

Greenhouse gas emissions report

1 April 2013 to 31 March 2014

1. Summary

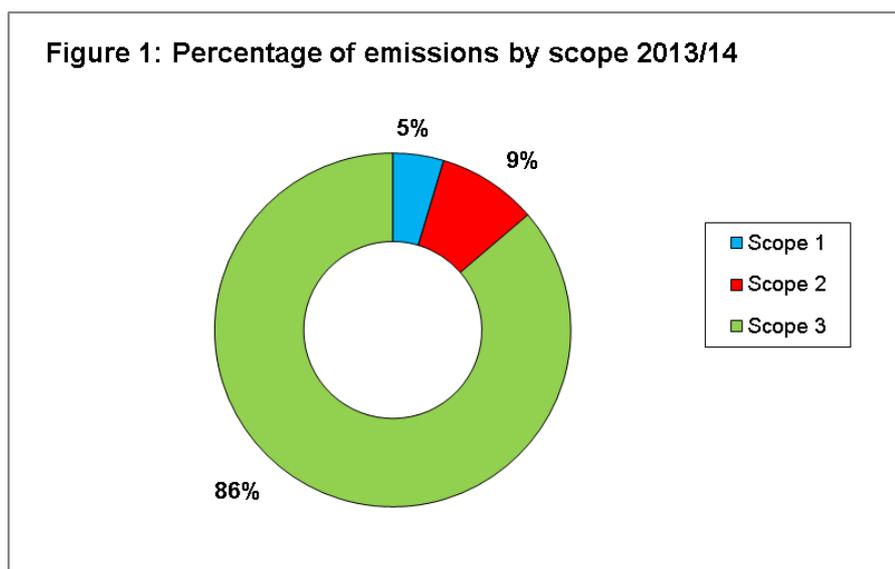
Each year we publish the greenhouse gas emissions (GHG) resulting from the way we run our organisation and the services we provide. This is our fourth greenhouse gas emissions report, setting out our carbon dioxide equivalent (CO₂e) emissions, for 2013/14.

Table 1 shows that in 2013/14 we emitted a total of 4,388.79 tonnes of CO₂e from our estate and operations. This is a 15% increase in emissions since 2012/13 and a 2.4% increase in emissions compared with our base year (2008/09). This is largely due to an increase in our scope 3 emissions, and for the most part an increase in the emissions from our main contract FCC and an increase in gas consumption at our leased assets, the leisure centres.

Table 1: Our GHG emissions: 1 April 2008 to 31 March 2014

Recalculated	Tonnes of CO ₂ e					
	2013/14	2012/13	2011/12	2010/11	2009/10	2008/09
Scope 1 emissions	202.76	199.55	138.28	166.23	141.34	162.51
Scope 2 emissions	398.96	419.13	409.43	515.10	482.62	558.64
Scope 3 emissions	3,787.07	3,190.08	3,448.91	3,656.69	3,705.29	3,565.07
Total gross emissions	4,388.79	3,808.76	3,996.62	4,338.02	4,329.25	4,286.22
Carbon offsets	0.0	0.0	0.0	0.0	0.0	0.0
Green tariff¹	0.0	0.0	0.0	0.0	0.0	0.0
Total annual net emissions	4,388.79	3,808.76	3,996.62	4,338.02	4,329.25	4,286.22

As Figure 1 shows, 86% of our 2013/14 emissions fell into scope 3; these emissions primarily occur at sources which we do not own or control. Scope 2, which constitutes the electricity consumed across operational sites, accounts for 9% of our emissions. Scope 1 constitutes just 5% of the total. 58% of our total emissions come from our leisure centres.



¹ We have not been able to account for the electricity that we purchased on a green tariff between 2008/09 and 2010/11. See section 7 of this report for more details.

2. Organisation information

Our address is: Wychavon District Council, Civic Centre, Queen Elizabeth Drive, Pershore, Worcestershire, WR10 1PT.

Wychavon is located in the West Midlands region. The district covers 664km² of the south and eastern part of the county of Worcestershire and is the largest of the six Worcestershire districts.

With a population of around 117,000, the district is made up of the three towns of Droitwich Spa, Evesham and Pershore, and nearly 100 villages.

Our headquarters is at the Civic Centre in Pershore, where most of our staff are based. Our Community Contact Centres in Droitwich Library and at Evesham provide residents with access to district and Worcestershire County Council services. Jobcentre Plus and Police services are also available at the Evesham Community Contact Centre.

We provide a wide range of services to residents, businesses and visitors. These include waste and recycling, housing, planning, environmental health, licensing, benefits, parks, leisure facilities, street cleaning, events and activities for all ages. We provide some of these services directly or through contractors, and others through shared service or partnership arrangements with other councils. Appendix 1 lists the shared services we're currently involved in and the year in which they were established.

