HPE Financial Services
Creating smarter IT lifecycles

HPE Circular Economy Report

Sample Company Report*

2 0 2 2

Hewlett Packard Enterprise

*The values contained in this sample report are just for demonstrative purpose and do not reflect any actual customer data

Introduction

Hewlett Packard Enterprise (HPE) aims to create sustainable solutions to accelerate our customers' digital transformation. Our circular economy approach drives more effective use of energy and materials, and enables customers to manage their IT assets in a secure, compliant, and environmentally responsible manner.

HPE Financial Services provides a suite of solutions that help create circularity within an organization. This includes HPE Accelerated Migration which helps consolidate multi-gen IT into a single environment, HPE Asset Upcycling Services for decommissioning and retiring assets with reuse in mind, and HPE Certified Pre-Owned which helps keep legacy systems in use longer.
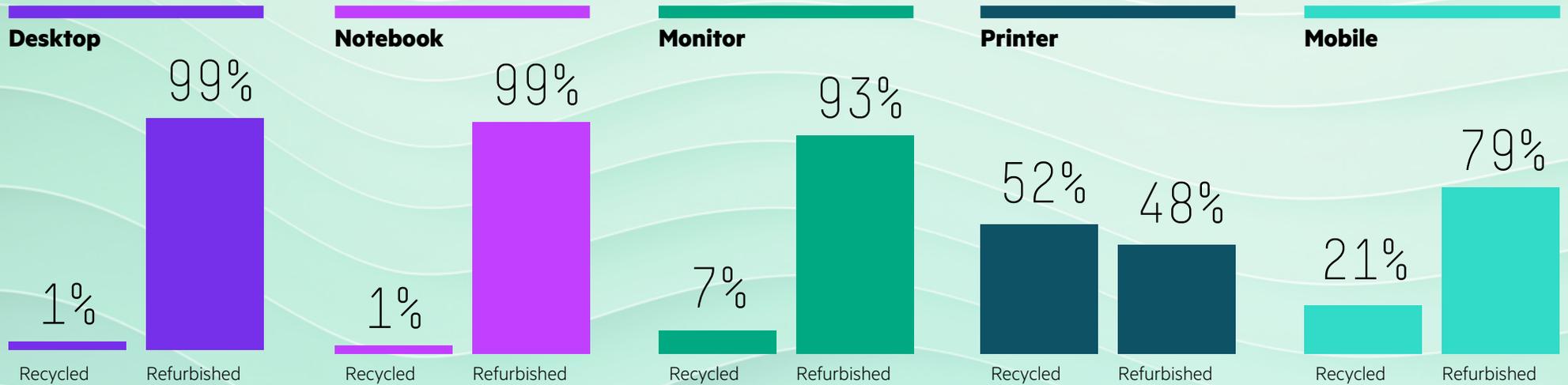
This report outlines how your participation in our end-of-use management programs helps you address the social and environmental impacts of rapid innovation. By refurbishing and recycling your retired IT products, you are contributing to a circular economy that returns value to your business while helping to meet your sustainability goals.

Your recovered items

Workplace (units)

