

National Assembly for Wales
Procurement and Sustainability team

Annual Environmental Report 2008 - 09



The National Assembly for Wales is the democratically elected body that represents the interests of Wales and its people, makes laws for Wales and holds the Welsh Government to account.

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Foreword

The Assembly Commission and Assembly Parliamentary Service strategy for the Third Assembly 2007 to 2011 has a strategy goal of:

“Working Sustainably”

“We will show leadership in how we manage our work and estate, and we aim to provide the highest achievable level of sustainability in both.

“We are committed to achieving environmental excellence and being an exemplar in environmental performance. The Green Dragon Environmental Management System provides the Commission with a systematic means to manage our environmental footprint and to continually improve our performance”.



Lorraine Barrett AM
Assembly Commissioner for the
Sustainable Assembly



Claire Clancy
Chief Executive & Clerk of the
Assembly

Introduction

Second Annual Environmental Report

This is the second Annual Report of the environmental performance of the National Assembly for Wales since the Government for Wales Act 2006 came into effect. This is the first report since we were successful in extending the system to cover all buildings within the estate. It currently does not incorporate the activities of the North Wales Office.

This report outlines our environmental performance and progress against the objectives and targets set for 2008-2009. It also identifies our significant environmental impacts and illustrates statistics to demonstrate our performance.

Since last year, the Assembly has strengthened its resources and the Sustainability team has developed a more robust management system and continues to review its environmental performance.

A programme of challenging environmental objectives and targets are set each year and are reviewed on a regular basis to ensure that as an organisation and in line with the expectation of Green Dragon at Level 5, we are continually improving.

To this end, we have focussed on raising awareness of Green Dragon through:

- the ongoing development of our intranet site which offers access to a range of environmental and best practice information for all our staff, and
- the promotion and enhancement of our work through the Green team, events, and promotional activities.

Specifically, we have taken big steps in developing the capture and monitoring of data in relation to our travel and overall performance which will allow us to establish a baseline for future reporting criteria. We continually strive to improve our performance and the commitment to reducing our environmental impact is second to none. We have set ourselves demanding carbon reduction targets and to achieve this we aim to become an exemplar in our environmental work and performance.

We acknowledge the support and assistance of others who have helped us including the Carbon Trust and ARENA Network.

Transfer of Responsibility

In May 2007, responsibility for managing the EMS passed from the Welsh Government to APS as a consequence of separation of the Legislative from the Executive under the Government of Wales Act 2006.

Baseline for the Future

For the period 2007/08, the performance against the Objectives and Targets were reported for Tŷ Hywel only in order to provide a comparison with earlier years. Data was nevertheless included for the Assembly Estate where possible including The Senedd and Pierhead Building. As this data was not comprehensive, particularly in terms of travel and actual meter readings for energy, it could not be used as the baseline year.

From here on in, it has been agreed that 2008/09 will be the **baseline year** for our Environmental Management System for reporting in respect of the whole estate due to improvements made in data collection. However, it should be noted that as data capture continues to improve, this may have an adverse impact on our future carbon footprint as we include more elements within it.

Compliance

No breaches of environmental legislation have been recorded during the period under review.

Environmental management system

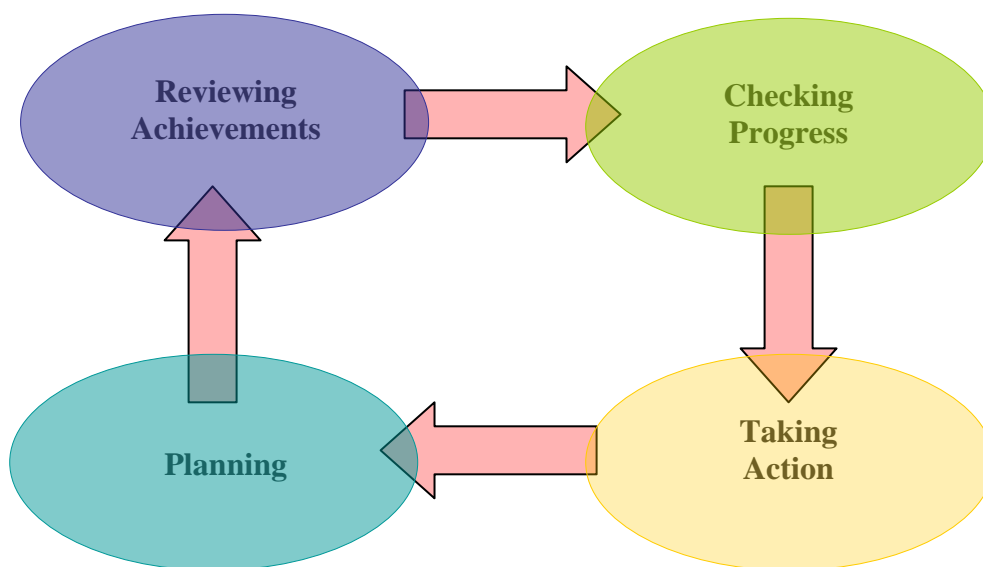
The National Assembly for Wales has adopted the Green Dragon Environmental Management System (EMS) as a means of systematically managing the environmental impacts of our business activities and ensuring that we make continuing improvements to our performance.

This is the first year that we have held the Level 5 formal accreditation for the whole estate.

The EMS reflects the key principles of the Green Dragon standard which are;

- Continuing Environmental Improvement,
- Compliance with Environmental Legislation,
- Prevention of Pollution and;
- Communication of Environmental Issues.

The EMS operates on the basis of these 4 key elements to ensure continual environmental improvement:



Monitoring of compliance with the EMS is undertaken via internal environmental audits. Any non-conformances or observations identified can be rectified with the appropriate actions.

The necessary EMS documents and procedures to ensure we continue to meet the requirements of the environmental standards at Level 5 are available on our intranet site:

Green Dragon system

Paper copies are also available to all members of staff from the Sustainability and Procurement team.