3. Approach to reporting our emissions

In 2010, the Government abolished the National Indicator set and, consequently, compulsory reporting of reductions in carbon dioxide, nitrogen oxides and particulate matter emissions from a local authority's estate and operations (NI185 and NI194). It replaced these with a requirement to report annually on greenhouse gas emissions from local authority estate and operations. This is our fourth report in this format.

We have followed the [UK Government's guidance](#)² on how to measure and report greenhouse gas emissions. The following greenhouse gases are included in this report: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O). Emissions from all of these gases are expressed as CO₂ equivalent (CO₂e) emissions, as recommended by the guidance.

Greenhouse gases can be measured by recording emissions at source by continuous emissions monitoring or by estimating the amount emitted by multiplying activity data, such as the amount of fuel used, by relevant emissions conversion factors. These conversion factors allow activity data (e.g. litres of fuel used, number of miles driven, tonnes of waste sent to landfill) to be converted into kilograms of CO₂e, which is a universal unit of measurement that allows the global warming potential of different GHGs to be compared

In this report we have used the latest [conversion factors](#) available (2013). We calculated the base year using 2008 conversion factors.

² Environmental Reporting Guidelines: Including mandatory greenhouse gas emissions reporting guidance. DEFRA, June 2013

4. Organisational boundary

We have used a control approach to identify which GHG emissions we need to calculate and include in this report. This approach covers our most significant emissions and/or those which we can directly influence.

We have accounted for emissions from:

- energy consumption in all buildings which we own or lease and operate directly (see Appendix 2)
- waste and recycling produced at the Civic Centre
- our fleet vehicles (see Appendix 3)
- business travel by employees using their own cars (classed as 'grey fleet')
- energy consumption in our three leisure centres, which are operated by Wychavon Leisure
- travel by our biggest contractor, FCC Environmental (previously called FOSCA), to deliver waste and street cleaning services.

We have excluded emissions from:

- air conditioning
- water consumption
- fuel production and transportation
- staff commuting and business travel by train or taxi
- other leased assets
- other contractors.

We are involved in nine shared services with neighbouring councils (see Appendix 1). We host four of these:

- South Worcestershire Revenues and Benefits Service
- a joint human resources and payroll service with Malvern Hills District Council
- land drainage service for Malvern Hills, Worcester City and some functions for Worcestershire County Council
- car parking enforcement service for Bromsgrove, Redditch and Wyre Forest Councils.

The remaining shared services are hosted by Worcestershire County Council or other Worcestershire district councils. These include building control and environmental health and licensing; the latter is covered by Worcestershire Regulatory Services.

We have collectively agreed with the other Worcestershire councils that they will account for the greenhouse gas emissions resulting from any shared services that they host. This was the fairest and most practical way to ensure that all emissions are accounted for, without burdening host councils with trying to calculate and assign a proportion of the emissions to partner councils.

This report includes emissions generated by the four hosted shared services listed above. Where staff from a shared service hosted by another council are still based in our buildings, we have included any emissions arising from their use of gas or electricity, as it is not possible to differentiate them from our own emissions.

We also provide accommodation to Stepping Stones day nursery. This report includes their emissions as it is not possible to differentiate their emissions from ours.

From October 2013, SWRBSS (South Worcestershire Revenues and Benefits Shared Service) was contracted out to Civica through a strategic partnering arrangement. The service continues to operate out of the Civic Centre and the number of staff working in the Orchard Centre part of Civica will increase as their business grows. For ease of reporting, for 2013/14 this report assumes all SWRBSS staff were still part of the Wychavon workforce.

