

CEREDIGION COUNTY COUNCIL

Report to:	Cabinet
Date of meeting:	10 January 2023
Title:	Net-Zero Action Plan – Progress Update
Purpose of the report:	To provide a progress update as to the actions set out within the Net Zero Action Plan
For:	Decision
Cabinet Portfolio and Cabinet Member:	Councillor Keith Henson, Cabinet Member for Highways and Environmental Services and Carbon Management

BACKGROUND:

The meeting of Ceredigion County Council on 20 June 2019 (Full Council 20 June 2019) agreed to:

- Commit to making Ceredigion a net zero carbon Local Authority by 2030
- Develop a clear plan for a route towards being net zero carbon within 12 months
- Call on Welsh and UK Governments to provide the necessary support and resources to enable effective carbon reductions

Further to this, on the 5th of March 2020, Ceredigion County Council declared a global climate emergency, committing to meeting the most significant challenge facing our county and our planet.

The Net Zero Action Plan was approved by Scrutiny (May), Cabinet (May) and Full Council (June) in 2021 and as part of this it was agreed that periodic updates would be provided on progress to date.

The focus of the Plan is currently upon operational energy usage and emissions (Scope 1 and 2 emissions), as these are routinely recorded and calculated annually as part of the annual review of the Carbon Management Plan.

This progress update was submitted to Scrutiny on 19th October 2022, it details what is currently being done to reduce our emissions, and provides a report on the 2021/22 emissions calculations. (Please note: there are a few minor updates to the document, where further progress has been made following submission to Scrutiny in October).

CURRENT SITUATION:

Operational Carbon Footprint – Carbon Management Plan

Operational emission figures for 2021/22 financial year have now been calculated and are as follows: -

Carbon Management Plan 3							
	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	PLAN TOTAL
	t/CO₂	t/CO₂	t/CO₂	t/CO₂	t/CO₂	t/CO₂	
Buildings	5,557	5,177	4,909	4,125	4,613		-16.99%
Streetlighting	518	436	326	255	217		-58.11%
Fleet	1,867	1,802	1,762	1,602	1,748		-6.37%
Business Mileage	761	735	642	180	300		-60.58%
TOTAL	8,649	8,150	7,639	6,161	6,878		-20.48%
		-5.77%	-6.27%	-19.35%	11.64%		

The above equates to a cumulative 20.48% reduction against a 15% target (2017/18 to 2021/22)

All service areas, with the exception of streetlighting, saw emission increases during 2021/22, when compared to the previous financial year. This was the expected trend, as buildings re-opened during 2021/22 and Services began operating at nearer the pre-pandemic levels.

The table below notes emissions & cost by category/service area:

Category		2019/20		2020/21		2021/22	
		tCO ₂	Cost £	tCO ₂	Cost £	tCO ₂	Cost £
Buildings and Street Lights	Civic buildings	502	£289,722	373	£171,490	422	£198,448
	Education	2,689	£915,166	2,391	£782,179	2,840	£1,112,639
	Leisure	523	£191,275	389	£135,156	374	£125,602
	Social Care	565	£187,067	510	£164,633	531	£188,155
	Libraries & Community	236	£84,074	173	£60,034	173	£69,281
	Other buildings	232	£90,014	198	£73,793	166	£72,363
	Other miscellaneous	162	£99,224	91	£37,085	107	£47,805
	Streetlights	326	£188,917	255	£163,362	217	£163,887
Transport	Fleet	1,762	£660,763	1,602	£530,142	1,748	£686,026
	Business Mileage	642	£1,032,307	180	£297,738	300	£487,102
Total		7,639	£3,738,529	6,161	£2,415,610	6,878	£3,151,309

The above table notes three years emissions, to demonstrate the trend compared to the pre-pandemic level. As can be seen above, despite an emission increase in 2021/22, when compared to the previous financial year, emissions are still overall on a downward trajectory and are 9.96% lower than they were in 2019/20 (pre-pandemic) and 20.48% lower than the baseline year of 2017/18.

In 2021/22 total cost of energy and fuel reported within the scope of the Carbon Management Plan was £3,151,309. Ceredigion County Council spent £735,699 more on energy in 2021/22 than they did in the previous financial year (2020/21) – this equates to a 30.46% spend increase. The reason for the spend increase being a higher percentage than the emission increase, is due to contract price increases during the period.

Carbon Management and Climate Change Group – following the elections in May Cllr Keith Henson has become Chair of the Carbon Management and Climate Change Group. The Group has been well attended, following a further update to the attendance list, which sees representatives from all political parties, as well as

an expanded Officer participation. This Group is responsible for overseeing the development and delivery of the Net-Zero Action Plan and ensures that these ambitions are integrated throughout the Authority.

Decarbonisation of Transport (incl EV charging) – Following successful application for funding in 2021, we were awarded the sum of £420k from the “Ultra Low Emissions Vehicle Transformation Fund” (ULEVTF) which has been used for the development of a Ceredigion ULEV Strategy in alignment with the Growing Mid Wales Energy Strategy for the development of ULEV work programmes. This is the first phase of work, which will see EV charging infrastructure installed in 9no car parks across Ceredigion, work is underway and charge points should be operational by the end of October.

