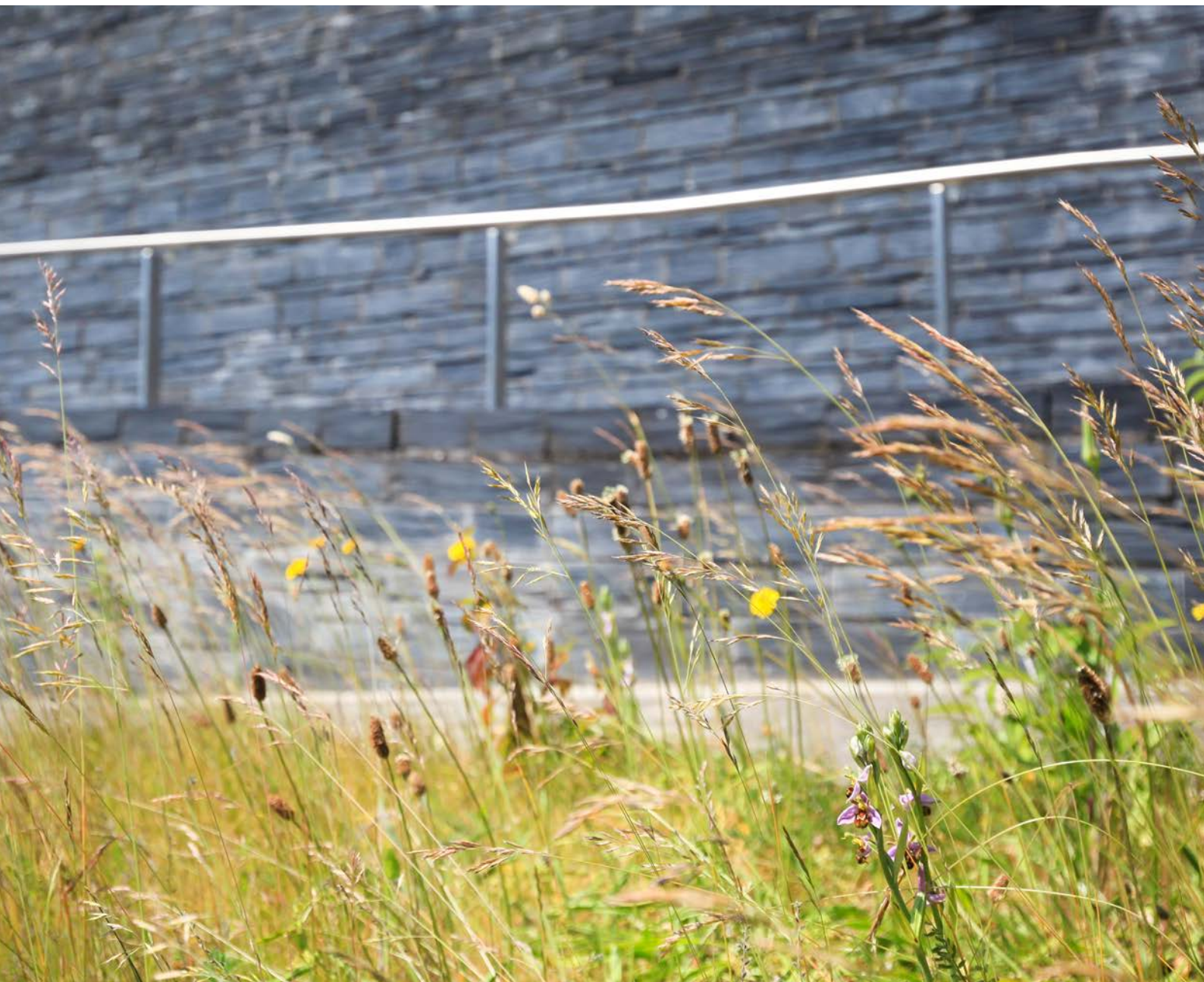


Sustainability: Annual report 2022-23

June 2023



The Welsh Parliament is the democratically elected body that represents the interests of Wales and its people. Commonly known as the Senedd, it makes laws for Wales, agrees Welsh taxes and holds the Welsh Government to account.