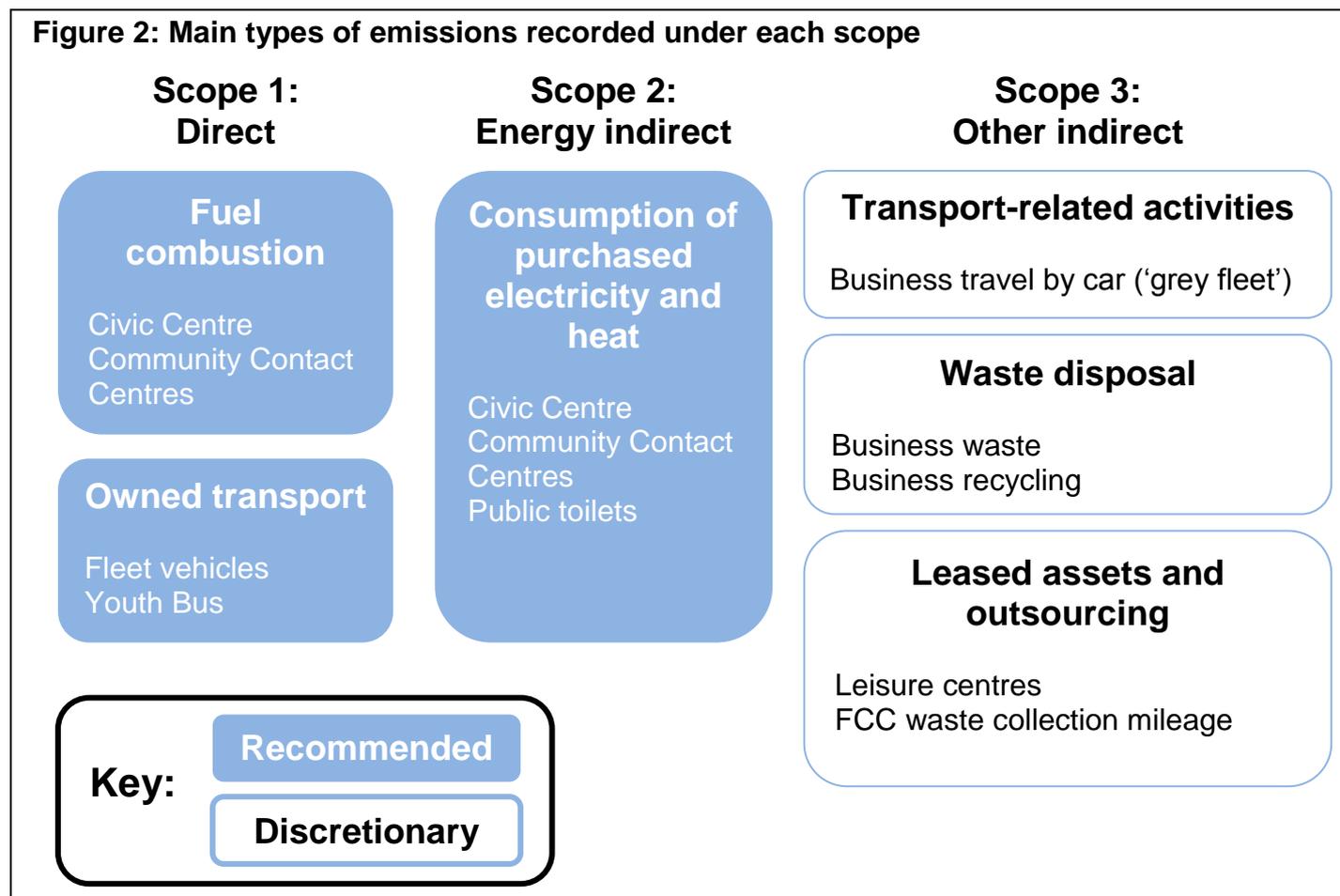
5. Operational scope

In line with the guidance, we have identified and categorised our emissions-releasing activities into three groups, known as scopes³. These are summarised in Figure 2 and described below.

Scope 1 – direct: activities owned or controlled by Wychavon District Council that release emissions straight into the atmosphere. Scope 1 emissions include emissions from combustion in our owned boilers and fuel consumed in our own or leased fleet vehicles.

Scope 2 – energy indirect: these emissions are released into the atmosphere as result of our consumption of purchased electricity and heat.

Scope 3 – other indirect: these emissions are as a consequence of our actions, which occur at sources which we do not own or control and which are not classed as scope 2 emissions. We have discretion over which scope 3 emissions we include. The guidance recommends that we focus on our significant scope 3 emissions. We have included scope 3 emissions from staff owned vehicles used for council business ('grey fleet') and from our main contractor's vehicles, waste disposal and energy consumed in the Wychavon leisure centres.



³ ERI/WBCSD The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

Data on gas and electricity consumption within our operational buildings is based upon actual meter readings and/or utility bills.

Wychavon Leisure has provided us with energy consumption data and our largest contractor, FCC Environmental, has provided us with vehicle mileage data. We have compared this with previous years' consumption data to identify any significant changes.

Table 2 and Figure 3 show our emissions by source. We have a direct influence over scope 1 and 2 emissions which come from gas and electricity consumption in our buildings (see Appendix 2) and fleet vehicles (see Appendix 3). These equate to almost 14% of our 2013/14 emissions.

