

UWTSD Group Environmental Report 2023-2024

Contents

Executive Summary	3
Introduction	3
UWTSD Groups commitment to Green Dragon and Sustainable Development	3
UWTSD Group Environmental Policy	4
Management Review	5
Environmental Objectives and Targets	6
Action Plan	8
Aspects and Impacts	8
Environmental Performance	10
Total Greenhouse Gas (GHG) Emissions	10
Group Emissions	10
Utility Management	11
Emissions and discharges	12
Management system	12
Waste management	13
Travel and transport	13
Mitigation of pollution incidents	14
Legal Compliance	14

Executive Summary

This year is the Seventh year that the UWTSD Group, consisting of the University of Wales Trinity Saint David, Coleg Sir Gar and Coleg Ceredigion are seeking joint Green Dragon recertification. The organisations have embarked on a project to combine environmental management and reporting procedures to improve consistency and efficiency across the Group. This has already resulted in some exciting changes to the way we manage our relationship with the environment, including reporting priorities and the scale of change we can make together.

Here we explore UWTSD Group's environmental performance during the 2023/24 academic period. It provides a snapshot of the Groups Environmental Performance in line with the Group joint EMS and Environmental Policy commitments. Energy consumption and water consumption, waste and transport emissions are all summarised below.

Introduction

The UWTSD Group includes the University of Wales Trinity Saint David (UWTSD), Coleg Sir Gâr (CSG) and Coleg Ceredigion (CC). Together we form a dual sector educational institution. The Group has over 25,000 learners across 17 campuses in rural and city locations.

The scope of this report includes reaching campuses, spread across South and Mid-Wales, which offer a unique variety of learning environments. Additional services that can be found on our campuses include accommodation, catering and recreation services and, teaching, learning and research facilities. Some sites also include buildings partly let to external third parties. The Estates and Facilities Operations Directorate, supported by a range of external contractors, provide day-to-day building management. The Group undertakes procurement of a range of goods and services.

In July 2016 a joint decision between the University and the Colleges was made to merge the individual EMS's into a single Group EMS whose scope would cover all of the Group member organisations products, activities and services.

UWTSD Group commitment to Green Dragon and Sustainable Development

Through its joint Group Environmental Policy, we are committed to the operation of a combined Green Dragon Environmental Management System (EMS). The system is intended to:

- Manage the reduction of our environmental impacts and protect the environment.
- Maintain compliance with relevant legislation.
- Set and achieve environmental objectives to ensure continual improvement.

The Group will achieve these by following the key principles of the Green Dragon Environmental Management Standard:

- Continual Environmental Improvement
- Compliance with obligations
- Protection of the Environment
- Green House Gas Emission Management
- Communication of Environmental Issues

A dual sector Group comprising higher and further educational establishments (HE and FE); UWTSD is also committed to supporting programs and initiatives aimed at improving the awareness of environmental sustainability with staff and students.

Certification to Level 5 Green Dragon will help achieve these intended outcomes and demonstrates that the EMS is effective, providing value for the environment, the Group, and all its interested parties.

The EMS considers the environmental aspects and impacts associated with activities, products, and services to determine the greatest risks and opportunities to the Group. The risks and opportunities associated with the particular context in which the Group operates as well as the needs and expectations of stakeholders are also considered in line with Green Dragon requirements.

Over the coming years the Group intends to explore further methods of energy efficiency and to implement further initiatives to these ends.

UWTSD Group Environmental Policy

The Group Environmental Policy is made available to any 3rd party upon request. The Policy has now been reviewed and discussed as part of the management review meeting, has been approved and will be uploaded to the relevant Group member websites.

The main body of the policy is included here:

1.0 Introduction

The University of Wales Trinity Saint David Group, comprising the University, Coleg Sir Gar and Coleg Ceredigion, recognises that environmental sustainability issues are fundamental to the future health and wellbeing of all those involved across our operations, our wider communities and to the global climate emergency response.

The Group is committed to:

- embedding sustainability across our campuses, curriculum, and culture
- providing a stimulating, progressive and sustainable environment for learning, including
- full consideration of social, economic and environmental impacts and opportunities.

2.0 Strategy and Monitoring of Progress

Through its Strategic Plan 2023-25, the University of Wales Trinity Saint David (UWTSD) articulates its values of Sustainable Development and Global Citizenship:

Sustainable development, by behaving in a way which ensures that the needs of the present are met without compromising the ability of future generations to meet their own needs, and by systematically embedding this principle in our approach to teaching and learning.

