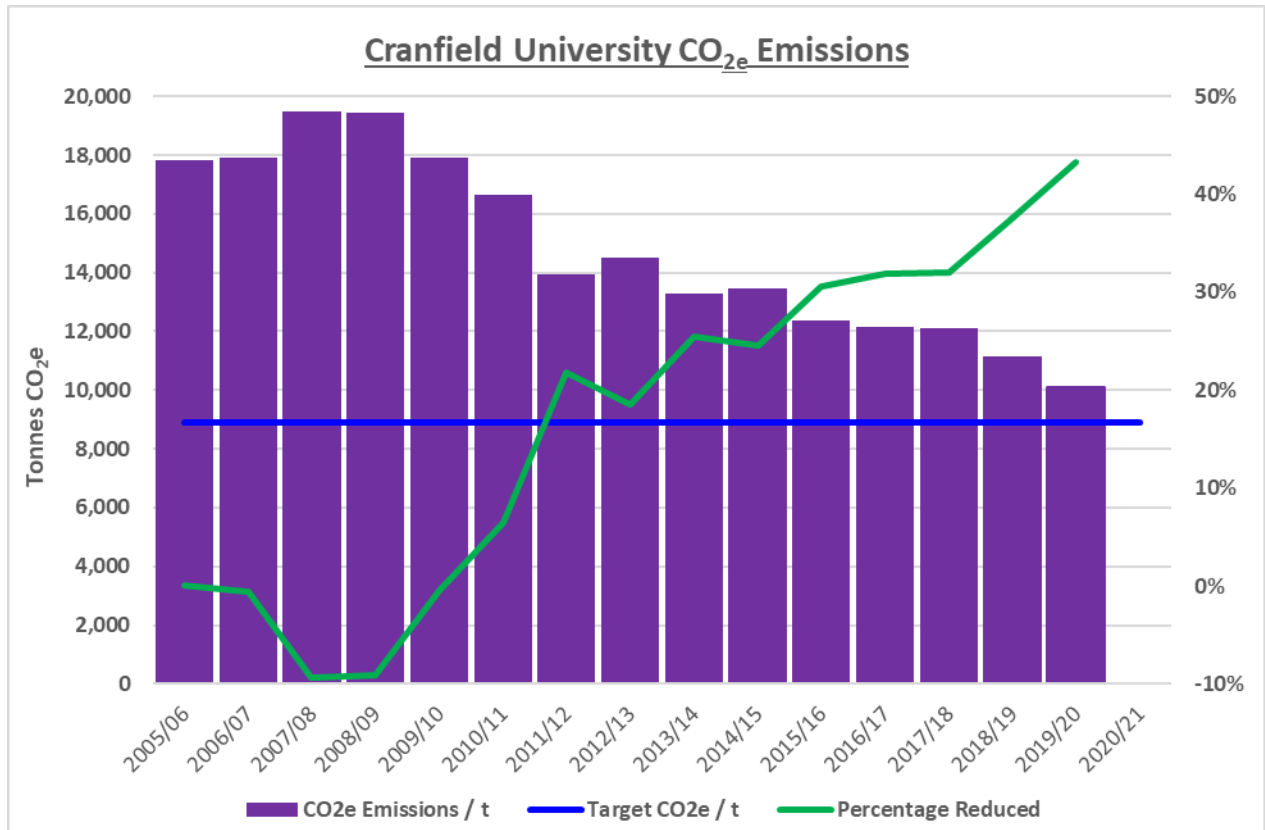


Streamlined Energy and Carbon Reporting (SECR)

The University has a target to reduce its Carbon emissions by 50% by 2020 compared with a 2005 baseline. From 2005 Carbon emissions were growing; however since the implementation of the plan in 2009 emissions have generally reduced and are now 43% lower than the 2005 level. There is also a 44% decrease since 2009/10 which exceeds the Government's Voluntary Emissions Reduction Pledge of 30% by 2020. Our carbon footprint has been restated for previous years in accordance with Government Greenhouse Gas reporting guidelines which take account of changes in our estate and also national conversion factors.



The decrease since 2008/2009 reflects the significant investment the University has put into energy saving initiatives such as a large Combined Heat and Power unit, a new Biomass boiler, improvements to the district heating system, a solar farm and energy efficient refurbishments to the real estate. This goes alongside significant efforts from "Green Teams" within the staff and student bodies to ensure sector best practice is employed wherever possible.

The emissions reported above are for scope 1 and 2 greenhouse gas emissions (with scope 3 electricity transmission and distribution emissions also included) include electricity, heating, process fuels and on-site vehicle fuels for the whole University estate but excluding Shrivenham Campus. Reporting years are from August to July. Other transport emissions and emissions associated with waste and water are not included at present although there are plans to include these within the footprint for future reports. Further information on the Carbon Management Plan can be found on the University website.

For SECR reporting purposes additional scope 3 emissions from business travel involving cars and motorbikes has been included. A breakdown of the emissions are detailed below. Note the SECR total is slightly different from the carbon management plan total because business mileage has not been included in the latter.

SECR data for 2019/2020

Fuel Type	Energy Purchased kWh	tCO _{2e}			Total
		Scope 1	Scope 2	Scope 3	
Gas	43,651,096	8,026			8,026
Electricity	6,859,755		1,599	138	1,737
Biomass	1,009,130	16			16
Gas Oil	484,348	124			124
Aviation Turbine Fuel	338,929	84			84
Diesel	264,323	64			64
Aviation Spirit	75,685	19			19
Petrol	27,769	6			6
Burning Oil	15,449	4			4
LPG	1,305	0			0
Sub-Total	52,726,790	8,343	1,599	138	10,079
Business Travel (rental/employee owned vehicles where fuel is purchased)	325,400 miles			90	90
Total Gross tCO_{2e}		8,343	1,599	227	10,169

The Intensity Ratio is **5.45 tCO_{2e}/£100,000 turnover**

Notes:

1. The methodology used follows the UK Government Environmental Reporting Guidelines. The University has an energy management system certified to ISO50001. Data from invoices is used unless this relies on estimates otherwise the University has extensive automatic meter reading and manual reading processes. Where no data is not available, estimates have been used in a few very minor instances amounting to less than 0.3% of the total. These estimates are based on existing data. The reporting period is August 2019 to July 2020. Government greenhouse gas emission factors for 2020 have been used.
2. The University generates more than half of its electricity from an on-site gas fuelled CHP with an output of 1.4 MW and also a 1 MW Solar farm and other smaller roof mounted PV systems. The output of the CHP in 2019/2020 was 8,967,897 kWh consuming 24,950,161 kWh of gas, and the output of the solar farm was 1,080,616 kWh. Note this means the overall consumption of electricity was 17,114,121 kWh and of gas for non-CHP use was 34,683,199 kWh.
3. Five energy efficiency projects using Salix funding were completed in 2019/20 at a combined total cost of £218,607 and forecast to give annual savings of 151 tCO_{2e}. The five projects included two led lighting upgrades, adding B111 to the District Heating, an upgraded Air Compressor and draught proofing of doors and windows in two buildings.
4. The Covid virus had an impact on energy consumption in April, May, June and July. The reduction year on year was around 30% for both electricity and gas.
5. More detailed information on the progress of the University towards reducing its greenhouse gas emissions and other aspects of environmental performance can be found in the annual environmental report on the website www.cranfield.ac.uk.