



Swansea University
Prifysgol Abertawe

PATH TO ZERO REPORT



**2024 – 2025
DATA UPDATE**

SUMMARY

2024/2025 Update	Scope 1 & 2 Emissions			Scope 3 Emissions		
Academic Year	tCO2e	Reduction %	Savings tCO2e	tCO2e	Reduction %	Savings tCO2e
15/16 Baseline	17,603			90,260		
24/25 Actual	9,726	-45%	-7,877	56,961	-37%	-33,299
24/25 Target	9,681	-45%		69,951	-23%	
25/26 Target	8,801	-50%		67,243	-26%	
33/34 Target	1,760	-90%		45,581	-50%	
34/35 Target	880	-95%		42,873	-53%	
35/36 Target	0	-100%		40,166	-56%	
40/41 Target				27,078	-70%	
45/46 Target				13,539	-85%	
50/51 Target				0	-100%	

2024/2025 Update	Scope 1 & 2 Emissions			Scope 3 Emissions		
Performance	tCO2e	Reduction %	Savings tCO2e	tCO2e	Reduction %	Savings tCO2e
24/25 Actual vs Target	44	0%		-12,991	-14%	
Change Since Prev. yr	-1,062	-10%	-7,877	-12,841	-18%	-33,299
Change Since 2015:	-7,877	-45%	-38,376	-33,299	-37%	-290,331

Performance 2024/25:

- **45% decrease in total scope 1 & 2 emissions since 2015/16**, meeting the 2024/25 path to zero target of 45%.
- **37% decrease in total scope 3 emissions** since 2015/16 baseline year, ahead of the 2024/25 target of 23%.

Forward plan

- Implementation of Campus district heat network decarbonisation, building fabric improvements, building services efficiencies and on campus renewable energy generation.

Note: although the university is currently on the net zero pathway, continued financial constraints may impact the attainment of the eventual 2035 and 2050 targets



- Ensure financial and environmental sustainability policies, strategies and plans in place to enable scope 3 emissions reductions.
- Increase average annual reduction target for scope 3 emissions from 2.5% to 3% to align pathway to zero by 2050 for scope 3 emissions.

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CONTENTS



INTRODUCTION

In October 2019, Swansea University declared a Climate Emergency and committed to being Zero Carbon by 2035.¹

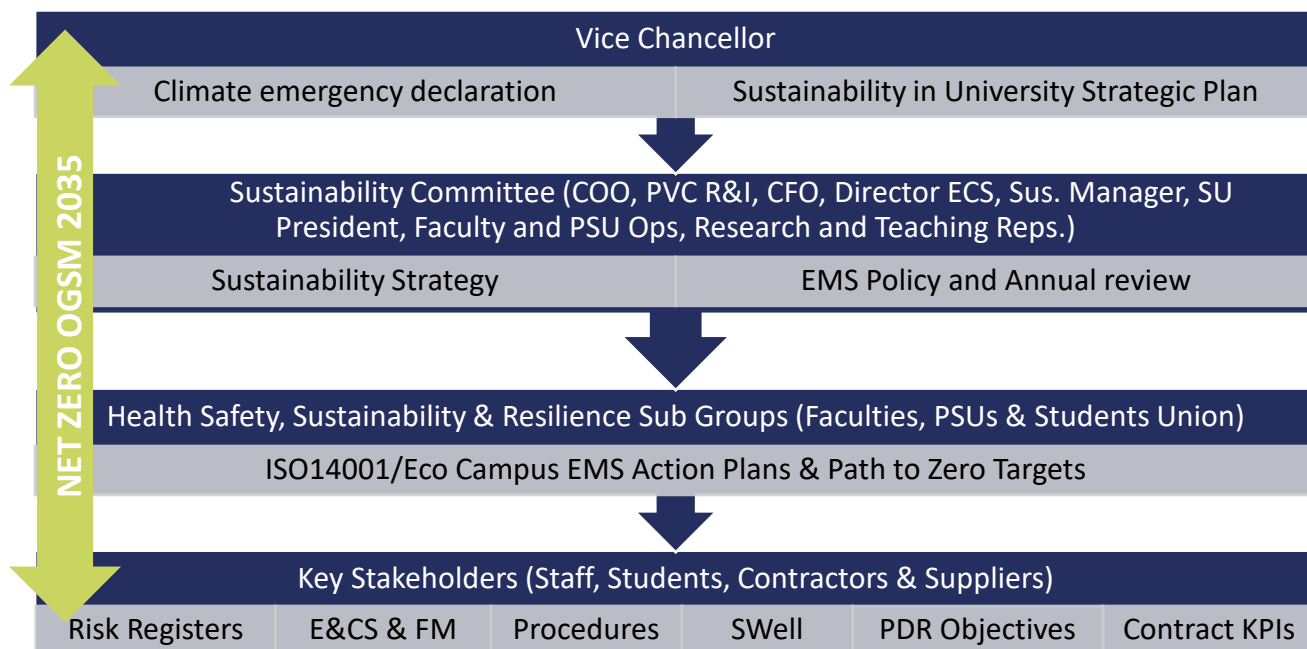
Our [Sustainability and Climate Emergency Plan 2020 - 2025](#) clearly defines our climate emergency targets.



In June 2022 the university published a comprehensive science-based Decarbonisation Action Plan identifying interventions required on our path to zero by 2023. This report was produced in partnership with the Carbon Trust and Welsh Government Energy Service: [Swansea University Decarbonisation Action Plan](#).

This Path to Zero annual report, outlines our Green House Gas (GHG) emissions performance, considers progress against our decarbonisation targets and intervention plans. GHG emissions data is aligned with the most recent full academic year: 1st August 2024 – 31st July 2025.

GOVERNANCE



OGSM = OBJECTIVES, GOALS, STRATEGIES AND MEASURE

¹ Net Zero in scope 1 & 2 as per <https://www.eauc.org.uk/about/projects-and-programmes/race-to-zero/>

DRIVERS

NET ZERO

Key Drivers for Carbon Management at Swansea University:

International Climate Policy

- **2015 – Paris Agreement** commits international community to limit global temperature rise to well below 2°C & pursue efforts to limit warming to 1.5°C.
- **2018/2019 – IPCC Special Report on 1.5°C** highlights the urgent need for rapid global emissions reductions.
- **2021 – COP26 Glasgow Climate Pact** strengthened global commitments to limit warming to **1.5°C**, accelerate emissions reductions & finalise the Paris Rulebook.
- **2022 – COP27** reaffirmed the 1.5°C target & established a Loss & Damage Fund to support vulnerable countries.
- **2023 – COP28** produced the UAE Consensus, including the first global agreement to transition away from fossil fuels in energy systems.

UK Climate Policy

- **2019 – UK Net Zero Target:** amendment to the Climate Change Act **2008** committing UK to net zero greenhouse gas emissions by 2050.
- **UK Sixth Carbon Budget (2033–2037)** requiring 78% emissions reduction by 2035 compared with 1990 levels.

Welsh Government Policy

- **Environment (Wales) Act 2016**, amended 2021, committing Wales to Net Zero by 2050.
- **Welsh Public Sector Net Zero by 2030** commitment.
- **Net Zero Wales Carbon Budget 2 (2021–2025)** outlining pathways to decarbonisation across sectors.
- **Welsh Public Sector Net Zero Reporting Framework** requiring annual carbon reporting.

Higher Education Sector Drivers

- **MEDR** expectations for sustainability, decarbonisation & climate action across teaching, research & estates.
- **HESA Estates Management Record (EMR)** reporting requirements.
- **Universities UK Climate Action Roadmap** for achieving net zero emissions across UK higher education.

Swansea University Commitments

- **2019 – Climate Emergency Declaration** by Swansea University.
- **2021 – Swansea University Net Zero Target of 2035.**

Reputation & Stakeholder Expectations

- **People & Planet University League.**
- **ISO 14001 Environmental Management System.**
- Student activism including 2019 climate strikes & campus protests.

Financial & Strategic Drivers

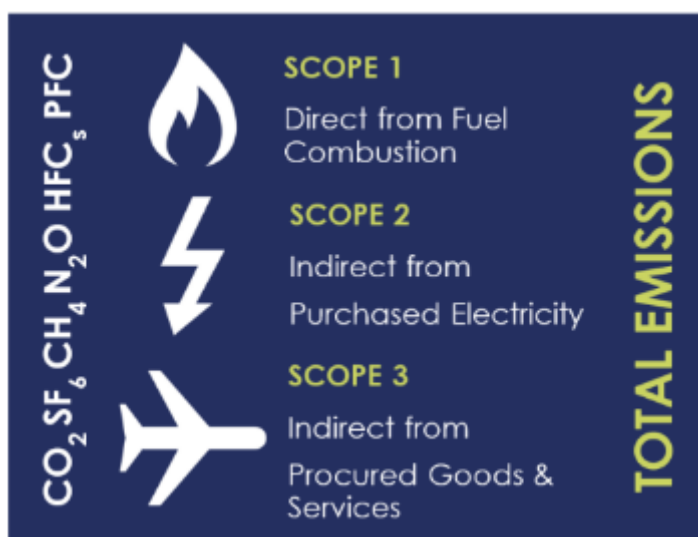
- Energy cost volatility & energy security risks.
- Potential operational cost savings through energy efficiency.
- Research & innovation opportunities/ partnerships e.g. SPECIFIC

PERFORMANCE

The **boundaries of data** capture for the calculation of Scope 1 and 2 emissions encompass facilities where the University is sole utility procurer. The university follows [GHG Protocol](#), [HE/FE sector](#) and [Welsh Government Net Zero Public Sector guidance](#) for scoping and reporting all emissions including scope 3. This includes Singleton Park campus, Bay Campus and Facilities at Swansea Bay Sport Park. The Higher Education Supply Chain Emissions Tool (HESCET) is used to calculate university supply chain emissions².

In 2015 the University, previously a single campus based at Singleton Park, undertook a 65 acre expansion project opening the Bay Campus, becoming a dual campus university. The Bay campus on the East approach to Swansea City Centre, is a mixture of academic and research buildings which increased the total floor area by 51,574m². Due to this substantial change, it was agreed by Higher Education Funding Council Wales (HEFCW) and Swansea University, that **2015 – 2016 shall be adopted as the institutions representative carbon management baseline year**.

TOTAL EMISSIONS TARGETS AND PERFORMANCE



Scope 1 and 2 target: Zero carbon for direct emissions (scope 1 and 2) by **2035**, with at least a 70% reduction by 2030. On average 5% reduction annually.

Scope 3 target: Achieve (on average) a 3% year on year reduction in scope 3 emissions, 56% by **2035** (35% by 2030)². On average 3% reduction annually and Net Zero by 2050. **Offsetting policy** to be developed.

ANNUAL NET ZERO BUDGET

The annual university net zero budget is subject to decarbonisation project implementation plans and access to external funding. This is derived from Welsh Government [MEDR annual](#) and project specific net zero capital funding and [project specific grants](#) and [loans administered by Salix finance](#) as part of decarbonisation funds for public and tertiary education sectors in Wales. Externally funded Net zero budget for 2024/25: **£3m** and 2025/26: **£5.87m**.

² This includes: Purchased goods and services, Capital goods including building and refurbishment and Transportation of goods to the institution.

SUMMARY OF PATH TO ZERO PERFORMANCE

2024/2025 Update	Scope 1 & 2 Emissions			Scope 3 Emissions		
Academic Year	tCO ₂ e	Reduction %	Savings tCO ₂ e	tCO ₂ e	Reduction %	Savings tCO ₂ e
15/16 Baseline	17,603			90,260		
16/17 Actual	18,270	4%	668	77,610	-14%	-12,650
17/18 Actual	16,152	-8%	-1,451	46,669	-48%	-43,591
18/19 Actual	15,170	-14%	-2,432	40,019	-56%	-50,241
19/20 Actual	12,866	-27%	-4,736	37,433	-59%	-52,827
20/21 Actual	13,247	-25%	-4,356	34,364	-62%	-55,895
21/22 Actual	11,685	-34%	-5,917	75,595	-16%	-14,665
22/23 Actual	12,142	-31%	-5,460	83,554	-7%	-6,706
23/24 Actual	10,788	-39%	-6,815	69,802	-23%	-20,458
24/25 Actual	9,726	-45%	-7,877	56,961	-37%	-33,299
24/25 Target	9,681	-45%		69,951	-23%	
25/26 Target	8,801	-50%		67,243	-26%	
29/30 Target	5,281	-70%		56,412	-38%	
33/34 Target	1,760	-90%		45,581	-50%	
35/36 Target	0	-100%		40,166	-56%	
40/41 Target				27,078	-70%	
45/46 Target				13,539	-85%	
47/48 Target				8,123	-91%	
50/51 Target				0	-100%	

2024/2025 Update	Scope 1 & 2 Emissions			Scope 3 Emissions		
Performance	tCO ₂ e	Reduction %	Savings tCO ₂ e	tCO ₂ e	Reduction %	Savings tCO ₂ e
24/25 Actual vs Target	44	0%		-12,991	-14%	
Change Since Prev. yr	-1,062	-10%	-7,877	-12,841	-18%	-33,299
Change Since 2015:	-7,877	-45%	-38,376	-33,299	-37%	-290,331

