

**The Household of Their Royal Highnesses  
The Prince of Wales and The Duchess of Cornwall  
Carbon Report for the year ended 31 March 2014**

# Foreword

## The Carbon Report in context

His Royal Highness The Prince of Wales has been a leader in helping to foster good sustainability practice for 40 years. As part of the Household's role in supporting The Prince and his family in all their activities, it is committed to monitoring, reporting on, and continually improving its sustainability performance.

The online version of the 2014 Annual Review includes a sustainability account that combines financial and non-financial information to provide a balanced picture of the Household's overall performance including its greenhouse gas emissions that arise as a result of its work. This Carbon Report provides further information on how its greenhouse gas emissions are calculated and an external assurance report that provides reasonable assurance, as defined by international assurance standards, over the Household Carbon Statement for the year ended 31 March 2014.

## Roles and Responsibilities

The Senior Management of the Household are responsible for preparing the Carbon Report including the Carbon Statement in accordance with the Household's Carbon Reporting Policy, and for defining the boundaries of operations and the determination of methods and conversion factors used. In preparing the Carbon Report, the Senior Management are required to:

- ensure that the Carbon Reporting Policy is appropriate and applied consistently;
- keep proper records that disclose with reasonable accuracy the carbon emissions of the Household;
- make judgements and estimates that are reasonable and prudent; and
- take reasonable steps for the prevention and detection of fraud and other irregularities.

## Overview of the Carbon Report

The four main sections of this document should all be read together to gain a full understanding of the Household's carbon emissions:

- **Introduction:** provides narrative details of the Household's carbon performance for the year;
- **Carbon Statement:** sets out this year's greenhouse gas emissions data alongside prior year data;
- **Carbon Reporting Policy:** explains the basis for preparing the Household's emissions data; and
- **Independent Assurance Report:** the external assurance report prepared by PricewaterhouseCoopers LLP ('PwC'), independent accountants, on the Household's Carbon Statement.

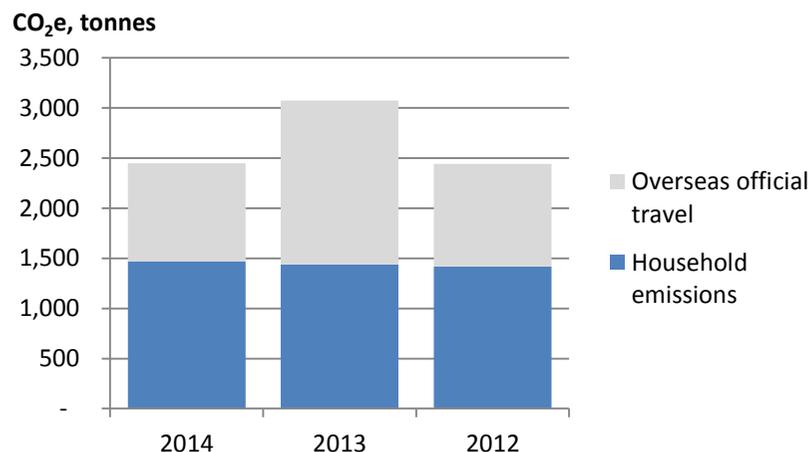
Senior Management confirm that they have carried out their responsibilities as set out above.

**24 June 2014**

# Introduction

The Household strives to minimize its greenhouse gas emissions from travel, heating and electricity use by reducing fossil fuel use and increasing renewable energy use.

Net emissions from energy use were reduced this year by 21% (2013: a reduction of 9%), but an increase from travel resulted in an overall increase in emissions attributable to the Household of 2% (2013: an increase of 1%).



## Travel

Emissions from travel vary each year according to the programme of engagements that Their Royal Highnesses undertake and, for air travel, the availability of aircraft. The Household endeavours to minimize the environmental impact of travel during the planning process taking into account security, logistical, cost and other considerations.

Emissions from UK official travel have increased due to an increase in miles travelled in the UK and due to changes in aircraft availability and use.

Official overseas travel is undertaken on behalf of the government. Emissions are 40% lower this year than in 2012-13, as that year included long-distance trips to Commonwealth countries. This year the trips have been closer to the UK, including visits to The Netherlands, India, South Africa, the Middle East and France.

## Energy

Energy use encompasses heating, hot water and electricity use for all the offices and residences. The Household aims to reduce its carbon emissions by increasing energy efficiency and through greater use of renewable energy. On-site renewable sources include solar panels at Clarence House and Highgrove, biomass boilers at Highgrove, Birkhall and Llwynywermod and heat pumps at Highgrove.

