

# Annual Carbon Report



March 2023 - February 2024

Report Author: CBN Expert Direct

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Prepared By:



Powered By:





Annual Carbon Report  
March 2023 - February 2024

This report has been produced by **CBN Expert** using CBN Expert accounting platform for **Bytes Software Services Ltd.**

Company Overview

**Bytes Software Services Ltd (Bytes)** is a leading provider of world-class IT solutions. Our growing portfolio of services includes cloud, security, licensing, SAM, storage, virtualisation and managed services. Since being established in 1982, **Bytes** has grown rapidly and now employs over 630 people in the UK and Ireland. Thanks to our passionate people and close partnerships, we've helped hundreds of top brands to transform, grow and adapt to the changing technology landscape.

Year Incorporated	1982
Industry	Other information technology service activities
No. of Staff	631
No. of Offices	4
No. of Production Sites	-
No. of Company Vehicles - Trucks	-
No. of Company Vehicles - Other	-

Reporting Period

March 2023 - February 2024

Benchmark Year

Scope 1 and 2: March 2020 to February 2021

Scope 3: March 2022 to February 2023

Qualification & Reporting Methodology

This report has been created using the Environmental Reporting Guidelines, including Streamlined Energy & Carbon Reporting (SECR) guidance issued by the UK Government in April 2019.

Where they exist, CBN Expert uses the UK Government published carbon conversion factors relevant to the reporting period. Where emissions, without published conversion factors have been used, these have been determined by CBN Expert in consultation with relevant stakeholders and any industry norms or standards that exist. The details of these are included in the Data Declaration section of this report.

Net Zero History

Throughout 2023, we have been working with an external consultancy to focus on expanding our knowledge and reporting in Scope 3, which now covers all ten categories of Scope 3 relevant to the business, including purchased goods and services. Our Net Zero goal is aligned with science-based targets and our targets have been submitted to the Science Based Targets initiative (SBTi) for validation. Our core short term focus being on reducing emissions from transport, whether that be business, commuting and emissions from our suppliers, to work towards our Net Zero target of 2040 and an interim target of 50% reduction in these areas by 2030.

Net Zero Committed Date

2040

Reporting Boundary

Financial

Optional Scope

Emissions from Scope 1 and 2 have been measured in accordance with SECR requirements. The Scope 3 emissions that have been included are:

- Purchased Goods & Services – Water Supply
- Purchased Goods & Services - PG&S
- Capital Goods - Capital Goods
- Capital Goods - ICT Equipment
- Capital Goods - Laptops/Servers
- Capital Goods - Furniture/Refurb
- Capital Goods - Laptop Bags
- Capital Goods - Cycle to Work
- Fuel & Energy Related Activities - WTT - Electricity (generation)
- Fuel & Energy Related Activities - WTT - Electricity (T&D)
- Fuel & Energy Related Activities - WTT - Diesel Biofuel Blend
- Fuel & Energy Related Activities - WTT - Vans
- Fuel & Energy Related Activities - WTT - Business Travel – Air
- Upstream Transportation & Distribution - Upstream T&D
- Waste Generated From Operations – Waste Disposal
- Waste Generated From Operations – Waste - General
- Business Travel – Cars
- Business Travel – Rail
- Business Travel – Taxis
- Business Travel – Hotels
- Business Travel – Planes
- Business Travel – Hotel stay
- Employee Commuting – Cars
- Employee Commuting - Taxis
- Employee Commuting - Bus
- Employee Commuting - Rail
- Employee Commuting – Motorbike
- Employee Commuting – Cycling
- Employee Commuting – WFH
- Employee Commuting - Walking
- Upstream Leased Assets - Leased Offices
- Use of Sold Products - Use of Sold Products



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### Net Zero Leadership

**Bytes Software Services** is fully committed to achieving Net Zero across its organisation. To support its transition to Net Zero **Bytes Technology Group** has appointed and communicated publicly senior sponsor(s). The appointed sponsor(s) are

**Sponsor(s):** Lisa Prickett Sustainability

**Position:** Manager

**Appointed:** March-2022



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Net Zero Priorities

Bytes Software Services has the mitigation of GHG emissions as a priority for the business, initially with a focus on Scope 1 and 2 emissions as well as key Scope 3 categories, to enable us to meet our ambitious targets.