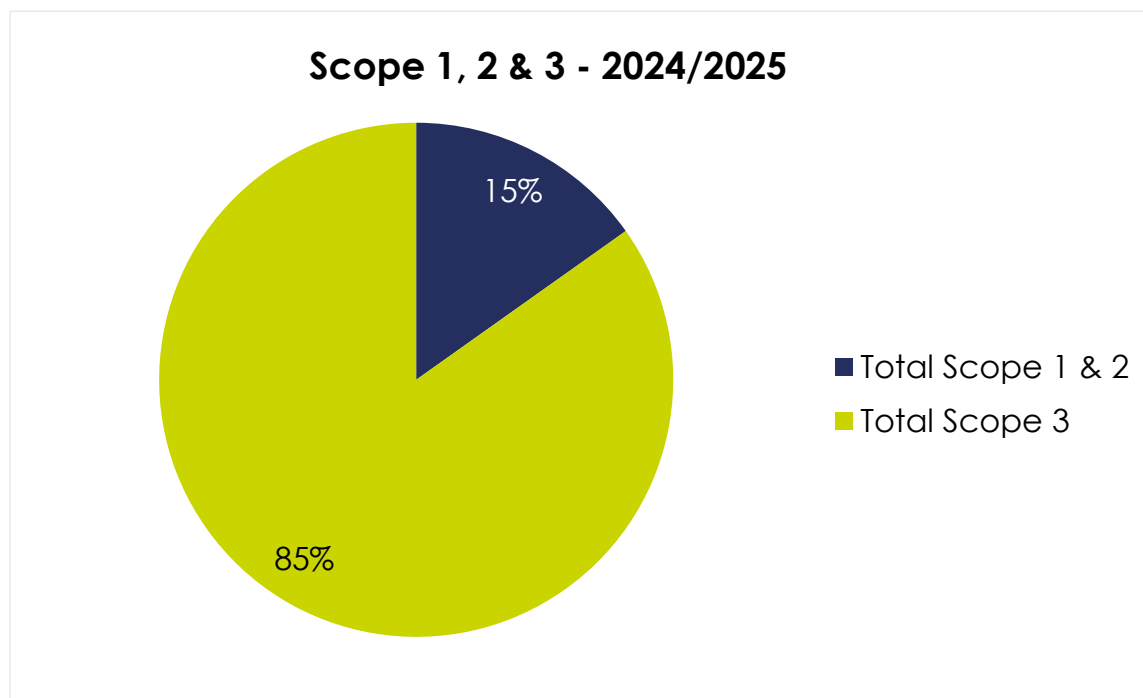
Scope 1 & 2 total emissions tonnes of carbon dioxide equivalent (tCO₂e):

- **45%** reduction since 2015/16, meeting the 2024/25 target of 45%.
- Emissions decreased by **10%** in 2024/25 due to net zero decarbonisation projects and operational efficiency improvements, including:
 - Lighting upgrades to smart LED lighting,
 - Building management systems, increased generation from roof-mounted solar PV,
 - Replacement of gas boilers with low-carbon air source heat pumps,
 - Electricity grid decarbonisation also contributed.

Scope 3 total emissions tonnes of carbon dioxide equivalent (tCO₂e):

- **37%** reduction since 2015/16, beyond the target for 2024/25.
- **18%** reduction in 2024/25 a result of reductions in supply chain emissions, external student accommodation emissions, commuting and business travel emissions.

Total GHG emissions (Scope 1, 2 and 3)



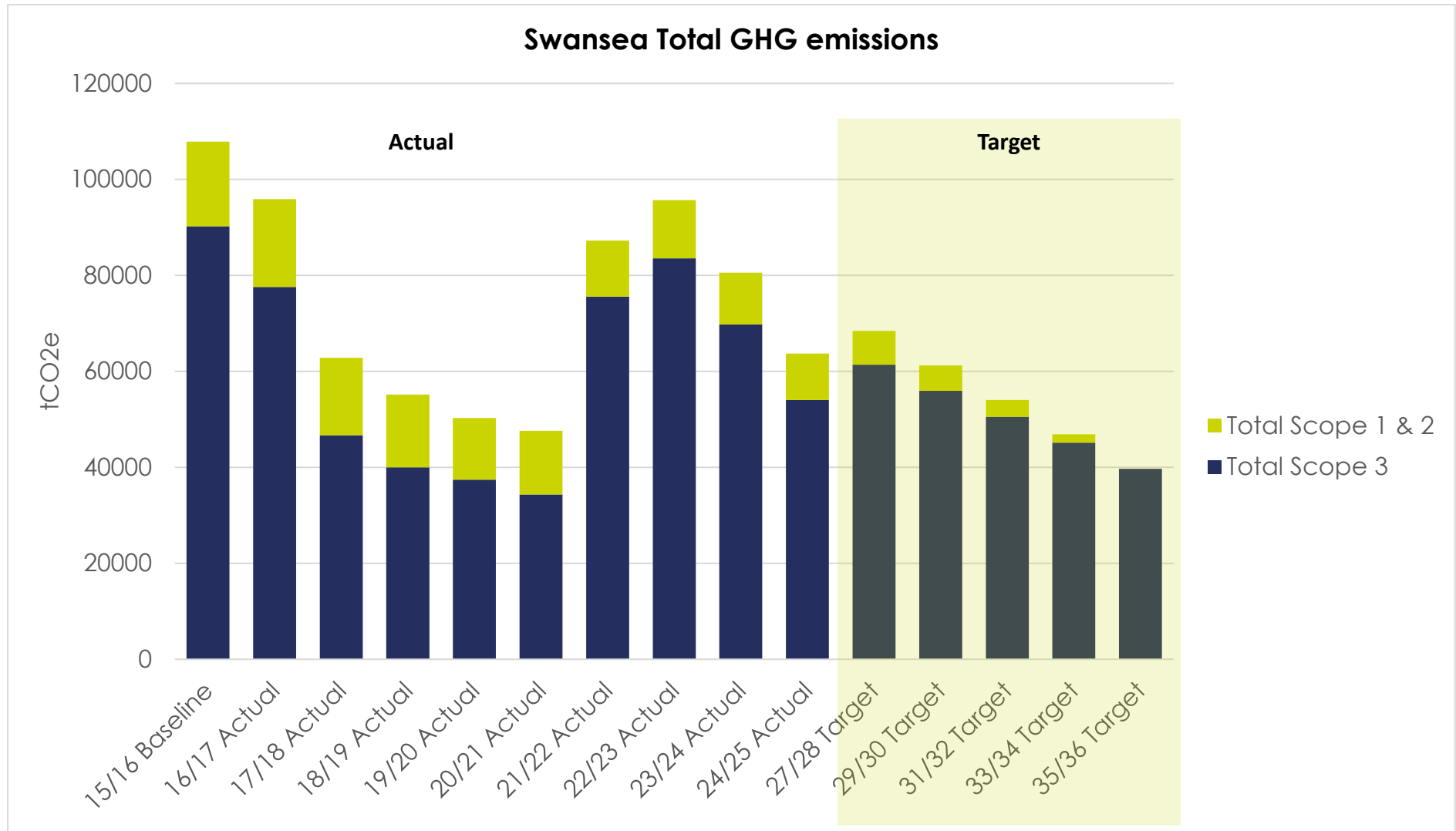
In 2024/25 GHG Emissions totalled **66.6 ktCO₂e** at **14% Scope 1 & 2** and **85% Scope 3** proportionately.

2024/2025 Update		Total Scope 1, 2 & 3 GHG	
Academic Year	Emissions tCO ₂ e	Reduction	tCO ₂ e Savings Since Baseline
15/16 Baseline	107,862		
16/17 Actual	95,880	-14%	-11,982
17/18 Actual	62,821	-48%	-45,041
18/19 Actual	55,189	-56%	-52,673
19/20 Actual	50,299	-59%	-57,563
20/21 Actual	47,611	-62%	-60,251
21/22 Actual	87,280	-16%	-20,582
22/23 Actual	95,696	-7%	-12,166
23/24 Actual	80,590	-25%	-27,273
24/25 Actual	66,687	-38%	-41,176
24/25 Target	79,633	-26%	
25/26 Target	76,045	-29%	
33/34 Target	47,341	-56%	
34/35 Target	43,753	-59%	
35/36 Target	40,166	-63%	
40/41 Target	27,078	-75%	
45/46 Target	13,539	-87%	
50/51 Target	0	-100%	

2024/2025 Update		Total Scope 1, 2 & 3 Emissions	
Performance	Emissions tCO ₂ e	Reduction	tCO ₂ e Savings Since Baseline
24/25 Actual vs Target	-12,946	-16%	-328,707
Change Since Prev. yr	-13,903	-17%	
Change Since 2015:	-41,176	-38%	

38% total scope 1, 2 & 3 reduction since 2015/16 beyond 2024/25 target of 26% and a **17%** reduction in 2024/25, compared to previous year.

Total GHG emissions (Scope 1, 2 and 3)



SUMMARY OF SCOPE 1 & 2 EMISSIONS PERFORMANCE 2015 - 2025

2024/2025 Update	Scope 1 & 2 Emissions							
Academic Year	Scope 1				Scope 2	tCO ₂ e	Reduction %	Savings tCO ₂ e
	Gas	Fleet	Oil	F-Gas	Grid Electricity			
15/16 Baseline	7,649	18	162		9,774	17,603		
16/17 Actual	10,617	10	139		7,505	18,270	4%	668
17/18 Actual	7,654	9	153		8,335	16,152	-8%	-1,451
18/19 Actual	6,871	4	175		8,120	15,170	-14%	-2,432
19/20 Actual	5,944	2	151		6,770	12,866	-27%	-4,736
20/21 Actual	7,424	5	115		5,703	13,247	-25%	-4,356
21/22 Actual	5,796	6	117		5,766	11,685	-34%	-5,917
22/23 Actual	5,701	5	128		6,308	12,142	-31%	-5,460
23/24 Actual	4,834	12	25	25	5,892	10,788	-39%	-6,815
24/25 Actual	4,428	6	31	209	5,052	9,726	-45%	-7,877
24/25 Target	4,207	10	89	14	5,375	9,681	-45%	
25/26 Target	3,824	9	81	12	4,887	8,801	-50%	
33/34 Target	765	2	16	2	977	1,760	-90%	
34/35 Target	382	1	8	1	489	880	-95%	
35/36 Target	0	0	0	0	0	0	-100%	

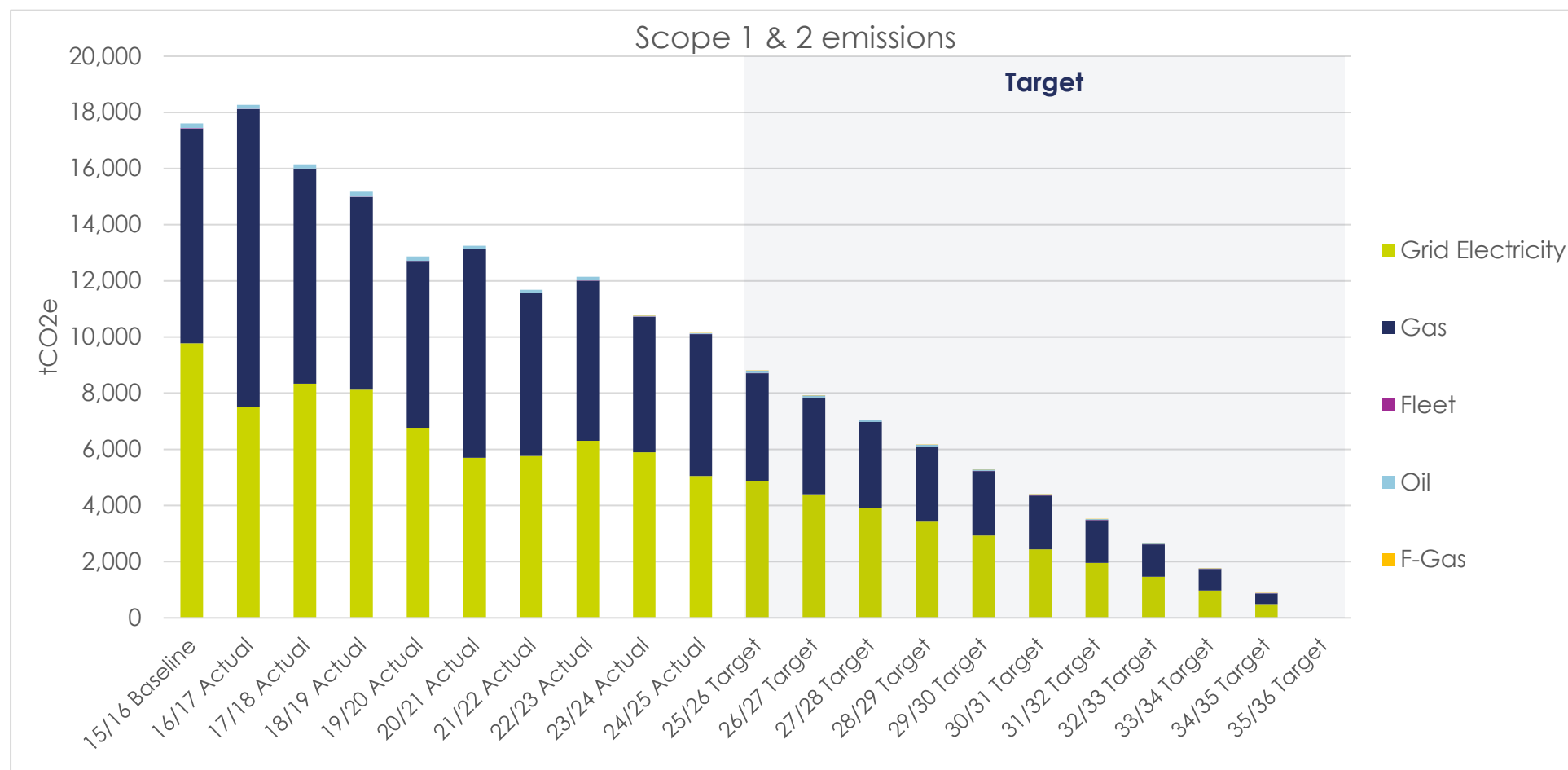
Scope 1 & 2 emissions tonnes of carbon dioxide equivalent (tCO₂e):

- **48% decrease in electricity emissions** since 2015/16 ahead of target.
- **42% decrease in gas emissions** since 2015/16 behind target.
- **81% decrease in oil emissions** since 2015/16 ahead of target.
- **66% decrease in fleet emissions** since 2015 ahead of target.

