

Northumberland County Council – report on environmental indicators

Environmental indicators

The environmental indicators that Northumberland County Council has chosen to report are:

- Greenhouse gas emissions from local authority estate and operations
- Percentage reduction in per capita carbon emissions from local authority area
- Renewable energy generated from local authority estate

Greenhouse gas emissions from local authority estate and operations

Local authorities have been requested by the Department of Energy and Climate Change to report on greenhouse gas emissions from their own estate and operations. Northumberland County Council has been doing this since local government reorganisation in 2009/10 and has been publishing the figures on the council's website. The council has set an internal target to reduce emissions from its own estate and operations by 5% each year.

For the purposes of reporting, the data includes all buildings and operations for which the council has direct control. This includes all operational buildings such as local authority run schools, libraries, fire stations, depots and offices but excludes all schools which have academy status and any outsourced services. The information also includes any other operational use of energy, such as streetlights, council owned transport and business travel. The data reported is split between scope one, scope two and scope three emissions.

Scope one emissions are all direct emissions and are emissions from sources that are owned and controlled by the authority. They include combustion of fossil fuels such as gas, coal and oil in council buildings and emissions from the council's owned transport fleet.

Scope two emissions are all indirect emissions from purchased electricity, heat and steam and include all electricity used in council buildings and operations including streetlights.

Scope three emissions are other indirect emissions, such as the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity. For the purposes of reporting, it includes all business travel by council employees using either their own vehicle or public transport.

The period of measurement for this information is the financial year (April – March). It is compiled using a series of reports made up from both the council's internal reporting systems and those supplied by the council's energy providers. This information is converted into greenhouse gas emissions using standard DECC conversion factors.

The table below shows Northumberland County Council's total greenhouse gas emissions since it assumed its current structure following local government reorganisation in 2009.

	Tonnes of CO ₂ e				
	2009/10	2010/11	2011/12	2012/13	2013/14
Scope 1	24,027	23,025	23,109	25,983	23,117
Scope 2	27,382	32,625	30,688	27,370	27,137
Scope 3	2,528	2,273	2,098	1,885	1,865
Total Gross Emissions	53,936	57,923	55,895	55,238	52,119

More detailed information can be found on the accompanying spreadsheet on the website.

Northumberland County Council is taking action to reduce emissions from its own estate and operations, including insulation of council buildings, review of boilers and heating controls and the introduction of an electric vehicle for council business as well as the solar PV project, changes to the IT servers in county hall and the rationalisation of the council's property portfolio through the estates transformation programme. Areas to target in the future include the vehicle fleet, business mileage and street lighting.

Percentage reduction in per capita carbon emissions from local authority area

Northumberland County Council has also chosen to report percentage reduction in per capita emissions from local authority area. This is in line with an agreement made when all local authorities in the North East signed up to the EU Covenant of Mayors in 2009, a European initiative to reduce carbon emissions.

Signatories of the EU Covenant of Mayors formally commit to going beyond the objectives of EU energy policy in terms of reduction in CO₂ emissions, which is a 20% reduction in CO₂ emissions from a 1990 baseline. Northumberland County Council, along with all other local authorities in the North East, has committed itself to a 20.5% reduction in CO₂ emissions from a 2005 baseline, which equates to a 34% reduction on 1990 levels.

This indicator measures the percentage change in the amount of CO₂ emissions across an agreed set of sectors. This is measured as a percentage reduction in the number of tonnes of CO₂ per capita in the local authority area, calculated from a baseline year of 2005. The indicator relies on centrally produced statistics to measure end user CO₂ emissions for local authority areas covering business and public sector, domestic housing and road transport.

Northumberland County Council keeps records on this information since 2005 in order to measure progress against the reduction target agreed under the EU Covenant of Mayors. This information is summarised in the table below.

Year on Year Percentage Reduction in Per Capita Carbon Emissions

Year	Total Tonnes CO ₂	Tonnes per Capita	Percentage Reduction	Cumulative Percentage Reduction	Comment

2005	3,174,900	10.30	0.00%	0.00%	Baseline
2006	3,137,900	10.10	1.94%	2.00%	Actual
2007	3,068,300	9.90	1.98%	4.00%	Actual
2008	2,973,400	9.60	3.03%	7.00%	Actual
2009	2,599,100	8.40	12.50%	19.00%	Actual
2010	2,882,300	9.20	-9.52%	11.00%	Actual
2011	2,839,066	8.50	7.61%	17.48%	Actual
2012	2,390,900	7.3	14.12%	27.00%	Actual

As the data is produced by DECC with a two year time lag, the most recent information we have available is for 2012, which is an estimated figure yet to be confirmed. The data for 2013 will be released in 2015.

Northumberland is on course to meet and go beyond its target for 2020. It is hoped that projects such as Warm Up North, a pioneering £200 million regional initiative to improve the energy efficiency of households in the North East will further reduce carbon emissions in Northumberland.

Electricity generated from local authority estate

The third environmental indicator that Northumberland County Council has chosen to report on is renewable energy generated from the local authority estate. By generating energy from renewable sources, the council can go a long way towards achieving its objectives in terms of reducing carbon emissions from both its own estate and operations and from the local authority area as a whole, as well as generating income from government schemes such as the Feed in Tariff and the Renewable Heat Incentive.

The council has already undertaken the first phase of a pioneering solar PV project, with more than 512 homes in Northumberland as well as 89 schools and a further 61 community buildings. There are plans to further increase the amount of energy generated from Northumberland's estate by installing biomass boilers and small wind turbines into the county's schools. The council is also exploring the opportunity for large scale wind generation on council land.

The energy generated is measured over the period of the financial year and uses the same data that is collected for the payment of Feed in Tariffs and Renewable Heat Incentive. For the purposes of reporting, only electricity generated from schools and public buildings is used for this indicator, domestic properties are excluded.

As this is a new indicator, the first year that we have data for is 2012/13 and no targets have been set for future years at the current time. It is expected that these will follow over the course of the 2013/14 financial year.

In 2012/13, Northumberland County Council generated a total of 652,997 kWh from solar PV installed in schools and community buildings. Further information can be found in the accompanying spreadsheet.