Report on Apple Waste management

A Project report

Submitted in partial fulfillment of the requirements for the award of degree of

B.Tech

(CSE)

Submitted to

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Student Declaration

To whom so ever it may concern I, Sandeep Kumar, 11902180, hereby declare that the work done by me on “Apple Waste Management” from June, 2020 to August, 2020, is a record of original work for the partial fulfillment of the requirements for the award of the degree, B.Tech.

Sandeep Kumar (11902180)

Dated: 30 August 2020

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Introduction

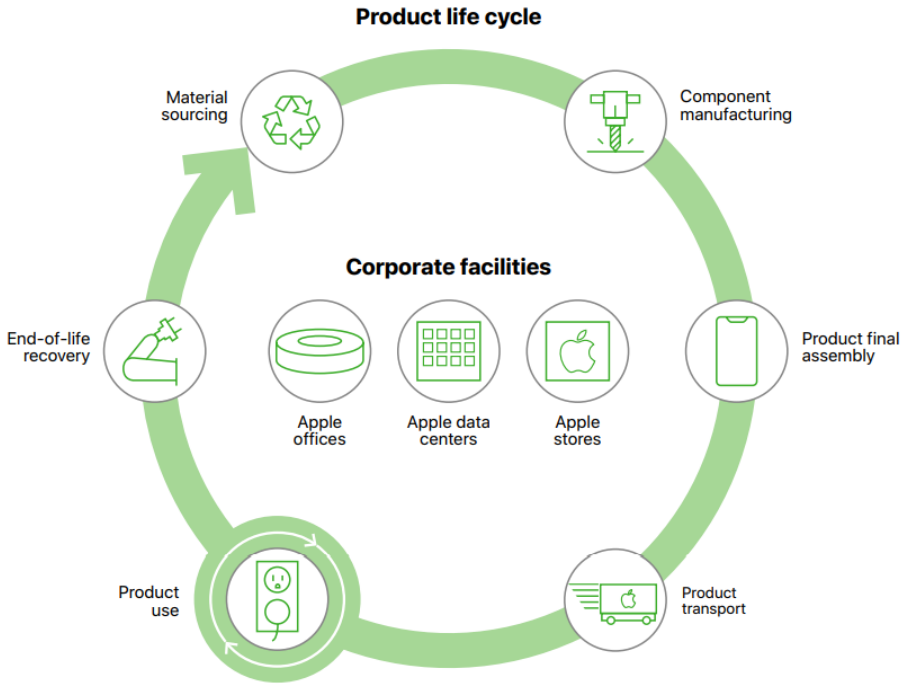
The responsibility to protect our planet intersects every aspect of our lives. This year has offered humbling reminders that nature is bigger and more powerful than any one of us.

Apple is the America's Most valuable company when it comes to revenue. Considering its huge infrastructure the waste produced by Apple by is also huge According to a Report Published by Apple it produces 18000 Tons waste Every year. In recent years countries around the globe has become very concern about Nature and moving at rapid pace towards the Sustainable Development. So Apple has also committed to carbon neutrality for supply chain and products by 2030. Already carbon neutral for its operations, Apple is unveiling a roadmap to achieve zero carbon for its supply chain and products by 2030.

Source : Apple Website

Responsibility Towards Nature

Apple has a history of channeling innovation to address global challenges. That task has never been more urgent than now, with the existing threats of climate change and environmental degradation that our planet faces. Apple believe they can make the world's most iconic products without depleting the earth's resources. That's why they take responsibility for the impact of their entire value chain, including the complete life cycle of our products, as well as our own facilities. This includes supporting the environmental innovation needed to help to meet their goals, and creating economic opportunities for minority owned businesses and institutions that have been historically disadvantaged. By doing so, they hope to build pathways for others to reduce their footprint while addressing environmental impacts.



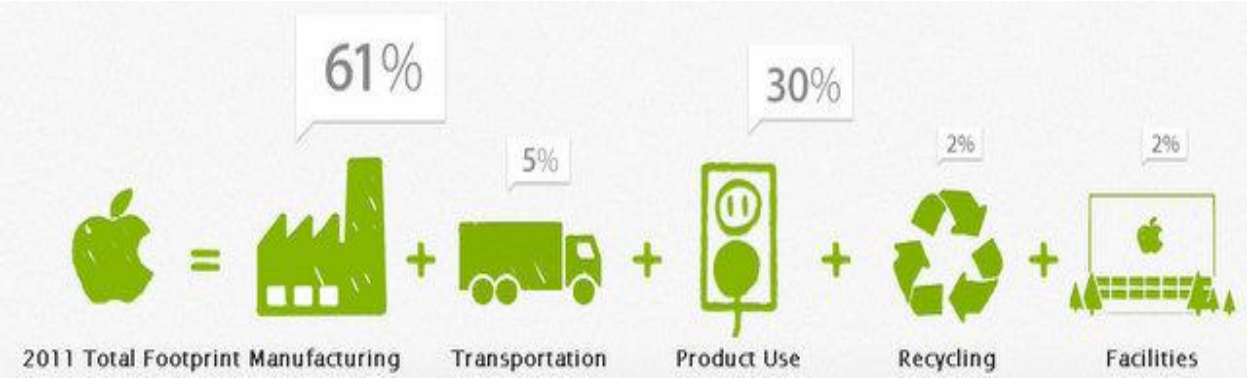
Source : Apple website

This is what Apple states on its website. This commitment might be true or not, but there is evidence that there is still a huge gap between this statement and the execution. The most famous example is the investigation at Foxconn, a big supplier of Apple, where the Fair Labor Association “found excessive overtime and problems with overtime compensation; several health and safety risks; and crucial communication gaps that have led to a widespread sense of unsafe working conditions among workers.” Additionally Apple claims that they go beyond the industry standard in their manufacturing process – this might seem to be great, but if one knows how the standards are now with low wages and plenty of working hours this is not enough.

Looking on the environmental side, Apple seems to be very transparent about its commitment to reduce the environmental impact of its products. This ranges from the non-use of hazardous materials to the calculation of the carbon footprint and less packaging. Additionally it aims to design its products to be as energy efficient and recyclable as possible. This has benefits for the environment and for the company and Apple should be acknowledged for this effort. These actions towards a greener company are well recognized amongst the customers, as stated in a survey by TDG in 2008, where 1512 internet users rate Apple as the most environmentally friendly technology brand.

In contrast Greenpeace rated Apple 11th out of 17 rated companies in its Guide to Greener Electronics 2009. This created a gap between the perceptions of the customers and the reality. This gap is quite dangerous, because in case the perception of the customers is revealed to be untrue this would cause a huge damage on Apples reputation. The company already works hard to close the gap and went up five places in the Guide to Greener

Electronics of Greenpeace from the ninth to the fourth place in 2011



Source : Eoi

Still, after some research, Apples CSR activities seem to be more reactive than proactive and especially in the environmental sector due to pressure of environmental groups. According to some resources Apple lacks behind the CSR activities of its competitors, this is most probably because of the former CEO Steve Jobs, who valued the best technology for people more than random donations to charities (Chun 2011). Random donations to charities which Jobs did not like are not CSR for me neither, CSR is not how much money a company gives to the community, CSR is HOW a company makes business. And here is room for improvement

The current situation of Apple is the chance of CEO Tim Cook to develop and introduce a proper CSR strategy. The strategy needs an innovative and inspiring vision which is aligned with the core values of the company and serves the cool image the company worked hard on. It needs to promote trust and openness internally and implement a continuous stakeholder dialogue to ensure the survival of the brand. Nobody wants to own products which are related with inhuman working conditions. Apple is highly innovative and should use its skills for social innovation. They have the potential to come up with innovative solutions for global challenges. Apple should not miss the possibility to become an innovator in CSR activities and to set a new standard in the technology sector with a cool sustainability vision. It's time for a green Apple!

Apple Labor Relations

The Apple Supplier Code of Conduct strictly prohibits the use of any form of slave, forced, bonded, indentured, or prison labor, as well as underage labor. Furthermore, no supplier or subcontractor may require employees to surrender identification or work permits at any time. InTouch compliance auditors are adept at determining the presence and severity of such ethical infractions during thorough factory audits and individual employee interviews. In order to ensure adherence to Apple's Code, InTouch auditors will work with your suppliers and subcontractors to restructure their workforce as well as return withheld documentation to employees.

