



ADAS UK LTD ANNUAL ENVIRONMENTAL REPORT

1 January – 31 December 2015

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EXECUTIVE SUMMARY

The ADAS Group of Companies is one of the UK's largest independent providers of agricultural, horticultural and environmental consultancy, research, rural development and policy advice. We work with a broad spectrum of organisations and businesses in both the public and private sectors throughout the UK and internationally.

ADAS UK Ltd (part of the ADAS Group) has more than 400 environmental scientists, consultants, researchers and other staff, operating from a network of office locations throughout the UK offering a unique combination of insight and practical experience, underpinned by robust, informed, science-based information for the benefit of our clients. Our great strength is our breadth and depth of expertise spanning the entire environmental sector together with crop and livestock research.

ADAS is proud to be at the leading edge of many science-based activities concerned with key sustainable development issues currently facing society. These include innovative solutions for more sustainable land use, waste management, climate change mitigation and adaptation, renewable energy, biodiversity and quality and quantity of water resources.

Our four values – **Curiosity, Energy, Responsibility and Results** – are at the heart of everything we do.

This report covers the company's environmental performance for the 2015 calendar year. For the purposes of greenhouse gas emission (GHG) reporting, performance during this 12 month period is compared to the 1 October 2008 – 30 September 2009 baseline year.

The format of the report aims to comply with the ISO 14064 standard for the quantification and reporting of greenhouse gas emissions as well as guidelines published by the UK Government.

The company's greenhouse gas emissions/carbon footprint are calculated in accordance with UK Government and Carbon Trust guidelines.

GHG emissions for the 2015 calendar year:

	<u>Tonnes of CO₂e</u>	<u>% of Net Total</u>
Scope 1	260.8	9
Scope 2	615.0	21
Scope 3	2,103.8	70
Total gross emissions	2,679.6	
Carbon offsets	0	
Green tariff offsets	0	
TOTAL ANNUAL NET EMISSIONS	2,679.6	

GHG emission comparison to previous years (tonnes of CO₂e):

	<u>2015</u>	<u>2014</u>	<u>Baseline Year</u> <u>2008 - 2009</u>
Scope 1	260.8 (9%)	289.0 (10%)	434.0 (9%)
Scope 2	615.0 (21%)	649.0 (22%)	682.0 (13%)
Scope 3	2,103.8 (70%)	2,068.9 (68%)	4,016.7 (78%)
Total gross emissions	2,979.6	3,006.9	5,132.7
Carbon offsets	0	0	0
Green tariff offsets	0	0	0
TOTAL ANNUAL NET EMISSIONS	2,979.6	3,006.9	5,132.7

1. INTRODUCTION

- 1.1 ADAS UK Ltd is committed to operating in an environmentally sustainable manner for everything we do. This includes reducing greenhouse gas emissions (GHGs) associated with our activities whilst maintaining operational efficiency.
- 1.2 The purpose of this report is to provide an account of our environmental performance for the 2015 calendar year in line with the ISO 14064 standard for the quantification and reporting of greenhouse gas emissions and guidelines published by the UK Government.

2. REPORTING PERIOD

- 2.1 This report covers the 2015 calendar year.

3. BASELINE YEAR

- 3.1 For the purposes of GHG emissions reporting the baseline year of 1 October 2008 to 30 September 2009 is used for subsequent year on year comparisons. The baseline year was the first full financial year when business travel related emissions became available.
- 3.2 In the event of future changes in site ownership, organisational change, GHG calculation changes or other factors that would have a significant impact on the quantification of GHGs and year-on-year comparisons, any recalculation of baseline year data will be determined in line with a documented procedure within the company's environmental management system.