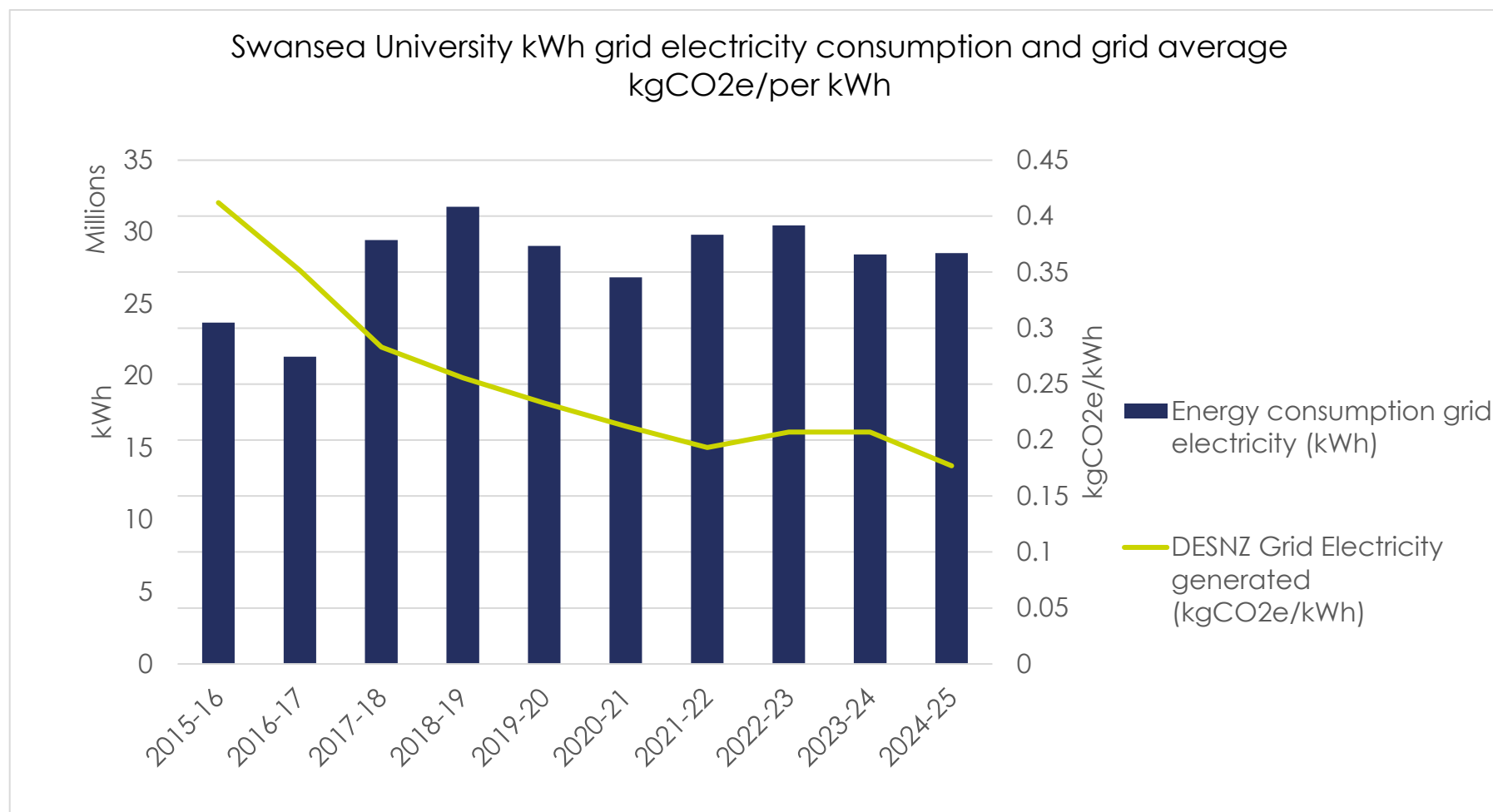
2024/2025 Update	Scope 1 & 2 Emissions							
Performance	Gas	Fleet	Oil	F-Gas	Grid Electricity	tCO ₂ e	Reduction %	Savings tCO ₂ e
24/25 Actual vs Target	221	-4	-58	195	-324	44	0%	
Change Since Prev. yr	-406	-5	5	184	-840	-1,062	-10%	-7,877
Change Since 2015:	-3,221	-12	-131	209	-4,722	-7,877	-45%	-38,376
Performance Since 2015/	-42%	-66%	-81%		-48%	-45%		

University net zero decarbonisation interventions on gas, power and lighting systems, building fabric upgrades and solar renewable installations contributed to **7,877 tCO₂e reduction** in overall emissions, compared to previous year.

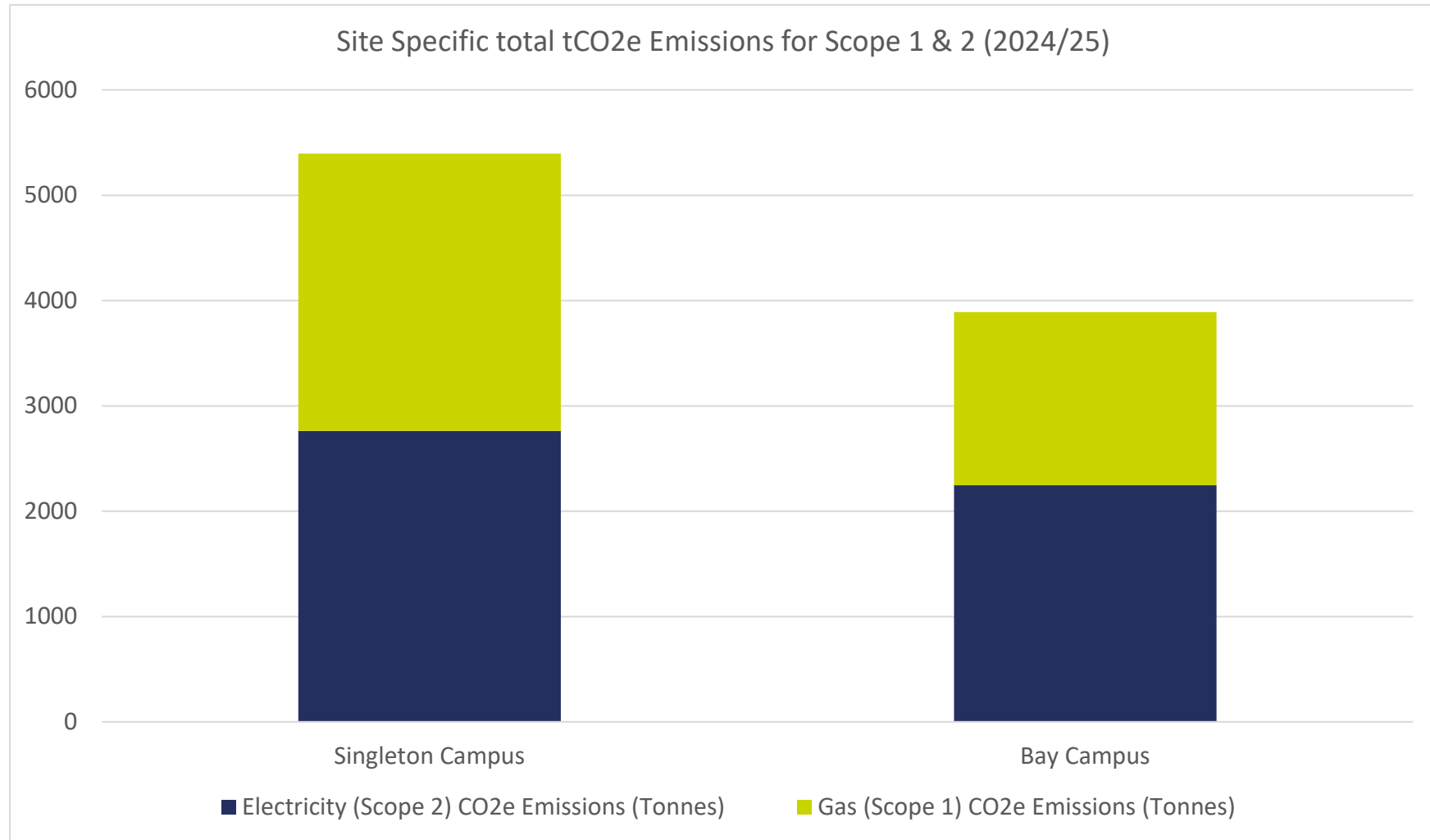
Since 2015/16, Swansea University has recorded a **cumulative, 38.3k tonnes of CO₂e savings in scope 1 & 2 GHG emissions**.



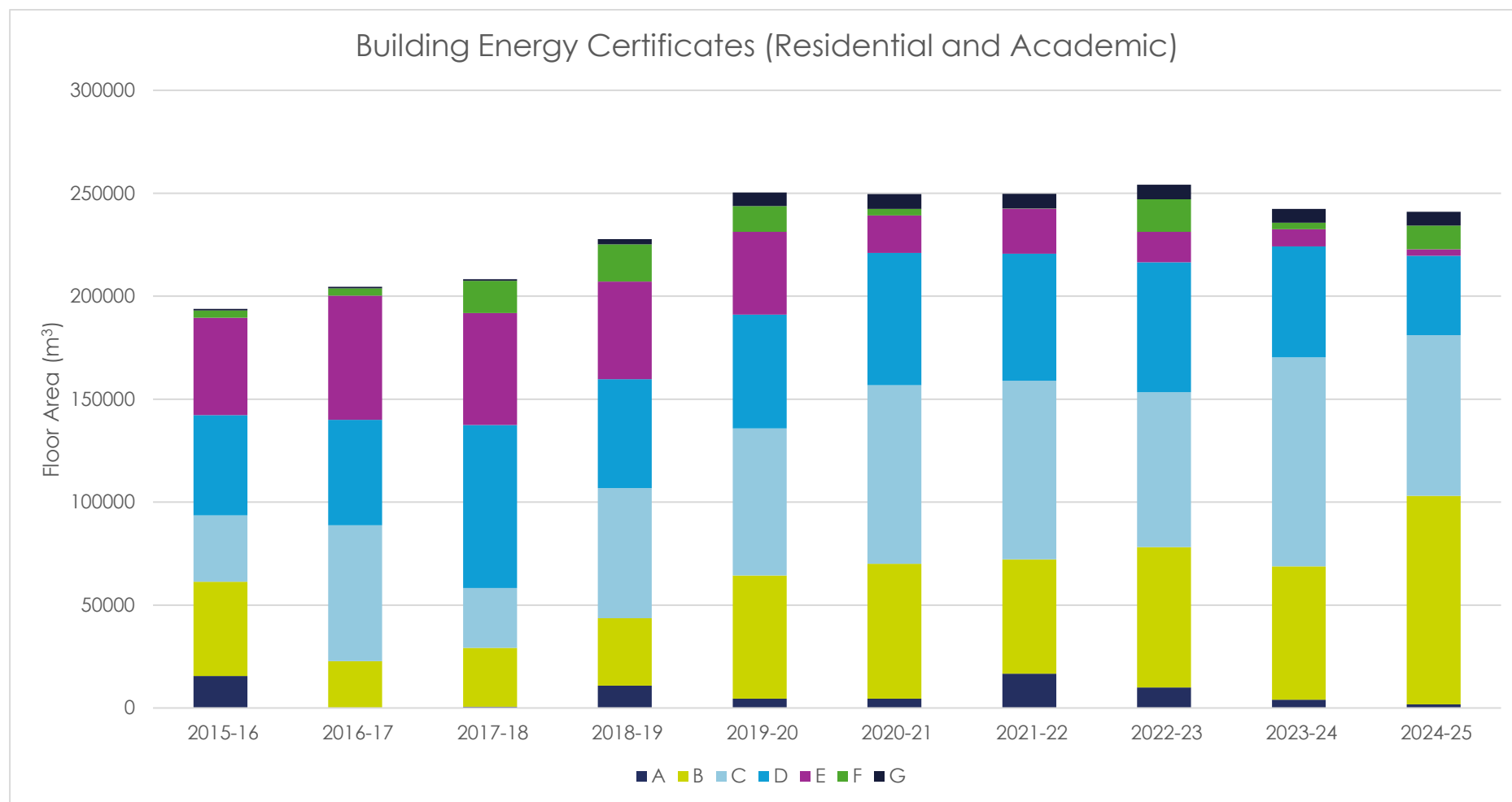
Net zero interventions for heating and fleet in critical path for 2025 - 2027. Through completion of technoeconomic heat decarbonisation report and successful application, [£11.4m Digarbon funding](#) awarded by Welsh Gov. to decarbonise University District Heat Network (DHN) switch gas boilers to electrical air sources heating and improve building fabric and thermal performance. All in addition to continuation of smart LED lighting, EV charging infrastructure, Building Management System (BMS) and other HVAC upgrades.