Successful grant application for further EV infrastructure, at an additional 8 sites has been submitted to OZEV, the Project value is approximately £280,000 – 75% of funding to be provided by OZEV, with 25% match funding coming from WG. Hope to complete the scheme by end February 2023.

WG/ WLGA EV charging grant in the sum of £300,000. This is specifically for installation of EV charging in Council Depots, to support the decarbonisation of fleet. Work has started to look at the required infrastructure at the Council’s main depot sites, applications have been submitted to the relevant DNOs (District Network operators) for a 270kVa supply in Penrhos and 430kVa in Glanyrafon Depot.

Fleet Review undertaken by Welsh Government Energy Services (WGES) in 2020/21, has been received in Draft format and will help inform the work around decarbonisation of the fleet.

ULEV Strategy – has now been through Scrutiny and Cabinet and following some minor amendments, will shortly be made available on the Council’s website.

Purchase of Green Energy – CCC continues to procure ‘green’ electricity via the corporate electricity contract. There is further scope to look at procurement of ‘green’ gas, as well as liquid fuels (e.g., LPG or biodiesel), although there is little benefit in regard to the carbon accounting figures, it could be considered best practise to ensure that the utilities we do use come from ‘green’ sustainable sources.

Renewables – Welsh Government Energy Service (WGES) undertook a land asset review of Ceredigion sites, looking at the potential for renewable energy generation. Many of the sites highlighted are subject to significant grid constraints, however there are a few smaller opportunities to come out of the process, which include:

- Additional 300kW PV at Bro Teifi
- 200kW of PV over the Car Park at Canolfan Rheidol Offices
- 130kW PV at the future Dyffryn Aeron School site

Renewables are also now routinely being introduced as part of building refurbishment works and also 21st Century Schools programme.

Given the increasing cost of electricity, the payback period on these sorts of schemes, is far more favourable where we can consume any generated electricity on site, rather than export it to the grid - need to ensure that installations are adequately sized and that locations are chosen dependant on their ability to use the energy generated on site.

To date Ceredigion County Council have installed almost 450kW of solar panels across a number of buildings, this generates in excess of 400,000kWh of electricity and has the potential to provide up to £113,000 of revenue savings per annum (at current contract prices).

Net Zero Buildings – New extension at Llwyn yr Eos School, has become the Council’s first net-zero building in operation. Ground source heating and solar panels were installed as part of the scheme, and it is hoped that this will set a benchmark for future building works undertaken by the authority in future.

21st Century Schools Programme - As part of the programme, when looking to build new schools, Ceredigion County Council will work towards decarbonisation and net-zero buildings.

Growing Mid-Wales – The Mid-Wales Energy Strategy has been finalised and following on from this a Strategic Energy Action Plan has been drafted and is currently being circulated across the region for comment. Energy Systems Catapult has been employed by WGES to undertake Local Area Energy Plans (LAEPs) for both Ceredigion and Powys (one per Authority) – work will be starting shortly to engage with the various stakeholders across the region, via a series of workshops, which will be held in the new year.

WG Emission Reporting – Unfortunately the initial reporting methodology wasn’t released in time to include in our Net-Zero Plan, which is why our Plan incorporates only operational emissions. However, we have now produced overall emissions figures for 2019/20, 2020/21 and recently the 2021/22 figures. These figures, go beyond just the scope 1 and 2 emissions noted within the Carbon Management Plan. They also look at emissions from Transport, waste and the procurement of goods and services.

These emissions are summarised as follows:-

	kg/CO ₂	
Buildings, fleet & other assets	7,678,887	16.79%
Business travel, commuting & homeworking	3,678,573	8.05%
Waste (accounted for in supply chain emissions)	0	0.00%
Total <u>land based</u> emissions	-432,205	-0.95%
Supply chain	34,798,039	76.11%
Total emissions	45,723,294	100.00%

Additional emission sources have been added in 2021/22, which includes an emission for homeworking. We’ve also included energy usage from the corporate estate, vacant property and STW’s in the latest calculations, which mean that the scope of reporting has been enhanced.

As can be seen above, our supply chain emissions (which currently include waste), account for 76% of our overall footprint a significant % of the total. It must be noted though that there is a fundamental flaw in the way that these supply chain emissions are calculated, as they are done so based on spend alone. No consideration is currently given to local procurement, or procurement of low emission goods/materials.

In addition, it is hoped that in future years we can get more detailed information for some of the emissions sources, to ensure that reporting is a more accurate reflection of our current position. This will also assist in making informed decisions around any future emission reduction measures

As we now have a clearer picture of our overall carbon footprint, it would be advantageous to review our Plan to incorporate these additional emission sources. If we are to achieve our net zero ambition, we will also need to consider carbon off-setting measures such as: carbon capture, sequestration, or tree planting. This will need to be introduced alongside the things that we are already doing: introduction of efficiency measures, renewables, rationalisation, decarbonisation of fleet, review of procurement practices, EV infrastructure installation etc.