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Welsh Parliament
Cardiff Bay
CF99 1NS

Tel: **0300 200 6565**

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Welsh Parliament
Senedd Commission

Sustainability: Annual Report 2022-23

June 2023





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Introduction

Carbon footprints are changing and we're proud to be moving with the change.

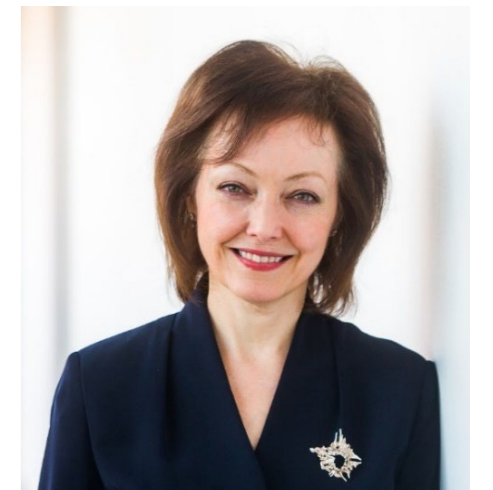
Although we were one of the first public organisations to produce a strategy detailing how we'd respond to the Climate Emergency and become *net carbon neutral*, the times have already changed and what's considered a comprehensive carbon footprint has moved on.

We're proud to be moving with this change and expanding our work on carbon, the first step of any such work of course being to measure what we want to change. So, in this report we outline the new methodology being used to ensure all our wider (scope 3) carbon emissions are at least measured, before they can be tackled.

We also discuss successes - success in moving forward with the measures promised in our Carbon Neutral Strategy that have reduced the energy demand in the buildings, particularly in lowering our heating use over the winter. And how further efficiency measures promised are being developed, as we recognise there's more work still to do.



Janet Finch-Saunders MS
Commissioner for Sustainable Development



Manon Antoniazzi
Chief Executive and Clerk

Summary of Performance

During the pandemic our environmental impact dropped. As you'd expect. But not as much as we'd have liked. So, we've used that opportunity and the fact that it highlighted inefficiencies in our estate to our benefit. We have made changes to how we use the estate and the data is showing that those changes are beginning to pay off.

Our buildings are being used again in earnest, with occupancy rates up on business days and our new ways of working becoming more established. With hybrid facilities and the ability to work remotely, we're seeing Members coming to the Senedd for Plenary sessions and committee meetings and staff continuing to support these. But attendance remains low outside of these core business activities and so we've been making changes to our buildings to help our energy consumption more closely reflect when people are in the building.

The Ways of Working programme - bringing together the Commission's estate, people and sustainability strategies and its 'agile futures' plan - has seen us install flexible working areas across the estate and more hybrid meeting facilities. Whilst we've been trying to capitalise on these changes with energy-efficiency savings, they have also created wellbeing benefits amongst our staff. Encouraging people to sit together at times of low occupancy on the estate, when heating is switched off in other areas, for example, has meant staff feel less isolated at quieter times. It also means staff who might not always come into contact with each other in their daily roles are sitting next to each other at certain times of the week.

We describe in the Travel section (below) how we're also making even greater provision available for Members and staff to choose more sustainable modes of travel as they do return to the estate or travel around their constituencies. In other areas, we continue to work on biodiversity of the estate whilst our new catering contractor sources sustainable food from within Wales wherever possible.

Our work continues under the banner of a certified environmental management system which includes an annual audit by a UKAS-accredited body against the requirements of ISO14001.



Carbon



Our core carbon footprint is down 4%



Energy emissions are down 12%

Our carbon footprint is dropping, but at the same time it isn't. This is because the net has widened, significantly. What we capture within the scope of our footprint is changing, to better reflect the impacts from our entire operation as well as the attitudes to carbon reporting, particularly across the public sector.