3.3 Changes since the baseline year

- 3.3.1 Emissions for the 2008 - 2009 baseline year and 2009 – 2010 were based on what was then the company's financial year of 1 October to 30 September. With effect from 1 October 2011 the company's financial year changed to 1 April to 31 March. It was subsequently decided to change GHG emissions reporting to calendar years, starting with those for 2011. This change was considered to be inconsequential because reports still cover a full 12 month period and there are no seasonality effects.
- 3.3.2 Emissions for the 2015 reporting year are based on UK Government conversion factors published in May 2015. The baseline year and subsequent annual emissions were calculated on conversion factors current at the time and have not been adjusted using the 2015 conversion factors.
- 3.3.3 Electricity and mains water related emissions for the baseline year for office locations which were not billed direct were based on comparisons with broadly similar billed locations. Subsequent reporting year emissions at these unbilled locations have been based on office floor area using average consumption figures for the office-only sites which were billed direct.
- 3.3.4 Assessing emissions for leased petrol cars commenced during 2011. This was a further refinement because previously all were assumed to be diesel.
- 3.3.5 Supplier spend data based on company April to March financial years will continue to be used for calendar year reports. Although offset by a quarter and thereby not for precisely the same period the data will still cover a full 12 months and will therefore be fully representative with no adverse impact on the assessment of GHG emissions.
- 3.3.6 Operational site changes during 2015 are as detailed in this report.

4. COMPANY DESCRIPTION

- 4.1 ADAS is one of the UK's largest independent providers of environmental consultancy, research, rural development services and policy advice. We are a preferred supplier to Government departments and a wide range of organisations and businesses in the public and private sectors throughout the UK and internationally
- 4.2 The company employs more than 400 staff on permanent or fixed-term contracts and draws on around another 250 people employed on contingent terms working across more than 60 specialisms, including environmental and rural development specialists. Approximately half the staff are office based with the other half being field-based.

5. ORGANISATIONAL BOUNDARIES

5.1 ADAS UK Ltd is a wholly owned subsidiary limited company within the ADAS Group (see Figure 1) incorporated in the UK.

5.2 Registered address is Pendeford House, Pendeford Business Park, Wobaston Road, Wolverhampton WV9 5AP.

5.3 The business of ADAS UK Ltd (hereafter referred to as the 'Company') is conducted via two business units:

- Development Businesses Unit.
- Soils, Agriculture and Water.

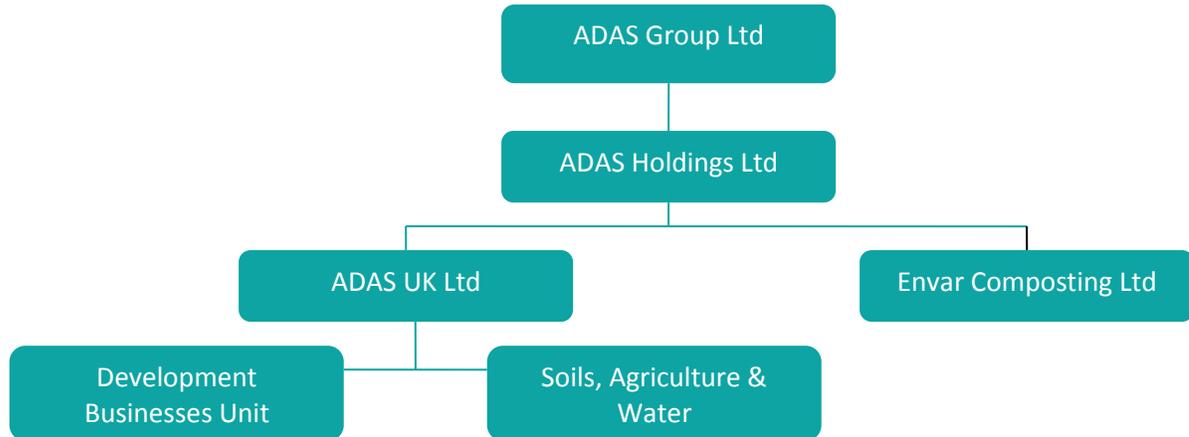
The business units are supported by a number of central groups providing guidance and support on compliance and risk management, health and safety, business financial systems, facilities management, procurement, marketing, human resources and information technology.

