

# CO<sub>2</sub> emission estimates from Local Authority own operations during 2008/09

## **Methodology Summary**

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**This is a publications of “provisional” statistics captured under National Indicator 185.**

**These statistics have been produced following the first year of data collection by Local Authorities. Benchmarking is not advisable; DECC have been made aware that more accurate data are now available for some Local Authorities (highlighted in the statistics with a star).**

**Please contact Local Authorities directly for further information on their carbon emissions.**

- 1 (p.3): Background on the Local Authority Performance Framework
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## 1. Local Authority Performance Framework

These data were collected under National Indicator 185, which is a key indicator in The Local Authority Performance Framework and National Indicator Set. These are currently under review by the new coalition Government.

## 2. CO<sub>2</sub> emission estimates from Local Authority (LA) own operations

The public sector is in a key position to lead on efforts to reduce CO<sub>2</sub> emissions by setting a behavioural and strategic example to the private sector and their communities. The way an LA delivers its functions can achieve substantial CO<sub>2</sub> reductions for society as a whole.

Data were collected from Local Authorities to calculate an estimate of the CO<sub>2</sub> emissions arising from Local Government operations, and to establish a baseline for each LA to measure performance against. In compiling the results centrally, emissions from each LA's operations become transparent and more comparable, using a common Carbon Management Tool.

The spreadsheet data has been checked for validity by AEA on behalf of DECC and clarification has been sought from Local Authorities, where there have been obvious data quality issues. This error correction process has taken 10 months.

AEA/DECC are not responsible for any 'data entry' errors. Local Authorities provided the information and the different level of aggregation in each return means that errors of this type cannot be spotted easily. The baseline should be an accurate representation of the emissions released during 2008/09. Any inaccuracies will be amended in any future DECC publications.

### 3. Methodology

#### *Carbon Management Spreadsheet Tool*

AEA developed a carbon management spreadsheet tool for Local Authorities to use after conducting a review of the existing tools. The spreadsheet tool was released for LAs to use (on the Defra website) in time for end of financial year 2008/09. Since then, National Indicator 185 responsibility has been transferred from Defra to DECC. The latest version of the error corrected spreadsheet is now available from the DECC website. (This is available to maintain accurate LA reporting internally, it is not for submission to DECC.)

To reduce reporting burdens, the carbon management spreadsheet tool also calculates the emissions for NO<sub>x</sub> and PM<sub>10</sub> (Defra's National Indicator 194) using the same input sources.

#### *Defra Guidance (2008)*

[http://www.decc.gov.uk/Media/viewfile.ashx?FilePath=Statistics\nationalindicators\1\\_20100430144702\\_e\\_@@\\_ni185guidance.pdf&filetype=4](http://www.decc.gov.uk/Media/viewfile.ashx?FilePath=Statistics\nationalindicators\1_20100430144702_e_@@_ni185guidance.pdf&filetype=4)

This document is now dated, but is included here to set the context.

More detailed Q & A on what Local Authorities should include and exclude is available on the Audit Commission's Information Portal. <http://www.audit-commission.gov.uk/localgov/audit/nis/Pages/NI185CO2reductionfromlocalauthorityoperations.aspx?q=185&b=niguicdancesearch&ord=title&res=400&p=0>

DECC interim guidance has been published on the DECC website regarding weather corrected emissions and revising baselines.

[http://www.decc.gov.uk/Media/viewfile.ashx?FilePath=Statistics\nationalindicators\1\\_20100430154207\\_e\\_@@\\_ni185guidanceweathercorrectedemissions.pdf&filetype=4](http://www.decc.gov.uk/Media/viewfile.ashx?FilePath=Statistics\nationalindicators\1_20100430154207_e_@@_ni185guidanceweathercorrectedemissions.pdf&filetype=4)

[http://www.decc.gov.uk/Media/viewfile.ashx?FilePath=Statistics\nationalindicators\1\\_20100430165430\\_e\\_@@\\_ni185interimguidancebaselines.pdf&filetype=4](http://www.decc.gov.uk/Media/viewfile.ashx?FilePath=Statistics\nationalindicators\1_20100430165430_e_@@_ni185interimguidancebaselines.pdf&filetype=4)

#### *What sources are included?*

The definition of the indicator is CO<sub>2</sub> emissions from the operations of all Local Authorities. These are the emissions associated with delivery of "functions" and services, including any services outsourced to a contractor. In terms of the meaning of the word "function", it covers both the duties and powers of an authority. The broad definition encourages LAs to include all the information that is available to them. The non-prescriptive approach takes into consideration different experience levels for different LAs, some are very advanced, where as others are only just starting to think about emission reporting.

All the sources included should be under the influence of Local Authorities and provide the potential for a reduction to be made, e.g. social housing is excluded because the energy use is determined by the tenant, however, the emissions resulting from service delivery in an area containing social housing, such as street lighting or sewage pumps can be included and emissions reduced through LA action.

The broad, non-prescriptive approach means that benchmarking should not be attempted this year. A full inventory of the sources included would be needed for accurate benchmarking.

