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Creating a world
fit for the future



Sheffield City Council

Zero Carbon Commission

Work Package 4 – Sheffield City Council Governance Arrangements



The Diamond, University of Sheffield

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Contents

Executive Summary	1
1. Introduction	3
Sheffield’s Climate Vision	3
Zero Carbon Sheffield Commission	3
Work Package 4 – Governance arrangements	4
2. Conclusions from Other Work Packages.....	5
Work Package 1.....	5
Work Package 2.....	5
Work Package 3.1.....	6
Work Package 3.2.....	6
3. Review of current governance arrangements	8
Current SCC Structure & Function.....	8
2021 Governance referendum	9
Current Approach to Sustainability	10
.....	11
4. Review of Investment Structures.....	13
Current Investment Structures	13
Future Investment Need.....	13
Climate Change in Financial Management	14
5. Review of best practice	15
Delivering Zero Carbon	15
Council Structure & Function	15
Council Culture & Operation	15
Policy & Strategy.....	16
Finance, Procurement, Investment & Resources	16
Collaboration & Influencing Partners.....	16
6. Stakeholder views	19
Engagement.....	19
Key messages	19
Delivering zero carbon.....	19
Council Structure & Function	19
Council Culture & Operation	20
Policy & Strategy.....	21
Finance, Procurement, Investment & Resources	22
Collaboration & Influencing Partners.....	23
Wider considerations	24

7. Summary Recommendations	26
Delivering Zero Carbon	26
Council Structure & Function	26
Council Culture & Operation	27
Policy & Strategy.....	27
Finance, Procurement, Investment & Resourcing	28
Collaboration & Influencing Partners	29
Wider Considerations	30
8. Conclusions	31
Appendix A – Summary of local policies	32
Appendix B – Summary of SCC Public Accounts	37
Appendix C – Potential Climate Impact Statement	38
Appendix D – Review of Best Practice	40
Nottingham City Council	40
Bristol City Council.....	41
Greater Manchester.....	42
City of Oslo Council	43
City of Los Angeles	44
Collective of Councils under Queensland Government.....	45
Appendix E – Monitoring and Reporting Common Reporting Framework: Detailed Comparison	46
Guidance on the Common Reporting Framework	46
Background to the Covenant of Mayors and Compact of Mayors initiatives	46
The Common Reporting Framework (CRF)	47
Summary comparison	47
C40 Cities – Measurement and planning	49
Common Reporting Framework: Detailed Comparison	50



Weston Park Museum – City Museum, Mapplin Gallery

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Executive Summary

Zero Carbon Sheffield

In 2019, Sheffield City Council (SCC) declared a climate emergency and stated its intention to work towards Sheffield becoming a zero-carbon city by 2030 and playing its full part in the Paris Agreement. The Council intends to work with stakeholders across the city to develop a Zero Carbon Plan. Arup are supporting SCC to develop their Plan and provide an evidence base for specific investment proposals to enable policymakers, politicians and wider stakeholders to reach decisions on key issues.

The work being carried out falls into 4 work packages:

- WP1 Baseline inventory – developing a detailed understanding of current carbon and greenhouse gas (GHG) emissions;
- WP2 Gap Analysis – projecting this baseline inventory forward under business as usual to assess the scale of the challenge required to meet net zero emissions;
- WP3 Interventions:
 - WP3.1 City level mitigation pathway – developing a set of mitigation options at the city level that can achieve the net zero goal;
 - WP3.2 Council estate mitigation pathway – developing a set of detailed mitigation actions for the Councils own buildings and fleet;
- WP4 Governance arrangements – developing the governance approach to support delivery of the net zero pathway.

Purpose of Work Package 4

Arup were appointed by SCC to undertake a review of the Council’s overall corporate approach to climate change and sustainability with the aim of making specific recommendations on what can be implemented in order to achieve net zero, both in their operations and as a strategic / city leader.

Key objectives for the work were to:

- Understand the current **structure and culture** of the City Council, including its existing forums for climate change action.
- Work in collaboration with the City Council through **workshops and interviews**.
- Explore the potential **governance arrangements** to deliver the necessary interventions to meet net zero.
- Understand the Council’s relationship to external stakeholders as **delivery partners**.
- **Make recommendations** for potential governance structures and functions, including stakeholder engagement in shaping climate change action, drawing on workshops, interviews and research of best practice.

Key messages

A summary of key messages from engagement sessions with SCC were collated and distilled to key messages around key topics.

Delivering zero carbon

- Climate change needs to be a central Council priority, structuring action around outcomes but with pragmatism on the 2030 ambition.
- “Let’s get going” - there is a strong support and will to contribute towards climate action with the right support.

Council Structure & Function

- Direction needs to be led by cabinet, with SCC fulfilling a greater role in City leadership.
- Embedding climate action into the structure of the Council will be essential, coupled with a dedicated central sustainability function (structure and function to be determined).

Council Culture & Operation

- A significant shift in culture and buy-in to climate action is critical, including longer-term thinking; more trust and open communication between Officers and Members; and, greater audit trails and accountability for delivery.
- Officers should be empowered to deliver outcomes learning lessons from COVID-19.

Policy & Strategy

- Streamlining or prioritising policy strategy and Council objectives would clarify climate as a priority.
- Setting zero carbon into policy and production of a Corporate or City Plan should be considered to set out a common vision.

Finance, Procurement, Investment & Resourcing

- Structuring budgets and funding priorities around outcomes would support delivery, including placing climate as a central decision-making factor. Sustainable procurement also has a role to play in influencing others through Council spend.
- The scale of investment and resourcing requirements are acknowledged as needing to increase significantly to deliver zero carbon (WP3.1 sets out the need to leverage billions of pounds of investment for the City to reach zero carbon).

Collaboration & Influencing Partners

- Collaboration will be critical to succeed.
- Improving Council transparency and communicating a shared direction, alongside maximising City stakeholder relationships will support collaborations – central and other local governments; Sheffield City Region; private sector; voluntary organisations; schools universities and colleges; and, citizens.

Wider Considerations

- Including highlighting: stakeholder engagement; growth; the political system; inequality; championing zero carbon industry and skills; and, learning from the COVID-19 pandemic.

Recommendations

30 Recommendations have been made spanning the key topics of intervention and drawing upon the review, best practice and stakeholder views. The headline of each recommendation is set below (further detail set out in Section 8).

Delivering zero carbon

1. Climate as a central Council priority
2. Programme action for delivery

Council Structure & Function

3. Cabinet led direction
4. Expand city leadership presence
5. Implementing organisational structures to deliver sustainability
6. Improving senior-level governance on zero carbon

Council Culture & Operation

7. Culture change, training and knowledge transfer
8. Officer driven action
9. Streamlining and improving accountability in decision making
10. A long-term outlook

Policy & Strategy

11. Clear and streamlined policy & strategy
12. Zero carbon policy & strategy
13. Set the Council's strategic direction

Finance, Procurement, Investment & Resourcing

14. A dedicated overall budget
15. Sector and intervention specific, dedicated budgets and investment/work programmes
16. Implement climate change assessments for budgets and spend
17. Implement a sustainable procurement policy & procedures
18. Pursue unlocking alternative sources of funding
19. Expand staff resource available to deliver against zero carbon

Collaboration & Influencing Partners

20. A collaborative approach
21. Improve accessibility of information
22. Maximising relationships – including with: Government; Sheffield City Region and its local authorities; Wider UK and international authorities; Private sector; Voluntary organisations; Schools colleges and universities; and, Citizens.
23. Review the potential role for a Climate Citizens Assembly
24. Explore the use of public private partnerships

Wider considerations

25. Implement effective reporting and monitoring
26. Address impacts of political cycles
27. Promote a fair and just transition to zero carbon
28. Maximise opportunities to promote zero carbon industry and skills
29. Consider a lessons learned exercise on the response to COVID-19
30. Deliver further engagement to progress next steps

Conclusions

The review of has highlighted the challenge of the scale and pace at which interventions need to be delivered to meet zero carbon, including the need to leverage billions of pounds of investment for the City to reach zero carbon. It shone a light on the enthusiasm and drive to succeed within SCC as a basis to further empower staff to contribute to the ambition of zero carbon. The need to set a clear direction on the delivery of zero carbon was highlighted and that this should be Cabinet led but driven by Officers. An approach of structuring delivery into programmes of work is considered key to make the task of delivering zero carbon into more manageable; and that collaboration and maximising relationships with City partners will be critical to their successful delivery. A series of 30 detailed recommendations have been developed, which provide detailed guidance on potential interventions to improve the organisations approach to climate change and sustainability to support SCC towards meeting its ambition of a zero carbon Sheffield by 2030.



University of Sheffield, Jessop West Building

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1. Introduction

Sheffield’s Climate Vision

In 2019, Sheffield City Council (SCC) declared a climate emergency and stated its intention to work towards Sheffield becoming a zero-carbon city by 2030 and playing its full part in the Paris Agreement.

The Council engaged with the Tyndall Centre for Climate Change Research who produced the report *Setting Climate Commitments for the City of Sheffield – Quantifying the implications of the United Nations Paris Agreement*¹. The report presents climate change targets for Sheffield, defined in terms of its administrative boundary of Local Authority area, and provides advisory budgets for carbon dioxide (CO₂) emissions, from the energy system for 2020 to 2100.

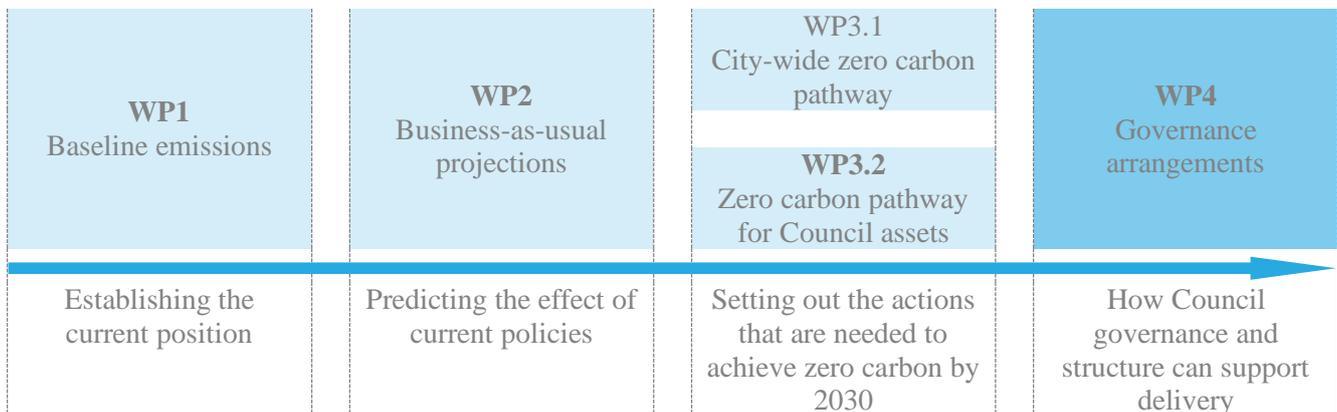
The report recommended that the city stays within a cumulative Paris aligned carbon dioxide emissions budget of 16 million tonnes (Mt CO₂) for the period of 2020 to 2100. It also recommended that the city initiates an immediate programme of CO₂ mitigation to deliver cuts in emissions averaging 14% per year, with an aim of reaching zero or near zero carbon no later than 2038.

Zero Carbon Sheffield Commission

The Council intends to work with stakeholders across the city to develop a Zero Carbon Plan. Arup are supporting SCC to develop their Plan and provide an evidence base for specific investment proposals to enable policymakers, politicians and wider stakeholders to reach decisions on key issues.

The work being carried out falls into 4 work packages:

- WP1 Baseline inventory – developing a detailed understanding of current carbon and Greenhouse gas (GHG) emissions;
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- WP4 Governance arrangements – developing the governance approach to support delivery of the net zero pathway.



¹ https://www.sheffield.gov.uk/content/dam/sheffield/docs/your-city-council/climate-change/Sheffield_Report_V1.3.1.pdf

Figure 1.1: SCC Zero Carbon Commission Work Packages

Work Package 4 – Governance arrangements

Arup were appointed by SCC to undertake a review of the Council's overall corporate approach to climate change and sustainability with the aim of making specific recommendations on what can be implemented in order to achieve net zero, both in their operations and as a strategic / city leader. This review was supported by consideration of the outputs of Work Packages 1, 2, & 3, best practice from other authorities, and external stakeholders. Arup undertook a series of workshops and interviews with key internal stakeholders in order to understand both the structures and culture of SCC and views on areas for improvement to guide recommendations.

Key objectives for the work were to:

- Understand the current **structure and culture** of the City Council, including its existing forums for climate change action.
- Work in collaboration with the City Council through **workshops and interviews**.
- Explore the potential **governance arrangements** to deliver the necessary interventions to meet net zero.
- Understand the Council's relationship to external stakeholders as **delivery partners**.
- **Make recommendations** for potential governance structures and functions, including stakeholder engagement in shaping climate change action, drawing on workshops, interviews and research of best practice.

2. Conclusions from Other Work Packages

Work Package 1

Work package 1 provides baseline data to help SCC work towards achieving zero carbon emissions. The report generated as part of WP1 presents the results of the spatial disaggregation of the CO₂ emissions from the UK Greenhouse Gas Inventory (GHGI) along with the associated energy use data and the structural and activity data for each main sector as follows:

- Industrial and commercial
- Domestic
- Transport
- Agriculture, Waste and Land Use

Key messages from WP1 include:

- The large majority (90%) of greenhouse gas emissions in Sheffield are CO₂.
- All sectors have seen declining emissions with the industrial and commercial sector reducing the most followed by the domestic sector. The transport sector has seen the lowest reduction at only about 17% since 2005.
- Emissions from industry and commercial (35%) represents the largest sector, which almost entirely consists of CO₂. Although most of this is from commercial and light industrial activity and only 4% from large industrial sources.
- Domestic emissions account for 33%. Gas use is greater in the South-West of the city as a result of larger sub-urban housing.
- Transport is the 3rd largest sector at 26% of emissions. 98% of transport emissions are from road transport.

Work Package 2

Work package 2 assesses the likely level of emissions up to 2030 and beyond under business as usual conditions. The assessment found that whilst good progress has been made in reducing emissions between 2005 and 2017, much of the progress has been from grid decarbonisation, which has progressed at a rapid pace. Future emissions reductions are not expected to be sufficient to deliver the net zero target.

It makes some important conclusions about the scale of interventions needed to meet zero carbon to consider alongside a review of SCC structure and governance relating to climate change, which include:

- *“Overall, Sheffield has already made some good progress in reducing emissions between 2005 and 2017, with the rate of emissions reductions being higher than the national average so far.”*
- *“The current policy landscape is not sufficient to meet net zero by 2030, or even to continue this level of emissions reductions into the future.”*
- *“Much of the progress in reducing CO₂ emissions in recent years has been from grid decarbonisation, which has progressed at a rapid pace.”*
- *“More focus will need to be turned to tricky areas such as decarbonisation of heat and transport.”*
- The report estimates that *“by the end of the 2033-37 carbon budget period, Sheffield will cumulatively be over 18 Mt CO₂e over the carbon budget for the period 2018-37.”*
- *“To reach zero carbon emissions...CO₂ emissions in Sheffield would have to reduce from 2.23 Mt CO₂e in 2017 to 0.11 Mt CO₂e in 2030. According to our Central BAU scenario, in 2030, CO₂ emissions will be 1.71 Mt CO₂e, which is 1.6 Mt CO₂e higher than the zero carbon target.”*
- *“Forthcoming policy announcements from the UK Government...will still not be enough to ensure that Sheffield reaches net zero within a suitable time frame.”*

Work Package 3.1

Work package 3.1 builds upon the conclusions of work package 2 and sets out the types of measures that will be needed for Sheffield to be zero carbon by 2030.

One of the key observations from work package 3.1 was the importance of everyone having a role to play if the zero-carbon target is to be achieved, including SCC, local businesses, community groups and individuals. WP3.1 also highlighted the role of the City Region and national government in stimulating modal shifts.