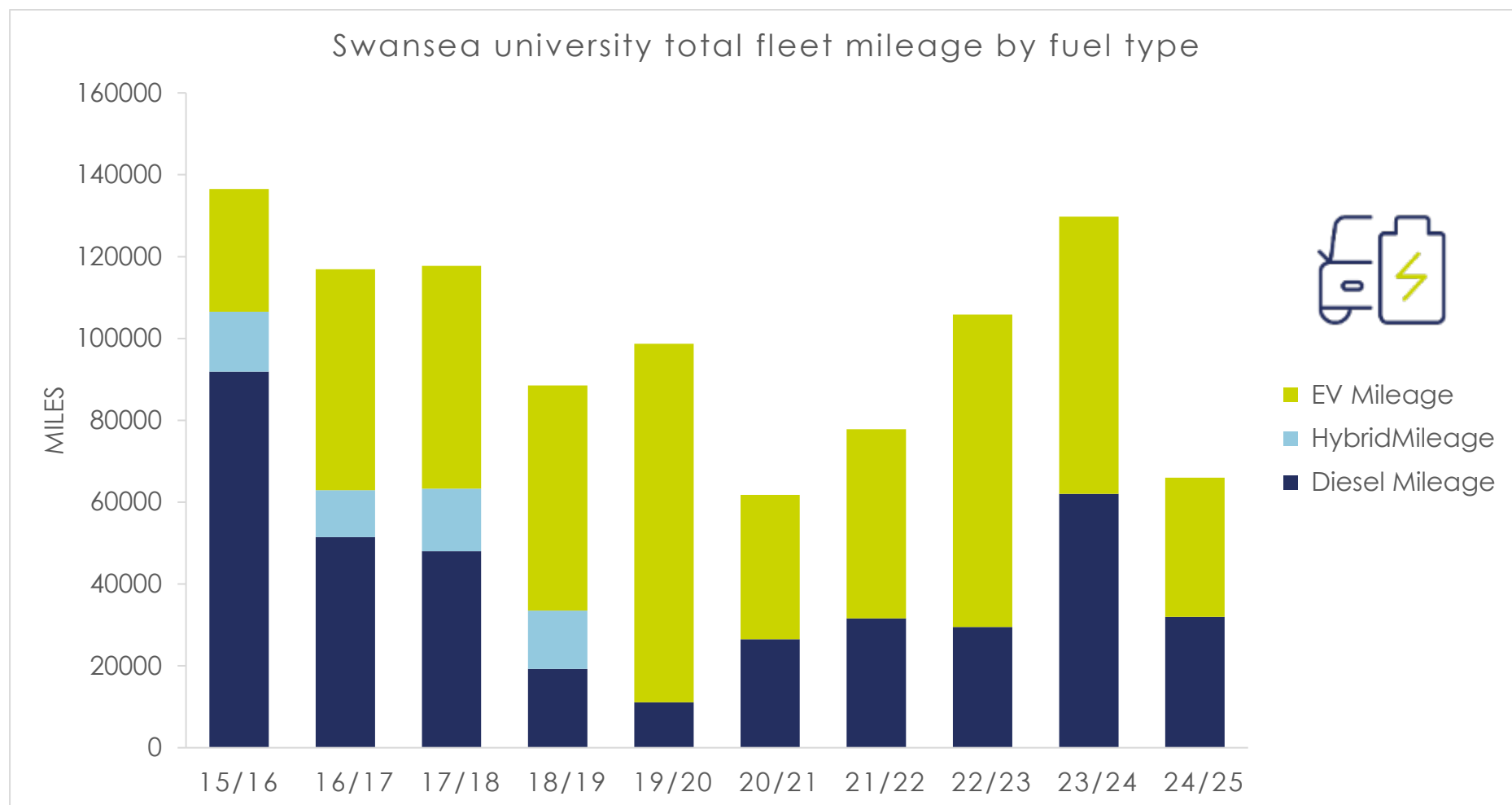
- **0.3% increase in grid electricity consumption** compared to previous year due to increased activity in the Centre for Integrative Semiconductor Materials (CISM) resulting in a 1.2M kwh.
- **15% decrease in grid carbon intensity** per kWh compared to previous year.



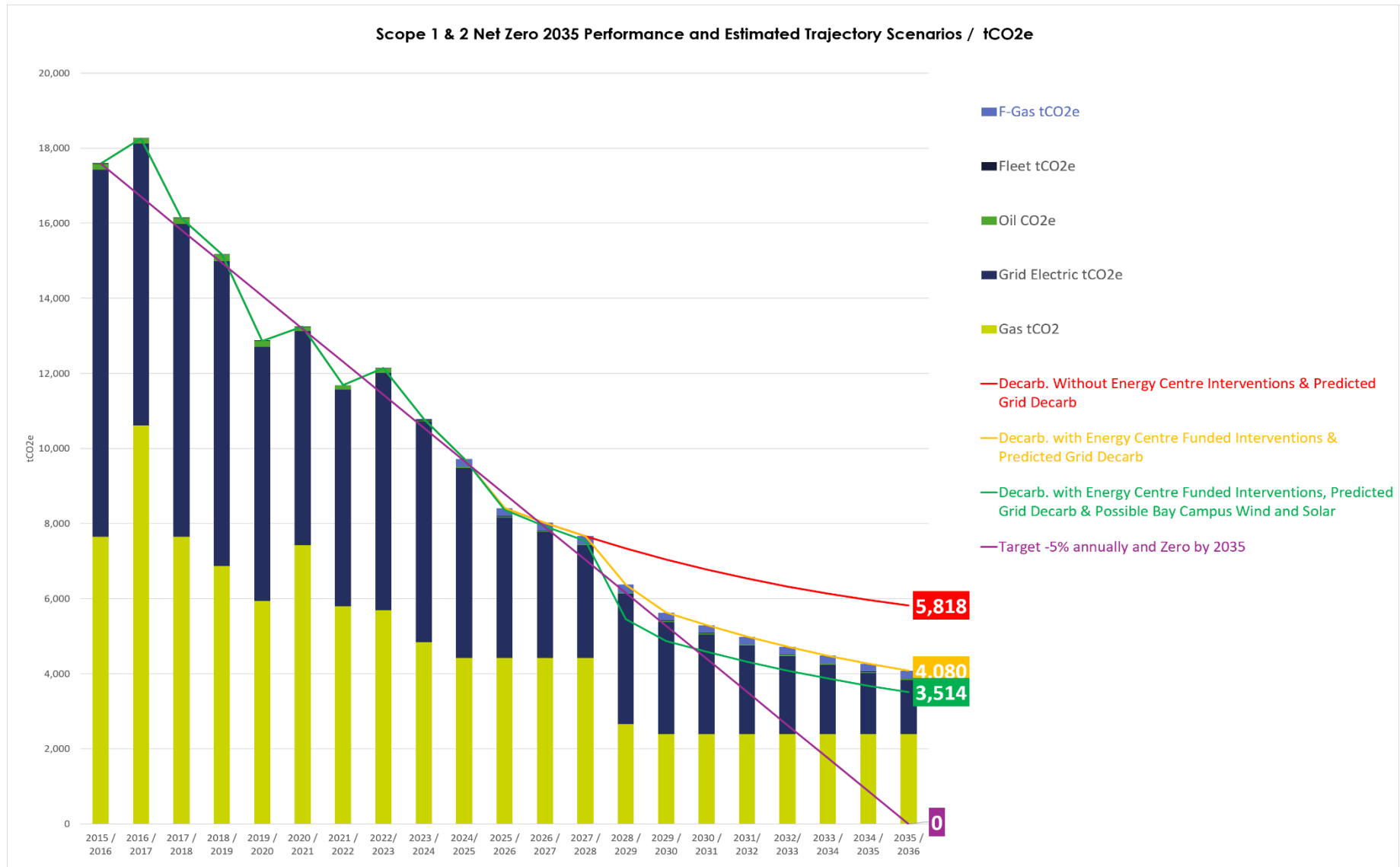
Gas district heat network currently attributes for most of the Singleton scope 1 emissions, roof renewable energy generation and efficiencies in power use at Singleton, has reduced scope 2 emissions to within 515 tCO₂e of Bay.



- **17% decrease in buildings energy performance rated D to G** in respective Display Energy Certificates (DEC)
- **6% increase in buildings energy performance rated A to C** in respective DEC

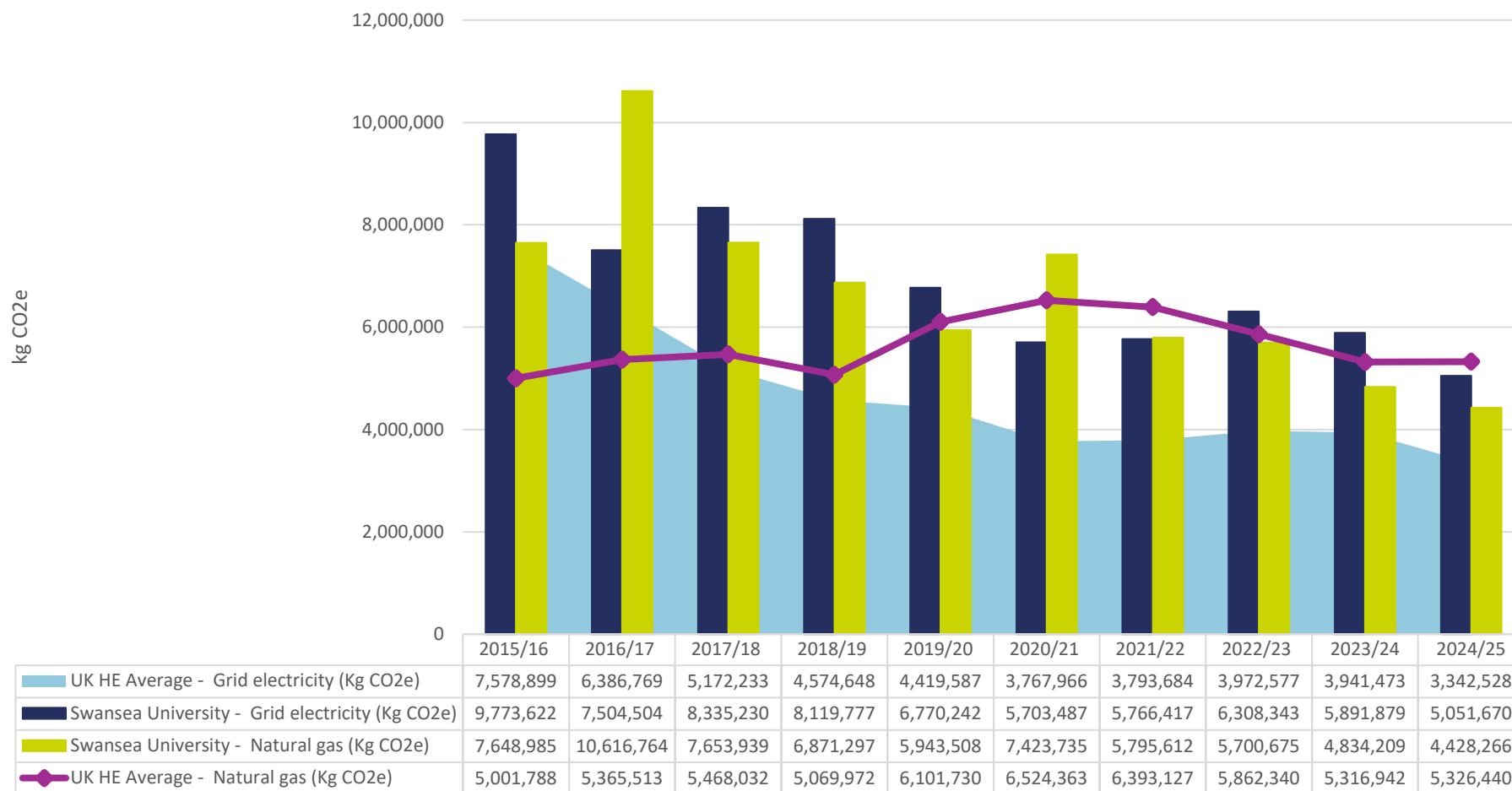


- **52% of mileage in Electric Vehicle (EV) fleet**, Estates and faculties fleet targeted for switching to EV in 2024/25
- **49% decrease in total fleet mileage**, across EV and diesel vehicles which has resulted in a 47% drop in carbon emissions.



N.b. the above estimated graph is for indicative purposes only. Projections are subject to variables which will alter outcomes e.g. university growth, financial sustainability and external factors such as grid decarbonisation, technologies and supply chains.

