South Derbyshire District Council

Climate and Environment Action Plan 2021-30

There is NO Planet B
Executive Summary.

This Climate and Environment Action Plan is in response to the Council’s Climate and Environment Strategy and their aspiration to achieve carbon neutral by 2030 across the Council controlled (in-house) operational activities. It also aims to work with partners to deliver carbon neutrality across South Derbyshire area (District-wide) before the UK Government’s carbon zero target of 2050.

The initial part of this plan focuses on estimating of the Council’s carbon emission baselines, based on the 2018/19 levels that result from Council-controlled activities (in-house emissions) and secondly resulting from the carbon emitting activities across the South Derbyshire area (District-wide emissions). The Council in-house annual emission baseline is estimated at 2,500 tC02e and the District-wide emission baseline is estimated at 695,100 tC02e (based on 2018/19 data).

The second part of this Climate and Environment Action Plan is to detail the carbon mitigation, adaption, and offsetting actions across all the Council Services that will reduce the carbon emissions to the target levels to meet the Councils Climate Emergency Declaration commitments. The four categories of decarbonisation actions detailed in this plan (see appendices) are:

**Actions Completed** – the decarbonisation actions already delivered by the Council.

**Transformative Actions (2021/30)** - 80% of the carbon emissions resulting from Council in-house activities are from four high emission sources that require significant high-cost Transformative Actions to tackle this high level of emissions.

**Annual In-house Service Plan Actions** – these actions are led by the Council’s Services and predominately support, influence and lead to behaviour change across In-house activities resulting in smaller carbon emission reductions.

**Annual District-wide Service Plan Actions** – these actions are led by the Council’s Services and support other partners to reduce District-wide carbon emissions across South Derbyshire.

One of the major challenges is the cost of these actions, especially Transformative Actions that will deliver most of the carbon neutral journey to 2030. The indicative cumulative decarbonisation costs for all in-house actions over and above ‘business as usual’ expense is estimated to be between £5.8 million and £7 million.

The indicative financial cost to the Council for reducing the District-wide emissions over the longer timeframe to 2050 is much smaller in comparison, although it is estimated that a total of 5,000 hours of employee time will be required to deliver the current District-wide actions.

The reduction of carbon emissions resulting from these In-house actions is illustrated by the Carbon Road Map. This maps the Council’s journey to carbon neutral by 2030 provided the annual Service Plans and the Transformative Actions are delivered in the timeframe suggested.

The Council’s delivery of carbon reduction and neutrality will rely heavily on the UK Government investment, funding, and support. One of the main objectives of this Climate and Environment Action Plan is to ensure that all the Service and Transformative actions are worked into 'ready-made' decarbonisation plans ensuring the Council is prepared for when Government funding opportunities become available.
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1. Introduction.

This Climate and Environmental Action Plan outlines South Derbyshire District Council’s (SDDC) actions to deliver the aspirations of the South Derbyshire Climate and Environment Strategy (STEMS-07-ST2) and the SDDC’s Climate Emergency Declaration of 2019.

The Plan is a working document that enables the Council to have fully prepared decarbonisation plans that are updated on a yearly basis to incorporate ongoing UK government strategy, technology advances and to ensure SDDC is prepared for any decarbonisation funding opportunities that support the cost of delivering carbon neutrality.

The aspiration to become a carbon neutral Council by 2030 and a carbon zero District before the UK Governments 2050 target will require significant reduction in carbon emissions. The SDDC has two distinct and separate roles to play in this decarbonisation aspiration:

1. To identify and reduce carbon emissions that result from the activities directly and indirectly caused from ongoing Council-controlled operational activities, called Council In-house emissions.
2. To use the SDDC’s influence to support the whole community and business sectors to reduce their own carbon footprint and carbon emissions across the whole South Derbyshire District, called SDDC District-wide emissions.

