

# IT Equipment Procurement Options in Line with The Bartlett's Net Zero Strategy

By

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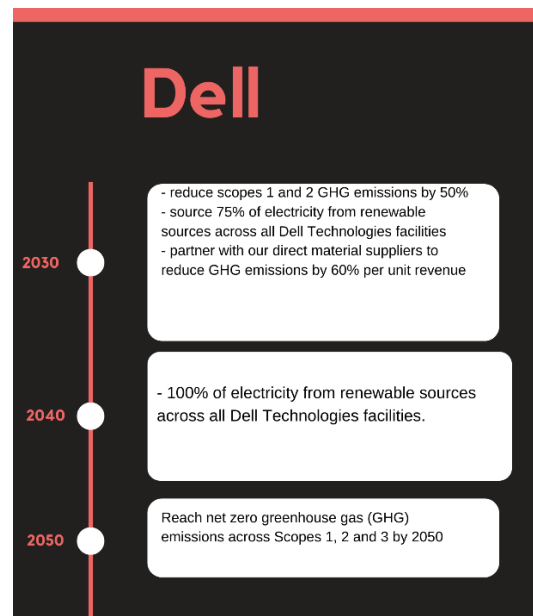
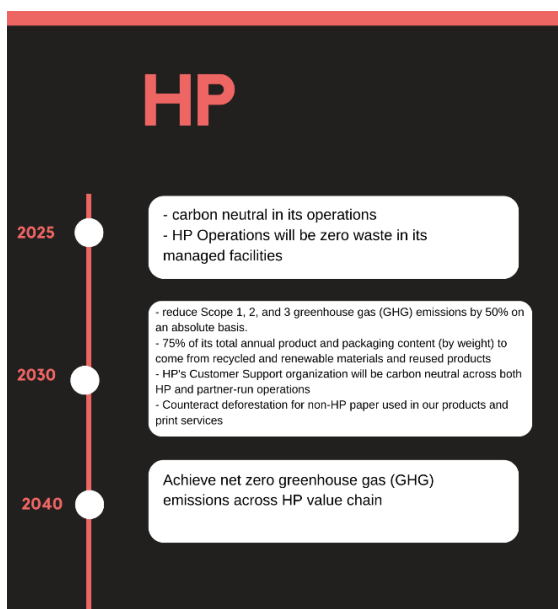
## Introduction

Latest estimates of the technology sector's contribution towards global emissions are roughly between 2-4% of global greenhouse gas emissions (Hays, 2021). IT equipment carbon emissions extend beyond the electricity used to operate them and includes the emissions from the materials and energy used through the entire product lifecycle. This encompasses all emissions from raw material extraction, manufacture, transportation, and end of life disposal (or recycle).

As part of its broader Net Zero strategy The Bartlett wants to formulate a proactive sustainable IT strategy. This report will be concerned with the procurement aspect of IT equipment. Ensuring The Bartlett procures IT equipment that is environmentally sustainable and has a low carbon impact, is important because it will contribute towards reducing Scope 3 emissions that include supplier-related emissions.

UCL IT policy currently prefers Dell as supplier for all IT equipment. Research was conducted into how Dell's sustainability goals compare to two of its biggest competitors (HP and Apple).

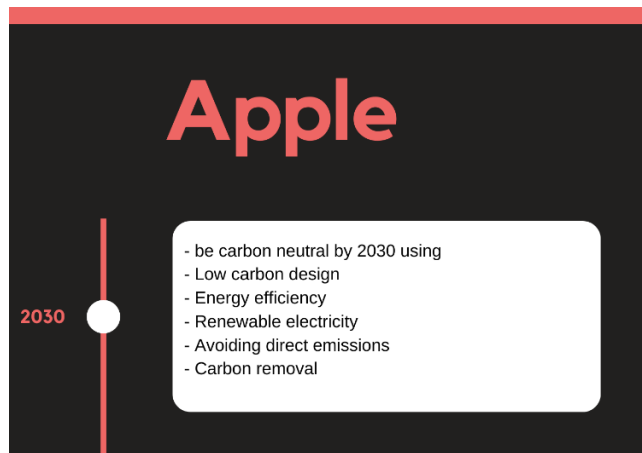
### Goals as Stated on Official Websites<sup>1</sup>:



<sup>1</sup> HP. (2021). *HP Inc. Announces Ambitious Climate Action Goals* <https://press.hp.com/us/en/press-releases/2021/hp-inc-announces-ambitious-climate-action-goals.html>

