



Carbon Footprint Verification Report for Alliance Trust plc

16th February 2018

Verification summary

| | |
|---------------------------------------|---|
| Verifiers: | Georgina Whitlock, Environmental Consultant, Carbon Footprint Ltd |
| Report reviewed by: | Katie Elmer, Senior Sustainability Consultant, Carbon Footprint Ltd |
| Inventory period verified: | 1 st January 2017 to 31 st December 2017 |
| Level of assurance: | Limited |
| Assurance being given to: | Sharon Winter Alliance Trust plc 8 West Marketgait Dundee DD1 1QN |
| Verification Standard: | ISO 14064-3: 2006 |
| Methodology used for the calculation: | GHG Protocol |

Statement of verification

Alliance Trust plc
8 West Marketgait
Dundee
DD1 1QN

16th February 2018

Scope

Alliance Trust plc (henceforth referred to as Alliance Trust) engaged Carbon Footprint Ltd to review Alliance Trust's 2017 Carbon Footprint Report and supporting evidence for the period 1st January 2017 to 31st December 2017. Alliance Trust is responsible for the information within the carbon footprint report. The responsibility of Carbon Footprint Ltd is to provide a conclusion as to whether the assertions made within the carbon footprint report are in accordance with the Greenhouse Gas (GHG) Protocol.

Methodology

The verification was led by Georgina Whitlock, Environmental Consultant, Carbon Footprint Ltd. Carbon Footprint Ltd completed the review in accordance with the 'ISO 14064 Part 3 (2006): *Greenhouse Gases: Specification with guidance for the validation and verification of greenhouse gas assertions*'. The work was undertaken to provide a limited level of assurance with respect to the GHG assertions made in the carbon footprint report. Carbon Footprint Ltd believes that the review of the carbon footprint report, calculations and associated evidence, coupled with this subsequent report, provides a reasonable and fair basis for our conclusion.

The following data was within the scope of the verification (below shows the post-audit results):

- Scope 1: natural gas, company car travel and refrigerant loss – 136 tCO₂e
- Scope 2: purchased electricity – 326 tCO₂e (location-based) and 207 tCO₂e (market-based)
- Scope 3: business travel (air, rail, taxi and personal car) and electricity transmission & distribution – 171 tCO₂e

Total: 633 tCO₂e (location-based) and 514 tCO₂e (market-based)

Assurance opinion

Based on the results of our verification process, Carbon Footprint Ltd provides limited assurance of the GHG emissions assertion, **and found no evidence that the GHG emissions assertion:**

- is not materially correct;
- is not a fair representation of the GHG emissions data and information; and
- is not prepared in accordance with the GHG Protocol.

It is our opinion that Alliance Trust has established appropriate systems for the collection, aggregation and analysis of quantitative data for determination of GHG emissions for the stated period and boundaries.

A handwritten signature in black ink, appearing to read "Georgina Whitlock".

Georgina Whitlock, *MEnvSci (Hons)*
Environmental Consultant

1 Introduction

Alliance Trust plc (Alliance Trust) is an investment and financial services company, headquartered in Dundee, Scotland. This report provides the outcomes of the independent verification of Alliance Trust's Greenhouse Gas (GHG) assertion for the period 1st January 2017 to 31st December 2017, as calculated by Corporate Citizenship.

The verification was based on an assessment of Alliance Trust's 2017 Carbon Footprint Report, (version received on 6th February 2018), supplemented with a site visit and review of supporting evidence. A verification plan (Appendix 1) was devised at the preliminary stages of the assessment to guide the verification process. The sampling plan in Appendix 2 lists the documents submitted for verification (this does not include any additional documents viewed during the site visit).

The verification was undertaken in line with the International Standard ISO 14064-3: 2006 '*Greenhouse gases- Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions*' to a *limited* assurance level.