The report generated as part of WP3.1 presents the actions the Council can take to facilitate, enable and encourage action where they do not have direct control over a decision. The actions are set out in the following sectors:

- Domestic
- Commercial and industrial
- Transport
- Energy
- Nature-based solutions

WP3.1 provides some important considerations about how sectoral and specific interventions might be delivered and the potential role of SCC. It concludes that: *“In each of the sectors there are clear actions that the Council can and must take to achieve the target of a Zero Carbon Sheffield in 2030. These actions relate not only to elements of the city’s emissions that are within their direct control but also to emissions that are ultimately under the control of other actors. It is clear that the Council has a key role in encouraging and facilitating action by others. The Council also has an essential role in communicating with central government on the changes that are needed to effectively deliver zero carbon with practicality and realism.”*

It sets out three key actions to kick start delivery of interventions – Decide to act; Show the way; and, Take the path – set out in figure 2.1. ‘Show the way’ actions are enabling actions the Council can progress with very short lead-times whereas ‘Take the path’ actions lead more directly to emissions reductions but will take slightly longer to set up. These sector and intervention specific actions highlight important governance requirements for SCC – such as setting direction (action plan), leadership and partnerships – which are considered further in this Work Package.

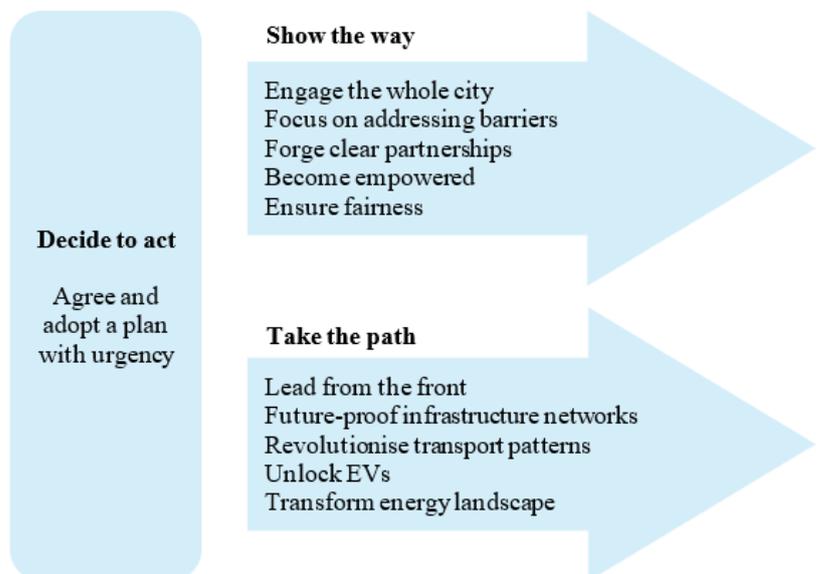


Figure 2.1: Work Package 3.1 – key actions

Work Package 3.2

Work Package 3.2 sets out the measures that will be needed for Sheffield City Council’s assets to be zero carbon by 2030. It establishes a strategic pathway and indicates the step change in delivery that will be needed in order to meet the goals the Council has set itself.

The report produced for WP3.2 provides an evidence base which can be used to support investment in new technology, changes in operating practices and strengthened discussions with its strategic partners.

It's conclusions relating to governance were:

“Adopt a net zero policy for the council. It should establish a series of targets which together meet the net zero 2030 goal. It must be endorsed by council leaders with clear lines of responsibility and ownership.

Targets should identify the destination, such as a fully zero or low emissions vehicle fleet in 2030, supported by interim and subsidiary targets that ensure progress is made rapidly. In the case of fleet, a 2024 target could be set for passenger EVs could be set for example.

It would provide the framework for the decision-making, coordination and investment required to meet the targets, with a set of actions that are funded with ambitious delivery timelines agreed. This should include a review of on-going and planned projects and programmes which could also enable the net zero measures identified to be deployed.

The team's responsible for implementing the net zero plan should prepare a pipeline of projects and investments. Resources should be deployed up front on priority projects and critical enabling investments in advance of full funding being secured. Having plans, supporting evidence and partnerships in place creates a strong platform for successful funding applications.

A transparent monitoring and evaluation process would help ensure that it stays on track.”

3. Review of current governance arrangements

A review of the overall organisational approach to climate change/sustainability, as relevant to the Zero Carbon Commission and Work Package 4 has been undertaken. The review considered the current structure of the Council and its Sustainability Programme Group (SPG), alongside relationships with partners such as the Green City Partnership Board through a stakeholder mapping exercise.

Current SCC Structure & Function

Policy Context

Policies specific to Sheffield have been reviewed as part of the commission in order to consider whether the city's current policy landscape makes enough consideration for carbon and climate change. The list of local policies that were considered are included in Appendix A.

Work package 2 concluded that overall, Sheffield has already made some good progress in reducing emissions between 2005 and 2017, with the rate of emissions reductions being higher than the national average so far. However, the current policy landscape is not sufficient to meet net zero by 2030, or even to continue this level of emissions reductions into the future. This reflects the picture at the national level, where the current policy landscape is not sufficient to meet the fourth and fifth carbon budgets, nor net zero by 2050.

Full Council

Full Council is made up of the mayor and all 84 Members who represent 28 Wards in the City. The Full Council is responsible for the Council's budget and policy framework. Council appoints the Lord Mayor, the Leader of the Council and statutory Officers. It also approves the Council's Constitution and makes appointments to committees and to external bodies.

Executive (Cabinet)

The Leader's Scheme of Delegation sets out the allocation of executive functions by the Leader. Decisions are reserved to the Cabinet or a Committee of Cabinet, individual Cabinet Members or delegated to Officers or other bodies².

Officers

While decisions about budgets and policy are taken by the 84 elected Members, there is a permanent team of Council Officers who implement these decisions and manage the day-to-day delivery of its services.

The Executive Management Team (EMT) comprises the Chief Executive, Executive Directors and the Directors of Public Health and Policy, Performance and Communications, and provides strategic direction. It deals with key corporate issues and strategic service issues. It makes decisions, formulates recommendations for the political leadership, and gives a steer on policy issues where this is necessary.

² <https://www.sheffield.gov.uk/content/dam/sheffield/campaigns/governance-referendum/Information%20on%20proposed%20Governance%20systems.pdf>

Senior SCC Organisational Structure

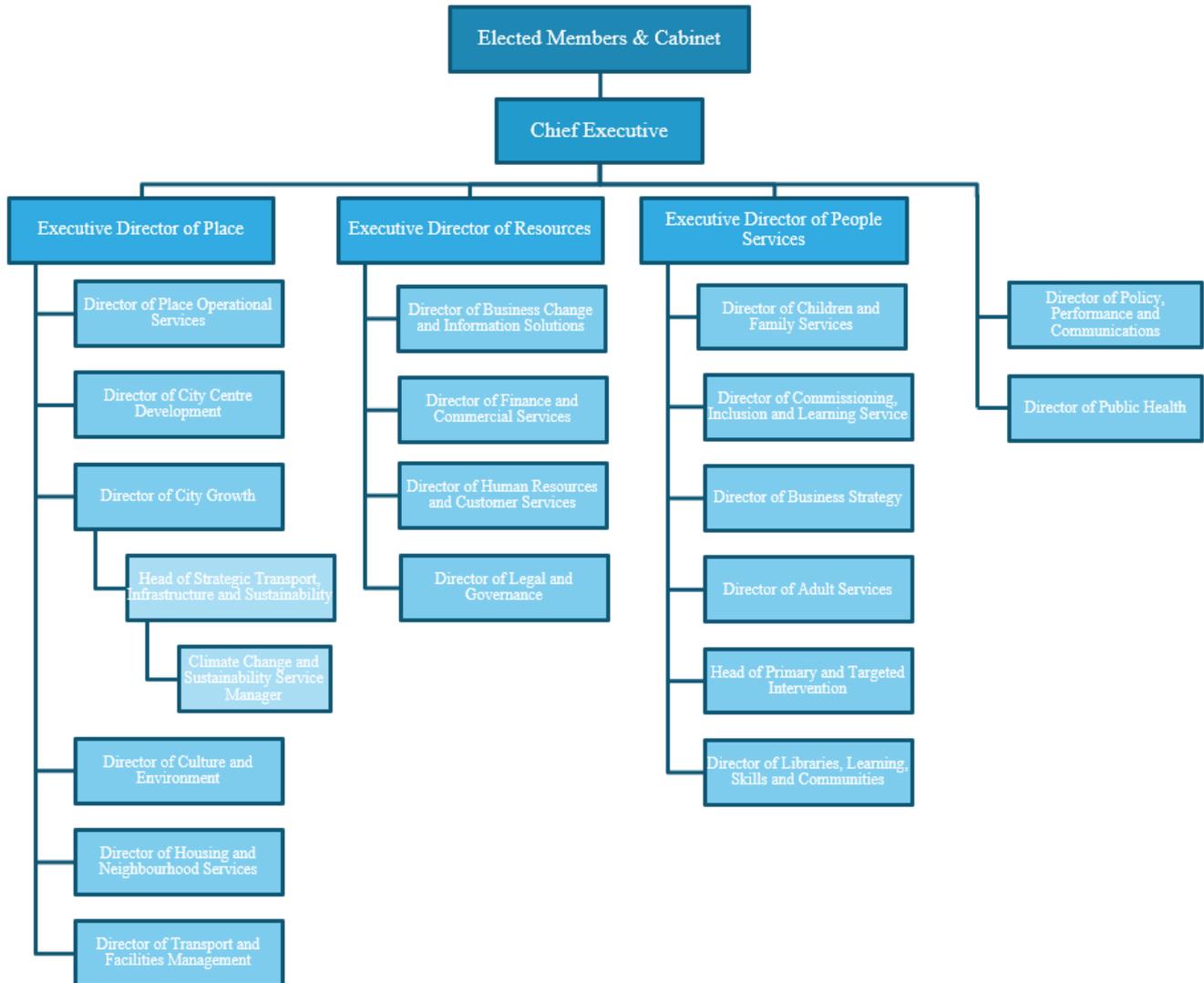


Figure 3-1: Senior SCC Organisational Structure

Scrutiny Committee

Scrutiny is an essential part of modern government, with its central purpose being to scrutinise high level cross-cutting and city-wide issues, the use of Council resources (including Portfolio, budget monitoring, annual budget setting process) and to hold decision makers to account.

Currently there are five scrutiny committees:

- Overview and Scrutiny Management Committee
- Children, Young People and Family Support Scrutiny Committee
- Economic and Environmental Wellbeing Scrutiny Committee
- Healthier Communities and Adult Social Care Scrutiny Committee
- Safer and Stronger Communities Scrutiny Committee

2021 Governance referendum

In 2021, the people of Sheffield will be asked in a referendum, whether they want the Council to keep the leader and cabinet model of decision making or move to a committee system.

Leader and cabinet model

- Enhanced Leader and Cabinet model of governance;
- Creation of a new Policy Development and Performance Committee (cross party) to bring a different perspective and challenge assumptions before they are given to Cabinet. The Committee will be part of the authority's formal overview and scrutiny arrangements, replacing the current Overview and Scrutiny Management Committee and will be able to commission other Scrutiny Committees to undertake more detailed work on issues as required;
- The Council will produce and publish a rolling 12-month forward plan of the strategic or operational decisions; and
- Non-executive decisions, which include Planning and Licensing decisions, will continue to be made by separate politically proportionate committees, as now.

Committee model

- Most decisions are taken by groups of councillors drawn from all of the political parties on the Council (committees), structured to be politically proportionate. No individual councillors can make decisions;
- Up to ten 'thematic' committees are proposed, with most decisions being made by a thematic committee
- An overarching committee would look at the most important decisions; and,
- No requirement for an overview and scrutiny process, although there would be a process for decisions to be reviewed.

Current Approach to Sustainability

Officer-level

Day to day responsibility for developing, commissioning and coordinating sustainability work, including the programme on Zero Carbon, sits with one Officer, the Climate Change and Sustainability Service Manager. The work of the Climate Change and Sustainability Service is overseen by the Sustainability Programme Group (see below) and with Members through engagement with the Cabinet Member for Environment, Street Scene and Climate Change. There is currently very limited dedicated staff resource or budget allocation to support this role. Input and guidance sought from the current Climate Change and Sustainability Service is considered to be dependent on the willingness of services to seek this support.

There is some delivery of work in wider parts of SCC that is recognised to have an associated benefit towards zero carbon, e.g. Council housing energy efficiency. However, this work is not delivered as part of a mature programme of zero carbon interventions and would benefit from stronger input and coordination from the Climate Change and Sustainability Service, Sustainability Programme Group and/or the Cabinet Member for Environment, Street Scene and Climate Change. There is therefore currently limited technical input or guidance as to the priorities or efficacy of this work in meeting the needs of zero carbon, e.g. whether Council housing energy efficiency works are delivering the need to retrofit to a net zero standard or whether interventions are being delivered at a scale sufficient to deliver net zero.

Analysis of the interventions proposed under Work Package 3.1 and 3.2 has shown that when mapped against SCC's existing governance arrangements the majority would fall under the responsibility of the Director of City Growth; suggesting the bulk of responsibility for zero carbon delivery currently sits in a very discrete area of the SCC structure. For the Council's zero carbon ambitions to be met, this position will need to change rapidly.

Sustainability Programme Group

In 2015, Sheffield established an independent Green Commission to consider how the city could become a more sustainable place to live and work. The Green City Strategy captures the knowledge, ideas and visions from the Green Commission and sets out the critical next steps in the development of the city-

wide approach to tackling climate change and becoming a successful, sustainable city. The Strategy sets out six key objectives that the City needs to take to ensure levels of GHG emissions are reduced.

Currently, responsibility for the implementation of the objectives in the Green City Strategy, as well as overall responsibility for the emerging sustainability and climate change programme within SCC lies with the Sustainability Programme Group (SPG). The SPG includes representatives from a range of SCC departments, including:

- Director of City Growth
- Director of Housing Services
- Director of City Centre Development
- Assistant Director of Legal & Governance
- Head of Planning
- Head of Programmes and Accountable Body
- Head of Waste Management
- Head of Facilities Management
- Head of Sustainability, City Growth
- Head of Capital Delivery Service, City Growth
- Head of Property & Regeneration, City Growth
- Head of Business & Commercial Development, Finance & Commercial Services
- Head of Strategic Transport & Infrastructure

Green City Partnership Board

A city-wide partnership – the Green City Partnership Board (GCPB) was established in July 2018 with the objective of providing leadership and strategic oversight of the development of Sheffield’s approach to low carbon, resilience and sustainability. The Board is responsible for commissioning and overseeing the delivery arrangements to achieve the vision set out the Green City Strategy.

The Board has representation from key partners and stakeholders from across the City, including:

- Director of Public Health, Sheffield City Council
- Exec. Director Place – Sheffield City Council
- Climate Change and Sustainability – Sheffield City Council
- Cabinet Member for Environment, Street Scene and Climate Change
- Community Energy England
- Sheffield Climate Alliance
- Sheffield Chamber of Commerce and Industry
- Sheffield Hallam University
- University of Sheffield
- Arup Sheffield
- Amey
- Veolia

Proposed Climate Citizens Assembly

The Council has proposed that it will convene a Citizens’ Assembly, representing all parts of the city, to guide the way towards becoming zero carbon. The GCPB is expected to perform as the advisory group for a Climate Citizens Assembly. This work is currently on-hold due to the current COVID-19 pandemic. However, an alternative approach that will provide wider engagement across the city is in development. The findings of the Zero Carbon Mitigation Pathway Commission are expected to help inform the development and content of a Climate Citizens Assembly.

SCC External Stakeholders

A range of key stakeholders across Sheffield, who have the potential to contribute to the zero carbon by 2030 ambition have been mapped below.