The concept of global citizenship, through the development of multi-national activities and opportunities for our learners, staff, and partners.

Strategic Priority 4: A University for Wales provides Measures of Success linked to sustainable development agendas and commitments, linked to Welsh Government priorities:

- Incorporation of the Well-Being of Future Generations (Wales) Act 2015 goals and ways of working into the strategic planning of faculties and professional departments
- Implementation of sustainability commitments within Faculty and Departmental strategic plans
- Completion of curriculum audits to support wellbeing and sustainability commitments.
- Recording environmental sustainability data and carbon management plan information to underpin sustainable campus environments.

Key Performance Indicator 8 (Estates and Infrastructure) contains sustainability-linked measures which include: energy consumption, cost of core utilities, Scope 2 emissions.

Progress in relation to sustainable aims is monitored through annual strategic plan reporting and Key Performance Indicator Reporting provided to the Resources and Performance Committee and University Council.

3.0 Policy Aims

The Policy aims to proactively act in ways that raise awareness and encourage positive action through teaching, research, and other University activities to:

- reduce energy consumption and associated carbon equivalent emissions across the Group.
- reduce water consumption.
- maintain our commitment to pollution prevention, minimising controllable source fugitive emissions and complying with all relevant environmental legislation or sector best practice.
- build partnerships to share experience and knowledge of sustainability.
- improve resource efficiency using the waste hierarchy, including only procuring what is necessary, maximizing reuse and recycling and avoiding waste to landfill.
- continue to protect and manage our heritage buildings.
- reduce supply chain scope three carbon emission.
- identify opportunities to reduce the impact of business travel, commuting and delivery mileage, for example encouraging and promoting walking, cycling, public transport and car-sharing alongside other initiatives.
- adopt high environmental standards for planning the development of our campuses and construction and refurbishment projects.
- continually improve the Group's environmental performance as part of a single certified EMS.

2023/24 Management Review Outcome

The EMS undergoes an annual management review, where the senior management team are presented with a summary of the performance of the EMS. This review includes an overview of the following topics:

- a) Achievements and progress towards its environmental Objectives and Targets;
- b) Effectiveness of environmental monitoring;

- c) Conformance with compliance obligations;
- d) Changes to the context in which the organisation operates;
- e) Internal and external communications;
- f) Internal audits, the effectiveness of corrective and preventative actions;
- g) Actions from previous management reviews;
- h) Changes in identified risks, opportunities, and significant environmental aspects;
- i) strategic direction of the Group and other elements of the Groups activities to ensure compliance with EMS requirements.

Across the Group, historically the Management Review is undertaken by the Environmental Management Representatives. These representatives compile a report to review progress against the topics listed above. A summary of these findings, highlighting key change requirements, actions and good practice is then reported to the relevant body within each institution. This mechanism ensures that the findings of the management review, and therefore the performance of the EMS is effectively communicated to all levels of management throughout each organisation.

Environmental Objectives and Targets

Based on the assessment of our Environmental Aspects and Impacts and the wider EMS, the Group determines appropriate environmental objectives and targets. The UWTSD Group has now reviewed objectives and targets and aligned them across the constituent members. The opportunity has been taken to consolidate and simplify the Objectives and Targets, making them more relevant for all involved.

2023/ 2024 Objectives and Targets

Ref	Objective	Action(s)	Target	Responsibility	Comments/Progress
T01	Reduce energy consumption	Continue Rollout of LED Replacement Programme	August 2024	MG	Aberystwyth 85% complete Cardigan 85% complete
		Consider voltage optimisation	August 2024	MG	To commence following appointment of M&E Manager
		Replacement of boilers at Aberystwyth due to efficiency and age	August 2023	MG	Replaced August 2023
T02	Improve Renewable Solar Energy	Review efficiency performance of solar pv panels at Graig, Ammanford, Pibwrlwyd and Gelli Aur Campuses	August 2024	MG	This will be reviewed once new M&E has been appointed
T03	Reduce fleet miles impact and CO2 emissions	Online / virtual meetings held where possible	Ongoing	CH	Online meetings still held where possible
		Secure cycle storage planned at 7 campuses	April 2023	MG/ER	Complete
		Continue rollout of EV Charging points	April 2024	MG/ER	All in place, awaiting power supply
		Car salary sacrifice scheme to be introduced by HR in conjunction with Knowles fleet	September 2023	RJ	Complete Sep 2023
		Annual cycle to work scheme for 6 weeks beginning 9/10/23	October 2023	RP	Complete Nov 2023
T04	Reduce flooding impact at Gelli Aur Farm and Campus	Appoint specialist flood remediation consultant to carry out detailed appraisal of risk mitigation measures that can reduce impact of flooding to the site	August 2023	CH/KR/MG	Complete - August 2023
T05	Reduce impact of slurry leeching into watercourses	Slurry Project created seeking to remove water from the slurry to create solid product and make water suitable for reuse	Ongoing	HD	Established project that has NRW, Dwr Cymru WG and other support – project now in the next phase creating reed beds to filter water further and make it suitable for reuse on the farm