A copy of this report is available on our website [**www.assemblywales.org**](http://www.assemblywales.org)

Summary

This is the second report on the environmental performance of the National Assembly for Wales covering the period 2008-09.

The National Assembly for Wales Commission is responsible for ensuring that property, staff and services are provided for the efficient running of the National Assembly for Wales. The Assembly Parliamentary Service comprises the public servants who undertake work on behalf of the Commission.

The Assembly estate comprises buildings that are predominantly office-based and our environmental impacts result primarily from energy use for heating and cooling, the carbon footprint of our business travel and the consumption of resources such as paper and water.

Our priorities have been set by applying the corporate risk management framework to the identified environmental aspects of our activities. In considering risks we took into account the potential impact and probability of an occurrence in normal circumstances. We then considered the actions that were being taken to mitigate the risk and determined a residual level of risk from this. The residual risk was used to set our priorities.

The significant impacts that arose from this framework include energy consumption, waste including hazardous waste and recycling, transport impacts, water and the disposal of waste water and we continue to recognise the importance of other aspects including office activities, the use of paper, building management and procurement.

The organisation manages its Environmental Management System (EMS) through the Sustainability and Procurement team. In addition to the 3 buildings in the Cardiff Bay estate, National Assembly staff also work in our North Wales office. Over time, we hope to integrate this office into one overarching management system.

The report describes our performance against the Objectives and Targets set at the beginning of the financial year. Many objectives and targets have been met or exceeded and are documented [here](#).

Environmental policy statement 2009-10

The National Assembly for Wales Commission, through the Assembly Parliamentary Service, ensures the provision of the property, staff and services required for the effective functioning of the National Assembly for Wales. We will give due regard to the principle of promoting sustainable development and aim to be an exemplary organisation in terms of sustainability and environmental stewardship.

Our day-to-day operations have an impact on the environment, arising mainly through the consumption of resources (energy, water and paper), and the generation of waste.

We will minimise our environmental impact by consuming fewer non-renewable resources, reducing waste, recycling, preventing pollution and complying with all environmental legislation. In order to make continual year-on-year improvements we have set the following targets:

Building Management

- We will maintain Green Dragon Level 5 accreditation for the Assembly's estate.
- We will continue to improve our Building Management Systems.

Energy

- We will reduce the carbon "footprint" of our estate and business activities.
- We will reduce our energy consumption each year
- We will aim to improve the energy ratings of our buildings by at least one grade.

Waste

- We will reduce the level of waste sent to landfill from our estate.

Water

- We will reduce water consumption across the Assembly's estate.

Paper

- We will buy recycled paper or paper from certified managed forests.

Travel

- We will develop a sustainable travel plan and promote sustainable forms of travel to all employees.
- We will develop a carbon offsetting strategy for our air travel.

This policy statement will be reviewed annually. It will be made available to all staff of the National Assembly for Wales through our intranet site, will be contractually binding on suppliers who use our premises and will be made available to anyone on request.

We will maintain Action Plans which identify the specific actions necessary to deliver these objectives.

Lorraine Barrett AM

**Assembly Commissioner for the
Sustainable Assembly**

Claire Clancy

Chief Executive & Clerk of the Assembly

Management review

A management review of the full EMS takes place on an annual basis to ensure continued relevance and environmental improvements. The members of the board are supplied with the review for the year, the performance against the targets and objectives, the new targets and objectives for the coming year, reports on legal compliance and the environmental policy for approval.

The Review took place at management level and covered all areas of the estate. The revised environmental policy for 2009-10 was approved to include an emphasis on reducing the impact of our business travel. The environmental annual report was fully endorsed with the new objectives and targets in line with the expectations for the coming year.

The minutes and results of the management review can be found [here](#).

Environmental impacts

The activities relating to the operations carried out by the National Assembly have been identified in the environmental review. The activities which produce the most significant aspects and impacts are explained below. The significant environmental aspects were determined after applying an individual risk assessment using the corporate risk matrix adopted throughout the Assembly. The resultant direct and indirect impacts of these were documented.

Impacts arising from our business activity are set out in a Register of Environmental Aspects and include the consumption of resources, air and water pollution including the production of greenhouse gases and the impact of landfill either as a result of our activity or those of our contractors.

Environmental aspect	Environmental impact
Energy	
▶ the use of energy to heat and cool the buildings on the estate and to provide light.	▶ results in the depletion of natural resources, air emissions and increased greenhouse gas emissions.
Waste & hazardous waste	
▶ disposal of office waste, electric and electronic equipment, fluorescent tubes, packaging etc	▶ direct depletion of natural resources, waste to landfill resulting in greenhouse emissions, air and noise pollution
Transport	
▶ home to office travel, parking facilities, business travel and deliveries of goods/services.	▶ noise and air pollution, greenhouse gas emissions, water and land pollution and congestion.
Water	
▶ use of water in buildings, catering and dishwashing, toilets, heating and showers.	▶ results in depletion of natural resources
Office activities	
▶ use of printers, copying, paper used in publications, shredding and e-mails.	▶ results in resource depletion, potential water and air pollution.

Targets and objectives

The following summary outlines the targets and objectives for the period 2009-10 in line with our aim for continual improvement. These relate directly to the significant aspects outlined in the register of Environmental Impacts.

Objective	Target
▶ ensure continued environmental improvement across the estate.	▶ maintain Green Dragon Level 5 for the whole Assembly estate.
▶ monitor smart metering system to prioritise actions for minimising energy use.	▶ reduce energy use by 8% on the 2008/09 base line
▶ reduce the organisation's greenhouse gas emissions from travel	▶ reduce carbon dioxide emissions from business travel by 3% on the 2008/09 baseline
▶ reduce the amount of waste sent to landfill and increase recycling across the estate.	▶ reduce waste and increase recycling and create an accurate baseline by March 2011
▶ monitor utility bills and reduce the amount of water used across the estate	▶ reduce water usage and create an accurate baseline by March 2011.
▶ purchase all paper from either recycled sources or FSC accredited suppliers	▶ continue to purchase at least 95% of all paper from recycled sources or FSC accredited suppliers.
▶ ensure sustainable considerations are included in the procurement process	▶ ensure environmental impact assessment forms are completed for all projects over £25k by 31 st March 2010.

