



JESUS COLLEGE
CAMBRIDGE

July 2022 Progress Report

Jesus College Sustainability Strategy 2020-2030



Joe Giddens/PA Photo

Foreword

Jesus College aims to be recognised globally as a leading academic institution where sustainability is intrinsic through engagement, collaboration, and innovation.

The College currently has about 500 undergraduate and 460 postgraduate students, most of whom are full-time and living in accommodation managed by the College. There are around 175 Fellows and Research Associates and 205 staff, with a variety of working patterns. Our ambition is that every member of our community will understand and embrace the principles of sustainability and act as a catalyst for positive, sustainable change for generations.

The College published its [2020-2030 Sustainability Strategy in June 2021](#), with three strands:

1. Identify and implement sustainable measures on the College site
2. Adopt a sustainability-driven approach to College activities beyond the site
3. Identify and encourage behavioural changes onsite and beyond (in time and space).

The strategy identified a series of aims and targets which the College is working on achieving over the decade. Progress on these will be reported annually.

This is the first report and is designed to be read in connection with the Sustainability Strategy. The aims and targets are grouped according to the [United Nations Sustainable Development Goals](#) and progress and developments associated with each are reported in turn.

The form of this report is expected to evolve over time as sustainability metrics and reporting legislation evolve.

Ian Wilson
Chair, Environment Committee
July 2022

Sustainable Development Goal 7: Affordable and clean energy



Progress against our aims and targets

- **Aim to achieve Net Zero carbon status for Scope 1 and Scope 2 emissions by 2030, avoiding any carbon offsetting as part of any strategy, while recognising that we may be constrained by factors such as local electricity infrastructure, availability of technology, and serious disruption to essential College activities.**
- **Using 2018/19 as the base year, reduce Scope 1 and 2 emissions year on year with target percentages agreed once data has been finalised.**

Energy Consumption (by academic year, September-August)				
		2020-2021	2019-2020	2018-2019
Natural gas	Main site	4 530 MWh	5 030 MWh	4 163 MWh
	External housing	2 285 MWh	2 273 MWh	2 440 MWh
	Total	6 815 MWh	7 303 MWh	6 603 MWh
	Carbon footprint ¹	1253 te CO ₂ e	1 343 te CO ₂ e	1 214 te CO ₂ e
Electricity	Main site	1 819 MWh	1 459 MWh	1 598 MWh
	External housing	430 MWh	352 MWh	417 MWh
	Total	2 249 MWh	1 811 MWh	2 015 MWh
	Carbon footprint ²	524 te CO ₂ e	422 te CO ₂ e	469 te CO ₂ e

In 2020-21 natural gas provided roughly 75 per cent of the College's Scope 1 and Scope 2 energy requirements, producing 1,253 tonnes (te) of CO₂ equivalent, principally for space and water heating.

By using electricity from renewable sources, the College reduced its Scope 1 and Scope 2 footprint by 524 te, or approximately 30 per cent.

The increase in main site electricity consumption in 2020-2021 is linked to the switch to electricity for all cooking in the catering operations.

- **Engage mechanical and electrical consultants to audit all buildings on the College site, establishing priority areas for improvement and providing detailed baseline data so that we can measure success in future reports.**

In May 2022, building services engineering firm Max Fordham LLP completed an Energy Assessment and Decarbonisation Strategy review. This found that upgrading the College's external housing offered the most scope to reduce energy consumption, as the opportunities to reduce energy consumption in the historic buildings on the main College site are limited.

¹. Calculated using the Carbon Trust Carbon Footprint Calculator

<https://www.carbontrust.com/resources/sme-carbon-footprint-calculatorSummaries> in Appendix A and Appendix B

². Jesus College sourced all its electricity from renewable sources in these years; the values reported are for UK electricity sourced from non-renewable sources, for comparison.

- **Upgrade the electrical substation by the maintenance and gardens building.**

This work has been completed, with the original capacity 500 kilovolt-amperes (kVA) upgraded to 1,350 kVA. A large percentage of this increase in capacity is needed to run the new, all electric kitchen, with remaining capacity in reserve for future improvements to the Waterhouse and North Court buildings.

- **Ensure that 100 per cent of our lights are LEDs by the end of 2024, via an accelerated refurbishment programme.**

Steady progress is being made on upgrading the College lighting to LEDs. The Boathouse upgrade is complete, the Dining Hall is due to be completed at the start of Michaelmas term, and the retrofitting of the Quincentenary Library and the Chimney is in the initial stages. Miscellaneous replacement of standard lights with LEDs will continue across the College's buildings.