The carbon reduction goals of the company are as follows:

Near-Term targets

- Bytes Software Services Ltd commits to reduce absolute scope 1 GHG emissions 50% by 2025/26 and 60% by 2030/31 from a 2020/21 base year.
- Bytes Software Services Ltd commits to maintain a 100% absolute reduction of scope 2 GHG emissions by 2028/29 from a 2020/21 base year.
- Bytes Software Services Ltd commits to reduce absolute scope 3 GHG emissions 50% by 2030/31 from a 2022/23 base year.

Net Zero target

- Bytes Software Services Ltd commits to reach net-zero GHG emissions across the value chain by 2040/41.

The company has implemented a number of initiatives during the year to both mitigate GHG emissions as well as to expand the company's visibility and understanding of key categories of Scope 3 emissions.

The key areas of focus are:

- Reducing emissions from transportation
- Reducing waste
- Working with our supply-chain to reduce emissions across our value-chain

Emissions Summary

tonnes CO <sub>2</sub> e	20-21 Baseline Scopes 1 and 2	21-22	22-23 Baseline Scope 3	23-24 Reporting Year
Scope 1 (Market Based)	19.6	32.2	56.9	45.5
Scope 2 (Market Based)	171.3	26.7	0.0	0.0
Scope 3	14.8	63.6	72,656.9	94,582.6
Total (Market Based)	205.7	122.5	72,713.8	94,628.1

The baseline for Scope 3 emissions has been revised for 2022/23 to include all categories relevant and material to the business. The emissions for 2023/24 have increased as a result of the growth of the business. The most material increase resides within Category 1, reflecting the nature and dynamics of Bytes' business model. This accounts for approximately 93.2% of total reported emissions. Significant work has been undertaken to understand and mitigate Scope 1 and 2 emissions, and this is reflected in the downward trend (76% reduction) since the baseline year. In addition, there are activities detailed in tables within this report that aim to reduce Scope 3 emissions, where Bytes has an influence.



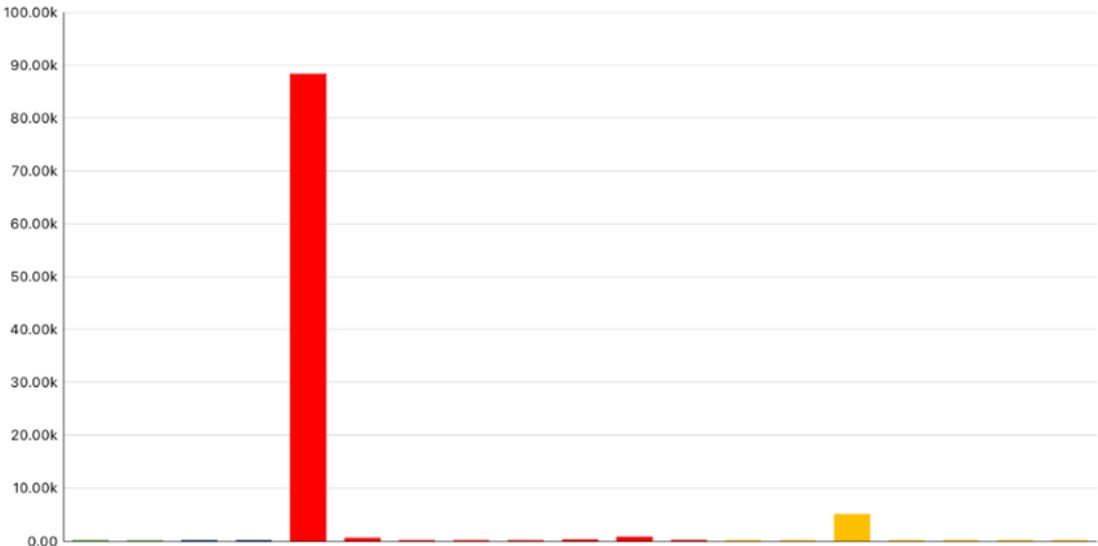
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Emission Map