Review of performance 2008-09

(i). Energy

Although this is the second year of full reporting on the Assembly's performance, last year's illustrative data only accounted for historic comparison of Tŷ Hywel, as this was the only building included in the Green Dragon system at that time. Although, reference was made to data for the Pierhead and Senedd buildings, they could not form part of the comparison.

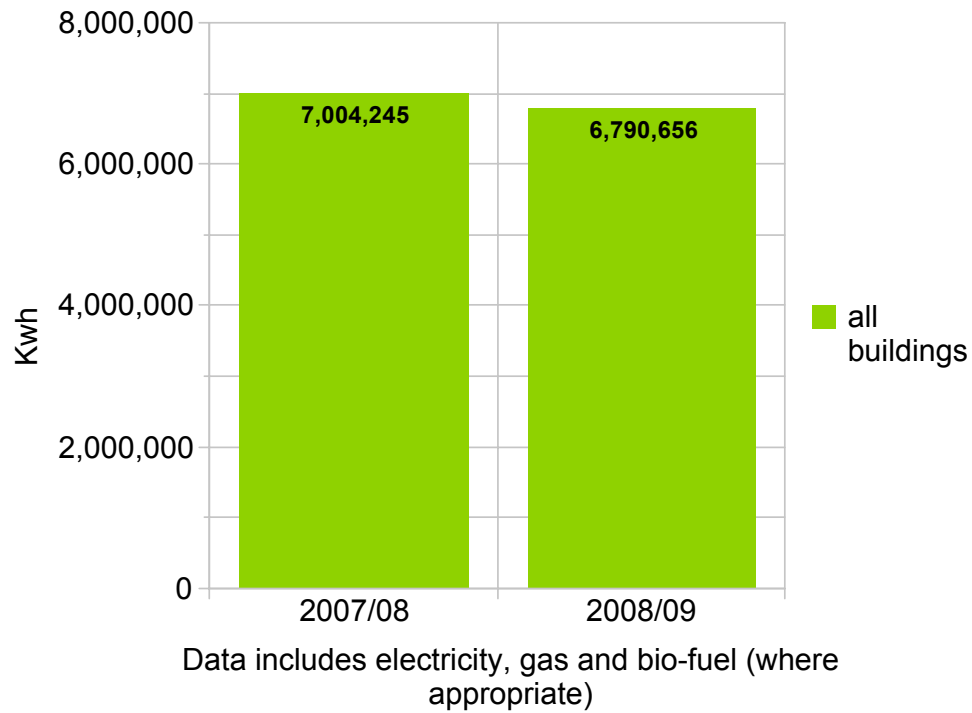
Following the successful extension of Green Dragon to the whole estate, this year's data features a year on year comparison of our performance, however the period of 2008-09 will form the baseline from here on due to the increased reliability of the data.

The Assembly uses energy for heating, cooling, lighting and powering equipment in offices.

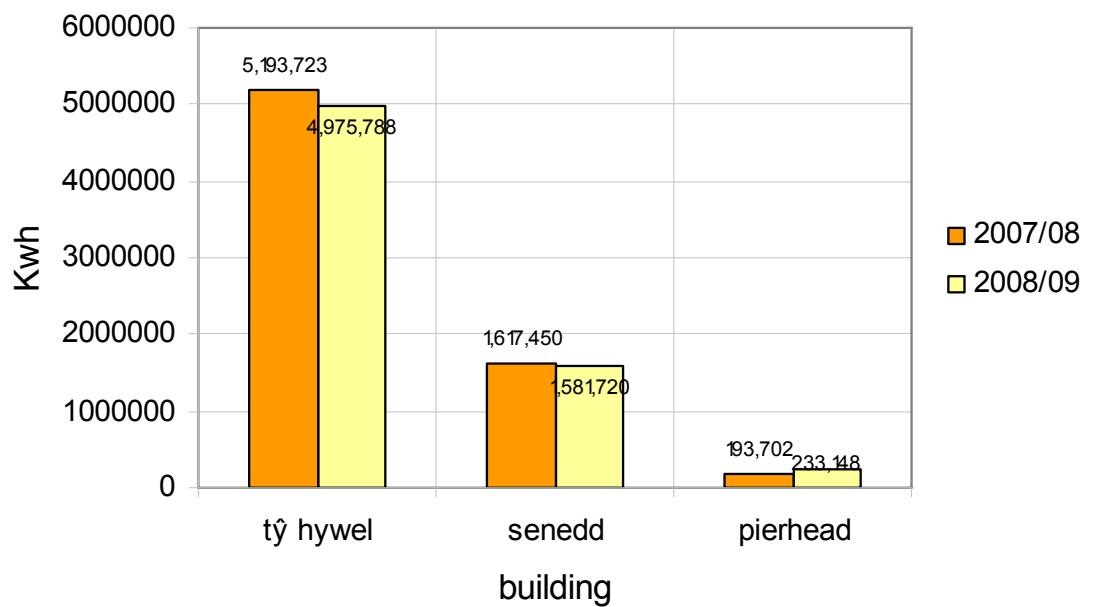
During the period of the report, **6,790,656kWh** of energy was consumed across the estate.

