Committee and Date

Council 18 July 2024

Item

Public

Corporate Carbon Performance Monitoring Report 2022-23

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Cabinet Member (Portfolio Holder):	Cllr Ian Nellins		

1. Synopsis

1.1. The Council adopted a Climate Strategy and Action Plan in December 2020 and committed to reporting annually on corporate carbon performance and the initiatives designed to reduce its carbon footprint. This report summarises the latest position in terms of carbon monitoring for 2022-23 and recommends further actions.

2. Executive Summary

2.2 Shropshire Council declared a climate emergency in May 2019 and in December 2020 adopted a Climate Strategy and Action Plan, which establishes the objective of achieving net-zero carbon performance for Shropshire Council by 2030 and aims for an annual carbon reduction of 10% per year. The Climate Change Task Force was established to lead the Council's response in November 2019, supported by an internal officer working group. A Climate Change and Carbon Reduction Advisory Board was established in September 2022 to act as a 'critical friend' and to assist the implementation and review of the Council's Climate Strategy.

2.3 During 2023-24, the efforts of the Task Force have been directed towards continuing to embed climate change as a key consideration in the Council's corporate governance systems and to widen ownership of the issue through accredited carbon literacy training. A range of projects and initiatives continue to be developed and implemented to help the Council improve its own performance and to help foster similar action across the wider economy and communities in Shropshire (see Section 8 of the monitoring report).

2.4 We previously reported the financial year (FY2021/22) in spring 2023. However, going forwards it may be possible to expedite carbon accounting annually within 3 months of the financial year turnover (so by the Autumn of the reporting year).

2.5 Accurate carbon monitoring and reporting systems have been established and refined, the best available data suggests that:

i. Shropshire Council's direct carbon emissions (Scopes 1 & 2) rose by 6% during Financial Year (FY 2022/23) to 2,539tCO2e, expected due to the continued recovery from the pandemic and increased service delivery; namely building and vehicle usage.

ii. In FY 2022/23, the Council's indirect emissions (Scope 3) have undergone a significant revision in the calculation methodology, which is still a modelled process based on the spend in each sector and carbon factors. Shropshire Councils Scope 3 emissions for FY22-23 are now estimated to be 79,489 tCO2e. With the same methodology applied to the previous year's monitoring datasets, there is still a 6% increase when compared to the previous financial year. This rise is primarily due to an increase in Shropshire Councils emissions from the Health and Social care sector during FY22/23 which now accounts for 53% of Shropshire Councils Scope 3 emissions. Full details on the breakdown of Scope 3 emissions can be found in Table 1 of the monitoring report (page 9). The spend on health and social care also rose by 20% which helps explain the increase in emissions (since this is estimated based on spend).

iii. Improved modelling of carbon emissions has been employed to better understand the councils indirect (Scope 3) emissions from our supply chain, the method is aligned with the procurement database and will be replicable in future years. This data is free to download here.

iv. The Scope 3 emissions data discussed above is modelled and includes a degree of uncertainty; therefore, suppliers measured data (for the top 100 biggest emitters) is necessary to accurately quantify their emissions and reductions going forwards. A supplier engagement procedure is being explored to help achieve this aim and this process is currently being tested on the top ten biggest emitters identified through our modelling.

v. The past four years of carbon monitoring have been influenced significantly by the Covid pandemic, as such it is still difficult to identify meaningful trends at this time; although we do now have 5 years of measured data to show the trend over that timeframe.

vi. High levels of municipal waste recycling and the management of Council-owned land generate carbon savings which help to offset our gross carbon emissions. However, this activity has reduced by 1,233 tonnes from minus 29,208 tonnes CO2e in FY21/22 to minus 27,975 tonnes CO2e in FY22/23, due largely to the improved carbon performance of national grid electricity which acts as a benchmark for comparing that from the battlefield ERF.

vii. Net carbon emissions have unfortunately therefore increased (by 12%) compared to FY2022 from 48,063 to 54,053 tonnes CO2e.