Bytes Software Services - Emissions Mapping by Scope & Category

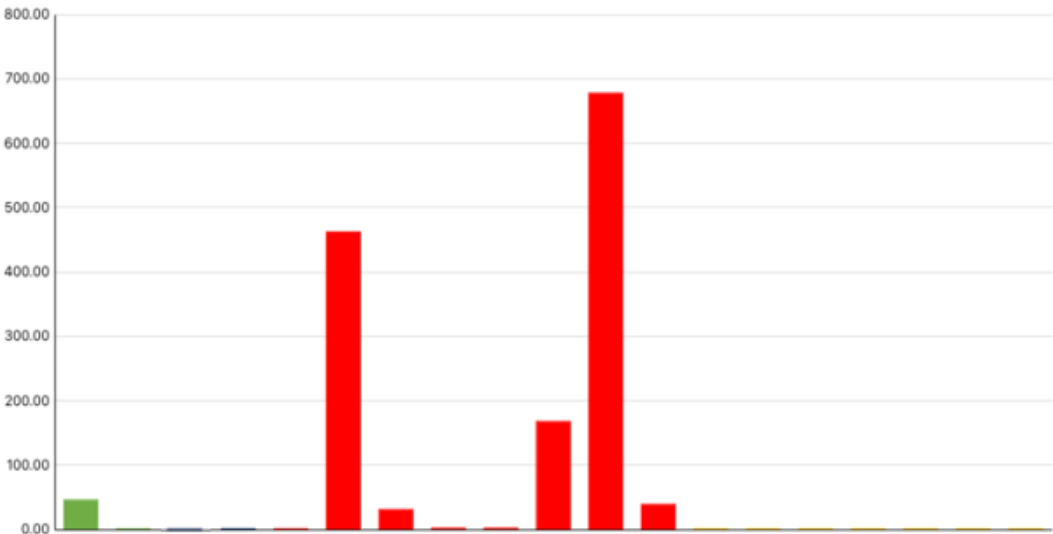
Year: Mar 2023 - Feb 2024

	Fuels		Energy		Embedded in what you buy								As a consequence of what you sell							
	Scope 1		Scope 2		Scope 3 - Upstream								Scope 3 - Downstream							
Category Status	✓	CNR	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓	✗	✗	✗	✗	✗
Total Emissions tonnes CO <sub>2</sub> e	45		0		88.2K	461	43	1	1	167	677	38			4.98K					
% Reported Emissions tonnes CO <sub>2</sub> e	0		0		93	0	0	0	0	0	1	0			5					



tonnes CO<sub>2</sub>e

✓	Reported	✗	Not Applicable	CNR	Category Not Reported
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✓	Reported	✗	Not Applicable	CNR	Category Not Reported
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This second emissions map shows all reported scopes and categories, with the exception of categories 1 and 11. The purpose of this view is to show the relative emissions of reported categories, on an appropriate scale.



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### March 2023 - February 2024

#### Energy & Other Efficiency Projects

##### Completed projects

Site	Country	Project	Emissions Impacted
All	UK	Accredited to ISO 14001	All
Leatherhead	UK	Refurb of head office included LED lighting, PIR controls and smarter use of heating / air conditioning	Scope 2
All	UK	Submitted targets to SBTi for validation	All
Leatherhead	UK	Free for employee EV chargers to encourage a shift to lower impact travel (where active travel or public transport cannot be used)	Scope 3 Business Travel and Employee Commuting
Leatherhead	UK	Switch from diesel to HVO for back up generator	Scope 1
Leatherhead	UK	Vape recycling bins added	Scope 3 – Cat 5 - Waste
All	UK	Laptops from refresh programme donated to non-profit organisations nominated by employees	Scope 3 – Cat 5 - Waste
All	UK	Cycle to work scheme	Scope 3 employee commuting

##### In process projects

Site	Country	Project	Emissions Impacted
Leatherhead	UK	Review waste collection providers	Scope 3 - Cat 5 - Waste
Leatherhead	UK	Reviewing options for EV salary sacrifice scheme	Scope 3 - Cat 6 - Business Travel and Cat 7 - Employee commuting

## Scope 1 & 2 Emissions



### Scope 1 - Direct Emissions

45.5 tonnes CO<sub>2</sub>e

Emission Type	Unit	Volume	tonnes CO <sub>2</sub> e
Fuels	litres	4,579.61	10.1
Fugitive Emissions	kg	18.4	35.4
<b>Total</b>			<b>45.5</b>

Scope 1 includes fuel purchased using company fuel cards and fugitive emissions, which have decreased from prior year due to rectification of the maintenance issues in 2022/23.



