

# **Environmental**

# **Sustainability Report**

## **2021-2022**

Quality and Safety Committee

Responsible Board Director: Gethin Hughes

Version: V.2

Lead: Russell Hoare

Report Authors: David Williams (Facilities) & Paul Lewis (Estates)

## Contents

<b>Section</b>	<b>Title</b>	<b>Page</b>
1	Purpose	3
2	Organisation Overview	3
3	Environmental Management	9
4	Carbon and Air Emissions	11
5	Energy Management	21
6	Transport and Travel Management	24
7	Waste Management	32
8	Water Management	35
9	Biodiversity	39
10	Climate Change Adaptation	41
11	Objectives and Targets	42
12	Summary of Performance	42
13	Sustainability Initiatives	45
14	Future Planning and Assurance	45
15	Conclusion	49
16	Appendix A Environmental Objectives and Targets Part A – Energy Part B – Waste Part C – Carbon Reduction Part D – Water Part E –Transport Part F – EMS development Part G – Biodiversity Part H – Climate Change Adaptation	51  51 55 58 61 65 72 73 74
17	Appendix B Environmental Management Supporting Evidence	75

## 1. PURPOSE

Since 2011-12 all bodies that are required to produce a Sustainability Report in accordance with the Government Financial Reporting Manual (FReM), are required to include a discrete section in their Annual Report covering their performance on sustainability during the year. The section in the Annual Report must include:

- An overview commentary covering their performance in the reported year along with an overview of forward plans.
- A comparison of financial and non-financial information covering the organisation's emissions, waste and finite resource consumption.

On 1<sup>st</sup> April 2019 Cwm Taf University Health Board changed its name to Cwm Taf Morgannwg University Health Board (CTMUHB) as it took responsibility for providing healthcare services for the people in the Bridgend County Borough area.

Cwm Taf Morgannwg University Health Board used the year 2019-20 as a re-baseline year to incorporate the emissions, waste and finite resource consumption from the additional Bridgend sites as a result of the transition, taking into account the former Abertawe Bro Morgannwg University Health Board and Cwm Taf University Health Board targets combined. For the year 2020-21 we were able to realign our environmental targets with the new organisation structure, policies, procedures and schemes.

Where feasible under the above conditions and where information is available, for the Financial Year 2020-21 information contained within this report a comparison has been made with previous years for the previous organisation Cwm Taf University Health Board (CTUHB).

For the Financial Year 2021-22 and moving forward a comparison against the new organisation Cwm Taf Morgannwg University Health Board (CTMUHB) will be made.

## 2. ORGANISATION OVERVIEW

Our philosophy **Cwm Taf Morgannwg Cares** is at the heart of everything we do and we recognise that our day to day activities impact on the environment in a number of ways. We are committed to reducing the effects of such activity wherever possible.

Cwm Taf Morgannwg University Health Board provides primary, community, hospital and mental health services to the 450,000 people living in three County Boroughs; Bridgend, Merthyr Tydfil and Rhondda Cynon Taf, across three acute hospitals, six community hospitals, primary care and a network of health parks, health centres, clinics

and facilities for patients with mental health and learning disabilities (*further information is available on the [Cwm Taf Morgannwg University Health Board website](#)*).

## **Our Values and Behaviours**

On October 15, 2020, World Values Day, Cwm Taf Morgannwg University Health Board launched its new organisational values and behaviours. They exist to make a positive difference to our employees, as well as to our patients and service users across the diverse communities we serve.

Through surveys and a series of listening and co-creation workshops to find out what was most important to everyone, the Health Board set out to co-create new values and behaviours for the organisation. More than 6,500 pieces of feedback were captured.

With them now launched, our organisational focus is firmly on embedding these new values and behaviours into everyday practice at Cwm Taf Morgannwg.

By all Cwm Taf Morgannwg employees working to one definitive set of values and behaviours for our organisation, these values will:

- Support us to be at our best by working as one team to bring our values to life, both within our internal workforce and for our communities, through our delivery of patient care and services;
- Help inform the decisions we make as a Health Board;
- They will shape employee experience; and most importantly
- Will improve service user, patient care and outcomes for our local populations and our communities.

Our Health Board is committed to building a culture it feels proud of, with recognisable values at its core that can be felt and understood by every person who comes into contact with them.

By living up to our new organisational values and behaviours at every opportunity, we can achieve these three key things:



With almost 12,000 staff our workforce is the lifeblood not only of the University Health Board, but also many of the communities that we serve. We take our role as one of the largest employers in the area very seriously which is evident in our wide-ranging partnership working, dedication to our corporate social responsibilities and the importance we place on building relationships with our staff and community. In delivering our role as a healthcare provider we acknowledge our responsibility to maintain a high level of environmental performance, to conform to our compliance obligations and to set and fulfil our environmental objectives with an emphasis on continual improvement.

We are situated between Wales' capital city Cardiff to the south, the coastal town of Porthcawl to the west, and the stunning scenery in the Brecon Beacons National Park to the north. We operate within a vibrant community, rich with history and heritage.

A healthy natural environment helps society and the economy flourish. Our natural resources and ecosystems can help us in many ways: to reduce flooding, improve air quality and supply materials for construction. They also provide a home for a variety of wildlife and give us landscapes we value within the localities of the Health Board sites, encouraging patients to be treated, staff to work and visitors to visit healthily and comfortably.

However, our natural resources are under constant pressure. Land for development, increased demands for energy and for food and increasing demands on services, with declining budgets are just a few of the reasons that our environment is suffering. A poorly managed natural environment means long-term risks to our well-being. We need to change the way we act today, to hand over an environment to future generations to allow them to meet their own needs. An environment that can sustain our needs, to provide us with the benefits we enjoy without compromising that future ability, is a resilient environment.

This report details the mechanisms by which the above vision will be delivered by the Health Board to halt the decline of biodiversity, reduce the effects of climate change and promote sustainable development whilst also helping to deliver the Health Board's commitments under the Well-being of Future Generations (Wales) Act 2015 (WBFGA) and Environment (Wales) Act 2016.

This report, together with our associated policies and plans, follow guidance prepared by Welsh Government, and the objectives of the 5 new ways of working (Sustainable Development Principle) to ensure all elements of well-being are considered together and to facilitate collaborative working. The report will evolve over time in accordance with our organisational plans, to continue to be fit for purpose and to adapt to developing needs, changes in legislation and changing priorities.

This report contributes to all of the goals set out in the WBFGA and compliance with the report can be used to demonstrate how the Health Board is fulfilling the 'A Resilient Wales' goal. Furthermore, this report supports the [CTMUHB 3 Year Plan](#) and the [CTMUHB Well-Being Statement](#) in the delivery of their respective objectives, through the targets in its Environmental Key Performance Indicators (KPI's).

It is a Welsh Government and Health Board requirement that we maintain the ISO 14001:2015 environmental certification to demonstrate the Health Board's commitment to minimise the impact of its activities upon the environment. In doing so, the Health Board requires all staff, including staff from other NHS Wales organisations and in particular all managers, at all levels of the organisation, are aware of, and fully support our environmental responsibilities.

### ***In particular we shall:***

- Ensure that all employees, including staff from other NHS Wales's organisations and contractors, are responsible for working in a manner that protects the environment;
- Integrate environmental management into operating procedures to ensure that long term and short term environmental issues are considered;
- Protect the environment by preventing pollution and committing to sustainable resource use, climate change mitigation and adaptation, and protection of biodiversity and ecosystems;
- Ensure compliance with all relevant environmental legislation, obligations, Healthcare Standards for Wales and Welsh Government Directives;
- Audit the ISO 14001:2015 Environmental Management System on a regular basis to identify strengths and areas for improvement;
- Review the Environmental Policy regularly to ensure that it is maintained as documented information, is communicated within the organisation and is available to all interested parties;
- Remain committed to continual improvement.

### ***In particular we intend to reduce our environmental impact by:***

- Reducing the consumption of finite resources and to minimise our waste wherever possible;
- Supporting National and Welsh Government targets of net zero de-carbonisation by 2030, setting year on year objectives to reduce our carbon emissions, and where possible purchase or produce a portion of our energy requirements from renewable sources;
- Promoting the minimisation of waste generated through Health Board activities and reducing the environmental impact of waste disposal through landfill diversion and recycling;

- Adopting site travel plans encouraging modal shift from single occupancy car travel to more sustainable modes, such as public transport, car sharing, active travel and flexible working;
- Integrating sustainable development and resource use into everyday purchasing decisions;
- Adopting climate change mitigation and adaptation, and protecting biodiversity and ecosystems.

### **Our Health, Our Future, CTM: 2030**

Covid-19 has shone a light on inequality in our communities and it is more important than ever that, here in Cwm Taf Morgannwg, we have a clear organisational strategy that builds on our regional strengths, whilst adapting to the growing healthcare changes and challenges of our local population.

Our new strategy, CTM 2030: Our Health Our Future, aims to set out how we develop the services that we provide to meet the needs of our population in the next few years, as well as focussing on how we can work with our communities to ensure that local people can live happier and healthier lives for as long as possible.

These strategic goals set out the key things we want to achieve in CTM and are:

- Creating Health
- Improving Care
- Inspiring People
- Sustaining our Future



As part of the CTM2030 Clinical Strategy development CTM have identified 'Sustaining our Future' as one of the four strategic goals. This means CTM are committed to:

- Becoming a green organisation
- Ensuring our services financial sustainability
- Embedding value based healthcare
- Ensuring our estate is fit for the future



Going green and being sustainable in all that we do is vital to deliver on our responsibilities as a population health organisation - we are putting it at the heart of our decision-making at every level. Work to date to reduce carbon emissions is already impacting on this agenda across clinical and non-clinical areas.



Green CTM is a staff working group actively engaged in developing our response to the Welsh Government and [\*NHS Wales Decarbonisation Strategic Delivery Plan\*](#). The group are currently drafting our CTMUHB Decarbonisation Strategy and accompanying Decarbonisation Action Plan, due to be published in 2022, which will map how we can deliver carbon net zero by 2030 in line with Welsh Government and NHS Wales guidance.

[\*Green Space\*](#) is our new intranet site developed by and for staff to help us all understand climate change as individuals and within health care settings. A call for Green Champions was launched during COP26 to help build our network of staff.

As part of the ongoing CTM2030 staff engagement, we are actively collecting and using 'green' ideas in order to harness our people's power to reduce our carbon footprint. This links to [\*iCTM's challenge\*](#) to staff to think of new and better ways of working that will help our patients improve their health outcomes while reducing waste and variation across our healthcare system.

The Health Board requires that all staff and in particular all managers at all levels of the organisation to be aware of, and fully supportive, of our responsibilities to sustainability, in line with our compliance to the ISO14001:2015 environmental certification. We continue to improve communication through use of the organisations [\*Green Space\*](#) intranet site developed by and for staff to help us understand climate change as individuals and within health care, and the Facilities environmental management system homepage [\*http://ctuhb-intranet/dir/Facilities/default.aspx\*](http://ctuhb-intranet/dir/Facilities/default.aspx).

The Covid-19 pandemic has had a negative impact by delaying some environmental projects / initiatives and limited the monitoring processes within our Environmental Management System over the year 2021-22, due to site restrictions and priorities having to be transferred to manage the pandemic.

The pandemic has also had an unexpected positive impact as it has forced some initiatives that were due to be implemented in the long-term, to be rolled out earlier, such as the continued use of MS Teams and remote working, which can improve the service for staff, patients, donors and visitors, through diversifying how it is run as well



as improving our impact on the environment at the same time by reducing unnecessary travel.

We have implemented projects / initiatives and monitoring where possible during the pandemic through diarised socially distanced and online work with service leads. For those projects that have had to be postponed, we hope to resume implementing these as part of the 'new normal' when it is feasible to do so.

### **3. ENVIRONMENTAL MANAGEMENT**

The Health Board's strategic commitment requires that all staff and in particular all managers at all levels of the organisation to be aware of, and fully supportive, of our responsibilities to sustainability and environmental management, in line with our compliance to the ISO14001:2015 environmental certification. We continue to improve communication through use of the organisations [Green Space](#) intranet site, share point and the Facilities homepage which includes environmental management. This can be viewed at the link <http://ctuhb-intranet/dir/Facilities/default.aspx>.

The Green CTM Group, chaired by the Executive Director of Strategy and Transformation, is the staff working group actively engaged in responding to Welsh Government's ambitious decarbonisation plans and is currently exploring how carbon net zero can be delivered by 2030 in line with NHS Wales Decarbonisation Strategy. The group aims to ensure that 'green' and 'sustainability' principles are strategically embedded across the Health Board in all aspects of its work and the services provided to patients and communities.

The Environmental Management Steering Group (EMSG) monitors performance, objectives, targets and reports environmental issues to the Health Board's Quality and Safety Committee via the Chief Operating Officer who holds the overall responsibility for the Facilities Directorate.

The EMSG is chaired by the Assistant Director of Facilities, who has the lead for environmental issues and is supported by a team which includes the Facilities Governance and Compliance Manager, Estates Head of Assets, Governance and Technical Systems, Facilities Managers, Energy Manager, Estates Managers, Community Hospital Site Managers, and Waste and Transport Managers. Group representation is drawn from across the organisation that includes Integrated Locality Group (ILG) senior site management, workforce and organisational development, nursing, estates, corporate services, procurement, pathology, pharmacy and community services.

The EMSG is supported in its activities by a EMS / ISO 14001:2015 Forward Work Plan and working group which is drawn from the EMS group membership to implement and monitor compliance with EMS / ISO 14001:2015 across all sites.

As part of the Environmental Management System currently in place, staff can feedback by e-mail or telephone on environmental aspects or concerns which include waste, energy, transport and travel matters to the Green CTM Group or [Facilities Services Central Helpdesk](#). Their concerns are then followed up by the Environmental team and staff are provided with feedback.

We are currently monitoring and reporting the following environmental management performance, with reports available on the following areas of work:

- Energy usage;
- Water usage;
- Decarbonisation and air emissions;
- Waste management with regard to clinical waste compliance, recycling targets and performance;
- Reduction in Staff Business Mileage Strategic Review;
- Pool, shuttle bus and fleet mileage, carbon emissions and cost effectiveness;
- Transport and travel survey;
- Green Flag Award scheme.

This performance is audited as part of ISO 14001:2015 certification and by NHS internal auditors annually.

## **ISO 14001:2015 Compliance Achievements**

Following a surveillance audit assessment in June 2021, we successfully retained the ISO 14001:2015 certification for all of our CTMUHB estate premises.

## **Compliance Scorecard**

As part of its governance arrangements, we have produced compliance scorecards which detail legislative, statutory and best practice requirements relating to certain activities. To assist with the appropriate management of environmental issues the following scorecards have been developed:

- Environment scorecard;
- Transport Scorecard;
- Energy Scorecard;
- Waste Scorecard;
- Water scorecard.

The scorecard approach has now been embedded within the organisation and improvements in compliance within each of these areas have been made:

- Data collection systems;
- Monthly meter reads (Manual Collection);
- Half Hour metering on all electricity meters over 100kW (Web Based);
- Sub electricity meters fed back to BMS (Ethernet);
- Sub water meters fed back to BMS (Ethernet);
- Heat meters fed back to BMS (Ethernet);
- Gas meters are in the process of having telemetry (Web Based);
- All data is entered into TEAM software package which is used for Energy Analysis and Auditing;
- Waste management;
- Transport and Travel;
- Decarbonisation.

#### **4. CARBON AND AIR EMISSIONS**

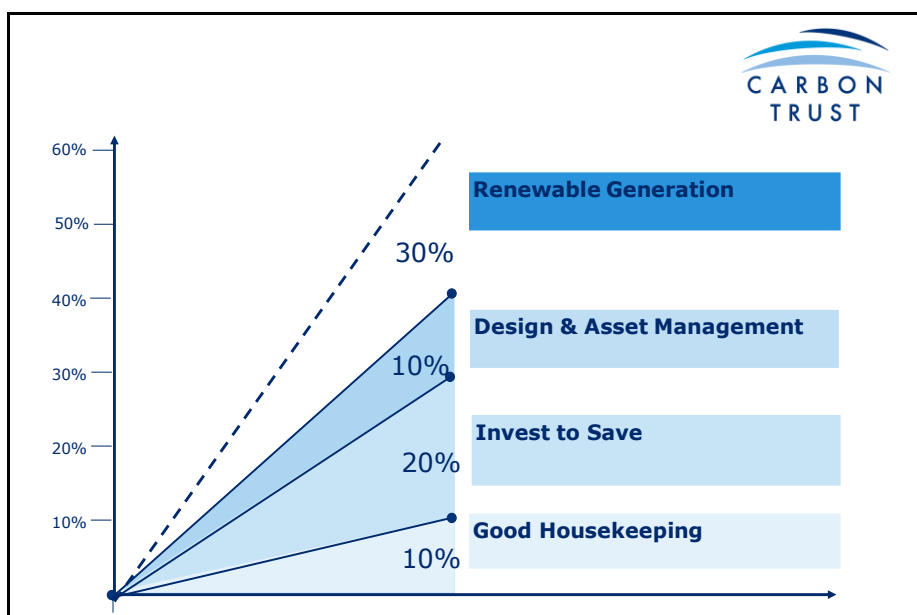
During 2021–2022 the Health Board set up the Green CTM Group which is the staff working group actively engaged in responding to the [NHS Wales Decarbonisation Strategic Delivery Plan](#). The group meet monthly and are currently exploring how the Health Board can deliver carbon net zero by 2030 in line with this delivery plan. The Health Board also have a dedicated [Green Space](#) intranet site, the home to CTMUHB's climate change work.