Benchmarking Swansea University Emissions against UK HE Averages kg CO₂e



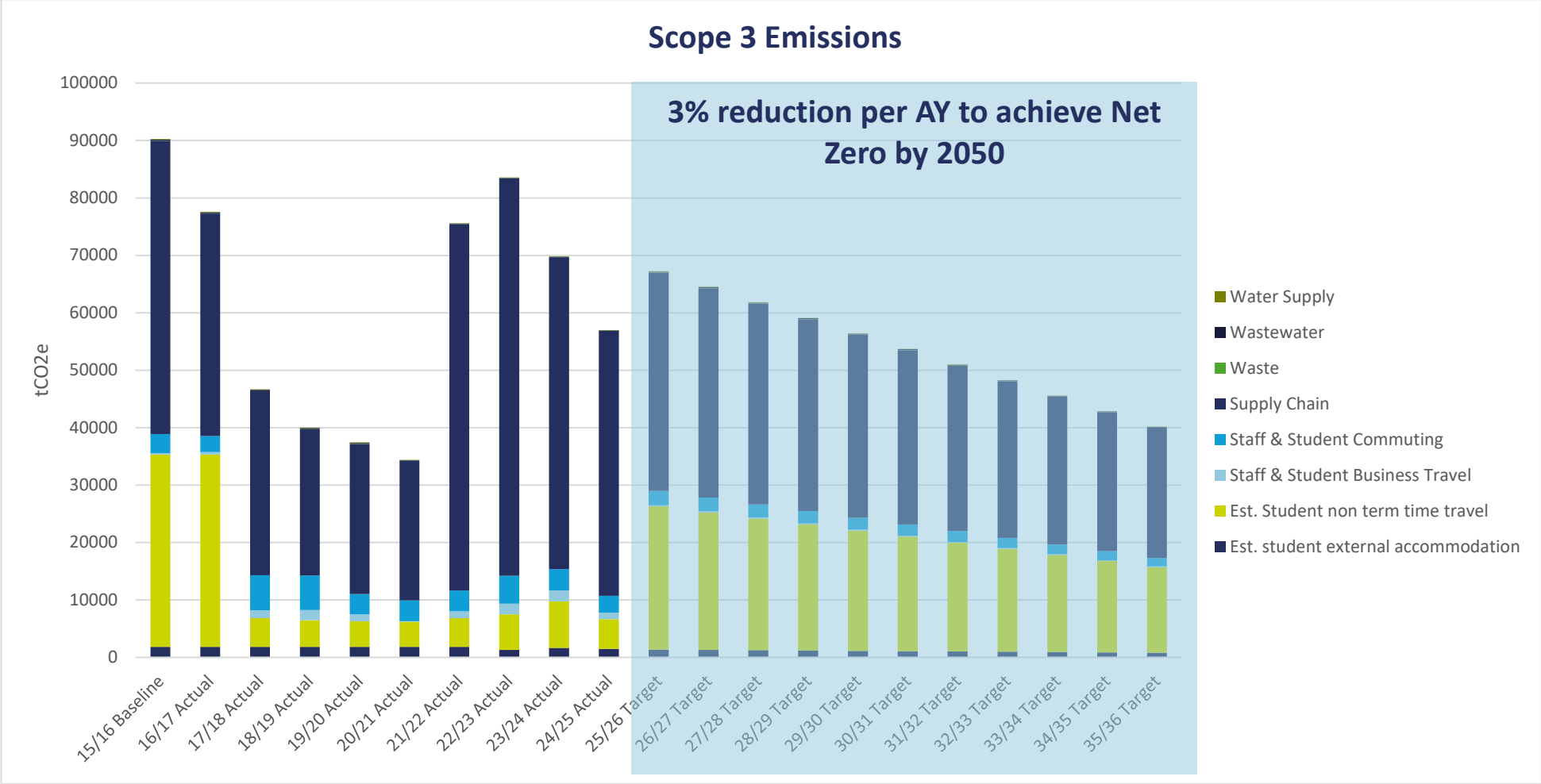
Swansea University electricity kg CO₂e emissions are consistently above UK University Average (source HESA data). Whereas natural gas kg CO₂e emissions continue to transition from above the UK HE Average to below. This trend is likely to continue as the university switches from gas heating to cleaner electrical and heat pump derived heating. To reduce electrical demand from the grid and associated emissions the university is seeking to increase on campus renewable electricity generation and is also reliant on the reduction in carbon intensity of grid electricity supply.

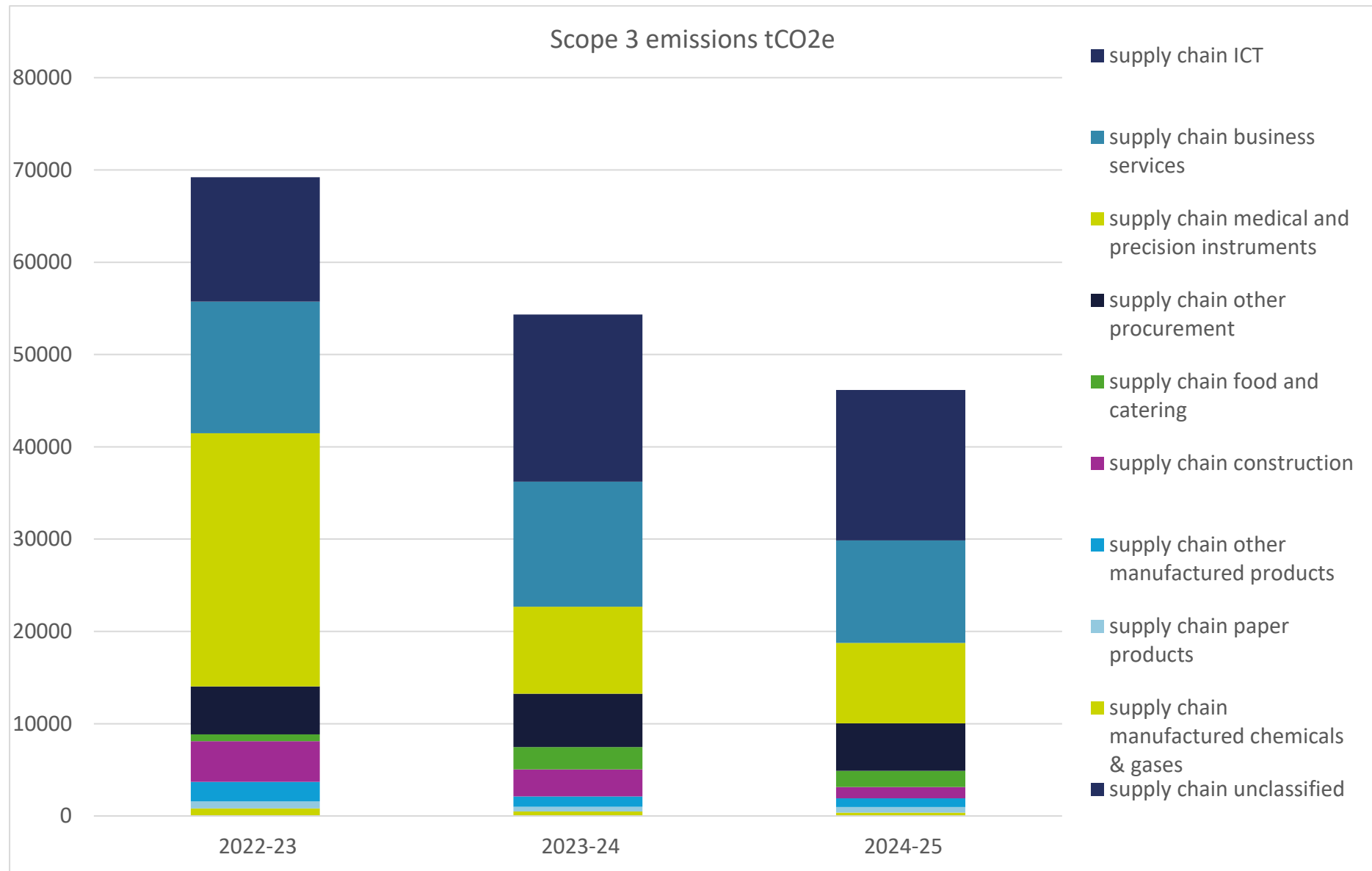
2024/2025 Update	Scope 3								Scope 3 Emissions		
Academic Year	Waste	Water Supply	Wastewater	Supply Chain	Staff & Student Business Travel	Staff & Student Commuting	Student Non Term Time Travel (est.)	Student External Accommodation (est.)	tCO2e	Reduction %	Savings tCO2e
15/16 Baseline	41	96	192	51,024	291	3,312	33,478	1,825	90,260		
16/17 Actual	27	98	191	38,770	468	2,753	33,478	1,825	77,610	-14%	-12,650
17/18 Actual	27	99	195	32,063	1,342	6,104	5,014	1,825	46,669	-48%	-43,591
18/19 Actual	24	86	168	25,500	1,780	5,994	4,642	1,825	40,019	-56%	-50,241
19/20 Actual	21	82	161	26,120	1,200	3,552	4,470	1,825	37,433	-59%	-52,827
20/21 Actual	12	30	52	24,352	82	3,635	4,376	1,825	34,364	-62%	-55,895
21/22 Actual	17	33	57	63,826	1,199	3,658	4,979	1,825	75,595	-16%	-14,665
22/23 Actual	29	45	48	69,208	1,880	4,859	6,189	1,296	83,554	-7%	-6,706
23/24 Actual	5	53	61	54,328	1,913	3,712	8,094	1,635	69,802	-23%	-20,458
24/25 Actual	3	37	31	46,172	1,138	2,926	5,162	1,491	56,961	-37%	-33,299
24/25 Target	32	75	149	39,543	226	2,567	25,945	1,415	69,951	-23%	
25/26 Target	31	72	143	38,013	217	2,468	24,941	1,360	67,243	-26%	
29/30 Target	26	60	120	31,890	182	2,070	20,924	1,141	56,412	-38%	
39/40 Target	14	32	63	16,838	96	1,093	11,048	602	29,786	-67%	
49/50 Target	1	3	6	1,531	9	99	1,004	55	2,708	-97%	
50/51 Target	0	0	0	0	0	0	0	0	0	-100%	

2024/2025 Update	Scope 3 Emissions										
24/25 Actual vs Target	-29	-37	-117	6,629	913	359	-20,783	76	-12,991	-14%	
Change Since Prev. yr	-2	-16	-30	-8,156	-775	-786	-2,932	-144	-12,841	-18%	-33,299
Change Since 2015:	-38	-59	-161	-4,852	847	-386	-28,316	-334	-33,299	-37%	-290,331
% Change Since 2015	-92%	-61%	-84%	-10%	291%	-12%	-85%	-18%	-37%		
% Change Since Prev.yr		-40%		-15%		-33%		-9%	-18%		

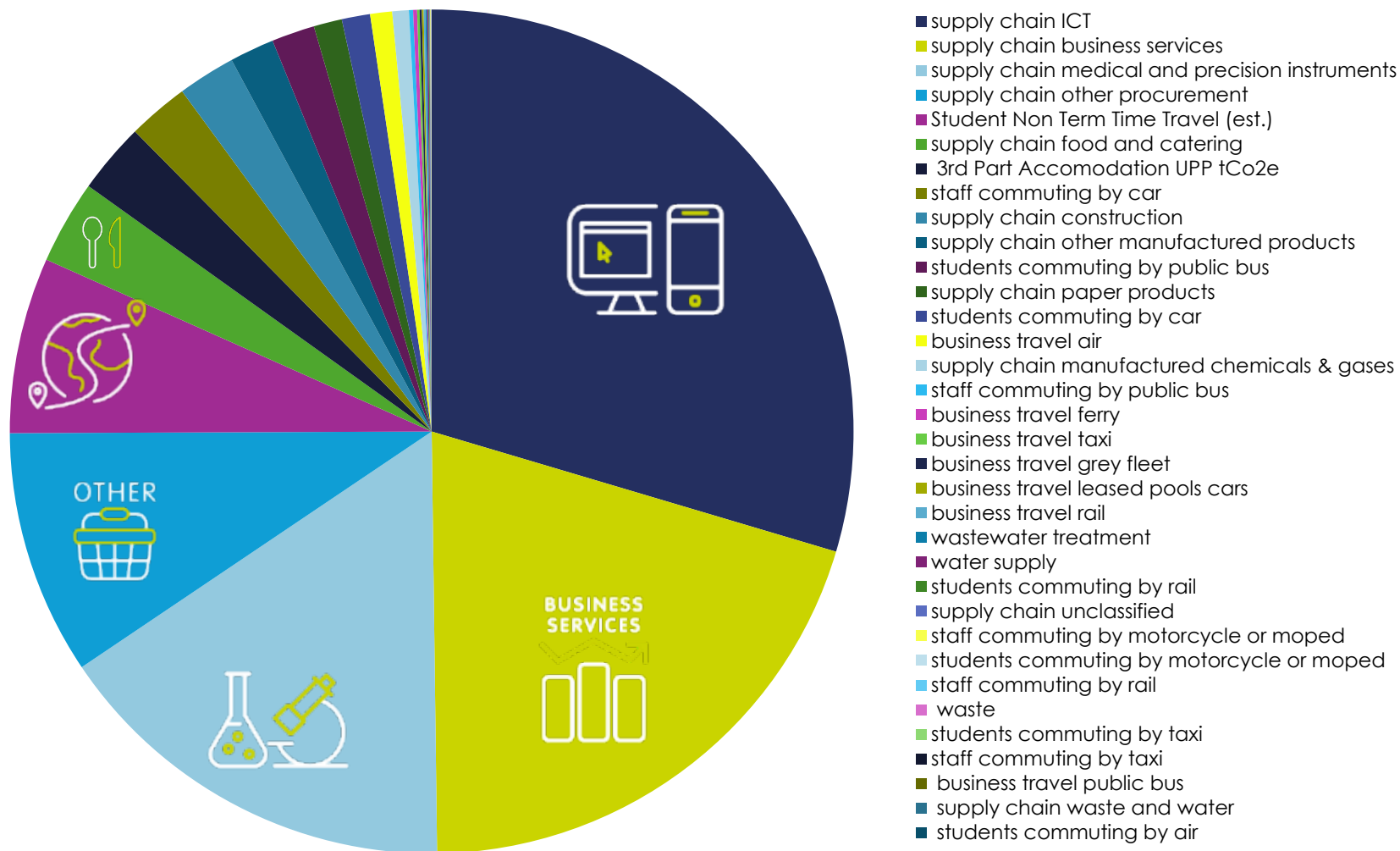
SUMMARY OF SCOPE 3 EMISSIONS PERFORMANCE 2015 – 2025