Whole estate	Tŷ Hywel	Senedd	Pierhead	kwh consumed
electricity	3,071,940	917,896	116,476	4,106,312
gas	1,903,848	300,420	116,672	2,320,940
bio fuel pellets	N/A	363,404	N/A	363,404
TOTAL	4,975,788	1,581,720	233,148	6,790,656

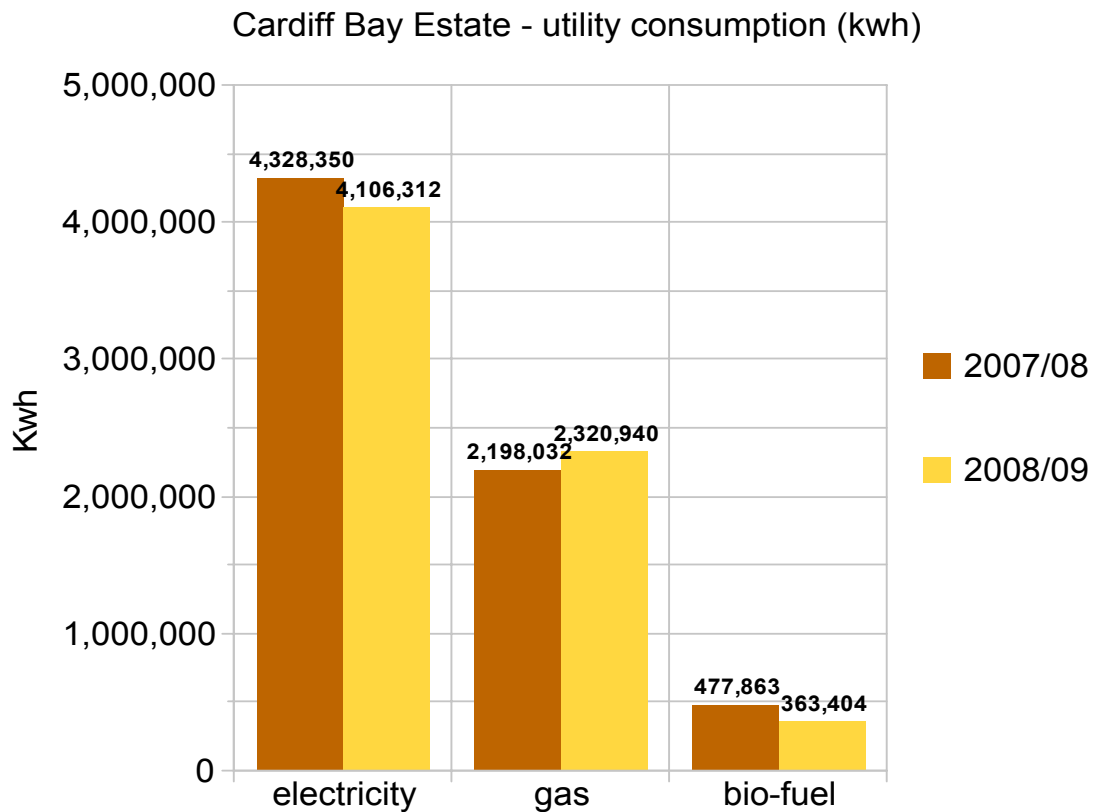
Cardiff Bay Estate - energy consumption (kwh)



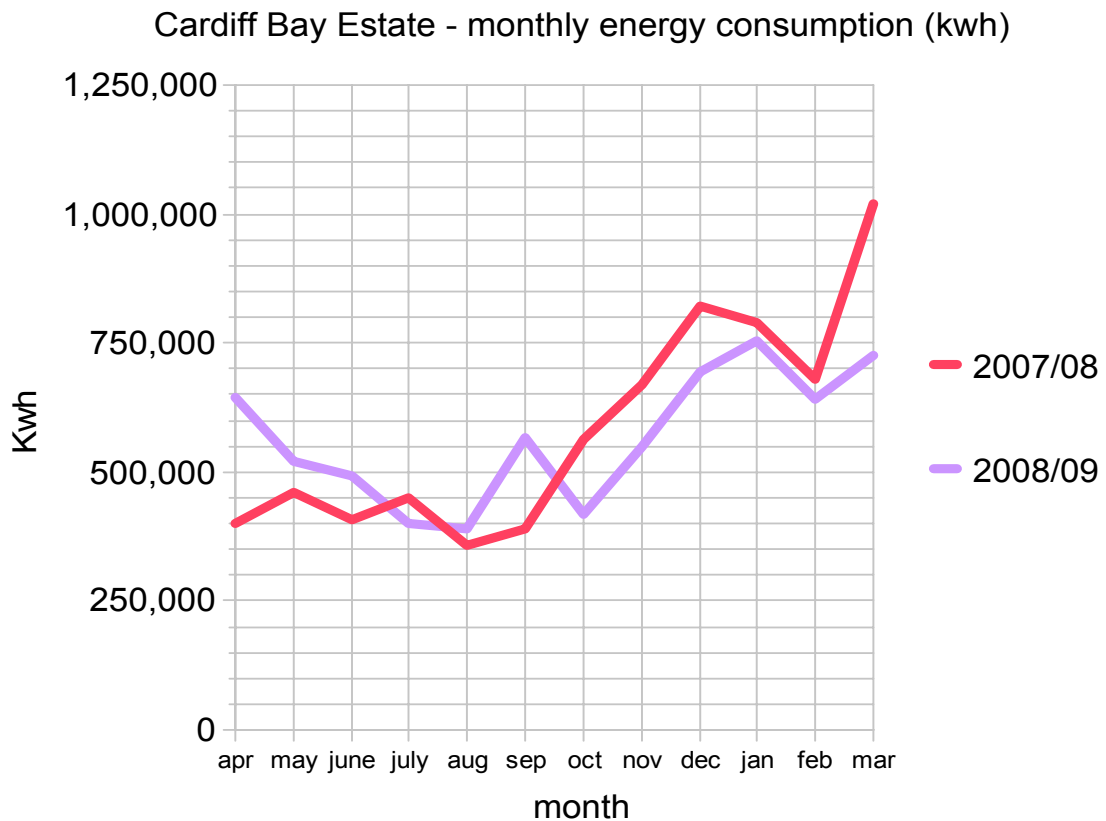
Building Energy Consumption



Overall energy consumption across the estate has decreased since last year by 213,589 Kwh or 3%.



Note: there was an increase in gas use across the estate and an uncharacteristic decrease in bio fuel due to the unavailability of a local bio fuel supplier which occurred during the cold winter months. As a result, gas was used to heat the buildings instead causing this rise.