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Source : Foxconn

Apple Health and Safety

Employee safety is of top concern, and a number of provisions in the Supplier Code of Conduct require that workplace safety standards are upheld. Apple requires that physical hazards are mitigated through the use of physical guards, interlocks, and barriers where possible; that exposure to hazardous chemical, biological, and physical agents is eliminated or minimized through the use of closed systems and proper ventilation, and that all employees receive free access to personal protective gear at all times.

During factory audits, InTouch compliance auditors will identify the presence and maintenance of all required safety equipment and systems.

Where this equipment is lacking or poorly maintained, or employees are not adequately trained to use them, InTouch will coordinate with you suppliers to encourage their installation and education of employees.

Source : Images.Apple

Apple Environmental Protection

In order to minimize the impact of the manufacture of Apple products, the Apple Supplier Code of Conduct specifically addresses environmental concerns. According to the Code, all suppliers and subcontractors must abide by applicable laws concerning the safe handling, movement, storage, recycling, reuse, and disposal of hazardous materials. Likewise, suppliers are required to monitor, control, and treat air emissions of volatile organic chemicals, aerosols, corrosives, particulates, and ozone-depleting chemicals before discharging them in accordance with applicable laws.

Finally, Apple suppliers must obtain and keep current all required environmental permits for their operations. InTouch compliance auditors will identify unsustainable practices that can damage the environment, as well as verify the legitimacy and currency of all waste disposal records and permits during each audit. If environmental infractions are discovered, InTouch auditors will work closely with your suppliers to discontinue the unsustainable methods of waste disposal, and implement environmental best practices for the handling of these materials.

Apple Manufacturing Unit (China)

Apple Business Integrity

The Apple Supplier Code of Conduct requires suppliers and subcontractors to maintain the same level of business integrity as Apple itself. This strictly prohibits all forms of corruption, embezzlement, extortion, and bribery, as well as the forging, destruction, or withholding of business records. Thorough record auditing allows InTouch compliance auditors to identify financial discrepancies that may signal unethical business practices prohibited by the Supplier Code of Conduct. If such behavior is identified, our compliance auditors will work to educate your suppliers about, and implement, record keeping best practices to eliminate such behavior.

Source : Integritysolutions

Annual Waste Production

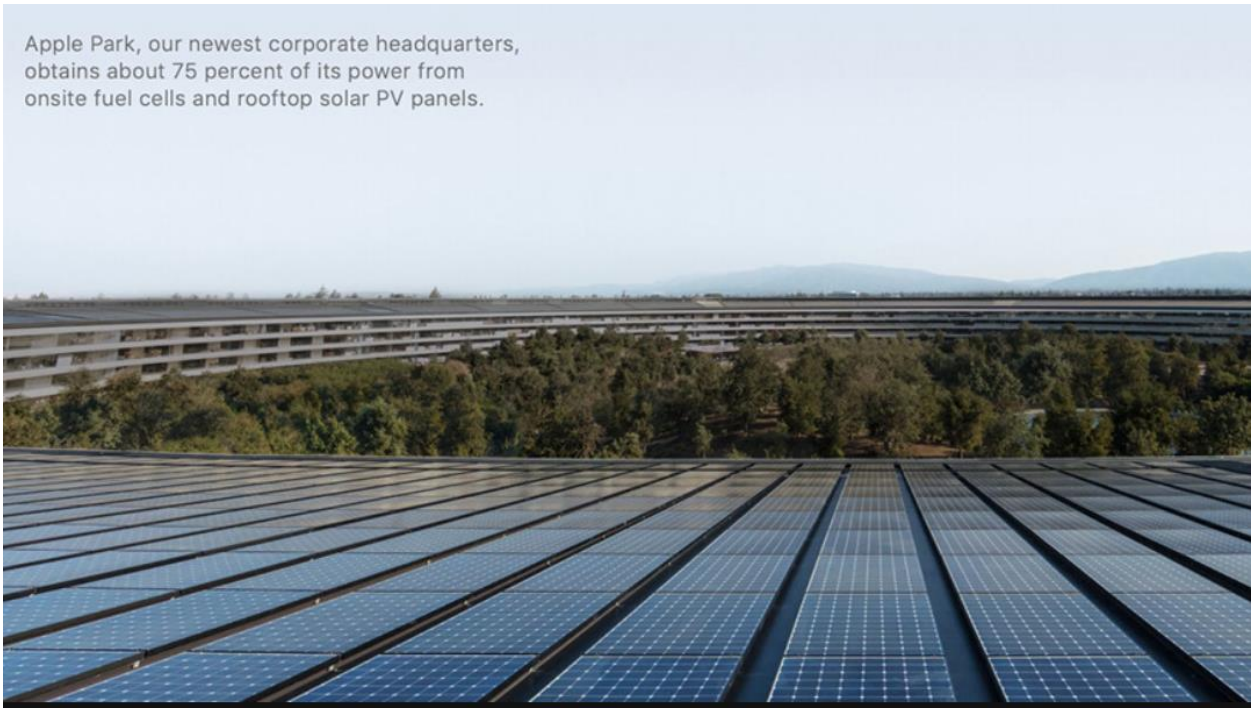
The inherent problems with mobile technology

Smartphones are endemic of a much larger problem. Apple is not even close to fully responsible for the damage that consumer electronics have done to the environment.

Apple consistently ranks highly among companies who are trying to mitigate the environmental damage that comes with manufacturing consumer electronics. In 2017, Greenpeace gave Apple a green electronics rating of B-, which is significantly higher than Huawei, who received a D, or Samsung, who received a D-.

The problem lies in the quantity of devices that are manufactured. More than 1.5 billion smartphones are expected to be produced every year, and only a portion of them will be an Apple product. For any real environmental damage to be reduced, all electronics producers will need to start adopting less damaging practices.

Carbon footprint



Every electric company is a little different at this point, but they all work more or less the same: You check the box, you pay your electric bill, and part of that electric bill funds research and development projects for your area's renewable energy program.

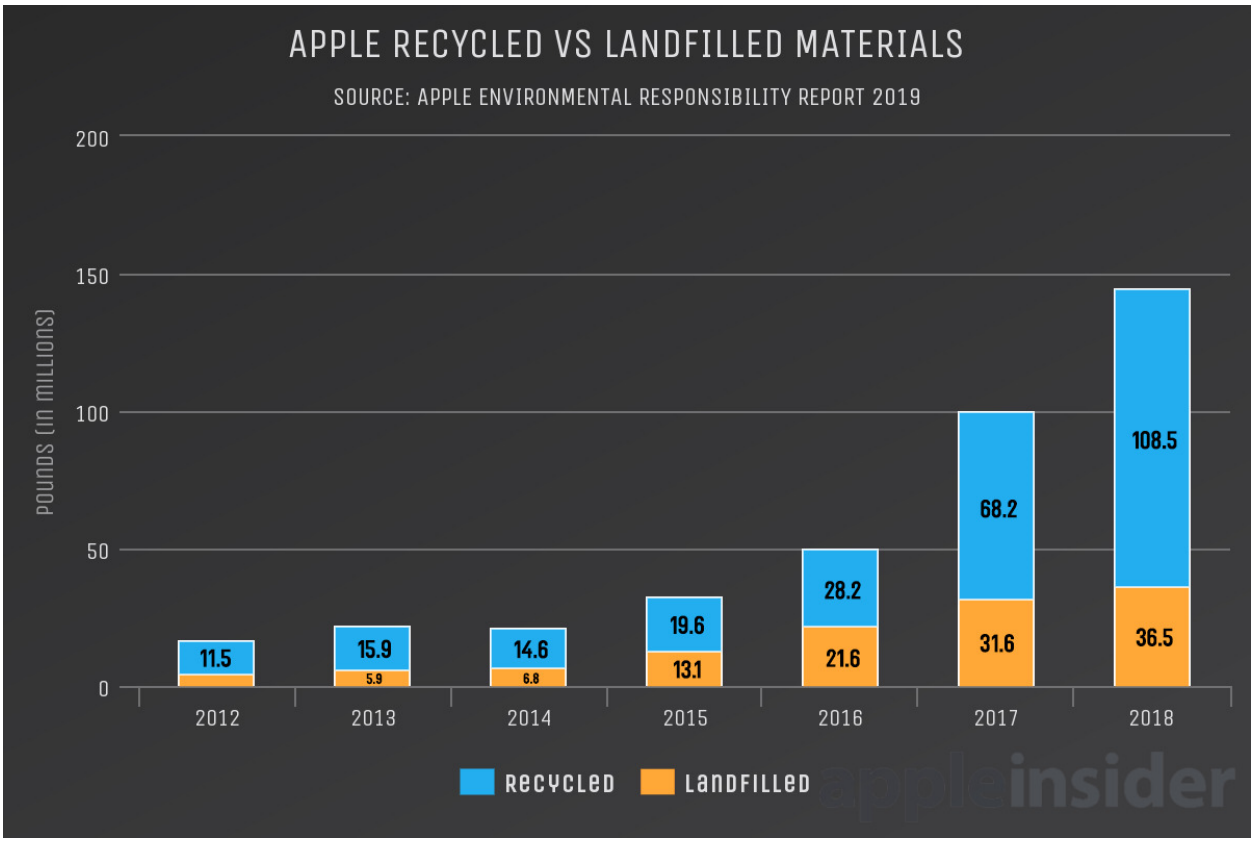
Apple has a lot of money and resources. Apple can purchase land that they can build solar and wind farms on. Apple can install highly efficient solar panels on the roof of its corporate offices to help offset the need for fossil fuels.