5.4 The main activities of these business units are as follows:

Development Businesses Unit – Provision of consultancy and research focusing primarily on environmental impact assessments, planning, landscape, archaeology, air quality, ecology, land management, arboriculture, geographic information systems, renewable energy, regulatory environmental risk assessments for chemicals, terrestrial field ecotoxicology and environmental fate research and the development of farm animal health products.

Soils, Agriculture and Water – Provision of applied research, knowledge transfer, strategic and policy consultancy focusing primarily on the development of sustainable and profitable agricultural crop and farm livestock production systems, improving arable and horticultural crop performance, development of biomass and biofuel crops, use of natural plant products in new markets, protection and management of soils and water usage in agriculture and the provision of on-farm advisory and promotional programmes for government.

ADAS Group Operational Structure: 2015



5.5 Corporate Social Responsibility

The ADAS Group continues to implement a Corporate Social Responsibility (CSR) initiative encompassing:

- The natural environment.
- The company's relationship with clients and suppliers.
- Staff and their workplace.
- The company's role in the community.

Corporate environmental objectives are approved by the Executive who fully support the CSR initiative.

The Group Compliance Manager has responsibility for the CSR initiative and for the subsequent measuring, monitoring and reporting of performance against environmental objectives, including GHG emissions.

6. OPERATIONAL BOUNDARIES

6.1 The main office locations during the 2015 calendar year were as follows:

Wolverhampton (Head Office)
Drayton (near Stratford-upon-Avon)
High Mowthorpe (near Malton)
Milton Park (near Oxford)
Rosemaund (near Hereford)

Boxworth (near Cambridge)
Gleadthorpe (near Mansfield)
Leeds
Preston

- 6.2 There were also smaller offices at Aberystwyth, Bristol, Cardiff, Newcastle upon Tyne, Starcross (near Exeter), Terrington (near Kings Lynn) and a field site at Brimstone Farm (near Faringdon, Oxfordshire).
- 6.3 The only location owned by the company during the reporting year was Boxworth. Others were either leased or rented. At some locations ADAS are one occupant in multi-occupancy buildings.
- 6.4 Responsibility for the management of each office location, excluding the Head Office, is designated to one of the business units.
- 6.5 The company takes responsibility for GHG emissions that it can directly control or influence at these locations.

7. SITE CHANGES SINCE THE 2008 – 2009 BASELINE YEAR

- 7.1 Occupation of small offices at East Malling (near Maidstone) and Salisbury were terminated during the 2009 – 2010 reporting year. A small office near Chippenham (Wiltshire) opened in 2010.
- 7.2 The office in Bury St. Edmunds closed during 2011.
- 7.3 During 2012 offices in Dublin, Edinburgh, London, Pwllpeiran (near Aberystwyth) and Ruthin were closed. A new office was opened in Aberystwyth. The Head Office transferred to another location in Wolverhampton.
- 7.4 There were no location changes during 2013.
- 7.5 During 2014 the Arthur Rickwood (near Ely) site and the Chippenham office closed. The Gleadthorpe office switched from oil to biomass and the Milton Park office from gas to electricity for heating purposes.
- 7.6 There were no office location changes during 2014 and 2015.
- 7.7 Previous changes had no overall significant effect on year on year comparisons of GHG emissions and no recalculations of baseline data were required.

8. GHG EMISSIONS

8.1 Emission Categories

- 8.1.1 In line with Government guidelines, greenhouse gas emissions are categorised as follows:

Scope 1 – Direct emissions: Activities owned or controlled by the company that release emissions straight into the atmosphere.

Includes emissions from company owned road vehicles, off-road vehicles and equipment, fossil fuels used on ADAS sites (e.g. gas and heating oil) and releases from air conditioning and refrigeration equipment.

Scope 2 – Electricity indirect: Emissions released into the atmosphere associated with the consumption of purchased electricity, heat and cooling.

Includes consumption of purchased electricity for which the company is billed direct by the supplier and estimations where electricity charges are part of lease or rental agreements.

Scope 3 – Other indirect: All other activities that release emissions into the atmosphere as a result of company activities.