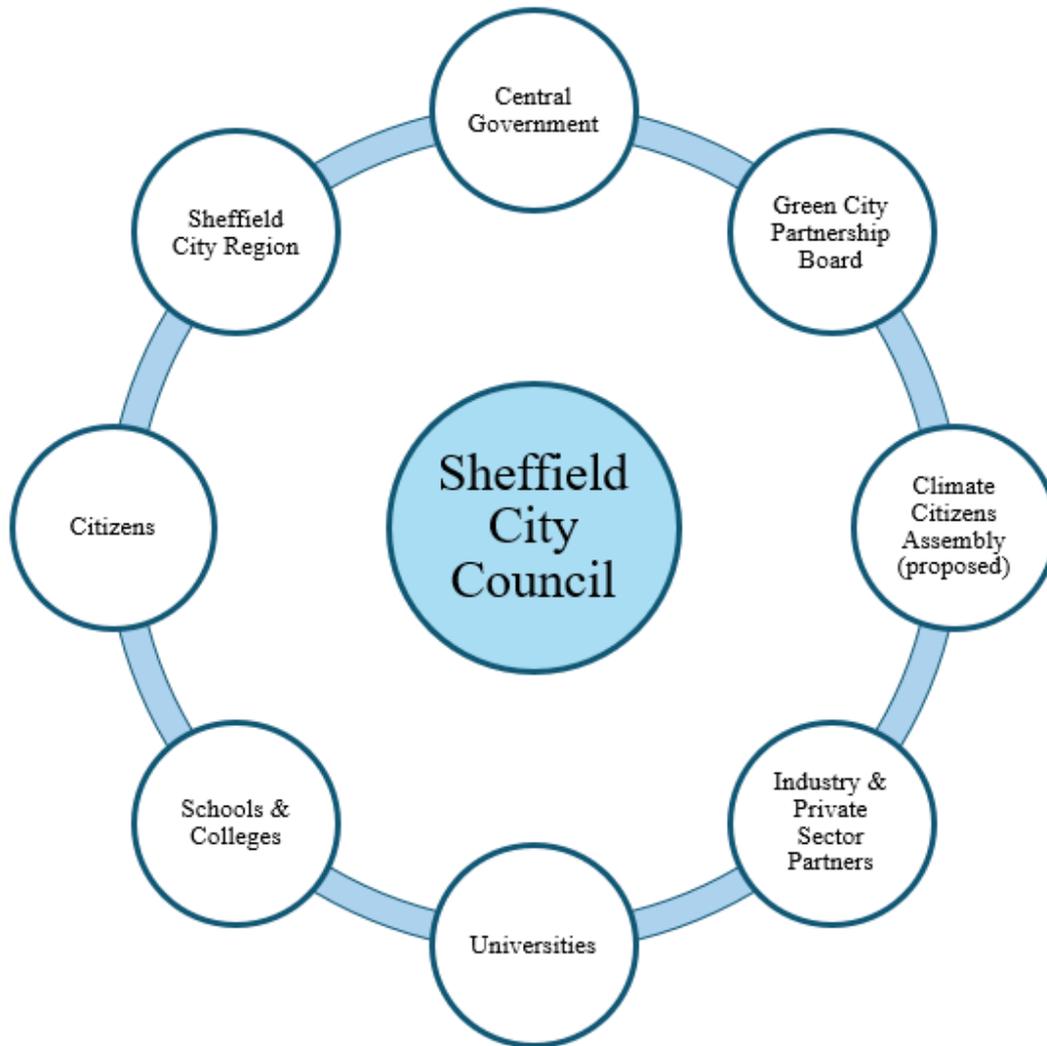


Figure 3-2: SCC external stakeholders

4. Review of Investment Structures

Current Investment Structures

SCC publishes its Budget Implementation Plans (BIPS) online, detailing the expected spend for the year. Appendix B contains a summary of the public accounts for 2020-21. Whilst funding is allocated to ‘Culture & Environment’ under the Place portfolio, it is understood the use of the term ‘environment’ does not relate to climate change/sustainability. There is no mention of carbon or climate change within the existing budget structures or financing priorities; suggesting there is not currently any high level structural financial management for climate change to support a shift to Zero Carbon.

Future Investment Need

Work package 3.1

The scale of financial investment to deliver zero carbon across the City (beyond the Council’s estate and operations) will be substantial. Work Package 3.1 also provides details relating to the costs of potential interventions identified through this commission.

For Domestic Buildings, Work Package 3.1 estimates suggest a total capital investment requirement of **£2-5billion** for improvements to building fabric, LED lighting, smart heating controls, decarbonising cooking equipment and installing heat pumps. It excludes district heating connections, solar thermal collectors and building-mounted PV which have been accounted for in the energy section.

For Commercial Buildings, it estimates investment at **£1-10billion** improvements to building fabric, LED lighting, smart heating controls, building services upgrades and installing heat pumps. It excludes district heating connections, building-mounted PV which have been accounted for in the energy section and costs associated with decarbonising processes have also been excluded as there will be significant variation depending on the process equipment.

For Energy, estimates suggest a capital investment of **£1billion**, through expanding the district heat networks, installing building-mounted PV and solar thermal collectors. Large scale energy generation from ground-mounted PV and wind turbines have been excluded and would need require additional investment above these figures.

For Transport and Land-use, costs relate to individual interventions and are more heavily dependent on the mix of interventions chosen, technology advancements and strategic directions which are yet to be set. Work Package 3.1 presents indicative costs for potential interventions, which could be used to develop cost estimates once programmes of work have been developed but does not present an overall figure. For example, the anticipated costs for cycle superhighways are estimated to be **£1m - £1.5m per km, £0.2m – and £0.35m per electric bus**.

The estimated scale of capital investment in Work Package 3.1 gives an indication of the level of funding required to be leveraged to facilitate action outside of SCC’s direct control – this suggests the need to leverage billions of pounds of investment for the City to reach zero carbon. This highlights the importance, beyond the Council’s own structure and function, of collaboration and influence for SCC with key stakeholders such as government, private sector and citizens. It also highlights the potential opportunity for investment to facilitate clean growth in the City and potential to support a green recovery from COVID-19. The ambition to meet zero carbon by 2030 provides an added importance to establish these relationships and to secure investment as soon as possible.

Work package 3.2

A high-level cost assessment undertaken as part of WP3.2 indicates that the total capital investment required to deliver the net zero measures for Council assets to 2030 is £679million.

The cost of each measure has been calculated factoring in the costs of equipment. In most cases the cost of installation and associated enabling works are not included, which will also be significant. Key modelling assumptions have been described in the main body of the work package 3.2 report.

The cost of inaction where SCC lags behind national progress could potentially be significant. The assessment undertaken as part of WP3.2 indicates that the annual cost of inaction to the Council would be £4.25m per year.

Climate Change in Financial Management

Cities are starting to invest in climate change interventions and including climate change as a category in its own right within budgets and independent of wider environmental work. This approach has the effect of dedicating resource to the priority of climate change and providing transparency to citizens on investment in zero carbon.

Alongside dedicated budgets, many cities use impact assessment tools to scrutinise the impacts of proposals or budgetary spend. A case study from Bristol City Council is presented below, highlighting their dedicated climate change budget. It is acknowledged that whilst this is a step in the right direction, the scale of the budget is insufficient when considering the scale of investment required to deliver zero carbon.

All local authorities are required to deliver Equalities Impact Assessments (EqIA). The approach takes account of potential equalities impacts when making a decision. The EqIA asks what the proposal is and for an explanation of how the proposal will impact service users, staff and/or the wider community and must be evidence-based, supported by robust data.

Sheffield City Council have a robust EqIA process. However, it is recognised that the assessment is often only delivered for cabinet decisions and are undertaken very late in the process and at a point at which it is too late to make significant interventions. Consideration could be taken into account in all projects, not just cabinet, and take place early in the process when real change is still possible. It is recognised that adopting a similar approach to EqIA may be useful to consider climate change in decision making, as the approach has obvious synergies with assessing climate impact in decision making.

Case Study: Bristol City Council – Budget 2020/21

In line with their ambition to be net zero by 2030, the City of Bristol have updated their budget priorities to include more investment in the environment. The Council budget now includes a proposed climate change reserve of £3m for tackling climate change and the impact of air pollution.

5. Review of best practice

A review of current best practice governance was undertaken as part of WP4, considering both UK and international case studies. The aim of this review was to highlight potential interventions and approaches SCC may wish to consider. The full contents of the review/case studies are provided in Appendix D. A summary of key considerations and examples drawn from the review are set out below. **Error!**
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Delivering Zero Carbon

All the cities³ reviewed have declared climate change targets, ranging from 2028 through to 2050. Although commitments, strategies and delivery mechanisms differ across the cities all highlight that the journey towards becoming carbon neutral/net zero/zero carbon is to some extent uncharted territory and that plans should not be rigid. Rather plans should be adaptive and responsive to unforeseen challenges, emerging science and technology and the needs of the communities.

Council Structure & Function

One of the key themes identified across all the cities was the importance of strong, cohesive and empowered network and leadership, not only at the local and regional level but also from central government. Effective leadership and cross-party consensus are highlighted as key to enabling long term planning and strategy.

Another key theme is the establishment of internal teams within councils e.g. “*A network of Climate Champions*” with the remit to work across and with all appropriate services to ensure climate responsibility is considered and embedded throughout.

Council Culture & Operation

All the cities reviewed have chosen to operate in similar but slightly different ways in respect to their approaches to climate change. However, several key approaches emerged, including:

- Leading by example – e.g. Los Angeles’s Green New Deal sets out the need for the municipal government to lead by example in terms of changing what they do with city resources, buildings, construction projects etc with government-owned properties and publicly-driven investments.
- Carbon neutral by design – e.g. Nottingham City Council consider that everything that is proposed or implemented across the organisation should consider how it can be carbon neutral or contribute to reducing carbon as a matter of course e.g. from the outset in the City Council’s major projects.
- Carbon budgets – e.g. Oslo and Bristol both demonstrate how carbon budgets can be used to increase the consideration of climate impacts in decision making and budgeting.

³ Nottingham City Council, Bristol City Council, Greater Manchester, City of Oslo Council, City of Los Angeles, Collective of Councils under Queensland Government.

Case Study: City of Oslo & City of Bristol – Climate budgets

Oslo

The City of Oslo was one of the first cities to incorporate climate budgets into their annual city budgets as a governance tool to strengthen their ability to achieve their ambitious climate targets. The climate budget sets a ceiling on the volume of carbon dioxide that can be emitted in the city in the same year. It is fully integrated into the fiscal budget, with responsibility for the climate budget process allocated to the vice mayor of finance.

The Climate Budget shows:

- how the targets are to be achieved
- what mitigation measures have been put in place
- who is responsible for completing them.

Bristol

Achieving the targets set out in the Action Plan is recognised as a challenge and the council has outlined a need to be able to quantify its carbon emissions and understand the impacts of all new major plans, policies and projects. The council has therefore stated it will create a Carbon Impact Budget, setting out the carbon impacts of all major projects. This budget will be considered alongside the council's financial budget.

Policy & Strategy

A key message from the city reviews is that establishing new 'big ticket' policies, e.g. a policy to achieve 'net zero by 2050', is not the most effective way forward if this is not underpinned with detailed policies on how to deliver the overall goal. Plans and policies need to be achievable and implementable, drawing on the knowledge of experts, industry and the local community. In addition, local councils need the support of strong regional and national policy and legislation that supports the delivery of crucial interventions e.g. green infrastructure, building retrofits etc.

Finance, Procurement, Investment & Resources

The significant financial investment required to achieve zero carbon is frequently highlighted as a key barrier, with the levels of investment needed often in excess of current Council budgets. In order to unlock alternative sources of funding the cities reviewed present a number of opportunities, including:

- *"Investigate opportunities for initiatives such as crowdfunding, community share offers and climate bonds as a way to unlock capital investment for climate projects"*⁴.
- *"Consideration of opportunities for an investment or trading platform to lever investment into climate action for community groups"*⁵

Cities also proposed actions to ensure money that is spent is spent in a manner that aligns with their climate strategy/principles by creating new Sustainable Procurement Policies and procedures.

Collaboration & Influencing Partners

Public Private Partnership

The need to mobilise private sector partners is recognised across the cities and is viewed as a critical opportunity to unlock significant potential economic benefits. Partnerships between the public and private sector are needed to continue to drive investment and innovation. A case study of Manchester's Climate

⁴ http://democracy.camden.gov.uk/documents/s89494/Climate%20Action%20Plan%20Appendix%201%20_%20Camden%20climate%20action%20plan.pdf

⁵ <https://www.bristoloncity.com/wp-content/uploads/2020/02/one-city-climate-strategy.pdf>

Change Partnership is presented below. Bristol's Climate Strategy also discusses the importance of collaborating with the private sector when developing ways to finance climate action. Public Private Partnerships such as the City Leap Energy Partnership are expected to provide opportunities for the development, construction, and financing of low-carbon energy-related projects and delivery of associated services to assist with meeting Bristol's carbon neutrality targets. It is acknowledged that these approaches represent new projects, initiatives or services where specialist knowledge and skills are required alongside capacity and investment to deliver.

Case Study: Manchester – Climate Change Partnership

Coordinated by the Manchester Climate Change Agency, the partnership brings together over 60 organisations with collective responsibility for more than 20% of the city's emissions. The partnership is responsible for overseeing and championing climate change action in the city and it is envisaged that the partnership will provide the space needed for innovative, commercially viable and socially accepted products to be developed, before rolling them out citywide and to other cities around the world.

The Manchester Climate Change Framework 2020-25 sets out four headline objectives for the Partnership to deliver during 2020- 25, including:

- Objective 1: Helping our city to set the right objectives and targets, in line with the Paris Agreement and the latest science
- Objective 2: Helping our city to establish the strategy, governance and partnerships needed to meet the targets
- Objective 3: Helping our city to take action
- Objective 4: Helping our city to understand its progress

Citizens

The role and importance of engaging and empowering residents to take action is frequently highlighted across all the cities reviewed. Cities have adopted this in various ways, for example Bristol's One City Strategy lists 'Engagement, Culture and Inclusion' as a key pillar, within which they highlight the need to engage with citizens in order to develop a shared understanding and language on what climate change means for the city, thereby supporting everyone to be an active part of the transition. In Warrington, a Community Municipal Bond (CMB) has been launched to allow citizens to invest with the council to develop a solar farm and receive a long term, low risk return⁶⁶.

Outside of the UK, international cities such as Los Angeles have established implementation bodies to oversee their climate policies, comprised of a wide range of representatives from disadvantaged communities, indigenous local tribes, small businesses, and industry, as well as policy and science experts and municipal council executive to ensure that issues and solutions discussed reflect the experiences of the community.

Citizens assemblies are also frequently identified as a powerful method to generate ideas and evaluate trade-offs, bringing public voices into the debate and ensuring people from typically underrepresented groups are included in the conversation.

These approaches recognise the valuable role of citizens in the transition to a zero carbon economy. They also demonstrate potential best practice in meeting the 'fair and just transition' to net zero, as set out in

⁶⁶ <https://www.warrington.gov.uk/news/green-community-investment-plans-approved>

the Intergovernmental Panel on Climate Change's Special Report 15⁷, which stresses the importance of ensuring the burden of delivery and costs should be distributed evenly across the economy and citizens.

Case Study: Camden Borough Council – Citizens Assembly

Camden was the first Local Authority in the UK to convene a Citizens' Assembly on the climate crisis. In the lead up to the Assembly, local community groups, schools (including "the Sustainers" schools' sustainability group), businesses and business networks (e.g. Camden Climate Change Alliance business network) and over 2,500 residents provided ideas and proposals through an on-line platform called Commonplace.

Across three sessions, assembly members developed proposals for how Camden could address the climate crisis. The final set of seventeen Citizens' Assembly recommendations included proposals under three themes: Neighbourhood, Home and Council.

Recommendations included:

- Neighbourhood: Promoting and trialling car free zones and days / Enabling electric transport with infrastructure and incentives / Developers to fund energy efficiency retrofits of old buildings
- Home: Making all new homes 'zero carbon' / Creating more green space on residential streets
- Council: Formation of a Climate Emergency scrutiny panel / All council properties to be fossil-fuel free / Improved council communications on the climate crisis

Schools, Colleges & Universities

The influence and power of young people in addressing climate change through their active participation in climate activism has been evident through high profile movements such as the 'Youth Strike for Climate'.

The Manchester Climate Change Strategy references the significant role the city's schools, colleges and universities already play in the transition to a zero carbon, climate resilient economy, through the ongoing development of carbon literate citizens. Further afield the City of Los Angeles is working with local trade and technical schools to create EV workforce pipelines.

Universities are frequently highlighted across the cities as key partners in addressing climate change, in particular through their ongoing research to identify solutions to the challenges and opportunities the cities face. The University of Leeds is one of 24 key Leeds businesses and organisations joining forces to encourage investment in low-carbon, climate-resilient development through the Leeds Climate Commission.

Other Authorities

When discussing how to access subsidies, grants and other financial support from government and other third parties several cities raised the value of collaborating and working with other councils in the region to agree a region-wide lobbying position to Government. The Core Cities Sustainability Group is recognised as a good example of such engagement, with opportunities to develop further.