In doing this, Apple has managed to source 99 percent of its electricity from renewable resources, preventing about 690,000 metric tons of carbon emissions from going into the environment. For comparison, in 2012, only 60 percent of their electric was sourced from renewable resources.

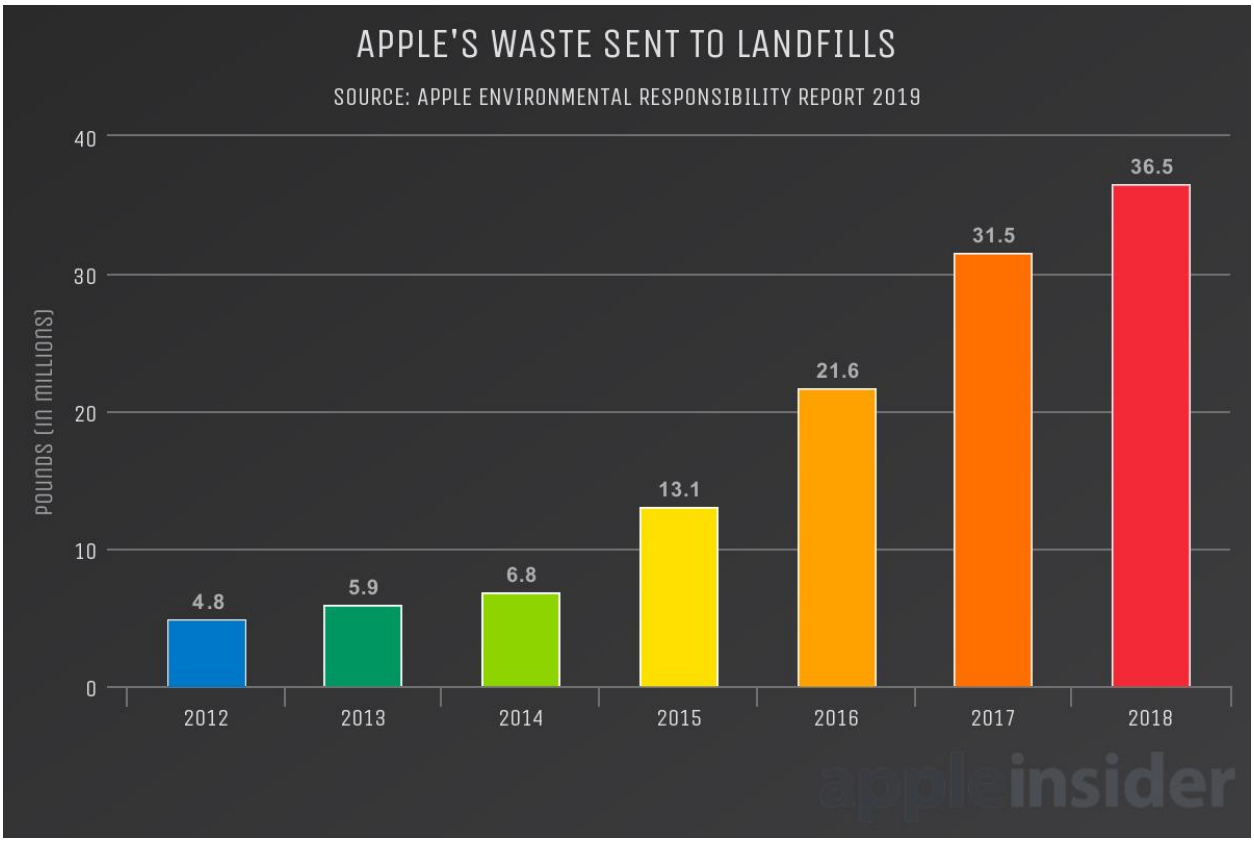
Waste Recycled

Apple released its last Environmental Responsibility Report in April of 2019, offering a glimpse into how the company is making strives to become environmentally friendly. The report shows some impressive figures, giving many Apple fans and environmental advocates hope for a brighter, more ecologically sound future.

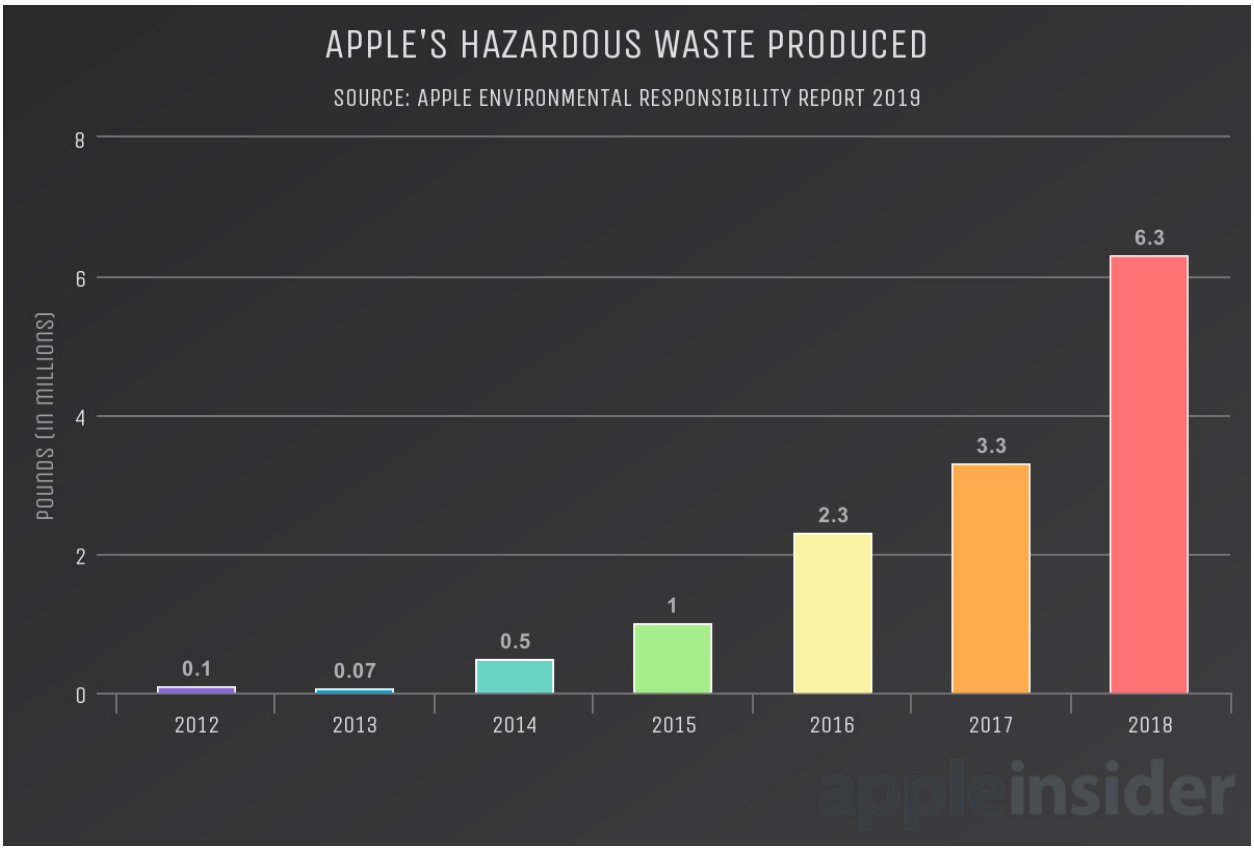
But, there's a lot more behind the numbers and figures that Apple presents.



