carbon footprint. Our packaging is made from 100% recycled cardboard and 36% recycled wood fiber. We use recycled cardboard and 36% recycled wood fiber in our iPad Air packaging.<sup>1</sup> This is a key part of our commitment to reducing our carbon footprint.

**97%**

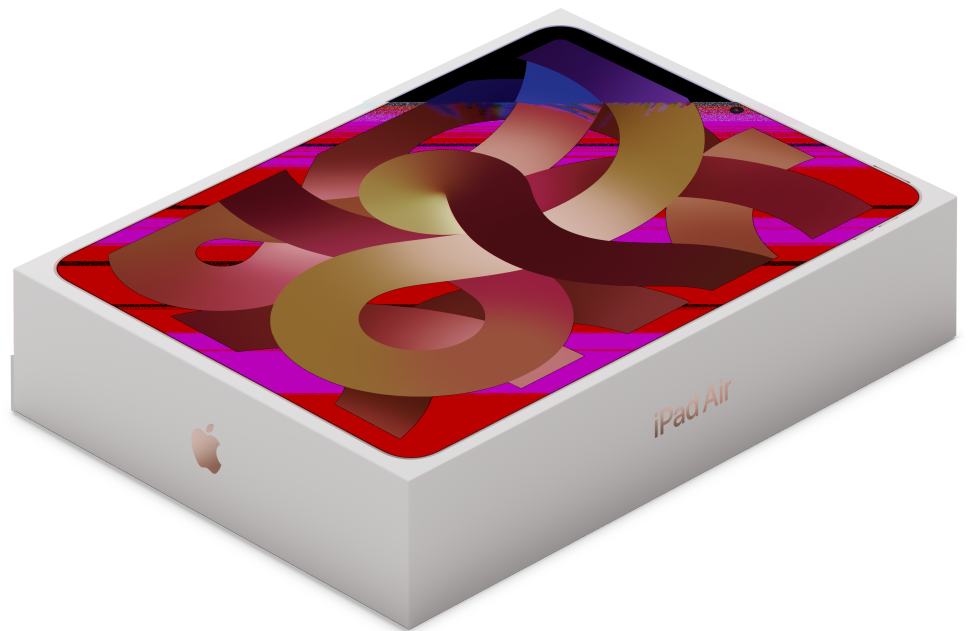
of iPad Air packaging is made from 100% recycled cardboard and 36% recycled wood fiber.

**36%**

of recycled cardboard in iPad Air packaging.

**100%**

of recycled wood fiber in iPad Air packaging is made from 100% recycled cardboard and 36% recycled wood fiber.





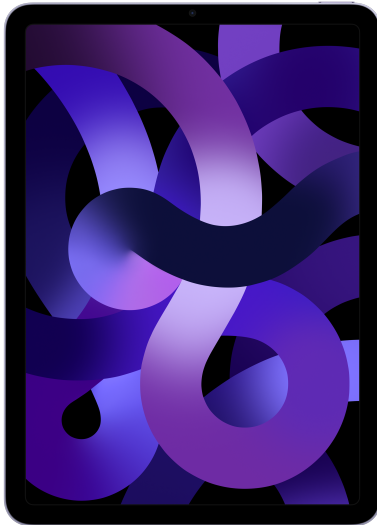
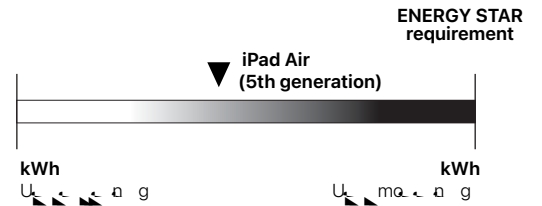
# Use

Designed for long-term use, our energy-efficient design helps you get the most out of your iPad Air. <sup>12</sup>

With our advanced power management technology, iPad Air is designed to last. It's built to last, so you can use it for years to come. And with our advanced power management technology, iPad Air is designed to last. It's built to last, so you can use it for years to come.

## Energy consumption of ENERGY STAR-rated products

ENERGY STAR is a government-backed program that promotes energy efficiency. It's a way to help you save money and protect the environment. ENERGY STAR-rated products are designed to use less energy than standard products. This means you can save money on your energy bills and help reduce your carbon footprint.



## Designed to last

With its durable aluminum unibody construction and advanced power management technology, iPad Air is designed to last. It's built to last, so you can use it for years to come.

## Made with smarter chemistry

With its advanced power management technology, iPad Air is designed to last. It's built to last, so you can use it for years to come.



