

# Environmental Management System Annual Report 2016/17



# Environmental Management System

## Annual Report 2016/17

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# Environmental Management System

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### CEO's Statement

I am delighted to introduce the College's Annual Environmental Management System (EMS) Report for 2016-17 for Grŵp Llandrillo Menai.

The Grŵp has implemented a programme of environmental and sustainability initiatives over a period of years and I am pleased with the real progress that is being maintained across the college's operation.

The Grŵp is committed to maintaining Level 5 Green Dragon Environmental Standard (2016)

As CEO of the largest further education educational provider in Wales, I am committed to improving the Grŵp's environmental performance, tackling climate change as far as we can, and most importantly reducing the Grŵp's ecological impact.

Signed



Dafydd Evans

CEO Grŵp Llandrillo Menai

# Environmental Management System

## Annual Report 2016/17

### Executive Summary

This report presents the 2016-17 environmental performance of Grŵp Llandrillo Menai.

### *Key Findings*

In 2016-17, the Grŵp:

- Used a total of 13,186,763 kWh energy, a 0.9% reduction compared with 2015-2016. The total cost of energy was £1,032,913 an increase of £69,057 compared with 2015/16. This included;

An 0.5% increase in gas usage across the Grwp.  
A 3% decrease in electricity use across the Grwp.  
A 4% decrease in wood pellets for MBEC boiler  
A 5% increase in propane used at Glynllifon.

- Mileage for staff using fleet cars reduced by 26.2% whilst fleet minibus use decreased by 20.8%. Mileage increased by 1.8% for staff using their own private vehicle for College business to 1,071,294 miles. The cost of mileage for staff using their own vehicle for College business for 2016-17 was £463,094, an increase of £8,830.
- Generated 807 tonnes of waste of which 692 tonnes was recycled. The amount of waste generated across the Grŵp increased by 1% compared with 2015-16 and 86% of waste was recycled across the Grwp in 2016-17 the same as 2015-16.
- Consumed 45,687m<sup>3</sup> of water, which was a decrease of 17,640m<sup>3</sup> compared with 2015-16, a saving of £24,099.
- Used 12% less paper for printers and photocopiers compared with 2015-16.
- Produced a total of 553 tonnes of CO<sub>2</sub> equivalent emissions from livestock at Glynllifon.
- Produced a carbon gain of 3.2 tonnes of CO<sub>2</sub> equivalent emissions from tree planting at Glynllifon and energy from photovoltaic cells at the MBEC building at Rhos.
- Produced 5,011 tonnes of CO<sub>2</sub> equivalent emissions a reduction of 0.6% compared with 2015-16.

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- **Introduction**

In April 2012, Coleg Llandrillo, Coleg Meirion Dwyfor and Coleg Menai merged to form Grŵp Llandrillo Menai. The merger has created Wales' largest Further Education Institution and one of the largest FE college groups in the UK. The Grŵp employs 2,100 staff and delivers courses to around 34,000 students across four counties, Denbighshire (Rhyl and Denbigh), Conwy (Rhos and Abergele), Ynys Môn (Llangefni and Holyhead) and Gwynedd (Bangor, Dolgellau, Pwllheli, Glynllifon and Caernarfon).

The Grŵp aims to have as low an effect as possible on the local environment and encourages staff and students to support this mission. The Grŵp also aims to equip students to enter the workplace with an appreciation of environmental issues.

### **The Grŵp's Mission, Vision and Values**

#### **The Grŵp will**

**"Manage our services, resources and facilities in a sustainable manner"**

# Environmental Management System

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### SUSTAINABILITY AND ENVIRONMENTAL POLICY

Grŵp Llandrillo Menai was formed in April 2012 following the merger between Coleg Llandrillo, Coleg Menai and Coleg Meirion Dwyfor. The Grŵp has sites in Conwy, Denbighshire, Gwynedd and Anglesey with provision at a large number of community based venues. The Grŵp provides a wide range of education and training, both full and part-time, at Further and Higher Education levels and has approximately 2,100 staff and attracts about 34,000 students.

Grŵp Llandrillo Menai seeks to develop, amongst all its staff and students, an understanding of environmental and sustainability issues, both local and global, and an appreciation of the institution as an environmental agent.

#### **Objectives of the Policy:**

To make sustainability, environmental best practice and global citizenship part of every aspect of College life.

To ensure compliance with all relevant legislation and adopt policies which will contribute to a sustainable future.

To ensure the development and adoption of an environmental management system which prevents pollution and ensures continual improvement in the College's environmental performance.

To promote awareness of energy and water use amongst all members of the College and to improve the efficiency in use of these resources.

To reduce the consumption of materials where possible and to extend the life of materials where practicable.