⁷ <https://www.ipcc.ch/sr15/>

6. Stakeholder views

Engagement

A series of workshops and interviews were held with Sheffield City Council Officers. One interview was also held with an elected Member. A further workshop with elected Members was proposed, however it was not possible to secure a session due to the ongoing circumstances surrounding COVID-19. Table 7.1 below provides more details on the engagement process. WP4 has also been delivered in close collaboration with SCC Officers leading on climate change and sustainability to maximise opportunities to understand Council governance and how interventions might best be designed.

Stakeholder	Format	Date
Directors Group and Sustainability Programme Group	Workshop	24 th July 2020
Finance & Procurement	Interview	30 th July 2020
Cabinet Member for Climate Change	Interview	5 th August 2020
Interim Chief Executive	Interview	5 th August 2020
Strategic Planning & Policy	Interview	7 th August 2020
Executive Director of Place	Interview	13 th August 2020

Table 7.1 Engagement

A summary of key messages from these sessions is presented here. The wording/phrasing used, seeks to reflect the comments made and choice of words used by individuals to reflect the tone and feeling of stakeholders.

Key messages

Delivering zero carbon

- **Climate as a central Council priority** – Climate needs to be set and structured as a central priority for the Council. The use of a document to set out priorities, e.g. a Corporate or City Plan, was seen as an essential mechanism for delivering a common understanding of priorities and a clear vision for Officers to work to.
- **Strong support for climate action - “Let’s get going”** – feedback was supportive of climate action, if given appropriate priority to facilitate Officers to support it. There was genuine passion and enthusiasm shown for the topic and a desire to be involved, to have a role and buy-in to the solutions.
- **Structuring action around outcomes** – an outcome-based approach would support more clarity on and effective delivery of action on climate change and encourage collaboration on delivery. It is recognised that this is something the Council is seeking to work towards; within which the profile and priority of climate change could be raised.
- **Pragmatism in the 2030 ambition** – the ability to change ways of working to deliver zero carbon is considered “all within our gift” and there is strong support to deliver as much as is possible towards the 2030 target. However, there is currently little confidence that it is achievable under current arrangements and so the zero carbon by 2030 ambition needs to be described and communicated with realism. Significant priority and resourcing needs to be given to zero carbon work to change this situation and for the City to succeed against its ambition.

Council Structure & Function

- **Led by Cabinet** – change and the development of an outcome led approach would need to be led by Cabinet, with zero carbon as a central priority. This change would require all Cabinet Members to

take a responsibility for delivery of zero carbon in their portfolio, whilst maintaining collaboration and ultimate oversight by the Cabinet Member for Climate Change to avoid silo working. There was a strong desire to see Cabinet setting a clear direction on climate change, including identifying what items to de-prioritise in order to resource this action. The potential for carbon budgets and targets for portfolios was considered a potentially helpful intervention.

- **City leadership** – current Council structures and functions are inhibiting its abilities to fulfil its potential to be an exemplar. Greater leadership from Cabinet and the Executive Management Team was desired both internally to drive culture change and externally to influence others to deliver zero carbon.
- **Embedding climate into SCC structure** – Consideration of the environment and climate change were considered to be poor and ‘environment’ functions do not contain much governance on true environmental matters. All engagement highlighted the importance of the role of the current Climate Change and Sustainability Service Manager and the level of responsibility falling upon this single position within the Council and the need to provide more structure and resource to zero carbon work. A Corporate Investment Fund proposal was submitted for additional resource in 2019 but did not proceed, suggesting misalignment between stated ambition and resource allocation. Whilst there was agreement that structural interventions were needed, views were not aligned to a single solution and there were a number of key messages:
 - The need for climate to be established as a corporate responsibility/function and leading organisation-wide embedding, coordination and monitoring to deliver against the 2030 ambition.
 - Restructuring the activities of the Council to align with climate as a corporate priority and embedded in service planning and performance management.
 - The need to embed climate action across the Council, without generating more Boards and supported by a central technical function.
 - A climate lead / responsible Officer for each portfolio and Members required to demonstrate how their portfolio contributes to zero carbon (see also key messages on climate as a central decision making factor).
 - The need for greater scrutiny on climate change, breaking down silos and addressing competing priorities.
 - The current Council structure around Public Health was held up as potential best practice as this has shown how embedding dedicated resource overseen by a central function can be successful.
- **A dedicated central sustainability function** – all engagement highlighted support for a central function to oversee climate change and sustainability and that this should benefit from a significant expansion in resource. Whilst there was agreement that the structural intervention was needed, views were not aligned to a single solution and there were a variety of ideas, suggestions and views shared on its:
 - Scope and function – as a dedicated department, increasing resource in the current Service, a virtual team of embedded staff from across the council, or a blend of these options;
 - It’s role in coordination/governance (including of any resource embedded in other functions) and in strategy and oversight of the 2030 ambition;
 - Structural location – sitting in Place, as a corporate function or with different teams in both delivering separate focussed roles.
 - Resource/scale – highlighting the need to significantly increase the resource on climate action and praising the current Service for their impact on current resources;
 - The source of staff resource – the need to upskill existing staff and recruit or commission technical expertise, able to advise and steer the Council.

Council Culture & Operation

- **Culture change & buy-in** – Current culture around zero carbon is perceived to be poor, with a number of issues highlighted including: lack of direction, inaction despite the 2030 ambition, poor

enabling of others, a lack of understanding of the scale and pace of change required. Almost all of the Council will have to change the way it works to deliver zero carbon and there is a strong need to change mindsets, in terms of approaching climate and carbon initiatives as a shared goal with individual portfolio/departmental responsibilities; shifting to a culture that everyone has an individual part to play. Training and a programme of knowledge sharing could have a part to play in developing a common understanding.

- **Audit trail and accountability** – The need for a mechanism/audit trail of decisions made against sustainability/zero carbon targets to demonstrate how sustainability and climate are considered in Council decision making processes and to ensure they contribute and don't inhibit the ability to meet zero carbon. The Equality Impact Assessment (EqIA) was raised as a potential example of best practice and a desire for a climate change assessment which measures the impacts of interventions/decisions on emissions.
- **Empowered Officers deliver outcomes** – Passion, enthusiasm and willingness to support delivery of the zero-carbon ambition was high but considered to be depended on the right direction and culture. The COVID-19 pandemic highlighted the ability of Officers to respond in an emergency, delivering effectively at scale and pace and collaborating across the city and city region to effect change. The synergies with the climate emergency were highlighted. Reduced bureaucracy in decision making and increased responsibility for Officers to coordinate delivery (with both being in line with the direction set by Cabinet) were highlighted as reasons for the success in responding to the pandemic, which could be applied to the climate emergency.
- **The need for long-term thinking** – short-termism as a culture and in operation of the Council is limiting its ability to plan and deliver investment for zero carbon at the scale and pace required, particularly influenced by short-term financial and political cycles. The need for some functions of the Council to work to a longer-term view was considered essential.
- **Trust and open communication between Officers and Members** - There is a desire for more robust communication and open challenge between Members and Officers.

Policy & Strategy

- **Streamlining or prioritising policy, strategy and Council objectives** – it was felt that the scale of the challenge to meet a zero carbon by 2030 ambition would require significant re-prioritisation of attention, effort and resources to achieve; reducing competition and focusing action on climate change. In particular, suggestions of de-prioritising or reducing the amount of policies and strategies. There are some current Council priorities that are undermining the ability to deliver zero carbon, e.g. growth and the delivery of new housing stock, and in some cases a balance of both incentive and penalty will be needed to deliver the change needed.
- **Setting zero carbon into policy** – setting and embedding the zero carbon by 2030 and associated key interventions as policy positions were proposed to provide greater clarity on direction and likelihood of delivery. Whilst there was strong support for sectoral policy positions, there was not a consensus as to whether the 2030 ambition should be set into policy and so further discussion would be beneficial on this point. It was considered that policy and strategy would need both incentives and penalties to drive behaviours and action. Flexibility and the ability to adapt to change were considered important aspects of any policy or strategy relating to climate change – Heart of the City was held up as a potential example of best practice (case study below)
- **A Corporate or City Plan as a common vision** – linked to key messages on setting direction/priorities and leadership, a Corporate or City Plan would provide SCC with a common vision and shared understanding of priorities and delivery mechanisms. In turn this would facilitate more decisive action by Officers and more effective collaborations and stakeholder engagement.

Case Study: Heart of the City

Highlighted during stakeholder engagement as an example of best practice, Heart of the City has demonstrated a strategy that has delivered successfully, in part due to the flexibility built into it to enable it to develop in response to change.

Heart of the City II is delivering Sheffield city centre its long-awaited commercial, leisure, retail and residential focal point. It builds on the success of the original Heart of the City project and has had to contend with changing external circumstances including most recently with the covid pandemic. Despite these challenges the current 1.5 million sq ft development continues to transform this area of the city centre into a dynamic mixed-use district that will help attract more jobs and investment, and ultimately, make Sheffield an even more rewarding place to live and work.

The Council has pledged to provide exemplary ethical and sustainability standards across its Heart of the City II scheme. For example, the completed Grosvenor House has secured a prestigious green energy rating, while the recently submitted plans for Block H feature a 'net zero carbon ready' office building.

Finance, Procurement, Investment & Resources

- **Structure budgets and funding priorities around outcomes** – with the achievement of zero carbon being a priority outcome. Stakeholder views indicated that the current financial structures and priorities do not represent the priorities of the Council well and undermine the ability to work in a constructive collaborative manner (a review of Council budget structure also shows there is no mention of carbon or climate change within the existing budget structures or financing priorities; suggesting there is not currently any high level structural financial management for climate change to support a shift to Zero Carbon – as set out in Section 4). Current Council resource is insufficient to include zero carbon as an additional objective/priority and so de-prioritisation of spend on other matters will be required. Programmes and capital budgets should be designed around outcomes and priorities. This approach could also facilitate more collaboration and the release/re-prioritisation of SCC funding towards zero carbon.
- **Climate as a central decision-making factor** - Decisions on budgets and investment should demonstrate how it is aligned with and supports delivery of zero carbon. A carbon impact assessment on all budgets and spend (and papers to Members as suggested in wider feedback) would facilitate a fuller understanding and consideration of climate impact, alongside an audit trail of how decisions took account of climate (potentially building on the approach for Equality Impact Assessment) (see also key messages on embedding climate into SCC structure). Combining Finance and Commercial services has created a strong ability of these departments to deliver finance and procurement requirements of the transition to zero carbon.
- **Costs and financial resource** - Future financial management will need to be structured to ensure adequate resourcing to deliver zero carbon. There is likely to be a big funding gap and there is currently no forward financial planning on this or dedicated resources for delivery of zero carbon. Without firmer cost estimates for zero carbon interventions it is difficult to ascertain the amount of funding that needs to be allocated/sought from alternative sources. Austerity cuts, and in particular its effect on the SCC sustainability function, is recognised as having damaged the ability to deliver zero carbon. This is considered to have a further impact on impeding the ability to apply for grants and funding pots. It is also recognised that this approach differed from other cities, who preserved and expanded their sustainability functions in this time (see also key messages on a dedicated central sustainability function).

- **Maximising sustainable procurement to leverage wider influence** – there is potential for SCC to use its procurement to maximise the influence of the Council on the zero-carbon agenda. A sustainability appraisal for the procurement of goods and services had previously been in place but had not been successfully embedded due to a lack of resource to guide and review the content of appraisals. It was recognised that the approach was valid but would need support from across the Council to be successful and could therefore learn lessons from the Ethical Procurement Policy (case study below).

Case Study: Ethical Procurement Policy

SCC’s Ethical Procurement Framework has a vision to “*conduct business ethically, effectively and efficiently for the benefit of Sheffield*”. The Policy showcases the Council’s ambition to use their spending power to drive ethical standards and social outcomes in their procurement.

As part of the Framework the Council has been working with the University of Sheffield to produce a free diagnostic toolkit to help suppliers achieve financially sustainable supply chains and excellent employment practices. The Council can also use the toolkit to assess progress against a range of statements, make plans for improvements, and print ‘dashboard’ style reports and action plans.

The Council’s Ethical Procurement Policy has led to SCC reaching number 61 on the Stonewall top 100 employers list for 2019, awarded the 2019 CIPS SM award for Ethical Procurement, and earning Real Living Wage (RLW) Accreditation in October 2019.

Collaboration & Influencing Partners

- **Collaboration** – “There is very little the Council can achieve without collaboration” and SCC should consider when it should ‘lead, follow, enable, or get out of the way’; maximising its impact through collaboration both internally and externally (SCC at times seeks to lead, where it may not be best placed to do so). This approach should focus on enabling works to be delivered at the scale and pace required and maximising funding and investment opportunities. Partners are also considered to be focussed on their own priorities, making collaboration more challenging. Thrive London was held up as a potential example of best practice for collaborative action (case study below).
- **Transparency and shared direction** – the Council is often perceived as not being transparent or information being difficult to find or inaccessible in format. There is also little common understanding on the Council’s direction making it difficult for partners to engage, suggesting a Corporate or City Plan could also support resolving this.
- **Relationship with central government** - Council should be recognising and seeking to influence those areas dependent on national policy interventions to facilitate or support its zero-carbon ambition, e.g. national standards on building regulations and planning policy. Those in the Council with good connections to government could be more effectively used to deliver this influence.
- **Relationship with the Sheffield City Region** – The City Region will be a crucial route to leverage central government funding and so relationships with the SCR and other Local Authorities will be key to unlocking this potential funding mechanism to deliver zero carbon (and could also benefit collaboration). It is recognised that working at a City Region scale will involve engagement and discussion to reach consensus on shared objectives and opportunities to pursue.
- **Relationships with private sector** – Improving relationships with the private sector has the potential to improve influence, leverage funding, unlock technical expertise and skills (including upskilling into zero carbon) and utilising innovation and emerging technologies to support the transition to zero carbon.
- **Relationships with voluntary organisations** – Maximising existing relationships could support access to wider stakeholders and alternative funding sources.

- **Relationships with schools, universities and colleges** – recognising their role as influencers and sources of youth representation/views, training centres for skills for the future and the role of universities as centres of excellence.
- **Relationship with citizens** – SCCs relationship with citizens could be improved in a number of ways to deliver zero carbon more effectively, including:
 - Recognising local citizens as impacted groups and potential delivery mechanisms, e.g. for retrofit. Empowering and reaching out to keep the public better informed on climate change, SCCs role/action and their role/action
 - Reconnecting with citizens through more engagement with the community, greater accessibility of information on priorities and decisions (e.g. using digital media, media platforms).
 - Potential for a Citizen’s Assembly was considered a potentially useful way to engage with citizens but must be done right. It should: have a clear role; be adequately resourced; have an inspiring and engaging format, including maximising the use of digital and creative platforms and media; be diverse and representative, including youth representation; and, the term ‘Citizen’s Assembly’ was also considered to be uninspiring, so perhaps using the terms ‘engagement’ ‘empower’ or ‘action’ in its title (See also best practice of other cities in Section 5).

Case Study: Thrive London

“Thrive LDN is a citywide movement to improve the mental health and wellbeing of all Londoners”¹.

Thrive LDN was launched in 2017 by leaders from Greater London Authority, London Councils, the NHS and Public Health and various charities. The organisation was launched as a result of the recognition that whilst lots of work was being undertaken to address poor mental health, financial and organisational barriers meant that not all the desired results were being achieved.

At its core, Thrive LDN is a participation-driven partnership that engages with and responds to the needs and insights of Londoners.

Thrive LDN operates on four enablers:

- Participation: constant engagement with individuals and communities
- Partnership: multidisciplinary and cross-sector approach
- Proportionate Universalism: all activity must take a proportionate universalism approach, addressing the whole population and providing bespoke support
- Leadership: Distributed, multi-level leadership, operating in a non-linear, emergent and adaptive way.

Thrive recognises the complexity of its long-term outcomes and goals. Therefore, at this stage they use short- and medium-term outcomes as proxy indicators of the long-term outcome².