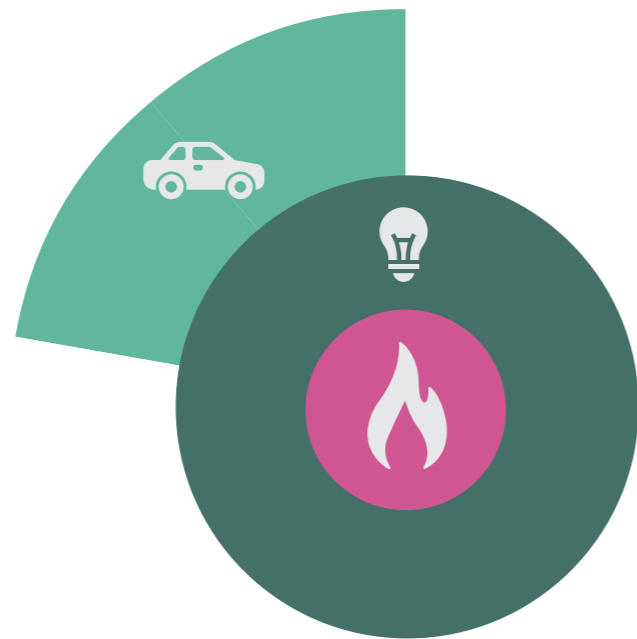
When we published 'Goodbye Carbon', our carbon neutral strategy, we were one of the first public sector organisations to do so, and so used the normal definition of a carbon footprint at that time. We included the impacts from Scope 1 (primarily gas), Scope 2 (electricity) and only some of our Scope 3 emissions - mainly business travel. But in our narrative, we left the door open to change this - saying at the time we expected the way footprints were calculated to change during the life of the strategy. That change has now happened, and we've been working on widening our definitions to ensure all of our Scope 3 emissions are captured.

We have begun using the Welsh Government methodology for calculating Scope 3 emissions, given how commonplace it has recently become in Wales. This includes the impact of homeworking, as well as the goods and services we buy. Whilst initially based on spend alone, until more detailed information from suppliers is available, it will greatly increase our carbon footprint - adding around 2800 tonnes to it. This gives us a clear starting point though and is something we are keen to press ahead in tackling.