To recycle or re-use materials where possible and to dispose of waste in the least environmentally damaging way.

To ensure that the College has a minimal negative effect on the local environment and makes a positive contribution to the local community and its environment.

To ensure that all students and College staff are aware of environmental issues and to provide a range of courses and training in relevant topics.

To ensure that all staff and students are aware of the environmental impacts of transport and to encourage the use of alternative forms of transport.

To monitor progress on a regular basis to identify areas for improvement.

Signed



Dafydd Evans  
(C.E.O.)

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# Environmental Management System

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### The Environmental Management System

The Grŵp's Environmental Management System is designed to ensure:

- Compliance with any relevant legislation
- Awareness of the Grŵp's environmental impacts
- The reduction of the impacts and continual improvement of performance.

The CEO has overall responsibility for the EMS, including the Environmental Policy and providing adequate resources for implementing and maintaining the system on a strategic basis.

A review of the EMS is carried out annually. The review addresses the following issues:

- A review of environmental performance
- A review of non-conformance and audit reports
- Confirmation of preventative actions
- A review of achievement against current objectives and targets
- Setting of new objectives and targets
- A review of the Environmental and Sustainability Policy, the Environmental Manual, Procedures and Work Instructions to check that they are still relevant to the overall policies and objectives of the Grŵp.
- A review of environmental training needs
- A review of significant aspects and impacts
- A review of the effectiveness of environmental projects undertaken by the Grŵp.

The necessary documents and procedures to ensure that the Grŵp continues to meet the requirements of the Green Dragon Environmental standard are available on the Grŵp intranet.

A copy of this report and further information on Coleg Llandrillo, Coleg Menai and Coleg Meirion Dwyfor is available on the Grŵp web site [www.gllm.ac.uk](http://www.gllm.ac.uk)

# Environmental Management System

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### Aspects and Impacts

The key activities relating to the Grŵp's operations have been identified within the environmental review. The activities which produce the most significant aspects and impacts include: use of electricity and gas, transport, use of paper, waste production and water.

The aspects and impacts significance are rated using a prioritisation matrix. A "traffic light" system has been developed to prioritise the impacts. A red indicates that the impact is significant, amber that the impact could become significant and green indicates that the impact is not deemed significant. These are recorded in the Aspects and Impacts Register.

The aspects and impacts that are identified as the most significant are selected for inclusion in the annual objectives and targets following an annual review.



# Environmental Management System

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### Review of Targets for 2016-17

- ❖ To reduce carbon dioxide emissions due to the use of electricity, based on the 2015-16 data:

The target set for the reduction of carbon emissions due to the use of electricity was a reduction of 1% at all sites.

There was an overall decrease in electricity use of 3% across the Grŵp; Coleg Llandrillo reduced electricity use by 5%; Coleg Menai reduced electricity use by 5%; electricity use at Coleg Meirion Dwyfor sites increased by 5%.

**The target was therefore met**

- ❖ To reduce carbon emissions due to the use of gas based on 2015-16 data

The target set for reduction of carbon emissions due to the use of gas was set at 5% for all sites.

There was an overall increase in gas use of 0.5% across the Grŵp; at Coleg Llandrillo sites, there was an increase of 1%, at Coleg Meirion Dwyfor sites an increase of 5% and at Coleg Menai sites a decrease of 2%.

**The target was therefore not met.**

- ❖ To reduce carbon emissions due to the use of LPG

The target set was to reduce the use of LPG at Glynllifon by 1% of the 2015-16 use

There was a 5% increase in the use of propane

**The target was therefore not met.**

- ❖ To reduce carbon emissions due to travel on Grŵp business.

The target was set to reduce miles travelled on Grŵp business by 1% of 2015-16 mileage.

Mileage for staff using their own private vehicle for College business increased by 1.8%.

Mileage of minibuses has decreased by 20.8% and the mileage for College fleet cars decreased by 26.2%.

Overall, the combined mileage for all vehicles decreased by 4.8%.

**The target was therefore met.**

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- ❖ To reduce carbon emissions due to travel to work

The target was to continue to promote the cycle to work scheme.

The cycle to work scheme is continually being promoted. Up until August 2017, 111 staff have joined the scheme, of which 15 joined the scheme in 2015-16.

**The target was therefore met.**

- ❖ To reduce carbon emissions due to travel to work

The target was to continue to promote the car-sharing scheme for staff and students and to undertake a survey of staff and student travel in 2016-17.

The Liftshare Scheme has continued to be promoted a survey of staff and student travel was undertaken in September 2017.

**The target was therefore met**

- ❖ To reduce the impact on resource depletion due to water use

The target set was to reduce water use by 1% of the 2015-16 data.