T07	Improve flood defences at Ammanford campus	College working with NRW to improve flood defences of River Lougher, which abuts campus boundary.	December 2023	MG/ER	Complete - October 2023
T08	Develop full decarbonisation strategy	Discussion with Carbon Trust and to develop long term action plan for the decarbonisation of all sites	August 2024	MG (M&E Manager)	Net Zero Carbon plan required for colleges and this will commence following appointment of M&E Manager
T09	Improve and develop environmental awareness and engagement with student body	Create strategic and operation procedures for the engagement of the student body in matter of environment and sustainability	August 2024	AC	A strategic environmental and sustainability group to be formed within the new College structure. Group will include learner representation (managed via Student Union).
T10	Consolidate operational procedures for Coleg Sir Gar and Coleg Ceredigion	To consolidate and streamline operational procedures to reflect joint management of college systems	May 2024	KR	All procedures to be reviewed
T11	Continuation of reduction in general waste and increase in recycling as per new Waste Separation requirements regulations	Work with waste contractor to increase the waste being recycled Ensure all necessary waste streams are in place ahead of April 2024 by initiating tender in conjunction with TSD.	April 2024	KR / MG / ER	Aug 22 - July 23 recycling at 83.47% showing year on year increase Meeting with LAS to discuss collections and waste streams (Oct 23) Waste bin tender closed as of Nov 23 and awaiting scoring of response in order to award contract
T12	Creation of Green Academy	BDI working to introduce "Green" courses	April 2024	JP / LD	https://www.gov.wales/colleges-are-boosting-their-green-skills-offer-construction-sector - March 2023 The Academy has since based itself at Gelli Aur Campus with plans to modify areas for further courses - Nov 2023
T13	Review of resource within the Estates Department	Review of Environmental Representatives includes appointment of H&S Manager and appointment of M&E Manager	Dec 2023	DT	Appointment of H&S Manager May 2022

					M&E Manager appointed to begin in January 2024.
T14	Environmental Awareness training for staff	iHasco online training to be rolled out to all staff as well as completion for new starters	April 2023	KR	Rolled out to all staff Feb 2023

2024/2025 Objectives and Targets

Ref	Objective	Action(s)	Target	Responsibility	Comments/Progress
T01	Closer Working	To have quarterly EMS meetings to ensure more collaboration across group	Ongoing	KM	
T02	Group EV charging policy	Collaboration for writing of group EV charging policy fit for purpose.	September 2025	DP/KM/KR	
T03	Reduce Utility Consumption	Investigate the potential for AI monitoring of utilities at CSG & CC	September 2025	DP/KR	
T04	Offer external accredited courses to staff	Continue to offer IEMA courses to staff.	Ongoing	Green Skills Academy	13 UWTSD staff on IEMA Sustainability skills for Managers 2 UWTSD Staff completed IEMA Certificate in Environmental Management
T05	CSG EV Fleet	Review EV Feasibility of CSG Trade Fleet	September 2025	DT	CSG to invite UWTSD trades team to discuss benefits and negatives of EV fleet.
T07	Compliance Manager Training	Increase number of staff trained in use of environmental compliance manager.	June 2025	KM	
T08	Inclusion of IICL in Green Dragon	Undertake quarterly internal audits and introduction meetings with IICL to include within scope of GD going forward	September 2025	DP/KM	

T09	Sustainability Training for Educator Partnership	Partnership between CSG and UWTSD on developing sustainability accreditation for education staff. Feasibility level	July 2025	Green Skills Academy	CSG to draft grant and submit, grant requirement for feasibility.
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Action Plan to assist in reaching above numerical targets

Energy & Carbon

- Continue to roll out of LED lighting schemes.
- Policy to replace defective existing light fittings with LED replacements implemented across the group.
- Look at boiler replacement programmes where savings can be identified and provide improved and more efficient plant and controls.
- Continue to monitor consumption data and look at areas where reductions in consumption can be made e.g. more efficient plant time scheduling.
- FGAS removal from air conditioning units and replaced with non FGAS refrigerants.
- Improved insulation within buildings

Waste

- Incorporate into tender documentation criteria for more efficient waste control and monitoring.
- provision of more recycling bins across the group
- providing more robust data on waste collection and streams from new waste contractor
- continue to educate and promote recycling aims and objectives across the student body.