### Scope 2 - Indirect Emissions

0.0 tonnes CO<sub>2</sub>e

Emission Type	Unit	Volume	tonnes CO <sub>2</sub> e
Green Electricity ( Grid)	kwh	601,303.3	0.0
<b>Total</b>			<b>0.0</b>

Bytes sourced 100% renewable electricity for its main office. Leased offices emissions are captured within Scope 3 – Category 8 and reported separately.

## Scope 3 Emissions - Analysis by Reporting Category



### Scope 3: Category 1 - Purchased Goods & Services

88,216.2 tonnes CO<sub>2</sub>e

Emission Type	Unit	Volume	tonnes CO <sub>2</sub> e
Water Supply	m3	1,728	0.3
P G& S	tonnes	88,215.91	88,215.9
<b>Total</b>			<b>88,216.2</b>

Purchased Goods and Services calculations were based on spend across 10 of Bytes' top vendors, accounting for 80% of vendor spend. Where published, Scope 1,2 and 3 data was collated, and the proportion of unit spend used to calculate share of emissions. Where emissions data was not published, the closest peer organisation emissions data was used on a tCO<sub>2</sub>e per £ basis. Professional services CFs have been derived from UK DEFRA EEIO Spend Conversion Factors for "Other professional, scientific and technical services" at a rate of 0.191 kgCO<sub>2</sub>e per £.

Due to the expansion and recalculation work to 2022/23 reported emissions, this is the second reporting of a full category 1 (see the Group's Annual Report 2023/24 for more detail on this expansion work – available at [www.bytesplc.com](http://www.bytesplc.com)).



### Scope 3: Category 2 - Capital Goods

461.1 tonnes CO<sub>2</sub>e

Emission Type	Unit	Volume	tonnes CO <sub>2</sub> e
I C T Equipment	£	92,208.99	45.7
Laptops/ Servers	£	734,455.15	280.4
Furniture/ Refurb	£	342,157.39	128.8
Laptop Bags	£	6,080.1	4.5
Cycle to Work	£	9,416.66	1.8
<b>Emission Type</b>	<b>Unit</b>	<b>Volume</b>	<b>tonnes CO<sub>2</sub>e</b>
<b>Total</b>			<b>461.1</b>

Capital Goods spend was categorised and spend based conversion factors applied from UK DEFRA EEIO Spend Conversion Factors, in five different categories: (Electrical equipment, Computer, electronic and optical products, Furniture, Leather and related products, and Other Transport Equipment). Emissions decreased compared to 2022/23 due to lower refurb costs in year.

**Scope 3: Category 3 - Fuel & Energy Related Activities****42.9 tonnes CO<sub>2</sub>e**

Emission Type	Unit	Volume	tonnes CO <sub>2</sub> e
W T T - Electricity (generation)	kwh	601,303.3	27.6
W T T - Electricity ( T& D)	kwh	601,303.3	2.4
W T T - Vans	kg	306.38	0.3
W T T - Business Travel - Air	passenger.km	112,334	1.9
Transmission & Distribution	kwh	601,303.3	10.8
<b>Total</b>			<b>42.9</b>

Electricity T&D, Electricity generation WTT, Electricity T&D WTT and Delivery Vehicles WTT calculations have been included and detailed within Cat 3. WTT emissions have previously been reported under Cat 4 Upstream T&D. These have now been moved to Cat 3 along with other F&E related factors, as this is where the emissions should be reported and was also amended in the revised 2022/23 figures,

**Scope 3: Category 4 - Transportation & Distribution****1.3 tonnes CO<sub>2</sub>e**

Transport type	Unit	Volume	tonnes CO <sub>2</sub> e
Upstream T&D	kg	1,246.921	1.3
<b>Total</b>			<b>1.3</b>

More granular shipment information made available by freighting companies for Upstream supply chain has resulted in tonne.km calculations for the majority of shipments. The nature of the Bytes' business fulfilment model means that there are no further emissions to report in Cat 9 – Downstream. Where distances weren't available an average distance of 200km was used. This accounted for 14% of courier shipments or less than 1% of total shipments.