2. Council Climate and Environment Aspiration.

On 27th June 2019, the Council declared a Climate Emergency and made a commitment to strive to make SDDC carbon neutral by 2030 and achieve carbon neutrality before the Government target of 2050.


From the aspiration, the SDDC Climate and Environmental Action Plan has the following objectives:

- To continually improve the monitoring and reporting of carbon emissions that result from both the Council-controlled activities (in-house) and those across the South Derbyshire area (District-wide).
- To deliver actions through the annual Corporate Plan, Service Plans and Business Transformation Plans that enables SDDC to achieve carbon neutral by 2030 by reducing the emissions resulting from the council-controlled operational activities (In-house actions) and support partners to reduce carbon emissions across the whole of the South Derbyshire region (District-wide actions).

4. Carbon Emissions Reporting

The reporting of carbon emissions data resulting from both In-house and District-wide activities are a critical part of Climate and Environment action planning and performance monitoring. The collation, calculations and reporting of the Council’s carbon emissions are governed by our ISO14001 accreditation and are inline with the Environmental Reporting Guidelines from DEFRA.
This plan uses **tonnes of carbon dioxide equivalent** (tCO2e) as the measure and the current levels of carbon emissions that result from In-house and District-wide activities. The estimation of in-house emissions is based on the regular scheduled monitoring of emission sources across all Council owned property and fleet vehicles. The District-wide emissions are based on UK Government statistics from the Department of Business, Energy, and Industrial Strategy (BEIS, 2018) that measures historic emissions data from the key sectors across the District. For the purposes of this plan, the 2018/19 emission data form the **emission baseline**, from which any emission reductions resulting from the decarbonising action selected are based on.

As part of the Climate and Environment Governance and ISO14001 management processes, the Council will publish an **Annual Carbon Reduction Report** that will detail, analyse and compare the In-house and District-wide carbon emission trends (see South Derbyshire District Council’s website).

### 4.1 Emissions resulting from Council In-house activities.

In line with the BEIS (2020) guidance on carbon emission reporting and using the Environmental Reporting Guidelines published by DEFRA the emissions are divided into three categories, Scope 1, 2 and 3 as described below.

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Example data used in this analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scope 1</strong></td>
<td>Emissions that the Council is directly responsible for.</td>
<td>• Metered heat (gas) data for buildings where SDDC pay the heating bills. • Mileage for SDDC-owned vehicle fleet and pool cars along with vehicle make/model and age.</td>
</tr>
<tr>
<td><strong>Scope 2</strong></td>
<td>Indirect emissions that the Council has some control over.</td>
<td>• Metered electricity data for buildings where SDDC pay the electricity bills. • Employee business mileage.</td>
</tr>
<tr>
<td><strong>Scope 3</strong></td>
<td>Indirect emissions that the Council has no direct control over but can exert an influence on.</td>
<td>• Business that supplies goods to SDDC. • Metered water use data. • <em>Estimated energy data for the SDDC housing stock.</em></td>
</tr>
</tbody>
</table>

*Estimated energy data for SDDC housing stock is not currently included in the SDDC emissions baseline but is part of the decarbonisation actions detailed to be delivered as part of this Action Plan.

The Council's In-house activities emissions for 2018/19 (Scope 1 & 2) estimates the **emission baseline** as **2,500 tonnes** of carbon dioxide equivalent (tCO2e) annually, resulting from the carbon emissions activities from the Council locations shown below:

**Table 1. Council in-house carbon emissions (tCO2e) by location (Scope 1 &2).**

<table>
<thead>
<tr>
<th>Location</th>
<th>Heat</th>
<th>Refrigerant</th>
<th>Vehicle fuel</th>
<th>Electricity</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greenbank LC</td>
<td>439</td>
<td>230</td>
<td>0</td>
<td>150</td>
<td>819</td>
</tr>
<tr>
<td>Enwall LC</td>
<td>162</td>
<td>155</td>
<td>0</td>
<td>66</td>
<td>383</td>
</tr>
<tr>
<td>Civic Offices</td>
<td>49</td>
<td>68</td>
<td>134</td>
<td>91</td>
<td>342</td>
</tr>
<tr>
<td>Public Buildings</td>
<td>33</td>
<td>0</td>
<td>0</td>
<td>119</td>
<td>152</td>
</tr>
<tr>
<td>Rosliston</td>
<td>102</td>
<td>0</td>
<td>0</td>
<td>34</td>
<td>136</td>
</tr>
<tr>
<td>Boardman Depot</td>
<td>26</td>
<td>32</td>
<td>588</td>
<td>17</td>
<td>663</td>
</tr>
<tr>
<td>Other (waste etc)</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>811</strong></td>
<td><strong>485</strong></td>
<td><strong>722</strong></td>
<td><strong>476</strong></td>
<td><strong>2,500</strong></td>
</tr>
</tbody>
</table>

*Some Scope 3 Council in-house carbon emissions are show in Appendix 1.

Reporting carbon emissions from 'other indirect' (Scope 3) carbon emission sources such as the procurement of goods and services from third party suppliers are estimated annually and although currently not included in the Councils emission baseline, there is planned actions to include these in
the 2022/23 Annual Carbon Reduction Report and detail the action being taken by the Council to reduce these.

The two highest carbon emission sectors resulting from the Council’s in-house activities are from heat (gas) and vehicle (petrol and diesel fuel). This results in four specific high emission sources, which in order of magnitude are the Greenbank Leisure Centre, Council vehicle fleet, Etwall Leisure Centre, and Civic Way Offices, accounting for 91% of the Council’s total 2,500 tCO₂e emissions.

Identifying these high carbon emitters illustrates the Council’s requirement for Transformative Actions that will tackle these high emission items.

### 4.2 Emissions resulting from South Derbyshire Area-wide activities.

The current carbon emissions resulting from District-wide activities across the South Derbyshire are estimated using emissions data from BEIS (2018). The estimated (2018) annual emissions baseline for South Derbyshire is 695,100 tCO₂e and the main sectors producing these emissions are shown below.

<table>
<thead>
<tr>
<th>District-wide Sector</th>
<th>Carbon emissions (ktCO₂e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road Transport</td>
<td>302.5</td>
</tr>
<tr>
<td>Other Transport</td>
<td>30.2</td>
</tr>
<tr>
<td>Household heat (gas)</td>
<td>100.9</td>
</tr>
<tr>
<td>Household (other)</td>
<td>28.8</td>
</tr>
<tr>
<td>Commercial/Industrial heat (gas)</td>
<td>72</td>
</tr>
<tr>
<td>Commercial/Industrial heat (other)</td>
<td>36.2</td>
</tr>
<tr>
<td>Household electricity</td>
<td>39.1</td>
</tr>
<tr>
<td>Commercial/Industrial electricity</td>
<td>84.2</td>
</tr>
<tr>
<td>Other</td>
<td>1.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>695.1</strong></td>
</tr>
</tbody>
</table>

These District-wide emissions can be categorised in three main sectors (illustrated below), the highest carbon emissions sector by some margin is Road Transport, followed by Household.
**Energy** and **Commercial/Industrial Energy** categories. In a similar way to Council in-house emissions, identifying these high carbon emitters supports the prioritisation process for the District-wide decarbonisation actions.

### Figure 2. High emitting District-wide Sectors (ktCO2e)

Seventy-two percent of emissions are from **Transport**, 29% from **Industry and Commercial** and 24% from **Household**.

#### 4.3 Comparisons of Emissions from across other Derbyshire Councils

As a comparison with other Council’s District-wide emissions in Derbyshire, Table 3 below shows the BEIS emission comparisons on a per head of population basis.