(ii) Waste, hazardous waste and recycling

On the whole, the Assembly's waste and recycling is created from office based activities and catering materials. Throughout the year, there were ongoing issues with obtaining transfer notes and quantities of waste collected from our waste contractor. Therefore, this does not enable us to report on waste data for this period.

Whole estate			
	2006/07	2007/08	2008/09
Fluorescent light tubes (no.)*	0	1000	n/a
Toner Cartridges (no.)*	502	470	320 ¹
Paper (kg)	62345	65285	-
Cardboard (kg)	8980	8025	-
Plastic cups (kg)	960	9875	-
Plastic (kg)	410	485	-
Cooking Oil (litre)*	-	-	2500
Aluminium Cans (kg)	785	160	-
Glass (kg) (starts Oct 2007)	-	416	-
TOTAL RECYCLED (tonne)	73.5	84.2*	-
TOTAL LANDFILL (tonne)	37.0	44.0	-
TOTAL WASTE ARISING (tonnes)	110.5	128.2*	-
% RECYCLED	67%	69.28*	-

* Figure does not include

- light tubes (hazardous disposal)
- North Wales (relies on municipal recycling scheme)

¹ This figure only includes recycling from September onwards.

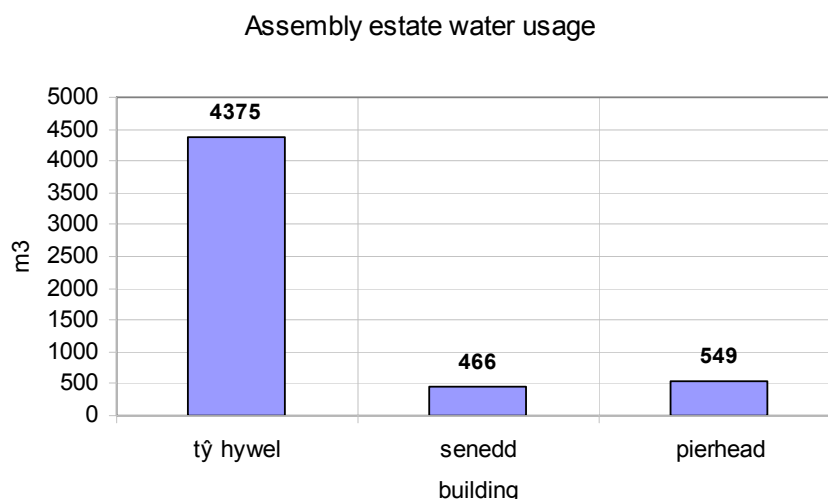
(iii). Water and waste water

During the year, some significant complications have come to light. Through the course of obtaining actual meter readings, it has transpired that the readings and payments for the Senedd have actually been from a water meter linked to a neighbouring site. This has been the case since the Senedd opened in 2006. Following technological searches around the site, it has been discovered that the water meter is buried underground and work is underway to retrieve it. Consequently, any data up until now can not be regarded as accurate and as such like for like comparisons are not possible. As a result, a water meter and account does not currently exist for the Senedd and a rebate for the payments made over the past 3 years will be sought. In fact, a baseline year for accurate reporting on water is unlikely to be achieved until the end of 2009/10.

In contrast, actual water readings have been submitted for Tŷ Hywel and the Pierhead, however the final water reading for Tŷ Hywel was extremely low. The reason for this is that on the 5th January 2009, the existing water meter was replaced with a new one. However, Welsh Water linked the new meter up to the Senedd account code in error instead of Tŷ Hywel's. The reading at the end of the year only covers the period 29th December – 5th January. Therefore, this data is not reliable enough to compare with previous years as overall consumption is not represented.

As a result of the above, the data illustrated below is for the reporting period only as comparisons would not be reliable or accurate.

During 2008-2009 a total of 5,880 cubic metres of water was consumed within the Assembly estate.



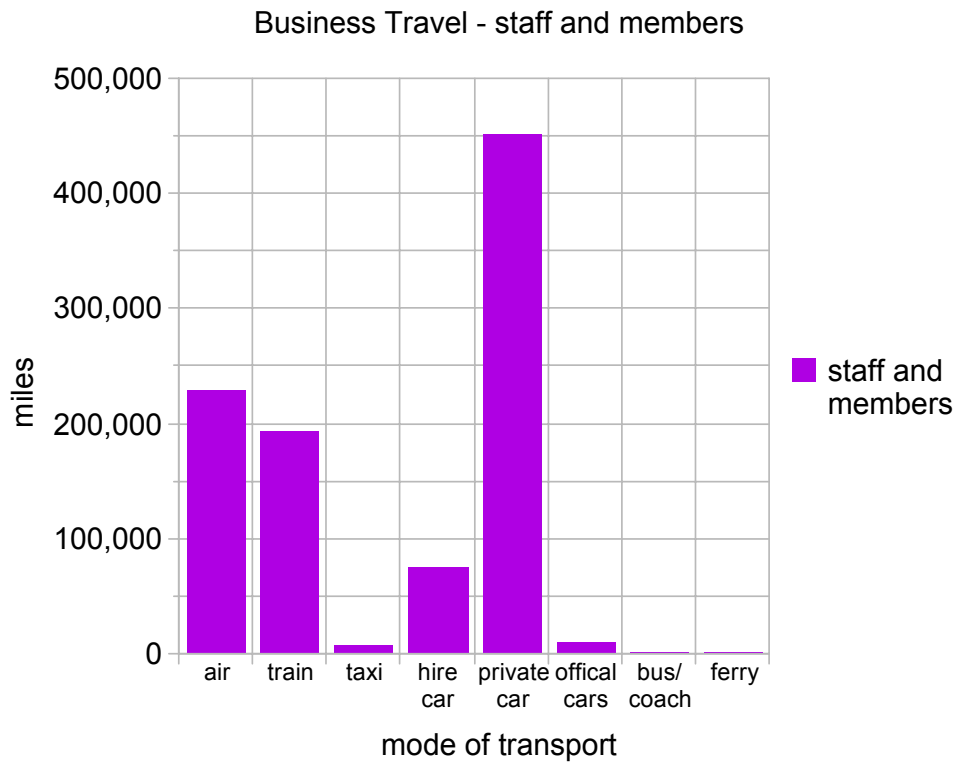
(iv). Transport

The acquisition of travel data for 2008/09 has improved significantly and we are making considerable inroads into reliable methods of collecting, analysing and managing data for travel. As such this is the first year that data is available for all travel modes and can be used for comparison purposes. Data reported last year on travel was not comprehensive and represented what was available at that time and as such can not be used in like for like comparisons. Therefore reporting for travel will be for 2008/09 only and this will form the baseline.