1.1 Objectives

The objectives are:

- To provide assurance to Alliance Trust, to ISO 14064-3 standard, that the GHG assertion is reliable and of sufficient quality for external voluntary reporting to the Carbon Disclosure Project (CDP).
- To provide a verification statement that meets the requirements of CDP.
- To assist internal purposes – mainly for CSR reporting and other disclosures; annual reports and tracking towards internal targets.

1.2 Scope

The GHG assertion that is being verified is Alliance Trust's Global Carbon Footprint for the period 1st January 2017 to 31st December 2017. The following sources of GHG emissions are within the scope of the verification:

- Scope 1 (direct): natural gas, company car travel and refrigerant loss.
- Scope 2 (indirect): purchased electricity.
- Scope 3 (other indirect): business travel (air, rail, personal car, taxi), and transmission and distribution of electricity.

The GHG emissions have been consolidated through the operational control approach and are reported in terms of carbon dioxide equivalent (CO₂e). Emissions for the individual GHGs have also been calculated separately in line with the GHG Protocol.

1.3 Materiality

A qualitative and quantitative evaluation of any errors, limitations or misrepresentations has been undertaken. The verification team, using professional judgment, determined whether any qualitative discrepancies could affect the overall GHG assertion and, in turn, have a material impact on the decisions of the intended user.

Any quantitative discrepancies were calculated individually to understand the impact of them as a percentage of the GHG assertion. The pre-defined materiality threshold is 1% of the total inventory.

1.4 Responsibility

Alliance Trust is responsible for the provision of the GHG assertion and the supporting information. Carbon Footprint Ltd was contracted to provide a third-party verification of this assertion, to a limited level of assurance. Appendix 3 provides a profile of the verification team.

1.5 The work undertaken

The verification undertaken by Carbon Footprint Ltd was conducted in accordance with ISO 14064-3: Greenhouse gases- part 3: *'Specification with guidance for the validation and verification of greenhouse gas assertions'*. This was to a limited level of assurance, as defined by the ISO 14064-3 standard. A verification plan (including sampling) was devised at the preliminary stages of the assessment to guide the verification process (see appendices).

In conformance with the ISO 14064-3 standard, the following activities were undertaken:

- Initial review of Alliance Trust's GHG documentation and methodologies, including historical GHG data for the period 1st January 2017 to 31st December 2017.
- Site visit, involving discussions with staff from Alliance Trust and Corporate Citizenship regarding:
 - Scope of calculation (including appraisal boundaries).
 - Input data sets, any missing data, estimations made and assumptions.
 - Calculation methodology and conversion factors used.
 - Quality control procedures.
 - Results & interpretation.

1.6 Abbreviations

| | |
|--------------------|--|
| AIB | Association of Issuing Bodies |
| AT | Alliance Trust plc |
| ATI | Alliance Trust Investments |
| ATS | Alliance Trust Savings |
| CDP | Carbon Disclosure Project |
| CSR | Corporate Social Responsibility |
| Defra | Department for Environment, Food & Rural Affairs |
| FTE | Full-time equivalent |
| GHG | Greenhouse Gas |
| ISO | International Organisation for Standardisation |
| km | Kilometres |
| kWh | Kilowatt Hours |
| tCO ₂ e | Tonnes of Carbon Dioxide Equivalent |

2 Verification results

2.1 Assessment of the GHG information system and its controls

2.1.1 Boundary and data selection

The GHG emissions have been consolidated through the operational control approach and are reported in terms of carbon dioxide equivalent (CO₂e). In previous years, the operational boundary of Alliance Trust plc's carbon footprint included Alliance Trust plc (AT) and its two subsidiaries: Alliance Trust Savings (ATS) and Alliance Trust Investments (ATI).

ATI was sold on 1st April 2017. During the audit, it was determined that this divestment is a significant structural change, exceeding the carbon footprint recalculation policy's significance threshold of 1% (stated on page 15 of the pre-verified carbon footprint report). Therefore the baseline year and current reporting year should be re-calculated to exclude ATI operations. This recalculation was completed during the verification process, and the updated results re-verified. Table 1 was used to determine the breakdown of ATI/non-ATI operations and make the necessary re-calculations. It indicates which sites are included within the operational boundary.