2.6 The data shows that there have been increases in both direct and indirect emissions. Overall, there has been a +6% increase in gross emissions against a target of a -10% reduction each year. Whilst this is disappointing, it reflects the impact of increased spending across several service areas where carbon emissions are estimated based on spend, rather than actual measured data from the suppliers. Approximately 60% of our gross carbon emissions have been estimated based on spend data, in the absence of

more specific measured data related to carbon. It is recognised that there is uncertainty in this approach and the Councils actual emissions could be greater than or less than our estimation. Our recommendations put forward in this report will enable us to report these emissions more accurately in the future. Several projects and initiatives which will help to reduce corporate carbon emissions are still being developed and have yet to deliver planned savings. With the revised methodology, it is shown that the Council's corporate gross footprint represents around 3% of the Shropshire County total emissions. However, the Council can influence around 33% of the county total via regulatory and support functions. The Council is already supporting a wide range of projects and initiatives designed to support local businesses and communities to reduce their carbon emissions.

2.7 The effectiveness of projects and initiatives developed by the Climate Task Force are limited by its capacity. To make faster progress towards the objective of net-zero by 2030, it is essential to facilitate wider ownership of both carbon reduction activity and climate change resilience throughout the organisation and its suppliers.

2.8 As we reach the mid-point on our way to our objective of net-zero corporate carbon performance by 2030, The Climate Change Task Force will complete a review and update to our Shropshire Council Corporate Climate Strategy 2020. This will allow us to link our climate strategy to the Shropshire Plan as well as other pieces of internal policy. We will also be able re-evaluate our corporate targets and the steps necessary to meet our 2030 objective. We will consult and carry out workshops with the key service areas and work together to set out the steps required to meet our net zero target.

2.9 To make meaningful progress and ensure informed decision-taking, it is essential to fully integrate the agenda in robust evidence led policy and procedures. Clear internal audit processes need to be established at a service level relating to climate risks (mitigation and adaptation), carbon monitoring of real measured data, operational performance of buildings and vehicles, and the commercial ask of suppliers; goods and services. Corporate strategic and operational risk management arrangements should reflect the above.

2.10 As discussed earlier, all Shropshire Council Scope 3 emissions account for 97% of our gross emissions. Our current method for calculating these emissions uses modelled data based on spend and carbon emissions factors. Measured data directly from our suppliers is necessary to accurately quantify Shropshire Councils Scope 3 emissions and reductions going forwards. A supplier engagement procedure is currently being explored and tested to help achieve this aim and we would like to roll this out to our biggest emitters through this financial year.

3. Recommendations

3.1 That Council approves the Corporate Carbon Performance Monitoring report 2022-23 (Appendix 1) for publication;

3.2 That Council supports the integration of carbon performance measurement and consideration of climate risks as an essential component of the Council's Target Operating Model, including:

i. Procurement policy

ii. The integration of carbon accounting as part of financial management

iii. Normalisation of carbon monitoring and reporting at a service level

iv. Carbon literacy as mandatory training for new starters

Report

4. Risk Assessment and Opportunities Appraisal

4.1 The climate crisis is a serious threat to the lives of millions of people both globally nationally and locally. The mitigation of greenhouse gas emissions and adaptation measures to build resilience is now urgent and essential to prevent the worst outcomes. Even if we are successful in mitigating the worst effects, we will continue to experience more pronounced and frequent episodes of extreme weather effects. The much greater frequency of extreme weather events will significantly increase insurance risks and threaten the health, wellbeing and future resilience of our communities.

4.2 The climate crisis is therefore already recognised as a significant strategic risk to Shropshire and the delivery of Council and public services. This risk is most likely to manifest itself in terms of financial impacts (e.g. operating costs, impacts on the Shropshire economy) and impacts on the health and well-being of staff and residents as service users.