**Table 3. Comparison between all Derbyshire Councils based on emissions per head.**

<table>
<thead>
<tr>
<th>Local Authority</th>
<th>Total emissions (ktCO2e)</th>
<th>Population (000's)</th>
<th>Emissions / head</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Derbyshire</td>
<td>695.1</td>
<td>104.5</td>
<td>6.7</td>
</tr>
<tr>
<td>Northeast Derbyshire</td>
<td>516.1</td>
<td>101.1</td>
<td>5.1</td>
</tr>
<tr>
<td>High Peak</td>
<td>2,832.9</td>
<td>92.2</td>
<td>30.7</td>
</tr>
<tr>
<td>Erewash</td>
<td>549.6</td>
<td>115.5</td>
<td>4.8</td>
</tr>
<tr>
<td>Derbyshire Dales</td>
<td>545.8</td>
<td>72.0</td>
<td>7.6</td>
</tr>
<tr>
<td>Chesterfield</td>
<td>459.7</td>
<td>104.6</td>
<td>4.4</td>
</tr>
<tr>
<td>Bolsover</td>
<td>1,030.1</td>
<td>79.5</td>
<td>13.0</td>
</tr>
<tr>
<td>Amber Valley</td>
<td>659.0</td>
<td>126.7</td>
<td>5.2</td>
</tr>
<tr>
<td>Derby</td>
<td>1,148.7</td>
<td>257.2</td>
<td>4.5</td>
</tr>
<tr>
<td><strong>Derbyshire Total</strong></td>
<td><strong>7,288.3</strong></td>
<td><strong>796.1</strong></td>
<td><strong>9.2</strong></td>
</tr>
</tbody>
</table>

Source: BEIS (2020) based on 2018 data.

South Derbyshire’s carbon emissions per head sit in the middle of the comparison league across the County, with the highest emissions coming from the High Peak that are largely due to the high energy usage of its large industrial installations (quarrying). The lowest emissions from Chesterfield resulting from its low transport, industrial and commercial emissions.
5. Climate and Environment Actions - Mitigation and Adaption.

The Climate and Environment Actions that the Council selects to deliver is a combination of mitigation actions that predominately lead to reducing carbon emissions by decarbonisation and adaption actions that will lead to adjustments to the current or expected effects of climate change.

The carbon emissions resulting from both Council in-house and South Derbyshire District-wide activities as shown above are mainly a product of the Heating, Transport and Electricity sectors. Each of these sectors have typical established decarbonisation actions as detailed below.

5.1 Typical Decarbonisation Actions.

**Heat decarbonisation** – To decarbonise heating in buildings, it is necessary to reduce heat through efficiency (data, behaviour, etc), improve the building fabric to reduce heat loss (retrofit measures) and in the longer term all buildings need to switch from gas/oil (fossil fuels) to a low or zero carbon heat technology.

**Transport decarbonisation** – requires a planned replacement of all existing vehicles with low or zero emission vehicles and the development of an appropriate located supporting infrastructure. A key challenge here is heavier trucks, where the current new vehicle technology (electric and hydrogen) is extremely expensive because of its infancy. In addition, vehicle decarbonisation requires reduction in vehicle use and mileage through behavioural change programmes.

**Electricity decarbonisation** – requires the uptake of renewable energy from green utility suppliers or through renewable technology sources. These actions together with behaviour change and smart technology that optimises energy usage will lead to efficiencies. It is expected that the UK national grid will be decarbonised from around 2033 and will be producing electricity from 100% renewable sources, making electrification through the grid carbon zero.

**Finance decarbonisation** – requires the planned transition of any finances, investments and pensions that are connected to fossil fuels.

5.2 Indicative costs of decarbonisation actions - decarbonisation cost.

The Council’s route to carbon neutral through decarbonisation actions will require significant investment and funding. Each decarbonisation actions detailed in this Climate and Environment Action Plan has an indicative cost that is intended to give an overall ball-park figure of the decarbonisation costs but should in no way be used as definitive.