Our carbon footprint

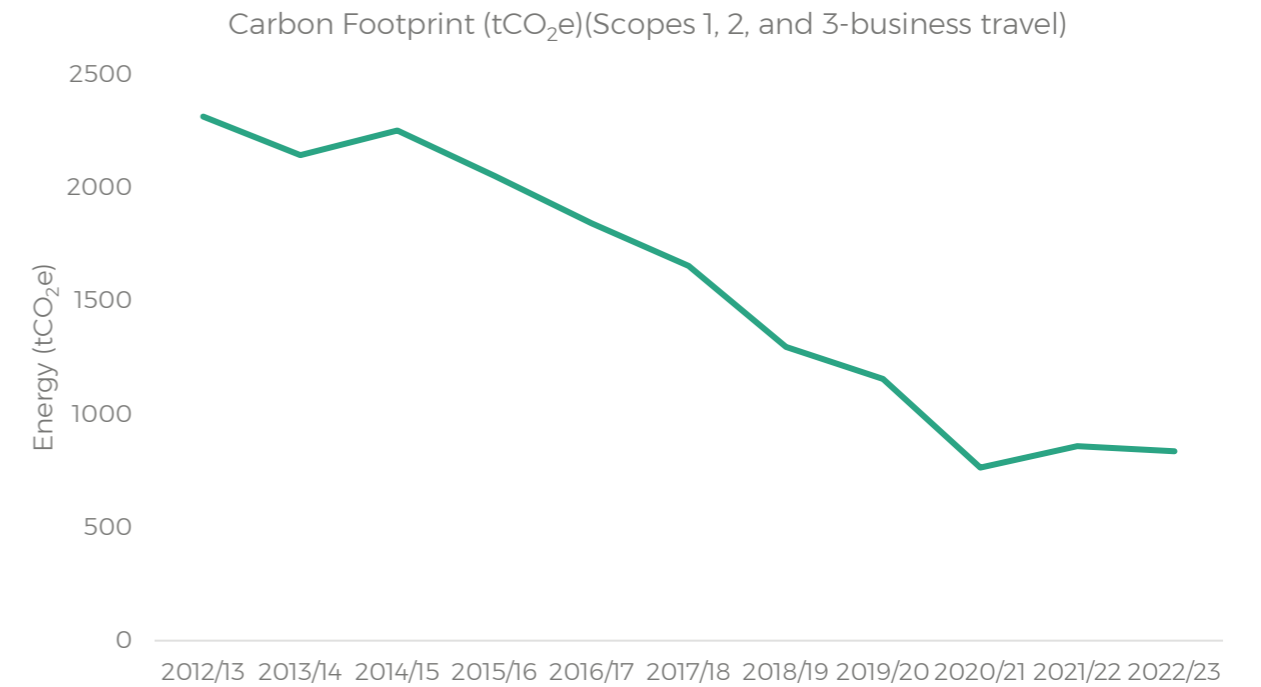
Our old Carbon Footprint

- Scope 1:** primarily gas
- Scope 2:** electricity
- Scope 3:** business travel



Our new Carbon Footprint

- Scope 1:** primarily gas
- Scope 2:** electricity
- Scope 3:** Now includes business travel, goods and services bought



Our core carbon footprint, on which our Strategy was based, is something we'll continue to report alongside our new Scope 3 data.

Our core carbon footprint is down this year (Scopes 1, 2 and business travel aspect of 3). We saw a healthy reduction in the first year of the pandemic, then a slight rise as use of the estate increased somewhat and travelling became more commonplace, but this year it has dropped again. This is primarily because of our efforts to reduce energy demand, particularly heating through the winter - a success story which we hope to continue through this year with reductions in air-conditioning use in the summer. We've also benefitted from a lower UK electricity conversion factor, thanks to further greening of the grid.

N.B. - all the electricity we buy is from a 100% renewable tariff, but we continue to use this UK grid conversion factor for reporting.

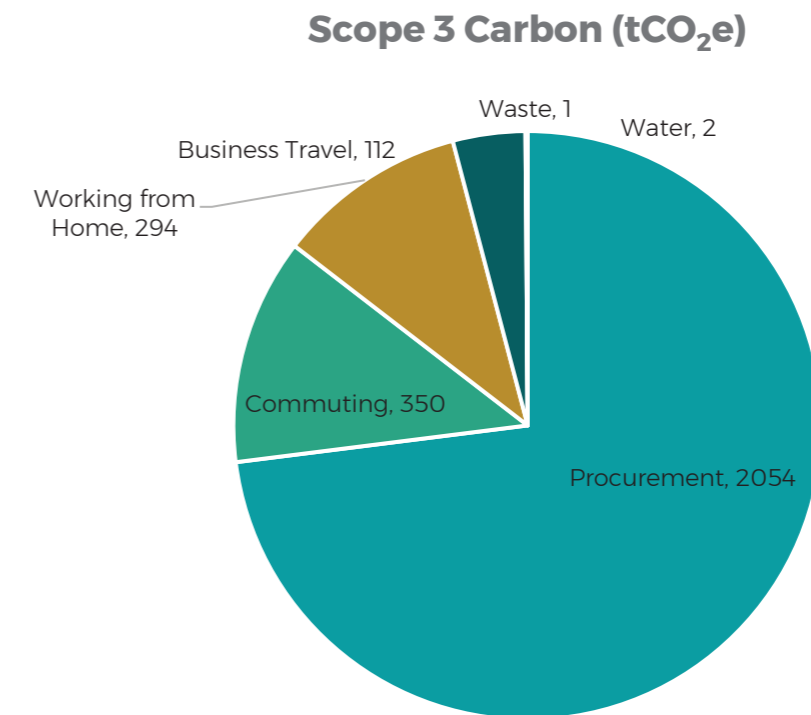
Scope 3

Our wider Scope 3 emissions are something we are only just beginning to address; the first part of the process being measuring what they really are. We're using the Welsh Government methodology - calculations being based on spend where we don't have anything specific. This allows us to see the areas of greatest impact, where we can work with suppliers to make a difference: firstly by getting more accurate carbon data for the products or services they supply us with, then seeking to lower this impact. For example, we can work with our furniture contractor to calculate the footprint of a desk we buy, then see how we can lower this impact by procuring re-manufactured or recycled-content furniture.

One area where we have already started this process is working-from-home data. We have used two methodologies to calculate the impact of home working through the increased use of gas and electricity in the homes of our staff. We were able to analyse occupancy data against two different calculations - the Welsh Government version giving us an impact of around 290 tonnes of carbon, and the UK Government conversion factor suggesting closer to 200 tonnes. These at least show the two methods are probably in the right ballpark. For consistency, we'll use the Welsh Government calculation.