Across the Grŵp, there was an overall 28% decrease in water usage.

There was a 4% decrease in water usage at Llandrillo sites, 48% decrease at Meirion Dwyfor sites and a 10% increase at Menai sites.

**The target was therefore met.**

- ❖ To reduce the impact on resource depletion due to paper use

The target set was to reduce the quantity of paper used by 1% of the 2015-16 data.

There was a 12% decrease in paper usage throughout the Grŵp

**The target was therefore met.**

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- ❖ To reduce the impact on the use of resources due to the disposal of waste to landfill.

The target set was to increase the quantity of waste recycled to 99% of the total amount of waste produced at Coleg Llandrillo sites, to 55% of the Coleg Meirion Dwyfor sites and 95% at the Coleg Menai sites.

98% of waste was recycled at the Coleg Llandrillo sites.

47% of waste was recycled at Coleg Meirion Dwyfor

95% of waste was recycled at Coleg Menai

**The target was therefore not met.**

- ❖ To reduce the Grŵp's impact on climate change

The target set was to continue planting of hedgerow and mixed woodland trees by August 2017 and onwards

Hedgerow and tree planting is on-going at Glynllifon; tree planting has taken place in 2016/17 with 5,000 mixed trees planted over 2.5 hectares.

**The target was therefore met.**

- ❖ To increase the level of Environmental Awareness amongst staff

The target set was to carry out one to one and group Environmental Awareness talks within departments during 2016/17.

Environmental awareness talks were given to new staff throughout the Grwp in 2016/17.

**The target was therefore met.**

- ❖ To engage with and contribute to the local community

The target set for the Grŵp's learners to carry out at least 20 activities in which learners utilise their skills in their local community in 2016/17.

The Grŵp's learners carried out in excess of 20 activities.

**The target was therefore met.**

# Environmental Management System

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### Environmental Performance

#### Energy

##### 2016-17 Performance

##### Gas

	kWh		CO <sub>2</sub> (kg)	
	2015-16	2016-17	2015-16	2016-17
<b>Coleg Llandrillo</b>	2,688,163	2,725,532	497,238	504,150
	£68,816	£78,631	(12.8 kg CO <sub>2</sub> /m <sup>2</sup> )	(13.2kg CO <sub>2</sub> /m <sup>2</sup> )
	(69 kWh/m <sup>2</sup> )	(71 kWh/m <sup>2</sup> )		
<b>Coleg Meirion Dwyfor</b>	1,444,508	1,515,944	267,195	280,409
	£51,043	£55,702	(17.1kg CO <sub>2</sub> /m <sup>2</sup> )	(18.0 kg CO <sub>2</sub> /m <sup>2</sup> )
	(92 kWh/m <sup>2</sup> )	(97 kWh/m <sup>2</sup> )		
<b>Coleg Menai</b>	3,089,611	3,014,292	571,495	557,562
	£112,509	£117,960	(16.7kg CO <sub>2</sub> /m <sup>2</sup> )	(16.6kg CO <sub>2</sub> /m <sup>2</sup> )
	(90 kWh/m <sup>2</sup> )	(90 kWh/m <sup>2</sup> )		
<b>Total</b>	<b>7,222,282</b>	<b>7,255,768</b>	<b>1,335,928</b>	<b>1,342,121</b>
	<b>£232,368</b>	<b>£252,293</b>	<b>(15 kg CO<sub>2</sub>/m<sup>2</sup>)</b>	<b>(15.4 kg CO<sub>2</sub>/m<sup>2</sup>)</b>
	<b>(81 kWh/m<sup>2</sup>)</b>	<b>(83 kWh/m<sup>2</sup>)</b>		

Gas usage in 2016-17 increased by 1% at Llandrillo sites, 5% at Coleg Meirion Dwyfor Sites and decreased by 2% at Menai Sites. Overall, the gas usage increased by 0.5% across the Grŵp.

The increase in gas usage resulted in an additional cost of £19,925 compared with 2015/16.