Has an Integrated Impact Assessment been completed? If, not, please state why Yes, when the original Action Plan was drafted

Wellbeing of Future Generations:

Summary:

Long term: The Zero Action Plan will support the Council's 2030 net zero carbon ambition

Integration: Will help integrate and embed emission reduction across the Authority

Collaboration: The Council is already working in collaboration with a number of public bodies in relation to carbon reduction and delivery of emission reduction.

Involvement: The Climate Change and Carbon Management Group is well established and attended by both Members and officers, this provides a good initial forum for stakeholder engagement, but scope for wider involvement following publication of the net-Zero Action Plan

Prevention: The Action Plan supports implementation of actions and measures to reduce carbon emissions that contribute to reducing the effects of climate change

Recommendation(s):	<p>IT IS RECOMMENDED THAT Cabinet</p> <ul style="list-style-type: none"> i) note the progress in relation to actions set out within the Net-Zero Action Plan, ii) recommend that the report be submitted to Full Council
Reasons for decision:	Periodic progress updates are an integral part of monitoring our Net-Zero journey and it was noted within the Plan that we would report back to Scrutiny, Cabinet and then Full Council on a regular basis.
Overview and Scrutiny:	Periodic reviews have been reported to the Thriving Communities Overview and Scrutiny Committee – this report was submitted to Scrutiny in October 2022.
Policy Framework:	N/A
Corporate Well-being Objectives:	<p>Creating Sustainable, Green and Well-connected Communities</p> <ul style="list-style-type: none"> • Prioritising the reduction of carbon emissions and pursue our goal of becoming a Net Carbon Zero Council by 2030
Financial and Procurement implications:	Invest to save Budget within the Capital Programme
Legal implications	N/A
Staffing Implications	Requirement for additional staff resource identified to Leadership Group, with hope that additional funding might be made available
Property/ asset implications:	N/A
Risk(s):	Rocketing energy costs, potential future carbon budgets, reputational and environmental risk of not achieving our targets
Statutory Powers:	Climate Change Act Wellbeing of Future Generations Act
Background Papers:	Carbon Management Plan (2017/18-2022/23), Net Zero Action Plan Corporate Strategy 2022-27
Appendices:	Scrutiny feedback from meeting of 19 October 2022

Corporate Lead Officer: Russell Hughes-Pickering, Corporate Lead Officer: Economy and Regeneration

Reporting Officer: Bethan Lloyd Davies, Carbon Reduction, Energy and Asset Management Programme Manager

Date: 13/12/2022

Cyngor Sir CEREDIGION County Council

Report to: Cabinet
Date: 10 January 2023
Time: 10:00am
Title: **Feedback from the Thriving Communities Overview and Scrutiny Committee in relation to the Net-Zero Action Plan progress update**

The Thriving Communities Overview and Scrutiny Committee considered the Net-Zero Action Plan - Progress Update at their meeting on 19th October 2022. The purpose of the report was to provide a progress update as to the actions set out within the Net Zero Action Plan.

Members were provided with the opportunity to ask questions which were answered by officers. The main points raised were as follows:

- Concerns were raised by members that the grid capacity was not sufficient to serve the county and support the authority's commitment to becoming Net Zero by 2030. It was noted that this issue was raised often in meetings and by neighbouring authorities too. National Grid and Scottish Power sat on boards working on local energy plans, however, they had limited budgets and would invest in places they deemed necessary.
- Although employees commuted less with homeworking, concerns were raised that more houses would need to be heated during the day in the winter. It was noted that home-working emissions were accounted for in WG's Emission Reporting.
- Electricity generated from solar panels installed on council buildings was used by the buildings first with the remainder exported to the grid. If installations had a feed-in tariff payment, payments were made centrally to the authority. Generally, there was a 10-year payback on investments.
- A land management review had been done on Canolfan Rheidol and Ysgol Bro Teifi by WG; the findings were yet to be received. Consideration would be given in due course to batteries to store excess energy.
- It was noted that the aim of becoming Net Zero by 2030 was ambitious considering the situation financially. At present, WG would not penalise the authority for not achieving Net Zero by 2030, but this was the aim nationally for public sector bodies.
- In terms of the authority's fleet, converting vehicles to Hydrotreated Vegetable Oil (HVO) which was more expensive would be investigated along with

hydrogen. It was noted that HVO was roughly 20% better than diesel but at present, by using the methodology provided by WG, there would only be a marginal improvement in the figures.

- It was noted that tree planting would be considered long-term to offset carbon and for every tree cut on council-owned land due to Ash Dieback, 3 trees would be planted in their place. In terms of the figures, trees were accounted for under land-based emissions.
- Other local authorities used the same system to collate data for reporting purposes. Hopefully next year, WG will provide an improved methodology to enable authorities to have a better understanding of the situation as at present, the more money that was spent, the more carbon that was generated.
- The authority was only able to report on the council's land holdings. Other bodies such as NRW included land in their ownership in their reports.

Following questions by the Members of the Committee, members agreed to note the progress in relation to actions set out within the Net-Zero Action Plan.

Councillor Gwyn Wigley Evans

Chairman of the Thriving Communities Overview and Scrutiny Committee