4.3 Climate action and carbon reduction are integral to all aspects of the Shropshire Plan:

i. **Healthy People** – Extreme weather associated with the climate crisis will adversely affect vulnerable residents and service users disproportionately. This is likely to drive significant future growth in the demand for social care services as well as generating significant impacts on the physical and mental health and wellbeing of staff.

ii. **Healthy Economy** – The recent energy crisis illustrates potential impacts on the Shropshire economy from the climate crisis. However, there are also significant opportunities for growth and skilled employment in new technologies, renewable energy and the rural economy.

iii. **Healthy Environment** – The climate crisis has very serious implications for biodiversity and food production. However, as a large rural area, Shropshire is also in an excellent position to take positive action to help mitigate these effects.

iv. **Healthy Organisation** – Extreme weather associated with the climate crisis may significantly disrupt the delivery of Council services through damage to physical infrastructure such as roads and power infrastructure, and through impacts on staff health and wellbeing. Demand for services and service delivery costs such as highway maintenance are likely to increase significantly.

4.4 Taking active steps through the implementation of a corporate Climate Strategy and Action Plan and supporting wider community efforts will allow the Council to make a demonstrable contribution to reducing the carbon footprint of the wider county, as well as 'leading by example' by reducing its own carbon footprint. Through its regulatory role and procurement decisions, Shropshire Council is in a position to make a strong positive contribution to help the wider Shropshire community make a positive transition to a low carbon future.

4.5 An Equality and Social Inclusion Impact Assessment (ESIIA) has previously been carried out which indicated that the corporate Climate Strategy and Action Plan are likely to have a positive effect on all groups in society. The climate emergency will have significant impacts on the whole of Shropshire and all its diverse communities, from

those living or working in our rural areas to those living or working in our market towns, as well as those that travel into our county and across our porous borders.

4.6 Individual Council services will progressively need to engage with their staff and service users to explore the need for, and implications of, service changes which may result from the adoption of carbon reduction measures. The Council will need to adopt an agile approach keep abreast of national good practice in order to maximise opportunities for equality and social inclusion within the overall policy context of addressing the climate emergency.

5. Financial Implications

5.1 Early action to reduce Shropshire Council's carbon footprint and adapt service delivery to address the impacts of extreme weather events will significantly reduce future financial risk and may potentially generate revenue savings as well as delivering on our corporate responsibilities to the environment and our communities. Improving Shropshire Council's carbon performance and resilience will however require significant capital investment in energy efficiency measures, low carbon technologies and renewable energy generation.

5.2 An annual revenue budget of £0.5m has been established to provide for staff resources in the Climate Change team and to support bids for Government grant funding and work to develop and implement the wide range of projects associated with the key themes of the Council's adopted Climate Strategy as illustrated in Table 3 below. However, since its establishment, the Climate Team has also been instrumental in generating significant income of £4.3m of external capital grant and £0.5m of revenue grant. Several of the capital projects being developed by the Climate Team will generate significant annual revenue for Shropshire Council.

5.3 Access to the Council's Capital Programme will be pursued where projects will be appraised on an individual basis following the process detailed in the Capital Strategy. Each initiative in the climate strategy would need to be evaluated on its own merits prior to inclusion in the Capital Programme. Some projects delivered in partnership with others may lead to commercial income being generated.

5.4 However, failing to reduce the Council's carbon footprint and implement climate change adaptation measures represents a significant financial threat to both revenue costs and the value of the Council's capital assets. This means that there is an incentive for the Council to 'Invest to Save' to mitigate the risk of future costs.

5.5 Many measures to reduce dependence on greenhouse gasses also offer opportunities to both generate a financial return and to provide community leadership which highlights the 'clean growth' economic potential of new technologies and adaptation measures in the Shropshire context.

5.6 Within the Council's Medium Term Financial Strategy item RC086 identified efficiency savings of £12.4m across all areas of the council, including paying attention to securing reduced carbon emissions within the councils supply chain.

6. Climate Change Appraisal

6.1 *Energy and fuel consumption:* A range of projects and initiatives are being developed which will contribute positively to the reduction of carbon emissions in future years by

facilitating improved energy efficiency and carbon performance across Council Services;

6.2 *Renewable energy generation:* A number of projects in the Climate Action Plan are being developed to drive the delivery of additional generation of renewable energy from a range of technologies on Council land and buildings.