Table 1 – Percentage of non-ATI staff by office and year for re-calculation purposes

| Site | 2013 | 2014 | 2015 | 2016 | 2017 | Summary /assumptions made: |
|------------------------------|------|------|------|------|------|---|
| 8 West Marketgait, Dundee | 90% | 90% | 90% | 93% | 100% | 10% of Dundee was made up of ATI employees up to 1st Sept 2016, when these employees left (moved to 5th Floor Atria). After this, 100% non-ATI. |
| Gresham Street, London | 0% | 0% | 0% | 0% | 0% | All ATI – London to be removed from current & previous footprints. |
| 5th Floor Atria 1, Edinburgh | N/A | N/A | N/A | 0% | 50% | 100% ATI from Sept 2016, when 5th Floor started to be used, until June 2017 when ATI staff left. After June 2017 ATS staff moved in from 7th Floor. |
| 7th Floor Atria1, Edinburgh | N/A | 0% | 0% | 91% | 100% | 100% ATI in 2014-15. Starting 2016, 15 out of 115 staff were ATI (i.e. 87% non-ATI) until Sept 2016 when ATI moved to 5th Floor, at which point 100% non-ATI. After June 2017, ATS staff moved to 5th Floor as the lease for 7th Floor came to an end in July 2017. |
| 107 George Street | 0% | 0% | 0% | N/A | N/A | All ATI – George St to be removed from the footprint for previous years. |

For previous years it was assumed that approximately half of all company car travel was carried out by ATI. For other travel, ATI was removed by using the 2017 data. The 2017 travel data (air, rail, taxi and personal car) was segregated by business unit (AT, ATI and ATS). Since ATI was only in operation for 3 months, the travel data for the other entities was averaged to provide a 3 month total. The proportion of ATI of this 3 month total was then calculated for each travel mode and then applied to

previous years to discount ATI. The estimations and assumptions used were deemed acceptable due to lack of granularity of data available, and the calculations were found to be correct.

Figure 1 shows Alliance Trust’s operational boundary. It was a recommendation in last year’s audit to calculate and include the emissions associated with the transmission and distribution of electricity in future assessments. This had not originally been included within the 2017 calculations, however it was discussed and agreed during the audit that since electricity is Alliance Trust’s most significant emission source, scope 3 transmission and distribution emissions should be calculated and included within the scope. This provides a more realistic and holistic picture of emissions from Alliance Trust’s electricity consumption. The base year and previous years were also re-calculated in order to be comparable. The 2017 emissions from electricity transmission and distribution account for 4.6% of the total footprint.

Figure 1 – Assessment boundary

| Scope 1 Direct Emissions | Scope 2 Energy Indirect | Scope 3 Other Indirect |
|--|---|---|
| <u>Fuel combustion</u> Natural Gas | <u>Consumption of purchased electricity, heat steam & cooling</u> Electricity | <u>Purchased materials and fuels</u> None |
| <u>Owned Transport</u> Company car travel | | <u>Transmission and distribution of energy</u> Electricity |
| <u>Process emissions</u> None | | <u>Leased assets, outsourcing and franchising</u> Energy use at downstream leased property investments where Alliance Trust is billed for the energy. |
| <u>Fugitive emissions</u> Refrigerant loss | | Energy use at downstream leased property investments which are directly metered to and paid for by the tenants. |
| <u>Process emissions</u> None | | <u>Transport related activities</u> Grey fleet car travel, taxi, flights and rail travel |
| <u>Fugitive emissions</u> Refrigerant loss | | <u>Sold goods and services</u> None |
| <u>Fugitive emissions</u> Refrigerant loss | <u>Waste Disposal</u> Residual & Recyclable | |

Key:

| | |
|--------------------------------|--------------------------------|
| Within the assessment boundary | Outside of assessment boundary |
|--------------------------------|--------------------------------|

2.1.2 Data management

Last year ATI was responsible for collecting data and assessing the carbon footprint. However, since the sale of the subsidiary in April 2017, staff from AT took on the responsibility of drawing all the data together and overseeing the assessment.