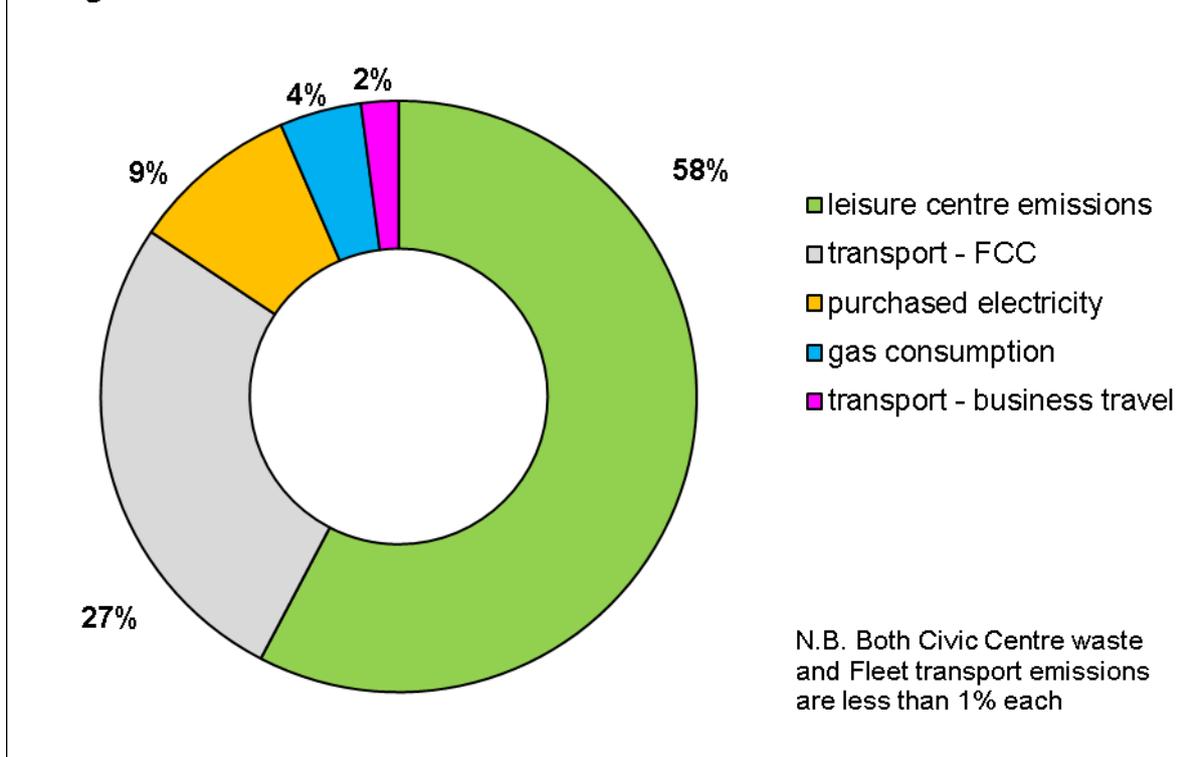
Scope 3 emissions accounted for 86% of our total emissions. We only have influence over some of these emissions such as business travel, and business waste recycled or land filled. We do not have direct influence over emissions from our leisure centres, which constitute the largest proportion of our emissions at 58%.

Table 2: Our GHG emissions by source: 1 April 2008 to 31 March 2014

Scope		Tonnes of CO ₂ e					
		2013/14	2012/13	2011/12	2010/11	2009/10	2008/09
1	Gas consumption	193.47	187.74	127.67	155.14	124.55	149.77
	Transport – owned (fleet vehicles)	9.29	11.81	10.61	11.09	16.79	12.74
	Total scope 1	202.76	199.55	138.28	166.23	141.34	162.51
2	Purchased electricity	398.96	419.13	409.43	515.10	482.62	558.64
	Total scope 2	398.96	419.13	409.43	515.10	482.62	558.64
3	Leased assets (leisure centres) – electricity	1,235.36	1,087.06	1,167.36	1,167.51	1,236.62	1,229.88
	Leased assets (leisure centres) – gas	1,280.68	1,270.61	1,201.77	1,317.71	1,054.62	1,356.10
	Transport – business travel	88.80	52.68	64.96	84.88	97.43	116.63
	Transport – main contractor (FCC)	1,166.13	826.40	998.64	1,070.19	1,300.32	846.28
	Business waste recycled	0.89	1.12	0.97	1.19	1.09	0.97
	Business waste land filled	15.21	15.21	15.21	15.21	15.21	15.21
	Total significant scope 3	3,787.07	3,190.08	3,448.91	3,656.69	3,705.29	3,565.07
Total gross emissions		4,388.79	3,808.76	3,996.62	4,338.02	4,329.25	4,286.22
Intensity measurements*							
Tonnes of CO₂e per gross internal area m²		0.075 (7897m ²)	0.077 (7897m ²)	0.065 (8232m ²)	0.081 (8298m ²)	0.073 (8344m ²)	0.082 (8634m ²)
Tonnes of CO₂e per Civic Centre occupant		1.62 (365)	1.64 (369)	1.41 (380)	1.74 (386)	1.68 (418)	1.66 (427)

*Intensity measurement = total gross emissions for scope 1 (excluding fleet vehicles) scope and 2 combined,

Figure 3: Sources of our GHG emissions 2013/14



6. Change in emissions

In 2013/14, we emitted a total of 4,388.79 tonnes of CO₂e from our estate and operations. This is a 15% increase in emissions since 2012/13 and a 2.4% increase in emissions compared with our base year (2008/09).