In its capacity of sustainability reporting the Health Board in its different guises over the years has come a long way since 2012 when the Carbon Trust, in collaboration with NHS Wales Shared Services Partnership, carried out a national review of health organisations in Wales. Their study was designed to assess current performance, capture practical examples of success and encourage and promote good practice. The review demonstrated that there could be significant potential for reduction of energy use.

Commencing in 2018–19, the Health Board along with all other Health Boards and Trusts in Wales purchased Renewable Energy Guarantees of Origin (REGO) backed electricity from British Gas through the All Wales Procurement electricity contract. The REGO scheme provides transparency to consumers about the proportion of electricity that supplier's source from renewable generation. The REGO backed generated electricity supply is sourced from different types of generation such as solar farms, off shore and on shore wind turbine installations. For 2020–21, the Health Board continued to purchase REGO backed electricity including for the separately procured electricity

supply at Prince Charles Hospital. The decision to purchase REGO certified electricity has provided a significant reduction to the Health Board's carbon emissions.

The Carbon Trust review demonstrated that there could be significant potential for reduction of energy usage.

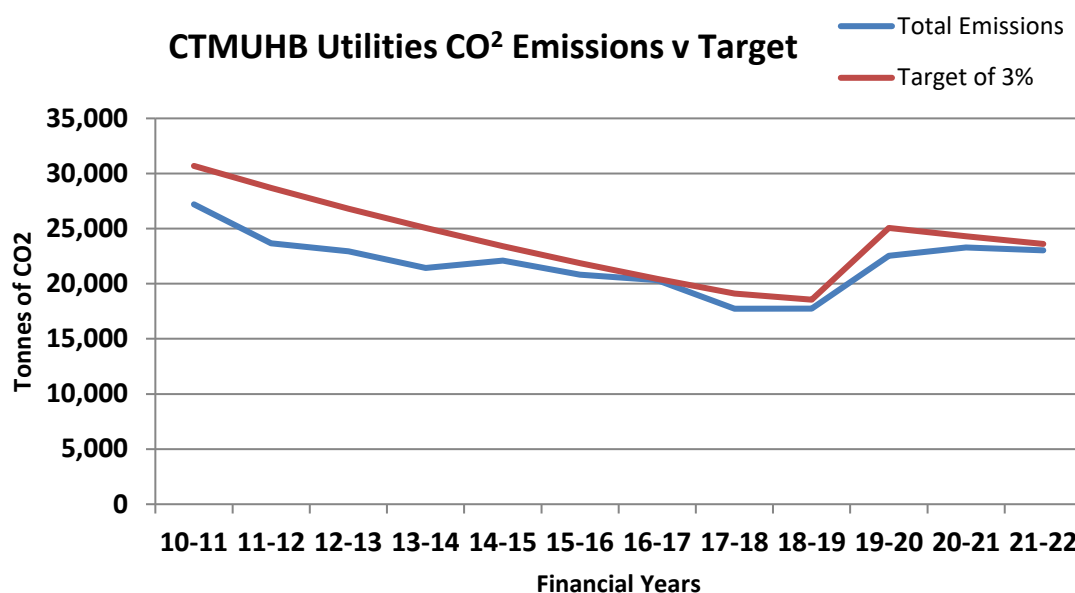


A 3% target year on year was directed by Welsh Government in 2011, to achieve the carbon reduction target. This target is for CO<sub>2</sub> reduction and not just energy. It also applies to waste and travel / transport. CO<sub>2</sub> emissions are reviewed each year to determine whether the target has been achieved and whether it is deemed necessary to extend the target further to reduce any rising energy costs. The Health Board are currently exploring how it can deliver carbon net zero by 2030 in line with the [NHS Wales Decarbonisation Strategic Delivery Plan](#).

Chart 1 shows that the emissions are in line with the Welsh Government target of 3%, even with the expansion of the CTMUHB estate with the inclusion of the Bridgend properties from 1<sup>st</sup> April 2019.

## Progress CO<sub>2</sub> v Target

Chart 1



From April 2018 the target was aligned with the Welsh Government target of 3%. Chart 1 above indicates that carbon emissions have increased in 2020-21 from a previous high in 2019-20 when the healthcare boundary change took place and the Bridgend properties were included in the Health Board's Estate.

Almost all hospital sites have made a net energy increase in consumption during the past year, which is primarily due to the effect of both UK and Welsh Government asking people to open windows to let Covid-19 out, therefore during the winter the Health Board is heating buildings with windows open, similarly cooling some buildings in the summer with windows open. With the UK and Welsh Governments instructing the working population to work from home where they can as a reaction measure to the Covid-19 pandemic, this will help with reducing energy consumption. The chart also includes emissions data for Ysbyty'r Seren, the Health Board's Covid-19 field hospital in Bridgend.

Although less occupied buildings still had to be heated during the heating season as hospital services and administration services were still provided from Health Board properties, many back office staff took their laptops and monitors home towards the end of March 2020, which continued throughout 2020, 2021 and into 2022. The staff working from home were therefore not consuming electricity in work whether it be from lights, computers or boiling kettles.

The heating season was extended into June 2021 due to the unseasonably colder weather. Throughout 2020, 2021 and into 2022 UK and Welsh Government advice has been to open windows to let Covid-19 out, hence the Health Board have been heating

all buildings with the windows open during the heating season. Likewise in the summer of 2020 and 2021, some air conditioned rooms and buildings have been cooled with the windows open, which uses more energy than if the windows were closed. Where mechanical ventilation is installed for some buildings and rooms, the extracted air would normally be recouped & recirculated. With windows open, less tempered air is recouped & increased energy is used to reheat the air, which is mixed with cool air drawn through open windows.

Towards the end of 2020–21 the Director of Finance released end of year revenue to replace existing internal and external lighting with energy efficient lights which were installed at Glanrhyd, Princess of Wales Hospital and Maesteg Hospital.

Chart 1 demonstrates the Health Board's continued commitment to a year on year 3% reduction in emissions produced by our activities.

Heat generation from the Biomass installation in Ysbyty Cwm Cynon and the Biomass installation in Ysbyty Cwm Rhondda help reduce the Health Board's reliance on fossil fuels, although the Biomass boiler at Ysbyty Cwm Cynon had to be shut down in November 2020 due to mechanical failure for repair. After suffering from mechanical failure in November 2020 the Biomass boiler at Ysbyty Cwm Cynon was repaired in October 2021, when it was brought back on line after a protracted process to appoint a contractor to supply the parts and carry out the repair. During the procurement process to appoint a contractor to carry out the repairs, Estates decided to temporarily bring the Biomass boiler back on line with smaller loads of woodchip being delivered to reduce the weight impact on the fuel feed mechanism in the external woodchip store. This reduced the consumption of gas for the site.

In March 2021 the practical completion of the new build Tŷ Calon Lân was achieved which has a roof mounted solar panel array installed. The Health Board now have eight solar panel arrays installed on the following seven sites:

1. Glanrhyd Taith Newydd Boiler House
2. Glanrhyd Taith Newydd South Plantroom
3. Kier Hardie Health Park Undergraduate building
4. New Surgery Pencoed
5. Porthcawl Primary Care Centre
6. POWH Ty Llidiard
7. RGH Y Bwthyn NGS MacMillan
8. Tŷ Calon Lân in Mountain Ash

The Health Board is committed to provide Capital investment to reduce carbon emissions and to reduce its purchase of electricity from the national grid. The Health Board estimate that for 2021–2022, some 46,743 kWh of electricity will be generated

from the solar panel sites listed above, which will see a reduction of approximately 10 tonnes of CO<sub>2</sub>, by harvesting solar energy from the sun, instead of from the electricity national grid.

As part of the Dewi Sant Health Park refurbishment, Capital monies were invested in a spend to save project to install solar panels on the roof, the design of which was forecasting a generation of 139,623 kWh and a saving of £12,566 annually. Two years on from the design calculations, with current high energy prices the savings are now in the region of £35,956. The Dewi Sant Health Park 100 kW solar panel / battery installation went live on 18<sup>th</sup> February 2022.

Two of our three acute hospitals have Combined Heat and Power (CHP) units, which use natural gas to generate electricity and heat on site, minimising dependence on the electricity purchased from the national grid. The CHP's work well at Prince Charles Hospital and the Royal Glamorgan Hospital, generating savings for the Health Board. There is one small scale CHP in the main plant room of Taith Newydd in Glanrhyd Hospital that has been brought back into economical operation in March of 2020.

The Health Board has further invested in Low or Zero Carbon's (LZC's) through Estates maintenance initiatives to replace existing failed lights with LED lights on an ad-hoc basis as and when lights have come to the end of their useful life. Any schemes funded by capital monies also specify the installation of LED lighting as a matter of course.

## **Financial Year - 2021-22**

### **Total Gross Emissions Energy and Travel**

As this report is written before the end of the current financial year, estimated figures have been used for January, February and March 2022 for electricity and gas billing as invoices are received a month in arrears. Biomass consumption, heat generation and Combined Heat and Power (CHP) electricity and heat generation figures are estimated for February and March 2022.

Overall the estimated consumption of electricity for 2021-22 is forecast to be up slightly on 2020-21, despite some staff working from home. This is in part due to additional temporary portable buildings and containers being sited at Kier Hardie Health Park, National Imaging Academy Wales, Prince Charles Hospital, the Royal Glamorgan Hospital and Ysbyty'r Seren for population Covid-19 testing. Some of the temporary portable buildings were used due to the pandemic for clinical staff at hospital sites to shower before leaving site to go home. For the Covid-19 testing stations set up, all had temporary electricity and water supplies connected to them.



Although there has been some substantial downtime with the two Combined Heat and Power (CHP) units at the Royal Glamorgan Hospital, which has meant an increased purchase of electricity from the national grid, once repaired the CHP units were run for 24 hours a day i.e. over and above the contracted run time of 17 hours a day to recover lost generation of electricity and heat. Therefore, the two CHPs at the Royal Glamorgan Hospital are forecast to achieve increased electricity and heat generation than they did for 2020–21. The one CHP at Prince Charles Hospital is also forecast to deliver increased electricity and heat generation than it did for 2020–21.

Water consumption has an impact on emissions as water is pumped around our sites, whether it be cold or hot water. While cold water pumps operate on demand at our acute sites, domestic hot water is continually pumped around our sites to promote water safety.

Estates continue to carry out rigorous flushing at outlets across the estate in compliance with policies and legislation, agreed by the water safety group. Rigorous flushing of all water outlets is also carried out in vacant buildings whether they be new acquisitions or properties waiting for disposal.

Despite the UK and Welsh Governments informing people to wash their hands for at least 20 seconds, the additional temporary showers on our sites and Covid-19 testing centres at various sites, the estimated water consumption for the year is forecast to be lower than 2020-21.

The electricity carbon emission factor has reduced this year which applies to the purchase of grid electricity, reflecting the decarbonisation of the electricity national grid. The gas carbon emission factor has increased from last year, reflecting the harmful emissions produced by the burning of fossil fuels and encouraging everyone to be less resilient on fossil fuels. The higher gas carbon emissions factor also applies to the on-site generated electricity and heat from the CHP units.

The all Wales procurement supplier of electricity and gas, British Gas, has continued to issue accurate billing with only minor rebilling issues.

### **Gross Emissions Scope 1 (Direct) Gas**

This relates to gas consumption. January, February and March 2022 gas consumption and emission figures are estimated until the invoices are received in February, March and April 2022 respectively. The estimated data shown shows an increase against 2020-21, which in part is due to the extended heating season into May and June 2021, along with additional CHP run hours. Hot periods through the summer increased the demand on the absorption chiller fed cooling plant, which in turn increased demand on gas

boilers and gas consumption at the Royal Glamorgan Hospital. The absorption chiller converts heat into chilled water for cooling critical areas and IT systems.

The energy policy mandates that heating systems in non-medical areas are switched off during the summer period. Few complaints of cold were received from staff in the run up to the start of the heating season, whilst those heating systems were switched off. The CHP at Prince Charles Hospital had a better year of electricity generation in 2020–21 and 2021–22 than in previous years. The Air Source Heat Pumps at Kier Hardie Health Park have not performed well and the site heat load has reverted back to gas fired boiler plant, therefore increasing CO<sub>2</sub> emissions from the site.

### **Gross Emissions Scope 2 (Indirect) Electricity**

This section relates to the purchased electricity from the National Grid and the current forecast indicates a slight increase on the previous year 2020-21. The CHP units at Prince Charles Hospital and Royal Glamorgan Hospital helped to decrease the consumption of expensive imported electricity. The 2021–22 purchased electricity consumption figure is an estimate while we await electricity bills for January, February and March.

In April 2020 the Health board signed an initial 12 month lease for Ysbyty'r Seren (Cwm Taf Morgannwg UHB's field Hospital), which has a significant electrical heating load. The lease has now been extended to October 2022, with a rolling break option should the property no longer be required.

### **Gross Emissions Scope 2 (Indirect) Energy (CHP)**

This relates to the purchased heat from Veolia who manage the boiler house at Prince Charles Hospital where the CHP is located. The contract is managed and operated under a 25 year contract energy management scheme, with 6 years left on the contract. There has been some CHP downtime due to a few National Grid power cuts and an issue with an air circuit breaker tripping in the boiler house at Prince Charles Hospital. The power cuts and air circuit breaker trips cause the CHP to trip and not restart automatically due to electrical safety interlocks which require manual reset after every failure. The CHP performance is on a par with previous year's electricity and heat generation.

### **Biomass (Woodchip)**

The woodchip supplier and estates continue to monitor the woodchip size and moisture content after quality control issues in previous years. These issues have not been a major problem this year at either of the two sites therefore minimising downtime of the Biomass boilers due to fuel issues. If the moisture content of wood chip is too low it causes burn back issues at Ysbyty Cwm Rhondda and if the woodchip is too big it can

cause fuel feeders to jam in Ysbyty Cwm Cynon. Boiler down time has been mainly due to routine interim and major services, which can only be carried out once the boiler has cooled down.

After suffering from mechanical failure in November 2020 the Biomass boiler at Ysbyty Cwm Cynon was repaired in October 2021, when it was brought back on line after a protracted process to appoint a contractor to supply the parts and carry out the repair to the woodchip feed mechanism and to replace the fire chamber brickwork. During the procurement process to appoint a contractor to carry out the repairs, Estates decided to temporarily bring the Biomass boiler back on line with smaller loads of woodchip being delivered to reduce the weight impact on the fuel feed mechanism in the external woodchip store.

## **Travel Mileage & CO<sub>2</sub> Emissions**

The travel emissions data in Table 1 indicates the total CO<sub>2e</sub> emissions, and the Scope 1 and Scope 3 breakdown for fleet vans, pool cars, staff business mileage and lease car user claims.

### Fleet Vehicles

The fuel used in the reporting period has been determined from monthly transaction reports provided by our fuel card provider. Full year data has been provided for the period 1<sup>st</sup> April 2021 to 31<sup>st</sup> March 2022.

The Scope 1 kg CO<sub>2e</sub> for this reporting period has been determined by the fuel card provider applying the annual kg CO<sub>2e</sub>/ltr conversion for diesel and unleaded petrol from the Defra *'Greenhouse Gas Conversion Factor Repository - Government conversion factors for company reporting'*:

<https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>

Scope 1 transport emissions, determined using litres of fuel used and the above Defra conversion data, indicates that the fleet and pool vehicle emissions have decreased compared to the previous year, from 350 to 230 tCO<sub>2e</sub>.

### Business and Staff Lease Vehicles

The fuel usage related to staff business (grey fleet) and staff lease car mileage cannot be determined, therefore the fuel consumed basis used for determining Scope 1 kgCO<sub>2e</sub> cannot be used for calculating Scope 3 emissions.

As has been the case in previous reports, for consistency of reporting and comparing the Scope 3 emissions data in this report, we have continued using the conversion factors from the CarDio: NHS Wales Carbon Calculator, which used Defra provided conversion factors for vehicle CO2 emissions.