# Recover

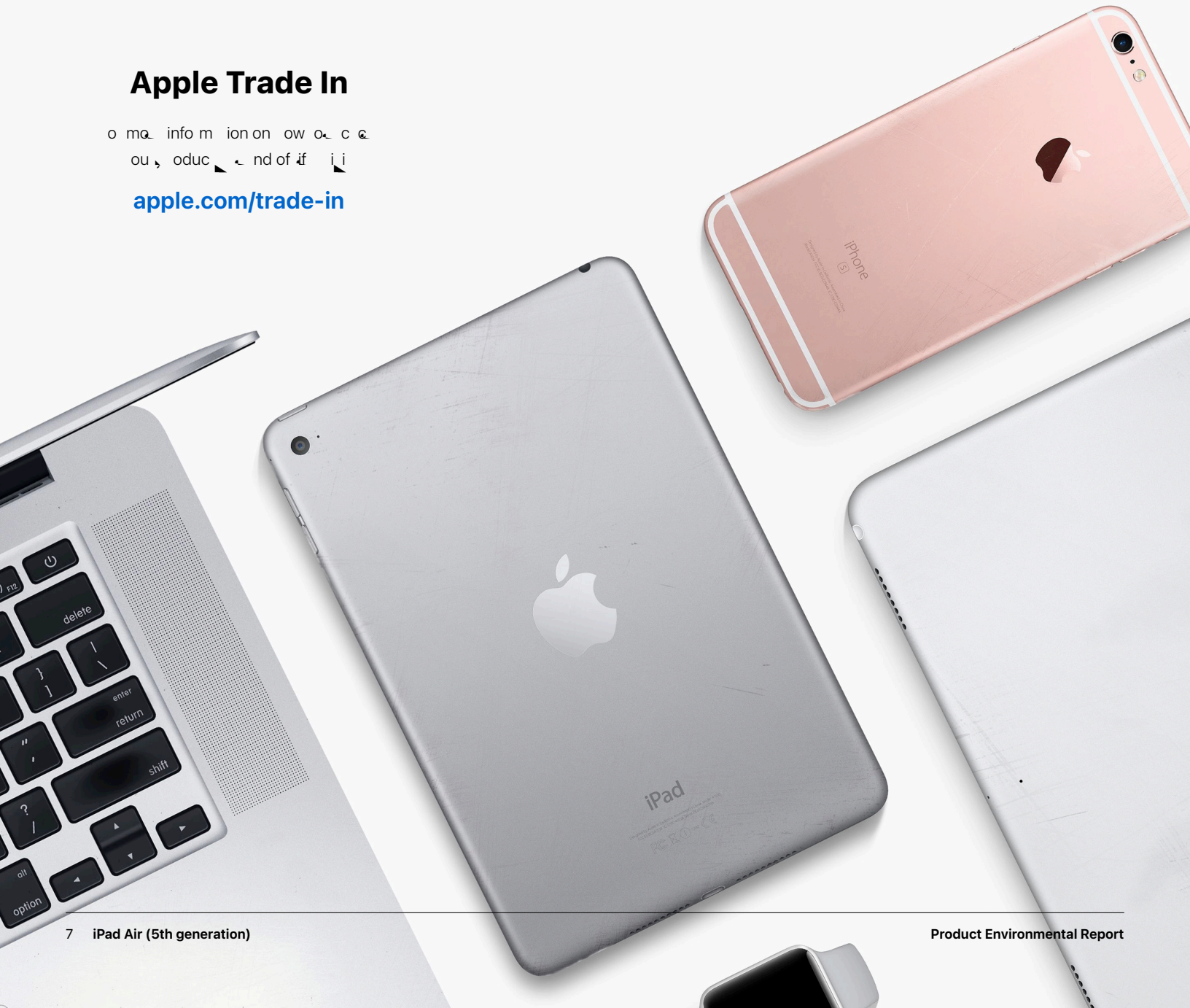
Recovery of products is a key part of our environmental strategy. We aim to recover as much as possible from our products at the end of their useful life.

We are committed to recovering as much as possible from our products at the end of their useful life. This includes recovering materials and components from our products, as well as recovering energy from our products. We are also committed to recovering as much as possible from our products at the end of their useful life. This includes recovering materials and components from our products, as well as recovering energy from our products.