This year the proportion of energy use supplied by on-site renewables increased to 37%, helping to reduce gross energy emissions by about 8%. Net emissions were reduced further by the purchase of Green Gas credits from an anaerobic digestion plant operated as part of a joint venture including the Duchy of Cornwall.

# Carbon Statement

The table below sets out the Household's greenhouse gas emissions in carbon dioxide equivalents (CO<sub>2</sub>e). The PwC assurance report for the year ended 31 March 2014 is on page 6. See page 5 for further information on the notes to the table.

Year to 31st March	2014	2013	2012
<b>CO<sub>2</sub>e emissions, t</b>		Restated <sup>1</sup>	Restated <sup>1</sup>
Official UK travel	470	342	342
Other travel	538	508	435
<b>Subtotal – UK and other travel</b>	<b>1,008</b>	<b>850</b>	<b>777</b>
Energy use (gross)	609	661	642
Green Gas credits <sup>2</sup>	(147)	(74)	-
Energy use (net)	462	587	642
<b>Attributable to the Household</b>	<b>1,470</b>	<b>1,437</b>	<b>1,419</b>
<b>Official overseas travel</b>	<b>980</b>	<b>1,638</b>	<b>1,023</b>
<b>CO<sub>2</sub>e emissions<sup>3</sup></b>	<b>2,450</b>	<b>3,075</b>	<b>2,442</b>

1. Emissions for 2013 and 2012 have been restated due to a significant change in Defra emissions factors for electricity. Net energy use emissions were previously reported as 2013: 649 tonnes; 2012: 688 tonnes.

2. Equivalent to 800 MWh Green Gas credits in 2014.

3. The total excludes emissions from burning wood, biodiesel and other biofuels including Green Gas.

These emissions are estimated as 2014: 573t, 2013: 469t, 2012: 323t.

# Carbon Reporting Policy

## General accounting policies

This Carbon Reporting Policy supports the preparation and reporting of the Carbon Statement of The Household of Their Royal Highnesses The Prince of Wales and The Duchess of Cornwall (the Household) for the year ended 31 March 2014.

### Carbon Reporting Principles

In preparing the Policy, consideration has been given to generally accepted accounting and reporting principles including The Greenhouse Gas Protocol and the UK Accounting Standards Board Statement of Principles for financial reporting. The key principles that the Household has applied are:

- *Information Preparation*: relevance to users and reliability, including completeness and material accuracy;
- *Information Reporting*: comparability / consistency with other data including prior years and clarity to users.

### Reporting scope – inclusions and exclusions

The Carbon Statement relates to greenhouse gas emissions arising as a result of Their Royal Highnesses' official duties and private engagements, and those arising from the operations of the Household in support of these activities. The Duchy of Cornwall, the Prince's Charities, Prince's Charities projects and The Home Farm at Highgrove are outside of the scope of this policy. The scope also excludes the activities of third party contractors. In line with reporting in the Annual Review, carbon emissions relating to The Household of TRH The Duke and Duchess of Cambridge and HRH Prince Henry of Wales are not included.

### Restatement of prior year emissions

Prior year emissions from energy use have been restated to reflect a significant change in the Defra emissions factor for electricity.

### Greenhouse gases in scope

The Carbon Statement includes emissions of the three main greenhouse gases - carbon dioxide, methane and nitrous oxide - as included in Defra emissions factors.

### Conversion factors and fuel use calculation

The greenhouse gas emissions associated with the activities noted above have been determined on the basis of measured or estimated energy and fuel use, or distances travelled, multiplied by the relevant carbon conversion factors as explained below. Where possible fuel or energy use is based on direct measurement, purchase invoices or actual mileage data, in other cases it has been necessary to obtain estimations. Specific estimations have been made for the following emissions sources:

- Aircraft - using standard fuel use rates where available; see the detailed accounting notes on page 4;
- Sea transport, using data obtained from third party sources;
- Public transport and taxis, based on expenditure and tariffs / fares;
- Wood chips and pellets, estimated using heat meter readings and records of fuel use.

Energy use and travel data are converted into greenhouse gas emissions using the "UK Government conversion factors for Company Reporting" issued in June 2013 (Defra 2013). Where conversion factors change from prior years, those changes are not applied retrospectively to comparative periods, except for the restatement this year of 2012 and 2013 emissions from energy use.

### Direct emissions from biofuels

Two forms of biofuels are used directly – biodiesel / bioethanol (in the Royal Train and cars) and wood chips and wood pellets (in boilers). Direct emissions from these sources are netted to zero in accordance with Defra guidance. The gross amounts, along with emissions from natural gas matched by Green Gas Credits, are disclosed separately as a note to the Carbon Statement using conversion factors from Defra 2013 and the Biomass Energy Centre.