**Scope 3: Category 5 - Waste Generated From Operations****0.7 tonnes CO<sub>2</sub>e**

Type of waste	Unit	Volume	tonnes CO <sub>2</sub> e
Waste Disposal	tonnes	15.77	0.3
Water Treatment	m3	1,641.6	0.3
<b>Total</b>			<b>0.7</b>

Detailed Waste available for all sites except leased offices, where quantities are estimated and added into Category 8. Zero waste to landfill. Water treatment assumed to be 95% of water supply volumes.

**Scope 3: Category 6 - Business Travel****166.5 tonnes CO<sub>2</sub>e**

Emission Type	Unit	Volume	tonnes CO <sub>2</sub> e
Cars	miles	458,834.4	121.0
Rail	km	366,526.08	13.0
Plane	km	112,334	15.1
Hotel Stay	nights	891	17.4
<b>Total</b>			<b>166.5</b>

Hotel stay emissions based on a custom blended conversion factor of 19.5 kgCO<sub>2</sub>e per night to reflect a proportion of hotel stays were not in UK locations. Distance data not available for train journeys, so this has been calculated based on spend at a rate of £0.12 per km. Emissions have increased from the prior year due to growth in the company.




**Scope 3: Category 7 - Employee Commuting**
**677.4 tonnes CO<sub>2</sub>e**

Emission Type	Unit	Volume	tonnes CO <sub>2</sub> e
Cars	miles	1,733,548.88	461.4
Bus	km	9,340.58	1.1
Rail	km	529,498.25	18.8
Motorbike	miles	7,273.14	1.3
Walking	miles	2,749.25	0.0
Cycling	miles	5,782.14	0.0
Homeworking	hours	584,200	195.0
<b>Total</b>			<b>677.4</b>

A detailed employee commuting survey was conducted in 2023 with responses from 66% of the employee population. The emissions values were grossed up to represent 100% of the (increasing) employee population over the course of the reporting period. Cat 7 now also includes homeworking, as this forms a significant part of our employees working schedules. Homeworking has been reported for the first time in the recalculated 2022/23 emissions.


**Scope 3: Category 8 - Upstream Leased Assets**
**38.4 tonnes CO<sub>2</sub>e**

Emission Type	Unit	Volume	tonnes CO <sub>2</sub> e
Leased Offices	kwh	112,782.79	38.4
<b>Total</b>			<b>38.4</b>

This category includes emissions associated with all leased offices across Bytes. In 2023/24 this included the new London office. Detailed activity data was not available consistently across sites; as such estimates have been generated based on regular office user headcount benchmarks for waste, water supply and water treatment. It is assumed that each office has the following number of users 5 days per week; Reading has 30 regular users, London has 6 regular users, and Manchester 8 regular users with REGO backed electricity. No other fugitive emissions data were available. Category 3 emissions also deemed beyond Financial Control scope boundary.


**Scope 3: Category 11 - Use of Sold Products**
**4,978.0 tonnes CO<sub>2</sub>e**

Emission Type	Unit	Volume	tonnes CO <sub>2</sub> e
Use of Sold Products	kg	4,978,000	4,978.0
<b>Total</b>			<b>4,978.0</b>

Use of Sold Products was calculated based on average revenue per unit sold, for software and hardware, and assumed energy consumption per unit, plus an attribution factor based on group profitability. Enhancements could be made to this calculation, to understand the energy efficiency of specific products per vendor, within data centres, but this is deemed beyond reasonable efforts at this stage.



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#### Immediate Carbon Reduction Priorities

The need for taking immediate and bold action on climate change is being increasingly recognised by businesses, government and the general population. **Bytes** recognises that its activities have an impact on the environment and are committed to minimising any adverse impact wherever practical.

**Bytes'** Carbon Reduction Plan is aligned with science-based targets and is being incorporated into a more formal net zero transition plan. We are working to both mitigate emissions already identified and to ensure that sustainability and carbon reduction are baked into future business decisions.