## Apple Trade In

For more information on how to trade in your old Apple products, visit [apple.com/trade-in](https://apple.com/trade-in)

[apple.com/trade-in](https://apple.com/trade-in)



# Definitions

**Bio-based plastics:** io-b e d s ic e m d f om bio ogic ou c e n f om fo i-fu ou c io-b e d s ic ow u o e duc e i nc on fo i fu

**Carbon footprint:** E im e d m i ion e c cu e d in cco d nc wi guid ia nde qui ra n e cifi d b IS 14 4 nd IS 14 44. e e i in e n unc in in mod ing c bor m i ion du s im i o d im i ion o e q con o n con ibu o a s s e ' c bor m i ion s s e dd e i unc in b d e q ing d i d s oc b e d n i on r n mod wi s s e e cific, r e o e e m ining e r n a f s s e ' c bonfoo s in w e on indu e g d nd um i ion. C cu ion in c ud e m i ion fo e fo owing if c e s e con ibu ing o Gob W ming a n i GW 1 e ) in C e qui e nc f co ( e )

**Production:** Inc ud e e c ion s oduc ion nd n o ion of w m e i w e m nuf cu e n o nd e mb of s nd s oduc s ck ging.

**Transport:** Inc ud i nd e n o ion of e fini e d s oduc nd i oci e d s ck ging f om m nuf cu ing i o e gion di ibu ion ub e n o of s oduc f om di ibu ion ub e nd cu ora i mod e du ing e g di nc b e d on e gion g og s .

**Use:** s s e um e e -o fou e e iod fo s ow u b fi owa b e d on e s oduc e . oduc u e c n io e b e d on i o ic cu ora u e d fo im i s oduc . Ea g u e i im u e d in iou w fa e m e b mod ing

d i b e d in o oug e fo ming c i ki ik mo j nd mu ic s b ck. G og s ic diff e nc in e s ow g id mi e b e n ccour e d fo e gion e e .

**End-of-life processing:** Inc ud n o ion f om c e c ion ub o e c cing c r nd e e a g u d in r a c nic s s ion nd e dding of, o m e info m ion on e c bonfoo s in i i s s e . [www.apple.com/environment/](http://www.apple.com/environment/)

**Recycled materials:** R c cing m k b e u e of fini e ou e b ou cing f om e c e d e n mia d m e i . R c e d cor n c im fo m e i u e d in ou s oduc e b e n e i d b n ind e nd n i d s o e c e d cor n nd d confo m o IS 14 21.

**Renewable materials:** W d fia bio-m e i o e c n b e g a e d in um n if e n ik s e fib o ug c a . io-m e i c n e s u u e f w fini e ou c . u e n oug bio-m e i e e bi i o e g ow e e no w m n g d e on ib . R a w l e m e i e e of bio-m e i m n g d in w e n l e con inuou s oduc ion wi ou d s e ing e e ' e ou c e w w focu on ou c e c i d i d fo e i m n g r n s c ic e

**Supplier Clean Energy Program:** Sinc e e e c i c i u d o m k ou s oduc i e g con ibu o o ou a c bonfoo s in w l e s ingou u s i b cor m e a g e ffi e n nd n i ion o a w e a w l e a g ou c . W l e commi d o n i ioning ou e n i m nuf cu ing u s c in o 1 e c n e a w l e e c i c i b 2 3 .

# Endnotes

<sup>1</sup> s s e d fia i e ic ion on mfu ub nc including d fini ion fo w s s e con id o b "e e of" in e s s e R gu e d Sub nc s s e cific ion. E e s s e s oduc i e e of C nd s e e c s fo C s ow co d in Indi i nd fo 2 s ong. C s ow co d ) nd Sou s a w e e w con inu o e e k g e n r n s s o fo ou C nd s e e s c r n s s e s oduc con s wi e Eu e n Union D e c k 2 11) /EU nd i r a nd r n including e m i ion fo e u e of d uc ig e m e u o d s s e i wo king o s e ou e u e of e e e m e d ub nc w e e c nic s o i l e .

<sup>2</sup> i d i e g a ion) c d e d God ing in e Uni d S e nd C n d in cco d nc wi IEEE 1 8 .1 o U 11 nd i j e d u c on e e c onic oduc En ion r n e e r n o o ( E E ) R g j . E E e g e con u e di e nd mobi s o a b e d o r n i on r n e qui ra n in e e nd d e o m e info m ion i i [www.apple.com](http://www.apple.com) .

<sup>3</sup> G e n ou g e m i ion w e c cu e du ing if c e e r n r a odo og in cco d nc wi IS 14 4 nd 14 44 nd d nd b e d on i d i e g a ion) nd d configu ion wi e 4G o g . W o e n u d e ou c bon mod e e g a w info m ion e u ou e im e fo e c bonfoo s in of e s e iou g a ion-i d i e g a ion) wi e 4G o g configu ion-ina e d f om 82 kg C e e ubi e d in i oduc En ion r n R s o ) o 88 kg C e .

Carbon footprint		
	iPad Air (5th generation)	iPad Air (4th generation)
64G	8 kg C e	88 kg C e
128G	84 kg C e	-
256G	122 kg C e	122 kg C e



# Endnotes

4 i d i (A g a ion) w u d fo com i on e mo e c n e e d nd imi d ic . e s oduc ion i d i (A g a ion) nd d configu ion wi 4G o g w com e d o i s ingi d i (A g a ion) nd d configu ion wi 4G o g configu ion inc e e e e wo ow o g configu ion off e d.

