

Appendix B

Harborough District Council Carbon Emissions Inventory 2013-2014

Summary

This report collates the equivalent carbon emissions due to Harborough District Council's use of energy for both its own services and those services commissioned by the council. The results are for 2013/2014.

The results are separated into three scopes. Scope 1 covers emissions due to the direct use of fossil fuels in the Districts own buildings, i.e. gas boilers or vehicles owned by the council. Scope 2 covers indirect emissions, i.e. electricity consumption. Scope 3 amalgamates emissions from other sources, including contracted services, such as waste and leisure centres.

The Council is committed to reducing energy costs and emissions and is engaged in an ongoing project to improve its own buildings. The Symington Building and the Market Hall in Market Harborough have both undergone a significant refurbishment, which is expected to deliver significant savings. Contracted services such as waste and leisure also work hard to keep energy usage low. Waste Services have done regular driver monitoring and training and the leisure centres in Lutterworth and Harborough have both been fitted with energy saving equipment.

The emissions from each of the scopes is summarised in the table below. Fuller details of the emissions are covered in the following sections.

Scope of emissions	Tonnes Equivalent of CO2
Scope 1 – Direct Emissions	206.3
Scope 2 – Indirect Emissions	195.2
Scope 3 – Other Indirect Emissions	5393.4
Total Emissions	5794.9
Total Emissions excluding services contracted out	483.4

Introduction

Harborough District Council covers the area to the South and east of Leicester City. It is a largely rural area, with Market Harborough as the largest settlement. The population is around 85,000, with around 27,000 concentrated in Market Harborough. Other major settlements include Lutterworth and Broughton Astley.

Harborough District covers an area of 238 square miles of rural south and east Leicestershire. It lies within the East Midlands Region, bordering Warwickshire to the west, Northamptonshire to the south and Rutland to the east. Harborough borders 4 other Leicestershire district authorities, namely Charnwood, Melton, Oadby and Wigston and Blaby, and adjoins the east of Leicester City at Bushby, Scraftoft and Thurnby.

Harborough District Council's action on emissions

Harborough District Council has recently signed Climate Local, a framework for local authority action on climate change under the auspices of the Local Government Association. Harborough District Council is preparing an action plan of programmes and activities to reduce emissions and to improve the resilience of communities to climate change. An important part of this is a suitable inventory of district controlled emissions.

Harborough District council are in the process of transforming their service. One important part of this has been the upgrading of council assets. The council office, a Victorian corset factory, has undergone a massive refurbishment during 2013/14. The sympathetic restoration and refurbishment has led to the building being given an Energy Performance Certificate of B. This is a huge achievement for an historic building.

The New Market Hall has also undergone a refurbishment, which will improve the energy performance. In addition some council assets have been identified as suitable for disposal. For these reasons the data presented here for the financial year 2013/14, must be regarded with some caution, as the effect of the changes will not be seen until 2014/15 or later.

Compiling an Inventory

The UK government has encouraged Local Authorities to continue to report on their greenhouse gas emissions, despite of the removal of the NI185 indicator that previously called for this. The Government provide guidance on the format and methodology that should be [used https://www.gov.uk/sharing-information-on-greenhouse-gas-emissions-from-local-authority-own-estate-and-operations-previously-ni-185](https://www.gov.uk/sharing-information-on-greenhouse-gas-emissions-from-local-authority-own-estate-and-operations-previously-ni-185). In addition they provide information to enable conversion of energy in kWh or fuel in litres to be converted.

The information presented here has used these protocols and the conversion data available at, <http://www.ukconversionfactorscarbonsmart.co.uk/>

Harborough District Council has collated emissions information in earlier years. However, the methodology has changed and so for the purposes of this report 2013/2014 forms the base year. If it is feasible the base year will be extended back, before the next annual report.

Direct emissions from Council Services (Scope 1)

Direct emissions from the council estate, in the financial year 2013/14, amount to around 206 Tonnes equivalent of CO₂. These emissions arise from gas boilers in seven buildings and also a small contribution from travel around the district by parking attendants.

The figures for the Symington Building are likely to be anomalous as for a large part of the period the building was undergoing refurbishment. This will be monitored as we go forward.

Harborough District Council Site	Gas Consumption (kWh)	Emissions (Tonnes equivalent CO ₂)
Council Offices, Adam & Eve Street	428,763	78.9
New Market Hall	459,865	84.6
Harborough Innovation Centre	122,899	22.6
Resource Centre	44,028	8.1
Market St, Lutterworth	0	0
Settling rooms	24,819	4.6
Park Nursery	23,463	4.3
Total		203.1

Parking attendants transport contribution is 3.2 Tonnes equivalent of CO₂.

Indirect emissions from Council Services (Scope 2)

Contributions to indirect emissions come from the use of electricity across the council estate. Harborough District Council purchases a 100% renewable energy product, via ESPO. However, this tariff is not recognised as zero CO₂ for the purposes of this inventory. Harborough District Council is also investigating installing renewable energy technologies. Electricity consumption figures come from 12 sites. The total emissions equate to 195.1 tonnes CO_{2e}.