Includes supply-chain emissions from the production of goods and services purchased by the company, business travel by employees, work-related commuting by office based employees, leased road and off-road vehicles and mains water supply emissions.

8.2 GHG Quantification

- 8.2.1 A process based on the Carbon Footprint Calculator produced by the Carbon Trust is used to calculate greenhouse gas emissions. This is a nationally recognised and accepted methodology approved by Government.
- 8.2.2 The methodology used covers all 6 Kyoto greenhouse gases of carbon dioxide (CO₂), methane (CH₄), hydrofluorocarbons (HFCs), nitrous oxide (N₂O) perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆).
- 8.2.3 Data is entered into an in-house GHG emissions database consistent with Carbon Footprint Calculator (CFC) methodology which automatically converts energy usage figures (e.g. electricity, gas and heating oil consumption) and business travel miles into carbon dioxide equivalent emissions (CO₂e) using the conversion factors in Table1. These are based on UK Government GHG Conversion Factors for Company Reporting published in May 2015.

Table 1.

STANDARD GHG CONVERSIONS

Gas (natural)	0.18445 kg CO ₂ e/kWh
Gas (liquid propane)	1.50938 kg CO ₂ e/litre
Electricity	0.46219 kg CO ₂ e/kWh
Heating (gas oil)	2.90884 kg CO ₂ e/litre
Mains water	0.34400 kg CO ₂ e/cubic metre

ADAS owned & leased diesel vehicles	0.362424 kg CO ₂ e/mile
<i>Conversion rate based on emissions for business travel large size diesel cars</i>	
ADAS owned & leased petrol vehicles	0.320758 kg CO ₂ e/mile
<i>Conversion rate based on emissions for business travel medium size petrol cars</i>	
Purchased diesel	2.5839 kg CO ₂ e/litre
Purchased petrol	2.1944 kg CO ₂ e/litre
Air – domestic (UK)	0.47949 kg CO ₂ e/mile
Air - short haul (Europe)	0.27313 kg CO ₂ e/mile
Air – long haul (inter-continental)	0.31885 kg CO ₂ e/mile
Train	0.07251 kg CO ₂ e/mile
Light rail and tram	0.08788 kg CO ₂ e/mile
Tube/London Underground	0.090619 kg CO ₂ e/mile
Bus	0.161461 kg CO ₂ e/mile
Coach	0.047152 kg CO ₂ e/mile
Motorcycle	0.192574 kg CO ₂ e/mile
Ferry	0.186822 kg CO ₂ e/mile
Hire cars: Diesel	0.293416 kg CO ₂ e/mile
<i>Conversion rate based on emissions for business travel average diesel car rate</i>	
Hire cars: Petrol	0.307803 kg CO ₂ e/mile
<i>Conversion rate based on emissions for business travel average petrol car rate</i>	
Taxis	0.393843 kg CO ₂ e/mile
<i>Conversion rate based on emissions for business travel taxis regular rate</i>	
Staff relocation travel: Diesel vehicles	0.282617kg CO ₂ e/mile
<i>Conversion rate based on emissions for business travel average rate for medium size diesel cars</i>	
Staff relocation travel: Petrol vehicles	0.320758 kg CO ₂ e/mile
<i>Conversion rate based on emissions for business travel average rate for medium size petrol cars</i>	

8.3. Scope 1 Emissions

8.3.1 Gas

Mains gas was used at the Aberystwyth and Wolverhampton offices. Emissions were based on consumption confirmed from billing data using the natural gas conversion factor in Table 1.

8.3.2 Liquid propane gas

Used in parts of the Drayton site. Emissions were based on consumption confirmed from billing data using the liquid propane gas conversion factor in Table 1.

8.3.3 Heating oil

Used at the Boxworth, Drayton, High Mowthorpe and Rosemaund sites. Emissions were based on consumption confirmed from billing data using the heating oil conversion factor in Table 1. At the Drayton site up until 2009 there were separate tanks for heating oil and red diesel for farm vehicles. Since then red diesel is stored in a single tank and used for both purposes. An estimation for 2015 based on previous bill data was that 40% was used for farm vehicles and 60% for office heating.

