

CARBON MANAGEMENT REPORT 2016-17



LSE is strongly committed to environmental sustainability, and it is a key principle of both our Strategic Plan and Ethics Code.

Acknowledging the Clean Growth Strategy proposed by the Government, and conscious of the new development of our activities and estate portfolio, we undertook a review of our 2010 Carbon Management Plan.

20

A new target of 34% carbon emission reduction by 2025 from the 2005-06 baseline was consequently adopted.

LSE has already made good progress towards this target.





Baseline data:

LSE total footprint (scope 1 and 2) for the baseline 2005-06 was 13,170 tonnes of carbon dioxide equivalent (tCO_2e).



Current footprint:

LSE carbon footprint for the most recent academic year 2016-17 was $9,726 \text{ tCO}_2\text{e}$. This represents a 26% decrease from the 2005 baseline.

2016-17 carbon footprint decrease is mainly the result of the School RE:FIT programme, an energy saving programme supported by the Mayor of London. The decarbonisation of the grid also contributed to the decrease.



Carbon Emissions (tCO₂e):



Total footprint by energy use:

			2016-2017 total Carbon Emissions, tCO ₂	% breakdown of total 16-17 Carbon Emissions
	Academic	Heating	1,442	15%
	-	Hot Water	24	< 1%
	-	Lighting	2,193	23%
	-	Electricity	2,480	26%
	-	Cooling	66	< 1%
	Residential	Heating	1,301	13%
	-	Hot Water	604	6%
	-	Lighting	605	6%
	-	Electricity	961	10%
	Sports Ground		50	< 1%
	Total Figure		9,726	

In 2016-17, LSE made significant progress towards its carbon reduction target.

- We completed Tranche 1 of RE:FIT. Working with Bouygues, we invested £2 million in energy conservation measures such as energy efficient lighting, photovoltaic panels and improved building controls. The measures helped LSE to reduce by 9% the carbon footprint of the buildings in the project scope.
- We have invested another £2 million into Tranche 2 of RE:FIT, which should be completed in 2018. Tranche 2 focuses on improving the School's boilers. This will result in increased efficiency and maintenance savings.
- Photovoltaic panels and Combined Heat and Power units continue to produce electricity and heat for our estate, saving 406 megawatt-hour and 143 tCO₂e in 2016-17. This is enough to power Clement House for a year.
- Thanks to these projects, we have significantly reduced the carbon intensity of our estate: in 2016-17 we produced only 47 kilogramme of CO₂e per of square meter, a 37% cut since 2005/06.

Estates Division

CONTINUING PROGRESS

SETTER ENERGY

Guided by the Carbon Management Plan, LSE plans to further reduce its carbon footprint:

- We are developing a third tranche of RE:FIT. The new projects include more lighting upgrades, more smart controls, and more improvements to our heating systems. This new tranche is expected to save a minimum of 323 tCO₂e per annum.
- We will continue improving our building environment by ensuring all new constructions and refurbishment projects have the lowest possible environmental impacts. Notable examples are the Centre Buildings Redevelopment which achieved BREEAM 'Excellent', and Saw Swee Hock which secured BREEAM 'Outstanding' in construction.







New Academic Building usage was reduced by 20% thanks to new controls

