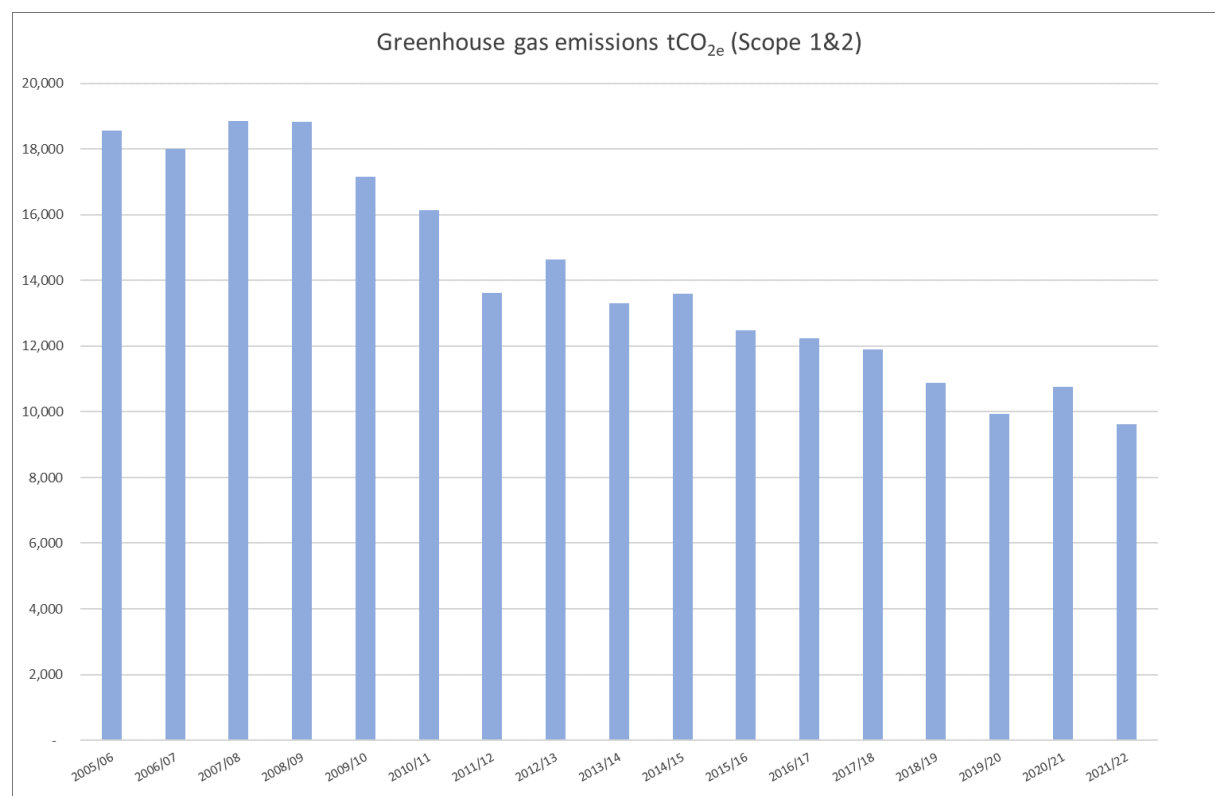


Streamlined Energy and Carbon Reporting (SECR) 2021/2022

The University has a target to reduce its Carbon emissions to Net Zero by 2030/31 academic year. Since the implementation of carbon management planning in 2009 Scope 1 and 2 emissions have reduced steadily. They are now 49% lower than the original 2005 baseline. 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 national conversion factors. This report provides energy and carbon data in line with the Governments Streamlined Energy and Carbon Reporting (SECR).

Graph of Scope 1 & 2 emission since 2005



The decrease 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 was boosted this year with a successful bid for a Public Sector Decarbonisation Grant which has enabled an extension to the solar farm, a large-scale Air Source Heat Pump for the district heating, new Building Management System for the district heating along with other improvements, LED lighting installations and a 1 MWh battery to help balance the University's private wire network.

The emissions reported above are for scope 1 and 2 greenhouse gas emissions (excluding scope 3 electricity transmission and distribution emissions) include electricity, heating, process fuels and on-site vehicle fuels for the whole University estate but excluding activity at Shrivenham Campus which is managed by the MOD. 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 is detailed below. Note the SECR total is slightly different from the carbon management plan total shown above, because business mileage has not been included in the latter.

SECR data for 2021/2022

Fuel Type	Energy Purchased kWh		tCO _{2e}				
	2021/22	2020/21	Sc 1	Sc 2	Sc 3	2021/22	2020/21
Gas	37,835,753	48,913,762	6,907			6,907	8,959
Electricity	12,186,252	7,596,622	0	2,357	216	2,572	1,756
Biomass	2,389,428	1,325,419	31			31	20
Gas Oil	246,330	423,534	64			64	109
Aviation Turbine Fuel	641,815	456,332	160			160	113
Diesel	231,980	192,925	53			53	46
Aviation Spirit	117,323	84,471	29			29	21
Petrol	9,771	17,385	7			7	4
Burning Oil	28,363	20,587	2			2	5
LPG	1,893	1,285	0			0	0
Sub-Total	53,688,908	59,032,323	7,252	2,357	216	9,824	11,032
Business Travel (miles) (rental/employee owned vehicles where fuel is purchased)	254,122	110,013			70	70	30
Total Gross tCO_{2e}			7,252	2,357	285	9,894	11,063

The Intensity Ratio in 2021/22 for all emissions reported in table is 4.87 tCO_{2e}/£100,000 turnover. In 2020/21 it was 6.02 tCO_{2e}/£100,000 on the same basis.

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 2021 to July 2022. Government greenhouse gas emission factors for 2022 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 1.45 MW Solar farm and other smaller roof mounted PV systems. The output of the CHP in 2021/2022 was 6,877,930 kWh consuming 19,023,883 kWh of gas, and the output of the solar installations was 955,432 kWh. Note this means the overall consumption of electricity was 20,019,614 kWh.

3. 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.

Environmental issues

The University is committed to sustainable development by integrating environmental issues into all aspects of its work and management processes. Environmental responsibilities are met through the management of the University's campuses and premises, through its dealings with client groups and trading partners, through the design and delivery of its academic, research and professional services and through its interaction with the local community. There is an Environmental Management System certified to ISO14001 to oversee this and an Energy Management System certified to ISO 50001. The University has several environmental targets related to the issues it faces, details of which can be found on the web site and in the Annual Environmental Report. We have made good progress towards the University's target to Net Zero Carbon with a significant reduction this year in emissions and a significant investment in clean technology through the Public Sector Decarbonisation Scheme. As part of development of the residential estate 6,000 m² of tree cover and woodland were planted, with further planting as part of the Queens Green Canopy. The University has committed to further reporting on its contribution to the Sustainable Development Goals through the THE Impact Awards. Further details have been included in the Highlights Report.