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### Electricity

	kWh		CO <sub>2</sub> (kg)	
	2015-16	2016-17	2015-16	2016-17
Coleg Llandrillo	2,752,877 £331,601  (73 kWh/m <sup>2</sup> )	2,625,343 £358,539  (71 kWh/m <sup>2</sup> )	1,360,637  (36.1 kg CO <sub>2</sub> /m <sup>2</sup> )	1,297,602  (35 kg CO <sub>2</sub> /m <sup>2</sup> )
Coleg Meirion Dwyfor	970,349 £159,050  (47 kWh/m <sup>2</sup> )	1,028,091 £165,044  (50 kWh/m <sup>2</sup> )	479,605  (22 kg CO <sub>2</sub> /m <sup>2</sup> )	508,144  (23 kg CO <sub>2</sub> /m <sup>2</sup> )
Coleg Menai	1,805,079 £228,442  (53Wh/m <sup>2</sup> )	1,722,731 £246,369  (51 kWh/m <sup>2</sup> )	892,178  (26 kg CO <sub>2</sub> /m <sup>2</sup> )	851,477  (25 kg CO <sub>2</sub> /m <sup>2</sup> )
<b>Total</b>	<b>5,528,305</b> <b>£719,093</b>  <b>(60 kWh/m<sup>2</sup>)</b>	<b>5,376,165</b> <b>£769,952</b>  <b>(59 kWh/m<sup>2</sup>)</b>	<b>2,732,420</b>  <b>(30 kg CO<sub>2</sub>/m<sup>2</sup>)</b>	<b>2,657,223</b>  <b>29 kg CO<sub>2</sub>/m<sup>2</sup>)</b>

There was a reduction of electricity usage at the Llandrillo sites of 5%. At Meirion Dwyfor sites, the electricity usage increased by 6% and there was a decrease in electricity usage of 5% at the Menai sites.

Overall, across the Grŵp, there was an electricity usage reduction of 3% however, despite a saving in electricity there was an increase in cost of £50,554.

### Propane

Propane is used for heating and cooking at Glynllifon

	litres				CO <sub>2</sub> (kg)	
	2015-16		2016-17		2015-16	2016-17
<b>Glynllifon</b>	54,245	£12,793	56,694	£14,698	81,205	84,871

There was a 5% increase in the use of propane and an additional cost of £1,905 compared with 2015/16.

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### Wood Pellets

Wood pellets are used as the main source of heating in the MBEC building at the Rhos site.

	kWh				CO <sub>2</sub> (kg)	
	2015-16		2016-17		2015-16	2016-17
<b>MBEC</b>	177,812	£9,667	170,002	£7,379	2,099	2,012

There was a 4% decrease in the use of wood pellets with a saving of £2,288.

A gas boiler in MBEC is used for hot water during the warmer weather as this is more efficient than firing up the biomass boiler.

The teaching block at Glynllifon is heated by a wood chip boiler. The wood chip is harvested from the Grŵp's own forestry plantation and therefore students are involved in the growing and production of the heating material for their building.

The Energy Centre at Llangefni uses ground source energy for heating the building.

The UCCL Building at Rhos on Sea uses photovoltaic cells for energy.

Photo voltaic cells are installed on all new buildings on the Grŵp estate.

# Environmental Management System

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### Transport

#### 2016-17 Performance

##### Student Transport

The Grŵp together with Conwy, Denbighshire and Flintshire LEAs provides free transport for students under 18 who live more than three miles from the College site that they attend.

##### College Vehicles and Private Mileage

Mode of Transport	2015-16 (miles)	2016-17 (miles)	2015-16 (kgCO <sub>2</sub> e)	2016-17 (kgCO <sub>2</sub> e)
College fleet cars (Inc. small vans)	182,146	134,400	43,093	31,797
Minibuses (Inc. large vans)	207,701	164,400	77,043	60,981
Private vehicles (all Grwp)	1,071,294	1,091,008	276,908	282,004
<b>Total</b>	<b>1,461,141</b>	<b>1,389,808</b>	<b>397,044</b>	<b>374,782</b>

The figures show that the mileage for college fleet cars and small vans decreased by 26.2% and there was a 20.8% decrease in mileage of minibuses and large vans.

Mileage for staff using their own private vehicles for College business increased by 1.8%

Overall, the combined mileage for all vehicles decreased by 4.8%.

From September 2016 at the Rhos site, it was decided that in an effort to reduce mileage for College business that all departments would pay for their fleet vehicle usage from their own departmental budget. Departments were allocated an additional budget for this. This allowed managers to control how their budgets are spent and would decrease unnecessary travel. In anticipation of the reduction in mileage, the car fleet at Rhos was decreased. Following a review of the fleet in August 2017, the minibus fleet was decreased.

The cost of mileage for staff using their own vehicle for College business for 2016-17 was £463,094, and increase of £8,830 compared with 2015/16.

## **Environmental Management System Annual Report 2016/17**

Secure storage for bicycles is provided at all sites and a 10% discount for the purchase of bicycles has been negotiated with some retailers. To encourage staff to cycle to work the Grŵp has continued the cycle to work scheme. A total of 111 staff have signed up to this scheme since it began, 15 during 2016-17.

A car share scheme for staff was introduced in September 2014 for staff and was introduced to students in September 2015.

The Grŵp has negotiated a reduction in the cost of the weekly Arriva bus ticket for both staff and students.