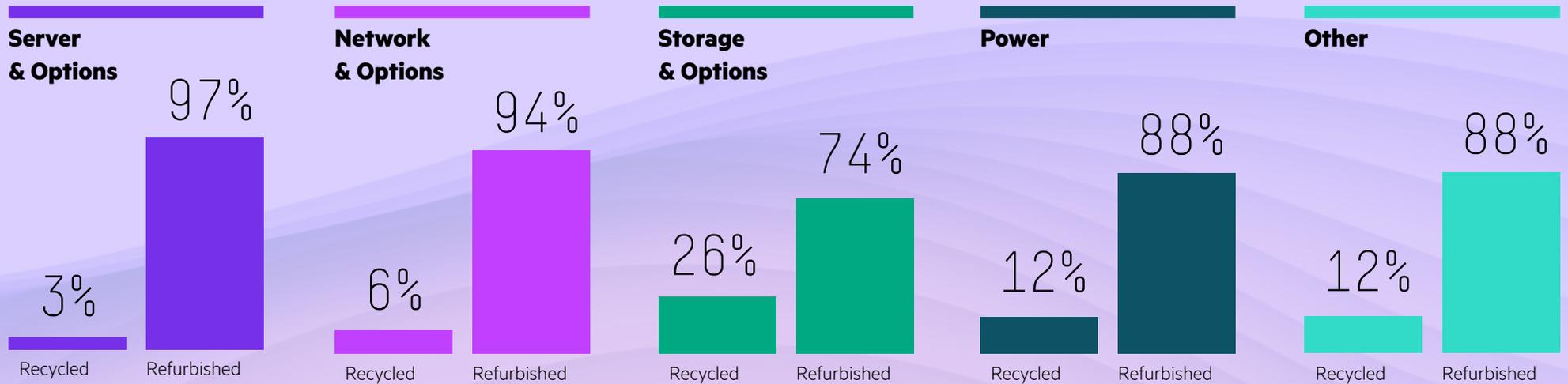A summary of your returned items and their final status as refurbished or recycled materials.

Desktop

99%

1%

Recycled | Refurbished

Notebook

99%

1%

Recycled | Refurbished

Monitor

93%

7%

Recycled | Refurbished

Printer

52% | 48%

Recycled | Refurbished

Mobile

79%

21%

Recycled | Refurbished

Product type	Refurbished	Recycled	Total
Desktop	5,524	62	5,586
Notebook	1,437	20	1,457
Monitor	6,447	495	6,942
Printer	2,518	2,766	5,284
Mobile	167	44	211
Total	**16,093**	**3,387**	**19,480**

Your recovered items

Enterprise (units)

A summary of your returned items and their final status as refurbished or recycled materials.

Server & Options

97% Refurbished
3% Recycled

Network & Options

94% Refurbished
6% Recycled

Storage & Options

74% Refurbished
26% Recycled

Power

88% Refurbished
12% Recycled

Other

88% Refurbished
12% Recycled

Product type	Refurbished	Recycled	Total
Server & Options	3,459	102	3,561
Network & Options	1,100	75	1,175
Storage & Options	1,852	666	2,518
Power	1,787	238	2,025
Other	294	40	334
Total	8,492	1,121	9,613

Savings

Refurbishing and recycling IT products with HPE Financial Services can enhance your productivity, capture new value from retired assets, and reduce your environmental impact. The impact and savings that can be achieved using HPEFS IT Asset Lifecycle solutions are pictured below:

3,688mt
CO2e saved

This equals the average annual CO2e emissions of **802** cars

13,380MWh
energy saved

This equals the average annual energy consumption of **27,015** households

340mt
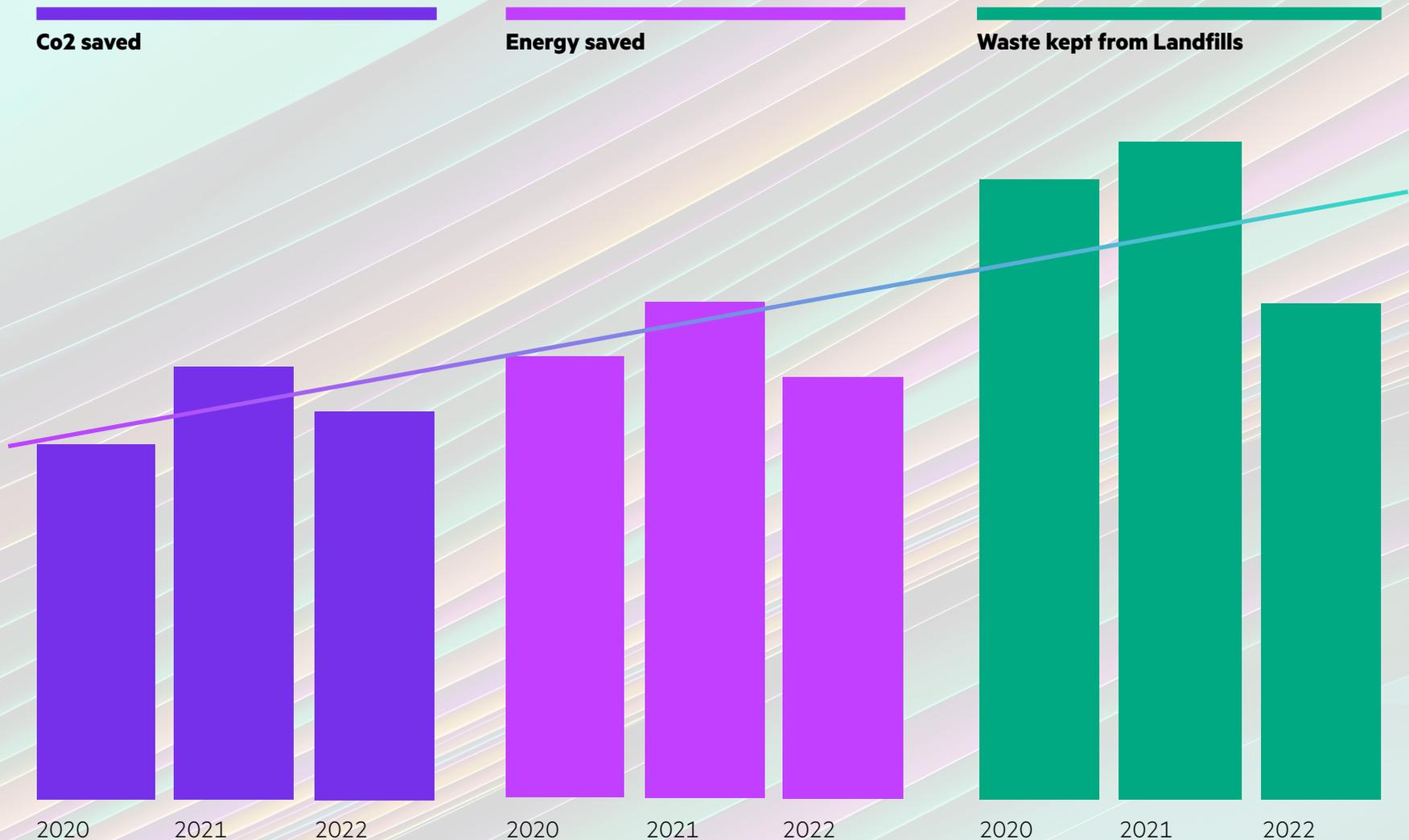### waste kept from landfills

To store this at home, you would need **11,549** moving boxes

Performance over time

This chart reflects metrics from your previous Circular Economy reports in the period noted. The intent of this chart is to demonstrate the trends of results achieved and assist you in tracking contributions over time.

Co2 saved

Energy saved

Waste kept from Landfills

| 2020 | 2021 | 2022 | 2020 | 2021 | 2022 | 2020 | 2021 | 2022 |

Recycling [1]

The Circular Economy decreases the environmental impact from the rapid innovation in electronic products, and the "take, make, dispose" production and consumption cycle. Below you can see representations depicting the recoverable raw materials contained in the products you returned.