This home working impact of 290 tonnes may initially seem like a lot and highlights the relative inefficiencies of hundreds of staff working in separate homes instead of one office. However, offset this against the savings from commuting (covered in more detail in the Travel section), where we've seen a reduction of 300 tonnes, and you can see that, from an environmental perspective at least, working from home *may* demonstrate a net benefit.

A summary chart below shows the make-up of our Scope 3 emissions. A significant proportion of them are procurement - the goods and services we buy. We have more granular data within this segment now to analyse and work on reducing.



Carbon Reduction Strategy – Progress

As is described elsewhere in this report, we have continued our progress with the measures outlined in the ‘Goodbye Carbon’ strategy document. We have continued our roll-out of LED lighting, introduced numerous efficiency savings related to the building management system (BMS) and made efforts to reduce our heating demand over the winter period.

All of this has resulted in a slight drop in the core carbon footprint for the estate this year, despite increased use of our buildings.



Carbon reduction

Below is a summary of the key milestones in our Carbon Neutral Strategy 2021-2030.

Progress against our short term targets has been updated for 2023.

The full Strategy is available on our website www.senedd.wales



SHORT TERM TARGET: (2021-2023)

Behavioural change and good housekeeping **100**
 2023: 100% complete

BMS improvements (three buildings) **59**
 2023: 50% complete

Monitoring- additional meters and software **52**
 2023: 100% complete

LED lighting: continued replacement and review of controls **30**
 2023: 75% complete

= 241 TONNES OF CARBON SAVED PER YEAR

MEDIUM TERM TARGET: (2023-2026)

Refurbishment of AHUs (air-handling units) **42**

Connect to district heating network **132**

Revert Ty Hywel to passive ventilation **97**

Install solar PV (Senedd and Ty Hywel) **60**

= 331 TONNES OF CARBON SAVED PER YEAR

LONG TERM TARGET: (BY 2030)

Air-source heat pumps for hot water supply **10**

Modify T&S system to pay for EV travel only by Members of the Senedd ¹ **82**

= 10 TO 92 TONNES OF CARBON SAVED PER YEAR

¹ based on current level of private car claims and adoption of RFID cards, carbon figure for medium-sized car mileage.

Energy



Gas use is down 20%



Electricity use is up 1%

Although we experienced a colder winter than the previous year's, according to Degree Days data, our efforts to reduce gas consumption did pay off and we finished the six months to end of March using 20% less than the year before.

This was thanks to a combination of measures, including the support of our staff and other building users. We lowered the heating set-point across the estate and used new zoned heating pumps which we installed last year to ensure our main office building responded better to new working patterns. For example, on certain days we've reduced heating provision in certain areas and encouraged staff to use our flexible working space, allowing us to make heating use savings. Indeed, gas consumption for the whole year was down 19%, demonstrating the impact of these winter savings measures; measures we hope to continue in future years.

Electricity, however, is a *room for improvement* area. Thanks to increased use of the estate and a hotter summer than 2021, we've seen a rise of 5% in consumption. We are making improvements though. We have installed new energy-efficient equipment where replacement is needed, including continuing the roll-out of LED lights throughout our buildings. Towards the end of this financial year, we upgraded another floor of Ty Hywel to LEDs and hope to see resulting savings in next year's report. This summer we will be tackling the energy use required for cooling the buildings through measures such as changing the

set-point the cooling starts and reducing the time clocks that govern how long it remains on.

Last year, we reported some efficiency savings associated with our building management system (BMS) changes - these efficiency measures include things like shortening operating times, reviewing the provision of hot water and other good housekeeping measures. These small savings will have helped reduce both gas and electricity consumption. We have continued these works, including using our Facilities contractor to conduct a technical energy audit for us. We have just started working on the improvement suggestions from this audit and will report on progress next year.



