Carbon Management Plan

Review up to end of 2024

St Mary's University Twickenham London

1. Introduction

The University is required by the Companies and Limited Liability Partnerships (Energy and Carbon Report) Regulations to report on its annual carbon emissions.

In addition, the University has previously been required to provide a Carbon Management Plan (CMP) that complies with HEFCE requirements. The requirement was to reduce annual CO^2 by 2020 by at least 43% against a 2005 baseline.

2. Carbon Management Plans overview

So far, we have produced three separate CMPs:

- CMP 2011 - covering the period from 2005 to 2015
- CMP 2015 - covering the period from 2015 to 2020
- CMP 2021 – covering the period from 2021 to 2030

The CMP 2011 set the initial carbon reduction baseline at 3,846 tonnes of CO^2 emissions effective from 2005. At that time, the CMP principally focused on gas, electricity and water. Over time we have sought to build in other emissions sources including waste, travel and procurement. Waste is generally straightforward to gauge but travel and procurement present more of a challenge. Whilst, we have a degree of recording in this regard, it would be preferable to have a more sophisticated measure of emissions.

3. Emissions overview

Overall, our emissions profile is set out below.

Year	Electricity (tCO2)	Gas (tCO2)	Water (tCO2)	Transport (tCO2)	Waste (tCO2)	Total tCO2	Annual change	Cumulative total	Change from 2014-15 baseline
2014-15	1,726	1,405	46	8	0	3,186			
2015-16	1,618	1,370	40	8	106	3,142	-1.4%	-1.4%	2.85%
2016-17	1,456	1,343	41	9	100	2,949	-6.1%	-7.5%	-3.46%
2017-18	1,182	1,382	36	9	216	2,825	-4.2%	-11.7%	-7.53%
2018-19	995	1,309	36	8	33	2,382	-15.7%	-27.4%	-22.04%
2019-20	792	1,457	40	7	25	2,320	-2.6%	-30.0%	-24.04%
2020-21	617	1,395	28	6	19	2,065	-11.0%	-41.0%	-32.40%
2021-22	693	1,283	15	3	12	2,008	-2.8%	-43.8%	-34.28%
2022-23	691	1,322	13	5	14	2,045	1.8%	-41.9%	-33.07%
2023-24	631	1,344	11	2	13	2,001	-2.1%	-44.0%	-34.49%

Electricity emissions have reduced quite considerably over the period. Gas emissions totals have shown a general downward trend but the scale of reduction could be viewed a disappointing. However, it should be borne in mind that the

tCO2 figure derives from actual consumption using a DEFRA prescribed conversion factor. The factor changes each year with the most recent change being significant. If the actual gas consumption in kWh is considered, the overall picture is this:

Year	Gas kwh
2012-13	7,507,278
2013-14	7,690,093
2014-15	7,597,170
2015-16	7,428,331
2016-17	7,301,528
2017-18	7,504,898
2018-19	7,116,800
2019-20	7,923,255
2020-21	7,618,402
2021-22	7,028,977
2022-23	7,226,324
2023-24	6,631,837

We believe the drop from 7.2m in 2022-23 to 6.6m in 2023-24 is largely attributable to installation of new boilers and controls and we would expect that trend to continue. It should be noted that as gas consumption reduces, it is possible that electricity consumption will increase to compensate for this.

4. 2021 Carbon Management Plan – targets review

A review of the principal constituents of the targets is set out below.

Scope	Description	2020/21 baseline (tCO2e)	Target reduction (tCO2e)	Target by 2030 (tCO2e)	Target % reduction	Actual at end 23/24	Actual % reduction end 23/24	Comments
1	Natural gas	1,457	350	1,107	24%	1,343	8%	As boiler and controls replacements continue and new projects improve sustainabilioty, we believe this will improve in the reporting period.
2	Electricity	792	100	692	25%	631	20%	On track to achieve CMP target but may need a more stretching target - review at mid point
3	Waste	20	10	10	50%	13	34%	On track to achieve CMP target but may need a more stretching target - review at mid point
3	Waste & waste water	28	10	18	36%	11	62%	Treat with some caution due to erractic billing on our two main meters.

The 2021 CMP introduced baseline targets for additional scopes, namely:

- Procurement
- Commuting (staff and students)
- Business travel

These are much more difficult to measure and it appears from a review of the data we hold, that the 2021 baselines are too low. These will be reviewed over the next 12 months and baselines/targets revised where necessary. The Travel elements of the targets will be supplemented by a new University travel plan in the next few months.

The 2021 CMP also includes a category for Construction Works. This does not have any specific set targets but we have implemented increased recognition of sustainability in major projects such as the Centenary Building, Computer Sciences and the 1850 which will make a significant contribution to this.

5. Conclusion

This review notes good progress with major emissions sources but recognises there is more to be done in categories such as travel and procurement. The intention is to investigate any possible improvements to this over the next 12 months having regard to the data available.

Director of Estates and Campus Services
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