The GHG data is collated from various sources such as utility bills and expense claims (obtained from the general ledger). The GHG data is entered into a data collection spreadsheet provided by Corporate Citizenship, who then carries out the calculations and analysis.

Due to new people being involved in the data collection this year, Corporate Citizenship gave some training on how to fill out the data reporting template: what data was required and where to obtain the data/how it was obtained last year. Corporate Citizenship provided Alliance Trust with support throughout the data gathering process. Alliance Trust found it relatively easy to obtain data, however estimations/assumptions were still required.

This year, it was possible to obtain travel data separated by business unit. This meant that when ATI had to be removed from the calculations it was relatively straight forward for the current reporting year. However, in previous years the travel data had not been separated out and therefore Alliance Trust were required to make various assumptions in order to re-calculate without ATI operations.

For quality control, the collected data was compared against previous years in order to identify anomalies. The data entered into the data collection spreadsheet was also cross-checked against evidence (e.g. invoices). A log of queries was maintained and shared between Alliance Trust and Corporate Citizenship in order to resolve the queries.

The recalculation policy for Alliance Trust's carbon footprint is stated within the carbon footprint report. Re-calculations were made to the baseline and previous years to remove ATI operations and to include electricity transmission and distribution emissions.

2.2 Data limitations

Alliance Trust found that landlords/managing agents were quite helpful in getting data at the beginning, however, it was difficult getting responses for follow-up queries. There were particular issues with the data for Atria as the Building Manager left and Alliance Trust could not obtain definitive confirmation as to whether the data they had been sent was for the whole building or the floor they occupied. As the data was unreliable, the 5th Floor consumption was estimated based on floor area and 7th Floor data. Floor areas were checked this year by Corporate Citizenship to ensure that figures used for apportioning were accurate.

Estimations and assumptions were required for certain calculations, for example, travel data where only cost data was available, or where there were missing utility bills. These were discussed during the audit – see next section for further details.

2.3 Assessment of GHG data and information

2.3.1 Electricity consumption

Electricity consumption accounts for 56% of Alliance Trust's total GHG emissions.

During the verification process, the data was re-calculated to remove ATI operations. Gresham Street and half of 5th Floor Atria were occupied by ATI in 2017. Together they accounted for 11 tCO₂e which is 1.7% of the total footprint and therefore a material error. The re-calculations were verified to be correct.

A selection of sites was examined in more detail. Below are the main observations from the audit:

8 West Marketgait, Dundee (WMG)

- Half-hourly meter.
- No renewable energy generation on-site.
- Owned and completely occupied by Alliance Trust. Ground and 1st floors currently empty. 2nd, 3rd and 4th floors leased to ATS. 5th Floor used by AT.
- June bill – only based on 11 days so it was extrapolated to 30 days for the month. The bill was viewed during the audit. The date period and supply address were correct, as well as the pro-rating calculations. It was determined during the audit that the bill was only a partial month because the contract tariff was switched mid-June as account changed from ATI to AT.
- Bills were also viewed and checked against the data collection spreadsheet for March, May, October and November. These were all correct.
- Total figure in the data collection spreadsheet matched the one used in the calculation tool – 855,425.41 kWh.
- Eon sent a certificate last year stating renewable energy and attribute certificates up until 1st November 2016. A certificate was not obtained this year but the power purchase agreement was provided as evidence. Up until 20th June 2017 when the contract was switched, WMG was on a 100% renewable energy tariff.
- To calculate the market-based emissions, the renewable tariff was used for consumption data up to 20th June (0 gCO₂e/kWh). The remainder of the year was being incorrectly calculated using the Defra factor, however during the audit this was updated to the 2016 AIB residual factor.