W m s m e i in ou u s c in nd s ubi i of id n i f i d in n um ung e n nd god (B G) cob nd i um ra e nd e fia in ou u s c in i d s ra n e k o confi m ou cing s c ic nd e s of ou e s on i la ou cing s og m. In ddi ion ou e ffo con id b o d ng of i k including oci e n ion n n um n ig nd go n n c i k.

6 R c e d m e i c im s s i o e n c o u nd i b e d on u di ing do a b U C.

7 C mic ra e G e n S e e n b n c m k 3 o 4 o o e e qui e n r a o do ogi i k U.S. E S f C oic e con id e d f nd s e f e d fo u . G e n S e e n i com e e n i e d e ra n o o e u e ub n c g in 18 diff e n c i i . o m a e i n f o m i o n i i [www.g-n-e-n-c-mic-o-g](http://www.g-n-e-n-c-mic-o-g).

8 e b i e d fin e mb u s i i o o e e b e n s s e u s i fo m a n o a e - fo i d i (A g a ion) e i d s e i f i d e o W e b U C ( 2 7 2 9 S nd d). U e qui e e c n d e ion ou g ra od o e n w e a a g o c i e e o W e o nd f i e e c n God e c n nd inum 1 e c n ) d ign ion.

9 R s on i la ou cing of wood fib i d fia d in s s e ' S u in la i b S e cific ion. W con id wood fib o incud b mboo.

10 m a e i n f o m i o n bou ou wo k o s a e c nd a e e e on i b m n g d fa e e d ou [En i on n o g R o](#).

11 e kdown of U.S. i s ck ging b w ig . S e c non s ic non-fib m e i e c ud d.

12 E a g con um ion nd a g e f f i a i n c u e b e d on e ENERGY S R og m R qui ra n fo Com u including e m e a g ow n c fo i d i (A g a ion). o m a e i n f o m i o n i i [www.a-g-go](http://www.a-g-go). ENERGY S R nd e ENERGY S R m k e e g i e d d m k o w a d b e U.S. En i on n a e c i o n g n c .

i d i (A g a ion) i e e d wi fu c g d b e nd s ow e d b e 2 W US -C ow d s e wi e US -C o C g C l a ( m).

→ S e s ow ow e i e r e d u o m i c e w o m i n u of in c i i d f u ) o b s e i n g e S e s / W k bu on. Con a e d o Wi- i o e e i n g w e e f in e i d f u e e .

→ I d -D i s on D i s big a w e d fia d b ENERGY S R og m R qui ra n fo Com u nd u o- ig a w u a d off. Con a e d o Wi- i o e e i n g w e e f in e i d f u e e .

→ ow d s e no-o d Con d i o n i n w i c e 2 W US -C ow d s e wi e US -C o C g C l a ( m) i con a e d a C s ow bu no con a e d o i d i (A g a ion).

→ ow d s e e f f i a i n c e g of e 2 W US -C ow d s e wi e US -C C g C l a ( m) ra u d f f i a i n c w e n e e d 1 e c n 7 e c n e c n nd 2 e c n of e s ow d s e e d ou s u c u e n .

Power consumption for iPad Air (5th generation)			
Mode	100V	115V	230V
S e s	.44W	.44W	.42W
I d -D i s on	3.3W	3.3W	3. W
ow d s e no-o d	. 4W	. 4W	. W
ow d s e e f f i a i n c	80.8	87.0	87.8

13 \_ d -in u b e d on e con d i o n e nd configu ion of ou d -in d ic nd m o b w e n on i a nd in- a d -in. You mu b e 18 e o d. In- a d -in e qui e s e n ion of id go n n a n i u d s o o D o c w m e qui i n g i n f o m i o n ) d d i o n e m f o m s s e o s s e e d -in s a m s s .

© 2 2 2 2 Inc. i g e e d s s e e s s e o g o . c e . c o g o i o a i d s s e W c H o r a o d s s e \_ i S i d S m c S S nd w c S e d m k of s s e Inc. e g i e d in e U.S. nd o e coun j nd e gion i d i (A g a ion) i d m k of s s e Inc. s s e S e i e ic m k of s s e Inc. e g i e d in e U.S. nd o e coun j nd e gion ENERGY S R nd e ENERGY S R m k e e g i e d d m k o w a d b e U.S. En i on n a e c i o n g n c . e s oduc nd com n n ra ra n i o a d e e in m b d m k of e i e e c k com ra i .