Carbon Reduction Plan

In accordance with PPN 006 and associated guidance

Supplier name: **QuenAI Limited**
Trading as: **AssureWing**
Company number: **16834253**
Publication date: **28 March 2026**
Prepared by: **Jordan Mubiru, Founder & CEO**
Approved by: **Jordan Mubiru (Sole Director)**

Published at: **https://assurewing.co.uk**

1. Commitment to Achieving Net Zero

QuenAI Limited is committed to achieving net zero emissions by 2045, ahead of the government target of 2050 and in line with the NHS Carbon Footprint Plus target.

As a digital-first HealthTech startup with no physical office premises, no manufacturing, and no vehicle fleet, our organisational carbon footprint is minimal. We recognise that even small organisations have a responsibility to understand, measure, and reduce their emissions, and we are committed to doing so transparently.

2. Baseline Emissions Footprint

Baseline emissions are a record of the greenhouse gases that have been produced in the past and were produced prior to the introduction of any strategies to reduce emissions. Baseline emissions are the reference point against which emissions reduction can be measured.

Baseline year: **2025/26 (March 2025 – March 2026)**

Additional details relating to the baseline emissions calculations

QuenAI Limited was incorporated in 2025. This is the organisation's first reporting period and therefore serves as the baseline year. As a pre-revenue sole-founder organisation operating entirely from a home office, emissions have been estimated using activity data and government emission conversion factors. No prior emissions reporting exists.

Baseline year emissions

Emissions	Total (tCO2e)
Scope 1 (Direct emissions)	**0.00**
Scope 2 (Indirect emissions – purchased electricity)	**0.12**
Scope 3 (Other indirect emissions – included sources)	**0.08**
Total emissions	**0.20**

Emissions breakdown

Scope 1: QuenAI does not operate any combustion sources, company vehicles, or on-site fuel-burning equipment. Scope 1 emissions are zero.

Scope 2: Estimated electricity consumption for home office use (MacBook, iPhone charging, home broadband router, lighting during working hours). Estimated at approximately 350 kWh per year using the government emission conversion factor for UK grid electricity.

Scope 3 (required categories):

Category 4 — Upstream transportation and distribution: Not applicable. QuenAI is a digital-only organisation with no physical products, no supply chain logistics, and no inbound goods requiring transportation. Emissions: 0.00 tCO2e.

Category 5 — Waste generated in operations: Negligible. QuenAI operates paperlessly from a home office. No commercial waste is generated. Minimal domestic electronic waste (estimated less than 0.5 kg per year). Emissions: 0.00 tCO2e.

Category 6 — Business travel: Estimated 4 return rail journeys within London for stakeholder meetings per year. All travel by public transport. No flights. Emissions: 0.01 tCO2e.

Category 7 — Employee commuting: Not applicable. QuenAI is a sole-founder organisation operating from a home office. There is no commute. Emissions: 0.00 tCO2e.

Category 9 — Downstream transportation and distribution: Not applicable. AssureWing is a cloud-hosted software platform. There are no physical products to transport or distribute. Emissions: 0.00 tCO2e.

Additional Scope 3: Purchased goods and services (cloud hosting via Netlify and Apple iCloud) estimated using spend-based methodology. Emissions: 0.07 tCO2e.

3. Current Emissions Reporting

Reporting year: **2025/26 (March 2025 – March 2026)**

As this is the first reporting period, current emissions are the same as baseline emissions.

Emissions	Total (tCO2e)
Scope 1 (Direct emissions)	**0.00**
Scope 2 (Indirect emissions – purchased electricity)	**0.12**
Scope 3 (Other indirect emissions – included sources)	**0.08**
Total emissions	**0.20**

4. Emissions Reduction Targets

In order to continue our progress to achieving net zero, we have adopted the following carbon reduction targets.

We project that carbon emissions will decrease over the next five years to 0.10 tCO2e by 2031. This is a reduction of 50%.

Our longer-term targets are:

Target year	Target emissions (tCO2e)	Reduction from baseline
2028	**0.15**	**25%**
2031	**0.10**	**50%**
2035	**0.05**	**75%**
2040	**0.02**	**90%**
2045	**0.00**	**Net Zero**

These targets will be reviewed annually and adjusted as the organisation grows. If additional staff, office premises, or production infrastructure are introduced, emissions will be recalculated and targets revised to ensure the net zero trajectory is maintained.

5. Carbon Reduction Projects

Completed carbon reduction initiatives

The following environmental management measures have been implemented since the 2025/26 baseline. As this is QuenAI's first reporting period, these represent the organisation's founding design principles rather than changes from a previous state:

Remote-first operations: The organisation operates entirely from a home office with no dedicated commercial premises, eliminating office energy consumption, heating, and cooling emissions.

Zero company vehicles: No company vehicles are owned or leased. All business travel is conducted via public transport (rail), and meetings are conducted remotely via video conferencing wherever possible.