Waste, Water & Other Resources



Waste consumption has risen 27% since last year



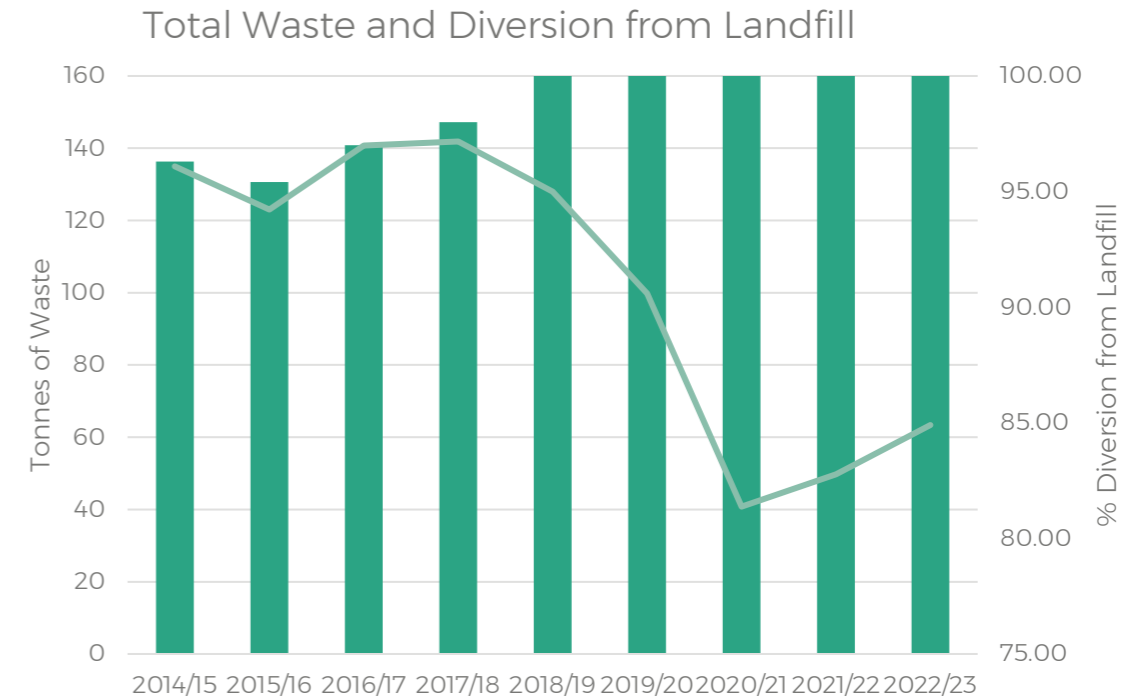
But no waste has been sent to landfill

Waste has increased again this year, but also not to pre-pandemic levels.

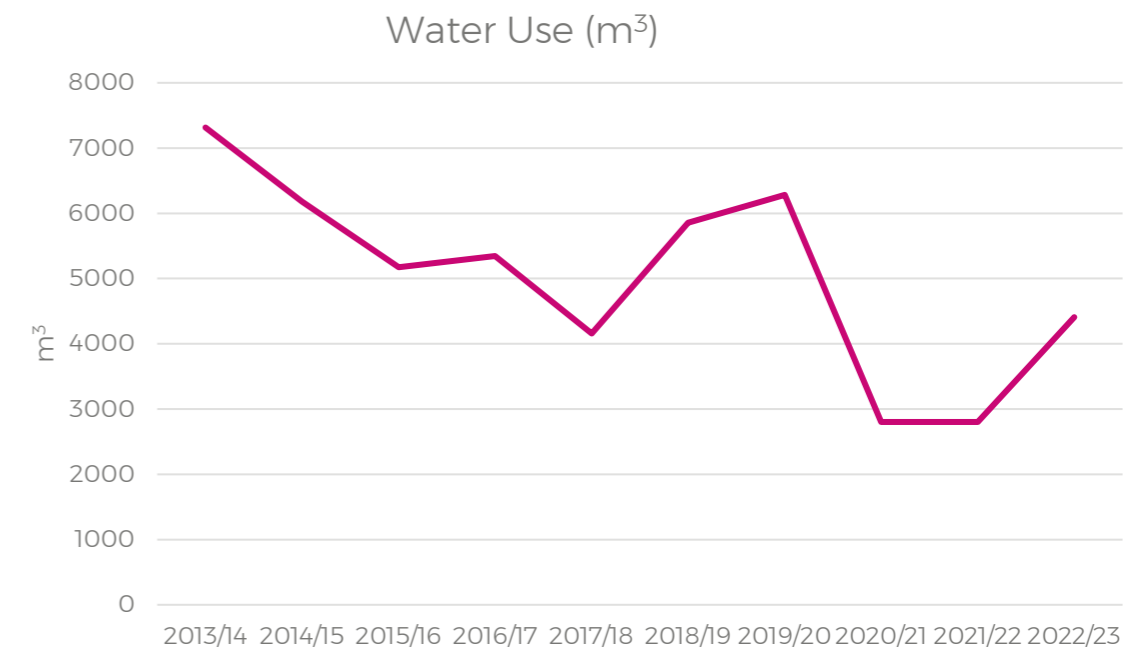
A steady increase of around 10 tonnes per year, following the drop in the first year of the pandemic, has seen us produce around two thirds of the waste we generated in 2019/20. All our waste continues to be diverted from landfill - going to recycling or energy recovery outlets, as well as food waste being composted in the nearby AD (anaerobic digestion) facility.