Transport

- Look at how the recently introduced Hybrid vehicles across the college fleets impacts on reducing emissions and see how these can be expanded.
- Roll out of new more fuel-efficient modern minibus fleet across the FE group will reduce emissions.
- Provide additional electric charging points at strategic locations.
- Provide enhanced and improved teaching environment for learners following Motor & Vehicle Engineering in new vehicle fuel types such as electric and hybrid.

Training

- Provide awareness training and promotion of Environmental Awareness across the groups targeting individual sections or job roles as relevant e.g. Caretakers/Estates staff on waste collection and segregation.

Aspects and Impacts

Environmental aspects and impacts are identified through the EMS. Environmental aspects include activities undertaken by the Group that have the potential to interact with the environment. Impacts are the changes, positive or negative, to the environment associated with the aspects. These are assessed and ranked for significance.

Aspects and impacts are assessed jointly across the Group against criteria including:

- Operational condition, whether the aspect is planned or unplanned.
- The significance of the impacts calculated by assessing the consequences of the impact and the likelihood of it occurring.

- Whether any compliance requirements are linked to the aspect.
- The controls in place to mitigate the impacts of the aspect.

Following the identification and assessment of the aspects and impacts, aspects with the most significant impacts are highlighted. The most recent assessment, produced the following significant environmental aspects, with associated environmental impacts listed below:

Use of mains electricity

- Resource depletion through usage of electricity from fossil fuels.
- Indirect air pollution – greenhouse gas emission, particulates, and acid rain.

Use of mains gas

- Resource depletion through usage of gas from fossil fuels.
- Indirect air pollution – greenhouse gas emission, particulates, and acid rain.

Group Travel (Business)

- Resource depletion through usage of petrol and diesel produced from fossil fuels.
- Indirect air pollution – greenhouse gas emission, particulates, and acid rain.
- Local noise pollution.

Group Travel (Grey Fleet & commuting)

- Resource depletion through usage of diesel or petrol from fossil fuels.
- Indirect air pollution – greenhouse gas emission, particulates, and acid rain.
- Local noise pollution.

Procurement of goods and services

- Environmental impact associated with provision of service by contractor - energy used in provision, transport, embedded energy in materials etc.

Recycling of waste materials

- Waste reused/recycled where facilities exist.
- Energy used in reprocessing materials.
- Frequently positive impact where reprocessing has lower environmental impact than the use of virgin materials.

Water abstraction

- Resource depletion. Impact on the water table

Use of mains water

- Resource depletion, and water contamination.

Disposal of wastewater to foul sewer

- All wastewater sent to foul sewer and ultimately to treatment works.
- Possible pollution risk if unauthorised chemicals are poured down the drain.

Water flow to storm water drains/surface waters

- Pollution incident could occur if unauthorised chemicals are allowed to enter storm water or surface waters.

Flooding

- Damage to buildings and potential risk to the health and safety of staff.

Paper consumption

- Use of finite raw material. Environmental impacts of commercial timber plantations and clearance of native forests. Water and air pollution during manufacturing process.

The list of significant environmental aspects and impacts is used to form the basis of objectives and targets and to inform the Environmental Policy.

Environmental Performance

Total Greenhouse Gas (GHG) Emissions

For the purposes of consistency, we have normalised the environmental impact of the following performance indicators against carbon emissions. Whilst this does not capture the entire environmental impact of the individual aspects, it provides a consistent measure for annual changes in the size of the impact. The University financial year runs between 1st August and 31st July; therefore, we have also chosen this for our environmental reporting period. Although individual institutions do collect more granular data at an institution and site level, for the purposes of this report, all performance indicators have been aggregated to institution and group level. Due to the varied nature of data collection processes and the availability of data to each organisation in the past, some aspects may be reported to a different level of granularity between institutions.