A breakdown across expense items has been provided in Table 1a for the period 1<sup>st</sup> April 2021 to 31<sup>st</sup> March 2022.

Table 1a

<b>Expense Item</b>	<b>Mileage Total (Miles)</b>	<b>Cost Total (£)</b>	<b>Emissions Total (kgCO2e)</b>	<b>Emissions Breakdown (%)</b>
Business Mileage	3,854,930.22	1,714,928.30	2,054,687.93	92%
Lease Car Mileage	252,311.80	28,795.24	114,156.43	5%
Salary Sacrifice (Personal Lease)	173,400.45	76,626.06	67,803.79	3%
Total	4,280,642.47	1,820,349.60	2,236,648.15	100%

Comparing the figures in Table 1a against figures from the previous year's report suggests a decrease in business mileage claims of 10% (from 4.266M miles in 2020-21 to 3.854M miles in 2021-22).

Staff lease car mileage claims have also decreased by 12% from 0.285M to 0.252M miles during the same period.

These decreases reflect the impact of the Covid-19 pandemic, with an increase in remote and home working and less of a need to travel to work sites.

Table 1b below indicates that the 2020-21, 2021-22 year on year Scope 3 CO2e emissions have increased by 74% from 1.287 to 2.236 (1,000 t CO2e). The Scope 3 emissions relating to staff mileage and lease car user claims continue to be the largest element of the UHB transport kgCO2e emissions.

Table 1b

Greenhouse Gas Emissions * Indicates estimated figures		2019 - 2020	2020 - 2021	2021 – 2022*
Tonnes CO <sub>2e</sub> Non-Financial Indicators (1,000 t CO <sub>2e</sub> )	Gross Emissions Scope 1 (direct) - Energy (Gas)	14,885	16,183	16,429*
	Gross Emissions Scope 2 (Indirect) - Energy (Electricity)	7,647	7,105	6,592*
	Gross Emissions Scope 1 (direct) - Travel	0.266	0.350	0.230
	Gross Emissions Scope 2 (Indirect) - Energy (CHP)	0.79	0.80	0.77*
	Gross Emissions Scope 2 & 3 (Indirect) - Travel	1.782	1.287	2.236
	Total Gross Emissions Energy and Travel	22,534.838	23,290.437	23,024.236*
Related Energy Consumption (megawatt Hrs)	Electricity: Non-renewable	6.76	7.43	7.38*
	Electricity Renewable	29.96	28.11	28.57*
	Gas	80.96	88.01	89.70*
	LPG	0	0	0
	Other- Biomass (Woodchip)	4,120	3,154	4,591*
	Other - Oil	0.059	0.47	0.23*
Financial Indicators (£million)	Expenditure on Energy	£8.63	£8.2	£11*
	CRC License Expenditure (2010 onwards. CRC ended 2019 but evidence packs to be kept updated to 31.03.2025.)	0	0	0
	Expenditure on accredited offsets (e.g. GCOF)	0	0	0
	Expenditure on official business travel	£2.817	£2.113	£1.820

## 5. ENERGY MANAGEMENT

The organisation recognises that the consumption of energy and water is necessary for the provision of healthcare services, to comply with legislation like water safety etc. and to provide a comfortable environment for patients, staff and visitors, but that it also has a responsibility to be energy and resource efficient by minimising unnecessary energy usage. The Cwm Taf Morgannwg University Health Board energy policy is approved and published on the Health Board's intranet.

During 2021–22 the Health Board set up the Green CTM Group which is the staff working group actively engaged in responding to 'NHS Wales Decarbonisation Strategic Delivery Plan'. The group meet monthly and are currently exploring how the Health Board can deliver carbon net zero by 2030 in line with the [NHS Wales Decarbonisation Strategy](#). The Health Board also have a dedicated page on sharepoint called CTM's [Green Space](#), the home to CTM UHB's climate change work.

Following on from the 2012 Carbon Trust national review of health organisations in Wales, Cwm Taf Health Board (prior to Cwm Taf Morgannwg) compiled an energy strategy in partnership with Green Growth Wales, The Carbon Trust and the Welsh Government Energy Service, in order to understand the key opportunities for reducing energy use across the estate and publish a strategic assessment of energy efficiency opportunities, to take forward a number of initiatives aimed at reducing energy consumption, carbon emissions and cost. The reduction of energy usage will deliver benefits of:

- Minimising revenue which will allow investment back into healthcare;
- Minimising the impact on the environment.

The strategy forecasts a potential annual saving of £742k from an investment proposal of ~£3m, which forecasts a potential saving over 10 years of £8.7m, a 4.1-year simple payback and an estimated reduction of 2,123 tCO<sub>2</sub>e.

The progression of Refit was delayed with the significant impact on our Estate from the Coronavirus pandemic with the acquisition of Ysbyty'r Seren, our field hospital and the re-provision of our sites to become Covid-19 safe. The Refit access agreement has been signed and meetings have been set up to take this forward in association with Local Partnerships.

The Health Board are actively working with our three local authorities, namely Bridgend County Borough council, Merthyr Tydfil County Borough council and Rhondda Cynon Taf County Borough council on various carbon reduction collaboration measures such as heat networks, solar farms private wire & wind turbine farm private wire.

In 2021-22 the Health Board continued to benefit from installations of LED lighting technology that it has invested in with the capital refurbishment of areas, new builds, end of year revenue and estates revenue, where failed lights have been replaced with LED lights, complemented with intelligent lighting controls.

The use of LED lighting technology complements the investment in previous years with various LZC (Low Zero Carbon) technologies, such as biomass boilers, along with air source heat pumps also in Kier Hardie Health Park.

Solar panels on the roofs of Glanrhyd Taith Newydd Boiler House and South Plantroom, Kier Hardie Health Park Undergraduate building, New Surgery Pencoed, Porthcawl Primary Care Centre, POWH Ty Llidiard, RGH Y Bwthyn NGS MacMillan, Tŷ Calon Lân in Mountain Ash, continue to reduce the Health Board's demand on the national grid and reduce revenue costs.

These initiatives continue to help drive forward energy management within Cwm Taf Morgannwg University Health Board on a path towards a Zero Carbon emitting organisation, in line with Welsh Government carbon reduction targets, investing in spend to save to reduce revenue costs where possible.

The Health Board are also working closely with the Welsh Government energy service, Local Partnerships and Re:fit to help deliver carbon reduction schemes.

In 2012, the Carbon Trust, in collaboration with the NHS Wales Shared Services Partnership, carried out a national review of health organisations in Wales. Their study was designed to assess current performance, capture practical examples of success and encourage and promote good practice. The evidence from this 2012 review showed that we could reduce our energy consumption by 10%, which equates to a potential saving of £0.5 million across the organisation. Much of this can be achieved through housekeeping measures as shown by the Carbon Trust graph in Section 4 of this report. An energy awareness campaign aimed at targeting these savings was then developed. Ten years on from this national review, electricity, gas and oil prices have risen drastically, which makes any energy saving measure more achievable with lower payback terms.

Following the merger of the Bridgend region with the former Cwm Taf UHB, Cwm Taf Morgannwg University Health Board invested in the services of an additional Energy Support Officer, providing support to the Energy and Carbon Project Manager, to support the energy and carbon reduction program of work across the Estate. The Energy Team is actively continuing to work with our utility supplier and Meter Operators (MOPs) to install smart meters on the majority of Health Board properties. The benefit of smart meters will be the availability of real time accurate data and reports which is



accessible via Stark's online portal. The Health Board is working in partnership with Stark who empower organisations to better manage energy. Stark receive consumption data from our electricity meters, via the Meter Operator who analyse the data and publish it onto Stark's online portal together with emailing automatic reports to the Energy Management Team.

## **Energy Efficiency Investment Projects Completed Fiscal Year 2021-2022:**

### **Boiler replacement**

Boiler upgrades were carried out at the mental health unit and energy centre at the Royal Glamorgan Hospital by Capital. Capital replaced the boiler at Ynyswen and are due to replace the steam raising boilers at the Princess of Wales Hospital shortly.

### **Building Energy Management systems (BEMS)**

During the financial year various work was carried out by capital on Building Energy Management systems (BEMS) at Dewi Sant Health Park, Maesteg Hospital, the Princess of Wales Hospital, Royal Glamorgan Hospital and Ysbyty Cwm Rhondda. BEMS control air conditioning, heating and ventilation systems in line with time clocks, space / various other sensors, have been compensated by changing weather patterns.

### **Lighting**

At the end of 2020-21 the Director of Finance allocated £750K revenue monies to replace existing lighting with LED at Glanrhyd, Maesteg, Prince Charles and Princess of Wales Hospitals. Estates are actively replacing conventional lights with LED lights where lights have failed, and in areas where they have funding to replace lights. Although Cwm Taf Morgannwg University Health Board inherited the Bridgend properties, the electricity consumption for 2021-22 has benefited from the installation of LED lights funded by end of year revenue and from LED lights installed as part of capital funded refurbishment schemes and new builds such as:

- Dewi Sant Health Park;
- Royal Glamorgan Hospital Y Bwthyn National Garden Scheme Macmillan palliative care unit;
- Prince Charles Hospital ground and first floor refurbishment with the recent opening of a new pharmacy and restaurant.

## **Solar Panel installations**

A solar array at Dewi Sant Health Park was commissioned recently on 18<sup>th</sup> February 2022 by the Capital Directorate who are also delivering a Welsh Government decarbonisation funded scheme to replace windows in the older Merthyr block at Prince Charles Hospital, and installing solar panels on the roof of the main buildings at Kier Hardie Health Park, Ysbyty Cwm Cynon and Ysbyty Cwm Rhondda.

NHS Wales Shared Services Estates services have set up the Estates Funding Advisory Board (EFAB) who meet regularly to oversee the Welsh Government decarbonisation funded schemes across Wales.

## **6. TRANSPORT AND TRAVEL MANAGEMENT**

The EMS Group has representation on the All Wales Transport and Travel Group, looking at NHS Service Change and Travel Planning as part of the Welsh Government funded Healthy Hospital project and in response to requests from the Local Health Boards, to discuss how travel planning can help to address the significant transport issues and challenges they face stemming from service changes being taken forward.

CTMUHB has Sustainable Transport and Travel Plans which are long term, strategic and incremental. There is considerable refurbishment and new capital build work being undertaken at Prince Charles Hospital and travel surveys have been undertaken so that current travel plans can be updated to account for these works.

The Travel Plans are reviewed every three years but the Transport and Travel objectives and targets, included in the Environmental Objectives and Targets Plan, are updated annually or as required in terms of achievement and future targets. These updates are based upon evidence gained through site travel surveys and feedback from staff, patients and visitors.

The Transport and Travel Plan objectives and targets are reviewed by the Health Board's Environmental Management Steering Group (EMSG) on a quarterly basis. This plan is incorporated into the Facilities Integrated Medium Term (IMTP) 3 Year Plan, which in turn is included in the CTMUHB's 3 Year Integrated Plan, which has been agreed by Welsh Government.

In order to ensure that staff are supported and have available to them the means of adhering to the organisation's travel principles, the following schemes have been established:

- Shuttle Bus;
- Pool Cars;
- Hire Cars;
- Cycle to Work;
- Public Transport Options Discounted Concessions;
- Lease cars salary sacrifice;
- Car Sharing Scheme.

Cycle facilities such as secure parking, general parking, shower facilities, etc. vary from site to site and are considered as part of any site development or refurbishment. However, in general, cycle parking is situated in locations around the UHB sites. These locations are strategically placed at main and side entrances to ensure that the staff and patient population, as well as site visitors, are well served. Where possible covered cycle parking stands have been installed to provide secure anchorage points for cycles.

## **Notable Achievements**

With approval from line managers certain staff are able to work at home using remote and secure IT access. This initiative has shown progress with a steady increase in use and is being encouraged. An unexpected and positive aspect of the Covid-19 pandemic has been the big increase in the numbers of staff working from home, with this facility available for up to 13,000 users in 2021-22, compared to 2,594 users in 2020-21 and 769 users in 2018-19. This report fully endorses working at home using remote and secure IT access and will champion its continued use.

Transport and travel information notice boards are now provided at the hospital main entrance areas, and will provide the public and staff with public service, volunteer and CTMUHB transport information. These have been updated to include the CTMUHB logo and are being set up at the 3 Bridgend hospital sites.

As part of the major hospital refurbishment program being undertaken at Prince Charles Hospital a travel and car park survey was undertaken by Capital and Estates and work to inform the development is now underway to improve the parking facilities.

This includes:

- The baseline number at PCH pre works was 1177 spaces and the final programme of parking improvements will eventually deliver 1405 spaces once the current Phase 2 works and future Phase 3 works are complete.
- Currently the actual increase in parking numbers on site fluctuates between each works section but never drops below the original 1177 and by summer 2022 will be up by a sustained 136 spaces on the original 1177. The current challenges within

Phase 2 has been that to make the improvements required to the car park areas they have to be taken out of use and this was achieved in 2021 by first expanding site capacity onto the old helipad location. The difference this summer 2022 being that all on-site parking areas will have been remediated and the future Phase 3 additions will only add parking in locations not currently used for parking, so therefore won't impact on capacity unlike the current Phase 2 elements.

- In addition to the site based parking increases the UHB has also leased land opposite the main entrance to the hospital (the former Johnny Owen Centre) which is now being used for contractors' vehicles, thus easing congestion on the main hospital site with plans to extend this capacity further, subject to necessary approvals.

### **The following additional schemes are currently in the pipeline:**

#### **Pool Car Development**

If no shuttle bus is available departments can, if certain agreed criteria are met, apply for a service pool vehicle which can be used for travel between CTMUHB sites and to external venues. Although this is already in operation at certain departments, we have plans to develop this further in 2022 in support of the new organisation operating model, which came into effect on the 1<sup>st</sup> April 2020. This will involve providing pool cars at departments where there is currently high business mileage. This could support business mileage reduction and business mileage costs.

We continue to provide a rent a car with fuel card option for surgical, medical and administrative colleagues attending events, which also reduces mileage reimbursement costs.

#### **Car Sharing**

The Facilities Directorate undertook a Transport and Travel Survey tailored to each of its Hospital Sites, and following a review of the response data shared by its employees introduced 'Liftshare' as part of a 'You said – We did' action plan. 'Liftshare' is an application that can be downloaded to any smart phone and offers solutions for travel to suit individual employees across the UK and now across the Health Board, releasing pressure from car parks on Health Board sites, as well as alternative options for travel to the workplace. 'Liftshare' is regularly featured on the Health Board intranet, encouraging its use. If feasible, it is planned to monitor the take up of this scheme moving forward.

## **Public Transport**

CTMUHB actively encourages the use of public transport and Travel Plans to identify bus stops and rail stations close to our sites. Local bus stops are provided on our hospital sites at the following hospitals:

- Royal Glamorgan Hospital;
- Prince Charles Hospital;
- Ysbwty Cwm Cynon;
- Ysbwty Cwm Rhondda;
- Keir Hardy Health Park.

Further to the transition of the Bridgend hospital sites (Princess of Wales, Maesteg and Glanrhyd) we are actively securing engagement with the local travel operators to encourage public transport use by patients, staff and visitors.

We have been working closely with the local authority to explore ways in which staff and the public can be encouraged to make more use of public transport to travel to our hospital sites. This has some geographical and service provision restraints as not all routes are covered or timetables convenient for travelers. This has been highlighted in recent travel surveys carried out at Dewi Sant Health Park.

We have secured concessionary rates with local bus operators in the vicinity of Royal Glamorgan Hospital, to encourage bus use and to promote discount travel schemes for which NHS staff are eligible. This can provide significant reduction on standard fares. Staff are just required to make their personal CTMUHB ID Badge visible to ensure they are charged the concessionary rate.

CTMUHB continues to work closely with local authority leads and Travel Line Cymru to ensure accessible transport is available to localised covid testing centres and mass vaccination centres in respect of dealing with the Covid-19 pandemic.

## **Lease Cars Salary Sacrifice**

A salary sacrifice lease car scheme continues to be in operation where staff can take advantage of long term leasing a private vehicle, which has the added advantage of being able to change their existing vehicle for a more fuel and carbon reducing efficient model (e.g. electric or hybrid). This has the advantage of encouraging staff to change their vehicle to one with more efficient and emission reducing engines.

## **Electric Fleet Vehicles**

The current fleet vehicle contract is due for review and renewal and a comprehensive review of all UHB transport provision has commenced and will be carried out in 2022-23. Part of this review will consider changing the fleet to include electric or hybrid vehicles in our vehicle mix when the tender exercise is completed in the 2022-23 financial year.

To date the facilities team have opted for rental cars during the summer months and 4x4 vehicles during the winter period, that can be off hired at short notice and are seen as the most cost effective option to support the winter adverse weather plan before committing to a three year lease. Alternative options for the winter period adverse weather contingency are being explored for winter 2022-23.

