

Sustainability Report

In accordance with HM Treasury Public Sector annual reporting the Health Board is required to publish data in relation to key sustainability metrics including but not limited to; utilities consumption, waste production and Environmental Management. The following submission is in accordance with the HMT guidance issued March 2016. All CO₂ conversion factors are as per the UK Government Greenhouse gas reporting - Conversion factors 2016 except specialist Clinical Waste CO₂ conversion factors sourced from the Health Boards Clinical Waste Contractor.

ABMU Health Board is responsible for 60 sites including 4 Acute Hospitals, 6 Community Hospitals and the remainder being comprised of Clinics, Health Centres Learning Disability Units and three associated support buildings without direct patient access including Head Quarters and Central Laundry.

The Total land occupied by the Health Board equals 104 hectares. With buildings totalling a gross internal floor area of 349,809 M².

Environmental Management Governance

In 2015 /16 Professor Andrew Davies (ABMU Health Board Chairman) established an Environmental Committee within the Health Board. The Annual Environmental Management report is submitted to the Environmental Committee and subsequently forwarded to the Health Board Executive Committee via the Chairman.

The Environmental Committee is responsible for identifying and ensuring that policies and strategies are in place to meet the Health Boards corporate objectives with regard to environmental management. All nine ABMU sites that require ISO14001 accreditation have successfully retained their accreditation in 2018/19. The Health Board transitioned to the 2015 version of the ISO 14001 Standard during its May 2018 audit.

Environmental Targets - The following targets on Waste, Electricity, and Gas & Water for 2018/19 had been set as part on the Health Boards Environmental Objectives:

Waste Target:

To Increase recycling / recovery by 4.5%

Outcome:

The re-used / recycled volume increased by 16.99% (99 Tonne) while overall waste volume reduced by 8.64% (458 Tonne) in-line with Health Board Waste Strategy targets. A cost reduction of £437,230.00 compared to 2016/17 has also been achieved.

Electricity Target:

To reduce electricity consumption by 1%

Outcome:

The Electricity consumption increased by 0.9% whilst this is greater than target, it is a reduction in last year's outturn that saw a 6% growth in usage. The increase is largely attributable to high use of medical equipment.

Gas Target:

To reduce gas consumption by 1%

Outcome:

The Gas consumption decreased by 7.4% the majority of this figure is attributed to the large boilers in Cefn Coed being removed, and active monitoring of all sites consumption trends with new "Building Management Systems" equipment at Singleton and Princes of Wales Hospitals.

Water Target:

Reduce water consumed by 1%

Outcome:

The Water consumption decreased by 11%. There has been a number of leaks repaired and the switch off the large boilers in Cefn Coed.

Sustainable Development

The Health Board is fully committed to reducing its carbon footprint and in previous years achieved and retained ISO14001:2015 accreditation for its Environmental Management systems at all of its hospitals. This demonstrates a commitment to achieving legal and regulatory compliance to regulators and government.

A carbon Reduction Strategy approved in 2016 by the Environment Committee, continues to co-ordinate the Health Boards corporate responsibilities and ten year vision regarding Carbon reduction. The Vision identifies six areas for action within the Health Board.

- Buildings without Carbon
- Journeys without Carbon
- Waste Without Carbon
- Procurement without Carbon
- Culture without Carbon
- Future without Carbon

Associated targets and KPIs have been developed and are monitored by the Environment Committee.

Policy & Procedures

The Health Board has revised its Environmental Policy in 2018, this included updating the ISO 14001 Environmental Management Systems Control Procedures manual.

Greenhouse Gas Emissions

Greenhouse Gas Emissions		2016 -17	2017 -18	2018 -19
Non-Financial Indicators (1,000t CO2e)	Total Gross Emissions	40	40	34.2
	Gross Emissions Scope 1 (direct) - (Fuel Oil)	0.09	0.17	0.18
	Gross Emissions Scope 1 (direct) - (Gas)	18.29	17.32	16.04
	Gross Emissions Scope 1 (direct) - (Owned Transport)	0.59	0.41	0.36
	Gross Emissions Scope 2 (indirect) - (Purchased Electric)	19.25	20.32	15.17
	Gross Emissions Scope 3 (Other indirect) - (Business Travel)	1.66	1.79	2.34
	Gross Emissions Scope 3 (Other indirect) – Waste	0.176	0.156	0.136
Related Energy Consumption (million kWh)	Electricity: Total Consumed	47	49	49.8
	Electricity: Self Generated (PV)	0.049	0.083	0.085
	Gas	99	94	87.4
	LPG	0	0	0
	Other (oil)	0.33	0.6	0.6
Financial Indicators (£million)	Expenditure on Energy ex VAT	7.33	7.41	8.21
	CRC License Expenditure (2010 onwards)	£649,360	£580,117	Purchase will be retrospective estimate £521,845
	Expenditure on accredited offsets (e.g.GCOF)	0	0	0
	Expenditure on official Travel	2.8	2.78	3.29

Energy

Gas consumption reduced by 7.4% this was largely due to site rationalisation and the removal of the boiler plant at the Cefn Coed hospital site. The Building Management System Project, introduced to help regulate the use of energy over a range of equipment at the Princess of Wales and Singleton Hospitals come to an end. This project has provided improved control of temperatures within the hospitals during the summer of 2018/19 along with a reduction in gas consumption and associated CO² production.