At the High Mowthorpe site heating oil from the ADAS supply was used by a third party occupier who it was estimated consumed 12%, with the balance being ADAS consumption.

8.3.4 Company owned road vehicles

Emissions were based either on annual mileage and calculated using the ADAS owned diesel or petrol vehicle conversion factors in Table 1 or on quantities of fuel purchased using fuel cards using the appropriate purchased fuel conversion factor.

8.3.5 Company owned off-road vehicles and equipment

Includes all-terrain-vehicles, quad bikes, Landrovers, agricultural tractors, research field plot combine harvesters etc. Emissions were based on an assessment of red diesel fuel purchased by those ADAS locations operating these types of vehicles multiplied by the purchased diesel conversion factor in Table 1.

8.3.6 Fugitive emissions

An inventory of air conditioning systems and refrigeration equipment is maintained. Refrigerant (including fridges and freezers) and air conditioning unit GHG emissions were calculated using UK Government conversion factors for emissions from the operation of refrigeration and air conditioning equipment.

8.3.7 Total Scope 1 emissions for 2015 (tonnes CO₂e):

	<u>2015</u>	<u>2014</u>	<u>Baseline</u> <u>Year</u>
Mains gas	8.9	9.4	117.7
Liquid propane gas	42.0	17.2	-
Heating oil	81.7	103.8	137.3
Company owned road vehicles	72.9	93.4	80.7
Purchased white diesel	0.0	0.0	27.7
Company owned off-road vehicles	50.4	60.3	70.3
Fugitive emissions	4.9	4.9	0.3
TOTAL SCOPE 1 EMISSIONS	260.8	289.0	434.0

8.4 Scope 2 Emissions

- 8.4.1 Different methodologies were used to calculate GHG emissions associated with electricity consumption at ADAS sites depending on whether bills were received direct from the supplier or if electricity charges were part of lease or rental payments to landlords.
- 8.4.2 Bills were paid direct for the Aberystwyth, Boxworth, Brimstone Farm, Milton Park, Preston and Wolverhampton locations and for one meter at the Drayton location.
- 8.4.3 Electricity charges at the Gleadthorpe and Rosemaund locations and for one meter at Drayton were paid by the respective landlords, who then recharged ADAS for a proportion of metered consumption.
- 8.4.4 Electricity costs for other locations were either covered as part of lease or rental agreements, by service charges or recharges by landlords. In these circumstances emissions were calculated based on office floor area and the average consumption per floor area for those locations which are billed direct.
- 8.4.5 Actual usage data from bills received and calculated consumption figures was entered into the GHG emissions database and converted into CO₂e using the electricity conversion factor in Table 1.
- 8.4.6 ADAS purchases 100% green electricity from renewable sources for all sites where the company are in control of grid supplies. In accordance with the Carbon Trust Carbon Footprint Calculator this is entered into the GHG emissions database as 'grid' electricity because the renewables entry is for self-generated electricity (e.g. such as that from on-site wind turbines).

No green tariff offsets are claimed because green electricity from one supplier comes partly from nuclear power. Under OFGEM rules offsets can only be earned for 100% renewable green energy and apparently nuclear power is ineligible.

8.4.7 Total Scope 2 emissions for 2015 (tonnes CO₂e):

	<u>2015</u>	<u>2014</u>	<u>Baseline Year</u>
Electricity	615.0	649.0	682.0
TOTAL SCOPE 2 EMISSIONS	615.0	649.0	682.0

8.5 Scope 3 Emissions

8.5.1 Business travel emissions

The distance travelled by all conceivable modes of transport is listed on every travel and expenses claim submitted by staff. These distances are then entered in the GHG emissions database and converted into CO₂e using the conversion factors in Table 1.

Rail and air travel tickets can be booked through the designated booking agent who provides quarterly spreadsheets listing the distance that would be travelled (for air travel broken down into domestic, short haul or long haul). This data is also entered into the GHG emissions database and converted into CO₂e using the conversion factors in Table 1.