Despite a reduction in our fleet vehicle emissions which contribute to our scope 1 emissions, overall these emissions have increased due to an increase in gas consumption across all sites.

Our scope 2 emissions from purchased electricity fell by 4.8% compared with 2012/13 and are still 29% below our baseline year. Section 10 explains how we are continuing to work to achieve lower emission levels.

Our scope 3 emissions increased by 19% compared with 2012/13. While there was only a small increase (%) in distance travelled by our main contractor, FCC, the increase can mostly be accounted for by a 41% increase in transport emissions and a 14% increase in emissions from electricity usage in our leisure centres.

Our contractors, FCC, did a total of 844,001 miles collecting waste and recycling, and cleaning the streets on our behalf. This was a 5.0% increase in miles compared to the previous year. Our business travel also increased by 6.7%. Our staff travelled a total 180,251 miles in their cars. We also clocked up 41,827 miles in our fleet vehicles.

The amount of business waste we generate can fluctuate depending on the number of Civic Centre occupants in a given year and other issues, such as office clear outs. The amount of waste we sent for recycling in 2013/14 across three of the four monitored streams (plastics, cans and cardboard) has remained consistent with 2012/13 levels.

There was a significant decrease in the amount of paper we sent for recycling (31%), this was due to a large amount of paper sent for recycling in 2012/13 as part of an office move within the Civic Centre. We anticipated that this amount would return to the previously seen lower levels in 2011/12.

The number of cans sent for recycling continues to be low due to a charity initiative to collect cans to raise money rather than sending them for recycling with the rest of our waste. When this charity drive comes to an end we expect to see the amount of cans and, consequently, the emissions associated with their recycling, to increase to levels similar to 2010/11.

7. Carbon offsets/green tariffs

We do not currently invest in any form of carbon offsetting or purchase any energy on a green tariff. Between 2008/09 and 2010/11 we purchased renewable energy. This tariff does not meet the Green Supply Guidelines as it did not offset any emissions using carbon credits. We stopped purchasing this tariff from 2011/12 when we moved to 'Good Quality' combined heat and power.

8. Base year and recalculation policy

Our base year, 2008/09, was set using a fixed base year approach.

Due to improvements in the calculation methodology of the UK GHG inventory datasets they are based upon, there can be revisions to earlier emission factor data. Earlier guidance recommended that we recalculate the year prior to the one being reported to reflect any changes in the conversion factors.

In 2012/13, new guidance was issued, asking us to recalculate all previous years' data including the base year, to account for material changes to the conversion factors provided by DEFRA. We have done this. This means that we will not have to complete annual recalculations. The 2008/09 base year and subsequent years are now recognised static figures and annual reductions and increases will remain correct.

9. Intensity measurement

The guidance on reporting greenhouse gas emissions recommends that we use an intensity ratio to normalise our total scope 1 and 2 emissions. Intensity ratios compare emissions data with an appropriate business metric or financial indicator and allow organisations to compare their performance over time with similar organisations. We have included two intensity measurements: tonnes of CO₂e per m² of gross internal floor area and tonnes CO₂e per Civic Centre occupant.

▪ Tonnes of CO₂e per m² gross internal floor area (excluding fleet emissions from scope 1)

There is a direct relationship between the tonnes of CO₂e emitted and the gross internal floor area of our operational sites in m². If our internal floor area remains fairly constant year on year, and our CO₂e emissions reduce, we would expect to see a reduction in this intensity measurement.

The reduction in our total scope 1 and 2 emissions (excluding fleet emissions from scope 1) and a consistent internal floor area since 2012/13 has resulted in a decrease of 2.3% in CO₂e per m².

Our scope 1 emissions went up – so isn't this really as a result of a reduction in electricity consumption?

Should the gross floor space remain at the new level and we continue to reduce our emissions we would expect to see this intensity measurement reduce in future years.

▪ **Tonnes of CO₂e per Civic Centre occupant (excluding fleet emissions from scope 1)**

As part of an on-going effort to increase our income we plan to rent out vacant parts of the Civic Centre. As this would lead to an increase in energy consumption, our intensity measurement of CO₂e per full time equivalent would increase dramatically. We have, therefore, created a new intensity measurement based on the number of occupants in the Civic Centre, which is our main building. Appendix 4 shows the number of occupants in the Civic Centre by organisation and year of establishment in the building.

Due to the decreasing number of occupants in the Civic Centre and the decrease in our total scope 2 emissions since 2012/13, there has been a 1.2% reduction in tonnes of CO₂e emitted per occupant. This is a reduction of 2.4% (0.04 tonnes) per occupant on our baseline emissions.

