



<u>Committee and Date</u>
Cabinet 19 January 2022

<u>Item</u>
<u>Public</u>

## **CORPORATE CARBON PERFORMANCE MONITORING REPORT 2021**

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### **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 projects and initiatives designed to reduce its carbon footprint. This report summarises the latest information about these issues.

### **2. Executive Summary**

- 2.1. 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.
- 2.2. During 2021, the efforts of the Task Force have been directed towards embedding climate change as a key consideration in the Council's corporate governance systems. A range of projects and initiatives have also been developed 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 below).
- 2.3. Accurate data and monitoring and reporting systems for carbon performance are still being developed, but the best available data suggests that:
  - i. Shropshire Council's direct carbon emissions (Scopes 1 & 2) have fallen significantly from around 5,000 tonnes CO<sub>2</sub>e in the financial year (FY) 2020 to around 1,900 tonnes in FY 2021, due primarily to the adoption of a 100% renewable power supply through West Mercia Energy and the effect of the pandemic on service delivery.

- ii. The Council’s indirect emissions (Scope 3) for 2020 have been reassessed in light of more accurate data as around 30,000 tonnes CO<sub>2</sub>e (previously reported as around 50,000 tonnes). In FY 2021, the Council’s indirect emissions have increased slightly to 32,204 tonnes CO<sub>2</sub>e. (see table below).
  - iii. Overall Gross carbon emissions have fallen by around 3% from 35,000 tonnes to around 34,000 tonnes.
  - iv. High levels of municipal waste recycling and the management of Council-owned land generate carbon savings which help to offset our gross carbon emissions and this activity has improved by 1,200 tonnes from around minus 34,000 tonnes CO<sub>2</sub>e in 2019 to around minus 37,000 tonnes CO<sub>2</sub>e in 2020.
  - v. Net carbon emissions have therefore fallen from 1,665 tonnes to a net-negative performance of -4,296 tonnes.
- 2.4. The significant reduction in direct emissions is welcome, but the slight increase in indirect emissions has limited the overall reduction in gross emissions to only 3% against a target of 10%. 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.
- 2.5. Whilst the carbon savings generated from recycling and land management activities means that the Council’s footprint is technically already net-zero, it is important that the Council continues to focus on reducing its gross emissions.
- 2.6. The Council’s corporate footprint represents only around 1% 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. These are outlined in more detail in the report below.

### **3. Recommendations**

- 3.1. That Cabinet approves the Corporate Carbon Performance Monitoring report 2021 (Appendix 1) for publication;

## **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 therefore represents 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. Taking active steps through the implementation of a corporate Climate Strategy and Action Plan and supporting wider community efforts allows 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.
- 4.4. An Equality and Social Inclusion Impact Assessment (ESIIA) was previously completed in support of the adoption of the corporate Climate Strategy and Action Plan. The assessment indicated that the Strategy which is the subject of this monitoring report is 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.
- 4.5. 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. Measures 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, low carbon technologies and renewable energy generation.

- 5.2. An annual revenue budget 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. From 2022/23, it is proposed that £0.500m budget per annum will be provided for this work.
- 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.

## **6. Climate Change Appraisal**

- 6.1. *Energy and fuel consumption:* A range of projects and initiatives have contributed positively to the reduction of carbon emissions reported in this document 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 have made a key contribution to the reduction of carbon emissions reported in this document. 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:* The Climate Task Force is working with colleagues across the Council to ensure that the risk which extreme weather associated with climate change presents to Council services

is better recognised and to ensure that our assets and services are resilient in the face of the challenges of more extreme weather events.