6.3 *Carbon offsetting or mitigation:* The management of Council land and our commissioned waste management service make a key positive contribution to our carbon performance, but it is crucial that we do not rely on these and instead focus first on reducing emissions wherever possible. A range of additional projects and initiatives are being developed to drive the capture and storage of carbon and to mitigate the effects of climate change on biodiversity;

6.4 *Climate Change adaptation:* A Climate Adaptation Strategy has commenced during 2024 starting with identifying both strategic and operational risks associated with extreme weather due to climate change. We are working with internal teams to identify these risks and the implications our service delivery, before assembling a knowledge base of suitable controls to help minimise the impacts of these risks. This is to help to ensure that our assets and services are resilient in the face of the challenges of more extreme weather events.

7. Background

Shropshire Council's Current Carbon Footprint

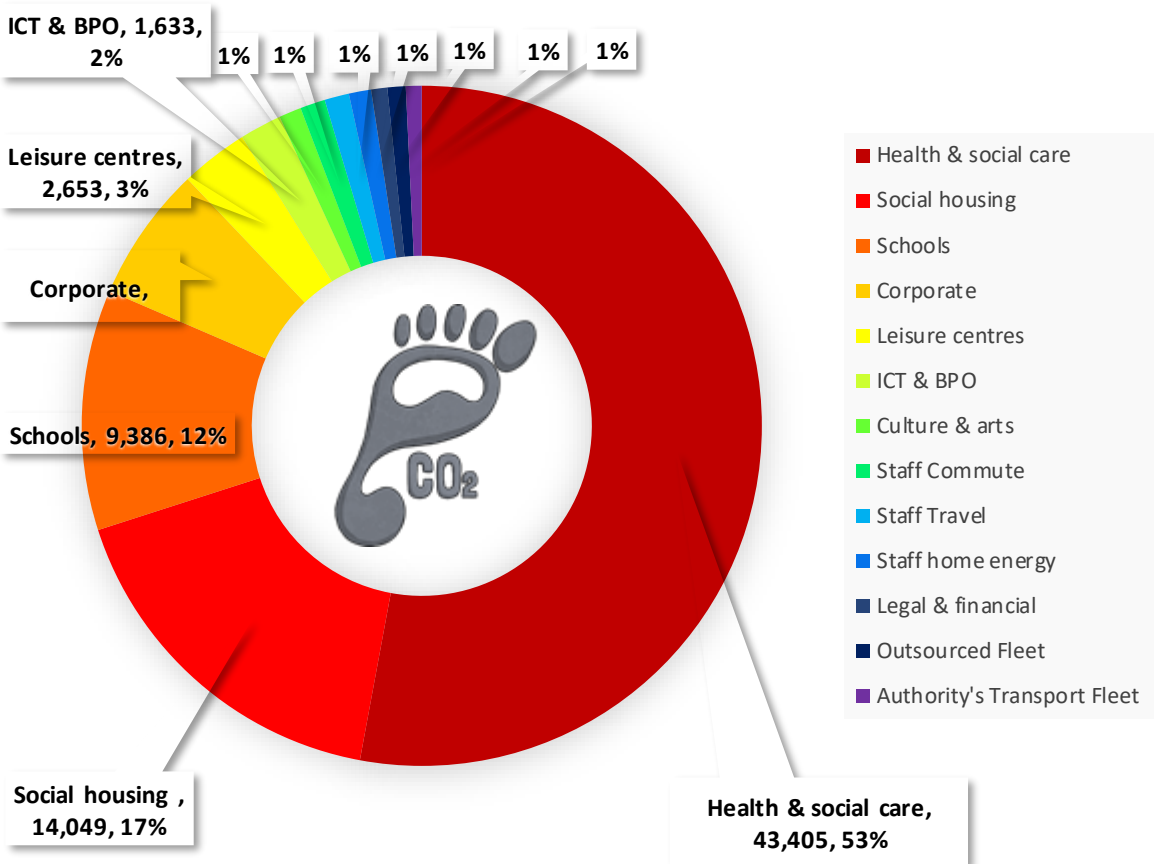
7.1 The gross emissions for Shropshire Council's operations are estimated to amount to 82,028 tCO2e. Both direct and indirect emissions have increased compared to the previous financial year, due to an increase in activity following the Covid pandemic and an increased spending on commissioned services; where carbon emissions are still being estimated using spend, rather than measured data. Outsourced and additional Scope 3 emissions continue to make up the majority of Shropshire Council's carbon footprint and are outlined in additional detail over the page.