If we look at the data provided by Apple on their recycled versus landfilled materials, it gives the picture that Apple has removed a lot of potential waste from landfills. This is absolutely the correct takeaway from the data, but it also doesn't highlight a bigger problem Apple is producing considerably more waste than they have been in past years.



In fact, in 2012, Apple sent just over 4.8 million pounds of waste to landfills. By 2015, that number rose to over 13 million pounds. In 2018, Apple had sent 36.5 million pounds — or 18,250 tons — of waste to landfills.



And that's just the waste that they could send to landfills. As the chart above shows, Apple's hazardous waste has nearly doubled from 2017 to 2018. it's clear that Apple still has a lot of room for improvement in reducing hazardous and landfilled waste.

A few weeks ago, Apple released its 2020 Environmental Progress Report. it's impressive to see just how much time and money Apple is putting into its environmental efforts. We think of Apple as a technology company, but it's doing more than many organizations.

Practical solutions to practical problems

Even with their best efforts, the manufacturing of electronics is inherently environmentally detrimental. Around 80% of the carbon emissions made caused by electronic devices are produced during the manufacturing process, according to Greenpeace.

The only real solution to lessening environmental impact in a substantial way is for a company to stop producing products at unsustainable rates.

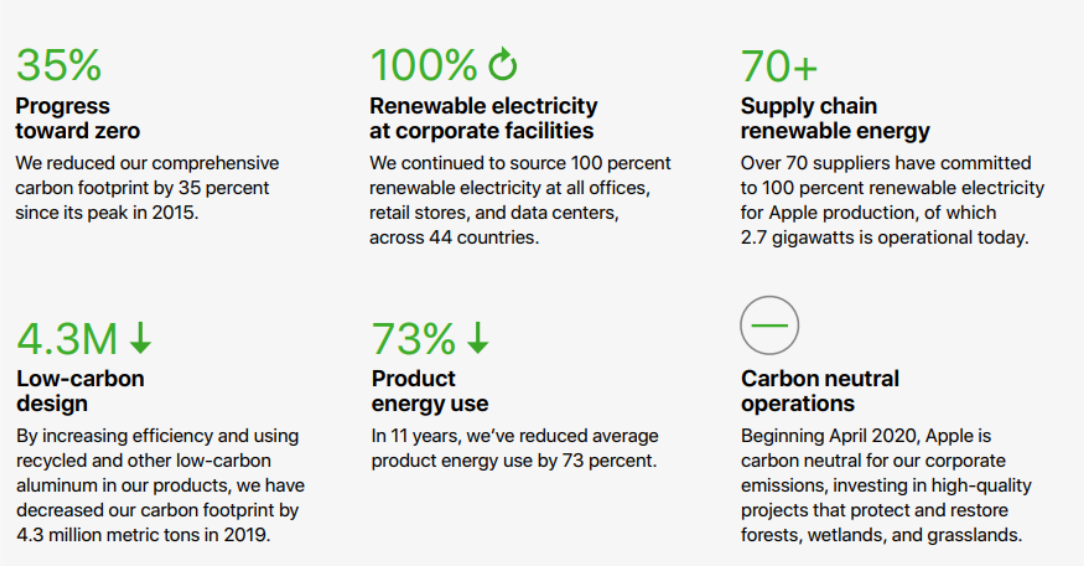
There isn't a glut of Apple products sitting on shelves, forever unused. Given that Tim Cook fixed Apple's supply and demand problem, leading him to be crowned the CEO, the company does an excellent job with on-demand device fabrication, and this keeps surplus and unused stock to a minimum. But the fact still remains that the company has produced billions of devices in its lifetime, and each one of those has an environmental impact.

The practical solution is for consumers to simply purchase phones and computers more infrequently, because reusing the same phone for multiple years greatly reduces environmental impact in a chain of events that leads to the manufacturing company making fewer. From a consumer standpoint, it can be hard to pass on the newest features, especially when carriers let you switch phones as frequently as every two years.

Apple’s Environmental Progress So Far

Apple’s stores, data centers, and offices in 44 countries are powered with 100% renewable energy, much of it generated by Apple-driven solar, wind, hydro, and biogas installations. Even better, over 70 of Apple’s suppliers have committed to using only renewable energy for producing Apple products. As of April 2020, Apple is carbon neutral for its corporate emissions, thanks to investments in projects that protect and restore forests.

Apple has also reduced its use of plastics in packaging by 58% over the past 4 years, and all of the paper used in packaging comes either from recycled sources or responsibly managed forests. Through partnerships with The Conservation Fund and the World Wildlife Fund, Apple says it has improved the management of more than 1 million acres of working forests in the United States and China.



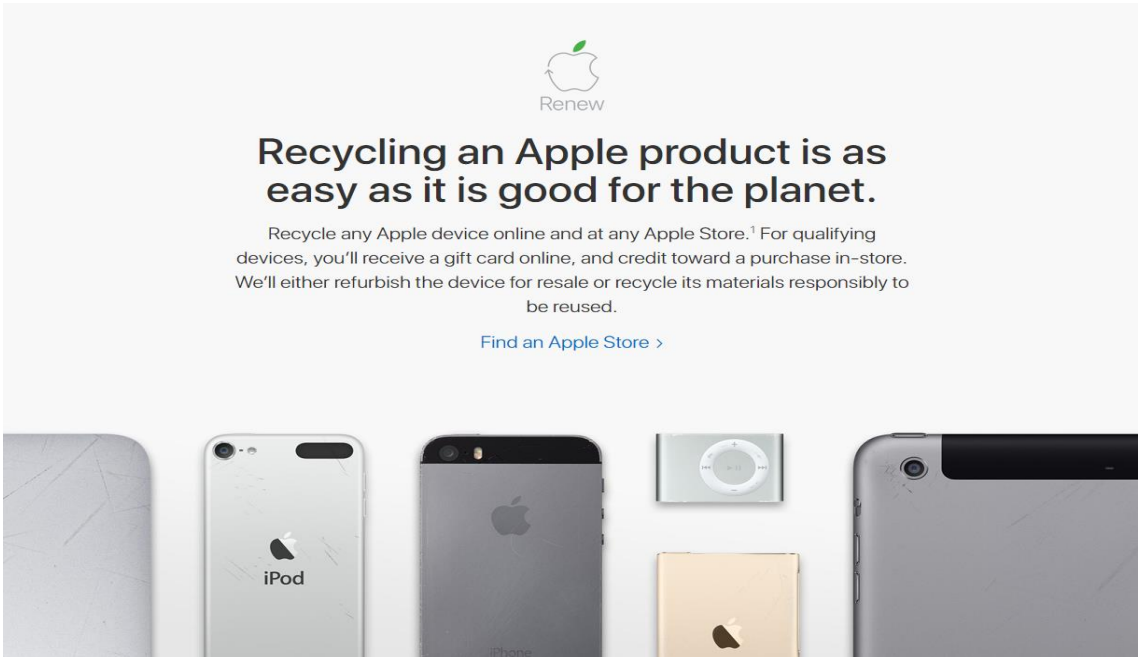
Source : Apple Report 2020

Apple’s Environmental Goals

As impressive as these achievements are, they will sure help Apple in long run

By 2030, Apple wants to be carbon neutral across its entire footprint, meaning that it will take into account the carbon impact of the entire lifecycle of its products. That will require low-carbon designs, increased energy efficiency, transitioning its supply chain to 100% renewable energy, avoiding direct carbon emissions, and scaling up investments in carbon removal projects.