- **18% decrease in total scope 3 emissions** from previous year.
- **37% decrease in total scope 3 emissions** since 2015/16, ahead of the 2023 – 2024 planned reduction target of 20%.
- **40% decrease in combined waste, water and wastewater emissions** since 2015/16.
- **10% decrease in supply chain emissions** since 2015/16.
- **33% decrease in University Travel emissions** from business, commuting and student non termtime journeys.
- **-9% increase in external UPP Bay Campus student accommodation emissions** compared to previous year.
- **Business travel emissions have increased since the baseline year, however, they have reduced since the previous year.**
- Some business travel emissions are missing from the data set.
- **Supply chain, business travel, commuting and student external accommodation emissions were all higher than the targeted 23% reduction since 2015/16.**
- **Student non term time travel accounts for most of the reduction in scope 3 with 85% less emissions than in 2015/16.**





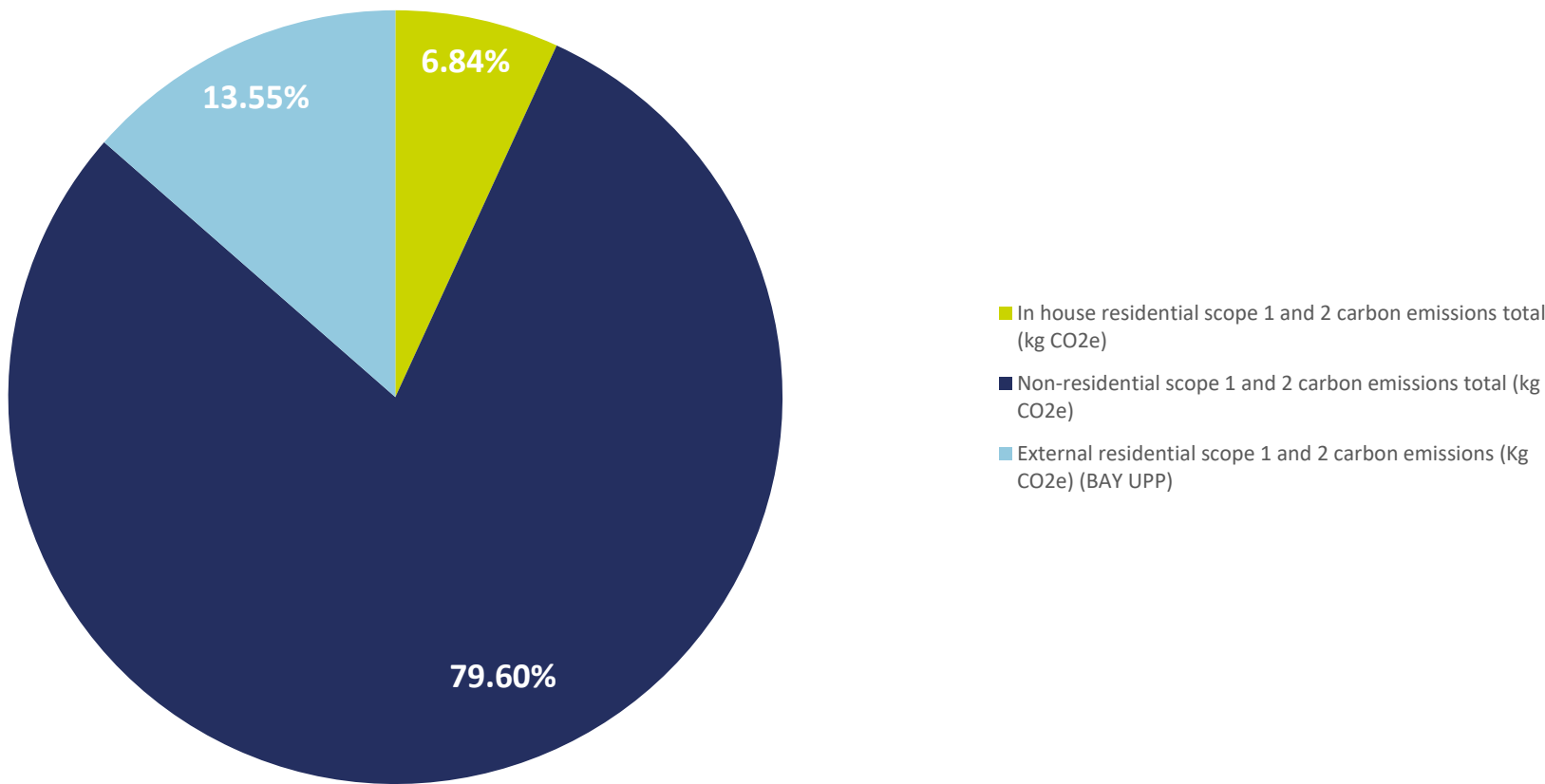
Scope 3 emission sub categories tCO₂e 24/25



SCOPE 1 & 2 KPIs

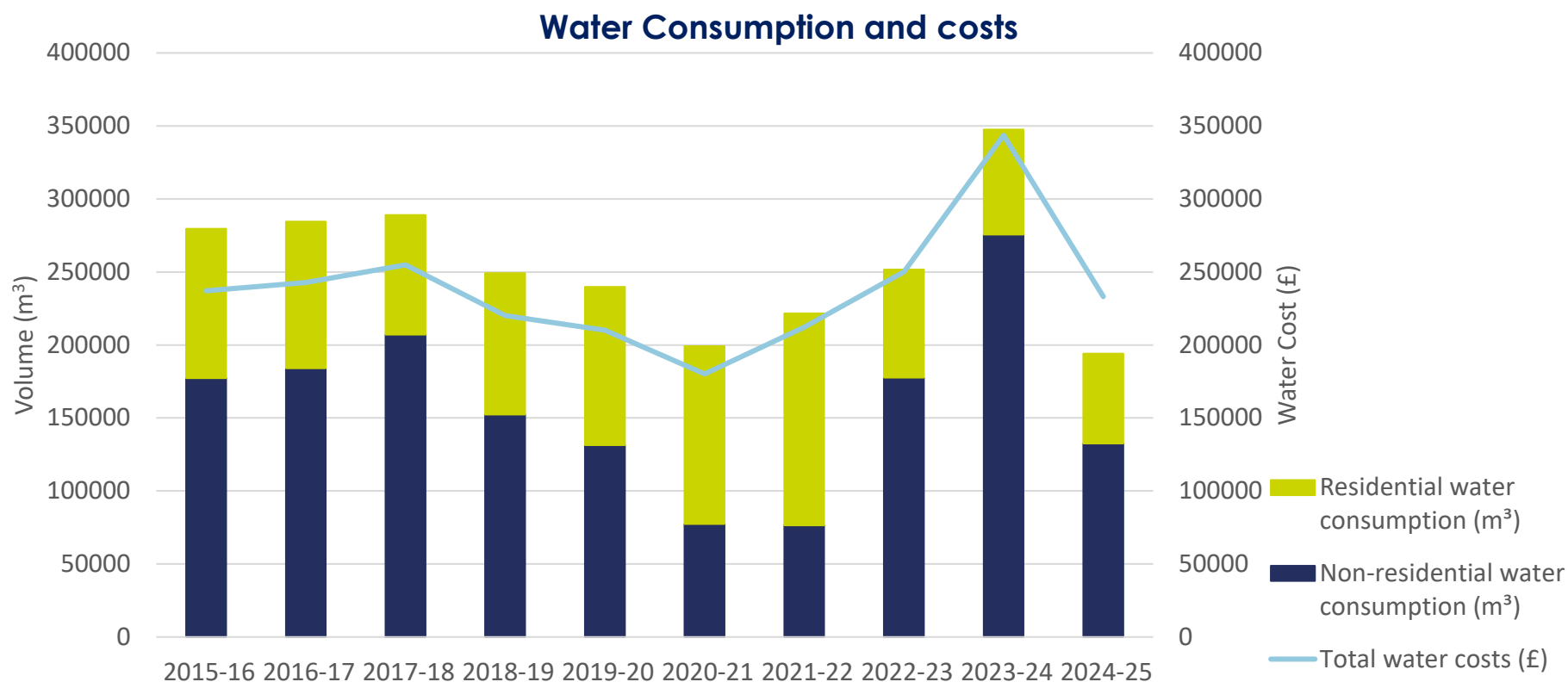
KPI	35/36 Target	25/26 Target	Difference Since Baseline	Annual difference A Vs T	24/25 Actual	24/25 Target	2015/16 Baseline
	100%	50%				45.0%	
Total scope 1 and 2 carbon emissions (kg CO ₂ e)	0	8,792,367	-38.9%	2.0%	9,725,871	9,681,380	17,602,509
Non-residential scope 1 and 2 carbon emissions total (kg CO ₂ e)	0	7,211,389	-31.1%	14.9%	8,757,813	7,932,528	14,422,778
In house residential scope 1 and 2 carbon emissions total (kg CO ₂ e)	0	1,580,979	-74.3%	-57.2%	752,872	1,739,076	3,161,957
Total scope 1 and 2 carbon emissions (kgCO ₂ e) /m ²	0.00	35.16	-38.4%	2.7%	39.58	38.67	70.31
Total non-Residential scope 1 and 2 carbon emissions (kgCo ₂ e) /FTE student	0.00	483.17	-44.1%	-6.9%	519.95	531.49	966.35
Total scope 1 and 2 carbon emissions (kgCO ₂ e) / Total income (£)	0.000	0.030	-56.1%	-26.8%	0.029	0.03	0.059
Total scope 1 and 2 carbon emissions (kgCO ₂ e) / FTE Staff + Students	0.00	504.50	-51.5%	-14.8%	480.43	554.96	1,009.01
Total residential scope 1 and 2 carbon emissions (kgCO ₂ e) / bed spaces	0.00	704.54	-55.9%	-26.5%	577.36	774.99	1,409.07
Total scope 1 and 2 carbon emissions (tonnes CO ₂ e) /FTE Students	0.00	0.59	-50.4%	-17.4%	0.58	0.65	1.18
External residential scope 1 and 2 carbon emissions (Kg CO ₂ e) (BAY UPP)					1,490,904		1,825,358
Gross Internal area Total HEI (m ²)					245,734		250,355
Total income (£)					333,645,000		296,292,000
FTE Staff + Students					20,244		17,445
FTE Students					16,844		14,925
Residential bed spaces					1,304		2,244

Scope 1 & 2 percentage of total carbon emissions
attributed to residential accommodation type (in house and external) 2024/25



WATER

University water consumption targets are aligned with the scope 3 emissions targets at 50% reduction by 2035 from 2015 baseline year.



- **44% decrease in water usage and costs compared to previous year** as there was no significant leak combined with a renewed focus to reduce water across the campus.

BASLINE DECARBONISATION ACTION PLAN 2022

Click on image below for link to plan:



SINGLETON CAMPUS HEAT DECARBONISATION STUDY

In 2024 the university commissioned a technical and economic feasibility study for the decarbonisation of Singleton Campus Heating.

The study supported by ARUP, considers Swansea University's objective of reaching net zero carbon by 2035 through a feasibility assessment to decarbonise the heat generation on their Singleton Campus.

Singleton Campus has a heat network powered by gas boilers, serving 22 out of 36 buildings with a 6MW capacity.

The feasibility study included: surveying the campus to assess current heating demand, evaluating low-carbon heating technologies, identifying the best location and setup for a new energy centre, developing a model to assess energy use, emissions, and costs, and recommending the most suitable solution for the University's consideration.

Two decarbonisation solutions were analysed for Singleton Campus:

Decentralised Scenario: Air source heat pumps would be installed in each building over 10 years. Low-temperature systems would go into new or refurbished buildings, while high-temperature or cascade systems would be used elsewhere. Implementation would align with the campus masterplan.

Centralised Scenario: A new energy centre near the existing one would use 3MW high-temperature modular air source heat pumps and a 3MW electric boiler for peak demand and backup. Most buildings would connect to this network, except Finance and Singleton Abbey.



This report takes into account the particular instructions and requirements of our client. It is not intended for use and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number: 209411-00
One Arup in Partners Limited
25 Broad Street
Cardiff
CF1 1 2JL
Wales, UK
arup.com



In both cases, the campus would be fully electrified for heating by 2035. Cost and emissions modelling showed the centralised option offers lower carbon emissions, lower capital cost, and lower total cost over the study period.

Based on the relative performance, the centralised option was selected as the preferred option and was developed to a greater level of detail. The internal MEP equipment associated with the new ASHP installation would be housed within the existing energy centre. Due to the modular nature of the proposed heat pumps, there is an opportunity to install the first 1MW worth of heat pump capacity in the short-term to result in an immediate and substantial reduction in carbon emissions. Any installed low carbon heating solution would become the lead producer of heat. Even though 1MW may seem modest compared to the 6MW peak heat demand, it would remove over 50% of the gas consumption from the energy centre.