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### Waste

#### 2016-17 Performance

Coleg Meirion Dwyfor and Coleg Menai employ mixed recycling; the waste at Coleg Llandrillo is separated into specific streams. There are differences between Local Authorities in how they dispose of general waste. All general waste generated at Gwynedd and Môn sites is sent to landfill whilst general waste generated at Conwy and Denbighshire sites is sorted further, hence recycle figures for Conwy and Denbighshire sites will be higher than Gwynedd and Môn.

#### Coleg Llandrillo Sites

	Total waste kg	Waste to landfill kg	Waste recycled kg	2016-2017 % waste recycled
Rhos	218,953	4,978	213,975	98%
Rhyl	85,612	1,649	83,963	98%
Abergele	8,104	191	7,913	98%
<b>Total</b>	<b>312,669</b>	<b>6,818</b>	<b>305,851</b>	<b>98%</b>

#### Coleg Menai Sites

	Total waste kg	Waste to landfill kg	Waste recycled kg	2016-2017 % waste recycled
Llangefni	231,537	9,678	221,859	96%
Holyhead	2,980	350	2,630	88%
Friars	11,961	382	11,579	97%
Parc Menai	18,341	839	17,502	95%
Bangor Main	47,691	1,031	46,660	98%
Caernarfon	3,690	2,393	1,297	35%
<b>Total</b>	<b>316,200</b>	<b>14,673</b>	<b>301,527</b>	<b>95%</b>

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#### Coleg Meirion Dwyfor Sites

	Total waste kg	Waste to landfill kg	Waste recycled kg	2015-2016 % waste recycled
Pwllheli (inc. Hafan)	41,359	23,735	17,624	43%
Glynllifon	60,910	40,271	20,639	42%
Dolgellau (inc. Marian Mawr)	76,030	30,107	45,923	58%
<b>Total</b>	<b>178,299</b>	<b>94,113</b>	<b>84,186</b>	<b>47%</b>

The percentage of waste recycled at Llandrillo sites remained at 98%, the same as 2015/16. At Menai sites, the percentage of waste recycled increased from 93% to 95% and at Meirion Dwyfor sites the percentage decreased from 50% to 47% compared with the previous year.

The total amount of waste generated at the Llandrillo sites decreased by 4%, although across the Grŵp, the amount of waste generated increased by 1% compared with 2015-16.

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### Glynllifon Farm Livestock

Livestock	Approx annual head count	2015-16 (kgCO <sub>2</sub> e)	Approx annual head count	2016-17 (kgCO <sub>2</sub> e)
	2015-16		2016-17	
Dairy Herd	270	320,454	350	415,403
Beef Herd	130	83,200	50	32,000
Pigs	250	21,696	500	43,392
Sheep	550	59,078	550	59,078
Lambs	12	248	16	331
Horses	10	3,190	10	3,190
<b>Total</b>		<b>487,866</b>		<b>553,394</b>

Emissions from livestock at Glynllifon totalled 553 tonnes.

### Glynllifon Tree Planting

Type of tree	Area (hectares)	2015-16 (kgCO <sub>2</sub> e) Gain	Area (hectares)	2016-17 (kgCO <sub>2</sub> e) Gain
	2015-16		2016-17	
<b>Hardwood/softwood</b>				
Hardwood	4	784	1.5	294
softwood	1	370	1	370
<b>Total</b>	<b>5</b>	<b>1,154</b>	<b>2.5</b>	<b>664</b>

At Glynllifon approximately 5,000 trees were planted over 5 hectares. Tree species include hardwoods; Sessile Oak, Cherry, Birch, Hazel, holly and softwoods; Sitka Spruce, Norway Spruce, Scots Pine and Alder. The carbon gain from tree planting equates to 664kgCO<sub>2</sub>e.

## **Environmental Management System Annual Report 2016/17**

### **Photovoltaic Cells 206/17**

Rhos Campus

#### **MBEC PV cells**

<b>KWh</b>	<b>2016-17 (kgCO<sub>2</sub>e) gain</b>	<b>£ Revenue</b>
<b>5,244</b>	<b>2,592</b>	<b>£2,438</b>

The MBEC PV Cells generated 5,244 KWh and produced an income of £2,438. This is the only PV panel which generates income for the College.

Further Annual Reports will record the energy gain for all panels as no readings are available for 2016.

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### Greenhouse Gas Emissions

#### 2016-17 Performance

Carbon dioxide emissions were calculated from the buildings' energy use, transport and livestock.