Cloud-native infrastructure: All IT infrastructure is cloud-based, avoiding the need for on-premises servers. Hosting providers have been selected with consideration for their environmental commitments — Netlify operates on renewable energy-powered infrastructure, and Apple has achieved carbon neutrality for its corporate operations.

Paperless operations: The organisation operates on a fully digital basis. No paper records are held, no printing is undertaken, and all documentation is stored and shared electronically.

Energy-efficient devices: Apple MacBook and iPhone are the sole business devices, both designed to meet Apple's environmental standards including 100% recycled rare earth elements and energy-efficient processors.

Sustainable-by-design product architecture: AssureWing's Synthetic Data Factory is designed to generate privacy-compliant synthetic datasets inside NHS Secure Data Environments without duplicating raw patient data. Traditional approaches require full duplication of datasets — spinning up additional compute, storage, and processing capacity with significant energy consumption. Our approach processes data in volatile memory (RAM) inside the SDE's existing infrastructure, generates synthetic outputs, and then destroys all traces of real data. This eliminates the need for energy-intensive data duplication, reduces cloud storage requirements, and minimises the carbon footprint of data-driven research and AI development in healthcare. This environmental benefit scales with every Trust onboarded and every dataset synthesised.

Circular data economy: Synthetic datasets generated through AssureWing are designed to be reused across multiple research cohorts and projects. Traditional approaches create a new data extract for every research application — each requiring separate governance approval, data processing, storage, and compute. AssureWing's approach generates a validated synthetic dataset once, which can be safely shared and reused across multiple approved projects without additional data processing or energy expenditure. This eliminates the "carbon cost of duplication" that compounds with every new research request.

Elimination of physical audit and paper-based IG processes: AssureWing digitises information governance workflows that many NHS Trusts still conduct through in-person meetings, physical document reviews, paper-based incident forms, and manual redaction processes. SAR responses in many Trusts still involve printing medical records, manually redacting with black markers, scanning redacted documents, and posting physical copies. AssureWing's automated redaction engine replaces this entire physical workflow with a digital process, eliminating paper consumption, printer energy use, postage, and the associated travel for physical record collection across multi-site Trusts.

DSPT evidence as a by-product: Traditional DSPT compliance requires dedicated evidence-gathering exercises — often involving cross-departmental meetings, site visits, document collection from multiple locations, and significant staff travel time. AssureWing produces structured, DSPT-aligned evidence as a natural by-product of daily IG operations, removing the need for separate compliance exercises and their associated carbon footprint.

Single platform replacing multiple tools: AssureWing consolidates eight IG functions (SAR/FOI, DPIA, incident management, AI risk register, correction rubric, synthetic data, integration layer, and CIO dashboard) into a single cloud-hosted platform. This replaces the need for multiple separate software tools, each with their own hosting infrastructure, server requirements, and energy consumption. Fewer platforms means fewer servers, less cooling, and a smaller overall digital footprint for NHS IG operations.

Intelligent learning reduces wasted compute: The Correction Rubric at the core of AssureWing learns from every interaction across every Trust. As the knowledge base grows, validation accuracy improves — meaning fewer failed synthetic data generation runs, fewer rejected DPIAs requiring rework, and fewer incomplete SAR responses needing reprocessing. Each improvement in first-time accuracy directly reduces wasted compute cycles and their associated energy consumption.

The carbon emission reduction achieved by these measures is inherent in the organisation's design — QuenAI was built as a low-carbon organisation from inception rather than requiring retrospective reduction from a higher baseline.

Future carbon reduction initiatives

In the future we plan to implement further measures including:

Green hosting migration: As the AssureWing platform moves to production, evaluate hosting providers certified under ISO 14001 or using 100% renewable energy for data centre operations.

Renewable energy tariff: Switch home office electricity supply to a 100% renewable energy tariff to reduce Scope 2 emissions to near zero.

Supply chain engagement: As the organisation grows and engages more suppliers, require environmental commitments from all new suppliers and favour those with published carbon reduction plans.

Scope 3 measurement improvement: Implement more granular Scope 3 measurement as the organisation scales, moving from spend-based estimates to activity-based calculations where possible.

Carbon offsetting: For any residual emissions that cannot be eliminated, investigate high-quality carbon offset programmes accredited under the Gold Standard or Verified Carbon Standard.

Annual reporting: Publish an updated Carbon Reduction Plan annually, tracking progress against targets and identifying new reduction opportunities.

6. Declaration and Sign Off

This Carbon Reduction Plan has been completed in accordance with PPN 006 and associated guidance and reporting standard for Carbon Reduction Plans.

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 (where required), 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 board of directors (or equivalent management body).

Signed on behalf of the supplier:

Name: **Jordan Mubiru**
Title: **Founder & CEO, Sole Director**
Date: **28 March 2026**