Concerns around the travel range of electric vehicles has largely abated following the on-going improvements by manufacturers to this aspect of vehicle performance. Vehicles have been evaluated by the Estates and Facilities teams, and coverage for all sites is now seen as achievable with the updated and extended mileage range. Within the Bridgend locality the Health Board has five fleet Estates vans at the Princess of Wales site that are all electrically powered, and has the infrastructure on site for charging these vehicles.

With support from the Capital Major Projects team, a tender for electric charging points has been exercised and awarded. Work began during the summer of 2020 that will allow Estates and Facilities teams to opt for carbon saving options within their fleets. Welsh Government has asked NWSSP-Specialist Estates Services to establish an Estates Funding Advisory Board to provide advice on schemes suitable for capital funding across a number of specific National Programs. Funding has been secured for decarbonisation for the 2021-22 financial year.

If funding is made available this will enable CTMUHB to increase the installation of secure chargeable EV charge points for the use of staff and public visitors to its Health Board sites in line with All Wales NHS guidance.

The cost of electric vehicles relative to conventionally powered vehicles has reduced, which makes the expansion of electrically powered vehicles to the fleet more achievable in 2022-23, with reductions in exhaust pollution and carbon emissions being a benefit too.

## **Internal Fleet Transport Review**

A review of the current operating transport fleets, their routes and schedules is being

carried out in 2022-23. The scope of the review involves an assessment of quality, compliance with health care standards and legislation. In addition to these, to explore the ways in which a consolidated transport service might operate. The review also includes the Non-Patient Transport services for CTMUHB, including the recently acquired Bridgend locality. This project will exclude Patient Transport (Non-Emergency Transport) services.

The following services have been included within the review scope:

- Pathology Transport / Internal Mail Transport (shared vehicles);
- Taxi Usage;
- School Vaccine Programme;
- Staff Business Mileage Reduction Options.

It is intended that where the review outcomes are feasible and provides sustainability benefits, the Health Board will consider implementing the proposals and resulting recommendations from this review.

### **Staff Business Travel Mileage**

In May 2019, the organisation commissioned a review of business mileage usage and to make recommendations in line with the stated objective of reducing expenditure, reducing carbon emissions, increasing productivity and increasing staff wellbeing. Whilst the review focussed primarily on the former Cwm Taf Health Board, there was broad agreement that the review recommendations would translate easily over into the newly created Cwm Taf Morgannwg University Health Board organisation and would help mitigate the predicted increase in business mileage due to staff travelling up and down the M4 corridor between Bridgend and the former Cwm Taf Health Board.

Business mileage for the former Cwm Taf Health Board was very high, with 3.9 million miles covered per annum (2017-18) at a cost of £1.8m and a carbon foot print of 1,373 (1,000 tCO<sub>2</sub>e) per year. The Health Board is very keen to explore opportunities to reduce expenditure, reduce carbon emissions, increase productivity and increase staff wellbeing.

To put these costs into context:

- We could circumnavigate the earth 156 times;
- We could travel to the moon and back 8 times;
- Our carbon emissions are equivalent to the weight of 4 jumbo jets;
- Each month we lose 11,607 hours of productivity;
- We would need to plant a forest of 2,000 trees to offset our carbon emissions;



- A 10% reduction would achieve a yearly saving of £180k.

The review suggested a range of measures which could be deployed to reduce costs and carbon emissions, which the organisation had either already or partially implemented.

For example:

- The use of a staff shuttle bus (in existence - a recent separate review found the vehicle to be poorly used, unpopular and not cost effective);
- Implementation of a car sharing scheme (in existence - active on share point);
- Development of a sustainable transport policy (in existence - travel and transport policy active on share point);
- Development of a sustainable transport coordinator post (in existence - incorporated into the Technical Team's Band 5 Environment, Waste and Fleet Officer job description);
- Use of pool cars (in existence – but limited to the facilities department at present).

Furthermore, the review cited and emphasised the use of assistive technology as a key enabler and strongly recommended the adoption of its use. Again, the organisation had already partially implemented some of the available technology but it was found the implementation had been very limited in scope, was nearing the end of its useful life and required significant financial investment.

For example:

- Video conferencing (in existence – limited availability and nearing the end of its life);
- Audio conferencing (in existence – wide availability but rarely used);
- Microsoft Teams video conferencing and meetings in use;
- Home working (Policy in existence – but requires Microsoft Teams to be installed / configured onto laptops to realise its full potential).

In response to these findings, the Facilities Department have asked ICT colleagues to provide a business case (available on request) which details the level of financial investment required for the full implementation and on-going support of these key enabling technologies.

Underpinning this initiative is the 'Stop and Think' core travel principles, which will help guide managers and staff to plan transport and travel arrangements:

For example:

- Is the journey / meeting necessary?

- Can the business be conducted by the use of assistive technology, audio conference, and video conference using Skype or MS Teams?
- Have you considered the use of cycles, trains, buses, pool cars, car club schemes, car hire, salary sacrifice lease cars and incentivised ridesharing?

## **Areas of Planned Development**

The following additional actions will be taken to further enhance the Travel and Transport Plan:

- We will seek to implement the recommendations of the Internal Transport Review;
- Champion and support the use of assistive technology to reduce single occupancy business travel and provide a suite of sophisticated decision making algorithms;
- We will develop the 'Stop and Think' core transport principles into a decision making guidance document;
- We will be researching the feasibility of a discounted public transport ticket web link with local operators (e.g. First Group, Edwards Coaches etc.) and will be actively working in partnership with the Bridgend Local Authority and local transport operators to include this locality in any discount schemes;
- Continue to explore more car hire schemes as a support to pool car service;
- A bid has been submitted for funding to provide a fleet vehicle tracking system. The Technical Services team will be consulting with the workforce and staffing teams to approve the use of tracking in Health Board vehicles. The aim being to improve the monitoring and recording of the fleet mileage, maintenance, safety and compliance with speed and fuel consumption;
- Further improvement and development of the current intranet and public facing internet sites to include travel information for all staff and public;
- Increase in supporting and promoting working from home;
- Continued promotion of national travel events like Cycle to Work and Car Share Week;
- Continue to improve hospital drop off and pick up parking accessibility, looking at the feasibility of implementing a meet and greet volunteer scheme. In particular for disabled patients and patients suffering from dementia, who are being brought to hospital by car and supported by relatives and friends;
- We will work closely with local authority colleagues to develop a strategic partnership to explore ways on how we can jointly improve travel and transport for service users using the patient care centred 'Mavis' story as the guiding and underpinning principle;
- In partnership with local authorities we will continue to pursue the development of a park and ride scheme to support staff and public accessing our larger sites.

## 7. WASTE MANAGEMENT

At the time of preparing this report only a maximum of one month full data was available for 2021-22 due to resource issues within the Waste Management Team, encountered whilst handling the Covid-19 pandemic over the last twelve months. The available data has been used to extrapolate the year-end figures shown in the report and are an estimate to reflect twelve months of data. Extrapolated figures in the tables are indicated with an \*.

The total waste data is inclusive of hazardous clinical waste disposed of via 'alternative treatment' (heat treatment) or incineration. The data also includes Offensive Hygiene Waste, this is clinical waste that does not present an infection risk and therefore does not require treatment to render it safe prior to disposal. Tonnages and costs for these wastes are shown in Table 2.

Since the last report CTMUHB has continued to progress the actions in the Environmental Objectives and Targets Plan concerning waste management.

The Health Board recycling figure for 2021-22 is projected to be 75%. This is an increase on the 40% figure for the last reporting period (2020-21) and over the 50% Health Board recycling to landfill ratio target set for 2021-22. Taking this increase in recycling into account, whilst acknowledging the estimated extrapolated figures for 2021-22, it has been decided that the target for 2022-23 will be increased to 55%, with a forecasted 5% increase year on year.

Food waste collections continue at PCH, RGH, CPU, YCR, YCC, and the POW site. Keir Hardie Health Park, Glanrhyd and Maesteg now have food waste collections fully in place.

We will have diverted an estimated 457 tonnes of waste from landfill to anaerobic digestion treatment this year, an increase of 203 tonnes compared to the 254 tonnes diverted last year. This waste comprises of food preparation waste and plated food not consumed by patients. The development works at PCH have continued to impact on the collection of restaurant food wastes.

The UHB Offensive Hygiene Waste (Tiger Waste) diversion from the infectious waste stream is forecast to be 14% in this reporting period, which is a shortfall on the last reporting period of 19%. This is again due to the boundary extension with Bridgend sites and also the additional waste generated from Covid-19 vaccination centres.

We have a waste target action plan in place that will ensure that the segregation of offensive hygiene waste continues to be adhered to at the acute site Princess of Wales

in 2022-23 which will see an increase in tonnage recycling figures and a reduction in incineration costs. It has been agreed for the target to remain set at 35% for 2022-23 based on the above performance, and will see an increase of 5% year on year.

The All Wales clinical waste contractor Stericycle continues to divert treated clinical waste from landfill to use as Solid Recovered Fuel (SRF). This is now the standard disposal route for treated infectious clinical waste and the 100% diversion has continued during this reporting period. The material is principally used as SRF in concrete production plants, previously in Europe, but now entirely within the UK.

The change to the management of home produced clinical waste within the Rhondda Cynon Taf, Bridgend and Merthyr Tydfil areas has further developed and the service is now fully managed. This has improved the service for patients whilst ensuring compliant segregation of home produced clinical waste, which ensures that unnecessary treatment of the waste and associated environmental impacts is avoided.

In Merthyr Tydfil home collection waste is managed by Merthyr Tydfil County Borough Council, in Rhondda Cynon Taf by Health Courier Services, and in Bridgend by the contractor Stericycle.

The local SME Elite Paper Solutions (EPS), who are based in Merthyr Tydfil, have been appointed as the UHB sole contractor for confidential waste across all CTMUHB sites. They are a supported employment provider whose mission is to assist organisations to reduce their carbon footprint through effective recycling of paper waste, whilst also serving the community through the creation of employment, volunteering and training opportunities for disabled and disadvantaged people.

Waste Management performance monitoring can be found in Tables 2 and 3.

Table 2

Financial Year * Indicates estimated figures	Clinical Waste		Offensive Hygiene Waste	
	Tonnes	Cost (£million)	Tonnes	Cost (£million)
2019 - 2020	1060	£0.4152	230	£0.07147
2020 - 2021	958	£0.3586	194	£0.05180
2021 - 2022*	992*	£0.3829*	143*	£0.02714*

Table 3

<b>* Indicates estimated figures</b>		<b>2019 - 2020</b>	<b>2020 – 2021</b>	<b>2021 - 2022*</b>
Non-Financial Indicators (Tonnes)	Total Waste	3985	3254	2576*
	Landfill	71	63	18*
	Reused/Recycled	1274	832	1077*
	Composted	0	0	0
	Incinerated with energy recovery	2640	2359	1481*
	Incinerated without energy recovery	0	0	0
Financial Indicators (£million)	Total Cost (See note below)	£1.161,127	£0.974,456	£0.678,666*
	Landfill	£0.017,651	£0.016,405	£0.004,510*
	Reused/Recycled	£0.287,836	£0.214,744	£0.164,996*
	Composted	0	0	0
	Incinerated with energy recovery	£0.822,078	£0.722,162	£0.495,764*
	Incinerated without energy recovery	0	0	0

*Note: The total cost shown in Table 3 includes the hazardous waste documentation and Natural Resources Wales collection notes cost, which are not included in the respective waste stream costs in the table above.*

## 8. WATER MANAGEMENT

Water consumption is estimated more so than electricity or gas for 2021-22 due to the fact that water is invoiced over monthly, 3 monthly and 6 monthly frequencies for some sites unlike electricity or gas, which are invoiced monthly.

The estimated water consumption figures are therefore made up of a combination of actual billed consumption and meter readings, taken monthly by our estates staff.

As water invoices are received at the start of the month for the previous months consumption, water consumption figures for February and March 2022 have been extrapolated from the TEAM energy management database system, from the financial year 2020-21 for the corresponding months.

Table 4 provides data on estimated water consumption.

During 2021-22 water leaks have been detected and repaired at Prince Charles Hospital. The previous water leak from the Glanrhyd Hospital water meter, which is a one mile drive from the Glanrhyd Hospital site, took Dwr Cymru Welsh Water almost 12 months to repair which required permission from Network Rail due to the water meter being so close to a live railway line. Welsh Water also had to arrange a road closure with the local authority. The energy team notified Dwr Cymru Welsh Water of the leak in February 2020. Currently to the end of January 2022, a 6% decrease in water consumption at Glanrhyd was achieved compared the previous financial year 2020-21.

The telemetry added to the Ysbyty Cwm Cynon water meter in 2015-16 and also to the Ysbyty George Thomas water meter during the fiscal year 2016-17 continues to be of benefit to the Health Board in order to assess daily consumption, verify monthly invoices and to save time on estates visiting these meters. In recent years existing Dwr Cymru Welsh Water wholesale telemetry access was shared with the Health Board at the Heol Draw Laundry Processing Unit and more recently at Prince Charles Hospital and Ysbyty Cwm Rhondda.

The Energy and Compliance team has implemented a capable monitoring and targeting spreadsheet that produces trends and calculations based upon the utility bill readings exported monthly from the TEAM energy management database system for each utility and water account.

A gap analysis has been drawn up to look at adding telemetry to other water meters across the estate, especially on sites of high demand and sites that are prone to underground leaks during sub-zero weather conditions.

The telemetry is a useful tool for the Energy Manager to remotely monitor the water consumption and provides an alarm if there is an excessive increase in consumption detected for a given period of time.

During 2021-22 enquiries were again made to Dwr Cymru Welsh Water about the possibility of installing additional water loggers on our water meters but it appears that there is no longer a partnership between Dwr Cymru Welsh Water and Technolog, the providers of the water consumption loggers. It is still hoped to potentially extend the service across the estate, especially the larger sites where a small water leak might not otherwise get noticed. Smaller premises with low levels of consumption such as Health Centres and Clinics all now have conventional water meters installed.

Water consumption at Prince Charles Hospital continues to be high due to the current hospital refurbishment scheme and the on-going presence of the Tilbury Douglas construction team on site in their 36 containerised office units. The new kitchen, restaurant and pharmacy are now operational in the original Merthyr Block. The portable building housing the former temporary kitchen and restaurant has had another temporary building of equal footprint hoisted on top of it, so other areas of the Merthyr block can be vacated for refurbishment. Two other portable buildings called Units 2 and 3 have been erected and handed over by Tilbury Douglas for occupation, which will add to the site water consumption.

Prince Charles Hospital continues to provide maternity services for the Rhondda and Taff Ely and Merthyr Cynon Valley integrated locality groups, therefore increasing the water consumption on the site with additional hand washing, bathing, showering and water births.

The following are examples of additional water consumption across the estate during 2021-22:

- Again this year there was an issue with the MRI scanner chiller at the Royal Glamorgan Hospital which resulted in the MRI scanner losing its Helium and mains cold water was used to cool the MRI magnet.
- In November 2021 the Energy Support Officer highlighted to Estates that there was night time water consumption at Dewi Sant Health Park and during a recent water safety survey in February 2022, Estates found a running tap in a locked housekeeping cupboard. The tap was turned off, repaired and the following day the data from the water meter logger was checked which showed that the night time water consumption had ceased. The cost of water from November 2021 to February 2022 was estimated to be in the region of £1,230.



- Water which is discharged into the sewers costs money to dispose of, which is currently calculated at 90% of the water consumed through the water meter, so any reduction in water consumption through the water meter is doubly beneficial.

Chart 2 shows that water consumption has reduced and is estimated to be slightly less than 2020-21, due to the postponement of normal clinical practices across all Health Board sites caused by the Coronavirus pandemic and some office based staff to continue to work from home.

From planning capital works it has been identified that birthing pools use a high volume of water, with each fill of a birthing pool using 2,500 litres of water and during a birth the birthing pool can be emptied and refilled 4 or 5 times, which equates to approximately 12,500 litres of heated water per birth. Three birthing pools are currently in use at Prince Charles Hospital and there is currently one in use at the Royal Glamorgan Hospital, although there are still plans in place to increase the number of birthing pools at Prince Charles Hospital and the Royal Glamorgan Hospital.

Estates officers across CTMUHB continue to take water safety management seriously and actively encourage regular flushing of hot and cold water systems across the Health Board especially in areas of low occupancy or low use outlets.

The Energy Support Officer has continued to monitor a number of sub water meters at Kier Hardie Health Park to track excessive water consumption over and above historic trends. The Energy Support Officer produces a monthly report which he emails to Estates to act on, making repairs to automatic toilet flushing systems and keeping an eye on the heating pressurisation unit which has been known to pass water. Estates officers continue to carry out regular flushing of hot and cold water systems across the Health Board in line with water safety regulations. Estates officers continue to actively monitor sinks that have low use and have started to remove these sinks, which means that they no longer need to be flushed, which saves Estates resources and saves water.