Due to the nature and resources of Thrive LDN, much of its campaign activity uses digital resources, including:

- Newsletters
- Website
- Social Media

¹<https://thriveldn.co.uk/about/>

²<https://thriveldn.co.uk/resources/2019insights/#chapter-2>

- **Stakeholder engagement** – should focus effort on those key to delivering interventions or hardest hit by them.
- **Growth** – the need to align growth and climate action to avoid conflict.
- **The political system** – the need to recognise and address the impacts of instability.
- **Inequality** – seeking to embed climate action in a similar way to considerations of inequality; recognising the potential impacts of interventions for zero carbon on exacerbating inequality (as has been seen with COVID-19); and, promoting a fair and just transition to zero carbon.
- **Championing zero carbon industry and skills** – The need to place Sheffield at the forefront of developing industries, skills and jobs within the City, including maximising employment opportunity and recognising its role in addressing inequality.
- **Learning lessons from COVID-19** – Lessons from the response to the COVID-19 pandemic present important learning about how the Council can respond at scale and pace to the climate emergency, including: the ability to respond to an emergency; renewed consideration of outcomes based approaches; Officers achieving more when empowered and decision making is streamlined; better connections to local communities; and, the demonstration of the power of citizens and collective action. Also noting the COVID-19 situation is causing concern about the ability to deliver zero carbon and potential available resources now and over the coming years due to the financial impacts of the pandemic.

7. Summary Recommendations

This section draws together the reviews of current governance structures, investment programmes, and best practice, the advice on monitoring and reporting and the outputs of the stakeholder views into a series of summary recommendations to support improvements to SCC governance arrangements in the future.

Delivering Zero Carbon

1. **Climate as a central Council priority** – In the short term, make a statement of priority, led by Members, on climate as a central Council priority and release additional resourcing as soon as possible to support delivery. In the longer term, it is recommended that a review of the current approach to structuring and delivering on priorities for climate change, is led by Cabinet and carried out as part of the wider governance reviews of SCC and suggestions of moving to an outcome-based approach – this report also provides recommendations on longer term structuring and delivering on priorities for climate change. It is recommended that these actions should be coupled with a clear statement of the outcomes being sought and the anticipated delivery mechanisms to provide SCC Officers with a clear direction for delivery. In communicating climate as a central Council priority it is advised that materials are presented with pragmatism with regards to the 2030 ambition. Consideration should also be made for links to wider benefits and integrated with topics requiring longer term approaches, such as economy, resilience, health and wellbeing, biodiversity and delivery of the United Nations Sustainable Development Goals (SDGs) to avoid silo working.
2. **Programme action for delivery** – As part of the Zero Carbon Commission, the interventions required are now better known. This should facilitate the development of short, medium and long-term delivery programmes to meet zero carbon and initiate action where possible. An approach of structuring delivery into programmes of work is considered key to make the task of delivering zero carbon into more manageable; and that collaboration and maximising relationships with City partners will be critical to their successful delivery. These plans and programmes should ensure they are adaptive and flexible to respond to unforeseen challenges emerging science and technology and needs of communities.

Council Structure & Function

3. **Cabinet led direction** - Embed responsibility to deliver zero carbon across all Cabinet Member's portfolios and ensure that this responsibility is clearly visible to citizens, measurable and with suitable accountability. It is recommended that particular consideration is given to implementing carbon budgets for individual portfolios.
4. **Expand City leadership presence** – It is recommended that senior leaders are more engaged and expand their presence on zero carbon in Sheffield, including demonstrating how the Council will lead by example (and so links as a recommendation for improving Council culture also). This could include introducing a network of climate champions internally and seeking to link them to external partner climate champions to share leadership responsibility and enable collaborations.
5. **Implementing organisational structures to deliver sustainability** – It is recommended that both embedding sustainability function across the Council and developing a central, dedicated sustainability function are initiated. Such a function could be utilised to coordinate efforts on a broader long term view, including climate change at its heart but also considering wider issues such as health and well-being and biodiversity. Internal governance should facilitate collaborative decision-making, break down current silo working and place the levers of control and influence in the most effective place. This review did not find a consensus view on the appropriate mix of embedded and dedicated structures. Further engagement internally, including with members, is recommended to co-design structures around delivery of zero carbon, however, this should not delay the expansion of resource to enable the existing sustainability function in the short term.

6. **Improving senior-level governance on zero carbon** - It is recommended that the current Sustainability Programme Board function is retained and utilised as a steering group, accountable for delivery of zero carbon. A review of current SCC Boards should be included alongside the recommendations for streamlining of decision making and policy & strategy, to facilitate greater collaborative working. Consideration could be made of the benefit of a dedicated Director or Executive Director, or a review of current responsibilities of Directors and Executive Directors, to seek to address the identified concern with the majority interventions falling within the current remit of the Place directorate. At a Member level, it is recommended that a dedicated Environment & Climate Change Scrutiny Committee is initiated, to facilitate greater scrutiny and transparency on action with regards to environmental matters, including zero carbon. The proposed Governance Referendum should explicitly demonstrate to citizens how climate action would be embedded into each approach and to encourage feedback.

Council Culture & Operation

7. **Culture change, training and knowledge transfer** – Culture change will be an essential part of setting climate as a Council priority. A programme of training and knowledge transfer should be initiated to expand understanding across the Council in the issue of climate change, what needs to be done and roles in delivering it. This should also facilitate upskilling of staff, particularly where function and responsibility of delivery of zero carbon is expected to be embedded into existing structures.
8. **Officer driven action** - It is recommended that greater responsibility for delivery is facilitated for Officers to drive delivery of zero carbon. Empowering Officers to drive change will be essential and so this recommendation also relates to improving Council structure. Interventions should develop more open forums and channels for Member and Officer dialogue, communication and engagement to encourage a conversation about delivery against objectives without an overly bureaucratic mechanism.
9. **Streamlining and improving accountability in decision making** – It is recommended that the Council explore ways to retain the streamlined decision-making and empowerment of officers seen in during the COVID-19 and apply this to delivering zero carbon. To improve scrutiny on climate change and transparency of decision-making, decisions (and budgets) should include an assessment or statement of consideration as part of the audit trail of decisions to demonstrate how a proposal/budget aligns with the zero carbon priority (a potential format of a ‘Climate Impact Statement’ is presented in Appendix C – further development and engagement with key internal stakeholders is recommended). The responsibility for the assessment should fall to the department overseeing the proposal, not a central sustainability function, to facilitate greater accountability for delivering zero carbon across the Council.
10. **A long-term outlook** – Delivery mechanisms need to be designed to support longer term thinking, to implement some of the bigger changes successfully. This should include setting longer term budgets and limiting the exposure to political cycles of key departments required for long term planning for zero carbon.

Policy & Strategy

11. **Clear and streamlined policy & strategy** – Coordinate a review to seek to streamline current Council policy and strategy with the aim of clarifying the priorities for delivery in the city and facilitating greater focus on delivering zero carbon. In particular this should focus on deprioritizing and removing barriers to the delivery of zero carbon.
12. **Zero carbon policy & strategy** – Introduce detailed sectoral policies, supported by programmes of work – e.g. Domestic Buildings, Transport, Energy – reflecting the interventions identified to deliver zero carbon. Consider further the need to place into SCC policy the zero carbon by 2030 ambition (as a consensus view was not identified by this review). Policies and programmes of work should focus on being ambitious but achievable, implementable and based on expert knowledge.

13. **Set the Council's strategic direction** - Pursue the delivery of a Corporate or City plan to set out a common vision and shared understanding of priorities and delivery mechanisms. This document should be shared, and potentially co-designed, with key partners to facilitate collaborations for delivery.

Finance, Procurement, Investment & Resourcing

14. **A dedicated overall budget** – Future financial management will need to be structured to ensure adequate resourcing to deliver zero carbon. It is recommended to develop a dedicated budget for Zero Carbon delivery, which will also aid transparency of SCC's financial commitments to meeting zero carbon. It is recommended that an overarching budget is needed, including adequate resource for the coordination of zero carbon delivery.
15. **Sector and intervention specific, dedicated budgets and investment/work programmes** – In addition it is anticipated that dedicated budgets within existing portfolio? financial structures will be required, dedicated to action that progresses zero carbon interventions in these areas. Options for structuring budgets and investment programmes could include structuring investment and delivery around outcomes, the sectors for the City (as highlighted in Work Package 3.1 - Domestic; Commercial and industrial; Transport; Energy; and, Nature-based solutions) and/or the requirements for the SCC Council Estate (as identified in Work Package 3.2 - Domestic property; Non-domestic property; Fleet; Street Lighting; and, Energy Generation).
16. **Implement climate change assessments for budgets and spend** – It is recommended that a mechanism is put in place to ensure that all budgetary spend and planning is required to demonstrate contributions to, or mitigating the impacts to, the zero carbon ambition. As set out in Recommendation 9, to improve scrutiny on climate change and transparency, decisions on budget and spend should include an assessment or statement of consideration as part of the audit trail of decisions to demonstrate how a proposal/budget aligns with the zero carbon priority (a potential format of a 'Climate Impact Statement' is presented in Appendix C – further development and engagement with key internal stakeholders is recommended).
17. **Implement a sustainable procurement policy & procedures** - It is recommended that SCC pursues the development/re-instatement of a Sustainable Procurement Policy and associated procedures to demonstrate how the Council's purchase of good and services will support delivery of zero carbon and to leverage greater influence from the Council's spend. It is recommended that a dedicated sustainable procurement expert is embedded into the procurement team to resource and facilitate the potential benefits of sustainable procurement. This may consider the validity of reintroducing a sustainability appraisal; however, maximum short-term benefit is likely to be gained by influencing the sustainability credentials of the Council's major frameworks and contract and engagement with key suppliers to effect change and pilot approaches.
18. **Pursue unlocking alternative sources of funding** – It is recommended that further consideration is made of the potential for accessing alternative sources of funding to support zero carbon delivery. The best practice review highlighted some potential mechanisms, including crowdfunding, community share offers, climate bonds, and investment or trading platforms to lever investment into climate action.
19. **Expand staff resource available to deliver against zero carbon** – Resourcing a significant increase in Officer roles within the Council, dedicated to delivering zero carbon will be essential. It is recognised that due to budgetary constraints the expansion of dedicated roles for climate change may need to be delivered by a process of transition. It is recommended that almost all functions of the Council will ultimately need to change the culture or performance of duties to take account of requirements to meet zero carbon. Some resourcing activities could be achieved by reprioritising resource, reframing role responsibilities and upskilling existing staff. However, specialist technical expertise is likely to be required in key areas such as energy, building retrofit and net zero building standards, decarbonisation of transport systems and the natural environment, which may require recruitment.

Collaboration & Influencing Partners

20. **A collaborative approach** – Linked to improving Council culture and leadership, delivery of zero carbon should seek to maximise the potential for collaboration and investment. This should include highlighting or mapping priority partners and engagement with shared priorities and investment potential to maximise the scale and pace of zero carbon delivery. Mapping stakeholders against sectors or high emission areas could help to highlight the high carbon producers and the collaborations with the greatest potential to reduce emissions. In addition, sharing a Corporate or City plan with City partners would support the communication of priorities and maximise opportunities for collaboration.
21. **Improve accessibility of information** – Current information on the Council, it’s priorities and decision-making are perceived to be inaccessible. It is recommended that SCC consider how it’s governance arrangements might be made more accessible to partners and citizens, including through the use of creative or digital platforms to encourage greater engagement.
22. **Maximising relationships** – External stakeholders will play an integral role alongside SCC in meeting the 2030 zero carbon. Therefore, maximising the opportunities for change and action through relationships should be a priority. This should include with:
 - Government – to influence central government on national policy including the requirement to deliver zero carbon.
 - Sheffield City Region and its local authorities – to help unlock regional collaboration and funding mechanisms.
 - Wider UK and international authorities - maximising dialogue communication and collaboration with other local authorities and combined authorities can help share lessons learned, expertise and potential collaboration/commissioning of joint studies and advice.
 - Private sector – seeking to improve influence, leverage funding, unlock technical expertise and skills (including upskilling into zero carbon) and utilising innovation and emerging technologies to support the transition to zero carbon.
 - Voluntary sector – to support access to wider stakeholders and alternative funding sources.
 - Schools colleges and universities – as influencers and sources of youth representation and views, training providers for skills for the future and centres of excellence, and collaborators on areas needing technical expertise. These institutions are skilling the zero carbon workforce pipeline and are best placed to develop the skills and knowledge needed to deliver zero carbon in the future.
 - Citizens – to engage citizens as actors for the delivery of zero carbon in Sheffield. Consider the potential to implement a citizen engagement programme to empower residents to take action. This should seek to deliver a shared understanding of the issue of climate change and the action needed supporting everyone to be an active part of the transition to zero carbon (this could also link to the potential role for a Citizen’s Assembly).
23. **Review the potential role for a Climate Citizens Assembly** – This should carefully consider the format to make it engaging and representative. Therefore it is considered that it should: have a clear role; be adequately resourced; have an inspiring and engaging format, including maximising the use of digital and creative platforms and media; be diverse and representative, including youth representation; and, review the use of the term ‘Citizen’s Assembly’, to consider using the terms ‘engagement’ ‘empower’ or ‘action’ in its title. The best practice review of other cities’ approaches could also provide further insight.
24. **Explore the use of public private partnerships** – Maximise the potential for partnerships between the public and private sectors to deliver zero carbon projects (this is also linked to recommendations on collaboration). The Green City Partnership Board could be considered to play a more active role in facilitating partnerships, taking learning from the roles played by the Manchester Climate Change Partnership and Bristol City leap Energy Partnership.

Wider Considerations

25. **Implement effective reporting and monitoring** – Further consideration of the suitability of different reporting and monitoring mechanisms, should be considered for how it meets SCC’s desired purpose. Guidance reporting and monitoring mechanisms, including the Common Reporting Framework and best practice from C40 Cities is highlighted in Appendix E to support this consideration.
26. **Address impacts of political cycles** – review potential mechanisms to protect zero carbon action from the impacts of political cycles.
27. **Promote a fair and just transition to zero carbon** – consider an assessment of equalities impacts on the outputs of the Zero Carbon Commission to maximise the opportunities to deliver zero carbon as a fair and just transition.
28. **Maximise opportunities to promote zero carbon industry and skills** – for example through partnerships and knowledge transfer with local training providers.
29. **Consider a lessons learned exercise on the response to COVID-19** – The positive feedback, outcomes and ability to deliver effectively in response to the COVID-19 pandemic shares parallels with the needs of a climate emergency. A review of lessons learnt could be a valuable exercise and seek to embed best practise into responding to the climate emergency.
30. **Deliver further engagement to progress next steps** – It is recognised that the engagement carried out for the purpose of this review could be expanded and used as a tool to further develop the key ideas and prioritise, delegate and progress recommendations highlighted. In particular, delivering engagement with Members to understand their views. Engagement with wider City partners including the Sheffield City Region and Green City Partnership Board would also be beneficial.

8. Conclusions

The review has brought together consideration of SCC's current governance structures, the outputs of the other Work Packages from the Zero Carbon Commission, best practice from other authorities and consideration of wider stakeholders as potential delivery partners. This was coupled with a series of workshops and interviews with key internal stakeholders in order to understand both the structures and culture of SCC and views on areas for improvement to guide recommendations potential governance interventions to support delivery of the ambition for Sheffield to be zero carbon by 2030.

The review of has highlighted the challenge of the scale and pace at which interventions need to be delivered to meet zero carbon, including the need to leverage billions of pounds of investment for the City to reach zero carbon. It shone a light on the enthusiasm and drive to succeed within SCC as a basis to further empower staff to contribute to the ambition of zero carbon. The need to set a clear direction on the delivery of zero carbon was highlighted and that this should be Cabinet led but driven by Officers. An approach of structuring delivery into programmes of work is considered key to make the task of delivering zero carbon into more manageable; and that collaboration and maximising relationships with City partners will be critical to their successful delivery. A series of 30 detailed recommendations have been developed, which provide detailed guidance on potential interventions to improve the organisations approach to climate change and sustainability to support SCC towards meeting its ambition of a zero carbon Sheffield by 2030.