228mt
plastic

This is the equivalent of **5,433,017** plastic bottles

21mt
non-ferrous metals
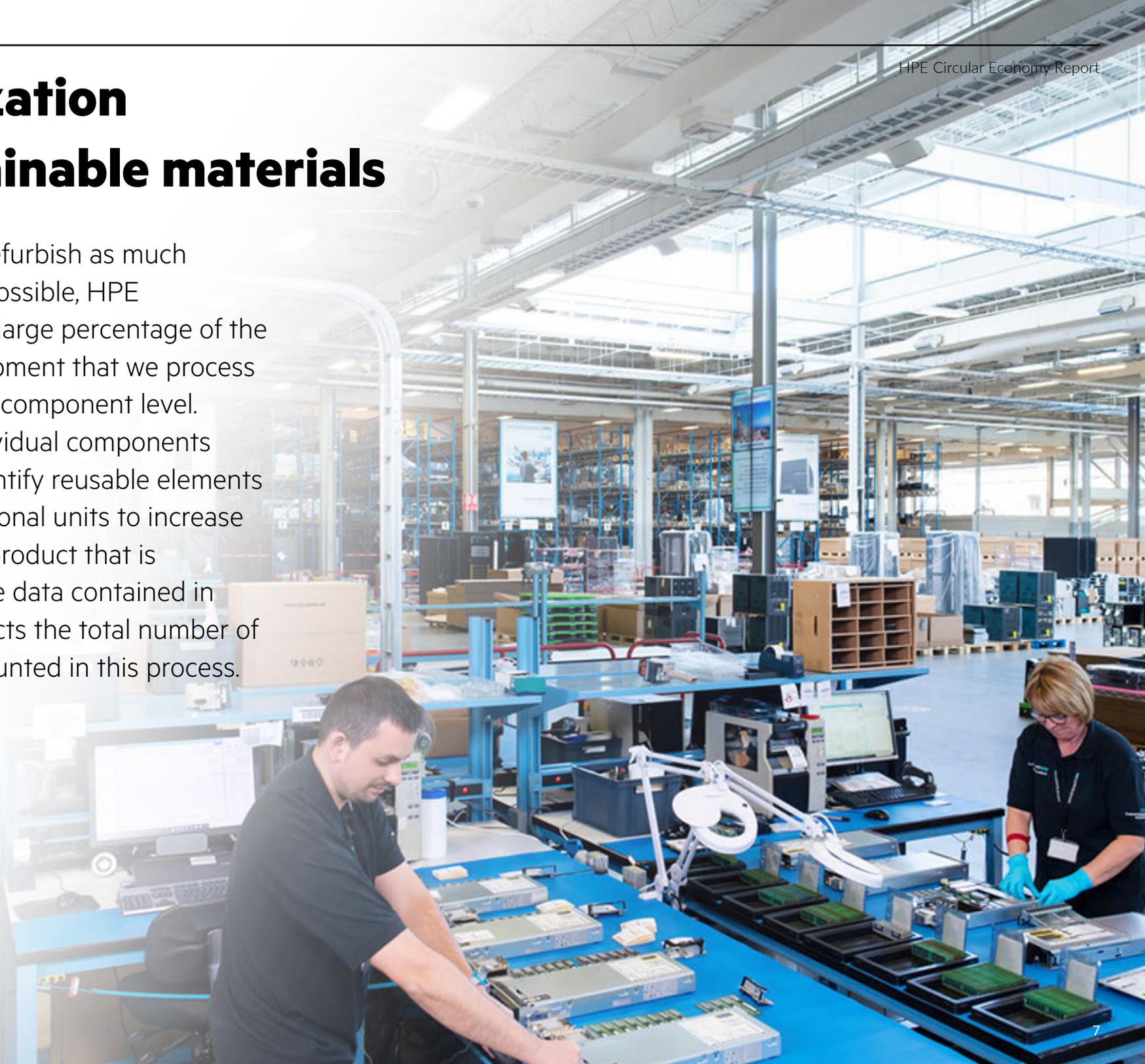
This equals **11** commercial jet engines

151mt
ferrous metals

This is the equivalent of **313** cars

1) Some recoverable materials are not reclaimed through recycling for a given end-of-life product; our estimates are based on the likely proportion of materials that would stem from a flow of IT equipment waste material sent to recycling, using modeled assumptions about the material that will likely be returned into commerce instead of landfilled or otherwise disposed of.

