UKCloud Ltd

Carbon Reduction Plan (CRP)
for Year Ended 31.12.2020

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Finalised on: 01.10.2021

Prepared in accordance with the requirements of PPN 06/21

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Carbon Reduction Plan for UKCloud Ltd

Reporting Year to 31.12.2020

Commitment to Achieve Net Zero

UKCloud Ltd is committed to achieving Net Zero carbon emissions by 2030.

Note: whilst UKCloud is already a validated CarbonNeutral® Company, this net zero commitment reflects UKCloud's intention to continually reduce the amount of carbon produced (which then requires a validated offset) to zero by 2030.

Baseline Emissions Footprint

Baseline emissions are a record of the greenhouse gases that have been produced by UKCloud Ltd in the past, prior to the introduction of the latest round of environmental strategies to reduce emissions. Baseline emissions are the reference point against which emissions reduction in the future can be measured.

Baseline Reporting Year: 2019

This report summaries UKCloud's Baseline Emissions from 2019.

Note that UKCloud has been operating as a validated CarbonNeutral® Company since 2011 and providing CarbonNeutral® Cloud Services to its UK public sector customers since 2014.

It is of note that 2019 represented a normal year of UKCloud activities, prior to the exceptional circumstances which COVID-19 pandemic working introduced in 2020 and 2021.

Baseline Year Emissions (2019)

Scope 1	0.00 tCO2e
Scope 2	0.00 tCO2e
Scope 3	390.55 tCO2e
Total Emissions	**390.55 tCO2e**

2020 Actual Emissions

Scope 1   0.00 tCO2e

Scope 2   0.00 tCO2e

Scope 3   99.12 tCO2e

Total Emissions   99.12 tCO2e [1]

Declaration and Sign Off

This Carbon Reduction Plan has been completed in accordance with PPN 06/21 and associated guidance and reporting standard for Carbon Reduction Plans. Additional guidance has been sought from DEFRA where clarifications have been required.

Emissions have been reported and recorded in accordance with the published reporting standard for Carbon Reduction Plans and the GHG Reporting Protocol Corporate Standard and uses the appropriate Government emission conversion factors for greenhouse gas company reporting.

Scope 1 and Scope 2 emissions have been reported in accordance with SECR requirements, and the required subset of Scope 3 emissions have been reported in accordance with the published reporting standard for Carbon Reduction Plans and the Corporate Value Chain (Scope 3) Standard.

This Carbon Reduction Plan has been reviewed and signed off by the UKCloud Board of Directors.

Signed on behalf of UKCloud Ltd

Signature: *John A Godwin*

Name: John Godwin

Position: Director of Compliance & IA

Date: 01.10.2021

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[1] Note: UKCloud maintains CarbonNeutral® Company and CarbonNeutral® Cloud Service statuses, confirming that after all possible carbon reduction activities have taken place, any residual carbon footprint is offset in validated and independently audited carbon offset projects (VCS/Gold Standard).

UKCloud Emissions Reduction Targets (2020)

1. Use of energy sources on operating sites

UKCloud's use of data centre space rented from A already benefits from being 100% powered from renewable energy resources. It is not possible to improve upon this metric, although regularly monitoring with the supplier has confirmed that this continues to be the case.

UKCloud's use of office space rented from Q and H is realising the benefits from energy-efficient lighting, motion-activated sensors and energy saving office appliances which further reduce energy consumption when no employees are present. An increase in employee diligence in turning off unnecessary lighting and equipment has been widely acknowledged as a positive behaviour change.

For the majority of 2020, UKCloud operated under the UK Government's COVID-19 lockdown requirements, with office space being subject to minimal occupation on specific days of the week. As an exceptional event, this does not allow UKCloud to meaningfully report upon the average office-based emissions per employee. However, UKCloud has assessed that this had an associated impact of an energy reduction, as reported below.

2. Assessment of hybrid working model for employees

UKCloud's preparatory work for increased flexibility of home working options for its employees meant that the organisation was ready for an immediate switch to remote working for the majority of its employees in February/March 2020, in line with the requirements of the UK Government's COVID-19 restrictions.

This has had a direct effect on the number of employees' working days undertaken from their homes, with the associated reduction in commuting, business travel and office originated emissions, as reported below.