Appendix A – Summary of local policies

Document title	Key document dates	Purpose of the document	Does the document include specific targets or strategies relating to climate change and/or decarbonisation?	Relevant targets or strategies (non exhaustive list)
This is Sheffield - Our City Centre Plan	2018-2028	Sets out SCCs ambition over the next 10 years to ensure the city centre contributes to a model of economic growth that improves the lives of all Sheffields and their environment and is prepared for climate change.	Yes	Develop partnership and business model for extension of the City Centre District Heat Network (Section 4.4)
				Take decisive action to improve air quality in the City Centre by improving the performance of public and private vehicles, facilitating use of gas and electric powered cars (Section 4.4)
				Replace all street lighting with low energy, smart, directional street lighting as part of the Streets Ahead programme (Section 4.4)
				Separate dedicated Priority Networks for travel by private vehicle, public transport, cycling and by foot, as far as practicable (Section 4.5)
				Simplified, prioritised public transport routes and city centre ring, to expedite buses and facilitate tramway expansion (Section 4.5)
				Produce a Clean Air Strategy for Sheffield in the shortest time possible (Section 4.5)
Sheffield Development Framework - Core Strategy	Adopted March 2009	<p>The Sheffield Development Framework is the City Council's Local Development Framework. It comprises a set of planning documents that show how:</p> <ul style="list-style-type: none"> - the city will develop spatially - different land uses will be located; - the environment will be protected and enhanced; - areas and buildings will be designed; and - places in the city will be connected through the location of new development and provision of transport. <p>The Core Strategy provides the overall spatial strategy for the Framework.</p>	Yes	Completion of development / improvements of specific links in policy for cycle routes
				All developments over the size thresholds in the period to 2026 to achieve the required standards of sustainability (Code for Sustainable Homes Level 3 for residential developments or BREEAM very good for non-residential developments)
				12MW of renewable energy capacity provided by 2010 and 60MW by 2021
Green City Strategy		The Green City Strategy captures the knowledge, ideas and visions from the Green Commission and sets out the six key objectives that the city needs to take to ensure levels of GHG emissions are reduced.	Yes	By 2020/21, The Council will have achieved a 30% reduction in greenhouse gas emissions, against a 2009/10 baseline for our corporate estate.
				By 2025, The Council and its partners will have increased the level of low carbon and renewable energy generation in the city.
				By 2030 A significant level of the city's energy will be supplied, from locally generated low carbon and renewable technologies.
				By 2050 Sheffield will be a zero carbon city.

				<p>We will develop an approach to promote domestic affordable warmth and energy efficiency, which will help households in fuel poverty to invest in measures in their homes, which will save households money, reduce ill health and reduce carbon emissions.</p>
				<p>We will develop an Energy Company partnership that will work to provide our city’s residents with access to lower cost energy tariffs and provide advice and support on energy efficiency and domestic renewables.</p>
				<p>New homes built in the city will be very low or zero carbon - Our Local Plan includes policies which promote the development of low carbon homes; constructed to high standards of energy efficiency, which will generate their own heat or power. These homes will use significantly less energy and as a result have lower running costs for residents, as well as reducing the city’s overall carbon emissions.</p>
				<p>Our council home building programmes will create very low or zero carbon, energy efficient homes. Where funding allows homes will also generate their own heat or power.</p>
				<p>We will continue to work with partners to expand our energy networks and increase the level of renewable and low-carbon energy generation.</p>
				<p>We will continue to explore the opportunities to expand our own heat networks and work with commercial partners, residents and customers.</p>
				<p>We will develop an approach to decarbonise our existing heat networks, exploring further approaches to decarbonise domestic heating across the city.</p>
				<p>Buses - work in partnership with the bus companies to improve the bus fleet and reduce emissions through replacement low-emission buses or retrofitting vehicles with cleaner engine technology.</p>
				<p>Taxis - ensure that taxis cannot be licensed in the city if they do not meet particular standards by 2022; seek investment from Government for a fund to help taxi operators/ owners to improve their vehicles.</p>
				<p>Cars - consider specific schemes to support people on lower incomes to change to lower emission vehicles, particularly where their job or responsibilities require unavoidable and frequent use.</p>
				<p>Idling - roll out Anti-Idling Zones around schools and other sensitive locations.</p>
				<p>Freight/HGVs - support the Eco Stars scheme, which helps commercial vehicle operators to reduce their emissions; promote the use of lower emission vehicles across our fleet.</p>
				<p>Promoting clean travel - encourage more walking, cycling and active commuting in the city.</p>
				<p>Industry – make the most of technological improvements to reduce emissions and ensure that industry and businesses meet their legal obligations.</p>
				<p>We will work to expand the city’s heat networks and encourage new commercial and industrial businesses to connect.</p>
				<p>We will explore the potential to develop a Sheffield Energy revolving loan fund for businesses to invest in energy efficiency and low carbon measures.</p>

				We will facilitate and support private sector investment into the City into this sector, and into wider environmental and energy investment – this will be essential to achieve the level of investment that is envisaged, noting that the SCR Mini-Stern Review ²⁴ outlined a programme of £8b in order to reduce SCR emissions by 40% with an 8 year payback period based on energy savings
Housing Strategy	2013-2023	The Sheffield Housing Strategy sets out the Council's ambitions and actions for housing provision, investment and management to 2023.	The Strategy discusses the Council's intention to improve the thermal efficiency of homes through a series of energy and carbon saving programmes and to increase the amount of energy generated locally. However, there are no clear policies or targets that impacts on carbon.	N/A
Lower Don Valley Masterplan Study	Commissioned in 2003	The Lower Don Valley Vision & Masterplan Study provides a framework for regeneration goals and establishes a long-term plan of action for the area.	No clear policies or targets that impacts on carbon.	N/A
New Homes Delivery Plan	2018-2023	The New Homes Delivery Plan aims to deliver a range of affordable housing solutions in all parts of the City. It also helps the council to be clear with Government on the city's strategic priorities and seek to access external funding that supports the city plans and the desired outcomes.	No clear policies or targets that impacts on carbon.	N/A
South Yorkshire Municipal Waste Strategy	2016-2021	Builds on initiatives currently being delivered across the region to reduce, re-use, recycle and recover energy from 95% of South Yorkshire's waste.	Yes	Increase recycling by 10kg per household by 2021, and
				Reduce household waste by 2kg per household each year - year on year until 2021
				Deliver a targeted reduce, re-use, recycle campaign to at least 100,000 households across South Yorkshire each year, by 2021
Sheffield City Region (SCR) Transport Strategy	2019-2035	Is a long term plan to help deal with the city's pressing economic, environmental and equality challenges. It aims to deliver faster, more reliable and cleaner journeys and to reduce the negative impact of transport by making walking and cycling for shorter trips and public transport for longer trips more attractive.	Yes	Develop an SCR energy strategy to help Reduce the impact of emissions from transport, then implement an associated delivery plan.
				Encourage private vehicles using our roads to be electric, hydrogen or hybrid, and to be used primarily for trips that cannot be made by sustainable alternatives, such as public transport, walking and cycling;
				Deliver a zero-carbon public transport network, which requires upgrading the bus and taxi feet and supporting electrification programmes for our railways;

				Work with operators to plan a transition from the current (bus and taxi) feet to make our public transport system a zero-emission service;
				Encourage freight vehicles using our roads to be electric, hydrogen or hybrid;
				Work to ensure appropriate re-fuelling infrastructure is available to support the move towards a new public transport (including taxis) and freight fee
Sheffield City Region - Active Travel Implementation Plan	By 2040	The Active Travel Implementation Plan forms part of the overarching SCR Transport Strategy. The plan incorporates the work undertaken in partnership with the DfT to develop a Local Cycling and Walking Infrastructure Plan (LCWIP).	Yes - draws upon targets / strategies outlined in the wider SCR transport strategy	Lead the way towards a low carbon transport network, including a zero-carbon public transport network
				Reduce tailpipe carbon emissions in line with targets for the UK and have a zero-carbon public transport network by 2040
Sheffield City Region Integrated Rail Plan	2019 - 2024 (business cases/ investigations outlined in the plan)	The Integrated Rail Plan is intended to serve as the implementation plan for rail within the Sheffield City Region Transport Strategy.	Yes - draws upon targets / strategies outlined in the wider SCR transport strategy	Lead the way towards a low carbon transport network, including a zero-carbon public transport network
				Reduce tailpipe carbon emissions in line with targets for the UK and have a zero-carbon public transport network by 2040
Sheffield City Region Integrated Infrastructure Plan	By 2025	Sets out the SCR approach to infrastructure over the next decade.	Few clear policies or targets that impacts on carbon. However, the plan does raise various opportunities that can be capitalised upon. Opportunities are within energy, transport, housing etc	Target for approximately 12,000 jobs in the low carbon sector by 2025.
				Planned schemes account for 276MW planned renewable energy capacity. 1no. advanced conversion technologies, 2no. Anaerobic digestion, 5no. Biomass, 1no. EFW incineration, 18no. Solar photovoltaics, 5no. Wind onshore.
Sheffield Parking Strategy	Published 2018	Sets out the ways in which SCC will manage parking in order to achieve wider aims in transport, land use planning, improving air quality and reducing carbon emissions.	No clear policies or targets that impacts on carbon. However, it does support the wider ambitions and policies set out in other existing and emerging documents, including the Sheffield Transport Vision, City Centre Plan, Sheffield Local Plan, Clean Air Strategy and the Green City Strategy.	
Strategic Economic Plan	2020-2040	Sets out what needs to be done to grow the economy, transform lives and respond to climate change. Driving low carbon opportunities within the economy and delivering net zero emissions is one of the three	Yes	Drive clean growth and decarbonisation in local businesses whilst maintaining their competitiveness
				Promote and enable investment and innovation in low carbon energy generation, distribution and storage
				Improve the energy efficiency and sustainability of the built environment

		overarching policy objectives of the document.		Accelerate the transition to ultra-low emission vehicles and transport systems
Ethical Procurement Policy	Published 2018	Articulates a series of revisions to protocols, process and tools across Sheffield City Council (SCC) and its supply chain, to enable the Council to 'conduct business ethically, effectively and efficiently for the benefit of Sheffield' (the vision). In particular focusses on adopting three key tools, Social Value tests, Ethical Code of Conduct for suppliers and revised Tender processes.	No clear policies or targets that impacts on carbon. However, one of the Ethical Code of Conduct Principles within the policy is "Ensure that all staff have the opportunity to seek out innovative practices and products and contribute to sustainable growth".	
Sheffield Transport Strategy	2019-2035	The Strategy follows the Sheffield Transport Vision – a shorter document that began the conversation about the city's future travel. The document sets out the proposed Transport Strategy for Sheffield, looking forward to 2035. It reviews the issues the city is facing now and how these might change when considering the need for improved economic prosperity, balanced with the challenges of creating a safer, cleaner and better quality of life for all.	Yes	We will intervene to enable shift away from carbon intensive modes of transport to less carbon intensive modes where these are suitable
				We will aim to achieve a zero carbon public transport network
				We will proactively support the development of, and adopt or encourage the uptake of new technologies that enable motorised transport to be demonstrably less carbon intensive
SCR energy strategy	2020-2040	Sets out the vision, goals, policies and targets in support of the refreshed Strategic Economic Plan (SEP). It provides a strategic framework to give confidence to businesses looking to invest in low carbon energy generation, energy infrastructure, and energy efficiency within South Yorkshire.	Yes	Encourage clean and efficient growth in our local businesses and increase the number of jobs in the low carbon energy sector.
				Invest in the training and upskilling of those who will be designing, installing and maintaining our future energy systems
				Promote industrial decarbonisation and cluster schemes to deliver energy and cost savings, and drive innovation in key growth areas.
				Utilise and/or repurpose current infrastructure and natural resources to decarbonise the energy supply.
				Improve our energy resilience through the addition of local low carbon generation and storage, and the increased use of smart grids.
				Drive investment in heat decarbonisation including heat networks, the electrification of heat and hydrogen for heat.
				Support and invest in widespread energy efficiency improvements to existing dwellings across South Yorkshire.
				Ensure that new housing within South Yorkshire is of a high quality in terms of energy use and efficiency.
				Enable communities to develop local energy schemes and provide opportunities for residents of South Yorkshire to invest in energy infrastructure.
				Enable a modal shift away from individual car use to public transport, cycling and walking.
Deliver a low carbon transport network including a zero carbon public transport network.				
Accelerate the deployment of ultra-low emission vehicles, autonomous vehicles and related infrastructure.				

Appendix B – Summary of SCC Public Accounts⁸

This table shows an overview of the Council's proposed General Fund budget.

All figures in £k							
Reference	Portfolio	Service	Gross Expenditure	Income	Net Expenditure	Pressures	Savings
	PEOPLE		641,239	(390,657)	250,582	27,689	(12,561)
		<i>Business Strategy - People</i>					
1		BUS STRATEGY BUSINESS SUPPORT	956	(562)	394	22	(47)
2		BUSINESS STRATEGY OP BUDGETS	10,010	(5,953)	4,057	193	(238)
3		PORTFOLIO LEADERSHIP TEAM	881	(146)	735	13	0
4		PORTFOLIO WIDE BUDGETS	66,157	(60,561)	5,596	13	0
5		SCHOOL BUDGETS	142,633	(142,633)	0	0	0
		<i>Care & Support</i>					
6		ACCESS & PREVENTION	16,692	(5,078)	11,615	879	0
7		CARE & SUPP BUSINESS SUPPORT	1,502	(117)	1,385	32	0
8		CARE AND SUPPORT COMMISSIONING	7,662	(4,485)	3,177	107	0
9		CONTRIBUTIONS TO CARE	2,367	(2,367)	0	0	0
10		LEARNING DISABILITIES	66,768	(23,496)	43,272	6,099	(5,278)
11		LONG TERM SUPPORT	115,782	(48,488)	67,293	11,181	(2,569)
12		PRACTICE DEVELOPMENT	470	0	470	9	0
13		SAFEGUARDING ADULTS	1,503	(162)	1,340	20	0
		<i>Children & Families</i>					
14		C&F - CILS	8,922	(5,019)	3,904	300	0
15		C&F BUSINESS SUPPORT	4,035	(342)	3,692	88	0
16		CHILDRENS DISABILITIES SERVICE	2,173	(110)	2,063	31	0
17		CYP PROVIDER SERVICES	19,525	(6,224)	13,300	793	0
18		FIELDWORK SERVICES	18,738	(371)	18,368	2,473	(1,450)
19		HEALTH STRATEGY	2,570	(334)	2,237	505	0
20		PLACEMENTS	29,843	(2,532)	27,312	1,400	(2,150)
21		POLICY & SERVICE IMPROVEMENT	912	(269)	643	13	0
22		PREVENTION & EARLY INTERVENTN	8,470	(3,702)	4,768	2,655	0
23		SAFEGUARDING CHILDREN	2,739	(1,026)	1,714	203	0
		<i>Commissioning, Inclusion & Learning Services</i>					
24		CHILDREN'S PUBLIC HEALTH	14,497	(14,441)	56	0	0
25		CILS BUSINESS SUPPORT	1,219	(1,033)	185	7	0
26		EARLY SUPPORT & PREVENTION	3,576	(1,059)	2,517	8	0
27		INCLUSION AND SCHOOL SERVICES	5,445	(4,765)	680	7	0
28		SCHOOLS AND LEARNING	7,753	(7,631)	122	71	(74)
29		SEN	21,660	(21,160)	500	0	0
30		SUPPORTING VULNERABLE PEOPLE	34,876	(14,921)	19,955	449	(620)
		<i>Community Wide Services</i>					
31		14-24 PARTNERSHIP	1,629	(1,191)	438	11	0
32		COMMUNITY SERV BUS SUPPORT	366	(232)	135	5	0
33		EMPLOYMENT & SKILLS	5,221	(3,285)	1,936	9	(20)
34		FAMILY & COMMUNITY LEARNING	4,997	(4,653)	344	0	0
35		LIBRARIES, ARCHIVES & INFORMAT	5,417	(1,001)	4,416	67	(89)
36		LOCALITY MANAGEMENT	3,274	(1,310)	1,964	26	(26)
	PLACE		275,106	(128,500)	146,606	1,096	(1,257)
37		CITY GROWTH	43,000	(23,883)	19,118	265	(157)
38		CULTURE & ENVIRONMENT	22,983	(14,183)	8,801	207	(198)
39		HOUSING GENERAL FUND	9,939	(5,661)	4,277	105	0
40		MAJOR PROJECTS	132	(39)	93	2	0
41		OPERATIONAL SERVICES	120,641	(23,205)	97,436	260	(359)
42		PLACE STRATEGY AND CHANGE	1,356	(670)	687	26	0
43		TRANSP & FACILITIES MANAGEMENT	77,055	(60,859)	16,195	231	(543)
	POLICY, PERFORMANCE AND COMMS		6,373	(4,215)	2,158	90	(90)
44		POLICY, PERFORMANCE & COMMS	4,884	(2,591)	2,293	90	(90)
45		PUBLIC HEALTH PPC	1,488	(1,623)	(135)	0	0
	RESOURCES		249,305	(209,601)	39,704	789	(790)
46		BUSINESS CHANGE & INFO SOLNS	3,419	(1,930)	1,489	61	(52)
47		CENTRAL COSTS	14,954	(18,037)	(3,083)	0	(200)
48		CONTRACT REBATES & DISCOUNTS	0	(851)	(851)	200	0
49		CUSTOMER SERVICES	7,185	(1,699)	5,486	133	(178)
50		FINANCE & COMMERCIAL SERVICES	9,730	(3,272)	6,458	187	(180)
51		HOUSING BENEFIT	179,465	(179,309)	156	0	0
52		HUMAN RESOURCES	6,502	(1,384)	5,118	105	(150)
53		LEGAL & GOVERNANCE	7,133	(3,120)	4,013	99	(30)
54		OTHER CENTRAL COSTS - CAPITA	20,674	0	20,674	0	0
55		RESOURCES MANAGEMENT & PLANNING	244	0	244	4	0
	Grand Total		1,172,023	(732,973)	439,050	29,664	(14,698)

⁸ <https://www.sheffield.gov.uk/budget>

Appendix C – Potential Climate Impact Statement

The following form was developed as a potential structure for a Climate Impact Statement, intended to act as a tool for further development of an approach to embed consideration of carbon impact of proposals into decision making processes.