8.5.2 Commuting emissions

A periodic survey of office based staff commuting practices is carried out from which office commuting CO₂e emissions are calculated. The last survey was completed during 2011. No factors likely to have caused subsequent major changes were identified and the data has been reused in this report.

8.5.3 Leased road vehicles and off-road vehicles

Emissions for leased road vehicles were based on actual mileage multiplied by the leased vehicle diesel or petrol conversion factors in Table 1. No leased off-road vehicles were used.

8.5.4 Supply chain emissions

Indicative estimates of indirect emissions generated by other organisations as part of the process of providing goods and services to the company are calculated using Defra conversion factors for supply chain emissions last published in 2013, based on financial spending on products. The approach is based on a methodology produced by the Centre for Sustainability Accounting (CenSA), University of York which covers all 6 Kyoto greenhouse gases.

Emissions for the 2015 calendar year were based on extrapolation of spend data for the company financial year of 1 April 2015 – 31 March 2016, thus providing data for a full 12 months, albeit offset by one quarter. The data is considered to be fully representative with no adverse impact on the assessment of emissions.

Emissions calculated as Scope 1 and 2 are excluded from Scope 3 (e.g. electricity, mains gas, heating oil and agricultural products supply).

8.5.5 Water usage

Emissions associated with mains water consumption are calculated based on metered quantities where water bills were paid direct. For sites where water bills were paid by landlords and recharged as part of lease or rental costs, emissions were calculated based on office floor area and the average consumption per floor area for those office only sites which are billed direct.

The total estimated quantity is multiplied by the current Government conversion factor for water supply as listed in Table 1.

Annual mains water usage was estimated to be 21,133m³ (compared to a baseline year figure of 23,053m³ and a 2014 figure of 19,884m³). This includes usage for farming and research activities at the Drayton and Boxworth sites.

8.5.6 Total Scope 3 emissions for 2015 (tonnes CO₂e):

	<u>2015</u>	<u>2014</u>	<u>Baseline Year</u>
Business travel:			
Car, Bus & Coach	365.6	430.7	642.0
Train, Tram & Tube	15.4	17.3	35.5
Air	65.5	60.7	53.2
Other	0.0	0.0	0.5
Office commuting	375.5	375.5	301.0
Leased road vehicles	23.0	13.0	29.7
Mains water supply	7.2	6.8	6.9
Supply chain	1,251.6	1,164.9	2,947.9
TOTAL SCOPE 3 EMISSIONS	2,103.8	2,069.9	4,016.7

8.6 Interpretation

8.6.1 Our interpretation of the Government GHG quantification and reporting guidelines is that emissions from company owned vehicles are Scope 1.

8.6.2 All leased vehicles are on operational leases and therefore our interpretation of the Government quantification and reporting guidelines is that such emissions are classified as Scope 3.

8.7 Exclusions

- 8.7.1 Emissions associated with field-based staff working from home are excluded because the company has no direct authority, rights of entry or influence on private domestic premises and in any event it would be very difficult to quantify emissions related to business activities separately from domestic consumption.
- 8.7.2 Emissions directly related to the growing of farm crops and keeping of farm livestock are excluded because of year to year variability. Purchased farming products are correspondingly excluded from Scope 3 supply chain emission calculations.
- 8.7.3 Emissions relating to the procurement of assets/capital items have been excluded because inclusion will lead to distortion of year on year comparisons.

8.7.4 Farming activities

During 2015 ADAS farmed 23ha of land. This previous year total was 25ha (and compared to 1,329ha in the baseline year).

Farm livestock was kept at one site. Livestock numbers are continually variable. It is therefore only possible to provide best estimates of GHG emissions for which PAS 2050 methodology has been used.

Due to the level of variability and consequent uncertainty, farm related emissions are reported here for indicative purposes only and are not included in the corporate carbon footprint.