Chart 2

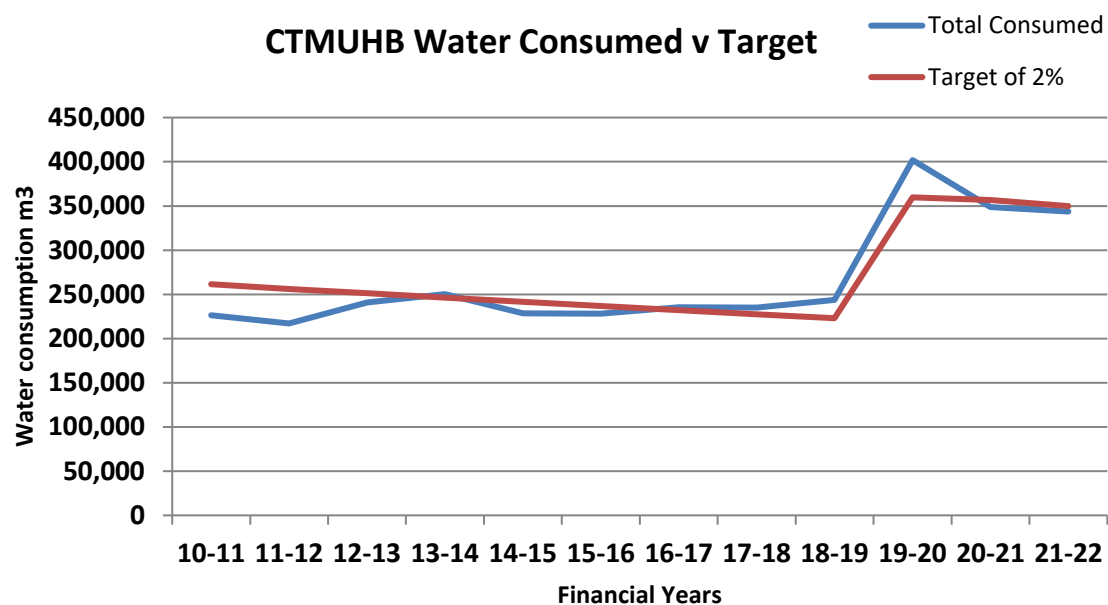


Table 4

Water Resource Consumption			2019 - 2020	2020 - 2021	2021 - 2022*
* Indicates estimated figures					
Non-Financial Indicators (000m3)	Water Consumption	Supplied	401,851	348,821	343,771*
Financial Indicators (£million)	Water Supply Costs (Non-Office Estate)		£1.042	£0.95	£0.94*

## 9. BIODIVERSITY

Biodiversity is defined in the [Environment \(Wales\) Act 2016](#) as 'the diversity of living organisms, whether at the genetic, species or ecosystem level. Biodiversity drives the functioning and resilience of our ecosystems'.

A healthy natural environment helps society and the economy flourish. Our natural resources and ecosystems can help us in many ways: to reduce flooding, improve air quality and supply materials for construction. They also provide a home for a variety of wildlife and give us landscapes we value within the localities of the Health Board sites, encouraging patients to be treated, staff to work and visitors to visit healthily and comfortably.

However, our natural resources are under constant pressure. Land for development, increased demands for energy and for food and increasing demands on services, with declining budgets are just a few of the reasons that our environment is suffering. A poorly managed natural environment means long-term risks to our well-being. We need to change the way we act today, to enable us halt or reverse the decline in biodiversity and to hand over an environment to future generations to allow them to meet their own needs. An environment that can sustain our needs, to provide us with the benefits we enjoy without compromising that future ability, is a resilient environment.

The 'CTMUHB Biodiversity and Ecosystem Resilience Plan' has been produced in response to CTMUHB's obligations under the Environment (Wales) Act 2016, to demonstrate how the Health Board will *'seek to maintain and enhance biodiversity in the proper exercise of their functions and in doing so promote the resilience of ecosystems'*. This plan details the mechanisms by which the aims will be delivered by the Health Board to halt the decline of biodiversity, reduce the effects of climate change and promote sustainable development whilst also helping to deliver the Health Board's commitments under the Well-being of Future Generations (Wales) Act 2015 (WBFGA).

It follows guidance prepared by Welsh Government, the objectives of the Nature Recovery Plan for Wales and the 5 new ways of working (Sustainable Development Principle) to ensure all elements of well-being are considered together and to facilitate collaborative working. The plan will evolve over time to continue to be fit for purpose and to adapt to developing needs, changes in legislation and changing priorities.

The plan also contributes to all of the goals set out in the WBFGA and compliance with the plan can be used to demonstrate how the Health Board is fulfilling the 'A Resilient Wales' goal. Furthermore, this plan supports the [CTMUHB 3 Year Plan](#) and the [CTMUHB Well-Being Statement](#) in the delivery of their respective objectives. The actions will set out what the Health Board intends to do and corresponds with the targets in its CTMUHB

Environmental Objectives and Targets Plan and Decarbonisation Plan, which reference biodiversity and ecosystem resilience.

The Health Board requires that all staff and in particular all managers at all levels of the organisation to be aware of, and fully supportive, of our responsibilities to biodiversity and ecosystem resilience.

CTMUHB will ensure that the responsibility for biodiversity and ecosystem resilience is clearly defined and there are clear lines of accountability throughout the organisation leading to the board.

At present the 'CTMUHB Biodiversity and Ecosystem Resilience Plan' has been drafted and approved by the Health Board's Environmental Management Steering Group. The next stage will be to achieve Board approval of the plan in order for it to be fully endorsed by the organisation. Following consultation, this is planned to be undertaken when feasible under the Covid-19 pandemic.

CTMUHB will ensure that risks related to the Health Board's impact on biodiversity and ecosystem resilience are managed effectively in the organisation. An example of this management in action is the Health Board's 'Glanrhyd Hospital Grounds Management Plan', which is submitted for the Green Flag Award annually.

The Green Flag Award scheme recognises and rewards well managed parks and green spaces, setting the benchmark standard for the management of recreational outdoor spaces across the United Kingdom and around the world. The purpose and aims of the award are:

- To ensure that everybody has access to quality green and other open spaces, irrespective of where they live;
- To ensure that these spaces are appropriately managed and meet the needs of the communities that they serve;
- To establish standards of good management, and to promote and share best practice amongst the green space sector;
- To recognise and reward the hard work of managers, staff and volunteers.

It is the intention that CTMUHB will continue to develop the 'Grounds Management Plan' and its associated actions, and align these with CTMUHB structure, policies, procedures and schemes, for future Green Flag Award submissions. For more information about the Green Flag Award visit the website <http://www.greenflagaward.org.uk>.

Another example of biodiversity and ecosystem resilience management in action is the Health Board's work with NHS Forests and the Queen's Canopy project. The 15<sup>th</sup> February 2022 saw the start of a series of tree planting events across CTMUHB.

[Green CTM](#) is supporting the planting of 85 tree saplings across 22 of our sites, linked to the [Queen's Canopy](#), with free trees from NHS forests. This is part of a wider NHS Wales pledge to support the Queen's Canopy work, with every health board in Wales engaged in planting trees sustainably.

This initiative will see us work with patients, community partners and volunteer staff who are keen to help us create greenspaces for wellbeing. This also highlights our commitment to decarbonisation and the need to offset our carbon outputs in ways that benefit patients and planet.

As part of the Queen's Canopy initiative, we will be joining a UK wide network of community projects and organisations, 'Planting a tree for the Jubilee', all of whom are using this opportunity to champion their commitment to sustainability. Once the trees have been planted they will added to a [UK map of Queen's Canopy Trees](#), which gives us another opportunity to raise awareness of some of the key community partners with whom we work.

The trees provided by NHS Forests will also be a part of another UK wide initiative, coordinated by the [Centre for Sustainable Healthcare](#). Being part of the [NHS Forests](#) network will enable the Health Board to access a wealth of resources, ideas and information that will help us on our journey to become greener.

## **10. CLIMATE CHANGE ADAPTATION**

The most recent UK-wide [Climate Change Risk Assessment 2022 Report](#) has identified the risks to species and habitats due to their inability to respond to changing climatic conditions and the frequency and/or magnitude of extreme weather and wildfire events. It has also found that native wildlife may be increasingly at risk from pests, pathogens and invasive species. The report also identifies opportunities from new species colonisations.

CTMUHB must be resilient against the threats of a changing climate, and we must adapt now. We need to take appropriate action to prevent or minimise the damage of increasing temperatures and extreme weather events across our estate so that our staff and patients are safe, and that we can continue to deliver our services. Our aim in 2021-22 and for subsequent years is to continue to ensure that our whole organisation, including corporate management, are prepared to deal with the effects of

climate change, particularly extreme weather events, and continue to invest in adaptation and mitigation measures.

These measures include:

- Undertaking research and tree and shrub planting that reflects predicted climate change;
- Continue to implement 'No-Mow' areas as part of the contractor and in-house Grounds & Gardens specification, particularly along edges with foot boundaries etc. to encourage wildlife and drainage;
- Ensuring that the organisation's 'Adverse Weather Procedure' is implemented across the organisation, including the newly transitioned Bridgend sites;
- Including Climate Change as a risk on Directorate Risk Registers;
- Working with NHS Forests and the Queen's Canopy project to undertake planting projects at Health Board sites to encourage biodiversity and ecosystem resilience.

During 2021-22 some of the above measures have been included as part of the organisation's 'Biodiversity and Ecosystem Resilience Forward Plan', as well as its 'Glanrhyd Hospital Grounds Management Plan', the latter of which has been submitted for the Green Flag Award. The 15<sup>th</sup> February 2022 saw the start of a series of tree planting events across CTMUHB as part of our work with NHS Forests and the Queen's Canopy project.

## **11. OBJECTIVES AND TARGETS**

An Environmental Objectives and Targets Delivery Plan is included in Appendix A.

The majority of schemes have been evaluated and include probability assessments and projected timescales.

A list of evidence in support of these activities can be found in Appendix B.

## **12. SUMMARY OF PERFORMANCE**

Now that invoiced consumption has been received for 2020-21, the estimated figures have been replaced with actual consumption which have been entered into Table 1b which demonstrates that emissions have increased.

For 2021-22 the estimated emissions in Table 1b are currently indicating a slight decrease on the previous financial year 2020-21. We continue to strive to implement measures to reduce our emissions as an organisation where possible. Despite the inherent downtime for breakdowns and maintenance, the otherwise effective running

of our Combined Heat and Power (CHP) units, and the use of more solar panel installations have helped to reduce electricity consumed from the national grid. The running of the CHPs also generate heat which is put to good use to heat our buildings and provide hot water. In the summer the heat from the CHP units at the Royal Glamorgan Hospital is pumped to the absorption chiller, which converts heat into chilled water to provide cooling in specific areas, which further reduces associated carbon emissions.

The two biomass installations at Ysbyty Cwm Cynon and Ysbyty Cwm Rhondda provide heat without the emissions that would otherwise be emitted with the burning of gas. These biomass boilers continue to provide resilience in the event that gas to the site could be interrupted whilst reducing carbon emissions for the properties.

Due to issues in previous years, Estates and the woodchip supplier are continuing to monitor the quality and size of woodchip.

Benefits continue to be seen from the end of year revenue spent in previous years for the upgrading of lighting to LED lighting at the Glanrhyd, Maesteg, Prince Charles and Princess of Wales Hospitals which provides a reduction in energy, cost and carbon emissions in 2021-22 and beyond.

Subject to confirmation of the estimated energy bills, targets set by Welsh Government with a year on year reduction in carbon emissions (Chart 1 and Table 1) for the Financial Year 2021–22 will be compared.

There has been and continues to be considerable refurbishment and new capital build work being undertaken at Royal Glamorgan Hospital and Prince Charles Hospital and travel surveys have been undertaken for these sites so that current travel plans can be updated. Surveys have also been conducted at Princess of Wales, Maesteg and Glanrhyd as part of the Bridgend Boundary Change Transition.

An unexpected and positive aspect of the Covid-19 pandemic has been the big increase in the numbers of staff working from home, with this facility available for up to 13,000 users in 2021-22, compared to 2,594 users in 2020-21 and 769 users in 2018-19.

Concerns around the travel range of electric vehicles has largely abated following the on-going improvements by manufacturers to this aspect of vehicle performance. This year vehicles have been evaluated by the Estates and Facilities teams, and coverage for all sites is now seen as achievable with the updated and extended mileage range. Within the Bridgend locality the Health Board has five fleet Estates vans at the Princess of Wales site that are all electrically powered, and has the infrastructure on site for



charging these vehicles.

A salary sacrifice lease car scheme continues to be in operation where staff can take advantage of long term leasing a private vehicle which has the added advantage of being able to change their existing vehicle for a more fuel and carbon reducing efficient model (e.g. electric or hybrid).

The Health Board recycling figure for 2021-22 is projected to be 75%. This is an increase on the 40% figure for the last reporting period (2020-21) and over the 50% Health Board recycling to landfill ratio target set for 2021-22. Taking this increase in recycling into account, whilst acknowledging the estimated extrapolated figures for 2021-22, it has been decided that the target for 2022-23 will be increased to 55%, with a forecasted 5% increase year on year.

Food waste collections continue at PCH, RGH, CPU, YCR, YCC, and the POW site. Keir Hardie Health Park, Glanrhyd and Maesteg now have food waste collections fully in place.

We will have diverted an estimated 457 tonnes of waste from landfill to anaerobic digestion treatment this year, an increase of 203 tonnes compared to the 254 tonnes diverted last year. This waste comprises of food preparation waste and plated food not consumed by patients. The development works at PCH have continued to impact on the collection of restaurant food wastes.

The UHB Offensive Hygiene Waste (Tiger Waste) diversion from the infectious waste stream is forecast to be 14% in this reporting period, which is a shortfall on the last reporting period of 19%. This is again due to the boundary extension with Bridgend sites and also the additional waste generated from Covid-19 vaccination centres. We have a waste target action plan in place that will ensure that the segregation of offensive hygiene waste continues to be adhered to at the acute site Princess of Wales in 2022-23 which will see an increase in tonnage recycling figures and a reduction in incineration costs. It has been agreed for the target to remain set at 35% for 2022-23 based on the above performance, and will see an increase of 5% year on year.

The All Wales clinical waste contractor Stericycle continues to divert treated clinical waste from landfill to use as Solid Recovered Fuel (SRF). This is now the standard disposal route for treated infectious clinical waste and the 100% diversion has continued during this reporting period.

The Green CTM Group, chaired by the Executive Director of Strategy and Transformation, is an organisation wide working group set up in 2021 which has actively engaged in responding to Welsh Government's ambitious decarbonisation plans and is

currently exploring how carbon net zero can be delivered by 2030 in line with NHS Wales Decarbonisation Strategy. The group aims to ensure that 'green' and 'sustainability' principles are strategically embedded across the Health Board in all aspects of its work, engagement with our staff and the services provided to patients and communities.

This year CTMUHB continues to ensure that risks related to the Health Board's impact on biodiversity, ecosystem resilience and climate change are managed effectively in the organisation.

An example of this management in action is the Health Board's 'Glanrhyd Hospital Grounds Management Plan' and successful achievement of the Green Flag Award. Another example is the Health Board's work with NHS Forests and the Queen's Canopy project. The 15<sup>th</sup> February 2022 saw the start of a series of tree planting events across CTMUHB. This initiative will see us work with patients, community partners and volunteer staff who are keen to help us create greenspaces for wellbeing. This also highlights our commitment to decarbonisation and the need to offset our carbon outputs in ways that benefit patients and planet.

### **13. SUSTAINABILITY INITIATIVES**

Environmental management is part of the CTMUHB 3 Year Integrated Plan and the ISO 14001:2015 programme of work, with set objectives and targets. We have developed an 'Environmental Objectives and Targets Plan', which is detailed in Appendix A. The Green CTM Group has actively engaged in responding to Welsh Government's ambitious decarbonisation plans and is currently exploring how carbon net zero can be delivered by 2030 in line with NHS Wales Decarbonisation Strategy. It is planned over the next twelve months to align the 'Environmental Objectives and Targets Plan' with the 'CTMUHB Decarbonisation Strategy' and its accompanying action plan once published.