Proposal details		
<i>To be completed by the proposer</i>		
Budget / project proposal name		
Climate Impact Statement date		
Portfolio(s)		
Directorate		
Team		
Brief description of the budget / project		
Question	Response	Supporting information/evidence
Climate Impact Statement		
<i>To be completed by the proposer</i>		
Please select all climate sectors the proposal might impact (positively or negatively)	<input type="checkbox"/> Energy <input type="checkbox"/> Transport <input type="checkbox"/> Domestic Buildings <input type="checkbox"/> Commercial Buildings <input type="checkbox"/> Industrial <input type="checkbox"/> Waste <input type="checkbox"/> Land-use & <input type="checkbox"/> Agriculture <input type="checkbox"/> Climate Resilience	
Will the proposal positively contribute towards carbon reduction or climate resilience interventions? (please provide details)	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Has an appraisal of the carbon impact been undertaken? (please provide detail and information on carbon emissions or sequestration where available)	<input type="checkbox"/> Yes <input type="checkbox"/> No	

<p>Has the appraisal of carbon impact considered wider climate impacts, such as those associated with transport/travel activities, water use, embodied carbon in materials/consumables, land use change and the purchase of goods and services? (please provide details)</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	
<p>What is the risk of negative impacts on climate/measures to address climate change? (e.g. increased carbon emissions or affecting resilience to climate change) (please provide details)</p>	<p><input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low</p>	
<p>Where risks of negative impacts on climate/measures to address climate change have been identified, what mitigation measures are proposed?</p>		
<p>Will possible climate impacts have the potential to result in any cumulative effects? (please provide details)</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	
<p>Overall summary of possible climate impacts</p>		
<p>Climate Impact Statement Review <i>To be completed by Cabinet Member & Lead Officer</i></p>		
<p>Review date</p>		
<p>Cabinet Member</p>		
<p>Lead Officer</p>		
<p>Decision / comments</p>		
<p>Type of decision</p>		
<p>Climate Impact Statement escalated due to nature or risk of climate impact?</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	

Appendix D – Review of Best Practice

Nottingham City Council

Position on climate change

Nottingham has made the commitment to become the first carbon neutral city in the country, reaching this target by 2028. This means cutting carbon dioxide (CO₂) emissions from direct and indirect sources that arise from the consumption of energy within the city to near zero.

Nottingham City Council has already met their 2020 energy strategy emissions target of reducing carbon dioxide (CO₂) emissions by 26% from 2005 levels. The most recent figures from 2017 show a reduction of 41% for the city and 49% per person.

Strategies / measures being delivered

The City's Carbon Neutral Charter⁹ recognised that tackling climate change needs to be done in a way that is fair and sustainable. In order to achieve this the city introduced the Carbon Neutral Nottingham 2020-2028 Action Plan¹⁰. The plan sets out high-level objectives broken down into four main sections:

1. Carbon Reduction Measures - (short, medium and long term objectives for transport, built environment, energy generation, waste & water and consumption.)
2. Carbon Removal - (capture and offsetting – carbon sequestration, carbon capture and large scale carbon offsetting.)
3. Resilience and Adaption – (addresses action to protect against impacts of climate change e.g. flooding)
4. Ecology and Biodiversity – (addresses importance of green and open spaces and biodiversity)

The Action Plan also includes a section on governance, funding and engagement. The intention of this section is to set out propositions to focus attention on how to generate and capture more ideas, actions and resources across the Council, its partners and the city.

The section sets out ideas including (but not limited to):

1. establishing a flexible and dedicated internal project team to work across and with all appropriate Council services led by its Energy Services.
2. developing a network of Climate Champions across the Council
3. changing the style and venue of meetings to be more engaging for partnerships and community/business to creatively address key challenges
4. developing a 'carbon neutral by design' ethos where everything that is proposed or implemented across the organisation considers how it can be carbon neutral or contribute to reducing carbon as a matter of course e.g. from the outset in the City Council's major projects

The section recognises that the key to implementing many of the actions to achieve the target will be the funding and that measures such as considering how internal budgets are used effectively to value and support work on carbon reduction will be necessary.

Monitoring and reporting

Nottingham City will report annually through the CDP climate and environmental reporting platform for cities. The Council will also have its own internal Carbon Management Plan, which will include all key greenhouse gases, not just CO₂ and report on the City Council's scope 3 emissions, which are from wider services, procurement and functions.

⁹ <https://www.nottinghamcity.gov.uk/CN2028>

¹⁰ <https://www.nottinghamcity.gov.uk/media/2619917/2028-carbon-neutral-action-plan-v2-160620.pdf>

Bristol City Council

Position on climate change

In the One City Climate Strategy¹¹, Bristol committed to becoming carbon neutral and climate resilient by 2030. The strategy details ten key areas where climate action is needed to achieve the vision for Bristol in 2030. The strategy is co-ordinated by Bristol's One City Environmental Sustainability Board, on behalf of the City Office and the One City Boards and covers both direct and indirect carbon emissions as well as climate resilience.

Since 2005, carbon emissions from energy, waste and transport in the city have decreased by 36%.

Strategies/ measures being delivered

Bristol's climate strategy sets out ten delivery themes and six enabling conditions for change to achieve their vision.

Two of the six enabling conditions relate to funding and leadership. Within the Funding and Finance condition, the Strategy identifies the need for long term financial resources to achieve the transformational change. Next steps include:

1. Establishing the City Leap Energy Partnership. Bristol City Council will form an ambitious joint venture partnership to bring investment to help transform the city's energy system.
2. Quantification of the cost and benefits of preparing for climate hazards and the carbon neutral economy in Bristol to support the economic viability and stimulate investment for climate adaptation and climate mitigation interventions.
3. Consideration of opportunities for an investment or trading platform to lever investment into climate action for community groups

Within the National and Regional Action and City Leadership condition, the strategy outlines the need to reshape governance systems and distribute powers appropriately. The strategy recognises that current UK legislation and policy does not go far enough to enable Bristol to become carbon and neutral, and therefore the city needs to work with, and lobby the government to shape future policies. Next steps within the strategy include:

1. Joint articulation with central Government on the role it has to play in enabling conditions for change, taking advantage of established city networks.
2. Working to influence the national planning system to reflect the scale of change required. - Working with other cities ahead of the UN climate talks in Glasgow November 2020 around planning, regulation, legislation and devolved power to support climate action.
3. Playing a part in reviewing regulation, to ensure that regulation can be designed to use as a tool to enable an intelligent response to the climate emergency.
4. Engagement with the national climate citizens assembly.

The One City Approach has already proven successful in bringing partners together to provide collective leadership on key issues and challenges for the city. The Strategy recognises that governance provides accountability, support and coordination within wider networks. The One City Environmental Sustainability Board will continue to provide leadership and oversight of the delivery of the strategy, supported by all five other Boards. The Bristol Advisory Committee on Climate Change will continue to provide evidence and advice to city partners, as they move from action to delivery.

Monitoring and reporting

Mirroring the national Committee on Climate Change, the City established the Bristol Advisory Committee on Climate Change to review progress and produce biennial reports on both adaptation and mitigation needs and progress in implementing measures.

¹¹ <https://www.bristolonecity.com/wp-content/uploads/2020/02/one-city-climate-strategy.pdf>

Greater Manchester

Position on climate change

Greater Manchester (GM) became one of the first places in the UK to set a science-based target, setting the foundations to achieve carbon neutrality by 2038¹² (12 years ahead of the UK Government goal). During 2020-25 Manchester aims to reduce direct CO₂ emissions by at least 50%.

In March 2019 GM launched its first 5 year environment plan (2019-24)¹³ that sets out in one place the actions and targets required in order to lead on and deliver the low carbon, resilient and high quality environment the city region needs to secure a sustainable future.

In February 2020 GM launched its Climate Change Framework (2020-2025)¹⁴ which sets out the strategy for meeting the commitment in the Our Manchester Strategy 2016-25 to “*play our full part in limiting the impacts of climate change*”.

Strategies/ measures being delivered

Manchester has established a devolved, partnership based approach to meet their climate change commitments. The approach is built on two key components:

1. Engaging and empowering Manchester residents and organisations to take action, using the Manchester Climate Change Partnership and its networks and
2. Joint working between Manchester City Council, Manchester’s strategic partners, Greater Manchester Combined Authority, UK Government, and their agencies to provide the support, incentives, standards and infrastructure residents and organisations need.

The Manchester Climate Change Partnership and Agency are responsible for championing, coordinating and facilitating the implementation of the Climate Change Framework. Their activities are focused on working with partners to set the right objectives and targets, in line with the Paris Agreement and the latest science and help the city to establish the strategy, governance and partnerships needed to meet the targets. The Framework identifies that there will be activities which require additional powers and/ or funding from Government to enable them to be delivered and that the Partnership will need to build on the existing relationship between the Greater Manchester Combined Authority and Government.

The Our Manchester Forum sits at the heart of the city’s partnership-based governance structure. It has responsibility for overseeing and championing the delivery of the Our Manchester Strategy. The Forum’s membership includes representatives from the Manchester Health and Wellbeing Board, the Manchester Work and Skills Board, the Strategic Education Partnership Board and others. The Chair of the Manchester Climate Change Partnership is a member of the Forum.

Monitoring and reporting

The Manchester Climate Change Partnership and Agency will produce an annual report setting out the city’s progress which will describe progress against the city’s four climate change objectives, supported by monitoring and analysis by four independent advisory groups.

¹² <https://www.cdp.net/en/articles/cities/greater-manchester>

¹³ https://www.greatermanchester-ca.gov.uk/media/1975/5_year_plan_exec_summ_digital.pdf

¹⁴ <http://www.manchesterclimate.com/sites/default/files/Manchester%20Climate%20Change%20Framework%202020-25.pdf>

City of Oslo Council

Position on climate change

Oslo's city government has issued an ambitious "climate budget" with the intent of reducing GHG emissions by 95% by 2030¹⁵. To achieve this goal, the city plans to limit access for cars with new tolls and fewer parking spaces; to power the bus fleet with renewable energy; to increase cycle use; and to eliminate heating with fossil fuels in homes and offices.

Oslo's Climate and Energy Strategy describes how they can achieve their climate targets, while developing and upgrading an urban community in which people and commerce thrive. The Climate and Energy Strategy aligns with the City of Oslo's Municipal Master Plan "Oslo towards 2030: Smart, safe and green".

Strategies/ measures being delivered

Oslo's Climate and Energy Strategy¹⁶ highlights the need for a collective effort in achieving its climate targets, with close collaboration required between the several different municipal agencies responsible for achieving the targets, academia, businesses and other public authorities.

The City Council has adopted 16 target areas to reduce emissions, including:

1. The City of Oslo will undertake eco-efficient procurement and set specific climate requirements for businesses owned by the City of Oslo.
2. The City of Oslo shall promote climate-friendly conduct among its citizens and businesses through communication, dialogue, training and collaboration.
3. The City of Oslo shall facilitate climate-friendly innovation and change via close collaboration between the City and its businesses, researchers, organisations and citizens.
4. The City of Oslo's climate governance system shall be further developed. Climate targets shall govern the City of Oslo's budgets, and the climate budget shall be incorporated into the City's annual budgets. All relevant decisions shall take into account emission reductions and climate change.
5. The City of Oslo shall have closer collaboration with the Government, regional government and other major cities to ensure that the City develops into a zero-emissions city with the capacity to withstand future climate change.
6. The City of Oslo shall collaborate with international bodies to obtain knowledge of the best climate solutions and to share experience and internationally disseminate climate solutions that can provide rapid cuts to emissions.

Monitoring and reporting

The City of Oslo has created a feedback system to monitor and evaluate if their climate budget is working properly. The "climate barometer" has 14 indicators that are updated three times a year. It tracks any changes in activity—for example, the number and type of vehicles passing through the toll-ring, delivery of fuel for consumption in the city, bicycle traffic, and number of passengers using public transport. The barometer has proven useful in identifying any need for increased action.

¹⁵ <https://carbonneutralcities.org/cities/oslo/>

¹⁶ [https://www.oslo.kommune.no/getfile.php/13166797-](https://www.oslo.kommune.no/getfile.php/13166797-1480690482/Content/Politics%20and%20administration/Green%20Oslo/Plans%20and%20programmes/Climate%20and%20Energy%20Strategy%20Oslo.pdf)

[1480690482/Content/Politics%20and%20administration/Green%20Oslo/Plans%20and%20programmes/Climate%20and%20Energy%20Strategy%20Oslo.pdf](https://www.oslo.kommune.no/getfile.php/13166797-1480690482/Content/Politics%20and%20administration/Green%20Oslo/Plans%20and%20programmes/Climate%20and%20Energy%20Strategy%20Oslo.pdf)

City of Los Angeles

Position on climate change

Los Angeles' Sustainable City pLAN¹⁷ sets out the city's strategy for achieving its emission reduction targets of cutting GHG emissions to 50% below 1990 levels by 2025; 73% below 1990 levels by 2035; and becoming carbon neutral by 2050.

The 2019 Green New Deal Pathway is an expanded vision for the pLAN and calls for L.A. to cut an additional 30% in GHG emissions above and beyond the 2015 pLAN and ensures L.A. stays within its carbon budget between now and 2050.

Strategies/ measures being delivered

The key principles of the Green New Deal are:

1. A commitment to the Paris Climate Agreement and to act urgently with a scientifically-driven strategy for achieving a zero carbon grid, zero carbon transportation, zero carbon buildings, zero waste, and zero wasted water.
2. A responsibility to deliver environmental justice and equity through an inclusive economy, producing results at the community level, guided by communities themselves.
3. A duty to ensure that every Angeleno has the ability to join the green economy, creating pipelines to good paying, green jobs and a just transition in a changing work environment.
4. A resolve to demonstrate the art of the possible and lead the way, walking the walk and using the City's resources - our people and our budget - to drive change.

As with the first Sustainable City pLAN, L.A.'s Green New Deal was prepared with extensive input from stakeholders, including community organizations, businesses, academia, labour groups, and City departments. The Mayor's Office of Sustainability also engaged with seven other global megacities—Boston, Durban, London, Melbourne, Mexico City, New York and Paris as part of the C40 cities programme.

To ensure the goals are achieved LA has established two new implementation bodies:

1. the Climate Emergency Commission (CEC) and an Office of the Climate Emergency Mobilization Director (CEMD); and
2. a Jobs Cabinet

The CEC will be comprised of representatives from disadvantaged communities, indigenous local tribes, small businesses, and labour, as well as policy and science experts and City department senior executives. Jointly, the CEC and CEMD will engage local communities through community assemblies.

The Jobs Cabinet will serve as both an advisory body and a task force on job creation, training, and just transition, with a primary focus on green jobs at the outset. The cabinet will be comprised of leading employers and workforce development organizations and will identify gaps in the size and skills of the workforce and identify strategies and pathways to close gaps and implement strategies through new and existing programs, partnerships, and policies.