8.7.5 Estimated farming related GHG emissions for 2015:

<u>Crop</u>	<u>Area (ha)</u>	<u>Total Emissions (tonnes CO₂e/year)</u>	<u>Baseline Year 2008 – 2009 (tonnes CO₂e/year)</u>
Winter wheat	7	30	197
Winter beans	0		3
Winter oilseed rape	9	32	10
Winter barley	7	41	0
Permanent grass	0		514
Rough grazing	0		908
Temporary grass	0		21
Total	23	103	1,653

<u>Livestock</u>	<u>Animals/ Year</u>	<u>Total Emissions (tonnes CO₂e/year)</u>	<u>Baseline Year 2008 – 2009 (tonnes CO₂e/year)</u>
Cattle	24	90	886
Sheep and goats	0	0	915
Pigs	46	44	44

Poultry	1,299	54	1
Horses	0	0	0
Total		188	1,846
Overall total for ADAS farming		291	3,499

The 2015 total emissions figure for ADAS farming of 291 tonnes CO₂e indicates a 92% reduction in emissions compared to the baseline year but an of 6% compared to 2014 when total emissions were 273 tonnes CO₂e, attributable to higher livestock numbers.

In the baseline year some grassland was recorded as rough grazing. For subsidy purposes this is now recorded as permanent grass, a change that has no effect on emission calculations.

8.8 GHG sinks

8.8.1 A sink is defined as a physical unit or process that removes GHGs from the atmosphere.

8.8.2 There are now no areas of woodland, short rotation coppice and miscanthus on the company's sites that would remove GHGs from the atmosphere by absorption, so in effect there are no sink areas.

9. CORPORATE CARBON FOOTPRINT

9.1 GHG emissions for the period 1 January to 31 December 2015 compared to the same period in 2014 and the baseline year of 1 October 2008 to 30 September 2009 (tonnes of CO₂e):

	<u>2014</u>	<u>2013</u>	<u>Baseline Year 2008 – 2009</u>
Scope 1	260.8 (9% of total)	289.0 (10% of total)	434.0 (9% of total)
Scope 2	615.0 (21% of total)	649.0 (22% of total)	682.0 (13% of total)
Scope 3	2,103.8 (70% of total)	2,068.9 (68% of total)	4,016.7 (78% of total)
Total gross emissions	2,679.6	3,006.9	5,132.7
Carbon offsets	0	0	0
Green tariff offsets	0	0	0

Total annual net emissions	2,679.6	3,006.9	5,132.7
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9.2 Comparisons between the 2015 and 2014 calendar years and the 1 October 2008 – 30 September 2009 baseline year:

- Overall total reportable emissions were down by 11% in 2015 compared to 2014 and down by 48% compared to the baseline year.
- Scope 1 emissions were down overall by 10% in 2015 compared to 2014 and down by 40% compared to the baseline year.
- Mains gas emissions were down by 5% in 2015 compared to 2014 and down by 92% compared to the baseline year.
- Heating oil emissions were down by 21% in 2015 compared to 2014 and down by 40% compared to the baseline year.
- Scope 2 emissions were down by 5% in 2015 compared to 2014 and down by 10% compared to the baseline year.
- Scope 3 emissions were up by 2% in 2015 compared to 2014 but down by 48% compared to the baseline year. The increase was attributable to higher supply chain spend.
- Combined Scope 1 and 2 emissions were down by 7% in 2015 compared to 2014 and down by 21% compared to the baseline year.
- Business travel related emissions were down by 12% in 2015 compared to 2014 and down by 39% compared to the baseline year.

10. INTENSITY RATIOS

- 10.1 Total Scope 1 and 2 emissions/£1k gross turnover was 41.5kg CO₂e based on a turnover of £21.1m (compared to the 2014 figure of 37.1kg CO₂e based on turnover of £25.3m and the baseline year figure of 41.3kg CO₂e and a turnover of £27.0m), i.e. an increase of 12% compared to 2014 and an increase of 0.5% compared to the baseline year.
- 10.2 Business travel emissions/business miles travelled was 0.246kg CO₂e (compared to the 2014 figure of 0.248 kg CO₂e and the baseline year figure of 0.254), i.e. down by 1% compared to 2014 and down by 3% compared to the baseline year.
- 10.3 Water use/staff member was 52.8 cubic metre/head (based on 400 staff) compared to the 2014 figure of 49.7 cubic metre/head (based on 400 staff) and a baseline year figure of 55.5 cubic metre/head (based on 415 staff), i.e. up by 6% compared to 2014 but down by 5% compared to the baseline year.