- **Ensure that sustainability is considered in future infrastructure projects.**

All current works, including the kitchen project, external staircases, and properties in Elm Street and Station Road, Cambridge, include sustainability initiatives with the removal of fossil fuel heating and hot water, double glazing, and enhanced insulation. Wherever possible, and subject to local planning authority consent, materials are sourced from the UK, and the entire product lifecycle is taken into consideration at the design and procurement stages.

- **Adopt the University's Science Based Targets approach and engage in sharing best practice.**

This is ongoing. Current data has been entered into the Target's calculators, and the College has engaged an external expert, Professor John French, to assist with the analysis of the data. There are limitations with the initial data due to significant building works taking place and varying occupancy levels during the pandemic. In time the quality of the data will improve and reflect the changes being made to the fabric of our buildings which includes planning the removal of fossil fuel heating and hot water and encouraging more sustainable behaviours.

SDG 9: Industry, innovation, and infrastructure



Progress against our aims and targets

- **Begin a consultation on transport, to include all constituents of the College community, with a view to launching a transport strategy in 2022.**

Transport questionnaires were sent to all students, staff, and the wider Fellowship in March 2022 and a Sustainable Transport Strategy will go to Council in July 2022.

- **Achieve and maintain 60 per cent of staff and Fellows using sustainable transport as their primary mode of transport when travelling to work by 2026.**

Thirty-six per cent of Fellows and around 25 per cent of staff responded to the questionnaires. Of the respondents, 74 per cent of Fellows and 57 per cent of staff journeys to work involved sustainable modes of travel (bus, electric car, train, cycles, and walking).

- **Commencing in 2022, launch a 15-year capital investment plan to improve the performance of our infrastructure, including electric, water, heating, insulation and waste initiatives.**

Almost £400,000 was invested in 2021-22 and a further £600,000 is proposed in the 2022-23 budget for sustainable initiatives. These values do not include the ground source heat pump installation for the kitchen which will cost in the region of £1 million. The longer-term capital investment plan has yet to be finalised as the Energy Assessment and Decarbonisation Strategy review reported in May 2022.

- **Engage with University stakeholders to capture and share data and scientific evidence to influence environmental initiatives**

The College continues to participate in the Bursars' Environment Sub-Committee and University Transport Working Party, as well as meetings with intercollegiate and University members and third parties. Once the kitchen project ground source heat pump is fully operational the College will host visits and discussions of this technology. In addition, information has been shared across the collegiate community regarding access to [Salix funding](#) and the decarbonisation plan that has been commissioned using these funds.

SDG 11: Sustainable cities and communities



Progress against our aims and targets

- **Launch Responsible Investment Policy in 2021.**

The College launched its [Responsible Investment Policy in June 2021](#) which received coverage in local and student media.

- **Increase proactive internal and external communication on environmental issues.**

The College website has been updated and proactive communications have included the launch of the satellite waste recycling points, elimination of single-use plastics, various kitchen project updates, and the College's recent win of two University Green Impact awards for sustainability.

The undergraduate body has hosted a number of environmental-themed/green weeks and the postgraduate community hosted a series of green talks and social events.

The College has received media coverage of the following:

- [North Court wildflower meadow](#)
- [Jesus College wins grant to develop fossil free bond index](#)
- [Charity investors set minimum environmental benchmarks for fund managers.](#)

Plans are being developed for communicating the opening of the new kitchen and the changes to Upper Hall.

- **Adapt the students' A-Z guide to living sustainably at Jesus College, and publish for staff and Fellows.**

This is outstanding and will be done in 2022-23.

- **Establish a protocol to manage student living space better, including turning lights and computers off, closing windows, and turning the heating off when they leave the room. This change of behaviour could be encouraged via Freshers' week, using data from the previous occupants.**

This is a work in progress and is planned for full roll-out for new students in October 2022.

- **Develop a clear services strategy across the site and our property portfolio by 2022.**

This has been identified for the College site and nearby housing in the Energy Assessment and Decarbonisation Strategy review.

- **Develop and launch a plan to reduce water consumption by 10 per cent by 2024.**

This remains to be done. It is anticipated that measures to reduce consumption and harvesting rainwater will play a combined role. Benchmarking data is currently being collected.