Optimization of sustainable materials

In an effort to refurbish as much equipment as possible, HPE disassembles a large percentage of the enterprise equipment that we process and tests it at a component level. Separating individual components allows us to identify reusable elements from non-functional units to increase the amount of product that is refurbished. The data contained in this report reflects the total number of components counted in this process.

Using the CER for your company's reporting[2]

Information contained in this report may be used for disclosing your organization's Scope 3 greenhouse gas emissions to CDP. In accordance with the Greenhouse Gas Protocol accounting standard, the tables presented summarize the Scope 3 emissions associated with your contracted HPE Financial Services, your organization's emissions, ([2]) the total emissions avoided and the net benefit resulting from your organization's use of HPEFS.

Both tables breakout your emissions by type of service and method of asset recovery, when applicable. As defined by the GHG Protocol, your organization's waste-related emissions will depend on the corporate boundary method used to calculate your greenhouse gas footprint. If your organization uses the "Operational Control" method, the values in the first table is most relevant. Otherwise (e.g. "Equity Control" or "Financial Control") the second table is most applicable.

Methodology

This section explains how the key report values are calculated.

Emissions that may be relevant for your reporting:
In compliance with the GHG Protocol's "recycled content" method, the average inbound and outbound transportation, in units of mass-distance travelled, required for HPEFS to collect and process recycled or refurbished assets is multiplied by appropriate IDEMAT transportation emission factors.

Avoided Emissions:
Assuming landfill as the default end-of-life management practice, avoided emissions for recycled assets were calculated by multiplying the total mass of each recycled material by the appropriate IDEMAT recycling credit emission factor. Avoided emissions for refurbished assets were calculated by multiplying the total quantity of each asset by it's cradle-to-manufacturing-gate emission factor from HPE's internal life cycle assessment database.

Net Benefit:
The net benefit of HPE services are calculated as the avoided emissions less the emissions generated from refurbishment/recycling.

Estimated scope 3 emissions using the "Operational control" boundary method (mt co2e)

HPEFS services	Recovery	Emissions generated from recovery	Description of emissions generated	Avoided emissions	Description of avoided Emissions	Net Benefit
Asset Recovery	Recycled	0.62	Represents emissions associated with the recovery of your owned assets by HPEFS	2.52	Represents avoided emissions associated with the diversion of landfilled waste and offsetting of virgin material production from HPEFS recycling services	1.90
Asset Recovery	Refurbished	0.55	Represents emissions associated with the recovery of your owned assets by HPEFS	51.43	Represents avoided emissions associated with the diversion of landfilled waste and offsetting of virgin material production from HPEFS recycling services	50.88
Leased Assets	Recycled	33.18	Represents emissions associated with the recovery of your leased assets by HPEFS	116.13	Represents avoided emissions associated with the diversion of landfilled waste and offsetting of virgin material production from HPEFS recycling services	82.95
Leased Assets	Refurbished	53.73	Represents emissions associated with the recovery of your leased assets by HPEFS	3,606.35	Represents avoided emissions associated with the diversion of landfilled waste and offsetting of virgin material production from HPEFS recycling services	3,552.62
Total		**88.08**		**3,776.42**		**3,688.35**

Estimated scope 3 emissions using the "equity share" or "financial control" boundary method (mt co2e)

HPEFS services	Recovery	Emissions generated from recovery	Description of Emissions to report	Avoided emissions	Description of avoided Emissions	Net Benefit
Asset Recovery	Recycled	0.62	Represents emissions associated with the recovery of your owned assets by HPEFS	2.52	Represents avoided emissions associated with the diversion of landfilled waste and offsetting of virgin material production from HPEFS recycling services	1.90
Asset Recovery	Refurbished	0.55	Represents emissions associated with the recovery of your owned assets by HPEFS	51.43	Represents avoided emissions associated with the diversion of landfilled waste and offsetting of virgin material production from HPEFS recycling services	50.88
Leased Assets	Recycled	0.00	Service not covered under organizational boundaries	0.00	Service not covered under organizational boundaries	0.00
Leased Assets	Refurbished	0.00	Service not covered under organizational boundaries	0.00	Service not covered under organizational boundaries	0.00
	Total	1.17		53.95		52.78

Our promise to our customers and the environment

At HPE, we provide our customers and partners with safe upcycling and recycling options for their IT investments by putting equipment with value back into the world for use by others.