Some of the actions detailed have already been committed to by the Council and are highlighted as such. The costs associated with these committed actions are not included in the overall decarbonisation costs.

Where appropriate costs are allocated to actual carbon reduction actions, a good example of this is the vehicle fleet, where between now and 2030 most of the vehicle fleet will be replaced as part of the SDDC procurement/asset process. The difference in cost between replacing with a diesel vehicle and an Electric vehicle is the decarbonisation cost and the indicative figure used to illustrate the cost of carbon neutral.
As with the carbon emissions, the Councils decarbonisation actions are split into in-house actions and District-wide actions. They are a combination of ‘Hard’ measures which will lead to predicted carbon emission reductions and ‘Soft’ measures that will support behaviour change and engagement with the potential of carbon reduction. Soft actions are recognised by the Committee on Climate Change (CCC, 2019) as being able to deliver emission reductions that average at around 10% of the carbon emissions they are focused on.

5.3 Co-benefits of decarbonisation actions.

Most decarbonisation actions have co-benefits, in addition to reducing carbon emissions they can lead to an overall significant reduction of operating costs. In terms of transport this is through the comparative cost of electricity or hydrogen per mile compared to petrol or diesel. Through heating, decarbonisation measures lead to significant efficiencies and reduction of energy used compared to fossil fuel generated heat. This type of co-benefits is noted with each action, but more work is required to quantify the cost savings resulting from decarbonisation.

All actions included in the Climate and Environment Action Plan will have the co-benefits detailed and all the Councils engagement and communications will include an awareness of the co-benefits.

5.4 Biodiversity and Environmental actions

South Derbyshire District Council has a separate Action Plan for Nature (published on the Council’s website) which is aligned to the Climate and Environment Action Plan. The Action Plan for Nature sets out its vision and mission as shown below along with the core delivery actions

**Vision:** “South Derbyshire will be a District where its green spaces, natural habitats and biodiversity is fully valued, properly managed and appropriately protected to ensure optimum contribution to the natural capital and ecosystem services of the District and the health and well-being of its communities, whilst providing pleasure to current residents and visitors, as well as future generations.”

**Mission:** “To protect, improve, increase and sustain the biodiversity of the District’s habitats and species on Council land through to the National Forest and beyond; develop the Council’s skills and knowledge of the natural environment; contribute towards climate change adaptation and resilience; strengthen the intrinsic functioning of the District’s ecosystem services and natural capital; enhance the health and wellbeing of local residents; and support economic prosperity within the District through continued environmental improvements for the benefit of current and future generations.”

5.5 Climate Adaption actions

The Council realises that reducing carbon emissions through either decarbonisation or biodiversity net gain is no longer enough to halt the impacts of climate change. The Climate Adaption actions selected are detailed in the District-wide actions set out to understand the risks and deliver actions around the natural environment, infrastructure, people and the built environment. These adaption actions will be reviewed and adapted to ensure the Council is managing and improving its climate related risks.
6. Council In-house actions to achieve Carbon Neutral.
The in-house decarbonisation actions to achieve carbon neutral consist of:

- **Actions Taken** – for both financial years 2019/20 and 2020/21 are detailed in the **Appendices**
- **Transformative Actions** (2021/30) required to tackle the high carbon emission sources.
- **Annual Service Plan Actions** (2022/23) that each of the Council Services will deliver.

The summary of all these decarbonisation actions is shown below, more detail of each action by Service is shown in the Appendices.

6.1 Actions Taken (2019/20 and 202/21).

In line with its Corporate Climate and Environment Strategy and the Climate and Environment Action Plan, the Council has already engaged in carbon emission reduction and environmentally sustainable actions. The completed actions for the last two years are detailed in the Appendices (Table 4).