## 7. Background

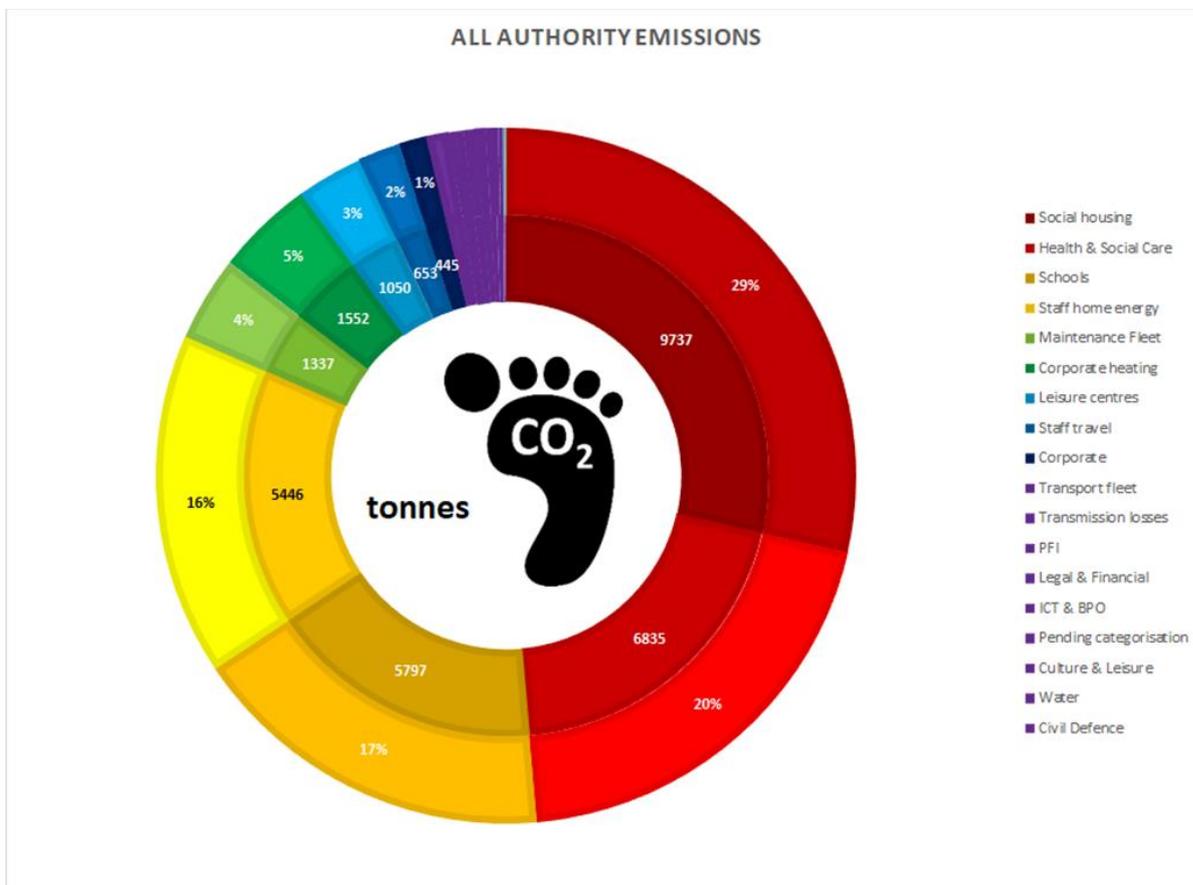
### *Shropshire Council’s Current Carbon Footprint*

7.1. The gross emissions for Shropshire Council’s operations are 34,098 tCO<sub>2</sub>e. Our direct emissions have reduced significantly following a move to an all renewable power supply, but this serves to highlight the fact that heating buildings with fossil fuels has a high footprint (1.6kt). Collectively transport (our fleet and staff’s own vehicles) account for 1.4kt. Outsourced and additional Scope 3 emissions make up the majority of our current carbon footprint and are outlined in additional detail below.

*Table 1: Shropshire Council Carbon Emission 2020-21*

Scope	Emissions Type	Emissions (tCO <sub>2</sub> e)	Percentage of gross
<b>Scope 1</b>	Corporate heating	1,552	5%
	Transport fleet	343	1%
<b>Scope 2</b>	Electricity	0	0%
<b>Scope 3</b>	Social housing	9,737	29%
	Health & social care	6,835	20%
	Schools	5,797	17%
	Staff home energy	5,446	16%
	Maintenance fleet	1,337	4%
	Leisure centres	1,050	3%
	Staff travel	653	2%
	Corporate	445	1%
	Transmission losses	242	1%
	PFI	179	1%
	Legal & financial	164	0%
	ICT & BPO	124	0%
	Pending categorisation	80	0%
	Culture & arts	65	0%
Water	38	0%	
Civil Defence	12	0%	
<b>Gross emissions</b>		<b>34,098</b>	<b>100%</b>