Our Technology Renewal Centers (TRCs) in Andover, Massachusetts, U.S. and Erskine, Scotland help extend the life of technology whenever possible, and securely and responsibly recycle materials where appropriate.

In today's competitive marketplace, every enterprise needs a trusted partner that knows their standards. HPE helps you develop a proactive and sustainable asset recovery strategy that can optimize the physical, financial, and contractual aspects of the IT asset lifecycle.

Additional resources

Circular Economy

HPE Living Progress Report

HPE Asset Management and IT Financing Solutions

HPE Asset Lifecycle Solutions

Hewlett Packard Enterprise

Terminology

Circular economy

A circular economy is an industrial system that decouples economic growth from the consumption of natural resources. It is restorative by intention and design; shifts toward the use of renewable energy; eliminates the use of toxic chemicals, which impair reuse; and aims for the elimination of waste through the superior design of materials, products, systems, and business models. (credit, Ellen MacArthur Foundation)
https://www.ellenmacarthurfoundation.org/circular-economy/concept

Refurbishing

Refurbished is to renew or to restore to a new condition and/or appearance. When hardware is refurbished, the components are examined and non-working parts are replaced.

Recycling

Recycling is the process of turning waste into reusable material.

Upcycling

Upcycling of a product or material means to reuse (discarded objects or material) in such a way as to create a product of higher quality or value than the original.

Greenhouse Gas Protocol

The GHG Protocol Corporate Standard classifies a company's GHG emissions using three 'Scopes', or classifications of emissions. Scope 1 emissions are direct emissions from the reporting entities' owned or controlled sources. Scope 2 emissions are indirect emissions from the generation of purchased energy. Scope 3 emissions have their own standard.

Scope 3

Scope 3 emissions are indirect emissions (those not already included in scope 2) that occur within the value chain of the reporting company, including both upstream and downstream operations. Scope 3 is further divided into fifteen categories of specific emission sources. The emissions related to HPEFS' asset management activities on behalf of its customer accounts are classified under Scope 3, category 5, which are emissions from "Waste Generated in Operations".

CDP

CDP is a not-for-profit charity that runs the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts.
https://www.cdp.net/en

Sustainable Development Goals

Our strategy aligns with the United Nation's Sustainable Development Goals (SDGs) to address objectives that are mutually beneficial to society and to our business. We assess both where our company can have the greatest contribution and how these actions can create new forms of customer value and have set our focus on six material SDGs (5, 7, 8, 9, 12 and 13). Achieving any of these goals will require technological innovation to be applied both purposefully and collaboratively - making Partnership to the Goals (SDG 17) an underlying theme across our strategy and implementation efforts.

HPE Accelerated Migration

Convert existing, owned IT assets into an incremental cash source while still retaining use of the systems.

HPE Asset Upcycling Service (AUS)

HPE Asset Upcycling Services is the end-of-use removal and recovery process managed by HPE Financial Services. Element of the program includes automated pickup requests, secure end-to-end logistics, serialized asset tracking, and audit testing, data cleansing, and automated reporting and settlement. Because HPEFS leads with a reuse before recycling methodology, this is also a great way for companies to infuse cash back into their budgets from these retired assets.

HPE Certified Pre-owned Technology (CPO)

Previous-generation HPE technology ranging from 18 months to 30 years out of production. From subassemblies, feature upgrades, to whole systems, this portfolio of data center equipment is available "off the shelf" or custom-configured to meet almost any budget or circumstance. All pre-owned technology is expertly tested, certified authentic, and comes with a 30-day operational warranty. A one-year OEM warranty may be added to the configuration.