### **14. FUTURE PLANNING AND ASSURANCE**

We plan to build on the above achievements in 2021-22, which are dependent on feasibility at a time when we are still dealing with the challenges of the Covid-19 pandemic. For the coming year 2022-23 the following work is planned to further develop environmental sustainability across CTMUHB:

- Following the successful integration and transition of POW into the new organisation (CTMUHB), we will continue to harmonise activities through the development of a single cohesive Health Board-wide Sustainable Travel Plan;

- We will continue to purchase REGO backed generated electricity and invest in LZCs through Estates maintenance initiatives;
- We will be actively working in partnership with the Bridgend Local Authority and local transport operators to include this locality in any discount schemes. We will also continue discussions to actively encourage the use of public transport to our health care sites and to consider a joint venture to locate and provide a shared 'Park and Ride' facility. Staff at all sites will continue to be encouraged to complete surveys on the intranet news page to enable the Technical Services team to gauge the feasibility of running the scheme full time;
- The current fleet vehicle contract is due for review and renewal and a comprehensive review of all UHB transport provision has commenced and will be carried out in 2022-23. Part of this review will consider changing the fleet to include electric or hybrid vehicles in our vehicle mix when the tender exercise is completed in the 2022-23 financial year;
- The Facilities Technical Services team will be consulting with the workforce and staff teams to approve the use of tracking in Health Board vehicles. The aim being to improve the monitoring and recording of the fleet mileage, maintenance, safety and compliance with speed and fuel consumption. A bid for funding a vehicle tracking system has been submitted in the Facilities 2022-23 IMTP submission;
- A review of the current operating transport fleets, their routes and schedules is being carried out in 2022-23. The scope of the review involves an assessment of quality, compliance with health care standards and legislation. In addition to these, to explore the ways in which a consolidated transport service might operate. It is intended that where the review outcomes are feasible and provides sustainability benefits, the Health Board will consider implementing the resulting recommendations;
- CTMUHB will continue to ensure that risks related to the Health Board's impact on biodiversity, ecosystem resilience and climate change are managed effectively in the organisation with the continued work on the Health Board's 'Glanrhyd Hospital Grounds Management Plan' and achievement of the Green Flag Award and work with NHS Forests and the Queen's Canopy project;
- The Green CTM Group will continue to actively engage in responding to Welsh Government's ambitious decarbonisation plans by exploring how carbon net zero can be delivered by 2030 in line with NHS Wales Decarbonisation Strategy. It is planned over the next twelve months to align the 'Environmental Objectives and Targets Plan' with the 'CTMUHB Decarbonisation Strategy' and its action plan once published.

In relation to assurance, there are a number of challenges and risks that the organisation faces in ensuring implementation of the environmental sustainability agenda, and the underpinning initiatives and projects. Through undertaking the following SWOT (Strengths, Weaknesses, Opportunities & Threats) Analysis and PESTLE (Political, Economic, Social, Technological, Legal and Environmental) Analysis as part of the Annual Environmental Sustainability Report, CTMUHB have identified the key issues that we must work together with key stakeholders both within and outside of the Health Board to overcome and achieve our plans moving forward.

**SWOT (Strengths, Weaknesses, Opportunities & Threats) Analysis of internal issues affecting achievement of outcomes**

<b>Strengths</b>	<b>Weaknesses</b>	<b>Opportunities</b>	<b>Threats</b>
Staff, patient, donor, visitor satisfaction.	Cost associated with certification of EMS and implementation of sustainability and decarbonisation actions.	Better manage and reduce CTMUHB's impact on the environment.	Budget deficit.
High quality output through working towards ISO14001:2015 standard and decarbonisation targets.	Improvements required involve a lot of work in a relatively short period of time to achieve ISO14001:2015 standard and decarbonisation targets.	Compliance with regulations and legal requirements allows opportunities (e.g. funding, collaboration etc.).	Risk of staff, patients, donors, visitors not complying with the agenda and being demotivated.  Availability of capital and revenue funding.
Motivated staff to engage in EMS, sustainability and decarbonisation (e.g. CTM Green Group).	Disruption to ongoing running of services to implement EMS in line with ISO14001:2015 standard and implement sustainability and decarbonisation actions.	Ability to reorganise and redesign CTMUHB's policies and procedures for better efficiency.	Delays in projects / initiatives with other workloads / priorities.  Availability of capital and revenue funding.
Increased production through better utilisation of buildings, equipment and services.	Resources required to implement clauses of ISO14001:2015 standard and sustainability and decarbonisation actions. (e.g. time, finance, staff time especially top management).	Improve the service for staff, patients, donors, visitors.	Loss of staff collaboration across sites and directorates.  Availability of capital and revenue funding.
Gives better impression of the organisation.			Not being able to achieve targets due to organisational changes (e.g. changes in services, staff numbers, CTMUHB estate and allocation of resources and access to them).

**PESTLE (Political, Economic, Social, Technological, Legal and Environmental) Analysis  
of external issues affecting achievement of outcomes**

<b>Political</b>	<b>Economic</b>	<b>Social</b>	<b>Technological</b>	<b>Legal</b>	<b>Environmental</b>
Pressure from Welsh Government and council to merge services and make savings. Need to consider this when new sites / divisions are added to the CTMUHB portfolio	Budget pressure.	High expectations from achieving certification and targets, expecting more from the service.	New advances in equipment and technology available over the course of EMS, sustainability and decarbonisation implementation with introducing new initiatives and projects.	Environmental and Health & Safety Regulations.	Climate change, air and water quality and land use affect the organisation's purpose.
Internal politics between different directorates and departments on implementing ISO14001:2015 standard, sustainability and decarbonisation actions / initiatives.	Cost of achieving ISO14001:2015 standard, sustainability and decarbonisation targets maintaining them.	Low expectations from achieving certification and targets, thinking it is a waste of time and resources, delaying the service.	New advances in seating, conferencing and storage to reduce environmental impact.	Fire Regulations.	Natural resource availability can affect the organisation's purpose.
Brexit and change of Government may affect legislation and regulations, affecting CTMUHB policies and procedures.	Funding opportunities for initiatives (e.g. Salix, Welsh Government Grants etc.)	Community setting.	Old equipment – can it be reused or needs disposing – need to manage this in line with EMS, sustainability and decarbonisation.	Human Rights Act and Wellbeing Regulations.	Availability of space and access on sites to implement initiatives (e.g. source segregation of waste).
	Potential savings achieved through EMS, sustainability and decarbonisation initiatives / projects could be put towards other initiatives.	Established staff group relationships must be maintained with ISO14001:2015 standard, sustainability and decarbonisation.		Legal regulations must be considered for any new initiatives, procedures and changes.	Consider distance between sites and directorates to collaborate initiatives / projects and avoid silo working.
		Staff resistant to change in operations.			Include travel facilities (e.g. bike parking, lockers, shower and car-share spaces, electric vehicles etc.).

## 15. CONCLUSION

In conclusion, 2021-22 has been another challenging and unprecedented year for Cwm Taf Morgannwg University Health Board, with significant progress made on the aligning of the sustainability strategy, policies and operational procedures across the new organisation, since the Bridgend Boundary Change transition started on 1<sup>st</sup> April 2019, but also having to maintain services whilst dealing with the Covid-19 pandemic.

The Covid-19 pandemic has had a negative impact by delaying some environmental projects / initiatives and limited the monitoring processes within our Environmental Management System over the year 2021-22, due to site restrictions and priorities having to be transferred to manage the pandemic.

The pandemic has also had an unexpected positive impact as it has forced some initiatives that were due to be implemented in the long-term, to be rolled out earlier, such as the continued use of MS Teams for meetings and remote working. This improves the service for staff, patients, donors and visitors, through diversifying how it is run as well as improving our impact on the environment at the same time by reducing unnecessary travel.

We have also continued our achievement of retaining the ISO 14001:2015 accreditation for all of our healthcare premises and the Green Flag Award for our Glanrhyd Hospital site.

We have continued to see a significant increase in levels of interest and engagement, as staff and public consciousness on the environment, biodiversity and climate change adaption has grown, particularly with a renewed appreciation for open spaces and nature in dealing with the physical and mental challenges raised by the Covid-19 pandemic.

We have implemented environmental projects / initiatives and monitoring where possible during the pandemic through diarised socially distanced and online work with service leads. For those projects that have had to be postponed, we hope to resume implementing these as part of the 'new normal' when it is feasible to do so and will continue to find innovative ways of supporting and engaging other national and local bodies, patients and our staff with this agenda.

Moving forward into 2022-23, a comprehensive review of all UHB transport provision will be completed, part of which will consider changing the fleet to include electric and hybrid vehicles in our vehicle mix. If funding is made available this will enable CTMUHB to increase the installation of secure chargeable EV charge points for the use of staff and public visitors to its Health Board sites in line with All Wales NHS guidance. The

cost of electric vehicles relative to conventionally powered vehicles has reduced, which makes the expansion of electrically powered vehicles to the fleet more achievable in 2022-23, with reductions in exhaust pollution and carbon emissions being a benefit too.

A review of the current operating transport fleets, their routes and schedules will be undertaken in 2022-23. The scope of the review involves an assessment of quality, compliance with health care standards and legislation. In addition to these, to explore the ways in which a consolidated transport service might operate. The review also includes the Non-Patient Transport services for CTMUHB, including the recently acquired Bridgend locality. The project will exclude Patient Transport (Non-Emergency Transport) services.

The Green CTM Group will continue to actively engage in responding to Welsh Government's ambitious decarbonisation plans by exploring how carbon net zero can be delivered by 2030 in line with NHS Wales Decarbonisation Strategy. It is planned over the next twelve months to align the 'Environmental Objectives and Targets Plan' with the 'CTMUHB Decarbonisation Strategy' and its accompanying action plan once published.

Despite growing pressure on finances, services and resources, particularly as we continue through managing the Covid-19 pandemic, we are positive about the year ahead. The introduction of the CTM Green Group in 2021 has provided a more strategic leadership approach to embedding environmental, sustainability and decarbonisation management. In addition to this, raising sustainability awareness as part of the core values of our organisation has been vital to ensure that the support for sustainable healthcare within the Health Board is in place and to continue to deliver environmental benefits and exceptional care for future generations.



## **APPENDIX A - CWM TAF MORGANNWG UNIVERSITY HEALTH BOARD**

### **ENVIRONMENTAL OBJECTIVES AND TARGETS DELIVERY PLAN**

**(Updated 13/04/2022)**

Colour key for 'Target Risk' column

	Action Completed
	On target no current risk
	Target and actions at risk of not being completed on time – plan discussion to consider additional work/escalation needed
	Deadline for completion of target/action not met – discussion needed to assess risks & consider additional work/escalation needed

#### **PART A – ENERGY MANAGEMENT – (Link to Energy Strategy)**

<b>Objective and Scheme</b>	<b>KPI Target</b>	<b>Task</b>	<b>Progress</b>	<b>Target Date</b>	<b>Target Risk</b>	<b>Scheme Probability 1&gt;3</b>	<b>Project Lead</b>
To reduce the amount of electricity and gas consumed by the Health Board	-3% pa	The Directorate has progressed a series of meetings with the Welsh Government Energy Service (WGES) and Re:fit Cymru, an organisation who supports public sector bodies in Wales to secure guaranteed savings and reduce carbon impacts through energy performance contracts.	Target changed from 7% reduction to 3% reduction pa in line with Welsh Government target. Target Date - 03/22. GH to include Energy schemes at Bridgend moving forward. Current estimates show that electricity consumption may increase by 457,798 kWh (1.63%). Gas consumption may increase by 1,688,760 kWh (1.91%) on the previous financial year. Progress has been severely impacted by the coronavirus pandemic during 2021-22. Revenue allocations have been awarded to LED lighting projects.	04/22		<b>1</b>	Paul Lewis

Introduce energy champions	Linked to energy group objectives and targets. Promote Good Housekeeping, by encouraging colleagues to switch off unnecessary lighting, turn off radiators if overheating in areas instead of opening windows and to report any defects found to the helpdesk.	The formation of the Net Zero 2030 Green Group has brought together environmental champions from various directorates who meet monthly.  It has been determined that the lead should come from each directorate Head to nominate their Environmental Champion, to take responsibility for their department/area	03/23		<b>1</b>	James Edwards
Voltage Optimisation.  This is controlling the low voltage that we supply around our sites.	These units have proved to give a saving of up to 6-10% on electricity consumption as in the case at YGT.  Feasibility study has been carried out throughout the HB premises.	This project was previously identified as not viable due to single points of failure and other associated risks.  Estates are working with Powerstar to survey compatibility with health board properties in order to re-evaluate this scheme.	03/24		<b>3</b>	Gary Humphrey
Insulation Replacement	Any hot water, heating or steam pipes and fittings, which are un-lagged, are an obvious source of wasted energy. A survey of all heating systems throughout the Health Board was carried out and identified areas which will be re-lagged estimate of savings 10%.	Survey's carried out, reliant on funding being made available to complete.  Some insulation replacement projects have been identified as part of the Health Board's Carbon Management Plan.	03/23		<b>3</b>	Gary Humphrey

Solar Photovoltaic (Solar PV)	<p>Solar PV systems work by converting light into electrical power.</p> <p>In some cases these systems can be fitted free of charge and the installer takes all the Feeding Tariff (FIT) to pay for the scheme. That way we have free electricity and no Capital outlay. Estimate of savings is between 25-30%.</p>	<p>The Health Board has also been working in partnership with the Carbon Trust with surveys undertaken at RGH, YGT, YCR and East Glamorgan Laundry. Survey recommendations include further investment in the potential installation of photovoltaic systems at YGT and YCR. Funding has been identified in the Estates IMTP to firm up these recommendations with an engineering evaluation suitable for tender and implementation.</p> <p>Solar PV installations have been included in the Health Board's Carbon Management Plan.</p> <p>Target Date - 04/22 Welsh Government Decarbonisation funding has allowed the Health Board to form a partnership with a procurement framework supplier to design &amp; start to install solar panel arrays on the roof of KHHP, YCC, YCR.</p>	04/22		<b>2</b>	Paul Lewis
CHP (Combined Heat and Power)	<p>CHP integrates the production of usable heat and power, in one single, highly efficient process. The unit generates electricity whilst also capturing usable heat that is produced in this process. This contrasts with conventional ways of generating electricity where vast amounts of heat are simply wasted.</p> <p>The Health Board have units both at PCH and RGH.</p>	<p>The installation of further CHP units at PCH, RGH and POW have been included in the Health Board's Carbon Management Plan.</p> <p>Review required to determine if CHP will be viable under new Welsh Government Energy Service guidelines.</p>	04/25		<b>2</b>	Paul Lewis

Absorption Cooling	Unlike vapour compression systems, which use electrically-driven compressors, absorption cooling technologies use a source of heat to produce cold water. This characteristic makes absorption cooling machines a very useful sink of waste heat. Potential 25% reduction.	Feasibility at PCH completed.  The installation of an absorption chiller unit at PCH has been considered for inclusion in the Health Board's Carbon Management Plan. Major Projects are currently looking at incorporating an absorption plant into the ground & first floor refurbishment scheme (i.e. any heat loss we don't use can go back into the system).	04/23		<b>2</b>	Gary Humphrey
Lighting Control	Lighting control can be achieved in several ways; however, the easiest and most cost effective is by means of passive infrared detectors. The payback period by installing the detectors in carefully selected areas is approximately 11 months. Potential 20%-40% reduction.	Reliant on funding.  Welsh Government decarbonisation monies is currently funding the replacement of existing lights at the Princess of Wales Hospital with LED lighting, along with intelligent lighting controls.  Further lighting controls have been included in the Health Board's Carbon Management Plan.	09/22		<b>1</b>	James Edwards
LED Lighting	Convert traditional tungsten and low efficiency lighting fittings and lamps to higher efficiency LED equivalents.	The Health Board has completed a gap analysis of LED lighting currently installed across all properties. The replacement of low efficiency lighting with LEDs has been included in the Health Board's Carbon Management Programme. LED lighting has been fitted in all car parks.	03/23		<b>1</b>	Gary Humphrey
Smart Meters	The Organisation is rolling out with the Suppliers the installation of Smart Meters. This is also included in the new Gas contract, so data can be collected via the web.	The Health Board has produced a gap analysis of smart meters and is working with British Gas Business and with Stark.co.uk to install smart meters to all gas and electricity meters. The Health Board is also considering the cost benefits of installing further smart meters to water supplies where feasible.	03/23		<b>1</b>	James Edwards