Compared to business as usual, this intervention would save approximately 1,384 tonnes of CO₂ per year for a capital cost of less than £2.8m. This would account for a 15.3% reduction in the total carbon emissions associated with Singleton Campus.

The centralised solution was agreed as the preferred solution for the decarbonisation of the heat supply to Singleton Campus. In brief, this comprises:

- The addition of 3MW of ASHP capacity located at the existing energy centre.
- The phase out of the gas boilers and eventual replacement with electrical boilers to provide the peak heat demand.
- The addition of buildings not currently connected to the existing heat network.
- The addition of any new-build schemes to the existing heat network.

Net Zero Update and Next Steps

OUR **NET ZERO** JOURNEYEIN **TAITH SERO** NET

Here at Swansea University, we are embarking on a major decarbonisation programme to transform our buildings, energy systems and campus infrastructure, to support a low-carbon, climate resilient future.

Yma ym Mhrifysgol Abertawe, rydym yn cychwyn ar raglen ddatgarboneiddio fawr i drawsnewid ein hadeiladau, ein systemau ynni ac isadeiledd ein campysau, er mwyn cefnogi dyfodol carbon isel sy'n wydn yn erbyn yr hinsawdd.



**NET ZERO
BY 2035**

**SERO NET
ERBYN 2035**



**DECARBONISED
HEATING SYSTEM**

**SYSTEM WRESOGI
DDI-GARBON**



**ONSITE
RENEWABLE
ENERGY**

**YNNI
ADNEWYDDADWY
AR Y SAFLE**



CLEANER ENERGY

YNNI GLANACH



Energy Centre Decarbonisation
Datgarboneiddio ein Canolfan Ynni

We are overhauling our 6MW gas-fired Energy Centre, introducing 3MW air source heat pumps and two 100,000 litre thermal storage tanks to provide more efficient, renewable heating across campus. Building envelope refurbishment and new pipework will improve thermal performance and reliability, creating Wales' first large-scale, fuel-free heat pump derived district heating network, avoiding 2212 tCO₂e annually, and cutting heat emissions by 50%.

Rydym yn ailwampio ein Canolfan Ynni sydd wedi'i gwresogi gan 6MW o nwy, gan gyflwyno pwmp gwres o'r aer 3MW a dau danc storio thermol 100,000 litr i ddarparu gwres adnewyddadwy mwy effeithlon ar draws y campws. Bydd adnewyddu amlenni adeiladau a phibellau newydd yn gwella perfformiad thermol a dibynadwyedd, gan greu rhwydwaith gwresogi ardal ar raddfa fawr gyntaf Cymru sy'n deillio o bympiau gwres di-danwydd, gan osgoi 2212 tCO₂e y flwyddyn, a lleihau allyriadau gwres 50%.



Air source heat pumps
Pymplau gwres o'r aer



Thermal Storage Tanks
Tanciau Storio Thermol



Efficient renewable heating
Gwresogi adnewyddadwy effeithlon



Improved thermal performance
Perfformiad thermol gwell



OUR JOURNEY

EIN TAITH



2024/25

Photovoltaic panels installed to roofing across Bay & Singleton campuses and SMART LED lighting introduced

Paneli ffotofoltäig wedi'u gosod ar doeau ar draws campysau'r Bae a Singleton a goleuadau LED clyfar wedi'u cyflwyno



2026/27

Campus-wide building heating, ventilation & insulation improvements

Gwelliannau i wresogi, awyru ac insiwleiddio adeiladau ledled y campws



2027/28

Transformation of Energy Centre & connecting Union House to District Heating Network

Trawsnewid y Ganolfan Ynni a chysylltu Tŷ'r Undeb â'r Rhwydwaith Gwresogi Ardal



2028/29

Further building enhancements to improve insulation and reduce heat loss & renewable energy proposals (900kW wind turbines & 2MW ground mounted solar PV) for Bay Campus

Gwelliannau pellach i adeiladau i wella insiwleiddio a lleihau colled gwres a chynigion ynni adnewyddadwy (tyrbinau gwynt 900kW a phaneli ffotofoltäig solar 2MW wedi'u gosod ar y ddaear) ar gyfer Campws y Bae

SMARTER BUILDINGS

ADEILADAU MWY CLYFAR



Investing in smarter buildings, efficient energy systems and intelligent technologies to create a greener, lower-carbon campus.

Buddsoddi mewn adeiladau mwy clyfar, systemau ynni effeithlon a thechnolegau deallus i greu campws mwy gwyrdd, carbon is.

Heating, ventilation and envelope improvements

Gwelliannau i wresogi, awyru ac amlenni adeiladau



Annual Carbon Savings
Arbedion Carbon Blynnyddol

- Faraday Building | Adeilad Faraday - 70 tCO₂e
- Margam - 49 tCO₂e
- Union House | Ty'r Undeb - 92tCO₂e

LED lighting introduced across campus buildings

Goleuadau LED wedi'u cyflwyno ar draws adeiladau'r campws



Thorlux Smart Scan - Using data to reduce energy costs and carbon

Thorlux Smart Scan - Defnyddio data i leihau costau ynni a charbon



Y Twyni Retrofit
Diweddaru
Adeilad Y Twyni

SUSTAINABLE **CAMPUS**

CAMPWS **CYNALIADWY**



EV Charging
Gwefru cerbydau trydan



Biophillic elements
Elfennau bioffilig



Nature Positive
Natur-gadarnhaol



Green labs
Labordai gwyrdd



Sustainable Travel
Teithio cynaliadwy



Zero Waste
Dim Gwastraff

SMALL CHANGE
BIG IMPACT



NEWID BACH
EFFAITH FAWR

OUR IMPACT

EIN HEFFAITH



48%

Electricity GHG



Nwyon tŷ gwyr o drydan

cut in emissions
since 2015gostyngiad mewn
allyriadau ers
2015

7,500

Smart LEDs
installedo oleuadau
LED clyfarsaving over 1,200,000
kWh & 226 tonnes of
CO₂e, since 2021wedi'u gosod, gan arbed
dros 1,200,000 kWh a
226 tonnell o CO₂e, ers
2021

80%

Oil GHG



Nwyon tŷ gwyr o olew

cut in oil emissions
since 2015gostyngiad mewn
allyriadau o olew
ers 2015

40%

Gas GHG



Nwyon tŷ gwyr o nwy

cut in Gas GHG
emissions since 2015gostyngiad mewn
allyriadau nwyon tŷ
gwyr o nwy ers 2015

20

EV
Chargersgwefrydd
cerbydau trydaninstalled to support
low-carbon travel to,
from and between
campuseswedi'u gosod i
gefnogi teithio
carbon isel i'n
campysau, ohonynt
a rhyngddynt

3,880

Solar
Panelso baneli
solarinstalled - 1.2 mw peak
capacity, generating
800,000 kWh renewable
electricity, saving
£136,000 & 140 tonnes
of CO₂e annuallywedi'u gosod – capasiti
brig o 1.2 mw, yn
cynhyrchu 800,000 kWh
o drydan adnewyddadwy,
gan arbed £136,000 a
7,140 tonnell o CO₂e yn
flynyddolRenewable
HeatGwres
Adnewyddadwy

1

ground source heat pump
pwmp gwres o'r dddear

2

air source heat pumps
bwmp gwres o'r aerEnergy
EfficiencyEffeithlonrwydd
Ynni

1

building DEC rated A
adeilad â Thystysgrif Ynni i'w
Harddangos gradd A

7

buildings DEC rated B
adeilad â Thystysgrif Ynni
i'w Harddangos gradd BFollow our
Net Zero JourneyDilynwch ein Taith
Sero Net

DECARBONISATION ACTION PLAN – 2024/25 UPDATE

MEASURE	PERIOD	OWNER	SCOPE	TARGET REDUCTION	RESOURCE	COST £
SYSTEMS - ENABLERS						
*Carbon Trust – Path to Zero action plan (CE 15. Transition Plan)	Complete 2021/22	Carbon & Energy Manager & Sustainability	1 & 2	All	Sustainability	£48,000
Heat decarbonisation study Singleton campus (ARUP)	Complete 2023/24	E&CS Energy & Carbon Manager & Projects	1, 2 & 3	Gas	E&CS	£114,000
BREEAM In Use and Net Zero Report The College	2024/25	Sustainability Manager & M&G	1, 2 & 3	All	M&G	
EMS & Eco Campus	Ongoing	Sustainability & SU teams	1, 2 & 3	All	Sustainability	£1,000
Net Zero Vision	Ongoing	Sustainability & ISS			HEFCW Sustainability, ISS & FSE	£150,000
E-Carbon Literacy Training Development (Cynnal Cymru) and role out	Ongoing	Sustainability & Climate Change Network			HEFCW Sustainability, & PSPU	£50,000
Energy and Water Treasure Hunts	Ongoing	Energy & Carbon Manager & Sustainability			E&CS	Staff
RENEWABLES						
Solar PV (Elec) Project (1800 roof mounted panels)	Complete 2022/23	Carbon & Energy Manager, E&CS	2	Grid Electricity	Salix	£1,750,000
Y Twyni - Solar PV (Elec), Battery & EV chargers (x5) Project	Complete 2022/24	FSE & E&CS			Research	£500,000
CISM - 3 x Horizontal wind turbines & solar PV	Complete 2022/25				Research	£1,500,000
Maintain & improve existing campus renewables	Ongoing	E&CS	1, 2 & 3	Grid Electricity & Gas	Various	
Sport Centre - Solar PV array upgrade	Complete 2025	E&CS Energy & Carbon Manager	2	Grid Electricity	E&CS	£60,000
Explore CPPA opportunities	2023 - 25	E&CS Energy & Carbon Manager	1 & 2	Grid Electricity & Gas	E&CS	Staff
Consider opportunities to increase on campus direct wire renewables (Bay & Singleton Campus)					E&CS	Staff
SUBTOTAL						£4,173,000

MEASURE	PERIOD	OWNER	SCOPE	TARGET REDUCTION	RESOURCE	COST £
TRAVEL						
Santander Bike Scheme	Annual	E&CS Sustainable Travel Officer	3	Diesel, Petrol & Wellbeing	E&CS contribute	£25,000
SWell Travel Buddy app.					Sustainability	£3,000
British Cycling Ride Leaders training & led rides					British cycling	£3,000
British Cycling in house Ride Leader Training for staff & student certification.					Sustainability	£2,000
On road cycle training & activities to support access to active travel for disabled students						£3,500
Bike, Safety Switch on event (lights, locks, Hi-Viz.)						
Bike to Work & EV Car Salary Sacrifice Schemes	Ongoing	Sustainability & HR	3	Diesel, Petrol & Wellbeing	HR, Finance and Sustainability	Staff
Tusker Car scheme (including ULEVs)		Sustainability & SU			Sustainability	Staff
Student Union & Student Travel Training						£199,000
Discounted staff & student annual & term time bus passes		E&CS Sustainable Travel Officer	3	Diesel, Petrol & Wellbeing	External partners	Staff
Free bus travel for HSV students (645)					External partners	Staff
Bike Maintenance workshops					Local providers	Staff
Dr bike & bike roadshow			1	Sustainable Travel Officer		
Discounted bike purchase				Sustainability		
General fleet improvements			1 & 3			
Our Travel Strategy commitments	2021 - 25					
					SUBTOTAL	£235,500
					SUBTOTAL	£18,305,000

MEASURE	PERIOD	OWNER	SCOPE	TARGET REDUCTION	RESOURCE	COST £
WASTE						
Zero Waste to Landfill Carbon Trust Accreditation	Complete 2022/23	Waste & Recycling Officer, Sustainability, E&CS	3	Supply chain, Waste & Fuel	Sustainability & Campus Operations	£2,000
Implement Sustainable Furniture Supplier Agreement (Leasing, remanufacturing services)	Complete 2023/24	Procurement & Waste & Recycling Officer				Staff
WARP-IT	Ongoing	Waste & Recycling Officer, Sustainability, E&CS	3	Supply chain, Waste & Fuel	Sustainability & Campus Operations	£2,000
Play It Again Sports						£1,000
Repair Cafes	Ongoing	E&CS Projects & Waste & Recycling Officer				TBC
Creation of central Recycling Hub at Singleton Campus (to improve efficiency of material management & reduce vehicle movements/collections/emissions)						
Our Working Environment Strategy - Waste & Recycling commitments	2021 - 25	Waste & Recycling Officer, Sustainability, E&CS				
WATER & WASTEWATER						
Sports village water supply repairs & efficiency improvements	Complete 2023/24	E&CS Energy & Carbon Manager	1, 2 & 3	Heating, Electric, Water & Wastewater	E&CS	£1,000
Develop Water Efficiency Action Plan	Ongoing	E&CS Energy & Carbon Manager	1, 2 & 3	Water	E&CS	Staff
Develop & deliver water efficiency awareness & engagement campaign with SOS.	Complete 2024 - 25	E&CS Energy & Carbon Manager & Sustainability	1, 2 & 3	Heating, Electric, Water & Wastewater	Sustainability	£1,284
Engage with students at Freshers and distribute water saving flyers, bookmarks and shower	Complete September 2024	Carbon & Energy Manager & Sustainability	3	Water & Wastewater	Sustainability & E&CS	
Supply water meter readings for the student halls to SOS on monthly basis and monitor the water usage	Complete 2024 - 2025	Carbon & Energy Manager	3		E&CS	
Sketty Lane Water Leak Repair	Complete 2023/24	E&CS Energy & Carbon Manager	3	Water & Wastewater	E&CS	
Engage with leak detection firm to locate leak and confirm the loss rate	Complete April 2024	E&CS & GFM	3	Water & Wastewater	E&CS & GFM	
Engage with Welsh Water on how best to repair the leak	Complete April 2024	E&CS	3		E&CS	
Contact the Local Council regarding a possible road closure to allow repairs	Complete May 2024	E&CS Energy & Carbon Manager	3		E&CS	
Arrange for Welsh Water to repair the leak and pay for repairs	Complete June 2024	E&CS	1		E&CS	£6,001
Apply for leak rebate from Welsh Water for loss of water to ground	Complete July 2024	E&CS Energy & Carbon Manager	3		E&CS	-£302,133
General monitoring of water bills and usage	Ongoing	E&CS Energy & Carbon Manager	3	Water	E&CS	
Monthly review of water bills and investigate root cause for high costs by carrying out water audit on toilets/sinks and report for repair on the helpdesk	Ongoing	E&CS Energy & Carbon Manager	3		E&CS	
Carry out condition survey of all automatic taps as part of the asset verification and report any faults	Complete 2025	E&CS Energy & Carbon Manager	3	Water	E&CS	
SUBTOTAL						-£288,848