Aspect	Kg CO <sub>2</sub> 2015-16	Kg CO <sub>2</sub> 2016-17
Electricity	2,732,420	2,657,223
Gas	1,335,928	1,342,121
LPG	81,205	84,871
Wood pellets	2,099	2,012
Transport	397,044	374,782
Glynllifon Farm Livestock	487,866	553,394
Glynllifon Tree Planting Carbon gain	-1,154	-664
Photovoltaic Panels		-2,592
<b>Total</b>	<b>5,035,408</b>	<b>5,011,147</b>

The Carbon emissions for 2016-17 decreased by 0.5% compared with 2015-16.

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### Water

#### 2016-17 Performance

#### Coleg Llandrillo Sites

Site	2015-16		2016-17	
	Use (m <sup>3</sup> )	cost	Use (m <sup>3</sup> )	cost
Rhos	16,639	£49,730	13,264	£40,739
Rhyl	2,918	£9,315	3,012	£9,746
Denbigh	906	£2,737	781	£2,403
<b>Total</b>	<b>20,463</b>	<b>£61,782</b>	<b>17,057</b>	<b>£52,888</b>

There was an overall decrease of 17% in water usage at the Coleg Llandrillo sites, a saving of £8,894 compared with 2015/16.

#### Coleg Meirion Dwyfor Sites

Site	2015/16		2016/17	
	Use (m <sup>3</sup> )	cost	Use (m <sup>3</sup> )	cost
Dolgellau (inc. Marian Mawr)	3,156	£11,198	2,071	10,937
Pwllheli (inc. Hafan)	954	£3,638	924	£3,622
Glynllifon	28,053	£36,813	13,856	£18,516
<b>Total</b>	<b>32,163</b>	<b>£51,649</b>	<b>16,851</b>	<b>£33,075</b>

There was an overall decrease of 48% in water usage at the Coleg Meirion Dwyfor sites, a saving of £18,574 compared with 2015/16. The water usage at Glynllifon in 2015/16 was higher than usual due to a number of water leaks. The figures for 2016/17 show that the water leaks have been rectified.

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### Coleg Menai Sites

Site	2015-16		2016-17	
	Use (m <sup>3</sup> )	cost	Use (m <sup>3</sup> )	cost
Bangor	4,276	£14,475	3,845	£13,334
Llangefni	3,403	£11,348	4,786	£15,559
Parc Menai	1,064	£4,518	1,055	£4,339
Bangor Friars	1,122	£3,611	1,316	£4,215
Caernarfon	659	£2,844	675	£2,986
Holyhead	177	£623	102	£355
<b>Total</b>	<b>10,701</b>	<b>£37,419</b>	<b>11,779</b>	<b>£40,788</b>

There was an overall increase of 10% in water usage at Coleg Menai sites. A water leak caused by construction work at the Llangefni site was discovered and rectified which is reflected in these figures.

Across the Grŵp, there was a 28% decrease in water usage, a saving of £24,089 compared with 2015/16.

The MBEC and UCCL buildings at Rhos, PA@G at Glynllifon and the Technology Centre Llangefni use rainwater harvesting.

# Environmental Management System

## Annual Report 2016/17

### Paper

#### 2016-17 Performance

	Paper used (reams)	
	2015-16	2016-17
Llandrillo Sites	12,055	10,535
Meirion Dwyfor Sites	4,660	4,275
Menai Sites	7,030	6,100
<b>Total</b>	<b>23,745</b>	<b>20,910</b>

All Colleges have reduced their paper usage. There was a 12% decrease in paper usage throughout the Grŵp compared with 2015/16.

A student printer allowance continues to be in place and staff are advised of their own printing total each time they print a document. The printing default is set to double sided.

There are additional multifunctional devices throughout the Grŵp which are not limited. Departments are now ordering paper direct through Lyreco due to a change in procurement procedure.



# Environmental Management System

## Annual Report 2016/17

### Training and Awareness

#### *2016-17 Performance*

The SHE Manager, Environmental Co-ordinator and other trained staff provide general environmental awareness training to both staff and students.

All caretaking and catering staff have completed Spillage Training and COSHH training.

All new staff are given Environmental Awareness talks as part of their induction programme.

### Pollution Prevention

#### *2016-17 Performance*

A generic spillage response plan has been developed for sites where the risk of pollution from a spillage incident is assessed to be low. The Grŵp has developed Pollution Plans for Rhos, Rhyl, Glynllifon, Llangefni and Bangor and key staff have received training in dealing with spillages.

All areas maintain chemical inventories and store chemicals in bunded secure cabinets. Spill kits and spill absorbent materials are held at appropriate places.

### Supply Chain

#### *2016-17 Performance*

The Procurement Manager is responsible for addressing sustainability issues when awarding supply contracts.