Apple wants to work toward using only recycled and renewable materials in both products and packaging. There’s no time frame on that ambitious goal, but the company does say that it’s trying to eliminate all plastics in packaging by 2025.



Source : Apple Website

Apple’s Environments of Scale

My first thought was that Apple must be spending billions on these efforts. As far as I can tell from the Environmental Progress Report and Apple’s financial filings, the company never says exactly how much. However, it does trumpet the fact that it has issued 4.7 billion in “green bonds,” which are fixed-income investments whose proceeds must go to specific environmental projects. Apple also claims that it is the largest corporate issuer of green bonds, though I’m not financially savvy enough to know why it would want to issue bonds rather than financing environmental efforts directly.

I suspect that Apple can do all this for the environment in large part because it makes so much money. Scale is important here when we were running Take Control Books, we donated 0.25 per print-on-demand copy sold to a charity that planted trees. I don’t remember the total amount we ended up donating, but it was a drop in the ocean compared to what Apple is doing.

Reading about Apple’s environmental achievements and goals makes me feel better about Apple’s traditionally high prices. We all have different thresholds, I’m sure, for how much more we’re willing to pay to ensure that a manufacturer isn’t engaging in horrible behaviors like forced child labor or egregious pollution. With Apple, it’s clear that some percentage of the purchase price goes to deeply considered and carefully analyzed reductions in environmental impact. I’m willing to make that tradeoff for devices that I use all day, every day.

Apple’s Takeback Programs

Apple Recycling

Apple offers a recycling program that makes it quite easy to get rid of your device in an environmentally-friendly way. Even better, the program is free. Products can be recycled in an Apple store or online at apple.com through the trade in program.

In general, it’s a simple three-step process:

1. Back up your device. That way you still have all of your content and data, even after you hand off your phone or another device.
2. Erase the data from your device. Getting rid of the personal information on your phone or other device ensures that no one else has access to your data.
3. Use the provided shipping label and ship the device off to the provided recycling partner.

Apple Trade In Program

The crown jewel of Apple’s recycling programs, however, is the Apple Trade In Program. With the trade-in option, you can take any of your Apple devices to an Apple store whether you are looking to an upgrade to a new device or simply done with the device you have and potentially get trade-in value for your device.

Even if your device does not any longer have trade-in value (such as might be the case with an early generation iPhone, iPod, or iPad, for instance), you can still recycle it at the Apple store. If you go in person to an Apple Store you will be given credit toward a new purchase. If you are not ready to make a new purchase, but have a device to trade in, you can use the online program and you will receive an Apple Store gift card. The online process take about 2-3 for your gift card to be issued.

And if your device does still have trade-in value, that can mean a fantastic price on your next device. If you're upgrading from the *iPhone* 8 to the *iPhone* XR, for instance, you can with *trade-in* value get the iPhone XR for only $20/month. Similarly, consider the following guidelines:

- iPhone trade-ins are eligible for up to $400 in trade-in value.
- iPad trade-ins are eligible for up to $335 in trade-in value.
- iMac (and other laptops and MacBooks) are eligible for up to $1400 in trade-in value. *Computer trade-in is only available via Apple's online Trade In program*.
- Apple watches are eligible for up to $120 in trade-in value.

Trade-in values will also depend on the condition of your Apple device. A newer model iPhone that has physical damage will obviously not get full trade-in value.

And if your device doesn't have trade-in value, you can still take it into an Apple Store for recycling. And you don't have to go into an Apple Store, either! Simply let Apple know that you're interested in the Trade In Program and they'll provide a prepaid trade-in kit and shipping label; all you'll need to do is the three steps mentioned above.

It’s as easy as that to both get value from your old Apple devices and make a difference for the environment!

Source : Green market

Mail-back Trade In

You can trade in most (but not all) working iPhones, iPads, certain smartphones, and notebooks and desktop computers (Mac or PC) for an Apple gift card. if they have reuse value. Start here to see if

your item has any trade in value. Click on the type of device you want to trade in. You then have 14 days to send the item back, otherwise the trade in quote expires.

Mail-back Recycling

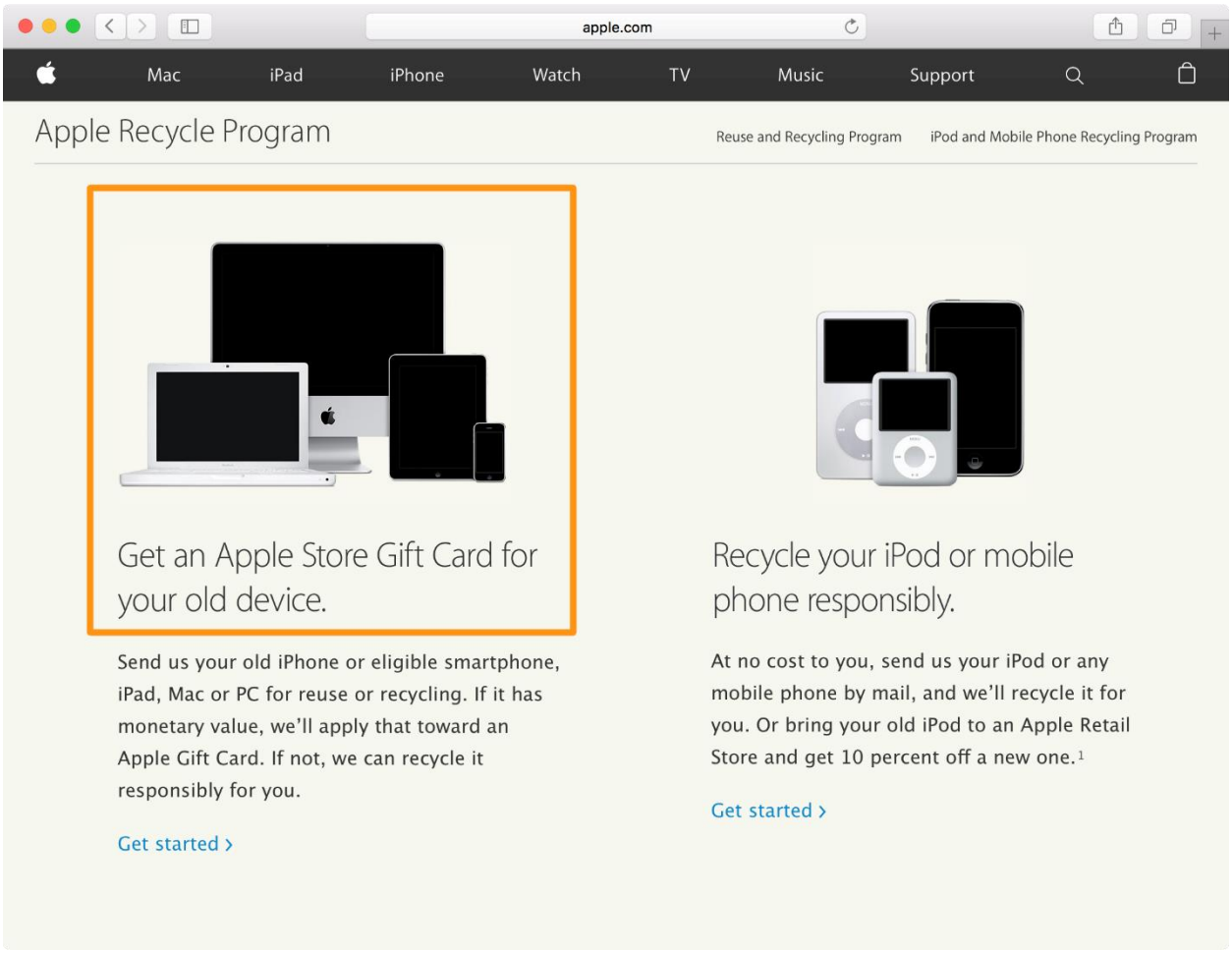
. If your item has no reuse value, you can still send it to Apple to recycle it.
To recycle cellphones and iPods, go here. You can choose whether you want to print out a mailing label (and you pay postage) or have a prepaid mailer sent to you.