PART B – WASTE MANAGEMENT							
Objective and Scheme	KPI Target	Task	Progress	Target Date	Target Risk	Scheme Probability 1>3	Project Leads
To improve clinical waste segregation to reduce the environmental impact of waste disposal and minimise associated costs,	35% diversion for 2022/23 with 5% increment each year	<p>Improve segregation of offensive hygiene waste from the infectious clinical waste stream run rate.</p> <p>Staff awareness training at ward/department level.</p> <p>To divert an average of 48% of existing tonnages into the offensive waste stream across the UHB sites.</p>	The UHB Offensive Hygiene Waste (Tiger Waste) diversion from the infectious waste stream is forecast to be 14% in this reporting period, which is a shortfall on the last reporting period of 19%. This is again due to the boundary extension with Bridgend sites and also the additional waste generated from Covid-19 vaccination centres. We have a waste target action plan in place that will ensure that the segregation of offensive hygiene waste continues to be adhered to at the acute site Princess of Wales in 2022-23 which will see an increase in tonnage recycling figures and a reduction in incineration costs. Agreed for target to remain at 35% for 2022-23 based on the above performance, and will see an increase of 5% year on year (DW 04/04/2022).	04/23		1	Environment Waste & Fleet Manager
Food Waste Recycling	Target Divert 100%	To work with UHB's waste contractor(s) to develop food waste recycling and diversion to AD or composting.	Food waste collections continue at PCH, RGH, CPU, YCR, YCC, and the POW site. Keir Hardie Health Park, Glanrhyd and Maesteg now have food waste collections fully in place. We will have diverted an estimated 230 tonnes of waste from landfill to anaerobic digestion treatment this year, a decrease of 51 tonnes compared to the 281 tonnes diverted last year. This waste comprises of food preparation waste and plated food not consumed by patients. The development works at PCH have continued to impact on the collection of restaurant food wastes. CTMUHB has met its Welsh Government target of having anaerobic digestion at all locality sites. <b>Target completed (CE DW 30/04/2021).</b>	03/22		1	Environment Waste & Fleet Manager

To increase recycling as a disposal method for waste	55% diversion for 2022/23 with 5% increment each year	<p>Implement a waste segregation awareness campaign to improve segregation of recyclable materials.</p> <p>To increase the amount of commercial and industrial waste stream recycled year on year by 5% as monitored and reported by the EFPMS returns</p> <p>Patient leaflet being considered based on the segregation leaflet to encourage waste segregation by patients/visitors</p>	<p>Environmental Management information leaflets and Waste Segregation leaflets have been issued. Environment, Waste and Energy e-Learning module is available and completion of the module is a mandatory requirement for staff as part of ESR.</p> <p>The Health Board recycling figure for 2021-22 is projected to be 75%. This is an increase on the 40% figure for the last reporting period (2020-21) and over the 50% Health Board recycling to landfill ratio target set for 2021-22. Taking this increase in recycling into account, whilst acknowledging the estimated extrapolated figures for 2021-22, it has been decided that the target for 2022-23 will be increased to 55%, with a forecasted 5% increase year on year (CE DW 04/04/2022).</p>	04/23		<b>1</b>	Environment Waste & Fleet Manager
To divert non-recyclable waste from landfill where practicable.	70% by 2025	<p>Work with our general waste and clinical waste contractors to divert non-recyclable waste to Refuse Derived Fuel.</p> <p>To work towards Welsh Government target of 70% diversion by 2025</p>	<p>The Health Board recycling figure for 2021-22 is projected to be 75%. This is an increase on the 40% figure for the last reporting period (2020-21) and over the 50% Health Board recycling to landfill ratio target set for 2021-22. Taking this increase in recycling into account, whilst acknowledging the estimated extrapolated figures for 2021-22, it has been decided that the target for 2022-23 will be increased to 55%, with a forecasted 5% increase year on year (CE DW 04/04/2022).</p>	04/23		<b>1</b>	Environment Waste & Fleet Manager

To improve waste management administration and monitoring	To introduce administrative systems to improve –  1. Supplier validation	The HB clinical waste contractor is subject to site duty of care audit by UHB & Trust members of the All Wales Clinical Waste Consortium on a rota basis twelve times a year.  Additional audits are planned at SRCL sites at Bournemouth, Avonmouth and Knowsley following award of a new clinical waste contract for the period April 2017-March 2022.  Site duty of care audits are still in place and undertaken by the Health Board as part of the All Wales waste contract as a check. <b>Target completed. (CE DW 26/03/2021).</b>	04/20		<b>1</b>	Environment Waste & Fleet Manager
Investigate the opportunities for engagement with our local authorities to link waste initiatives and schemes by shared working.	Explore opportunities for partnership working and lean and joined up thinking on waste management. Areas of opportunity; Residential recycling Food waste Home collections of clinical waste Promotion of waste schemes	Recycling bins are still provided and collected by All Wales Waste Contractor Veolia. <b>Target completed (CE DW 26/03/2021).</b>	12/19		<b>3</b>	Environment Waste & Fleet Manager
<i>From CTM Decarbonisation Strategy - Introduce additional inhaler-specific disposal facilities in hospitals in partnership with industry stakeholders.</i>	Pharmacy with support from Facilities and Procurement to source an alternative inhaler-specific disposal facility in CTM hospitals, in partnership with industry stakeholders and that meet Welsh Government HTM 07-01 guidelines for Category 18 waste. - Ongoing by March 2023.	Inhaler-specific disposal company that was being used has unfortunately folded, currently sourcing an alternative company. (RH DW WL CE 11/02/2022).	03/23		<b>2</b>	Environment Waste & Fleet Manager

## PART C – CARBON AND AIR EMISSIONS REDUCTION

Objective	KPI Target	Task	Progress	Target Date	Target Risk	Scheme Probability 1>3	Project Leads
To meet the Welsh Governments target on Carbon reduction	-3% PA	<p>To take appropriate steps to control energy use and to monitor CO<sup>2</sup> emissions against target</p> <p>To set up a spreadsheet for monitoring and reporting the Health Boards Carbon Footprint</p> <p>The target set by WG is a 3% reduction carbon year on year</p> <p><u>Scope:</u></p> <ul style="list-style-type: none"> <li>Gross Emissions (Scope 1 direct transport)</li> <li>Gross Emissions (Scope 1 direct energy)</li> <li>Gross Emissions (Scope 2&amp;3 indirect transport)</li> <li>Gross Emissions (Scope 2&amp;3 indirect energy)</li> </ul>	<p>The Energy and compliance team has implemented, and continue to maintain a set of capable monitoring and targeting spreadsheets that produces trends and calculations based upon the utility bill readings exported monthly from the TEAM energy management database system for each utility and water account.</p> <p>Monitoring of CO<sub>2</sub> will be done using the Team energy management database system, from which consumption figures are extracted. The GHG emission factors are then applied to the consumption figures to produce the CO<sub>2</sub> figures. The Cwm Taf Morgannwg 'Strategic Assessment of Energy Efficiency Opportunities' report has been undertaken with consultancy support from the Welsh Government Energy Service (WGES) and comprises the recommendations of six detailed energy audits completed in August 2018. The work identified the potential for a 13% carbon saving that can be achieved across the six audited sites and produced a Carbon Management Programme for the UHB.</p> <p>The Health Board has signed up to the Re:fit Project which envisages a number of phases over the next ten years. The first phase shall comprise various assets/buildings, the properties will be selected to deliver a carbon neutral plan for a range of property types, including a plan for at least one</p>	Annual during plan		2	Energy and Environment Waste & Fleet Managers



			District General Hospital, one Community Hospital, one post 2000 built property such as Keir Hardie Health Park and one clinic/health centre, to provide a formula for converting other similar property types to achieve carbon neutral by 2030. Final selection of the properties will tie in with the Estates Backlog Maintenance Plan and the Estates Strategy which will inform Local Partnerships Services in relation to Stages1, 2 and 3.				
<p><i>From CTM Decarbonisation Strategy</i></p> <p>- Develop a targeted approach to encourage and facilitate low carbon staff travel. This will include keeping staff up to speed with available travel options and exploring opportunities to support and encourage the purchase of battery-electric vehicles (BEVs), ultra-low emission vehicles (ULEVs), bicycles, electric bicycles and public transport loan schemes and discounts.</p>	04/24	<p>Facilities Directorate to review Site Travel Plans to include all active travel initiatives / solutions for each site, encouraging modal shift from single occupancy car travel to more sustainable modes, such as public transport, EVs, car sharing, active travel and flexible working.</p> <p>Closely follow the guidance set out in the Active Travel Action Plan for Wales to ensure suitable considerations for active travel are factored into decision making.</p>	<p>A decrease in business mileage claims of 10% (from 4.266M miles in 2020-21 to 3.854M miles in 2021-22).</p> <p>Staff lease car mileage claims have also decreased by 12% from 0.285M to 0.252M miles during the same period.</p> <p>These decreases reflect the impact of the Covid-19 pandemic, with an increase in remote and home working and less of a need to travel to work sites.</p> <p>The 2020-21, 2021-22 year on year Scope 3 CO2e emissions have increased by 74% from 1.287 to 2.236 (1,000 t CO2e). The Scope 3 emissions relating to staff mileage and lease car user claims continue to be the largest element of the UHB transport kgCO2e emissions.</p> <p>Capital, supported by NWSSP, Estates and Facilities, are currently developing an approach for EV charging infrastructure implementation across CTMUHB – this will include action on</p>	04/24		<b>1</b>	<p>Capital</p> <p>Technical Services Manager</p> <p>Environment Waste &amp; Fleet Manager</p> <p>Wellbeing lead / group</p>

			<p>increasing electrical capacity, understanding the other development plans (e.g. renewable energy), and collaborating across other NHS organisations such as WAST.</p> <p>An EV pilot project is currently underway at PCH managed by Capital. Trial of electric vehicles in fleet already in place.</p> <p>Facilities Directorate already have Site Travel Plans which include active travel initiatives / solutions for each site but these need to be reviewed in line with new WG legislation / guidance and following Covid-19 and refurbishment works, developing a single UHB wide Travel Plan and associated unified Action Plan. To be completed by March 2024. (RH DW WL CE 13/04/2022).</p>				
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## PART D – WATER CONSUMPTION MANAGEMENT

Objective	KPI Target	Task	Progress	Target Date	Target Risk	Scheme Probability 1>3	Project Lead
Water Control to Urinals	Reduce by 2%	The pay back on this is generally just under 12 months. However the setting of such devices has to be carefully considered against any operational problems that may arise as a result of their use, for example traps and drains drying out, or pipe work flows too low to clear the discharge properly. A device such as a cistern master is installed in the cold water supply pipe to the cistern. This allows the cistern only to flush when someone uses the toilet and runs a tap at the washbasin. Previously Welsh Water have carried out free surveys on our sites and have installed free of charge, control devices to save water.	<p>Sites have been surveyed by Aqua logic on behalf of Dwr Cymru.</p> <p>Automatic controls installed to urinals at: - PCH, RGH, YCC, YCR, KHHP.</p> <p>Unfortunately Dwr Cymru no longer carry out free surveys, so funding would be required to complete all sites.</p> <p>Water control to urinals is to be revisited &amp; an up to date document be produced.</p>	03/23		1	Gary Humphrey
To reduce the amount of potable water used on sites.	Reduce by 2%	<p>Introduce a Water Awareness Campaign</p> <p>To reduce the water consumption by 2% as reported and monitored by EFPMS</p>	<p>There has been an estimated decrease in water consumption of approximately 1.45% from April 0 2021 – March 2022 across the Estate, compared to the previous year, largely down to the vastly reduced normal clinical activities, reduced non-COVID patient throughput &amp; office based staff working from home.</p> <p>Estates officers actively encourage the regular flushing of hot and cold water systems, especially low use outlets across the Health Board. Therefore estates are carrying out flushing more frequently &amp; at more</p>	03/23		1	James Edwards

			<p>outlets than ever before. Estates are also actively removing outlets with low use which will reduced wasted water from flushing.</p> <p>The Energy and compliance team continue to use a set of capable monitoring and targeting spreadsheets that produces trends and calculations based upon the utility bill readings exported monthly from the TEAM energy management database system for each utility and water account. These monitoring &amp; targeting spreadsheets assist in the detection of leaks on sites where consumption has increased.</p> <p>The on-going ground and first floor refurbishment at Prince Charles Hospital will see a significant increase in water consumption with the construction of a new 25m<sup>3</sup> hydrotherapy pool in a purpose build building. As with all other hydrotherapy pools across the Health Board, this pool will require daily back washing which in itself consumes water.</p> <p>There are also double stacked additional portable buildings on site called Units 2 &amp; 3,occupied with staff which will consume water.</p>				
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Minimise water waste	Reduce by 2%	<p>Add telemetry to Water meters to track usage and highlight leakages.</p> <p>Awareness</p> <p>To improve water monitoring tools</p>	<p>Initial telemetry added to water meters at YCC &amp; YGT is dialled into on a monthly basis to verify water bills. We have also been able to gain access to water meter telemetry at Dewi Sant Health Park, East Glamorgan Laundry, Glanrhyd, Kier Hardie Health Park, PCH, Princess of Wales Hospital &amp; YCR. A gap analysis has been drawn up to look at adding telemetry to other water meters across the estates especially on sites of high demand &amp; sites that are prone to underground leaks during cold weather. Roll out to all sites planned if further funding is made available. The Energy and compliance team have implemented a set of capable monitoring and targeting spreadsheets that produces trends and calculations based upon the water bill readings exported monthly from the TEAM energy management database system for each water account.</p> <p>The Health Board has produced a gap analysis of water meters and is intending to work with Dwr and with Stark.co.uk to install loggers to all water meters on high consumption sites. Our plans have received a set back in the fact that Dwr Cymru Welsh Water no longer work with technolog, whom they had worked with for many years to install water meters. The Health Board is waiting to hear from Dwr Cymru Welsh water about their plans for installing, monitoring &amp; maintaining water meters. Target Date - 03/23.</p>	03/23		2	James Edwards
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Water and drainage plans	Plans in place for all sites	<p>Ensure site drainage plans are available which clearly identify foul/surface water/ interceptors etc.</p> <p>Ensure water and drainage plans are up to date and available</p>	<p>All sites completed with the exception of PCH which requires updating as refurbishment work continues to be carried out at this site for a number of years.</p> <p>Further work is being carried out to include the additional properties that came across with the boundary change to include healthcare properties within the Bridgend County Borough Council boundary, excluding learning disability properties (RE CM 13/03/2020). This piece of work will be continued by Alex Whitecross-Evans as Chris Meyrick has retired.</p>	03/23		<b>1</b>	<p>Richard Edwards /</p> <p>Alex Whitecross-Evans</p>
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PART E – TRANSPORT AND TRAVEL MANAGEMENT							
Objective	KPI Target	Task	Progress	Task Date	Target Risk	Scheme Probability 1>3	Project Lead
<i>From CTM Decarbonisation Strategy</i> - Ensure each Health Board and Trust has a single Fleet Manager in place with oversight of all Health Board / Trust fleet vehicles. They should put in place a central fleet management approach.	04/23	CTM to have in place a dedicated Fleet Manager.	Craig Edwards fleet manager in-post. <b>Target Completed (RH DW WL CE 11/02/2022)</b>	04/23		<b>1</b>	Technical Services Manager  Environment Waste & Fleet Manager
<i>From CTM Decarbonisation Strategy</i> - Implement / continue to implement telematics solutions to analyse and improve driver behaviour.	04/23	Facilities to review and evaluate the current CTM Transport Fleet specifications - To be completed by March 2023.	Due to start April 2022 (RH DW WL CE 11/02/2022).	04/23		<b>1</b>	Technical Services Manager  Environment Waste & Fleet Manager  Procurement Services
<i>From CTM Decarbonisation Strategy</i> - Continue with existing vehicle procurement schedule, prioritising battery electric vehicle fleet where practically possible from March 2022. In justifiable instances where this is not suitable (e.g. range issues), ultralow emission vehicles can be procured. Exceptions	04/25	Facilities to review and evaluate the current CTM Transport Fleet specifications - To be completed by March 2023.  Facilities and Procurement to consider opportunities for alternative options for prioritising battery-electric or hybrid fleet. - To be completed by March 2024.  Procurement to source suitable battery-electric or hybrid fleet vehicles. - To be completed by March 2024.	With support from the Major Projects team, a tender for electric charging points has been exercised and awarded to begin work during the summer of 2020, which will allow Estates and Facilities teams to opt for carbon saving options within their fleets. Installed and ready for use. Completed (CE 01/02/2021).  Trial of electric vehicles in fleet already in place. Facilities to review and evaluate the current CTM Transport Fleet specifications – starting in April 2022, to be	04/25		<b>1</b>	Technical Services Manager  Environment Waste & Fleet Manager

will be made where technology is not market-ready (e.g. there are currently no market-ready ULEVs suitable to replace existing Non Emergency Patient Transport (NEPTS) vehicles).		<p>Facilities and Procurement to identify the lease and fuel conversion costs and funding to support the conversion of fleet. - To be completed by March 2025.</p> <p>Capital / Estates and Procurement to identify the electric charging infrastructure, installation and associated costs required to meet the proposed battery-electric fleet. - To be completed by March 2025.</p>	completed by March 2023 (RH DW WL CE 11/02/2022).				
<p><i>From CTM Decarbonisation Strategy</i> - Develop an approach to decarbonise fleet emissions, including:</p> <ul style="list-style-type: none"> <li>• Vehicle management systems to consolidate journeys</li> <li>• Technologies such as low energy tyres and aerodynamic improvements</li> <li>• Exploring localised opportunities for alternative fuels (e.g. biodiesel / hydrogen)</li> </ul>	04/25	<p>Facilities Directorate to bid for and secure funding to implement a Fleet Management and Tracking System. To be completed by March 2023.</p> <p>Facilities and Procurement to consider opportunities for alternative options for prioritising battery-electric or hybrid fleet. - To be completed by March 2024.</p> <p>Procurement to source suitable battery-electric or hybrid fleet vehicles. - To be completed by March 2024.</p> <p>Facilities and Procurement to identify the lease and fuel conversion costs and funding to support the conversion of fleet. - To be completed by March 2025.</p> <p>Capital / Estates and Procurement to identify the electric charging infrastructure, installation and associated costs required to meet the proposed battery-electric fleet. - To be completed by March 2025.</p>	Trial of electric vehicles in fleet already in place. (RH DW WL CE 11/02/2022).	04/25		<b>1</b>	<p>Technical Services Manager</p> <p>Environment Waste &amp; Fleet Manager</p> <p>Procurement Services</p>