Table 1: Shropshire Council Carbon Emission 2022-23

Scope	Emissions Type	Emissions (tCO_2e)	Percentage of gross
Scope 1	Corporate heating	1,921	2%
	Transport fleet	618	1%
Scope 2	Electricity	0	0%
Scope 3	Social housing	14,049	17%
	Health & social care	43,405	53%
	Schools	9,386	11%
	Staff home energy	869	1%
	Maintenance fleet	712	1%
	Leisure centres	2,653	3%
	Staff travel	1,933	2%
	Corporate management	2,641	3%
	Transmission losses	319	0%
	PFI	237	0%
	Legal & financial	626	1%
	ICT & BPO	1,633	2%
	Pending categorisation	0	0%

	Culture & arts	870	1%
	Water	61	0%
	Civil Defence	97	0%
Gross emissions		82,028	100%

Figure 1: Corporate Carbon Emissions (all scopes) FY2022/23 = 82ktCO2e



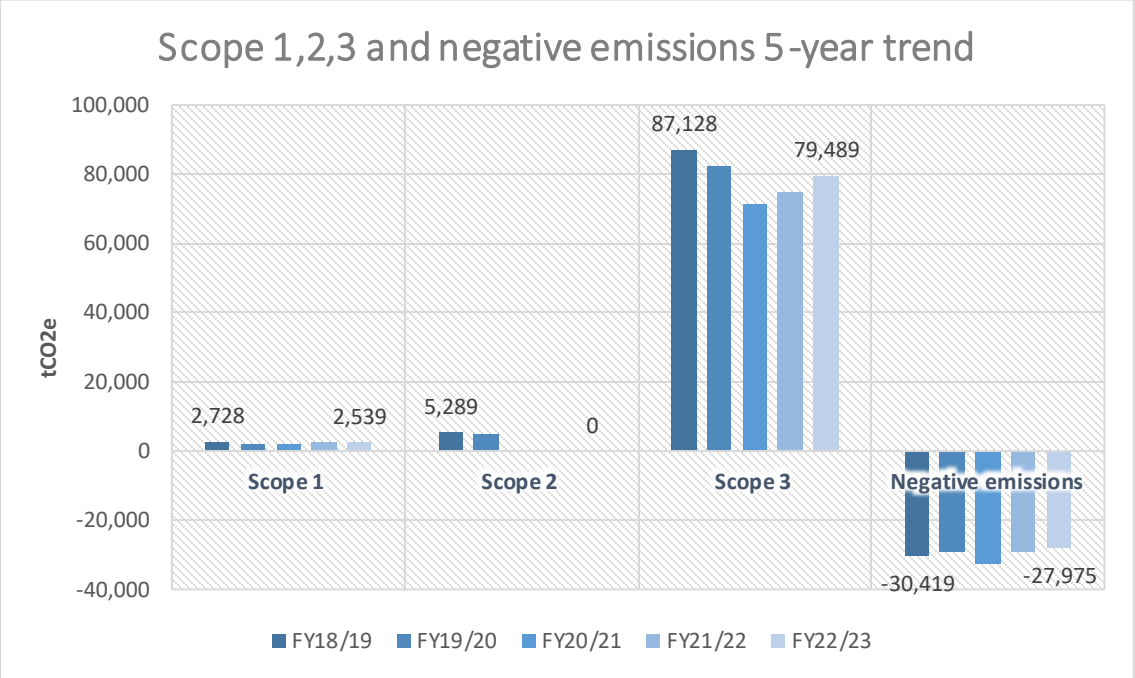
7.2 The 5-years' worth of data collected have been re-processed using the same methodology to ensure a consistent and comparable method.