All building contractors must be registered as Considerate Constructors. All sites registered with the Scheme are monitored by an experienced industry professional to assess their performance against the eight point Code of Considerate Practice, which includes the categories Considerate, Environment, Cleanliness, Good Neighbour, Respectful, Safe, Responsible and Accountable.

Under the environment section, the contractor must be aware of the environmental impact of the site and minimise, as far as possible, the effects of noise, light and air pollution. Efforts should be made to select and use local resources wherever possible. Attention should be paid to waste management; reduce, reuse and recycle materials where possible.

All contractors are required to attend a contractor's induction session, where they are made aware of the Grŵp's environmental concerns.

# Environmental Management System

## Annual Report 2016/17

### Legislation

#### *2016-17 Performance*

The Grŵp has prepared a Register of Legal Requirements, which identifies environmental legislation that is relevant to its operations.

The Environmental Co-ordinator updates the register when necessary, using a number of sources including updates from Croner, Tarian and IEMA. The Grŵp will continue to meet its Duty of Care when disposing of waste, by using licensed carriers and retaining transfer notes for the required time span.

### Audits

#### *2016-17 Performance*

The following audits were carried out in 2016-17

#### **February 2017**

Construction (Marian Mawr): Category: Satisfactory

Marine (Hafan): Category: Satisfactory

Pwllheli College: Category: Satisfactory

Arts and Ceramics (Dolgellau): Category: Satisfactory

Hairdressing and Beauty Therapy (Dolgellau): Category: Satisfactory

Catering (Dolgellau): Category: Satisfactory

Glynllifon PAG and Small Animal Care (Glynllifon): Category: Satisfactory

Farm (Glynllifon): Category: Satisfactory

#### **March 2017**

Catering (Rhos): category: satisfactory

# Environmental Management System

## Annual Report 2016/17

### Biodiversity

#### *2016-17 Performance*

Each site in the Grŵp has a unique environment. The Rhos campus has developed a wild life break along one of its borders and there is a designated conservation area adjacent to the recently built UCCL building; the Rhyl campus is next to a SSSI. Part of the Glynllifon campus is designated a SSSI and a Special Area of Conservation. Bat boxes have been put up in the woods on site. Llangefni (Pencraig) is bordered by farmland.

The Grŵp has maintained the wet land area at the Rhos site. The Independent Learning students have taken charge of the pond area and are maintaining the area.

Hedgerows and trees have been planted at Glynllifon.

The Grŵp aims to increase the biodiversity of its sites where possible.

### Renewables

#### *2016-17 Performance*

The Renewable Technology Unit is based at Rhos and at Llangefni. The available technology includes:

Photovoltaic cells, solar water heating and wind turbines.

The MBEC building utilises solar power for electricity production and water heating.

The UCCL building at Rhos campus and Canolfan Cefni at the Llangefni campus both use solar panels for energy production.

The PA@G building at Glynllifon utilises solar power for electricity production and a woodchip boiler is used for heating the building.

The Technology building at Llangefni uses ground source heating, and solar panels for energy.

# Environmental Management System

## Annual Report 2016/17

### Community

#### *2016-17 Performance*

The Grŵp encourages students to take part in Community activities. In 2016-17, these activities have included:

#### **Coleg Menai**

1. Pontio 1 Group, Skills for Life and Work Department held several stalls selling their own handmade crafts throughout 2016/17 for Mind Môn a Gwynedd.
2. Anglesey singer/songwriter Daf Jones busked at Coleg Menai's Bangor and Llangefni Campuses to raise money for Mind Môn a Gwynedd.
3. Hair & Beauty students in Bangor took over a pop up shop in the Deiniol Centre in Bangor, offering treatments and a raffle, all to raise money for Mind Môn a Gwynedd.
4. Automotive and Welding department sold Welsh dragons and offered Winter Vehicle checks and raised £387 for Mind Môn a Gwynedd.
5. Business students held a cake stall in reception to raise money for Mind Môn a Gwynedd.
6. The Student Union President held a raffle at Bangor reception with the help of our Business students.
7. Business students dressed up all Christmassy and went around Bangor campus with collection tins to raise money for Mind Môn a Gwynedd.
8. Tourism students assisted with cutting rhododendrons and cleaning up Parc Padarn in Llanberis

#### **Coleg Meirion Dwyfor**

9. Life and Work Skills department arranged a 'Garden Tea' Party at Dolgellau campus for Barbara Gwynedd and Mind Môn a Gwynedd.
10. The Student Union President at CMD for 2016/17 held a quiz and a gig in the Pwllheli canteen to raise money for Mind Môn a Gwynedd.
11. Pwllheli campus held a readathon in the Library to raise money for Mind Môn a Gwynedd.