Atria (7th and 5th Floors)

- The building manager provided Alliance Trust with a spreadsheet containing consumption data. Utility bills were provided for the 7th Floor as it is on a separate meter.
- As it could not be confirmed whether the spreadsheet data related to just one floor or for the whole building, Alliance Trust decided to estimate the 5th Floor data using floor areas and the 7th Floor utility bill data. The estimation methodology was deemed to be suitable and carried out correctly.

- Several utility bills for the 7th Floor were inspected during the audit. These were found to have the correct supply address and period, and matched the figures entered into the data collection spreadsheet.
- The bill provided for June did not contain kWh data, therefore consumption was estimated using the data for May as the cost amounts were similar. This assumption is acceptable.
- During the verification process, the data was re-calculated to remove ATI. This had no effect on the 7th Floor data as it was only occupied by non-ATI staff, however the 5th Floor data was multiplied by a factor of 0.5. This method was deemed appropriate as ATI only occupied the space for approximately 6 months, at which point ATS moved in from the 7th Floor.

2.3.2 Natural gas consumption

Gas consumption accounts for 20% of Alliance Trust's total GHG emissions and 92% of the scope 1 emissions.

During the verification process, the gas emissions were re-calculated without Gresham Street as it was completely occupied by ATI during the 2017 data period. This accounted for 0.7% of the total carbon footprint.

Main observations for WMG:

- Invoices were provided during the audit for inspection.
- The January data required pro-rating to fit data period. The calculation was checked and found to be correct.
- Some estimated readings but most were actual and therefore very accurate.
- Bills were inspected for Jan, Feb, Apr, Jul and Dec and cross-checked with the data collection spreadsheet. These were all found to be entered correctly.

2.3.3 Refrigerant loss

Same methodology as previous years has been used – the leakage rate method.

The methodology used to adjust for sites only in occupation for 7 months was found to be appropriate and the calculations correct. The total figures matched that used in the calculation spreadsheet.

I recommend that a process is put in place to account for major leaks if they occur. Staff should ensure service records are filed somewhere appropriate or forwarded to the relevant person for carbon management.

2.3.4 Business travel

Scope 1 – company owned vehicles

This year there were no company cars.

Scope 3 – air, rail, taxi and personal car business travel

Scope 3 travel data was re-calculated during the verification process to remove travel from ATI staff. As the travel data provided this year was separated by business unit, it was very easy to remove for the 2017 data period. This accounted for 32 tCO₂e (approximately 5% of the total carbon footprint). The re-calculations were checked and found to be correct.

Personal car business travel (grey fleet)

Where employees use their own vehicles for business travel, they claim back costs through the expenses system. This cost data was obtained from the general ledger and calculated back to miles using the standard claim rate of 45p/mile. During the audit, checks were carried out on the methodology used and calculations – these were all correct and matched the totals used in the calculation spreadsheet. Consistency was maintained by using the same assumption as last year of a medium petrol car.

Taxi

Taxi travel data is obtained from expenses. As with last year, an average cost of £2.35 per mile was used to estimate mileage from the cost data. This was based on costs obtained from a local taxi provider for executive cars (£3/mile) and regular taxis (£1.70/mile). This methodology was deemed to be suitable and provided adequate accuracy.

Rail

Cost data for rail travel has been obtained from expenses. The departure/destination locations are not always entered into the line description field so assumptions have to be made to estimate distance travelled, which reduces the accuracy. This year a different average price was used for the estimations (31.66p/mile), calculated from an average ticket for Dundee to Edinburgh. This was used as it was deemed to be the most common journey taken. This assumption and methodology was taken to be acceptable and appropriate.

Flights

Air travel accounts for 14% of Alliance Trust's total GHG emissions.

For the assessment, the air travel data has been obtained from Alliance Trust's expenses records (general ledger). The general ledger provides cost data separated into either 'UK' or 'non-UK' flights. It has been improved since last year, allowing users to record whether the trip is single or return and also to list baggage costs separately. The departure and destination locations are not recorded however and neither is the class of flight (e.g. economy).