New burners for the Singleton Hospital Boilers were installed during the summer and commissioned in October of 2018. They provide greater efficiency which has contributed to the reduced gas consumption.

The Health Board continues to purchase 100% renewable electricity, for which it pay Renewable Source Energy levies.

The Health Board has progressed The “ReFIT - Green Growth” loans via Welsh Government. The Green Growth fund allows the Health Board to

borrow money to fund carbon-reducing schemes. It's a two year programme of work allowing potential expenditure of upto ten million pounds for demand side energy conservation measures. The Green Growth Fund will be reimbursed from the energy savings made.

Work with Welsh Government ReFfit Cymru scheme has progressed and Contractor (Vital) appointed as of 5th December 2018

Investment Grade surveys commenced in

January 2019 – with a view to developing Energy Conservation measures to the value of ten million Pounds, budget payback of 6 – 8 years which would equate to about c.£1.8m of efficiency (inflated at 4 %) and 3,500 Tonnes CO² savings per annum.

Solar Farm

Separately, again under the ReFIT programme, the Health Board has assessed the viability of a building of a 5 megawatt Solar farm on third party land. The Health Board is currently in negotiation with the landowner. If it goes ahead, the Solar Farm will cost and estimated £3.4m with a suggested overall project

payback of around 7 years. This equates to total annual savings of 1500 tonnes of CO² with a projected saving of £500K pa. In accordance with the Health Boards responsibilities under the Carbon Reduction Commitment (CRC) scheme the health board will be purchasing c.£521,845 worth of Carbon



credits for its consumption in 2018/19 during the compliance to buy phase. Carbon credits are the UK system for purchasing Credits to

account for the Energy consumed by organisations.

The Health Boards CRC exit strategy for when the scheme ends in 2018/19, as agreed by finance is to stay in the 'comply to buy' methodology for the remainder of the scheme which finishes in 2018 19.

Waste

Waste*		2016-17	2017-18	2018-19
Non-Financial Indicators (Tonnes)	Total Waste	5,398	5,301	4,843
	Landfill	275	185	152
	Reused/Recycled	4,793	583	683
	Composted	0	0	21
	Incinerated without energy recovery	0	0	0
	Incinerated with energy recovery	330	4,533	3,987
Financial Indicators (£)	Total Disposal Cost	1,678,470	1,380,383	1,241,240
	Landfill	63,155	43,070	36,215
	Reused/Recycled	1,360,607	177,947	180,122
	Composted	0	0	1,838
	Incinerated without energy recovery	0	0	0
	Incinerated with energy recovery	254,708	1,159,366	1,023,064

*No VAT is recorded in the waste financial indicators as per EFPMS guidance.

*Following a review of the Sustainability Reporting Guidance 2017-18 (October 2017) and the defined metrics it should be noted that waste which has been disposed of through incineration with energy recovery was re-allocated to Incinerated with energy recovery where as in previous years it has been included in Re-used/Recycled. This re-allocation will continue for all future years.

Based on the Total Waste Figures outlined in the table above detail of the breakdown is as follows:-

43% (2074 Tonnes) – Domestic Waste
 39% (1885 Tonnes) – Hazardous Clinical Waste
 13% (636 Tonnes) – Dry Mixed Recycling Waste
 3.5% (182Tonnes) – Offensive Waste
 1% (45 Tonnes) – Waste Electrical & Electronic Equipment
 0.5% (21 Tonnes) – Food Waste

This year has seen an 8.64% (458 Tonne) reduction in the total waste produced by the Health Board. The overall cost has fallen by 10.08% (£139,143.00 cost reduction) following significant awareness raising, greater emphasis on the waste hierarchy and a general reduction of waste across health board sites.



The Health Board's domestic waste and recycling contract continues to maintain a near 100% landfill diversion with the waste being sorted at a Material Recovery Facility and residual materials being utilised at an Energy from Waste facility. This process helps the Health Board comply with the Welsh Governments Strategy – Towards Zero Waste.

The Health Board has implemented separate food waste collections at Cefn Coed Community Hospital and will continue to strive to increase the coverage of this in-line with Welsh Government legislative targets.

Whilst the increased use of single use medical items is excellent from an infection control perspective, it does have a negative impact on waste control. The health board recognises this issue and is currently exploring suitable recycling options.