The detailed accounting policy notes below gives further details.

# Travel

## Scope

Reported greenhouse gas emissions include:

- *Official overseas travel:* travel by air and rail on engagements undertaken on behalf of the Foreign and Commonwealth Office and on supporting reconnaissance visits;
- *Official UK travel:* travel by air and rail on engagements in the UK undertaken in support of The Queen and on reconnaissance visits;
- *Other travel:* travel not classed as official travel - staff travel between residences and in support of engagements, staff commuting and Their Royal Highnesses' private travel.

## Reporting Methods

Emissions from the various types of travel are estimated as follows:

### **Air travel**

Comprises air travel for official and private engagements undertaken by Their Royal Highnesses and flights taken by Household staff. Any positioning and repositioning flights are included where appropriate; such flight legs are not included for chartered aircraft where the Household has no control over them.

Scheduled flights emissions factors are taken from Defra 2013.

Non-scheduled flights emissions are calculated on the basis of distance travelled or flight times and fuel burn rates for each type of aircraft used. Fuel use is estimated using data from the EU ETS Small Emitters Tool where available. For other aircraft, it is based on data from Defra or the aircraft manufacturers or operators.

A multiplier of 1.9 has been applied to emissions from all aircraft travel, excluding helicopters, to account for the increased impact of aviation due to non-carbon dioxide emissions and emissions at altitude. An uplift of 8% (2013: 9%) is applied to all distances travelled by air to account for non-direct routes and delays / circling. These factors are taken from Defra 2013.

### **Royal Train**

Comprises travel on the Royal Train where appropriate and related positioning and repositioning journeys. Emissions are calculated from fuel usage data from the Royal Train operator.

The locomotive of the Royal Train is powered by biodiesel made from used cooking oil. The accounting treatment is explained in the note on direct emissions from biofuels on page 3.

### **Sea Transport**

Positioning and repositioning journeys are included where appropriate. Emissions are calculated on the basis of distance and fuel consumption.

### **Car use**

Comprises all car journeys made in conducting Household activities. Fuel use is estimated using expenditure and fuel prices.

The accounting treatment for biofuels is explained in the note on direct emissions from biofuels on page 3.

### **Public transport (including rail travel) and taxis**

Comprises the use of all public transport and taxis by the Household. Distances travelled are estimated using expenditure and tariff / fare data.

### **Staff commuting**

Comprises the greenhouse gas emissions from staff commuting based on a staff survey completed in May 2009 that has been updated for changes in staff and changes in commutes. Emissions are calculated on the basis of distance travelled and mode of transport.

# Energy

## Scope

Energy use covers electricity, natural (mains) gas, LPG, oil and biomass used at the following official and private residences and offices:

- Clarence House and offices in St James's Palace
- Highgrove, excluding The Home Farm
- Birkhall
- Raymill
- Llwynywermod
- Temporary staff accommodation and holiday lets

Emissions from shared office space are determined on the basis of the leased floor area.

## Reporting methods

Energy use is estimated as follows, using conversion factors from Defra 2013 to convert fuel consumption into greenhouse gas emissions.

### *Electricity*

Comprises electricity supplied via the Grid and by solar panels that is used by the Household at the properties within the scope of reporting. Electricity consumption is obtained from meter readings and half-hourly data.

Electricity from solar panels used on site is reported at zero emissions.

### *Natural (mains) gas*

Gas consumption is obtained from meter readings and invoices.

Net emissions from natural gas have been reduced by 147 tonnes through the purchase of 800MWh of Green Gas Credits. These credits represent the injection into the local gas distribution network of biomethane from an Anaerobic Digestion Plant near Poundbury operated by a joint venture that includes the Duchy of Cornwall.

Draft accounting guidance from Defra treats biomethane as having zero net emissions as the fuel (agricultural products and waste food) forms part of the short term carbon cycle. While the Household does not use the biomethane directly, the certification

and retirement of the credits ensures that only the Household is able to account for its use and that there is no double counting.

Direct emissions from the biomethane are disclosed within a note to the Carbon Statement.

### *LPG and Oil*

Comprises LPG, heating oil and fuel oil deliveries made during the year with data from delivery records and invoices.

### *Wood chips and wood pellets*

Comprises wood chips and wood pellets used in biomass boilers. Fuel use is estimated using heat meter readings and records of fuel deliveries, applying conversion factors from Defra 2013 and the Biomass Energy Centre website.