10. Action to reduce our emissions

We have been taking action to reduce our energy consumption and carbon emissions from our operations and activities for a number of years as the following examples demonstrate.

In 2008, we commissioned free independent advice from the [Energy Saving Trust](#) (EST) and the [Carbon Trust](#) to help us understand our own energy use better and to prioritise areas for improvement. We participated in the EST's one-to-one support programme and the Carbon Trust carried out a free energy audit and provided us with technical advice.

As a result of our involvement with the EST and Carbon Trust, we developed a [climate change action plan](#), which contained 42 actions to be delivered between 2008 and 2011. Many of the actions, which we have delivered, focused on reducing our energy consumption. Examples include re-insulating loft spaces, installing movement sensitive lighting, putting timer switches on vending machine and increasing staff awareness through 'switch it off' campaigns.

At the end of 2010/11, we installed a PowerPerfector in the Civic Centre. This is designed to optimise the electricity supply voltage and reduce our energy consumption and costs by up to 20%.

In November 2011, we installed a 9.9 kilowatt peak photovoltaic panel system on the roof of the Civic Centre. The system is expected to save an estimated 85 tonnes of carbon dioxide emissions over 25 years. In its first full year, 2013/14, we generated 9,122 kWh through the solar panels. The power produced by the panels is used to help reduce the Civic Centre's demand for electricity from the national grid.

In 2013/14 we assisted with the submission of a planning application and siting of a sub-station to install a hydro-electric power station on the River Avon in Pershore. We anticipate that the turbines will be connected from July and that electricity supply should commence at the beginning of August 2014.

The electricity generated from this station will be used to supply the Pershore Leisure Centre. We anticipate that this will reduce our associated emissions significantly for part of 2014/15 and cover most of the leisure centre's electricity demand over future years.

As Figure 4 shows, our continued actions have led to an overall reduction in Civic Centre electricity consumption of 15% compared with our baseline year (2008/09).

Figure 4: Civic Centre electricity consumption in 2008/09 – 2013/14

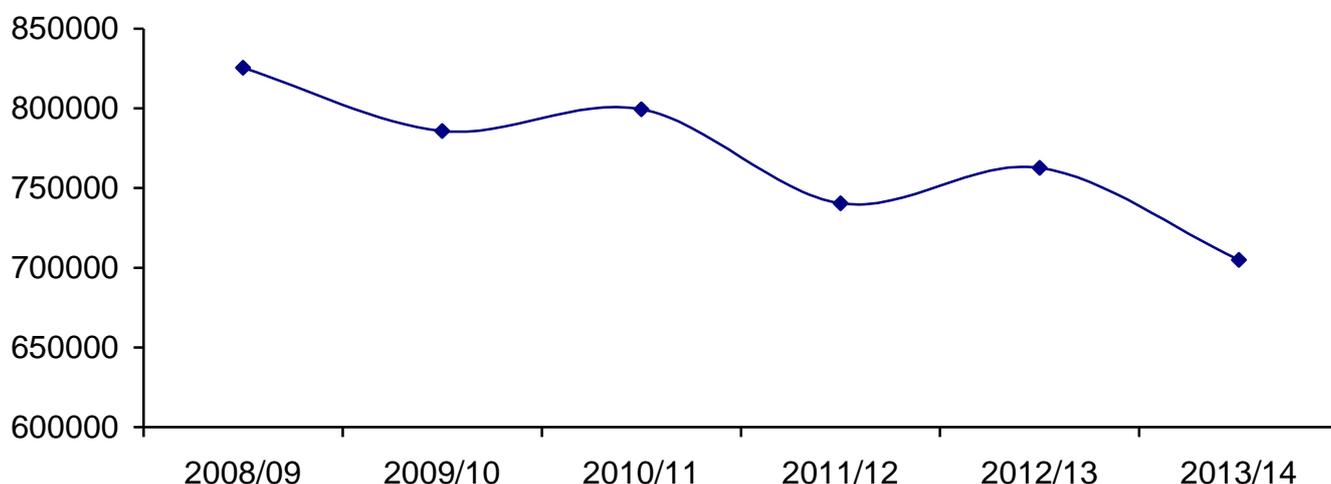
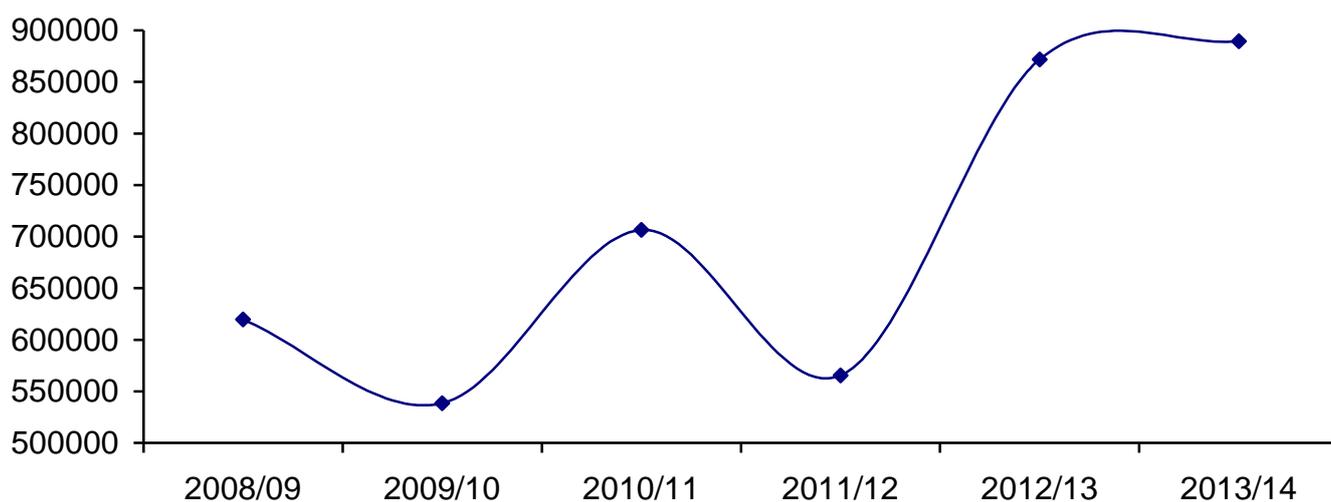