3. Increased segregation of office waste for recycling

UKCloud's continued use of office space rented from Q and H includes a provision of waste disposal. Similar facilities extend to the data centre space which is rented from A. An assessment of the waste produced and disposed of which has been diverted to materials recycling or incineration is reported below. However, it should be noted that the very limited use of UKCloud's office facilities during 2020 shows a reduction which can be attributed almost entirely to the low levels of employee occupancy.

4. Car sharing, electric vehicles and public transport use

UKCloud continues to actively encourage its colleagues to consider how they might:

a) Identify commuting and business travel journeys where car sharing is possible, over the use of separate vehicles

b) Where appropriate to the destination, prioritise the use of rail journeys as an alternative to driving a vehicle

c) Support colleagues who wish to invest in electric vehicles, by lobbying site landlords to provide suitable charging infrastructure

d) Understand the positive impacts of a potential increase in the use of home working options on commuting-originated carbon emissions

As an exceptional year, remote working during 2020 means carbon reduction has been seen most clearly in the reduction in commuting and business journeys.

5. Technical Innovation

With business priorities focused on responding to the challenges of COVID-19 during 2020, the Working Group has not been able to make notable progress in this important area, over and above UKCloud's baseline activities.

It should be recorded, however, that a significant increase in consumption of cloud services by the UK public sector (in response to their own personnel working remotely) will have had a notable reduction in their own Scope 3 emissions for commuting and business travel, which is a direct consequence of using UKCloud.

Explanatory Notes for 2020 Reporting

1. Scope 1 Emissions

UKCloud does not own operate from its own premises, and as such is a tenant of three different landlords (Q, H and A). It has been assessed that UKCloud does not have any Scope 1 emissions, as it does not operate its own infrastructure for the servicing of its offices and data centres, nor does it own or operate any vehicles on behalf of the Company.

2. Scope 2 Emissions [2]

UKCloud does not own operate from its own premises, and as such is a managed tenant of three different landlords (Q, H and A). Whilst UKCloud has visibility of its electricity consumption, waste production and (where appliable) refrigerant loss at each of its site, they are reported in this Carbon Reduction Plan for information purposes only.

Readers of this report should note that Scope 2 emissions will be reported and addressed by the landlord of each site, this information being provided to avoid the possibility of double accounting for carbon emissions.

For 2020, UKCloud has assessed and reports:

2a. Site Q (UKCloud Offices) – for information purposes only

Electrical consumption: 101,946.00 kWh

Associated tCO2e emissions: 23.76 tCO2e

Summary: 33% reduction vs. baseline emissions

Summary: 33% reduction vs. previous reporting year (2019)

Average No of Employees using Site Q: 238 [3]

Average Emissions per Employee: 0.099 tCO2e

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[2] All calculations shown are in accordance with DEFRA Guidance for 2020: https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2020

[3] Total number of personnel, with approximately 20 regularly visiting Site Q during COVID-19

2b. Site H (UKCloud Offices) – for information purposes only

Electrical consumption: 8,567 kWh

Associated tCO2e emissions: 1.99 tCO2e

Summary: 29% reduction vs. baseline emissions

Summary: 29% reduction vs. previous reporting year (2019)

Average No of Employees using Site H: 20 [4]

Average Emissions per Employee: 0.099 tCO2e

2c. Site A (UKCloud Data Centres) [5] – for information purposes only

Electrical consumption: 7,382,953 kWh

Associated tCO2e emissions: 1,721 tCO2e [6]

Summary: 1.3% increase vs. baseline emissions

Summary: 1.3% increase vs. previous reporting year (2019)

Average No of VMs (virtual machines) in Data Centres: 16,816

Average Emissions per VM: 0.1 tCO2e

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[4] Total number of personnel, with approximately 4 regularly visiting Site H during COVID-19

[5] Note: Ark Data Centres sources renewable energy from "100% REGO Backed Renewable" schemes (REGO = Renewable Energy Guarantees of Origin). Therefore, these statistics are provided for comparison purposes only, and are not included within UKCloud's summary of emissions shown on Page 3 of this report.

[6] Can be attributed to an increased workload, consistent with the emissions per VM metric.