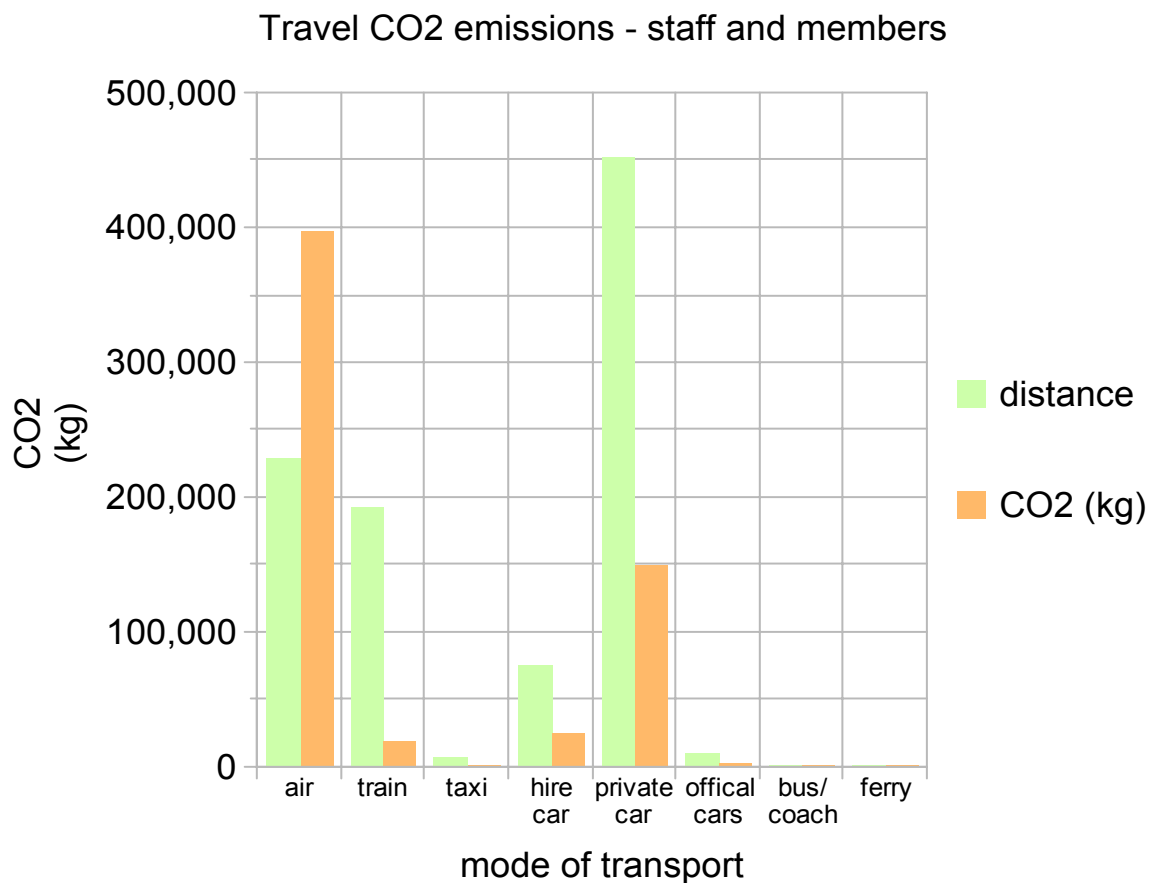
Staff and members travelled a total of 967,539 miles in 2008-09.

Business Travel

Mode of transport	Staff and members (miles)	CO2 (kg)
Air	228,588	397,307
Train	192,879	18,625
Taxi	7,275	1,865
Hire Car	75,066	24,772
Private car	452,177	149,218
Official car	10,000	3,300
Bus/Coach	394	27
Ferry	1160	241
TOTAL	967,539	595,355



Calculations illustrate that total travel emissions during 2008-2009 amounted to 595,355kg of CO₂ which is equivalent to 631 tonnes.