Table 2: Change from Financial year 2022 to 2023

Scope	FY2022 (tCO2e)	FY2023 (tCO2e)	Difference (up or down)	% change	5 year change
Scope 1	2,392	2,539	+147	+6%	-7%
Scope 2	0	0	-	-	-100%
Scope 3	74,879	79,489	+ 4,611	+6%	-9%
Gross	77,271	82,028	+ 4,757	+6%	-14%

Scope	FY2022 (tCO2e)	FY2023 (tCO2e)	Difference (up or down)	% change	5 year change
Negative emissions	-29,208	-27,975	+1,233	+4%	+8%

Figure 2: Change in Shropshire Council Carbon Footprint 2018-2023



7.3 Scope 1 emissions have gone up in FY2023 by 147tCO2e due to a growth in corporate heating and transport fleet emissions. This is most likely due to a return to business as usual following the Covid pandemic.

7.4 Scope 2 emissions continue to be zero due to the adoption of a zero-carbon electricity tariff in addition to efficiency savings as part of our ongoing Carbon Reduction Programme for buildings.

7.5 There has been a continued increase in outsourced scope 3 emissions in FY2022. However, the significant jump in measured emissions compared to previous reports is due to a change in the reporting method. The Climate Team is working closely with procurement and ICT to develop and implement improved reporting and gather real data from suppliers.

7.6 Carbon offsetting and capture activities have decreased by 4%, partly due to lower levels of domestic waste recycling under the contract operated by Veolia and the capture and storage of carbon on Council owned and managed land.

Commissioned Services

7.7 The pandemic has continued to have an impact on the delivery of council services, including outsourced services last year. Overall, Health and social care was responsible for the highest source of emissions (43ktCO2e), then social housing (14ktCO2e), followed by schools (9ktCO2e) and leisure centres (3ktCO2e). The carbon emissions of several commissioned service areas are currently based on their overall

spend the majority of which has seen an increase in spending and subsequently reported higher carbon emissions in FY22/23.

Excluded commissioned Services

7.8 Waste and environment (36ktCO2e), Highways and Transport (26ktCO2e) and Property and Construction (13ktCO2e) were also estimated accordingly based on spend, although however these categories have been excluded from the indirect emissions given that measured data has been made available which is assumed to be consistent and accurate.

Directorate carbon budgets

7.9 Table 3 below shows the carbon footprint associated with directorates, together with suggested annual reductions (10% per year). They are ranked highest to lowest.

Table 3: Carbon budgets by council directorate (tCO2e)

Directorate	2024	2025	2026	2027	2028	2029	Target reduction
Health, wellbeing and prevention	39,065	35,158	31,642	28,478	25,630	23,067	**4,341**
People	12,644	11,379	10,241	9,217	8,296	7,466	**1,405**
Place	9,115	8,204	7,383	6,645	5,981	5,382	**1,013**
Resources	3,991	3,592	3,233	2,910	2,619	2,357	**443**
Finance & legal	563	507	456	411	370	333	**63**

7.10 The monitoring process for these emissions is likely to improve in future years to fairly identify the influence of each directorate and service areas.