Water use has risen this year, in response to increased use of the estate, by both staff and visitors. However, it is still below pre-pandemic levels and the volumes of recycled rainwater we continue to use are very high. This year, we have upgraded the washroom facilities in the Pierhead building, as part of their lifecycle replacement. These now feature new LED lights and automatic fixtures which will save electricity and water respectively. This refurbishment project took place toward the end of the financial year so we will expect to report savings over the forthcoming 12-month period.

We continue to procure goods like stationery and our utilities through centrally-coordinated Welsh Government frameworks. Sustainability staff are involved in the development of specifications and tender reviews for all major contracts; ensuring standards such as Fair Trade and FSC are specified wherever relevant. We have also been continuing to ask new suppliers to calculate the carbon footprint of goods where possible, in order to help us more accurately calculate our own footprint.



Waste production has increased slightly this year



Our water use has fluctuated over time in response to variables such as events, building occupancy, and maintenance.

Travel



Travel is almost half of pre-pandemic levels

Whilst the first year of the pandemic saw a 90% reduction in travel, and last year a 75% reduction, this year saw us increase to around 50% of the mileage claims we were seeing prior to 2020.

Whilst virtual events and online meetings have continued in earnest, more in-person events are happening again our travel data is reflecting this.

We continue to promote the use of virtual and hybrid meetings though- our estate now has extensive hybrid meeting facilities and Members continue to join both committees and our main plenary sessions remotely from their constituencies when it's more appropriate to do so.

Our work on healthy and sustainable travel has continued. We installed more electric vehicle charging points on our estate early in 2022 and will continue to monitor their use. We have clarified our procedures around their use as well, to ensure they are used as efficiently as possible. All staff and Members continue to pay for electricity used in charging their vehicles.

Mid-way through the year we also raised the limit on our cycle-to-work scheme. This had been set at the same level since its inception over a decade ago and a new, higher limit, allows for the use of electric bikes. E-bikes have become more popular as the technology has improved and prices become more affordable. They are now a viable alternative to cars for staff living within 10-15 miles of our estate and commuting for work.

In our 'Goodbye Carbon' strategy, we committed to helping Members and staff access the salary sacrifice schemes also available for leasing electric vehicles (EVs). The low benefit-in-kind rates now available for EVs make such schemes financially attractive. Given our Members will always need to travel around Wales to conduct their work and some staff rely on cars to commute to their office, we wanted to introduce this scheme to allow them to do this with as low an impact as possible.

The scheme was just launched at the end of 2022-23 financial year, so we will report on uptake in next year's report. We already know that interest in the scheme was high, so hopefully this will lower the carbon footprint we report for travel in future years.

One key component of the travel section of our carbon footprint is the impact of commuting. We conducted our biennial travel survey again this year and, thanks to support from those who completed it, have a new up-to-date picture of travel to and from our estate and the associated carbon. Highlights included the move back to cars during the pandemic, with Covid concerns being one of the reasons for this. However overall, due to flexible working, car mileage is down. We also found awareness of our sustainable travel initiatives was quite high at around two-thirds for most schemes, but could be improved. More staff are making carbon-free commutes than our last survey which, combined with frequent use of hybrid working facilities and the ability to work more flexibly meant the footprint for commuting has dropped significantly. Whilst before the pandemic our average commuter generated 0.81 tonnes of carbon, this is now down to 0.51, saving us 300 tonnes of carbon overall- a drop of 38%.

