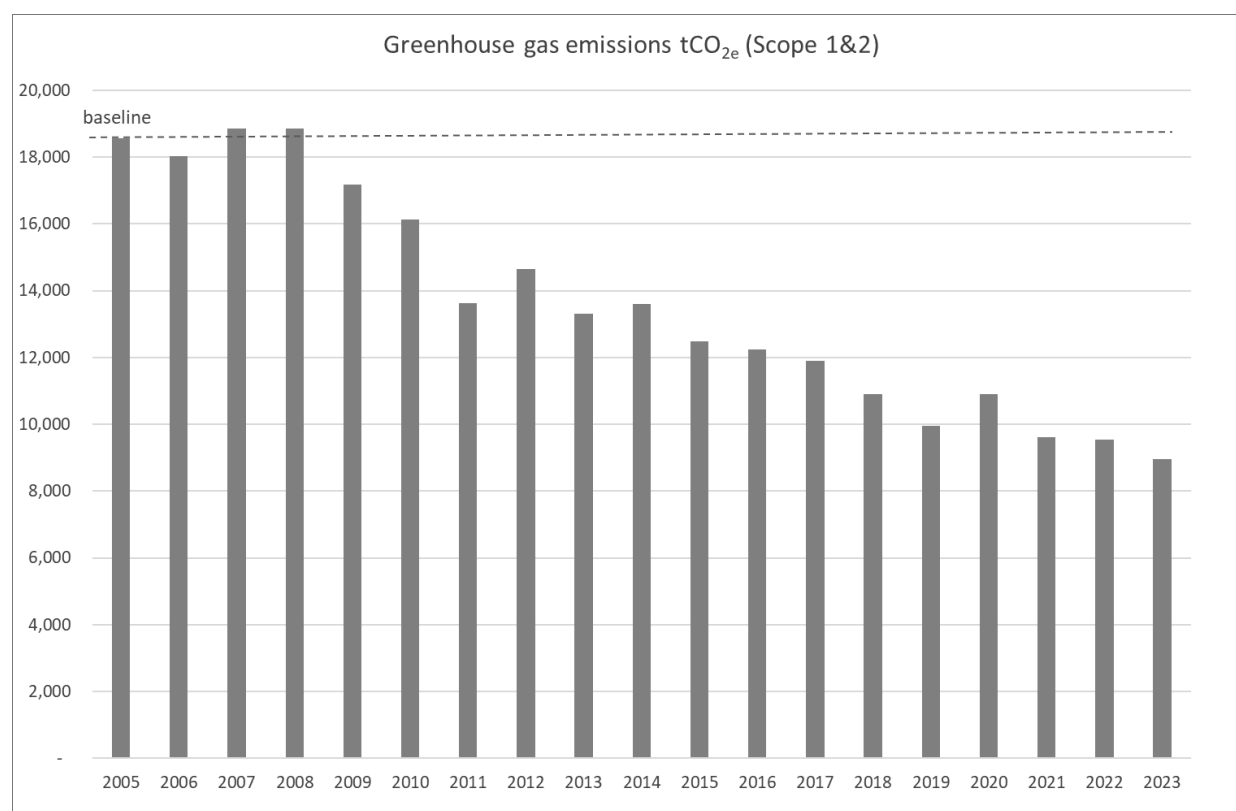


## Streamlined Energy and Carbon Reporting (SECR) and Carbon Management Plan

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 to less than half the original 2005 baseline. The 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.



The decrease reflects the significant investment the University has put into energy saving initiatives such as a large Combined Heat and Power unit in 2011, a new Biomass boiler in 2014, improvements to the district heating system, a solar farm in 2018 and continuous annual energy efficient refurbishments to the real estate. Recent Public Sector Decarbonisation (PSDS2, 3A and 3B) funding has enabled the installation in 2022 of 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 two large aircraft hangars being fully insulated, with quick closing doors interlocked to a new heating system with improved control and a further installation of solar increasing on site capacity to over 2.3 MW. Work is underway for another Public Sector Decarbonisation project which will take the district heating onto the residential part of the campus and see the installation of large thermal store. Finally funding has been secured through PSDS3C for a large Ground Source Heat project to be installed next year.

The emissions reported above are for scope 1 and 2 greenhouse gas emissions (excluding scope 3 electricity transmission and distribution emissions) including 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 2023/2024

Fuel Type	Energy Purchased kWh		tCO <sub>2e</sub>				
	2023/24	2022/23	Sc 1	Sc 2	Sc 3	2023/24	2022/23
Gas	36,802,100	34,815,330	6,731	0	0	6,731	6,417
Electricity	10,010,900	13,345,446	0	2,073	183	2,256	3,003
Biomass	958,740	1,636,900	11	0	0	11	18
Gas Oil	151,485	406,128	39	0	0	39	106
Aviation Turbine	518,414	462,583	129	0	0	129	115
Diesel	243,401	282,550	58	0	0	58	68
Aviation Spi	96,040	150,099	23	0	0	23	36
Petrol	14,209	14,205	3	0	0	3	3
Burning Oil	15,333	31,003	4	0	0	4	8
LPG	1,501	0	0	0	0	0	0
<b>Sub-Total</b>	<b>48,812,122</b>	51,144,244	<b>6,998</b>	<b>2,073</b>	<b>183</b>	<b>9,254</b>	9,772
Business Tr (rental/empl oyee owned vehicles where fuel is purchased)	448,045	405,771	0	0	120	120	109
<b>Total Gross tCO<sub>2e</sub></b>			<b>6,998</b>	<b>2,073</b>	<b>304</b>	<b>9,374</b>	9,880

The Intensity Ratio in 2022/23 for all emissions reported in table is 4.27 tCO<sub>2e</sub>/£100,000 turnover. In 2022/23 it was 4.49 tCO<sub>2e</sub>/£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 a 0.9 MW solar farm along with other smaller roof mounted PV systems. The output of the CHP in 2023/2024 was 7,616,771 kWh consuming 21,001,228 kWh of gas, and the output of the solar installations was 1,522,414 kWh. Note this means the overall consumption of electricity was 19,450,187 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](http://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 in recent years in emissions and a large investment in clean technology through the Public Sector Decarbonisation Scheme. The University has reported on its contribution to the Sustainable Development Goals through the THE Impact Awards.