UWTSD Group calculates carbon emissions using the UK Government GHG Conversion Factors for Company Reporting. The misalignment between emission factors based on calendar year and the academic calendar year used in the Group reporting is accounted for by applying the emission factor with greatest coverage of the academic financial year. For instance, for the academic year 2012/13, 2013 emission factors would be used as this covers January to July, inclusive, in 2013 and only August to December of 2012.

Group Emissions

The following chart provides an overview of Group total emissions.

Group Carbon Emissions	GHG Protocol Scope	2022/2023 (TCO2e)	2023/2024 (TCO2e)
Gas	Scope 1	2,473	2,141.1
Oil	Scope 1	2	117.3
LPG	Scope 1	0	.46
F-Gas	Scope 1	0	4.2
Fleet	Scope 1	234	393
Electricity	Scope 2	1,745	2,232.8
Water*	Scope 3	18.1	16.1

Electricity transmission and distribution losses	Scope 3	150	330
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Utility Management

Utilities are managed via the Operations Teams at each institution. The monitoring and targeting data is collected via combination of gas, water, oil, LPG and electricity bills and sub metering data. Bills are validated monthly to check for accuracy. Due to the financial controls applied during the validation of invoices and bills, a high level of confidence is provided by the utility data.

A range of projects to reduce utility consumption were introduced across the group. This includes a renewed focus on lighting and boiler replacements and upgrades. Behavioural change projects, including the Blackout have also contributed to savings. These advances have yielded a general reduction in consumption of utilities and the associated carbon emissions.

There have been changes to reporting of Greenhouse gas emissions due to use of the net zero reporting standard which has led to some variations in figures. However, this will lead to more accurate and consistent reporting moving forward.

2023/24 Carbon Emissions tCO2e					
Emissions tCO2e	Gas	Electricity	Water	Oil	Fleet
UWTSD	2,141.1	1,837.8	14.1	94.3	318
Coleg Sir Gar and Ceredigion	685	395	2	23	75
Total	2,141.1	2,232.8	16.1	117.3	393
2022/23 Carbon Emissions tCO2e					
Emissions tCO2e	Gas	Electricity	Water	Oil	Fleet
UWTSD	1,918	1,358	12.4	0.0	140
Coleg Sir Gar and Ceredigion	555	387	5.7	2	94
Total	2,473	1,745	18.1	2	234
2021/22 Carbon Emissions tCO2e					
Emissions tCO2e	Gas	Electricity	Water	Oil	Fleet
UWTSD	2,188.11	1,024	15	0.0	100
Coleg Sir Gar and Ceredigion	647	264	-	30.38	48
Total	2,835.11	1,288	15	30.38	148

Emissions and discharges

Fugitive F-Gas emissions from air conditioning and refrigeration units are harmful to the environment due to their high CO₂ equivalent values. The University and Colleges each compile this information and calculate the carbon equivalent emitted into the atmosphere annually. The Finance Team provide invoicing data from all air conditioning and refrigeration maintenance contractors. Invoices are checked for F-Gas replaced over the academic year in both AC and Refrigeration units, where additional gas has been added, this is assumed to be to replace escaped gases.

Management system

Performance of the environmental management system is monitored continually throughout the year. The University and Colleges use a variety of measures, including internal audits, management review

and other documentation reviews to assess performance of the system. The overview of this performance can be seen in the Management Review Summary elsewhere in this report.

Waste management

The University and Colleges have jointly procured waste management contracts. Waste management reports are received by the University and Colleges on a monthly basis, this data is then compiled and recorded for review against the invoices received. Due to the financial nature and high-cost risk associated with waste management, this data is regularly and thoroughly reviewed. This gives the Group a high level of confidence in the quality of waste management data.

Travel and transport

The Group has split travel and transport related emissions between Scope 1 and Scope 3 carbon emissions. This enables us to see the progress towards emissions reductions between our fleet and other business travel emissions.

Mitigation of pollution incidents

There were no significant pollution incidents at the Group during 2023/24.

Legal Compliance

UWTSD monitors all environmental issues relating to legal compliance. A Register of Environmental Legislation is kept and updated periodically with any new relevant legislation. Changes to working practices and legislation are communicated to all relevant staff and students. Regular environmental audits are undertaken to monitor compliance with environmental legislation.

Approved By:

Daniel Priddy

Head of Sustainability and Environment

16/12/2024

**Daniel
Priddy**

Digitally signed by
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