Dell. (n.d). *Our 2030 Goals*. <https://www.dell.com/en-uk/dt/corporate/social-impact/reporting/2030-goals.htm>

Apple. (2020). *Apple commits to be 100 percent carbon neutral for its supply chain and products by 2030* <https://www.apple.com/uk/newsroom/2020/07/apple-commits-to-be-100-percent-carbon-neutral-for-its-supply-chain-and-products-by-2030/>



## Comparability

Two metrics were found that enabled comparability between Dell, HP and Apple. The CDP (Carbon Disclosure Project) Score<sup>2</sup> and the SBTi Aligned Goals tracker<sup>3</sup> which provided a way to compare goals controlling for the differences in phrasing that each company chooses to use.

The CDP Scores Table on the next page shows that HP Inc. has the highest score achieving a Triple A across Climate Change, Water Security and Forests sectors. In comparison Dell Technologies scored an A- in the Climate Change sector, a B in the Water Security sector and was not requested by investors or customers to disclose Forest Sector information. Apple Inc. also scored A- in the Climate Change Sector but an F in the Water Security sector and was not requested by investors or customers to disclose Forest Sector information.

Note CDP makes a disclaimer: F does not indicate a failure in environmental stewardship but rather that the company failed to provide sufficient information to CDP for evaluation to be possible.

The SBTi Aligned Goals table on the next page shows:

- Dell Technologies has set science-based targets to reduce absolute emissions of Scopes 1 and 2 by 50% by 2030 and reduce the intensity of Scope 3 emissions by 60% by 2030 with 2019 as its base year.
- Dell's targets are to achieve Net Zero by 2050 reducing emissions across Scopes 1, 2 and 3 and offset what little remains by 2050.
- The target completion percentage when compared to the time elapsed shows good progress for Scope 1 and 2 targets.
- Dell's intensity emissions target is against per unit revenue.
- HP Inc. has set its science-based targets to reduce absolute emissions of Scopes 1 and 2 by 60% and reduce the intensity of Scope 3 emissions by 30% by 2025 with 2015 as its base year.
- HP Inc's targets are to achieve Net Zero by 2040 across the HP value chain. The only mention of current offsetting is in relation to parts of their business that they are making carbon

<sup>2</sup> CDP Scores. <https://www.cdp.net/en/scores>

<sup>3</sup> SBTi. (2022). *Companies Taking Action*. <https://sciencebasedtargets.org/companies-taking-action>

neutral. Namely, their Managed Print Service makes use of carbon offsetting, working with a partner called Natural Capital Partners.<sup>4</sup>

- The target completion percentage compared with the elapsed timeframe shows excellent progress for Scope 1, 2 and 3 targets. They have additionally also overshoot their target for Scope 3 intensity emissions.
  - HP Inc.'s emissions target is assumed to per HP annual revenue although this is not definitively stated anywhere. This assumption is based on 2021 Sustainable Impact Report where it was stated "The intensity of GHG emissions per HP annual revenue decreased in 2020 by 9% compared to 2015."<sup>5</sup>
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- ❖ Apple has set its science-based targets to reduce absolute emissions of Scopes 1, 2 and 3 by 62% by 2030.
  - ❖ Considering their targets include Scope 3 the percentage completed shows good progress.
  - ❖ Apple partners with Conservation International to protect and restore a 11,000-hectare mangrove forest in Colombia, to sequester 1 million tons of CO2 in its lifetime<sup>6</sup>.

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<sup>4</sup> More information here [HP Managed Print Service](#)

<sup>5</sup> [2021 HP Sustainable Impact Report](#) page 37

<sup>6</sup> Apple. (2019). *Conserving mangroves, a lifeline for the world*.

<https://www.apple.com/uk/newsroom/2019/04/conserving-mangroves-a-lifeline-for-the-world/>

CDP Scores Table:

Name	Country	Region	Sector: Climate Change	Score: Climate Change	Sector: Water Security	Score: Water Security	Sector: Forests	Score: Forests Timber	Score: Forests Palm	Score: Forests Cattle	Score: Forests Soy
HP Inc	United States of America	North America	General	A	General	A	General	A	N/A	N/A	N/A
Dell Technologies	United States of America	North America	General	A-	General	B	N/A	Not requested	Not requested	Not requested	Not requested
Apple Inc.	United States of America	North America	General	A-	General	F	N/A	Not requested	Not requested	Not requested	Not requested