For everything else, go to Apple's recycling program page, run by Sims Recycling Solutions. Apple will take any brand of computer and monitor, as well as many other items, for free recycling. You will list the items you have to recycle, and to receive a free prepaid shipping label. Then pack up your equipment using your own box and send it off. You can send up to 10 items (max 70 lbs total) via Apple's mail back program.

Apple has a very strong policy regarding responsible recycling of e-waste, stating that all e-waste collected in their programs is handled in the same region in which it is collected (and therefore not exported to developing countries). They prohibit use of prison labor for recycling, as well as incineration and landfilling of e-waste. However, they have not committed to only using vendors certified to the rigorous e-Stewards standard.

Apple uses various vendors for its services. The trade in program for computers and monitors is run by a vendor called Power On.

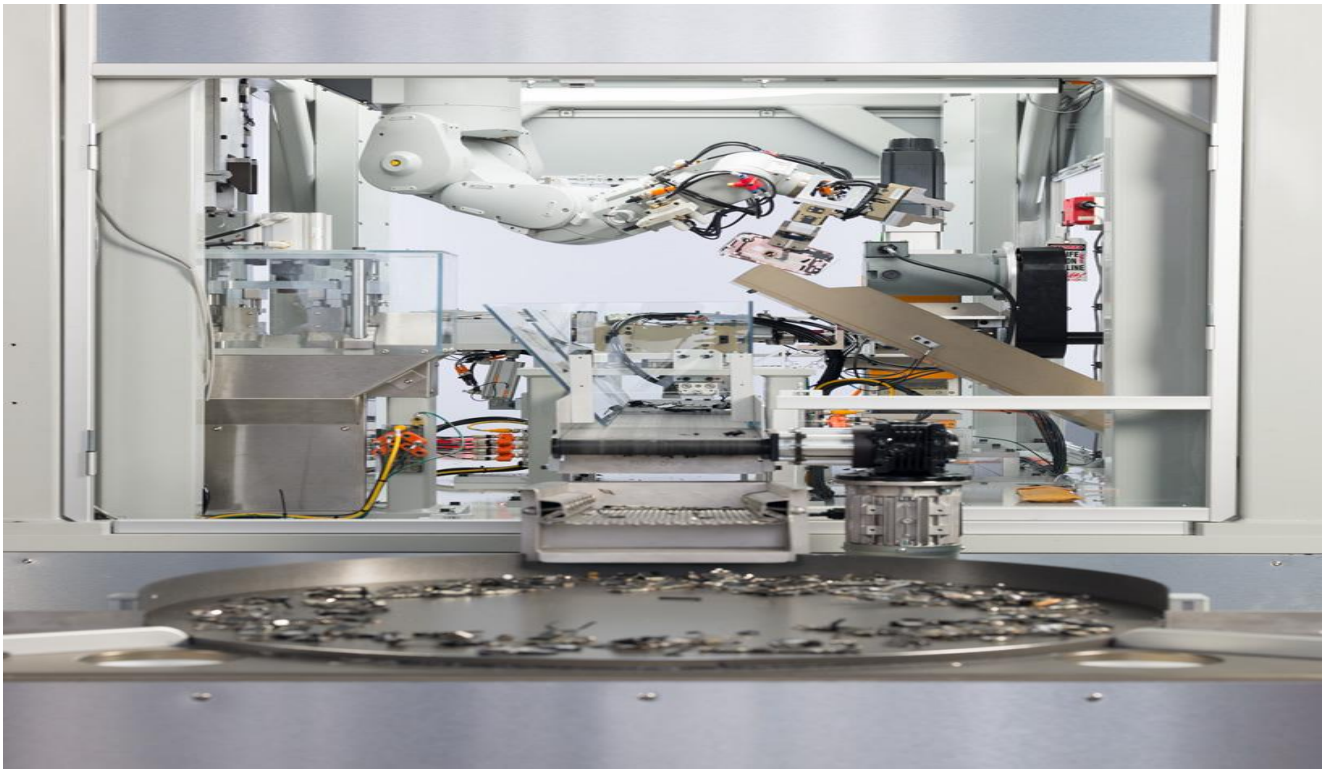
They have an online trade-in calculator to give you an idea of whether your product has value. If, once it arrives, they determine that is has no value, they will send it to one of two recyclers in California, currently ECS (an e-Steward) and SIMS Recycling Solutions (which is not an e-Steward).



Apple Recycling Program Website

Apple Waste Disposal

Apple announced that for every device received at Apple stores and apple.com through the Apple Give Back program from now through April 30, the company will make a donation to the non-profit Conservation International. As part of its ongoing recycling effort, the company also debuted Daisy, a robot that can more efficiently disassemble iPhone to recover valuable materials. Both Apple Give Back and Daisy support Apple's commitment to create a healthier planet through innovation — and help the company move a step closer to its goal of making its products using only recycled or renewable materials.



Disassembling of Old Apple Products

Through Apple Give Back, customers will be able to turn in their devices at any Apple Store or through apple.com to be recycled or traded in. For each Apple device received today through April 30, Apple will make a donation to Conservation International to support its efforts to preserve and protect the environment.[1] Eligible devices will receive credit that customers can use toward an in-store purchase or put on an Apple Store Gift Card for future use.[1]

Conservation International uses science, policy and partnerships to protect the natural world people rely on for food, fresh water and livelihood. Founded in 1987, the organization works in more than 30 countries on six continents to ensure a healthy, prosperous planet.

Apple is trying to change the way electronics are recycled with a robot that disassembles its iPhone so that minerals can be recovered and reused, while acknowledging rising global demand for electronics.

Daisy dissembling I phones to extract minerals (Source : Apple.com)

Apple's Daisy robot breaks apart iPhones so that 14 minerals, including lithium, can be extracted and recycled. Apple is already using recycled tin, cobalt and rare earths in some of its products, with plans to add to that list Daisy, less than 20 yards in length, uses a four-step process to remove an iPhone battery with a blast of -80 degree Celsius (-112°F) air, and then pop out screws and modules, including the haptic module that makes a phone vibrate.

The components are then sent off to recyclers for the minerals to be extracted and refined. Daisy can tear apart 200 iPhones per hour. Apple chose the iPhone to be the first of its products that Daisy would disassemble because of its mass popularity.

Apple is considering sharing the Daisy technology with others, including electric automakers. Daisy does have its skeptics, including some in the tech world who want the company to focus more on building products that can be repaired, not just recycled.

Apple's Commitment to the Environment

As part of its continued commitment to supporting a healthy planet through innovation, Apple will today also release its annual Environment Report, detailing the company's environmental progress in three priority areas:

- Reducing Apple's carbon footprint by using renewable energy sources and driving energy efficiency in its products and facilities.
- Conserving precious resources.
- Pioneering the use of safer materials in its products and processes.