Monitoring and reporting

Los Angeles aims to ensure accountability and transparency through performance reviews, annual goal setting and regular progress reporting on L.A. open data portals and global platforms such as the Carbon Disclosure Project.

¹⁷ <https://plan.lamayor.org/>

Collective of Councils under Queensland Government

Position on climate change

The Queensland Government recognises that Queensland's climate is changing rapidly with hotter summers already being experienced, more frequent natural disasters and impacts on the natural environment (e.g. coral bleaching on the Great Barrier Reef).

Queensland is taking action and working towards an ambitious target of achieving zero net emissions by 2050. The government is actively engaged in programs at both the national and international level with the Queensland Climate Advisory Council providing strategic, high-level advice on maximising opportunities for a just move towards a low-carbon economy and improving readiness of communities and industries for the impacts of climate change.

Strategies/ measures being delivered

The Queensland climate change response includes two key strategies.

1. Queensland Climate Transition Strategy
2. Queensland Climate Adaptation Strategy

As part of its Climate Change Response, the Queensland Government is partnering with the Local Government Association of Queensland (LGAQ) to work with Councils to plan for and better manage climate risks and build resilience¹⁸.

The Queensland Climate Resilient Councils programme¹⁹ is a five-year program working with Queensland local governments to strengthen internal Council decision-making capabilities to plan for and respond to the challenges and opportunities arising from climate change. Currently over half of Queensland's Councils are participating in the program.

The program is helping to get Councils and their communities climate risk ready by:

1. Increasing awareness and knowledge of climate risks in Councils' leadership;
2. Assessing and supporting improved governance arrangements;
3. Developing fully accredited training courses;
4. Making over 330 resources accessible to all staff in any part of Council;
5. Delivering a Climate Risk Management Framework and Guidelines that are consistent with international and national best practice standards; and
6. Making grants available to Councils wishing to develop a Climate Risk Management Strategy.

¹⁸ <https://www.qld.gov.au/environment/climate/climate-change/resources/local-government>

¹⁹ <https://qcrc.lgaq.asn.au/program-services>

Appendix E – Monitoring and Reporting Common Reporting Framework: Detailed Comparison

Guidance on the Common Reporting Framework

SCC have expressed a desire to be able to use the baseline GHG data collected in WP1 to allow reporting under the commitments of the EU’s Covenant of Mayors / the Global Covenant of Mayors (GCoM). These initiatives have now been combined and have one set of reporting requirements; the Common Reporting Framework (CRF).

This section provides a comparison between Sheffield’s baseline GHG emissions data developed in WP1 and the CRF emission reporting requirements. The CRF has been introduced with the aim that cities only need to report once through one reporting platform (either CDP or “MyCovenant”); therefore, the requirements of the CRF have been focused on.

It should also be noted that, in addition to GHG reporting, signatories to the EU Covenant of Mayors/GCoM are required to report additional activities such as emission reduction targets, a climate risk and vulnerability assessment, and a climate and energy action plan. Further information on the reporting requirements of these additional activities can be found [here](#).

Background to the Covenant of Mayors and Compact of Mayors initiatives

The Covenant of Mayors for Climate and Energy (also referred to as the EU Covenant of Mayors) was launched in 2008 by the European Union after the adoption of the 2020 European Union Climate and Energy Package. The initiative supported participating local governments in setting ambitious climate reduction goals, taking ambitious action to meet those objectives, and measuring their progress publicly and transparently.

In 2016/17, the EU Covenant of Mayors joined forces with another city initiative, the Compact of Mayors. The resulting “Global Covenant of Mayors for Climate and Energy” (GCoM) is the largest movement of local governments committed to going beyond their own national climate and energy objectives. The aim of combining these two initiatives was to streamline and consolidate efforts to increase and capture the collective impact of city action and build even greater momentum for locally-led climate action.

A single coalition also helps to simplify city participation through providing one set of reporting requirements; the Common Reporting Framework (CRF). Cities can either report via the [CDP](#) or through the EU Covenant of Mayors’ reporting platform, “[MyCovenant](#)”, which are both aligned to GCoM and the CRF²⁰.

Commitments

Local or city governments/councils committed to GCoM pledge to implement policies and undertake measures to:

1. Reduce/limit GHG emissions,
2. Prepare for the impacts of climate change
3. Increase access to sustainable energy,
4. Track progress toward these objectives.

Commitments under the EU Covenant of Mayors are similar – they are:

1. Reducing emissions of CO₂ and other GHGs, by at least 40% by 2030,
2. Increasing resilience to the impacts of climate change,
3. Alleviating energy poverty.

²⁰ The “MyCovenant” platform was due to be updated in 2019 in alignment with the CRF.

The Common Reporting Framework (CRF)

Prior to the merger, the EU's Covenant of Mayors and the global Compact of Mayors had different reporting requirements and platforms for their signatory cities to follow and report to. To ensure a common framework and the harmonisation of measurements and reporting procedures, a Common Reporting Framework (CRF) has been developed. The CRF has been designed considering local governments' needs and a stepwise approach on meeting GCoM commitments.

For the emissions reporting element of the CRF, the reporting framework is built upon the Emission Inventory Guidance, used by the EU Covenant of Mayors, and the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC), used by the Compact of Mayors. Both refer to the 2006 Intergovernmental Panel on Climate Change (IPCC) Guidelines for National GHG Inventories.

Summary comparison

Sheffield's baseline greenhouse gas (GHG) emissions data, collected in WP1, goes a long way towards meeting the emission reporting requirements of the CRF. In some areas, the baseline GHG inventory goes beyond the requirements of the CRF; however, there are some areas where work would be required to ensure Sheffield's baseline GHG emissions inventory meets all the requirements of emissions reporting under the CRF. The WP1 baseline data used two main sources for the GHG emissions data – the local authority CO₂ statistics that Ricardo produces annually for the UK Government and the National Atmospheric Emissions Inventory, also managed by Ricardo on behalf of the UK Government. The local authority CO₂ data is collected on an end-user basis, meaning it measures emissions from energy use, rather than from where they are emitted. However, the NAEI data is on a source basis, showing where the emissions take place, and not where they were generated.

The largest limitations are (i) that electricity emissions are only reported for CO₂²¹, and (ii) the scope of waste emissions covered in Sheffield's baseline GHG inventory. Waste emissions are included, but only the emissions that actually occur within Sheffield's boundary (e.g. from landfill sites located within the boundary), as this data is taken from the NAEI, so is available on a source basis. The CRF requires cities to 'own' emissions that are a result of inhabitant activity, so therefore emissions from all waste generated within the city should be accounted, regardless of where physically the emissions are released. Additionally, in Sheffield's baseline GHG emissions inventory, some categories are aggregated in such a way that CRF categories would need to be disaggregated, and vice versa. The WP1 report doesn't provide a detailed list of emission factors (which the CRF requires to be reported); this data is available and easy to obtain.

In summary, the main difference between the CRF requirements and the Sheffield baseline GHG inventory is around waste. To be compatible with the CRF requirements, Sheffield would need to collect data on water volumes generated, waste composition and waste treatment routes. Undertaking the required calculations would be straightforward, providing the data is available. All other differences are minor and easy to address. It would therefore not take much work to put the existing inventory data into the CRF reporting template.

²¹ There are small emissions of CH₄ and N₂O associated with electricity generation/consumption. The CRF requires that these emissions are reported. The UK Government GHG Conversion Factors for Company Reporting, prepared by Ricardo, publish CH₄ and N₂O EFs to be applied to electricity consumption.

Below is a summary comparison of sources and emission reporting requirements under the CRF, a detailed comparison in provided at the end of this Appendix.

	Common Reporting Framework (CRF)	Sheffield's baseline GHG inventory
Boundary	Must report the geographic area (inc. a map), time span of inventory, gases, emission sources. It is also a requirement to report additional information such as population.	The geographic boundary is the Jurisdiction of Sheffield City Council. All accompanying information is available to be reported.
Gases	Carbon dioxide (CO ₂), Methane (CH ₄), Nitrous Oxide (N ₂ O)	Carbon dioxide (CO ₂), Methane (CH ₄), Nitrous Oxide (N ₂ O) CO₂ only for electricity.
Direct/indirect emissions (or scope)	Must include direct (emissions occurring within boundary), 'other' direct (emissions resulting to activity in boundary, but occurring outside the boundary), and indirect (due to consumption of grid-supplied energy)	All required direct and indirect (i.e. emissions occurring within Sheffield's boundary) emissions are included. 'Other' direct emissions, from waste generated within the boundary and treated outside the boundary, will need to be reported.
Sectors and sub-sectors	<p><i>The sectors and sub-sectors included in the baseline inventory are very similar to what is required by the CRF; the naming convention used is slightly different, but the required emission sources are covered. See Annex E for suggested approaches to align sector/sub-sector naming.</i></p> <p>Required</p> <ol style="list-style-type: none"> 1. Stationary energy (residential, commercial, institutional, industrial, agriculture, fugitive emissions) 2. Transportation (road, rail, water-borne, aviation, off-road) 3. Waste (solid waste disposal, biological treatment, incineration and open burning, wastewater treatment) 4. Energy generation (electricity-only, CHP, heat/cold) <p>Optional</p> <ol style="list-style-type: none"> 4. <i>Industrial processes and product use (IPPU)</i> 5. <i>Agriculture, forestry, and other land use (AFOLU) (livestock, land, other agriculture)</i> 6. <i>Local renewable generation</i> 	<ol style="list-style-type: none"> A. Industry and commercial electricity B. Industry and commercial gas C. Large industrial installations D. Industrial and commercial other fuels E. Agricultural combustion F. Domestic Electricity G. Domestic Gas H. Domestic other fuels I. Road transport (A roads) J. Road transport (motorways) K. Road transport (minor roads) L. Diesel Railways M. Transport other N. LULUCF net emissions <p>Agriculture, waste and Land use (CH₄ and N₂O)</p>
Methods	Methods should be documented and should be compatible with IPCC 2006 guidelines. Activity data and emission factors should also be reported.	Methods are compatible with IPCC 2006 guidelines and are outlined in the WP1 report. Activity data are reported for most sources, and emission factor information is easily available.

C40 Cities – Measurement and planning

The C40 is a global network of cities committed to implementing meaningful and sustainable actions locally that will help address climate change globally. C40 cities includes 90+ megacities, with over 10,000 actions to reduce climate change, to keep to the 1.5C limit of global temperature rise. Meeting those challenging targets is now the C40's overriding aim. Doing so requires bespoke Climate Action Plans for every major city – responding to specific local factors and building on global best practice.

Measurement and planning is a key pillar in the C40 Cities Climate Action Planning Framework, which could provide further insight and best practice into effective monitoring and reporting – a case study is presented below.

Case Study: C40 Cities – Measurement and Planning

Monitoring, evaluation, reporting and revision is a key pillar of the C40 Cities Climate Action Planning Framework. C40 states that “*Long-term commitment should be demonstrated through a process of setting key performance indicators, ongoing monitoring, impact evaluation and progress reporting*”. This process provides stakeholders with transparency about the process, inspiring trust in the city government and its commitment to becoming net zero.

The process is broken down into the following three elements, which each set out the ‘essentials’ the cities must meet and the ‘go further’ that cities could adopt:

- Monitoring implementation - Monitoring against set milestones and key performance indicators
 - Essential – There is a process for monitoring and reporting progress on implementation of the climate action plan with key performance indicators identified for priority actions.
 - Go further – e.g. There is a public access data and reporting platform
- Evaluation of impact - impact of actions should be measured
 - Essential - There is a process for evaluating impact of the climate action plan, which includes city wide emissions reductions, risk reduction and the equitable distribution of benefits. There is a commitment to regular evaluation of impact of the climate action plan in line with city context/capacity.
 - Go further - Evidence of review meetings in which impact has been discussed
- Review and revision of the plan - Monitoring and evaluation should feed into the continuous review and revision of the plan
 - Essential - There is a commitment to publishing updates or supplements on a 5-yearly basis, and/or at the start of each new mayoral term (particularly where a change of administration has occurred), informed by evidence from monitoring and evaluation.
 - Go further - There is a commitment to a 3-yearly process of review and revision

<https://resourcecentre.c40.org/climate-action-planning-framework/monitoring-implementation>

Common Reporting Framework: Detailed Comparison

Sources to report in each category	
CRF mandatory	This is the minimum reporting requirement for CRF compliance.
CRF optional	Extended reporting, optional but advised.
N/A	Not Applicable for that source

✓ = able to report from Sheffield baseline inventory data

X = unable to report from Sheffield baseline inventory data

CRF Emission Categories	Direct	Indirect	Other direct	Comment	Solution?
STATIONARY ENERGY					
Residential	✓	✓ (only CO ₂)	x	G. Domestic Gas and H. Domestic other fuels = direct F. Domestic Electricity = indirect Transmission and distribution (T&D) losses and upstream fuel procession = other direct (optional)	CH ₄ and N ₂ O estimated required for electricity – average UK factors could be applied. Average T&D loss factor could be applied to electricity consumption (optional). Average upstream emissions could be applied to end-consumption of fuels (optional).
Commercial	✓	✓ (only CO ₂)	x	A. Industry and commercial electricity = indirect B. Industry and commercial gas = direct C. Large industrial installations = direct D. Industrial and commercial other fuels = direct	CH ₄ and N ₂ O for electricity. Would need to disaggregate between industrial and commercial. This would be possible with the appropriate authorisation of the use of ONS employment statistics. Institutional should also be disaggregated; this is reported as 'public sector combustion' within C. Large industrial installations. Would also require breakdown for N ₂ O and CH ₄ . As above for other direct.
Agriculture	✓	x	x	E. Agricultural combustion, but this only in-boundary fuel	For CH ₄ and N ₂ O, data can be separated using publicly available data.

				consumption, not electricity. Only for CO ₂ .	Report agricultural electricity use as 'included elsewhere' As above for 'other direct'
Fugitive	x			Not covered	Should be able to obtain via UK National inventory if occurring in Sheffield. Note, there may be confidentiality issues. Average natural gas leakage factors could be applied to consumption
TRANSPORTATION					
On-road	✓	✓ (only CO ₂)	x	Only in-boundary. I. Road transport (A roads) J. Road transport (motorways) K. Road transport (minor roads)	Emissions from electric vehicles should be disaggregated and reported under indirect. If not possible, these emissions should be reported as 'included elsewhere'
Railways	✓	✓ (only CO ₂)	x	Only in-boundary. L. Diesel Railways	If there are any electric railways, consumption from these should be included under indirect.
Waterborne navigation	x	x	x	Inland waterways included in 'other' transport, can't separate this out in dataset.	This would need to be disaggregated, or could be reported as 'Not Occurring' if deemed to be insignificant.
Aviation	x	x	x	Aviation not included Aircraft ground vehicles included in 'other' transport, can't separate this out in dataset.	Civil Aviation Authority data used in the UK national inventory could be used to provide aviation estimates for airports in/near Sheffield. There are options for what emissions to include (see Section 7.6 of the GPC), as a minimum, emissions from flights within boundary (e.g. helicopters) should be included; this can be reported as 'Not Occurring' if deemed to be insignificant.
Off-road	x	x		Off-road included in 'other' transport, can't separate this out in dataset.	This would need to be disaggregated, or could be reported as 'Not Occurring' if deemed to be insignificant.
WASTE					

Disposal of solid waste generated in the city	✓		x	<p>Only emissions from point of release are captured e.g. from current and historic landfill sites.</p> <p>This needs to cover emissions from all waste generated within the boundary.</p>	<p>There are some gaps in the coverage of waste emissions.</p> <p>Need to ensure all waste generated in Sheffield is included, regardless of where it is disposed/treated.</p> <p>Would need to disaggregate between landfill, biological treatment and incineration.</p> <p>Would need to disaggregate emissions for CH₄ and N₂O.</p>
Biological treatment of waste generated in the city	✓		x		
Incineration and open burning of waste generated in the city	✓		x		
Wastewater generated in the city	✓		x	Included in waste.	<p>Would need to be disaggregated from waste.</p> <p>Wastewater could be estimated based on UK average scaled to population, as unlikely to vary significantly.</p>

In addition, it is also a requirement to report emissions from energy generation (electricity-only, CHP, heat/cold). It is optional to report local renewable energy generation.

Industrial processes and product use (IPPU) and Agriculture, forestry and other land use (AFOLU) are optional under CRF so have not been included in this comparison.