6.2 Transformation Actions 2021/30.

The carbon emissions from Council’s Public Estate and the Vehicle Fleet contribute to 91% of the total in-house carbon emissions. These high emitters require specific transformational project management to deliver and significant investment. In addition to the above the decarbonisation of Rosliston Forestry Centre, Boardman Depot and the Council Housing Stock are included as Transformation Actions because of their size, cost, and complexity.

Table 5. Transformation Actions 2021/30 – 8 high emission source actions

<table>
<thead>
<tr>
<th>Action Ref.</th>
<th>Decarbonisation Actions.</th>
<th>Total Indicative £Cost of Action</th>
<th>Dec carbon Cost of Action</th>
<th>Hours</th>
<th>Current tCO\text{2}e</th>
<th>tCO\text{2}e Reduction</th>
<th>Start</th>
<th>Finish</th>
<th>Co-benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>Carbon Neutral Civic Hub Options</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Retrofit of existing Civic Way.</td>
<td>1. £3 m</td>
<td>1. £1.2m</td>
<td>0</td>
<td>208</td>
<td>208</td>
<td>2024</td>
<td>2030</td>
<td>Reduced energy consumption and operating costs</td>
</tr>
<tr>
<td></td>
<td>2. Energy efficient new build.</td>
<td>2. £8 m</td>
<td>2. £2.4m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T2</td>
<td>Carbon Neutral Greenbank Leisure Centre</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>· Energy efficient retrofit measures</td>
<td>£750k</td>
<td>£750k</td>
<td>0</td>
<td>589</td>
<td>589</td>
<td>2024</td>
<td>2030</td>
<td>Reduced energy consumption and operating costs</td>
</tr>
<tr>
<td></td>
<td>· Renewable energy source.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T3</td>
<td>Carbon Neutral Etwall Leisure Centre</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>· Energy efficient retrofit.</td>
<td>£280k</td>
<td>£280k</td>
<td>0</td>
<td>228</td>
<td>228</td>
<td>2024</td>
<td>2030</td>
<td>Reduced energy consumption and operating costs</td>
</tr>
<tr>
<td></td>
<td>· Renewable energy source.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T4A</td>
<td>A. Transition to Low Carbon Waste Fleet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>o EV replacement of small vans. (38)</td>
<td>£1.3m</td>
<td>£325k</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>o EV/Hydrogen replacement of trucks (13)</td>
<td>£5.2m</td>
<td>£2.6m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T4B</td>
<td>B. Low Carbon Housing Fleet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>o EV replacement of small vans. (13)</td>
<td>£422k</td>
<td>£110.5k</td>
<td>0</td>
<td>722</td>
<td>722</td>
<td>2021</td>
<td>2030</td>
<td>Reduce fuel costs</td>
</tr>
<tr>
<td>T4C</td>
<td>C. Other Fleet.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Other small vans. (6)</td>
<td>£204k</td>
<td>£51k</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Collectively the 6 Transformation Actions (excluding the two relating to Council Housing Stock) have an indicative decarbonisation cost in the range of £5.6m to £6.8m and would reduce the annual Council in-house carbon emissions by 2,020 tCO2e (80% of the Council’s total in-house carbon emissions).

6.3 Council In-house Service Plan Actions 2022/23

The Service Plan Actions are specific to the individual Council Service activities and are a combination of hard and soft actions. The majority are relatively low-cost actions, or their costs are already committed and part of the Service budget.

Table 6. In-house Service Plan Action Summary 2022/23.