## Environmental Management System

### Annual Report 2016/17

#### Coleg Llandrillo

12. BTEC Level 3 Art & Design students sold their hand crafted Christmas items to raise money for Mind Aberconwy
13. Performing Arts Department held a Christmas Show in December with proceeds going to Mind Aberconwy
14. Performing Art students did a flash mob in the canteen and reception area to raise awareness of our local mind charities and helped us raise money for Mind Aberconwy.
15. Hair & Beauty students in Rhyl helped raise money for Mind Vale of Clwyd by offering hand and nail treatments for donations in Rhyl reception.
16. The Student Union President the Higher Education Officer held a raffle at Rhos campus to raise money for Mind Aberconwy.
17. Pathway Construction learners were involved in construction related maintenance at Gwrych Castle Trust, Abergele.
18. Pathway Construction learners undertook maintenance work were involved in construction related maintenance at Marble Church, Bodelwyddan
19. Pathway Construction learners were involved in construction related maintenance at Mochdre Sports Association.

#### Grŵp Llandrillo Menai

20. Staff and Students across the Grŵp wore their Christmas jumpers to college/work in December with all proceeds going to Mind Môn a Gwynedd, Mind Aberconwy and Mind Vale of Clwyd.
21. A pancake flipping competition took part across campuses to raise money for Mind Môn a Gwynedd, Mind Aberconwy and Mind Vale of Clwyd.

# Environmental Management System

## Annual Report 2016/17

### Environmental Focus Group

#### *2016-17 Performance*

Regular meetings are held of the cross network Environmental Focus Group, which is chaired by the Executive Director Corporate Services. This group reviews environmental issues and elicits support for behavioural changes at all sites.

The Environmental Focus Group reports to the SHE Committee.

### Communications

#### *2016-17 Performance*

Communication is an important part of the EMS. 'Y Llais' is a monthly newsletter emailed to all staff. Regular environmental items feature in the newsletter. An Environmental Handbook, which outline environmental issues at the Grŵp, reports on the previous year's results and suggests how staff can help improve the Grŵp's performance.

It is considered essential to include students in the decision making and there is student representation on the SHE Committee and the Environmental Focus Group.

Environmental awareness talks are given throughout the year to departments by the Environmental Co-ordinator.

New staff are given environmental awareness training at induction.

### Future Goals

The Grŵp will continue to meet the requirements of Level 5 Green Dragon Standard.

The Grŵp will continue to reduce its environmental impacts and will continue to improve its environmental performance

The Grŵp will continue to encourage its students to appreciate their environment and to take part in environmental projects.

# Environmental Management System

## Annual Report 2016/17

### Objectives and Targets 2017-18

- Objective: To reduce carbon emissions due to the use of electricity
- Target: To reduce the use of electricity by 1% based on 2016-17 data
- 
- Objective: To reduce carbon dioxide emissions due to the use of gas.
- Target: To reduce the use of gas by 3% at all sites based on 2016-17 data
- 
- Objective: To reduce carbon emissions due to the use of LPG
- Target: To reduce to the use of LPG at Glynllifon by 1% based on 2016-17 data
- 
- Objective: To reduce carbon emissions due to travel on Grŵp business
- Target: To reduce miles travelled on Grŵp business by 1% of 2016-17 mileage.
- 
- Objective: To reduce carbon emissions due to travel to work
- Target: To continue to promote the cycle to work scheme.
- 
- Objective: To reduce carbon emissions due to travel to work
- Target: To continue to promote the car-sharing scheme for staff and students.
- 
- Objective: To reduce the Grŵp's impact on resource use
- Target: To reduce the amount of water used by 1% based on 2016-17 data

## Environmental Management System

### Annual Report 2016/17

Objective: To reduce the Grŵp's impact on the use of resources

Target: To reduce the quantity of paper used by 1% based on the 2016-17 data

Objective: To reduce the Grŵp's impact on resource use.

Target: To increase the quantity of waste recycled to 99% of the total amount of waste produced at the Coleg Llandrillo sites, to 55% at the Coleg Meirion Dwyfor sites and 96% at Coleg Menai sites.

Objective: To reduce the Grŵp's impact on climate change

Target: To continue planting of hedgerow and mixed woodland trees by Aug 2018 and onwards.

Objective: To increase the level of Environmental Awareness amongst staff

Target: To carry out one to one and group Environmental Awareness talks within departments.

Objective: To engage with and contribute to the local community.

Target: Grŵp's learners to carry out at least 25 activities in which learners utilise their skills in their local community in 2017-18.

Objective: To reduce the Grŵp's impact on climate change

To reduce Greenhouse Gas Emissions from the buildings' energy use, transport and livestock by 5% based on the 2016/17 data.