



Andrew Shackleton  
Chief Services Operator  
Aventus Network Services Limited  
36 Scotts Road  
Bromley, BR1 3QD

Carbon Footprint Ltd  
Belvedere House  
Basing View  
Basingstoke  
RG21 4HG, UK

Tel: 01256 592 599  
christian.risoli@carbonfootprint.com  
www.carbonfootprint.com

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## Carbon Footprint Verification for Aventus Network Services Limited

Dear Andrew,

I am delighted to present the results of your successful carbon footprint verification. Carbon Footprint Ltd has reviewed the methodology used, the sources of your energy/fuel data and the calculation for Aventus Network Services Limited (Aventus). **Your carbon footprint was verified as 7.43 tCO<sub>2</sub>e.**

Aventus are a leaders in the proof of stake blockchain market offering enterprise level B2B their clients. Aventus is passionate about sustainability and commissioned Carbon Footprint Ltd to verify their server emissions.

### **How was the carbon footprint calculated?**

Aventus has used Carbon Footprint Ltd's online carbon calculator on [www.carbonfootprint.com](http://www.carbonfootprint.com) to calculate its carbon footprint for the period **1<sup>st</sup> August 2021 to 31<sup>st</sup> July 2022**. The calculation uses the 2022 emission factors developed by the Department for Environment, Food and Rural Affairs (DEFRA) and the Department for Business, Environment & Industrial Strategy (BEIS) for reporting emissions.

The carbon footprint assessment includes:

- Data centre electricity consumption

Aventus has chosen to limit this assessment to their data centres to identify their emissions per transaction on their service and compared to the proof of work model used by competitors. As such our findings are limited to the emissions within the data centre and not those of the overall organisation.

A 5% materiality threshold has been used. This means that errors or estimations that are likely to be less than 5% of the total carbon footprint are not considered a material discrepancy. Any errors above the 5% threshold will require a re-calculation.



## Data Source & Accuracy

Carbon Footprint Ltd has discussed the data sources with Aventus (see table below).

Element of Footprint	Data Source & Comments	Data Accuracy
Electricity	Aventus provided the total number of t3a.medium instances and their location used within operation. Aventus also provided an estimate of power consumption per instance based upon 24/7 operation at 100% utilisation.	Estimated /Poor

## Results

Your total carbon footprint for the period 1<sup>st</sup> August 2021 to 31<sup>st</sup> July 2022 is 7.43 tCO<sub>2</sub>e. All Aventus service emissions fall within scope 3 as they have no direct control over their data centres. Figure 1 shows a breakdown of Aventus data centre emissions by country. Within the assessment period Aventus processed 14.43 million transactions resulting in **per transaction emissions of 0.51 gCO<sub>2</sub>e**.

### Aventus Emissions breakdown by country

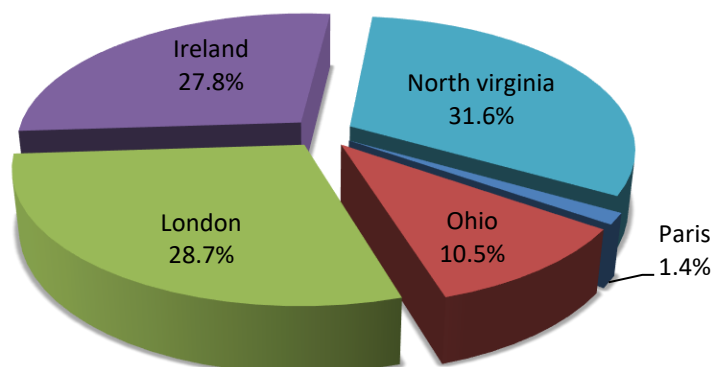


Figure 1 Data centre emissions breakdown by country

Scope	Element of Footprint	Tonnes of CO <sub>2</sub> e
Scope 3	Data Centre electricity consumption	7.43

## Recommendations

- Carbon offset emissions created within this data period. You can do this via this link <https://www.carbonfootprint.com/offset.aspx?r=project&o=8.00> (8 tonnes)
- Consider moving to AWS's green service using 100% renewable electricity reducing overall service emissions to zero
- Work alongside partners to obtain primary power consumption data – this will significantly increase the overall data accuracy
- Complete a Carbon Footprint Appraisal to identify Aventus full organisational emissions

## Conclusion

Aventus has successfully calculated its carbon footprint for the period 1st August 2021 to 31st July 2022 . I have provided Aventus with a 12-month licence to use the 'Carbon Footprint – CO<sub>2</sub>e Assessed' logo, for use within its marketing materials.

Yours sincerely,

A handwritten signature in black ink that reads "C. Risoli".

Christian Risoli, BSc (Hons) MSc  
Environmental Consultant  
Carbon Footprint Ltd  
christian.risoli@carbonfootprint.com