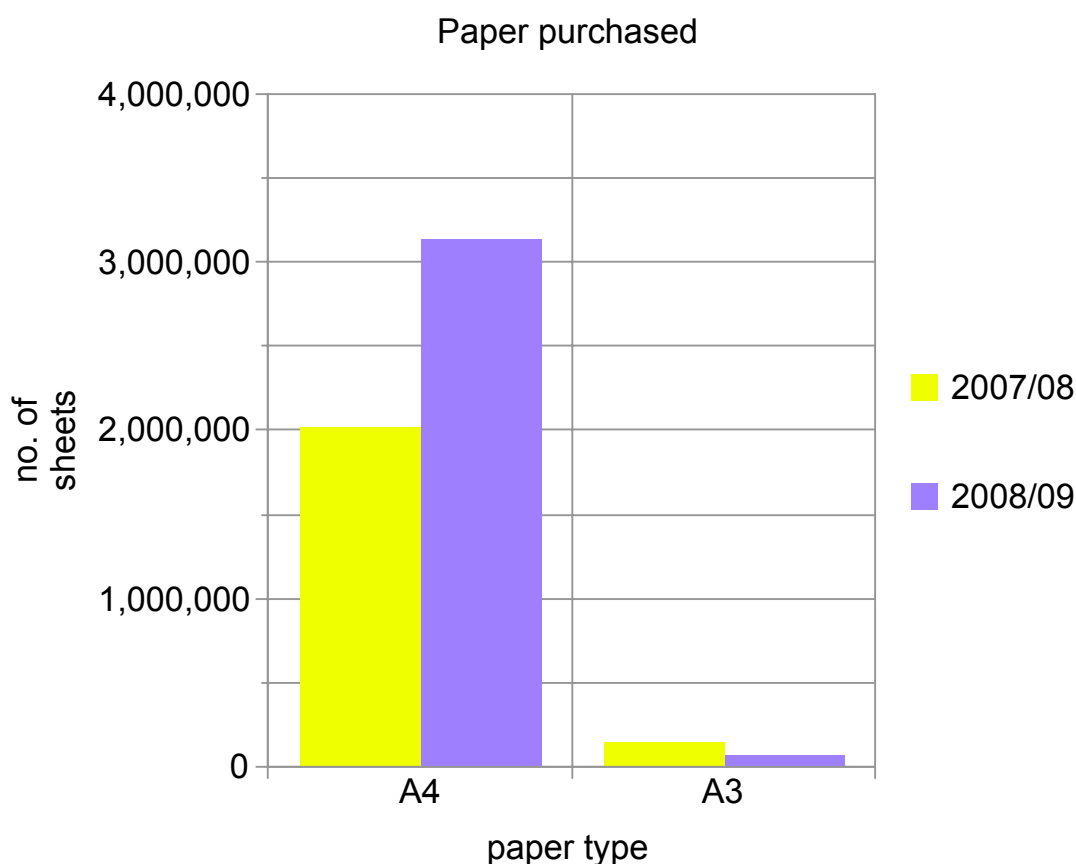
(v) Office Activities

Paper

During 2008-2009 the Assembly purchased 3,198,350 sheets of paper of which 95% was either purchased from recycled sources or from FSC accredited suppliers. Of this, 3,133,750 sheets were A4 size and 64,600 sheets were A3 size.

This represents a 1,025,400 sheet increase in paper usage throughout the year on 2007-08 and demonstrates a 32% increase in the percentage of recycled paper utilised. The reason for this sharp increase is purely intentional and involves the promotion of in-house printing where possible for all publications, leaflets and reports to reduce external printing costs and environmental impacts.

A sustainable procurement policy to minimise waste paper and to ensure that environmental criteria are built into paper-buying specifications forms the basis for the Assembly's paper usage. Efforts to reduce the use of paper in offices have been made by introducing double sided printing, storing more files electronically and raising awareness amongst staff.



(vi). Procurement

A re-appraisal using the Sustainable Procurement Assessment Framework (SPAF) was undertaken in March 09 and although we showed an improvement in both performance and overall scores throughout the year, our organisational overall level under the framework remains the same at Level 3 – Practicing Organisation. Some aspects of our performance resulted in Level 4 illustrating an enhanced performance in some areas therefore we only refer to this framework as a guide in respect of the ‘overall’ outcome it produces.

The actions that arise from the Sustainable Procurement Assessment Framework have been incorporated into the Green Dragon action plan. To further streamline processes, we have also transferred all the actions under the existing sustainable performance action plan into the Green Dragon action plan and this now exists as a stand alone system.

We have set 4 key priority actions for improvement:

1. Develop KPI and supplier performance monitoring system to include sustainability
2. Identify scope for all staff refresher training on sustainability
3. Ensure sustainability criteria are embedded into the commencement of every contract/project.
4. Supplier Event to communicate our strategy to suppliers.

We have created a draft environmental assessment tool for assessing the impact of new projects on the environment and this will be developed to include ‘staff friendly’ assessment tools for goods and services. It will be integrated at all levels with records maintained.

The development of the Pierhead has been monitored over the course of the project to ensure environmental impacts are minimised through contractor procurement choices and building management efficiency.

(vii). Building Management

Over the course of the year, we have taken big strides to improve the existing building management system. This includes the installation of a Smart Metering system in Tŷ Hywel linking all the meter readings directly to a stand alone software based system so we can measure real time energy readings and adjust settings according to remote peaks and troughs. We have also improved the toilet facilities

with the replacement of the existing poor performance hand dryers with Xelerator high performance, low energy hand dryers. PIR lighting is also continuing to be installed across Tŷ Hywel on a rolling programme.

(viii). Fire and Flood - emergencies

Operational control procedures are in place to prevent and mitigate the environmental impact of emergencies arising from fire or flood. These include a doubled skinned, bunded diesel tank, and spillage kits. There was one recorded spillage of diesel in the Assembly car park over the reporting period which was cleaned up in accordance with the guidelines.

Greenhouse gas emissions

The UK has agreed to reduce its greenhouse gas emissions in accordance with the Kyoto Protocol. The Assembly recognises that the burning of fossil fuels have a significant impact on the environment.

The total CO₂ emissions for 2008-09 were calculated from our buildings energy use, refrigerant leaks and our business travel mileage. Although the Assembly currently uses green electricity for the Pierhead building, it is recognised that it has to be counted on a standard tariff and cannot be offset against brown electricity and reported as zero emissions under guidance provided by Defra:

‘For the reporting year 2008-9, the guidance will outline that Government expects that for most green tariffs, businesses use a grid average rate to reflect the existing evidence that the additional carbon benefit of green tariffs is limited’.

Over the period under review, a total of 2,847 tonnes of CO₂ were emitted from the Assembly estate.