Figure 5 shows the increase in Civic Centre gas consumption since 2008/09 (baseline year) the past two years have had significantly challenging weather, The first few weeks in April 2013 were significantly colder than has been experienced over the past few years. We had a cooler than average October and November and this turned to a long spell of colder weather with early icy conditions, which would we would not usually expect until November / December

Figure 5: Civic Centre gas consumption in 2008/09 – 2013/14



Our [Intelligently Green Plan](#) (see section 11) includes actions on reducing energy consumption in our leisure centres and assessing the feasibility and economic viability of installing renewable energy technologies at two of the leisure centres. If successful, this would have a noticeable impact on our Scope 3 emissions.

11. Strategy and targets

Our [corporate strategy](#) (2012 - 2016) sets out our commitment to making effective use of natural resources and minimising our impact on the environment. One of our three strategic priorities is a **strong environment**. Our goals under this priority include: reducing energy consumption and increasing the generation of energy from renewable sources. This applies to the way we run the council, the services we provide and our community leadership role.

In July 2012, we officially launched our new [Intelligently Green Plan](#), which sets out our vision for a greener, more energy efficient and self-sufficient Wychavon by 2020. We define 'intelligently green' as our involvement in environmental issues that either make good business sense for us and/or have a clear community benefit. We have signed up to [Climate Local](#).

The Intelligently Green Plan focuses on four themes: energy; construction; food, tourism and green space; and transport. It examines where we are now in Wychavon - both as a council and in the wider community. It covers our strategic commitments and our direct environmental impact. It looks at examples of how we are already helping the community to be intelligently green through things like energy advice, grants for insulation, raising awareness of bulk fuel buying groups and our Building Design Awards.

The document contains an analysis of the district's environmental footprint and the current position for each of our four themes. It provides an insight into residents' perceptions about a number of green issues.

The plan contains 42 actions for delivery between 2012 and 2015, which will make a significant contribution to reducing energy use and increasing renewable energy generation within the council and across the district. The plan concludes by explaining how we will measure progress and outlines some more detailed examples of how we're putting our intelligently green approach into action.

In addition to the commitments in our Intelligently Green Plan, we have set the following targets:

- To reduce our total GHG emissions by 10% by 2020 against a 2008/09 baseline.
- To reduce the amount of energy consumed per Civic Centre occupant by 20% by 2020 against a 2008/09 baseline.

12. Contact

We have published this report on our [website](#), in accordance with the UK Government's guidance for local authorities.

For information relating this report or to find out more about our [intelligently green work](#), contact Cherrie Mansfield, Strategy and Performance Manager on 01386 565508 or cherrie.mansfield@wychavon.gov.uk.