Each submission is *likely* to contain the majority of emissions from:

**Buildings and Street Lighting**

- Council Offices
- Community Centres
- Libraries
- Town Halls
- Day Centres
- Warehouses/Storage facilities
- Depots
- Street Lighting
- Leisure Centres
- Primary and Secondary Schools (in receipt of LA funding)
- Car parks
- Public conveniences
- Signs and bollards
- Bowling Greens

**Transport**

- Business Travel using public transport
- Business Travel using councilowned or employee vehicles
- Fleet vehicles
- Refuse trucks and road sweepers
- Off-road vehicles (industrial mobile machinery)
- Gardening and Grounds maintenance equipment

This dataset **excludes** emissions from;

- Domestic housing,
- Social housing (tenants' emissions)
- Staff commuting to and from work each day

**Bus emissions** are excluded for this year because the conversion factors provided in the current tool are only appropriate for personal bus travel, and inappropriate for calculating emissions from 'bus services' provided by Local Authorities. Local Authorities who submitted 'bus' data to DECC will have their baselines amended to include this information, if there are future publications.

*How are emissions calculated?*

The emissions are calculated from activity data supplied by the Local Authority. An emissions factor is used to convert the activity data to actual emissions. The emissions factors used in the Carbon Management Spreadsheet tool were taken from Defra (2007) Guidelines to GHG conversion factors for company reporting:

<http://www.defra.gov.uk/environment/business/reporting/pdf/conversion-factors.pdf>

These were the most up-to-date conversion factors available at the time of tool development. There are new conversion factor publications each year and any amendments to the conversion factors will be done centrally by DECC. All submissions are using the conversion factors in the above pdf to ensure consistent methodology across Local Authorities.

#### *Transport – issues with the data quality*

The emissions from Local Authorities' transport depends on a number of variables such as the age, size and efficiency of the vehicle, as well as the speed and manner it is driven in, and the type of fuel used. All these variables mean that to calculate accurate emissions, disaggregated data are required grouping the vehicles into core groups for the vehicle type, fuel type, year of registration and journey type (road vehicles only) etc. This is the first year Local Authorities have been asked to collect this information and we anticipate that transport data will see greater revisions, as processes are put in place to record this information more accurately. (There have been particular problems with reporting the NO<sub>x</sub> and PM<sub>10</sub> emissions from transport, because more disaggregated information is required than for the CO<sub>2</sub> component.)

## 4. FAQs

### **Does DECC plan to update the dataset each year?**

The National Indicator Set, The Local Authority Performance Framework, Local Area Agreements and Local Authority reporting (under National Indicator 185) is all under review by the new coalition Government. It has not been decided, whether DECC will continue to collect this information from Local Authorities. However, Local Authorities will continue to be expected to reduce emissions from their operations.

### **Submission of 2009/10 data to DECC**

DECC have not announced a submission deadline for the 2009/10 data, we would like Local Authorities to hold onto this for the moment.

Any announcements will be made at

<http://www.decc.gov.uk/en/content/cms/statistics/indicators/ni185/ni185.aspx>

### **What if more accurate information becomes available?**

Any amendments to the baseline should be made at the point of submitting the next year's data block to DECC. The modification of previous statistics will be additional to the publication of the data for that financial year. DECC have produced interim guidance on revising the baseline and the adding of new sources. This will remain best practice to be used as long as the project continues.

[http://www.decc.gov.uk/Media/viewfile.ashx?FilePath=Statistics\NationalIndicators\1\\_20100430165430\\_e\\_@@\\_ni185interimguidancebaselines.pdf&filetype=4](http://www.decc.gov.uk/Media/viewfile.ashx?FilePath=Statistics\NationalIndicators\1_20100430165430_e_@@_ni185interimguidancebaselines.pdf&filetype=4)

### **Is there going to be a new spreadsheet?**

It is not clear at this time. It depends on the outcome of the review and on available project funding. There are a number of limitations that DECC would like to overcome in the current carbon management spreadsheet tool (including the difficulty in adding new sources to the future data block – see guidance above). A new improved spreadsheet tool would be beneficial, to improve the accuracy of the statistics.

### **Which authorities are best/worst? Is this a 'league table'?**

These results are not intended for use in making comparisons between Local Authorities because the scope of the emissions is not fixed and depends on the data collection process, e.g. has every contractor been included or just the core contractors? The different approaches to reporting means each Local Authority is only comparable to its own performance in a future year, and emissions will still be subject to annual changes in the price of fuel, the weather, the economic state.

### **What is the point then?**

Everyone has a responsibility to reduce absolute emissions. It is difficult to demonstrate positive action without a means to measure the reduction achieved. This tool allows Local Authorities to do this using one methodology.

This is the first time that local authorities have reported their carbon footprints to DECC, using the carbon management spreadsheet tool. DECC have achieved a 100% engagement rate. It has provided a central point of contact and advice; helping to support LAs through some of the more tricky elements of carbon measurement.

The data should not be taken as absolute and differences between local authorities, could result from data as well as operational issues. There is some uncertainty around the data in aggregate and detailed form. These estimates are the result of a bottom-up process of measuring and reporting. It means LAs are now more aware of their total emissions and where the highest emitting buildings (and vehicles) are in their inventories.

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