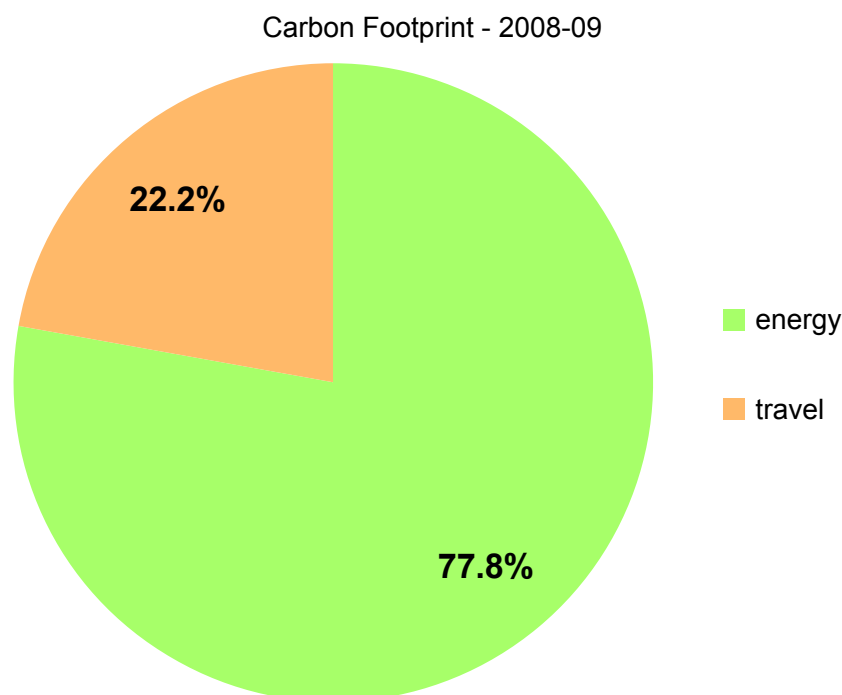
Aspect	Value	Unit of measurement	C02 (kg)	C02 (tonnes)
Electricity	4,106,312	kwh	1,765,714	1,766
Gas	2,320,940	kwh	440,979	441
Water	5,880	m ³	N/A	N/A
Biomass*	363,404	kwh	9,449	9
Air	367,877	km	397,307	433
Train	310,409	km	18,625	18.63
Taxi	11,707	km	1,865	1.865
Private car	452,177	miles	149,218	149.218
Official car	10,000	miles	3300	3.3
Bus/Coach	393.67	miles	27	0.027
Hire Car	75,066	miles	24,772	24.8
Ferry	1,867	Km	241	0.241
TOTAL			2,811,496	2,847

* Although burning biomass releases carbon dioxide into the atmosphere, this is offset by the carbon dioxide absorbed in the original growth of the biomass, or captured in the growth of new biomass to replace the materials used. It can be viewed as a form of stored solar energy which is captured by the organic matter as it grows. However, under the DEFRA reporting guidelines for GHG emissions factors, updated April 2008, an emissions conversion factor of 0.026 is included in SAP2005, Table 12. SAP2005 is adopted by government as part of the calculation for energy.

Carbon footprint

A carbon footprint is defined as ‘the total greenhouse gas emissions caused directly and indirectly by an individual, organisation, event or product’ Carbon Trust.

The above calculations represent the emissions data available to us at this time and we appreciate that the carbon footprint may increase as data capture improves and more elements are included. However, for 2008-09, the carbon footprint of the Assembly is represented as follows:



NOTE: there were no incidents of refrigerant leakage throughout the year, so they are not included in the carbon footprint graph above. However, they are always accounted for in calculating the overall footprint.

Pollution prevention and mitigation

There are formal procedures in place to prevent or mitigate any potentially polluting incidents. A full pollution prevention plan is available which identifies our principle pollution risks, and the measures and controls in place to mitigate the risk in the Environmental Manual and all appropriate staff are trained to handle any pollution incidents.

Environmental training

All new starters receive Environmental awareness training as part of their induction programme which includes information on the Green Dragon EMS. Environmental training is provided to key staff as needs arise.

Certain key staff involved in the Green Dragon management system have undertaken training in the following:

IEMA Foundation Certificate

IEMA Internal Environmental Auditing

Sustainability and Environmental Issues for Facilities Managers

Duty of Care

Staff from the Clear Skies and Green teams have attended various establishments including NERC (National Environmental Research Centre), CAT (Centre for Alternative Technology), ONS (Office of National Statistics), the Scottish parliament and other seminars on energy management and climate change.

Legal compliance

We have compiled and maintain a register of all legal requirements that relate to the operations and activities of the National Assembly for Wales estate. It is updated periodically via updates from ARENA Network and Netregs websites. The Sustainability Co-ordinator is responsible for updating the legislation register as and when required. We will continue to meet our Duty of Care responsibilities with regard to the disposal of waste, WEEE and hazardous materials and ensure we use licensed carriers and contractors and receive the appropriate transfer notes.

Proposed improvements in 2009-10

To meet the challenges that lay ahead, we will continue to improve our environmental performance in order to maintain Green Dragon Level 5 and aim to reduce our environmental impact via the following goals:

Proposed improvements

1. Maintain Green Dragon Level 5 for the Assembly estate and extend it to the North Wales Office by March 2010
2. Work in collaboration with the Carbon Trust to employ energy saving measures to reduce energy consumption by 8% on the 2008-09 baseline.
3. Introduce a Carbon offsetting program for air travel and investigate long term offsetting for the remaining footprint after reduction measures are employed.
4. Continue to collect, monitor and act upon travel data with emphasis on reducing private and hire car usage for business purposes.
5. Explore the scope for introducing a 'green' pool car as a sustainable option for business travel.
6. Set up an Inter-Parliamentary forum with all UK parliaments for networking opportunities.
7. Hold a 'sustainable suppliers' event for all Assembly contractors by March 2010.
8. Maintain collaboration with WAG on internal environmental audits and look for opportunities to work with other businesses.
9. Improve the energy ratings of all the buildings on the estate by at least one grade by March 2010 in accordance with the assessment criteria.

Acknowledgements

The Carbon Trust in collaboration with Arups are providing us with a detailed database of practical suggestions for reducing our energy usage and improving our buildings performance.

ARENA Network for their ongoing support and suggested improvements to our Environmental Management System to reflect the needs of the National Assembly for Wales.

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