As the data is based on annual spend rather than distance travelled, various assumptions are made limiting the accuracy of the results. Alliance Trust has assumed that all flights that have been categorised as 'UK' flights are domestic flights only. The 'non-UK' flights were separated into short-haul and long-haul flights by assuming that anything below £300 is a short-haul flight and anything above is long-haul. Baggage is listed separately in the ledger so this is stripped out. The number of trips (legs) were calculated and then multiplied by an average distance to obtain a total km figure. The average distances used are dependent on the type of flight (i.e. domestic, short-haul or long-haul) and are based on Defra's guidance. In lieu of more accurate data, the assumptions made are acceptable.

As flight class is not recorded, the 'average passenger' emission factors have been used. Radiative forcing has been included, which Defra considers to be best practice.

To improve the accuracy, the system should ideally allow staff to enter the departure and destination airport name and the class of flight. An alternative is to book travel through a central travel provider who will provide reports with a breakdown of distance travelled.

2.4 Data calculations

Alliance Trust has calculated their GHG inventory by using the 2017 Defra emission factors. The emission factors used for the calculations have been verified as correct and appropriate for the data. The calculations are carried out using an excel-based tool. During the audit, spot checks were carried out on calculations in the calculation spreadsheet, and were found to be correct.

The 'market-based' electricity calculations were checked. For half of the period WMG was on a renewable tariff so that specific factor was used, and the other half was calculated using the residual emission factor published by Association of Issuing Bodies (AIB). All other sites were calculated with the residual emission factor. The source of the residual factor is reliable and correct, however the 2015 factors were being used rather than the more up-to-date 2016 factors that were published in June 2017. This was corrected during the audit. The hierarchy of how to calculate market-based emission factors was also discussed during the audit, and it was recommended that tariff-specific emission factors should be used where possible rather than the residual factor. Alliance Trust tried to obtain this for WMG during the audit, however the specific tariff for the second half of the year could not be confirmed, hence the residual factor was used.

3 Conformance with verification criteria

The chosen methodology that has been used for accounting and reporting Alliance Trust's GHG inventory is the GHG Protocol Corporate Standard. Carbon Footprint Ltd has examined Alliance Trust's GHG assertion in relation to the GHG Protocol's accounting and reporting principles. The verification activities have shown that Alliance Trust has met the verification criteria satisfactorily.

Relevance – the data collected and reported reflects the significant environmental impacts of Alliance Trust's operations.

Completeness – emission sources that come within the reporting boundary have been quantified and reported where possible. Exclusions (if applicable) have been disclosed and justified.

Consistency – methodologies are documented and appear to be consistent.

Transparency – the carbon footprint report states the company's approach to data collection and the estimations that were made.

Accuracy – sufficient accuracy has been achieved. Actions to improve data accuracy and reduce uncertainty have been identified.

4 Conclusions

In order to maintain relevance to Alliance Trust's current operations, it was determined during the audit that Alliance Trust should re-calculate its current and baseline year. This was to exclude ATI operations as the subsidiary was divested during the middle of the data period. It was also advised to include the scope 3 emissions of electricity transmission and distribution for the current reporting period (as well as the baseline year), as electricity consumption is a significant aspect of Alliance Trust's carbon footprint. Both of these re-calculations were completed satisfactorily during the verification process for the current reporting period, the base year and also previous years.

Alliance Trust's boundaries and system has satisfactorily captured the most significant and relevant emission sources. However, the accuracy and quality of the air travel data can still be greatly improved. This could be achieved by adding new fields into the expenses system for departure/destination locations and for flight class. I recommend Alliance Trust discusses its data recording requirements with its finance team in order to find a mutually agreeable solution. Overall, the calculations were correct, and the estimation methodologies were acceptable.

In conclusion, Carbon Footprint Ltd has verified Alliance Trust's GHG assertion in accordance with ISO 14064-3 (2006) standard to a limited level of assurance.