From CTM Decarbonisation Strategy - Procure ultra-low emissions freight vehicles across NHS Wales from 2025.	04/25	Facilities and Procurement to review and evaluate the current CTM Transport Freight vehicle specifications and ultra-low emissions options for the CPU. To be completed by March 2025.	To be completed by March 2025 (RH DW WL CE 11/02/2022).	04/25		1	Technical Services Manager Environment Waste & Fleet Manager Procurement Services
From CTM Decarbonisation Strategy - Consult staff to establish appropriate actions that can be taken to encourage wider uptake of BEVs/ULEVs and disincentivise high emission travel. Examples might include: • Introducing financial incentives to encourage/enable staff to purchase BEVs and ULEVs (e.g. salary sacrifice schemes) • Reducing the existing financial payment per mile to disincentivise private vehicle use, unless the vehicle is an ULEV vehicle. • Creating a financial incentive for using ULEV fleet vehicles (alongside increased access to ULEVs outlined in previous initiatives).	04/23	Facilities to support with reviewing the current CTM Transport pool vehicle specifications.  Facilities and Procurement to consider opportunities for alternative options for prioritising battery-electric or hybrid pool vehicles.  NWSSP / Staff lease car leads to to review and evaluate the current NHS Wales staff lease vehicle specifications / options.	Due to start September 2022 (RH DW WL CE 11/02/2022).	04/23		1	Technical Services Manager Environment Waste & Fleet Manager

From CTM Decarbonisation Strategy - Update business travel policies to implement a travel hierarchy that encourages/incentivises sustainable travel and reduces the use of high emission vehicles.	12/22	Facilities to work with a management consultant to develop a strategy which reviews business travel policies to prioritise the use of electric pool cars, electric private vehicles, and public transport through a hierarchy approach. Complete.  CTM to implement the recommendations from the management consultant 'Business Mileage Reduction Strategy' to change organisation business travel practices. - Ongoing by December 2022.	Strategy with recommendations completed by consultant in 2021. CTM to now implement the recommendations in 2022 (RH DW WL CE 11/02/2022).	12/22		1	Technical Services Manager  Environment Waste & Fleet Manager
Review travel survey data	04/21	Review data and cross refer feedback and links to objectives and targets and current travel plans.	Review complete. <b>Target Completed (CE 01/02/2021).</b>	04/21		1	Technical Services Manager  Environment Waste & Fleet Manager  Karen Vaughan CHS Group
Develop and expand on car sharing schemes for staff.	2% of staff per year	Identify suitable car sharing schemes for staff.  Local and web based schemes	Car sharing being promoted through Environmental Factsheet to be issued to staff in as part of the UHB ISO 14001 action planning. Car sharing sites identified and to be promoted: -  <a href="http://www.gettravelwise.com">www.gettravelwise.com</a> <a href="http://www.sewtacarshare.com">www.sewtacarshare.com</a> Lift share: <a href="http://www.liftshare.org">www.liftshare.org</a> National Car share: <a href="http://www.nationalcarshare.co.uk">www.nationalcarshare.co.uk</a> Share a journey: <a href="http://www.shareajourney.com">www.shareajourney.com</a>	12/19		2	Technical Services Manager  Environment Waste & Fleet Manager

			<p>Car share scheme - CE confirmed that this is not a paid service provided it is for public use. CE to go for public awareness schemes on share point and promote.</p> <p>Liftshare - Internal liftshare scheme now on share point for employees to join and use for free. A Weeks Public engagement to be arranged. CE met with Debbie Owen (Communications Team) on Friday 10th May 19 to discuss action plan and publicity.</p> <p>Car hire scheme – CE had met with Enterprise to discuss car club, not cost effective. Business mileage for all directorates. Enterprise doing some back ground work on total health board mileage claims. Ongoing no Response from Enterprise Team. (CE 28.06.19).</p> <p>Liftshare - Internal liftshare scheme now being promoted on share point for employees to join and use for free. <b>Target completed (CE 13/03/2020).</b></p>				
Car hire scheme to be explored as a support to pool car service.	09/18	Scope the introduction of a pay as you go hire vehicle scheme to support the current pool vehicle scheme and provide additional options for users and those staff claiming business mileage.	<p>Preliminary discussions have been held with the Enterprise Flex-e-Rent to evaluate what they are able to offer for Grey Fleet solutions and a Car Club program.</p> <p>Initial evaluation is that such a scheme is not cost effect compared with the direct vehicle leasing contract that the UHB currently operates. <b>Agreed not a feasible scheme (CE 13/03/2020).</b></p>	09/19		2	<p>Technical Services Manager</p> <p>Environment Waste &amp; Fleet Manager</p>

Actively encouraging use of public transport. This is a Corporate Health Standard group objective.	04/21	Explore travel options with local authority and bus fleet operators auto encourage staff and the public make more use of public transport to travel and access CTUHB sites.	Public transport now promoted through an Environmental Factsheet to be issued to staff in as part of the UHB ISO 14001 accreditation action plan. Updated public transport information available at hospital main entrances.  Public transport information to be updated to CTMUHB at hospital main entrances across sites including Bridgend locality. <b>Target completed (CE 26/03/2021).</b>	04/21		<b>2</b>	Karen Vaughan CHS Group  Environment Waste & Fleet Manager
Further improvements to car parking facilities at PCH	04/18	Major improvement work to access and car parking infrastructure at Prince Charles hospital is part of a business case submitted to the WG to refurbish the site.	Business Case in on-going and awaiting WG approval and funding.  Current estimate of commencement of work is 4 years. Feasibility of Park and Ride Scheme off-site currently being looked at (CE DW 26/03/2021).  Major improvement progress achieved in 2021-22 and ongoing until 2025 (RH CE DW 06/04/2022).	04/25		<b>3</b>	Major Capital Projects  Technical Services Manag
Supporting and promoting working from home. This is a Corporate Health Standard group objective.	Number of staff who have access to working from home being provided by IT on request	Identify the current number of staff who have access to working from home.  Identify if there is scope to increase the home working access to staff.	Many staff are provided with the IT facility to periodically work from home.  Flexible Working - Organisation now supporting working from home and monitoring data.  Number of staff who have access to working from home can now be provided by IT on request. <b>Target completed (CE DW 13/03/2020).</b>	12/19		<b>1</b>	Head of Organisation Development. Corporate Health Standard group

Travel and Transport notice boards to be made available at hospital site entrances to provide information about internal and external travel and transport options for staff and public.	Provide at acute and community hospital	<p>Identify helpful and useful information to be included in the notice boards.</p> <p>Identify cost and funding.</p> <p>Identify suitable location to mount the boards.</p> <p>Duplicate on intranet and internet consider use of apps to access the information.</p>	<p>Draft notice boards have been produced. Suitable location has been identified. Links to train and bus services are given in the Environment Factsheet referred to above.</p> <p>A bid for innovation funding has been made to provide environmental, travel and patient experience information electronically via i-pad type terminals at hospital entrances.</p> <p>Transport and travel information notice boards have been updated to include the CTMUHB logo and are being set up at the three Bridgend hospital sites. <b>Target completed (CE DW 13/03/2020).</b></p>	09/18		<b>1</b>	<p>Technical Services Manager</p> <p>Environment Waste &amp; Fleet Manager</p>
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PART F – EMS DEVELOPMENT						
Objective	Task	Progress	Target Date	Target Risk	Scheme Probability 1>3	Project Lead
Further development of an Environmental Management intranet site which will include all aspects of the EMS in relation to policy, objectives, targets, performance, advice and information for staff and public.	Finalise content of SharePoint environmental pages in conjunction with 'Energy Awareness pages' and launch site; Energy, Water, Transport and Travel, Waste, Carbon Reduction	Intranet Sustainability webpage linking energy, waste and transport together with the EMS and Glanrhyd Green Flag Award now in place. <b>Target completed (DW 13/03/2020).</b>	04/20		1	Facilities Governance & Compliance Manager
Bid for Innovation - Facilities and travel information touch screen kiosks to be sited at each hospital entrance.	As part of our development work the facilities transport and travel team has submitted a bid for innovation funding. This facility will enable visitors to access information about transport & travel, car parking, hospital Facilities for example catering. Useful links / access to public and patient satisfaction and experience surveys as they arrive on site.	Bid submitted 2017.  Unfortunately funding was not made available for this scheme, not currently viable. <b>Scheme not feasible (CE DW 13/03/2020).</b>	04/19		3	Environment Waste & Fleet Manager
Successful transition of ISO14001 services from ABMUHB to CTUHB as part of Bridgend Boundary Change.	Based on guidance from the CTUHB and ABMUHB ISO 14001:15 external auditing body SGS, CTUHB proposes to introduce a phased approach to successfully transfer the sites onto the CTUHB ISO 14001:15 scope whilst minimising the risk of non-compliance for both health boards.	CTMUHB achieved ISO14001: 2015 certification via recertification audit, next audit for Bridgend sites PoW Glanrhyd and Maesteg will be held July 2020 (DW 13/03/2020). Audit split into two parts due to covid-19 pandemic. July 2020 part successful, second part scheduled for April 2021 from November 2020 again due to covid-19 pandemic. <b>Target completed (DW 31/07/2021).</b>	05/21		1	Facilities Governance & Compliance Manager

PART G – BIODIVERSITY						
Objective	Task	Progress	Target Date	Target Risk	Scheme Probability 1>3	Project Lead
To maximise the quality and benefits from our green spaces and reduce biodiversity loss by protecting and enhancing natural assets.	Achieve Board approval of the 'CTMUHB Biodiversity and Ecosystem Resilience Plan' in order for it to be fully endorsed by the organisation in line with WG Environment (Wales) Act 2016.	At present the 'CTMUHB Biodiversity and Ecosystem Resilience Plan' has been drafted and approved by the Health Board's Environmental Management Steering Group. The next stage will be to achieve Board approval of the plan in order for it to be fully endorsed by the organisation. This is planned to be undertaken during summer 2020, following consultation (DW 13/03/2020). Target extended to summer 2022 due to covid-19 pandemic (DW 26/03/2021). Target extended to summer 2023 due to covid-19 pandemic (DW 06/04/2022).	03/23		1	Facilities Governance & Compliance Manager
To maximise the quality and benefits from our green spaces and reduce biodiversity loss by protecting and enhancing natural assets.	Successfully achieve the Green Flag Award 2020 for Glanrhyd Hospital.	Health Board's 'Glanrhyd Hospital Grounds Management Plan', has been produced and submitted for the Green Flag Award 2020 on 28th February 2020 (DW 13/03/2020). Achieved Green Flag Award 2020/21 and will continue to submit annually. <b>Target completed (DW 26/03/2021).</b>	03/21		1	Facilities Governance & Compliance Manager

PART H – CLIMATE CHANGE ADAPTATION						
Objective	Task	Progress	Target Date	Target Risk	Scheme Probability 1>3	Project Lead
To ensure that our whole organisation is prepared to deal with the effects of climate change, particularly extreme weather events, and continue to invest in adaptation and mitigation measures.	Ensure that effects of climate change and measures to combat are incorporated within Health Board Plans	Climate change measures have been included as part of the organisation's 'Biodiversity and Ecosystem Resilience Forward Plan' (due to be approved once Covid-19 pandemic allows), as well as it's 'Glanrhyd Hospital Grounds Management Plan', but still working to add Climate Change to CTMUHB Decarbonisation Plan which is currently being drafted by the CTM Green Group (DW 06/04/2022).	07/23		1	Facilities Governance & Compliance Manager



## **APPENDIX B - ENVIRONMENTAL MANAGEMENT SUPPORTING EVIDENCE**

Title	Evidence
<b>Transport</b>	<ul style="list-style-type: none"> <li>• Transport and Travel Policy.</li> <li>• Finance, Performance and Workforce Committee reports.</li> <li>• Quality &amp; Safety and Management Board Committee reports.</li> <li>• Staff business user mileage paper and data.</li> <li>• Performance and monitoring data set reports relating to waste segregation, energy, water, transport.</li> <li>• Travel Plans.</li> <li>• Financial performance reports.</li> <li>• Prince Charles Hospital Car parking refurbishment plan.</li> <li>• Shuttle bus scheme.</li> <li>• Pool car scheme and pool car financial conversion tool.</li> <li>• Shuttle bus scheme.</li> <li>• Facilities helpdesk transport booking system.</li> <li>• Communication articles, bulletins, leaflets, posters.</li> <li>• Cycle salary sacrifice scheme.</li> <li>• Lease car salary sacrifice scheme.</li> <li>• GK Transformation Consultancy Firm Review Regarding Internal Transport and Reduction in Business Mileage.</li> <li>• Invest to Save Proposal to Support the Reduction in Business Mileage.</li> <li>• The 'Mavis' story.</li> </ul>
<b>Waste</b>	<ul style="list-style-type: none"> <li>• Waste Policy and Waste Segregation Procedure.</li> <li>• Finance, Performance and Workforce Committee reports.</li> <li>• Quality &amp; Safety and Management Board Committee reports.</li> <li>• Financial performance reports.</li> <li>• Infection Prevention and Control Board Committee reports.</li> <li>• Performance and monitoring data set reports relating to waste segregation.</li> <li>• Communication articles, bulletins, leaflets, posters.</li> </ul>
<b>Decarbonisation</b>	<ul style="list-style-type: none"> <li>• CTMUHB Decarbonisation Strategy and Action Plan (currently being drafted by the CTM Green Group).</li> <li>• NHS Wales Decarbonisation Strategy.</li> </ul>

<b>Energy</b>	<ul style="list-style-type: none"> <li>• Energy Policy.</li> <li>• Finance, Performance and Workforce Committee reports.</li> <li>• Quality &amp; Safety and Management Board Committee reports.</li> <li>• Energy reduction and savings plan.</li> <li>• Performance and monitoring data set reports relating to energy on Estates EMS 'TEAM' data management system.</li> <li>• Communication articles, bulletins, leaflets, posters are available on share point.</li> </ul>
<b>Environmental Management</b>	<ul style="list-style-type: none"> <li>• Cwm Taf University Health Board, Facilities and Estates Integrated Medium Term Plans (IMTPs).</li> <li>• Environmental Policy.</li> <li>• EMS System Manual.</li> <li>• EMS Objectives and Targets Delivery Plan.</li> <li>• EMS Annual report.</li> <li>• EMS Forward Work Plan.</li> <li>• EMS intranet web site.</li> <li>• Environmental Management Group agenda and minutes.</li> <li>• Quality &amp; Safety and Management Board Committee reports.</li> <li>• Finance, Performance and Workforce Committee reports.</li> <li>• ISO 14001:2015 certification all sites.</li> <li>• Facilities and Estates risk registers.</li> <li>• ISO 14001:2015 SGS auditors report.</li> <li>• ISO 14001:2015 Environmental Management System (EMS), aspects, impacts, objectives and targets.</li> <li>• Environmental Management awareness staff induction training.</li> <li>• Grounds and Gardens Estate grass cutting contract.</li> </ul>
<b>Biodiversity</b>	<ul style="list-style-type: none"> <li>• 'CTMUHB Biodiversity and Ecosystem Resilience Forward Plan' (draft due to be approved by Q &amp; S Committee following consultation when feasible with Covid-19 pandemic).</li> <li>• 'CTMUHB – Glanrhyd Hospital Grounds Management Plan'.</li> </ul>
<b>Climate Change Adaptation</b>	<ul style="list-style-type: none"> <li>• 'CTMUHB Biodiversity and Ecosystem Resilience Forward Plan' (draft due to be approved by Q &amp; S Committee following consultation when feasible with Covid-19 pandemic).</li> <li>• 'CTMUHB – Glanrhyd Hospital Grounds Management Plan'.</li> </ul>