The immediate priorities of the company to drive down its climate impact are:

Item	Description	Action Type	Emissions Impacted	Target	Time frame
1	Collate data through surveying employees on home working emissions	Data Improvement	Scope 3 – Cat 7 – Homeworkers	Greater understanding of emissions from home working	Q3 2024
2	Work with suppliers to understand their journeys to net zero	Data improvement	Scope 3 – Cat 1 – PG&S	Understand where vendors are making positive changes and obtain more accurate reporting data	TBC
3	Explore options for additional waste streams, such as composting food waste	Carbon reduction	Scope 3 – Cat 5 - Waste	Dispose and re-use of waste in a more sustainable way	Q3 2024
4	Explore potential for car sharing scheme	Carbon reduction	Scope 3 – Cat 7 - Employee commuting	Reduce single occupancy car use	Q4 2024
5	Explore options for installing solar panels at Leatherhead head office	Carbon reduction	Scope 2 - (location based) Scope 3 – Cat 3 - Fuel and Energy related activities	On-site sustainable energy generation, supporting office use and charging of EVs	Q4 2024
6	Rollout of EV salary sacrifice scheme	Carbon reduction	Scope 3 – Cat 6 Business Travel and Cat 7 Employee Commuting	Increased replacement of ICE to electric vehicles	Q3 2024
7	Net zero transition plan from Group	Carbon reduction	All scopes	Model of different actions with cost, impact and timeline to enable Bytes to meet carbon reduction goals	Q4 2024
8	Carbon literacy and sustainability training for all employees	Stakeholder engagement	All Emissions	Greater awareness of sustainability issues and employee led carbon reduction initiatives	TBC



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Data Declaration

**Bytes Software Services** categorises its Greenhouse Gas (GHG) emissions as Scope 1,2 and 3 as referred to in the WBCSD – WRI Greenhouse Gas Protocol (revised edition, dated March 2014). Emissions in Carbon Dioxide equivalent (CO<sub>2</sub>e) for all scopes are calculated using the conversion factors listed in BEIS/DEFRA Greenhouse Gas Conversion factors for the relevant 12 month period over which the emissions are calculated. Procured renewable electricity and gas is calculated in accordance with the WBCSD – WSI Scope 2 Guidance on procured renewable energy (2015).

Data Quality / Confidence

The data used to generate this report has been collected from various sources from within the company and its stakeholders. Where available emissions have been converted to CO<sub>2</sub>e using the published Conversion Factors published by BEIS/DEFRA for the relevant 12 month Reporting Period.

Data quality across scopes and categories was predominantly good. Any gaps have been noted and documented within commentary for each scope and category, and any assumptions generated to substitute these gaps have been detailed. Further efforts will focus on establishing operational measures to systematically curate, validate and refine data from source systems.

Third Party Verification

The data in this report has been produced using the CBN Expert accounting platform and verified by **CBN Expert Direct**

Carbon Removal & Offset Schemes used in Reporting Year

OPCO	Scheme Name	Details	tonnes CO <sub>2</sub> e
Bytes Software Services	Ecologi Carbon Removal	<a href="#">Restoring mangroves for blue carbon removal in Pakistan</a>	45.5
Bytes Software Services	Ecologi Carbon avoidance	<a href="#">Protecting the Tambopata-Bahuaja Biodiversity Reserve in Peru</a>	688
Bytes Software Services	Ecologi Carbon avoidance	<a href="#">Solar Power Project in Morocco</a>	688

Scope 3 Emissions

**Bytes Software Services** is committed to measure and act to reduce its emissions in all 3 scopes. This report reflects the amount of Scope 3 emissions that it has been technically feasible and cost effective to measure and act against. **Bytes Software Services** remains committed to work with its entire value chain to ensure as much of its Scope 3 emissions can be accurately measured and to develop actions that target long term reductions aligned to science-based targets.

Carbon Removals & Offsets

As part of the commitment of **Bytes Software Services** to target reductions in its GHG emissions and, ultimately, attain Net Zero the company will review and report all carbon removals and offsetting that it uses. All removal and offsetting options will be considered and reported including formally certified schemes (e.g. Gold Standard) as well as more informal schemes.



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Signature

Signed on behalf of **Bytes Software Services Ltd.**

Jack watson  
Name : .....

Managing Director  
Position : .....

Signed : .....  
  
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Signed on behalf of CBN Expert

Philip Rolling  
Name : .....

Head of Delivery  
Position : .....

Signed : .....  