4.1 Recommendations

Carbon Footprint Ltd understands the data limitations Alliance Trust has encountered. Below are several recommendations to assist Alliance Trust in improving the quality of their GHG assertion:

- Keep a copy of energy contracts and tariff details in a carbon management folder so that market-based emissions can be calculated more accurately in future.
- Consider improving the expenses management system for the recording of travel data:
 - Air
 - Add fields for departure/destination locations.
 - Add a field/drop-down option for class of flight (e.g. economy, business etc.).
 - Change the UK/non-UK categories to domestic/short-haul/long-haul (provide guidance on when each category applies).
 - Rail
 - Add a field for staff to enter total distance travelled in miles.
(Asking staff to Google the distance of their trip whilst entering their expenses will improve the data accuracy, as well as spread out the workload of calculating the distances across multiple people and the year).
 - Personal car business travel
 - Add a field to identify whether the vehicle is diesel, petrol, electric hybrid or other.
- Where automatic metering is not in place, encourage sites to take energy meter readings and submit these to the energy supplier to ensure bills are not based on estimated readings.

4.2 Assurance opinion

Based on the results of our verification process, Carbon Footprint Ltd provides limited assurance of the GHG emissions assertion, **and found no evidence that the GHG emissions assertion:**

- is not materially correct;
- is not a fair representation of the GHG emissions data and information; and
- is not prepared in accordance with the GHG Protocol.

It is Carbon Footprint Ltd's opinion that Alliance Trust has established appropriate systems for the collection, aggregation and analysis of quantitative data for determination of GHG emissions for the stated period and boundaries.

Appendix 1

Alliance Trust plc Verification Plan – Carbon Footprint 2017 (1st Jan 2017-31st Dec 2017)

7th February 2018

Venue: Corporate Citizenship's office

Present:

Georgina Whitlock, Carbon Footprint Ltd (Verifier)

Sharon Winter, Alliance Trust plc

Jayesh Shah, Corporate Citizenship

Sarah Bonham, Corporate Citizenship

| ISO 14064-3 Ref. | | ISO 14064-3 Verification Requirements | Evidence | Comments |
|------------------|--------------------|---|--|--|
| 4.3.1 | Level of Assurance | To be agreed at the beginning | Anecdotal/email communication | Limited level of assurance |
| 4.3.2 | Objectives | To be agreed at the beginning | Anecdotal Proposal Verification report | For CDP and annual reporting |
| 4.3.3 | Criteria | To be agreed at the beginning | Anecdotal | GHG Protocol |
| 4.3.4 | Scope | Organisational boundaries, physical infrastructure & activities, GHG sources, type of GHGs, time period | Anecdotal CF Report Proposal | Scope 1, 2 & 3 1st January 2017 to 31st December 2017 Operational control |
| 4.3.5 | Materiality | Establish materiality | Verification report | Materiality threshold = 1% |
| 4.4.2 | Verification Plan | Document assurance level, objectives, criteria, scope, materiality & schedule. | This document Agenda | The meeting agenda and this table documents the verification plan. |
| 4.4.3 | Sampling Plan | Develop a sampling plan. | Sampling Plan (appendix 2) | Have seen primary data evidence for requested sites. Have seen secondary data & calculations for other GHG sources. |

| ISO 14064-3 Ref. | | ISO 14064-3 Verification Requirements | Evidence | Comments |
|------------------|---|---|---|---|
| 4.5 | Assessment of the GHG information system & its controls | Processes for collecting, processing and reporting GHG information. | Anecdotal Verification report | New person collating the carbon footprint data this year. Corporate Citizenship provides a data entry template and requests supporting evidence. Results discussed with Alliance Trust and justifications found for increases and reductions in emissions. |
| 4.6 | Assessment of GHG data & information (Review of calculation methodology and conversion factors used) | Examination of the GHG data and information. | CF report, verification report, emails. | Energy invoices for West Marketgait were examined, as was the travel data obtained from the general ledger. Estimations and assumptions were discussed. Carbon footprint calculations are undertaken by Corporate Citizenship using an excel-based tool. 2017 Defra emission factors are used. 2015 AIB residual factor was being used but corrected in audit to 2016. Several re-calculations were required. The main one was the removal of ATI operations. All recommended re-calculations were completed satisfactorily. |
| 4.7 | Assessment against verification criteria | Confirm whether the organisation conforms to the verification criteria. | Verification report | Baseline and previous years were re-calculated following a structural change triggering the re-calculation policy. This ensures it meets the 'relevance' criteria. |
| 4.8 | Evaluation of the GHG assertion | Evaluate whether the evidence collected supports the GHG assertion. | Verification report | Sufficient evidence was provided to support the assertion. |