Appendix 1

Shared services we're involved in as of 31/03/2014

Service	Host council	Partner councils	Year established
Land drainage	Wychavon District Council	Malvern Hills DC Worcester City DC Wychavon DC	2012
Car parking enforcement service	Wychavon District Council	Redditch BC Bromsgrove DC Wyre Forest DC Malvern Hills DC	2012
HR and payroll	Wychavon District Council	Malvern Hills DC Wychavon DC	2011
Information, Communication and Technology	Worcestershire CC	Malvern Hills DC Worcester City DC Wychavon DC	2010
Worcestershire Regulatory Services	Bromsgrove District Council	Bromsgrove DC Malvern Hills DC Redditch BC Worcester City DC Worcestershire CC Wychavon DC Wyre Forest DC	2010
Internal Audit	Worcester City Council	Bromsgrove DC Malvern Hills DC Redditch BC Worcester City DC Wychavon DC	2010
Building control	Malvern Hills District Council	Malvern Hills DC Worcester City DC Wychavon DC	2009
Worcestershire Hub	Worcestershire CC	Malvern Hills DC Worcester City DC Wychavon DC	2009
South Worcestershire Revenues and Benefits Shared Services	Wychavon District Council	Malvern Hills DC Worcester City DC Wychavon DC	2007

Appendix 2

Sites included in our emissions calculations for 2013/14

Site	Electricity	Gas
Office space		
Civic Centre	Y	Y
Droitwich Community Contact Centre ¹	N	N
Evesham Community Contact Centre	Y	Y
Community facilities		
Evesham public hall ²	N	N
Droitwich Spa Youth Zone ³	N	N
Leased assets		
Droitwich Spa Leisure Centre	Y	Y
Droitwich Spa Lido	Y	Y
Evesham Leisure Centre	Y	Y
Pershore Leisure Centre	Y	Y
Public toilets		
Broadway – Church Close car park	Y	N
Broadway – Milestone Ground car park	Y	N
Broadway – Shear House ⁴	N	N
Broadway – Activity Park ⁵	Y	N
Droitwich Spa – St Andrews Square	Y	N
Evesham – Oat Street	Y	N
Evesham – Old Brewery	Y	N
Evesham – Viaduct Meadow	Y	N
Evesham – Waterside	Y	N
Pershore – Church Walk	Y	N
Pershore – High Street	Y	N

¹ Droitwich Community Contact Centre moved to Droitwich Library on 08-08-2011. We have not included these emissions in this report.

² The public hall is no longer in use and emissions have not been included since 2009/10.

³ Droitwich Spa Youth Zone opened in 2009/2010 and we reported our emissions for this premises. From 01-04-12 the Youth Zone was relocated to a building outside of our remit before closing. Emissions from the Youth Zone are no longer included in this report.

⁴ This public toilet closed on 20-02-2010 and emissions have not been included since our 2010/11 report.

⁵ This public toilet opened in 2012/13, emissions have been included since our 2012/13 report.

Appendix 3

Fleet vehicles included in our emissions calculations for 2013/14

Vehicle	Fuel type	Engine size	Year of registration	Included in this report
Dennis coach	Diesel	3200cc	1993	Y
Land Rover Defender	Diesel	2495cc	1994	Y
Renault Kangoo ¹	Petrol	1400cc	2001	N
Volkswagen Transporter	Diesel	2461cc	2002	Y
Ford Fusion	Diesel	1399cc	2002	Y
Nissan Primastar	Diesel	1870cc	2003	Y
Ford Fiesta	Petrol	1388cc	2004	Y
Honda Jazz ²	Petrol	1400cc	2010	N
Toyota Prius ³	Electric Hybrid	1400cc	2012	Y

¹ The Renault Kangoo was a courier van used mainly used to transport items and important documents across the district and the county. Since the end of 2009/10, items to be transported are now taken by staff en route to meetings.

² The Honda Jazz was a staff pool car which could be booked by staff to attend meetings off site. In 2012 we replaced the Honda Jazz with an electric Toyota Prius. Emissions from this vehicle are no longer included in this report.

³ The Toyota Prius is an electric hybrid car and replaced our previous staff pool car, the Honda Jazz, in November 2012. This report includes the first full year of emissions from this vehicle.

Appendix 4

Number of Civic Centre occupants by organisation as of 31 March 2008/09 – 2013/14

Service Year	Wychavon District Council	CCTV	Mental Health Trust	Worcester Regulatory Service	IT Shared Service	Healthwatch	SWRBSS*	TOTAL
2008/09	423	4	-	-	-	-	-	427
2009/10	392	4	22	-	-	-	-	418
2010/11	348	4	22	2	10	-	-	386
2011/12	342	4	22	2	10	-	-	380
2012/13	353	4	-	2	10	-	-	369
2013/14 ¹	234	4	-	2	10	12	103	365

* South Worcestershire Revenues and Benefits Shared Service

¹ From October 2013 SWRBSS was contracted out to Civica, as such the number of staff working in the Orchard Centre (first floor of Civic Centre) will increase as their business grows. For ease of reporting 2013/14 assumes all SWRBSS staff were still part of the Wychavon workforce.