*Figure 1: Corporate Carbon Emissions (Scopes 1 & 2)*



**Annual Change in performance 2019-20 to 2020-21**

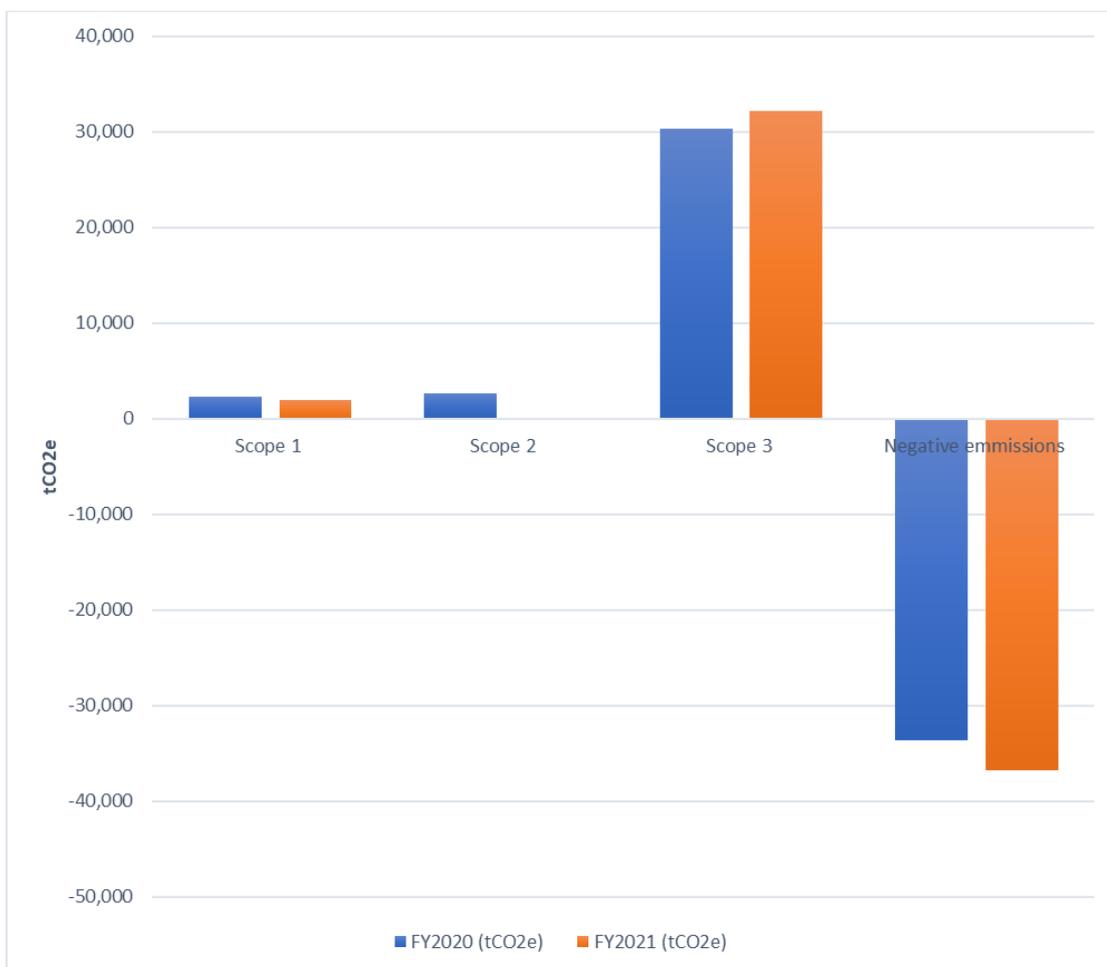
7.2 Last year’s corporate carbon footprint has been updated using the same methodology as this year to allow a direct comparison between the two:

*Table 2: Change from Financial year 2020 to 2021*

Scope	FY2020 (tCO2e)	FY2021 (tCO2e)	Difference (up or down)	% change
Scope 1	2,309	1,894	-415	-18%
Scope 2	2,643	0	-2,643	-100%
Scope 3	30,317	32,204	+1,887	+6%
<b>Gross</b>	<b>35,269</b>	<b>34,098</b>	<b>1,171</b>	<b>-3%</b>

Scope	FY2020 (tCO2e)	FY2021 (tCO2e)	Difference (up or down)	% change
<b>Negative emissions</b>	<b>-33,605</b>	<b>-36,729</b>	<b>-3,125</b>	<b>-9%</b>

*Figure 2: Change in Shropshire Council Carbon Footprint 2019-20 to 2020-21*



- 7.2. Scope 2 emissions have reduced to zero due to the adoption of a zero-carbon electricity tariff and we have made efficiency savings on several buildings as part of our ongoing Carbon Reduction Programme for buildings.
- 7.3. Unfortunately, an increase of outsourced scope 3 emissions has undermined this progress. However, an improved reporting method is expected to improve the accuracy of the carbon reporting for commissioned services and will provide a more consistent framework to help service areas to improve their performance in future. The Climate Team is working closely with procurement and ICT to develop and implement improved reporting.
- 7.4. Carbon offsetting and capture activities have increased by 12%, reflecting high 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*

- 7.5. The pandemic has had an impact on the delivery of council services, including outsourced services last year. Overall, schools maintained by the council had the highest emissions with 5.8 ktCO2e, then leisure centres account for 1 ktCO2e (compared with 3 ktCO2e during a non-covid year). The Highways footprint of 0.95 ktCO2e

reflects the intensity of use of maintenance vehicles and gritters during the winter period.