Harborough District Council Site	Electricity Consumption (kWh)	Emissions (Tonnes equivalent CO ₂)
Public Conveniences, Common Car Park,	11329	5.1
Settling Office	14043	6.3
Council Offices, Adam & Eve Street,	115195	51.3
26 Hill Court, Bushby	4476	2.0
Pumping Station, Northampton Road,	15360	6.8
Welland Park Rest Room,	5175	2.3
Public Conveniences, Recreation Ground,	6221	2.8
Cemetery Chapel,	10234	4.6
Welland Park Cafe (Care),	21710	9.7
Symington Sports Pavillion,	8711	3.9
Welland Park Bowl Pavillion,	276	0.1
19/21 Market Street, LUTTERWORTH	1602	0.7
Market Hall	223632	99.6
Total		195.2

Emissions from contracted council services (Scope 3)

Harborough District Council, in common with many Local Authorities, have contracted out waste and leisure services. These services generally have their own standards for reducing emissions, for example; the waste contractor has a fuel monitoring system and drivers undergo fuel efficiency training. The leisure centres are big users of energy, with swimming pools and large halls to heat, but the contractor has introduced variable drives to reduce consumption. The gas and electricity consumption together account for 759 tonnes equivalent of CO₂

Harborough District Council business mileage is only available via the expenses system. This provides simplified data, with no information on car size or fuel type. All figures here have been derived using an average petrol car. The total mileage claimed for business use accounts for 74 Tonnes equivalent of CO₂. It is not possible to obtain information about business journeys taken by public transport, so this is not included.

There are a range of services that contribute to the overall carbon emissions through vehicles. The largest of these is the waste contractor. However, there are also other services including dog and pest warden and the rapid response team. Total emissions from contractors transport fuel use are 975.53 Tonnes CO_{2e}

Contractor Service area	Fuel (Litres)	Emissions (Tonnes equivalent CO ₂)
Waste collection	367227.75	955.09
Rapid response team	3780	9.83
Dog warden	2040	5.31
Pest control	2040	5.31
Grounds maintenance	-	-

There are two leisure centres, both with pools, in the district. One is in Market Harborough and the other in Lutterworth. The total emissions from both gas and electricity consumption are 4336Tonnes equivalent of CO₂. The electricity consumption of Harborough leisure centre is around the good practice target identified by the Carbon Trust (it has a DEC rating of C); Lutterworth's is closer to the typical figure.

http://www.carbontrust.com/media/39352/ctv006_sports_and_leisure_sector_overview.pdf

Leisure Centre Site	Electricity Consumption (kWh)	Emissions (Tonnes equivalent CO ₂)	Gas Consumption (kWh)	Emissions (Tonnes equivalent CO ₂)
Harborough	925880	412.461	16030359	2950.227
Lutterworth	701760	312.62	3589720	660.652

Finally the transmission of electricity has an impact on emissions, so this included using the factors suggested in government guidance. Given an electricity consumption of 214332 kWh there is a contribution of approximately 8 Tonnes of CO₂ equivalent.

The total of emissions covered by Scope 3 is thus 5393.4 Tonnes equivalent of CO₂. This scope is responsible for the highest emissions. Leisure centres are very high users of energy and waste services have to cover a very large rural collection area, which leads to high emissions. Both of these services are working hard to minimise emissions.

Future activity to reduce emissions

Harborough District Council will continue to review its estate and look for ways to reduce emissions. Some of this is expected to come from disposal of assets, but there are also further opportunities to reduce energy consumption. We expect to see a reduction, following the refurbishment of the Council Offices and New Market Hall. There may be further opportunities to improve the energy efficiency of the Market hall lighting in the future. In addition there is a project to look at installing PV on the Market Hall, which could pave the way for more renewable energy installations on council property.

The operation of the Council Offices will also be investigated over the year via the Building Energy Management System. It is possible that this may highlight the opportunities for staff engagement in energy saving projects. The council has also adopted a Green Travel Plan, which encourages low carbon transport choices. This will be further promoted now that the Council Offices are fully occupied.

There is an interest in using the green travel plan to reduce emission from staff travel. This will be pursued. However, the current monitoring system for staff expenses is not able to provide detailed information on staff travel, so this may need to be investigated further to ensure that changes in behaviour can be monitored.

Conclusion

Harborough District Council has been working hard to reduce emissions through a period of change. The awarding of a B rating for the energy efficiency of refurbished council offices is a real boost. This inventory of emissions is the first following the changes that have taken place. It is clear that, whilst good progress has been made, there is still much that can be done.

There are a number of areas, where the data for the monitoring is not available, which has led to approximations. This makes it difficult for delivering future progress. A number of areas for improvement have been identified; namely:

- Identifying opportunities for renewable energy
- Progressing the green travel plan
- Further savings from rationalising stock and improving energy efficiency in the ongoing maintenance.

The year on year impact on emissions will be reported and new opportunities identified as we move forward.