SBTi Aligned Targets

COMPANY	SECTOR	COMPANY TEMPERATURE ALIGNMENT ⓘ	TARGET TIMEFRAME ⓘ	TARGET TYPE	TARGET VALUE ⓘ	SCOPES COVERED ⓘ	TARGET COMPLETION ⓘ	ELAPSED TIMEFRAME ⓘ
Dell Technologies USA, North America	Technology Hardware and Equipment	1.5°C	2019 to 2030	Absolute	50%	1+2	53%	9%
			2019 to 2030	Intensity	60%	3	13%	9%
HP Inc USA, North America	Technology Hardware and Equipment	1.5°C	2015 to 2025	Absolute	60%	1+2	93%	50%
			2015 to 2025	Intensity	30%	3	110%	50%
Apple, Inc. USA, North America	Technology Hardware and Equipment	1.5°C	2019 to 2030	Absolute	62%	1+2+3	16%	9%

## Recycling Programs

Both Dell and HP aspire to become circular in their operations and offer recycling programs.

### Dell Consumer Recycling -

- No shipping cost
- Recycling is not shipped to other countries

The instructions on Dell's Recycling Resources online is clear and reprinted below <sup>7</sup>:

#### **How To Recycle**

- Read the Terms and Conditions for participation in Dell's recycling program.
- Complete the online application form.
- The shipping address is the location where the carrier will collect your computer equipment.
- You will receive detailed instructions when you request the recycling service
- To ensure your shipment arrives on time and in proper condition, please follow these simple shipping tips. (You will need to provide your own box and packing material):
- Be sure to remove any personal data from your system.
- Use sturdy corrugated cardboard boxes. We encourage the use of recycled boxes. Please make sure that the box is in good condition to ship your equipment.
- Wrap fragile materials individually so they do not touch each other.
- You may recycle up to 20Kgs per box. The PC and monitor will need to be boxed separately.
- Tape the box closed.
- Remove old address/shipping labels from the outside of the box.
- Clearly write in big text "DELL RECYCLING" on the outside of the box.
- For IT equipment recycling (which may include mobile phones) the carrier will collect the box on the date provided in their email. Please ensure you are available for the collection.

Dell covers the cost of home pickup, shipping, and recycling of old equipment. The information states that for IT Equipment, up to 20 Kg per box may be recycled. If both PC and Monitor are being recycled, they will need to be boxed separately. This service does not cover products weighing more than 20Kgs. For mobile devices recycling is up to one unit.

It is important to note that this information is for their consumer recycling program. Although they do provide corporate recycling as well, there was no information available regarding that. However, considering how easy to follow the consumer program is, it would not be unreasonable to assume the corporate program would be similar.

### HP Recycling Program -

HP does not have a Consumer Recycling Program apart from making available guidelines on how households should dispose of waste equipment <sup>8</sup> (screenshot below)

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<sup>7</sup> More information at [Dell Recycling](#)

<sup>8</sup> HP. (2020). *WEEE Information for Users*.

<https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c04709663&landing=consumer&languageCode=en&countryCode=GB>

#### **Instructions for Disposal of Waste Equipment by Users in Private Household**



This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to an authorized collection point for the recycling of waste electrical and electronic equipment. In most Member States, consumers may also return waste equipment to the retailer on an old for new (1 for 1) basis. Large retailers (with sales area dedicated to selling electronic equipment over 400m<sup>2</sup>) should also allow consumers to return small WEEE (products having no external side bigger than 25cm) without a new product purchase obligation (1 for 0 basis).

The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office or your household waste disposal service.

As a producer of electronic devices, HP will provide for the financing of the treatment and recycling of waste returned through designated collection points in accordance with local requirements.

For Commercial users HP does provide a recycling program summarized below:

- For Businesses HP will provide free of cost recycling for all HP equipment returned to a designated HP collection point.
- Will provide the same service for non - HP equipment if a replacement HP product is being bought.
- Will provide the service for non – HP equipment and no replacement purchase being made but for an additional cost.
- Give a certificate of disposal.
- HP has an easy online form fill out for businesses to avail customized recycling, if they create an HP account

#### Apple Recycling Program –

Called Apple Trade-In and online resources are for consumers as well as a separate webpage for Education.

Trade-in any device in any condition for store credit or free recycling if it's not eligible for credit. Salient features of their program are:

- Apple recycles any Apple device and devices from Apple owned brands at any Apple Store.
- Either it will be recycled responsibly or given a chance to be used again.
- Some devices may be eligible for credit.
- They will recycle devices from other brands too on a like-for-like basis.
- Batteries and old Apple products can be taken to any Apple Store and be responsibly recycled for no charge. They accept any small product or battery without purchase of a new product or battery.
- They work with a third-party vendor partner.