Biodiversity

Our support for biodiversity has continued, partly to help mitigate the nature emergency in whatever way we can given our small estate.

We continue to maintain the garden areas in Ty Hywel and the two small ponds they contain. This year we have added a few more blossoming trees and shrubs to support pollinators in Cardiff Bay. Our management of the strip of land alongside the Senedd also pays dividends in the variety of flora returning year after year, including a couple of species of orchid, and the insects that come to feed on them and find a home in this section of long grasses and wildflowers.

We have also added to our Bug Hotels area this year - sections of the Senedd's Christmas tree have been added to it with holes drilled in to provide nesting sites. This part of the car park was well used last summer- although the insect hotels we installed hadn't been there long they were already used by a variety of solitary bees and spiders.

Our own honeybees - the Pierhead Bees- have done well throughout the pandemic and continued to produce a solid amount of honey, almost exactly the same as last year. We extract enough to sell to make the project cost neutral, but continue to leave them plenty of their own delicious produce to get through the colder winter months.



A solitary bee makes a nest in one of the new bug hotels

Other Impacts

Whilst the sphere of influence of our Members covers every part of the lives of people in Wales, the Senedd Commission's operations are relatively confined, primarily to our buildings in Cardiff Bay and a small office in North Wales.

These sites are not deemed at immediate risk from climate change impacts, with the Bay for example being protected to some extent by the Cardiff Bay Barrage. However, our Carbon Neutral Strategy includes measures such as solar PV systems which provide further protection against an uncertain future. We have already started working on the feasibility study for solar systems.

Our estate is in an urban location, and our activities in maintaining it do not directly impact on rural areas. One small, positive impact which could be construed as affecting rural life is that we purchase as much of the foodstuff supplies for our catering service from within Wales and encourage the use of produce from small and medium size suppliers. In fact, this year we re-tendered our catering contract and a new supplier was awarded the contract. They continue to share our passion for sourcing of local food and are targeted with sourcing 85% of food and produce they put on our menus from Welsh suppliers and producers. We are even investigating the feasibility of bringing their Incredible Edible project to the estate and growing some of our own food.

Other Stakeholders

Our sustainability work is not always confined to the estate, Members, their Support Staff and Commission staff, but brings us into contact with other parties with a consideration for the environment.

We have worked with the previous Welsh Youth Parliament, a driver for whom was single-use plastics and litter and look forward to working with the new Members to ensure their priorities are reflected in the way we operate.

This past year saw us work with RSPB to support a small event discussing wildlife preservation with Members, and we recently worked with the National Trust as part of their #BlossomWatch campaign. The Trust kindly donated the bug hotels now sited in the Tŷ Hywel garden; a catalyst we hope for further biodiversity work.

Environmental Management

The Senedd Commission has maintained a formal environmental management system (EMS) for more than a decade.

We believe in transparency as well as setting the highest standards for ourselves, which is why we maintain an EMS which is externally-audited against the requirements of ISO14001. This management standard requires a range of measures to be demonstrated, including controls on key environmental impacts, compliance with legislation, and a programme of internal audits. We have a team of trained internal auditors checking the physical site and our operational controls to ensure continued compliance throughout the year. The auditors also check for pollution risk and look for efficiency savings where possible.

We continue to work with other public sector bodies in Wales, as well as the other UK parliaments, in order to share best practice in continual environmental improvement.



Appendix A – Data Tables

Key Performance Indicators	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Total net greenhouse gas emissions (scopes, 1, 2, 3-business travel only), tCO ₂ e	1,841	1,654	1,296	1,150	764	870	837
Total energy emissions, tCO ₂ e	1,563	1,364	1,066	962	730	799	701
NEW- Total Scope 3 Emissions (travel, WfH, goods & services, commuting)							2,813
Total waste (tonnes)	141	142	128	100	41	50	63
Total water consumption, m ³	5,347	4,158	6,064	6,281	2,802	3,191	4,408
Total business travel emissions, tCO ₂ e	206	207	174	180	24	67	122*
Paper Use (million sheets)	1.99	2.92	2.73	2.33	0.86	0.65	1.97

* Excludes MS and MSSS travel February & March 2023 due to delayed reporting requirements. Previous years have been adjusted as final claims for those years have been processed.