| ISO 14064-3 Ref. | | ISO 14064-3 Verification Requirements | Evidence | Comments |
|------------------|------------------------|---|---|--|
| | | Conclude whether or not the GHG assertion is without material discrepancy and whether the verification activities provide the agreed level of assurance. | | |
| 4.9 | Verification statement | A verification statement containing the level of assurance, objectives, scope, criteria, the GHG assertion and the verifier's opinion on the GHG assertion. | Verification statement | A verification statement will be issued, including the relevant information required by CDP. |
| 4.10 | Verification records | The verifier shall maintain records to demonstrate conformity to the requirements of ISO14064-3. | This document. Verification report. Agenda. | This verification plan is the basis of recording the audit and capturing information. |

Appendix 2 – Sampling Plan

The sampling will be a risk-based approach in order to collect adequate evidence to support the limited level of assurance. Calculations and results will be reviewed and discussed as a desk-based exercise and during the site visit.

Sites and data sampled were chosen due to the materiality to the total carbon footprint and type of property ownership. In previous carbon footprint assessments, electricity consumption and air travel were the primary sources of Alliance Trust's GHG emissions. The West Marketgait office has the largest floor area occupied by Alliance Trust and is owned by the company. It also contributes the most to the electricity emissions and therefore was chosen to be audited.

Primary data (e.g. utility bills, expense claims, fuel card reports etc.) requested for:

- Electricity – West Marketgait
- Gas – West Marketgait
- Air travel
- Energy certificates (for market-based emissions)

Secondary data was reviewed for all other sites and emission sources.

Appendix 3

Carbon Footprint Ltd Verification Team

Carbon footprint Ltd has enabled the completion of the carbon footprints of over 20,000 businesses globally via our tools and consultancy. We are confident that we bring independent, ethical conduct, fair representation, due professional care and fresh insights to carbon management and verification activities.

We work with a vast range of companies, from SMEs to multinational blue chip corporations with goals to comply with legislation, cut the cost of carbon in their business, maximise sales by developing true sustainable credentials and prepare for future legislation.

We are a world leading carbon footprinting company:

- We follow international standards, such as ISO14064-1, PAS2050, GHG Protocol, ISO14064-3 within our work
- We are ISO 14001:2015 and ISO 9001:2015 certified
- We are approved under the Quality Assurance Standard (QAS) – this means that our own carbon footprinting tools and methodology is independently audited by AEA-Ricardo.
- We work with other businesses to complete/validate GHG emissions for their Mandatory GHG Reporting and CDP reporting requirements
- We run the Carbon Academy (for peer group learning)
- We provide input and advice to the government on low carbon legislation

Georgina Whitlock

Environmental Consultant

Georgina is an Environmental Consultant at Carbon Footprint Ltd. She has a Master's degree in Environmental Science and is a member of IEMA. She has conducted numerous carbon footprint assessments to ISO14064-1 standard and has experience in conducting audits and verifications.

Katie Elmer

Senior Sustainability Consultant

Katie is a Senior Sustainability Consultant at Carbon Footprint Ltd. She is a qualified ESOS Lead Assessor and a member of the Energy Managers Association. She has spent over 17 years as an environmental and sustainability consultant, working on behalf of both private and public sector clients. Katie has vast experience across a diverse range of environmental and sustainability services including energy and carbon auditing and GHG verifications.