Recycling program for Apple for Education also specifically mentions:

- Free recycling including collection, transport, and certificate.
- The service is open to any brand
- Is not limited in volume.
- All recycled hard drives are ground into confetti-sized pieces.
- Data on all hard drives to be resold is overwritten three times and sanitised.
- Apple has an accredited process for the deletion of data and all used facilities are ISO 27001 certified.
- On request, customers may receive a certificate of destruction for each lot recycled.
- All asset tags and other identifying information are removed prior to disposal.
- Waste arising from Apple’s EU recycling programme is recycled inside the EU.
- No waste from Apple’s EU recycling programme is shipped outside the EU.
- Equipment in good working order can be traded in for a bank transfer or cheque.

### Alternative Business Models from SMEs

Circular Computing: This is a smaller business with a business model built on the concept of Remanufacture as opposed to Refurbishment. They summarize the main differences between these two approaches as below (taken from the Circular Computing website)<sup>9</sup>:

Refurbished	Remanufactured
<p><b>INCONSISTENT QUALITY</b></p> <p>Varying grades and condition based on opinion means you will never be able to guarantee a standard of product.</p>	<p><b>CONSISTENT QUALITY</b></p> <p>Every laptop goes through the same 5+ hour remanufacturing process (to BS 8887 standards) to create a single grade of product that is close to new. We commit to this quality whether you take 5 or 5,000 laptops.</p>
<p><b>BASIC ENGINEERING</b></p> <p>The traditional business model of minimum investment for maximum return means you will experience things such as vinyl skins being used to hide bad cosmetics.</p>	<p><b>PRECISION ENGINEERING</b></p> <p>Every laptop is separated into individual parts and repainted with state-of-the-art robots using the exact matching colours and finishes of the original new product.</p>
<p><b>LIMITED TESTING</b></p> <p>Varying levels of undocumented testing means you might be buying a laptop that has only been tested to turn on</p>	<p><b>RIGOROUS TESTING</b></p> <p>Every laptop undergoes Aiken testing as well as a minimum 3-hour stress test to run the major components at full load</p>

- They sell carbon neutral remanufactured HP, Dell and Lenovo laptops.

<sup>9</sup> [Circular Computing](#)



- They claim this can save up to 40% of costs compared to brand new latest models.
- They are BSI Kitemark certified.
- They plant 5 trees for every laptop you buy (although this could be how they stay carbon neutral and not a bonus)
- They also work on projects delivering positive social impact in Zambia, India, Tanzania and USA.

## Recommendations

UCL will soon be engaging with a Third-Party supplier, who at the time of writing this report, was undisclosed. The Bartlett recommends UCL works closely with this new supplier to ensure they will be operating within the manufacturer's circularity model. This way whether UCL policy stipulates Dell, HP or Apple equipment, it will still be possible to account for the emissions of IT equipment using the data manufacturers provide. If the Third-Party supplier does not work within the manufacturer's circular business model, it is unlikely the emissions contribution could be calculated using the information from the manufacturer and UCL would not be able to account for the equipment to its end-of-life.

Other IT recommendations for The Bartlett's Net Zero Strategy:

1. The Bartlett can work with IT Business partners to make practical recommendations to staff for choosing the laptop and equipment most sustainable and appropriate for their needs. The IT Business partner can help make staff aware of the savings they could make in energy consumption by opting for a less energy-intensive laptop that still meets their needs sufficiently. Perhaps the IT Business Partner could help provide recommendations on the basis of a short form submission by staff requiring equipment.
2. The Bartlett should explore options with IT Business Partner to purchase IT tools that enhance video conferencing experiences. This could reduce emissions spent on travelling while enriching meetings in ways in-person meetings cannot, for example using Miro Board style collaboration software.

## Conclusion

As part of The Bartlett's Net Zero Strategy, looking at IT equipment contributions to emissions is advisable. Achieving Net Zero in IT requires rigorous evaluation of where emissions can be reduced from and procuring equipment that is environmentally sustainable is a good place to start. The Bartlett is taking proactive steps in initiating important conversations with IT business partners regarding these goals. It is highly recommended that UCL work closely with suppliers to account for IT equipment till end-of-life. Additionally, there are other opportunities The Bartlett can harness for a sustainable IT strategy including staff and IT business partner collaboration, as well as keeping abreast of the latest in video conferencing products to enrich working remotely.

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