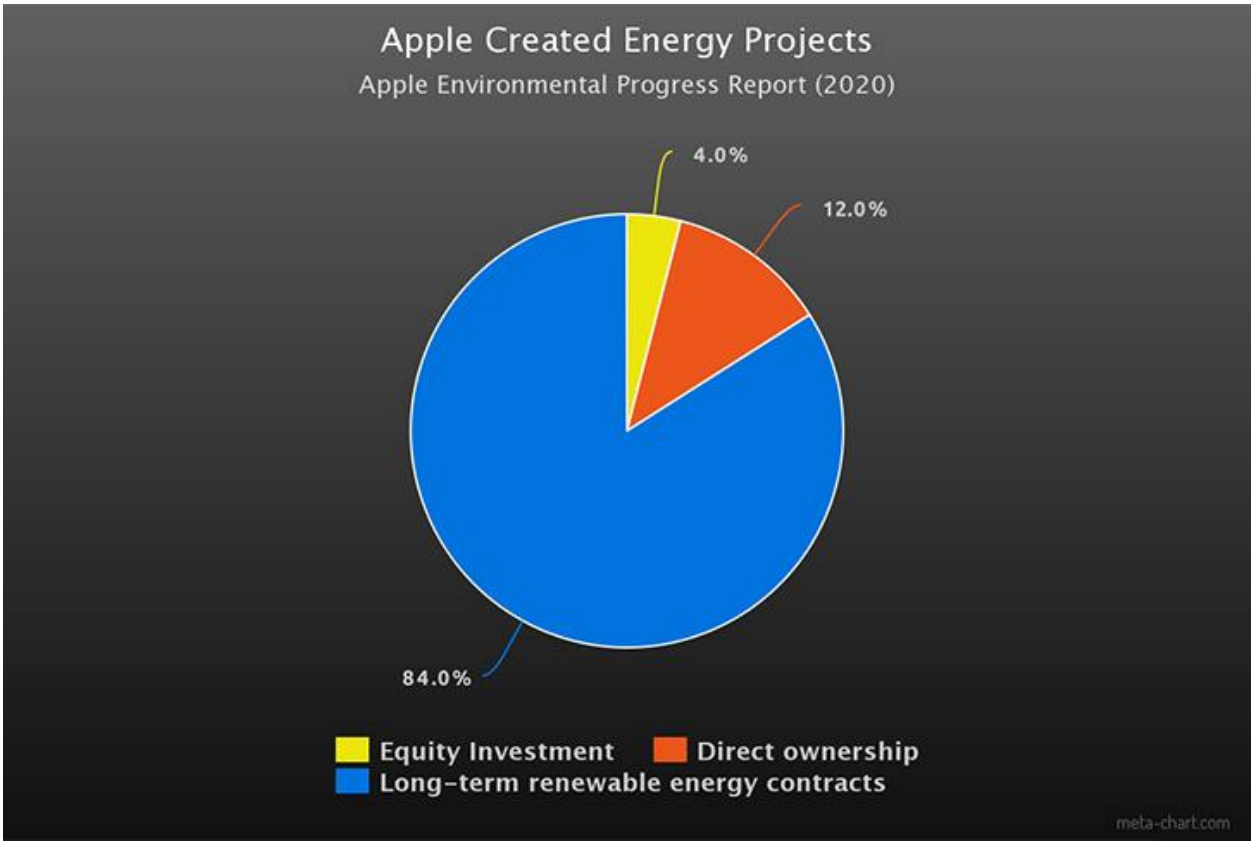
Last week, Apple announced its global facilities are now powered with 100 percent clean energy. This achievement includes retail stores, offices, data centers and co-located facilities in 43 countries including China, India, the United Kingdom and the United States. The company also announced nine additional manufacturing partners committed to powering all of their Apple production with 100 percent clean energy, bringing the total number of supplier commitments to 23.

Solar Plates used in Apple park to which provide enough electricity for the park to operate

In 2018, Apple was able to claim that their data centers, distribution centers, retail stores, and corporate offices all run on 100% renewable energy. Over 83% of the renewable energy that Apple sourced up to January 2020 equal to 1.2 gigawatts comes from Apple-created projects.

To put that into perspective the average American uses a little over 10,000 kilowatts of electricity a year. It would take an individual nearly 120 years to consume 1.2 gigawatts of power at our current per capita rate.

Apple broadly classifies an 'Apple-created' project" in three categories.



The largest category by far is Apple's long-term renewable energy contracts. While this means that technically the energy provided to their companies may come from fossil fuels, a large portion of the money

they spend goes into research, development, and eventual deployment of local renewable energy projects, such as solar and wind farms.

The second-largest category is Apple's directly owned projects. Whenever possible, Apple builds its own renewable energy projects. Projects built include solar and wind farms, biogas fuel cells, and low-impact hydro projects.

Their smallest category is equity investment. When Apple can't build its own projects, it uses its capital to invest in renewable energy projects, such as solar photovoltaic farms or wind projects. This enables the company to become part-owner, allowing them to match the renewable generation with their energy use.

Apple states its goal is to cover all of its electric use with Apple-created projects eventually.

As it turns out, Apple isn't satisfied with running on 100% renewable energy. It wants its suppliers to do the same. About 75% of Apple's carbon footprint is in its global supply chain. Of that 75%, about 70% of its emissions come from electricity.

In 2019, Apple began stepping in and encouraging its production partners to do the same. Apple's suppliers are slowly but surely making the leap to greener alternatives to fossil fuels, such as solar, wind, biomass, and hydroelectric. The company has set the goal of having a supply chain that is powered entirely by renewable energy by 2030.

Now, Apple plans on helping the communities around it make steps toward going green as well. In 2019, they launched their "Power for Impact" program, allowing local communities and organizations to access cost-effective, renewable energy. The project has already begun in developing countries where Apple has relatively small energy needs, such as the Philippines, where they've installed a 100-kilowatt rooftop solar panel in an educational facility.

Source: Apple Website

Apple is also encouraging aggregation efforts, like last year's China Clean Energy Fund. By encouraging buyers to band together to purchase renewable energy, it gives smaller companies the chance to access cost-effective renewable energy that they may not be able to access independently.

But these aren't the only steps Apple is taking. One of the most interesting moves Apple has made is voluntary withdrawal away from government-subsidized renewable energy projects.

Government subsidies are crucial for many companies looking to take their first steps into energy efficiency. They also increase the availability, affordability, and efficacy of renewable energy projects.

However, like many subsidies, government-subsidized renewable energy incentives are highly competitive. By removing itself from competing companies' pool, Apple gives other companies a chance to take their first steps toward becoming more environmentally sound.

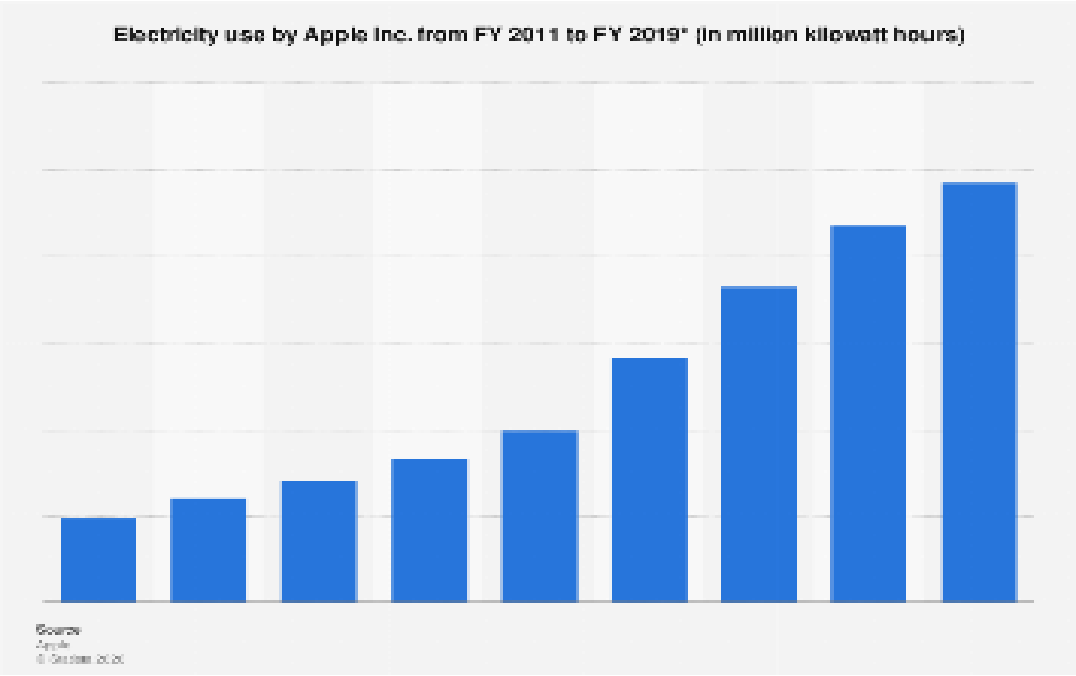
According to Apple's 2020 Environmental Progress Report, its subsidy-free, 42-megawatt solar photovoltaic project in Denmark entered service in late 2019. This project powers its new Viborg data center with 100% renewable energy and has done so since day one.