- **Update our environmental specification for all future building works, with a view to exceeding building regulations.**

All architects and consultants working with the College on building projects are aware of the College's commitment to sustainability. More formal measures will be considered by the Buildings Committee and appointed design team members with industry frameworks such as Passivhaus, EnerPHit, and BREAM all considered.

- **Audit the College's external land and property holdings in order to build a clear picture of where and how improvements can be made.**

This work is currently underway, supported by the appointment of Professor John French as the College's Sustainability and Net Zero Adviser.

SDG 12: Responsible consumption and production



Progress against our aims and targets

- **Maintain current zero waste to landfill status throughout 2021 and subsequent years for all College operations waste.**

All waste from kitchens and housekeeping is being sorted and the College has maintained its zero waste to landfill status.

- **Increase the amount of waste that goes to recycling to 80 per cent by the end of 2022.**

Between May and December 2021, the College recycled 71.1 per cent of all the waste it produced. In early 2022, three new recycling stations were added to the main site and three more were introduced in June in Jesus Lane/Malcolm Street. This, combined with further guidance to College members on how to recycle, increased the recycling rate to 74 per cent between January and May 2022.

- **Eliminate single use plastics across the site by 2022.**

Single use plastic is no longer used for customer service and consumer operations. A limited amount of single use plastic continues to be used in the kitchens by our suppliers for purposes such as wrapping raw meat which is very difficult to replace while observing food safety and hygiene legislation.

- **Develop purchasing guidelines, which include a product life cycle approach, and train key staff by 2022.**

This work remains outstanding, however delivery by the end of the year is achievable.

- **Reduce meat-based meals to 20 per cent, increase plant-based meals to 30 per cent, and increase vegetarian meals to 50 per cent by the end of 2021.**

College food operations offer one non-meat/non-fish day each week as well as fish and vegetarian only options on Fridays. Statistics from the College Cafeteria (Caff) only, from July 2021 to June 2022 are:

- Vegetarian main courses served - 12,645
- Plant-based main courses served - 7,541
- Fish main courses served - 5,875
- Meat main courses served - 9,356.

- **Reduce ruminant meat-based meals to 10 per cent by the end of 2021, with a view to eliminate ruminant meat-based meals by the end of 2022.**

The Conference and Catering Office continues to work on reducing the amount of ruminant meat-based meals on offer in College. The targets of increased plant-based and vegetarian options have not changed, but feedback from students and staff means that this target has been modified from eliminating ruminant meat-based meals

(now at 20 per cent) to reducing the carbon footprint of what is offered. Implementation of carbon footprint calculations is planned for 2022-23. Using Caff meals data again for the period July 2021-June 2022, out of the 9,356 meat main courses served, none were ruminant. Therefore, we can say that the target of reducing ruminant meat-based meals for Caff has been achieved.

- **Introduce signage in our catering facilities to inform consumers about the provenance and sustainability of our ingredients.**

The College catering team offers a traffic light system to advise on the fat, salt, and sugar contents of all main dishes in Caff. Where possible, the provenance of produce is reported on menus. The sustainability vision is available on JNet for all College members to see. In future years, the aim is to incorporate further signage for the rest of the operation.

- **Implement a food waste monitoring and data collection system so reduction targets can be set.**

Wasted purchased food has been monitored via the scraping stations, where food returned on plates is disposed of. It has been observed through Caff service that a daily average of 3kg is being collected. This is a small amount, equivalent to less than five per cent of all Caff food served. The best way of monitoring and recording production waste in the kitchen is currently being considered. Next year we aim to report on wasted food per location.

SDG 13: Climate action



Progress against our aims and targets

- **Aim to achieve Net Zero carbon status for Scope 1 and Scope 2 emissions by 2030, avoiding any carbon offsetting as part of any strategy, while recognising that we may be constrained by factors such as local electricity infrastructure, availability of technology, and serious disruption to essential College activities.**

The Energy Assessment and Decarbonisation Strategy review has identified where Scope 1 and Scope 2 emissions can be addressed by reduced consumption of energy, often by modification of our infrastructure and services. The cost and non-financial feasibility of achieving Net Zero carbon status, avoiding any carbon offsetting, will now be evaluated and the plan published by July 2023.

- **Annual reporting on progress using the Science-Based Targets approach.**

Work on this aspect is in progress (see SDG 7 and SDG 11).

- **Launch a new A-Z guide for the whole College community.**

This project is under way and should be launched in 2022-23.

- **Develop a 'Green Hub' for events and training.**

The scope for the 'Green Hub' will be confirmed in 2022-23.



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