3. Scope 3 Emissions [7]

3a. Scope 4 (Upstream Transportation) [8] – for information purposes only

Assessment of emissions for 2020: 1,572 tCO2e

Summary: 47% reduction vs. baseline emissions

Summary: 47% reduction vs. previous reporting year (2019)

3b. Scope 5 (Waste Generated in Operations)

Assessment of associated emissions for 2020 at Site Q:

Percentage of waste being recycled/incinerated = 80% / 20%

Total emissions of waste = 7.71 kg = 0.007 tCO2e

Summary: 93% reduction vs. baseline emissions

Summary: 93% reduction vs. previous reporting year (2019)

Average No of Employees using Site Q: 258 [9]

Average Emissions per Employee at Site Q: 0.0003 tCO2e

Assessment of associated emissions for 2020 at Site H: 0.0012 tCO2e

Summary: 69% reduction vs. baseline emissions

Summary: 69% reduction vs. previous reporting year (2019)

Average No of Employees using Site H: 20 [10]

Average Emissions per Employee at Site H: 0.00068 tCO2e

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[7] All calculations shown are in accordance with DEFRA Guidance for 2020:
https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2020

[8] Readers of this report should note that these emissions are already reported under PPN 06/21 by the supplier, this information is provided to avoid the possibility of double accounting for emissions.

[9] Total number of personnel, with approximately 20 regularly visiting Site Q during COVID-19

[10] Total number of personnel, with approximately 4 regularly visiting Site H during COVID-19

Assessment of associated emissions for 2020 at Site A[11]

Total emissions from waste = 0.099 tCO2e

Summary: 2% increase vs. baseline emissions

Summary: 2% increase vs. previous reporting year (2019)

3c. Scope 6 (Business Travel)

i. Total business mileage = 19.98 tCO2e (62,690 miles)
ii. Total nights hotel accommodation = 1.7 tCO2e (79 nights)
iii. Total rail = 2.78 tCO2e (46,870 miles)
iv. Total flights taken = 2.6 tCO2e (6 flights)

Total emissions from i-iv above: 27.06 tCO2e

Summary: 74% decrease vs. baseline emissions

Summary: 74% decrease vs. previous reporting year (2019)

Average number of employees during 2020: 258

Average business travel emissions per employee during 2019: 0.10 tCO2e

3d. Scope 7 (Employee Commuting)

i. Total commuting mileage = 69.01 tCO2e (219,572 miles)
ii. Public transport commuting = 1.74 tCO2e (29,283 miles)

Summary: 75% reduction vs. baseline emissions

Summary: 75% reduction vs. previous reporting year (2019)

Average number of employees during 2020: 258

Average commuting travel emissions per employee during 2020: 0.27 tCO2e

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[11] Note: on rare occasions, UKCloud is required to physically destroy hard drives in order to meet HM Government security requirements. This produces a minimal amount of electronic waste. No such activities are reportable for 2020.

3e. Scope 9 (Downstream Transportation and Distribution)

Assessment of outbound courier emissions for 2020 = 1.2 tCO2e

Summary: 8% reduction vs. baseline emissions

Summary: 8% reduction vs. previous reporting year (2019)

Appendix 1: Background to UKCloud's Environmental Framework

UKCloud was formed in 2011, and from day one implemented and maintained a commitment to carbon neutrality by understanding and reducing its carbon emissions where possible. For those that could not be reduced, UKCloud became a CarbonNeutral® Company (via Natural Capital Partners) by engaging in an ongoing programme of validated carbon offset projects which have supported the implementation of green technologies in a selection of developing countries.

In 2014, and to enhance the recognition that well-managed cloud services provide significant environmental benefits over legacy, standalone IT environments, UKCloud worked with National Capital Partners to develop CarbonNeutral® Cloud Services. By understanding the detailed energy consumption and associated carbon emissions of cloud services provided to its public sector customers, UKCloud commenced providing validated carbon offsets to match the consumption of each customer each month – all at no additional cost to the customer.

2021 marked the next milestone for UKCloud's environmental commitments, with its investment in the innovative Co-Forest project, a new carbon offsetting forest near Bath. As well as progressing UKCloud to a carbon negative position, its personnel are gaining hands-on experience in planting and managing UKCloud's trees, providing a credible legacy for the benefit of future generations.

UKCloud remains actively committed to achieving Net Zero carbon emissions by 2030. This commitment can be seen on the UK Government's Business Climate Hub website[12]. Details of how UKCloud is progressing towards this commitment are detailed within this report, which is regularly published to meet the requirements of UK Government requirements, for example Procurement Policy Note (PPN) 06/21, which requires regular Carbon Reduction Plans to be completed.

- End of Report -

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[12] https://businessclimatehub.org/smes/?ul_filter_nickname=ukcloud