Apple is also encouraging the Chinese renewable market to transition from subsidized Feed-in-Tariffs to non-subsidized grid-parity projects.

Apple's dedication to offsetting it's impact on the environment is admirable and consistently sets the bar high for its competitors. Many environmental agencies and advocates have taken notice as well.

"Greenpeace USA welcomes Apple's commitment to reduce its carbon emissions to help prevent further catastrophic climate change— the impacts of which will fall most on Black, Brown, and Indigenous communities," Greenpeace USA Senior Corporate Campaigner, Elizabeth Jardim said. "This commitment is a significant step up from what we've seen from Apple in the past.

Of course, Apple benefits from these efforts as well. Aside from the benefits to the environment, Apple's fanbase often cites its corporate compassion and responsibility as a reason to continue to buy from them.



Source : Apple Progress Report

Climate change

The first strand is the most obvious, and the one we were all talking about earlier this week, climate change, of which carbon neutrality is a key part.

Like most companies and governments, Apple will do this through a combination of reduction and offsetting. Apple plans to reduce its own carbon emissions by 75% compared to levels in 2015. It will "balance" the remaining 25% by using "high-quality carbon removal projects" to offset areas of its operation where carbon use is currently unavoidable. Apple's corporate operations, its offices, data centers, business travel, are already carbon neutral, and Apple plans to extend this neutrality to its entire operation, notably its supply chain and product manufacturing. Alongside emissions reduction and offsetting, Apple plans to transition its entire supply chain to 100% renewable electricity by 2030.

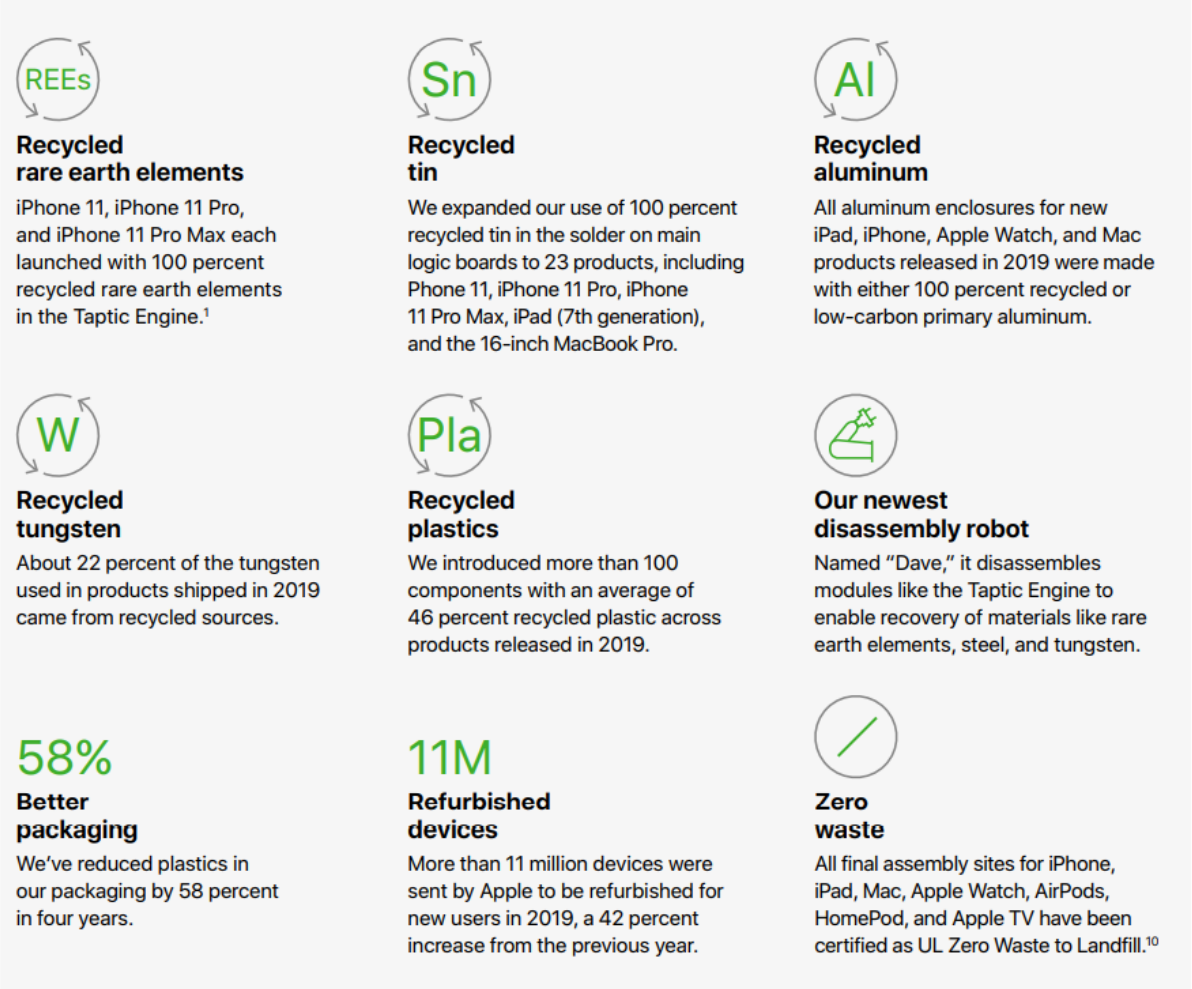
Resources

This brings us nicely on to resources. Doing more with less. Apple's products are made with more recyclable material than ever before. In fact, every iPhone, iPad, Mac, and Apple Watch released in the last year was made with recycled content, even the rare earth elements in the iPhone's Taptic Engine. Apple says that in 2019, using recycled elements in products reduced its carbon footprint by 4.3 million metric tons. In the last four years, Apple has reduced plastics in packaging by

58%, and as part of this new commitment, plans to go plastic-free by 2025.

Smarter chemistry

More niche, but no less important, is Apple's push to use safer materials in its products. Not only does this mean removing chemicals from products harmful to humans, but also to the environment. To do this, Apple is working to engage its suppliers in building "a comprehensive inventory of chemicals that make up the materials used in our products." Once this is achieved, Apple can assess the risk these may pose to human or environmental health, before deciding how best to tackle the problem. Above and beyond what many other companies are doing, Apple has its very own list of restricted chemicals, which it has used since 2002 to set its own standards for the chemicals that do and do not, make it into Apple products. More recently, Apple has created a new list for its wearable products, recognizing that devices like Apple Watch (and other rumored Apple wearable devices) bring with them their own challenges of skin irritation and sensitizers that can cause discomfort, and even harm to wearers. Over recent years Apple has taken steps to remove harmful chemicals like Lead, Arsenic, Beryllium, Mercury, PVCs, and BFRs from its products.



Source: Apple Progress Report

Learning Outcome

- we should fulfill our duty towards Mother Earth by recycling our Goods as much as possible.

- We should never throw the any electronic component as it contains some part which can be reused specially metals.
- Electronics contain some chemical substance on it which could be harmful to plants and animals if disposed not properly. so we should follow proper disposal norms for the disposal of such substances.
- We can trade in our old electronics to get some good discount while purchasing a new electronics. Most of the online e com sites like flipkart amazon etc. provide this option.
- We should try use renewable energy resources like solar energy, wind energy, water energy etc. more to reduce Carbon emission which results in less air pollution.
- We should invest in the technology for the development of better waste management machineries and Recycling plants for optimum utilization of the resources we already using .

Conclusion

The more I read through Apple's Environmental Progress Report, the more I get amazed by it. I think it's safe to say that I pay more attention to Apple than most of other tech giants, and while I've seen Apple's press releases on a solar farm here or reduced use of toxic materials there, I had never realized that just how much Apple does with the environment in mind. Reading about Apple's environmental achievements and goals makes me feel better about Apple's traditionally high prices. With Apple, it's clear that some percentage of the purchase price goes to deeply considered and carefully analyzed reductions in environmental impact

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