## 8. Climate Action Plan: Themes and Example Projects

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

	<p>1. <b>Power Down</b> (Carbon Footprint Reduction)</p> <ul style="list-style-type: none"> <li>i. Low Carbon Transport</li> <li>ii. Buildings - Energy Efficiency improvements</li> <li>iii. Corporate governance</li> <li>iv. Supporting the transition to a low carbon economy</li> </ul>
	<p>2. <b>Power Up</b> (Renewable Energy Generation and Storage)</p> <ul style="list-style-type: none"> <li>i. Renewable Power</li> <li>ii. Low Carbon Heat</li> </ul>
	<p>3. <b>Biodiversity, Carbon Capture and Storage</b></p> <ul style="list-style-type: none"> <li>i. Tree Planting</li> <li>ii. Land Management</li> </ul>

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
<b>Power Down: Low Carbon Transport:</b>				
EV Charging infrastructure	£2m	TBC	County-wide	<ul style="list-style-type: none"> <li>• Current installation of 50 chargers and another 180 chargers planned by March 2022</li> <li>• Detailed travel analysis commissioned to support further installations</li> </ul>

<b>Power Down: Buildings - Energy Efficiency improvements</b>				
Retrofit of SC building assets	£1m	108t CO2e/yr	Corporate	<ul style="list-style-type: none"> <li>Energy efficient lighting and heating and renewable energy improvements to 5 buildings</li> <li>Work to prepare to identify and prioritise further improvements to around 90 Shropshire Council buildings</li> </ul>
<b>Power Down: Corporate governance</b>				
Staff and member Carbon Literacy training	TBC	n/a	Corporate	<ul style="list-style-type: none"> <li>Carbon Literacy Trust accredited training for Cabinet and Executive Directors completed.</li> <li>Roll out to other staff planned during 2022</li> </ul>
<b>Power Down: Supporting the transition to a low carbon economy</b>				
Business carbon advice service	£11k	TBC	County-wide	<ul style="list-style-type: none"> <li>Grant support to Shropshire Climate Action to fund a free service to help 300 to 500 Shropshire businesses to improve their Carbon Footprint</li> </ul>
<b>Power Up: Renewable Power</b>				
Shrewsbury Weir Hydro	£3.5m	TBC	Corporate	<ul style="list-style-type: none"> <li>SC is working with STC and local investors to refresh the scheme previously agreed in 2015.</li> <li>The hydro system would deliver 0.4MW of renewable power</li> </ul>
<b>Power Up: Low Carbon Heat</b>				
North Shrewsbury Heat network	£75k	TBC	Both	<ul style="list-style-type: none"> <li>Government funding for a detailed feasibility study into piping waste heat from the Battlefield ERF to heat businesses or public buildings.</li> </ul>

<b>Biodiversity, Carbon Capture and storage: Tree Planting</b>				
Community Tree Scheme	£32k	TBC	County-wide	<ul style="list-style-type: none"> <li>Since 2010 around 96,000 individual trees have been planted and 70,000 trees for hedges have been planted.</li> </ul>
<b>Biodiversity, Carbon Capture and storage: Land Management</b>				
Carbon Credits	TBC	TBC	Both	<ul style="list-style-type: none"> <li>Assessment of Council owned land for potential carbon credits. Development of a mapping tool to help private landowners.</li> </ul>

Key:  Completed;  In Progress;  Planned

## 9. Conclusions

- 9.1. The significant reduction in direct carbon emissions and modest overall reduction in gross emissions is welcome, our overall corporate performance was undermined by the increase in indirect emissions. 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.
- 9.2. Whilst the carbon savings generated from recycling and land management activities means that the Council's footprint is technically already net-positive, it is important that the Council continues to focus on reducing its gross carbon emissions.
- 9.3. The Council's corporate footprint represents only around 1% 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 17<sup>th</sup> December 2020: Draft Climate Strategy and Action Plan:  
<http://shropshire.gov.uk/committee-services/ieListDocuments.aspx?CIId=125&MIId=4137&Ver=4>

### **Cabinet Member (Portfolio Holder)**

Ian Nellins, Portfolio Holder for Climate Change, Natural Assets & the Green Economy

**Local Member**

All

**Appendices**

Appendix 1: Climate Strategy 2021 Progress Report