Whilst there has been an increase in the quantity of waste the health board recycled or reused during 2018/19, it is expected there will be further improvement in the segregation of clean dry mixed waste recycling in 2019/20. This will reduce disposal costs and is consistent with the Welsh Government's Environmental Act 2016 and associated targets. Dry

mixed recycling volumes have however increased at the acute hospitals during 2018/19.

In addition to increased recycling levels the health board has reduced its overall waste generation by 8.64% (458 Tonne). This is the equivalent weight of 401 Mini Cars! **A better comparison anyone???**



It should be noted that the Health Board has exceeded its annual ISO14001 target for recycling / recovery of a 4.5% increase, and is on target to achieve the Welsh Government Strategy target of 70% recycling / recovery rate for all by 2025.

Projects for improving the recycling and recovery rates for waste are being developed through the health board's Environmental Management System

ISO 14001 ensuring that all of the waste generated is managed appropriately and in line with actions outlined in the Waste Reduction Strategy 2017 – 2022. Capital funding has been granted to enable additional recycling bin stations to be located in high volume areas, this will further increase the recycling capacity of the hospital sites.

Use of Resources

Finite Resource Consumption			2016-17	2017-18	2018-19
Non-Financial Indicators (000m ³)	Water Consumption (Non-Office Estate)	Supplied	503	494	439
		Sewerage	393	411	367
		Abstracted	0	0	0
Financial Indicators (£million)	Water Consumption (Non-Office Estate)	Supplied	0.6	0.5	0.52
		Sewerage	0.55	0.57	0.54
		Abstracted	0	0	0

Water consumption equates to 25 meters cubed (M3) per person FTE (17,000 FTE) per annum, a reduction of 5 M³ per person compared to 2017/18.

Other Sustainability Initiatives

Green Infrastructure

Since the introduction of the Well Being of Future Generations Act, the Chairman of the Health Board, Professor Andrew Davies has been instrumental in forging links with other organisations in Wales that are responsible for the stewardship of the Natural Environment. The objective being to promote 'Green Infrastructure' within the health board whilst contributing to the overall well-being objectives. The health board has produced a portfolio of its sites detailing land areas, including habitat and geological surveys where available, and has engaged with third parties to undertake further reviews and improve our stewardship of the natural environment.



Glanrhyd Hospital Green Flag Award - In May 2018 the Health Board was assessed by Keep

Wales Tidy for the prestigious "Green Flag" award for Glanrhyd Hospital.

The Green Flag Award is the benchmark for parks and green spaces in the UK and beyond, only awarded to exceptional places with the highest standards.

Glanrhyd Hospital was awarded the green flag award in July 2018 being the first NHS site in Wales to achieve this accreditation.

ABMU collaborated with "Wild Spirit Bushcraft" and Welsh Government regarding the planting of Welsh fruit tree stock on site. The trees (Apple, Pear and Plum) were planted are native to Wales and a rare "Welsh Heritage stock" in danger of becoming extinct unless these plantation programmes are in place. The Glanrhyd "Orchard" was completed 20th March 2019.

As per the NHS Pollinator Friendly Estate guidance, for the fourth year in a row the Health Board continues to plant wild flowers at the main sites.

Additional measure have been undertaken at Moriston Hospital allowing the areas of land to revert to natural

habit by not cutting the borders around the car parks etc. A range of biodiversity habitats (bug hotels/ bird boxes) have been purchased expressly for inclusion in our sites in urban settings.

Collaboration with National Botanical Gardens of Wales, Natural Resources Wales, Swansea University to promote health through increased access to Nature.

In December 2018, a funding bid was submitted to the Welsh Government Communities Rural Development Programme 2014 -20 for a “Biophilic Wales.

If successful this study will work within the Swansea and Neath Port Talbot area, using 40 sites within the ABMU Health Board estate as focal points for community co-developed green infrastructure projects. The sites surround hospitals, health-centres, mental health and residential facilities. We will increase biodiversity value, accessibility, ecosystem services and connectivity. We will create inspirational green spaces for people and evaluate what works best to develop models that can be applied throughout Wales.

Gardd Lles

The “Growing the Future” project developed by the National Botanic Garden of Wales, saw the design of a wellbeing garden in January 2019. Subsequently a “planting display” of the “wellbeing garden” was exhibited at the Royal Horticultural Society - Cardiff (April 2019) to be replicated at Morriston Hospital in 2019.

During 2018/19 the Health Board, in collaboration with Keep Wales Tidy, submitted an application to the big lottery fund – people vote. We were successful in securing £50,000 of National Lottery People’s Projects funding for use in 2019/20.

Working with local voluntary groups, this will be used to transform unloved areas at Morriston and Gorseon hospitals in Swansea and Ysbyty Cwm Rhondda in neighbouring Cwm Taf Morgannwg

The People Vote lottery will deliver on a design in collaboration with Swansea City Council Biodiversity department for a courtyard at Morriston Hospital with a view to combining improved Green infrastructure and providing a dementia friendly area for patients including improvements to the Court Yard at Gorseon Hospital.