MEASURE	PERIOD	OWNER	SCOPE	TARGET REDUCTION	RESOURCE	COST £
PROCUREMENT						
Update printing & paper policy to deliver efficiencies	Complete 2023/24	Procurement, ISS, E&CS & Sustainability	2 & 3	Electricity, Waste & supply chain	NA	
Update business travel policy to reduce CO2e	2024/25	Procurement, ISS, E&CS & Sustainability	1 & 3	Travel	NA	
LEAF accredited laboratories (Increase No. YoY)	Ongoing	Sustainability & Faculties (Environment Officers)	1, 2 & 3	All	Sustainability	
Sustainability in key tender & contract requirements		Procurement & Sustainability Officers	1, 2 & 3		Various	
Net Positive Futures Supplier Engagement Tool		Procurement & Sustainability Officers	3		HEFCW - HEPCW	
ENGAGEMENT						
SOS SWITCH OFF – Residences engagement	Ongoing	Sustainability	1, 2 & 3	All	Sustainability	£5,850
SWell – Staff & Student engagement support	Ongoing		1, 2 & 3			£30,000
OFFSETING						
<u>Offsetting trial - FSE Biosciences</u>	Ongoing	FSE Prof. & E&CS Sustainability Manager	All	All	Sustainability	TBC
<u>Our Natural Environment strategy - Biodiversity Commitments</u>	Ongoing	E&CS Biodiversity Officer Sustainability				
SUBTOTAL						£35,850
GRAND TOTAL						£22,796,634



Glyndwr solar array, part of 1800 panel install



Y Twyni 5 x EV chargers



Haldane Building, air source heat pump



Bay Campus Library solar array

Smart led lighting upgrades



SUSTAINABILITY STRATEGY 2021 – 2025

OUR CLIMATE EMERGENCY SUCCESSES AND COMMITMENTS

2025 update: strategy currently under review, considering past commitments and successes within context of university opportunities and constraints.

OUR KEY SUCCESSES (2016-2020)



STRATEGIC

We declared a Climate Emergency in 2019 and signed the **Global Universities and Colleges Climate Letter**

Responding to the Climate Emergency – in our operations, teaching, research and Civic Mission - is now a core commitment of the University's **Strategic Vision and Purpose**

Divestment of our endowments from all fossil fuel holdings and associated activities in 2019

CARBON MANAGEMENT

Negotiations (with regulators) to adopt an **emissions baseline of 2015/16** compared to most institutions' use of 2005 or 2010 – meaning our targets are more ambitious

A publicly available **Carbon Management Plan** for scope 1, 2 and 3 emissions has been published since 2016

Achieved a 100% score for Carbon Management in the 2019 Guardian-published **People and Planet University League**

Developed the **"Path to Zero"** concept and approach for stakeholder engagement around the Climate Emergency

Developed new **corporate procedures** as part of the EMS around key climate impacts including F-gases, waste, business travel and printing

Reduced total University carbon emissions by **9,276 tonnes of carbon dioxide equivalent (CO₂e)** since baselining (scope 1, 2 and 3), against a backdrop of a growing university (FTE staff and student headcount and teaching space)

Reduced building, utility and fleet, scope 1 and 2 carbon emissions by **2,432 tonnes of CO₂e** since baselining, against a backdrop of a growing teaching space

INFRASTRUCTURE

16% drop in CO₂e from electricity consumption since 2015/16 on target for zero carbon by 2035

All three new buildings in 18/19 achieved BREEAM

Excellent – **The College, Computational Foundry and Engineering North**

CHP electricity power output increased from 1.3MWh to 1.7MWh and heat output increased from 0.5MW to 1.5MW

£1M investment in small and medium scale energy efficiency projects, including LED lighting, heating controls and utility metering

All individual buildings sub-metered for recording utility use and **consumption dashboards** developed within the Building Management System

Building Energy Performance Rating (DEC Score) improved from **85 in 2016** to **78 in 2020**

Solar PV installed capacity increased from 50KW to 490KW with **2,670,052 kWh of renewable energy generated since 2015/16**, avoiding 376 tonnes CO₂e and saving £330,000 of imported grid electricity

ENGAGEMENT

First university in Wales to actively engage students in **The Student Energy Project (TSEP)** at our Singleton halls, which challenged and educated student residents to reduce energy, carbon emissions and costs. TSEP recorded an annual 4% reduction in electricity consumption, equating to **60,000 kWh and £6k of savings**

Switch off campaign run every year with up to 7.5% energy reduction. Since 2015/16 we have engaged over 200 staff and student volunteers in an energy waste hunt, returning to buildings after dark to check and challenge staff and student energy conservation efforts

Visualised management of energy through **Energy Dashboards** to provide staff with information on utility use within buildings

Through the bespoke, award-winning **SWell engagement app**, we engaged over 50% of staff and have nudged behaviours towards lowering our individual and collective carbon footprints, with over 400,000 positive actions completed including: using energy hungry appliances efficiently, reporting equipment faults and leaks, choosing sustainable and active travel methods, avoiding waste and purchasing less

Through the annual **Energy Week** campaign, we have collaborated with the Students' Union to raise awareness on practical ways to save money and reduce carbon footprints, facilitating student-led campus workshops, pop-up games and stalls

Through the **HEAR recognised Sustainability Award**, Week of Work, Go Wales and SPIN placements, we have provided employability skills for over 900 students. This has supported extracurricular engagements in reducing climate impacts through a range of projects including tree planting, water conservation, recycling, avoiding single use plastics, energy conservation and renewable energy generation

OUR KEY COMMITMENTS (2021-2025)



CARBON MANAGEMENT

- CE 1. **Scope 1 and 2:** Be **zero carbon** for direct emissions (scope 1 and 2) by 2035, with at least a 70% reduction by 2030 (from 2015/16)
- CE 2. Implement the **Path to Zero** local engagement programme of work to achieve (on average) a 5% year on year reduction in scope 1 and 2 emissions including allocating and setting out clearly how Faculties, PSUs and stakeholders can contribute to emissions reduction
- CE 3. **Scope 3:** Achieve (on average) a 2.5% year on year reduction in scope 3 emissions, 50% by 2035 (35% by 2030)
- CE 4. Develop a programme of work for defining and achieving **scope 3 sub-targets and monitoring programmes** including: business travel, staff and student commuting, waste, water, food and drink, and procurement
- CE 5. Shift **cultural working norms** to increase sharing of offices, hot desking, home and remote working, where practicable and in line with business needs, and adoption of digital platforms to allow optimum use of available space

INFRASTRUCTURE

- CE 6. 1 MW of **renewable wind** electricity capacity installed at Bay Campus subject to planning, funding and other considerations
- CE 7. A further 300KW of **renewable Solar PV** electricity capacity installed at Bay Campus
- CE 8. A further 1MW of **renewable Solar PV** electricity capacity installed at Singleton Campus
- CE 9. 2MW of low carbon **Power & Heat** capacity installed at Singleton Campus

CE 10. Work with **Welsh Government Energy Service (WGES)** in developing our infrastructure planning to reduce carbon emissions

CE 11. Adopt a minimum requirement for achievement of **BREEAM Refurbishment and Fit Out (RFO)** standard or **RICS SKA rating** associated with university projects

ADAPTATION

CE 12. A scheme will be developed to enable offsetting of our **unavoidable scope 3** emissions, considering potential verification standards (including but not limited to Gold Standard (GS), ISO 14064 and GHGP)

CROSS-CUTTING ACTIVITIES – COMMITMENTS

GOVERNANCE, MANAGEMENT, DECISION-MAKING



- CE 13. We will develop a simple but comprehensive corporate **Sustainability and Climate Emergency Impact Assessment** by which the University is able to consider whole life costs and the "**climate proofing**" of strategies and policies, investments, grant applications, new projects and initiatives
- CE 14. We will facilitate a **Climate Emergency Working Group** (staff and students) to discuss and plan the introduction and delivery of low carbon operations on our campuses
- CE 15. Develop a **budget profile and programme** for scope 1 and 2 zero carbon from 2035 by the end of 2021 (our detailed transition plan)
- CE 16. **Explore funding** with university partners to enable a sequence of investments that decarbonise the energy we use (both small and large scale interventions) and enhance how we run the campus as a smart, integrated, local energy system to enable us to meet our targets
- CE 17. Develop Faculty and PSU based scope 1, 2 and 3 targets as part of their **Sustainability Action Plans (SAPs)** that are reviewed quarterly and reported through an annual management review
- CE 18. Continually improve carbon data reporting and agree **SMART targets** for reducing specific

scope 3 carbon emissions with relevant supply chain contractors and service providers

- CE 19. We will become **explicit and transparent** about areas of our operations and work that have a high carbon impact and ensure these areas make a net contribution towards meeting carbon targets and the UN SDGs

LEARNING, CAPACITY, SKILLS



- CE 20. Develop a **carbon literacy toolkit**, to enable staff and students to reduce impact from their activities, research and the spaces they use on campus
- CE 21. Support and **develop opportunities to educate, upskill and train** members of the staff and student population and the wider community in relation to carbon management and reducing our individual and collective carbon footprint
- CE 22. Explore opportunities available to develop climate emergency **training packages** as an online resource
- CE 23. Integrate climate emergency and carbon management commitments and aspirations into the **Student Sustainability Award**
- CE 24. Develop a series of learning modules as part of a university-wide **climate emergency outreach programme**, aimed at local feeder primary and secondary schools, colleges and community groups, supported by Discovery and other partners

COMMUNICATION, ENGAGEMENT, INVOLVEMENT



- CE 25. Draw on **teaching and research** to help find solutions and inspire behavioural change for our university, wider community and beyond
- CE 26. Continue to be an active steering group member of **Low Carbon Swansea Bay**, working in partnership to help deliver a climate emergency response for the Swansea Bay area

- CE 27. Deliver a student and staff engagement programme for carbon reduction and wellbeing that will achieve a **10% reduction in carbon emissions** and be aligned with the University Wellbeing Strategy
- CE 28. Support **Students' Union** societies' extracurricular efforts in this area (e.g. Environment and Ethics, Conservation and Ecology, Tree and People and Planet)
- CE 29. Integrate requirements for climate emergency and carbon management responsibilities and reporting requirements into **job descriptions** for relevant roles across the University
- CE 30. Pursue the inclusion of a **sustainability and climate emergency induction** as a key requirement for all new and returning students

OUR CONTRIBUTION TO OTHER GOALS

WELLBEING AND HUMAN HEALTH



- CE 31. Maximise the co-benefits of reducing carbon emissions, climate change adaptation and improving human wellbeing in our work to achieve the Public Health Wales **Corporate Health Standard Gold and Platinum** award and to support the University Wellbeing Strategy

WELLBEING OF FUTURE GENERATIONS



- NI 4. Levels of nitrogen dioxide (NO₂) pollution in the air
- NI 11. Percentage of businesses which are innovation-active
- NI 12. Capacity (in MW) of renewable energy equipment installed
- NI 13. Concentration of carbon and organic matter in soil
- NI 14. The Ecological Footprint of Wales

- NI 15. Amount of waste generated that is not recycled, per person
- NI 29. Mean mental wellbeing score for people
- NI 32. Number of properties (homes and businesses) at medium or high risk of flooding from rivers and the sea
- NI 41. Emissions of greenhouse gases within Wales
- NI 42. Emissions of greenhouse gases attributed to the consumption of global goods and services in Wales
- NI 46. The Social Return On Investment (SROI) of Welsh partnerships within Wales and outside of the UK that are working towards the United Nations Sustainable Development Goals



UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS



See annual carbon emissions data via HESA EMR:
[HTTPS://WWW.HESA.AC.UK/DATA-AND-ANALYSIS/ESTATES](https://www.hesa.ac.uk/data-and-analysis/estates)

Get involved:
[HTTPS://WWW.SWANSEA.AC.UK/SUSTAINABILITY/GET-INVOLVED/](https://www.swansea.ac.uk/sustainability/get-involved/)

Contact the Sustainability Team:
[HTTPS://WWW.SWANSEA.AC.UK/SUSTAINABILITY/CONTACT-US/](https://www.swansea.ac.uk/sustainability/contact-us/)

Review Swansea University, Sustainability Strategy:
[HTTPS://ONLINE.FLIPPINGBOOK.COM/VIEW/898157623/](https://online.flippingbook.com/view/898157623/)

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