11. WASTE MANAGEMENT

- 11.1 ADAS has a contract with a recycling led waste management company with the objective of maximising quantities of wastes sent for recycling and recovery and minimising amounts sent to landfill. The contract covers waste streams at the main office locations where ADAS is responsible for waste management. At other locations landlords or other organisations have responsibility.
- 11.2 During 2015, 91% of waste by weight was sent for recycling or recovery with the corresponding 9% sent to landfill (compared to 2014 figures of 91% and 9% and baseline year figures of 28% and 72% respectively). A different waste management company was being used in the baseline year. Recovery is a term used to indicate waste used to generate energy.
- 11.3 Confidential waste paper was also sent for recycling via a bag scheme operated by the main stationery supplier.
- 11.4 All waste streams were managed in accordance with regulatory requirements, including Duty of Care requirements and the Waste Electrical and Electronic Equipment (WEEE) Regulations.

12. PROGRESS IN REDUCING OUR ENVIRONMENTAL IMPACTS

- 12.1 Measures taken to reduce the company's carbon footprint have included:
- Purchasing of electricity continues to be from renewable resources.
 - Investigating and implementing the use of alternative energy sources, e.g. solar and wind.
 - A high proportion of office waste continues to be sent for recycling.
 - The use of an in-house telephone conferencing system and the use of video conferencing facilities at four locations, both thereby reducing the need to travel to meetings.

13. ENVIRONMENTAL OBJECTIVES

- 13.1 From baseline year data longer term environmental objectives were set including the following parameters:

2015 Objective	2015 Performance
Reduce Scope 1 emissions by 10% by the end of 2015 compared to 2008 - 2009.	Down by 40%.

Reduce Scope 2 emissions by 10% by the end of 2015 compared to 2008 - 2009.	Down by 10%.
Reduce business travel GHG emissions to 0.200kg CO ₂ e/mile by the end of 2015.	0.246kg CO ₂ e/mile.
Send 80% of business waste for recycling by the end of 2015.	91% sent for recycling or recovery.
Reduce Scope 1 and 2 emissions to 60kgs CO ₂ e/£1k turnover by the end of 2015.	41.5kgs CO ₂ e/£1k turnover.
Reduce mains water usage/staff member by 10% by the end of 2015.	Down by 5%.

13.2 The original objectives were set to the end of 2015. The Executive have now agreed new objectives to run until the end of 2020. The 2015 calendar year will be used as a new baseline year.

14. PERFORMANCE ACHIEVEMENTS 2015

14.1 No significant environmental incidents.

14.2 No environmentally related prosecutions.

15. ISO 14064 COMPLIANCE

15.1 This report has been prepared in accordance with the ISO 14064 standard on greenhouse gas emissions.

16. VERIFICATION

16.1 The main emissions data in this report has been verified by GHG data management staff. The declared emissions are considered to be a true reflection of performance and the data has been accurately reported.

17. REFERENCES

1. BS ISO 14064 Greenhouse gases, 2006, British Standards Institution
2. Environmental reporting guidelines: Including mandatory greenhouse gas emission reporting guidance, PB13944, June 2013, Department for Environment, Food and Rural Affairs (Defra)
3. Defra on-line greenhouse gas conversion factor repository - 2015 Guidelines to Defra GHG conversion factors for company reporting, May 2015
4. Defra Environmental Reporting Guidelines Annex E: Supply Chain Emissions, June 2013
5. PAS 2050 Specification for the assessment of the life cycle greenhouse gas emissions of goods and services, 2008, British Standards Institution