8. Additional Information

8.1 Shropshire Council's adopted Climate Change Strategy and Action Plan has three key themes, sub-divided into sub-themes:

	1. **Power Down** (Carbon Footprint Reduction) i. Low Carbon Transport ii. Buildings - Energy Efficiency improvements iii. Corporate governance iv. Supporting the transition to a low carbon economy
	2. **Power Up** (Renewable Energy Generation and Storage) i. Renewable Power ii. Low Carbon Heat iii. Energy Storage
	3. **Biodiversity, Carbon Capture and Storage** i. Tree Planting ii. Land Management iii. Carbon Removal Technologies

8.2 A wide range of actions, projects and initiatives have been completed, are currently in progress or are planned for future years and these are summarised in Appendix 1. Some of these projects and initiatives are designed to improve Shropshire Council's

corporate carbon performance, whilst others are designed to help Shropshire businesses and communities make the transition to a low carbon approach. Table 3 below provides some examples for each sub-theme:

Table 3: Example Carbon & Climate Projects (see Appendix 1 for full list)

Example Projects	Budget	Carbon Saving	Corporate /County-wide focus	Latest position
Power Down: Low Carbon Transport:				
EV Charging infrastructure	£3m	TBC	County-wide	• Current installation of 270 chargers and a further phase of chargers planned in public car parks and streets during 2024-25
Power Down: Buildings - Energy Efficiency improvements				
Retrofit of SC building assets	£1m	108t CO2e/yr	Corporate	• Targeted energy efficient lighting, heating and renewable energy improvements • Work to prepare to identify and prioritise further improvements to around further Shropshire Council buildings
Power Down: Corporate governance				
Staff and member Carbon Literacy training	£5k	n/a	Corporate	• Carbon Literacy Trust accredited training for Cabinet and senior managers completed. • Continued roll out to contract commissioners, key service areas and all staff during 2024
Power Down: Supporting the transition to a low carbon economy				
Business carbon advice service	£11k	TBC	County-wide	• Grant support to Shropshire Climate Action to fund a free service to help Shropshire businesses to improve their Carbon Footprint
Power Up: Renewable Power				
Maesbury Road Solar Farm	£2.1m	TBC	Corporate	• SC is developing a 2MW solar farm on a former landfill site to supply power direct power direct to local businesses
Power Up: Low Carbon Heat				
North Shrewsbury Heat network	£75k	TBC	Both	• Government funding for a detailed feasibility study into piping waste heat from the Battlefield ERF to heat businesses or public buildings.
Biodiversity, Carbon Capture and storage: Tree Planting				
Community Tree Scheme	£32k	TBC	County-wide	• Scheme to provide discounted trees for community groups and members of the public. Since 2010 around 96,000 individual trees have been planted and 70,000 trees for hedges have been planted.
Biodiversity, Carbon Capture and storage: Land Management				
Biochar Demonstrator Project	TBC	TBC	Both	• Development of a pyrolysis plant to process wood from Council owned land to create biochar and energy

Key: ☐Completed; ☐ In Progress; ☐Planned

9. Conclusions

9.1 The data presented in this report shows that there have been increases in both direct and indirect emissions. Overall, there has been a 6% increase in gross emissions against a target of a 10% reduction each year. Whilst this is disappointing, it reflects the impact of increased spending on commissioned services across several service areas where carbon emissions are still being estimated using spend, rather than actual measurement. It is worth noting that Shropshire Council is currently one of only a few Councils to report the full extent of its carbon emissions, including indirect emissions. A number of projects and initiatives which will help to reduce corporate carbon emissions are still being developed and have yet to deliver planned savings.

9.2 Last year's carbon reporting indicated that carbon savings generated from recycling and land management activities meant that the Council's footprint was technically net-zero, however that is not the case this year due to higher gross emissions and less negative emissions. This shows the importance of reducing Shropshire Councils gross emissions.

9.3 The Council's corporate footprint represents only around 2.5% of Shropshire's total carbon footprint, but the Council is able to influence as much as 33% of emissions through its regulatory and support functions. The Council is already supporting a wide range of projects and initiatives designed to support local businesses and communities to reduce their carbon emissions.

List of Background Papers (This MUST be completed for all reports, but does not include items containing exempt or confidential information)

Council 17th December 2020: Draft Climate Strategy and Action Plan: http://shropshire.gov.uk/committee-services/ieListDocuments.aspx?CId=125&MId=4137&Ver=4

Local Member:	All

Appendices

Appendix 1: Climate Strategy 2022-23 Progress Report