Wood fuel is not as homogeneous as fossil fuels - the energy (and carbon) content varies according to wood type and moisture content. Fuel use estimates also depend on estimates of the bulk density of fuel and boiler efficiency. Estimates of carbon dioxide emissions are therefore subject to greater margins of error than for fossil fuels.

### *Heat pumps*

Heat pumps use electricity to extract heat from the ground and air; they do not result in direct greenhouse gas emissions. The electricity is included as for all other electricity use.



## Independent Assurance Report to the Senior Management of the Household of Their Royal Highnesses The Prince of Wales and the Duchess of Cornwall

The Senior Management of the Household of Their Royal Highnesses The Prince of Wales and The Duchess of Cornwall engaged us to provide reasonable assurance on the information described below and set out in the Carbon Report for the year ended 31 March 2014.

### Our conclusion

**In our opinion, the Carbon Statement for the year ended 31 March 2014 has been prepared, in all material respects, in accordance with the Carbon Reporting Policy.**

This conclusion is to be read in the context of what we say in the remainder of our report.

### Selected Information

The scope of our work was restricted to the Carbon Statement for the year ended 31 March 2014, presented on page 2 of the Carbon Report 2014:

<http://www.princeofwales.gov.uk/media/annual-review/>

We assessed the Carbon Statement using the Household's Carbon Reporting Policy document as set out on pages 3 to 5 of the Carbon Report 2014. Our assurance does not extend to information in respect of earlier periods or to any other information included in Carbon Report 2014.

### Professional standards applied and level of assurance

We performed a reasonable assurance engagement in accordance with the International Standard on Assurance Engagements 3410 'Assurance engagements on greenhouse gas statements' (ISAE 3410), issued by the International Auditing and Assurance Standards Board.

### Our Independence and Quality Control

We applied the Institute of Chartered Accountants in England and Wales (ICAEW) Code of Ethics, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

We applied International Standard on Quality Control (UK&I) 1 and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Our work was carried out by an independent team with experience in sustainability reporting and assurance.

### Understanding reporting and measurement methodologies

The Carbon Statement needs to be read and understood together with the Carbon Reporting Policy, which the Senior Management of the Household is solely responsible for selecting and applying. The absence of a significant body of established practice for evaluating and measuring non-financial information allows for different, but acceptable, measurement techniques and can affect comparability between entities and over time. The Carbon Reporting Policy used for the reporting of the Carbon Statement is applicable as at 31 March 2014.

### Work done

We are required to plan and perform our work in order to consider the risk of material misstatement in the Carbon Statement. In doing so, we:

- made enquiries of Household management;
- evaluated the design of the key structures, systems, processes and controls for managing, recording and reporting the data in the Carbon Statement;
- carried out analytical procedures over the Carbon Statement;
- performed substantive testing on a selective basis of the source data used to prepare the Carbon Statement, including re-performing a sample of calculations; and
- assessed the disclosure and presentation of the Carbon Statement within the Carbon Report.

### The Senior Management of the Household's responsibilities

The Senior Management of the Household are responsible for:

- designing, implementing and maintaining internal controls over information relevant to the preparation of the Carbon Statement that is free from material misstatement, whether due to fraud or error;
- establishing an objective Carbon Reporting Policy for preparing the Carbon Statement;
- measuring the Household's performance based on the Carbon Reporting Policy; and
- the content of the Carbon Report 2014.

### Our responsibilities

We are responsible for:

- planning and performing the engagement to obtain reasonable assurance about whether the Carbon Statement is free from material misstatement, whether due to fraud or error;
- forming an independent conclusion, based on the procedures we have performed and the evidence we have obtained; and
- reporting our conclusion to the Senior Management of the Household.

This report, including our conclusion, has been prepared solely for the Senior Management of the Household in accordance with the agreement between us, to assist in reporting the Household's carbon emission performance and activities. We permit this report to be disclosed in the Carbon Report for the year ended 31 March 2014, to enable Senior Management to show they have addressed their governance responsibilities by obtaining an independent assurance report in connection with the Carbon Statement. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Senior Management of the Household for our work or this report except where terms are expressly agreed between us in writing.

**PricewaterhouseCoopers LLP  
Chartered Accountants, London  
24 June 2014**

<sup>1</sup> The maintenance and integrity of this website is the responsibility of the Senior Management of the Household; the work carried out by us does not involve consideration of these matters and, accordingly, we accept no responsibility for any changes that may have occurred to the Carbon Statement or Carbon Reporting Policy when presented on this website.