The 30 In-house Actions aligned to individual Council Services as part of their 2022/23 Service Plans.
<table>
<thead>
<tr>
<th>ISP</th>
<th>Description</th>
<th>Budget 2021</th>
<th>Budget 2022</th>
<th>Budget 2023</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISP7</td>
<td>Appropriate route optimisation software for SDDC fleet vehicles in Housing and Env Health</td>
<td>£10k</td>
<td>£10k</td>
<td>0</td>
<td>722 72 2021 2023</td>
</tr>
<tr>
<td>ISP8</td>
<td>Transition to electric grounds maintenance machinery</td>
<td>£250k</td>
<td>£125k</td>
<td>0</td>
<td>tbc 10 2021 2023</td>
</tr>
<tr>
<td>ISP9</td>
<td>Install Smart metering at all Council buildings</td>
<td>£5k</td>
<td>£5k</td>
<td>0</td>
<td>477 48 2021 2025</td>
</tr>
<tr>
<td>ISP10</td>
<td>Leisure Centre electricity reduction and review</td>
<td>0</td>
<td>0</td>
<td>50</td>
<td>216 22 2021 2023</td>
</tr>
<tr>
<td>ISP11</td>
<td>Ongoing Leisure Centre maintenance plan for emission reduction</td>
<td>tbc</td>
<td>0</td>
<td>50</td>
<td>1202 120 2021 2023</td>
</tr>
<tr>
<td>ISP12</td>
<td>F gas replacement/efficiency across Council buildings*</td>
<td>tbc</td>
<td>tbc</td>
<td>0</td>
<td>485 242 2021 2030</td>
</tr>
<tr>
<td>ISP13</td>
<td>Energy decarbonisation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISP14</td>
<td>Carbon review of tendering process</td>
<td>0</td>
<td>0</td>
<td>30</td>
<td>tbc tbc 2021 2023</td>
</tr>
<tr>
<td>ISP15</td>
<td>Investment review to embed decarbonisation</td>
<td>0</td>
<td>0</td>
<td>50</td>
<td>0 0 2021 2023</td>
</tr>
<tr>
<td>ISP16</td>
<td>Review of costings and financing of Transformative Actions</td>
<td>0</td>
<td>0</td>
<td>500</td>
<td>0 0 2021 2024</td>
</tr>
<tr>
<td>ISP17</td>
<td>Community Engagement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISP18</td>
<td>Ongoing Environmental/Carbon Literacy training</td>
<td>0</td>
<td>0</td>
<td>400 pa</td>
<td>0 0 2021 2023</td>
</tr>
<tr>
<td>ISP19</td>
<td>Embed carbon emission reduction into the new Economic Development Plan for SDDC</td>
<td>0</td>
<td>0</td>
<td>300 pa</td>
<td>0 0 2022 2023</td>
</tr>
<tr>
<td>ISP20</td>
<td>Rosliston Exemplar Sustainable Hub Plan</td>
<td>0</td>
<td>0</td>
<td>500</td>
<td>136 0 2021 2023</td>
</tr>
<tr>
<td>ISP21</td>
<td>Biodiversity and Environment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISP22</td>
<td>Alteration to grounds maintenance practices</td>
<td>0</td>
<td>0</td>
<td>50</td>
<td>tbc tbc 2021 2023</td>
</tr>
<tr>
<td>ISP23</td>
<td>Monitoring biodiversity net gain – mapping all green spaces owned by SDDC</td>
<td>0</td>
<td>0</td>
<td>300 pa</td>
<td>tbc tbc 2022 2023</td>
</tr>
<tr>
<td>ISP24</td>
<td>Create and develop a methodology to estimate the carbon sequestration of council owned green areas across the district</td>
<td>0</td>
<td>0</td>
<td>300 pa</td>
<td>tbc tbc 2022 2023</td>
</tr>
<tr>
<td>ISP25</td>
<td>Performance and Governance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISP26</td>
<td>Continuous Review of climate change funding and grants</td>
<td>£1k</td>
<td>0</td>
<td>100 pa</td>
<td>0 0 2021 2023</td>
</tr>
<tr>
<td>ISP27</td>
<td>Annual review of SDDC suppliers (Scope 3) and develop a supply chain reduction guidance</td>
<td>0</td>
<td>0</td>
<td>200 pa</td>
<td>tbc tbc 2021 2022</td>
</tr>
<tr>
<td>ISP28</td>
<td>Annual monitoring and reporting of carbon emissions and delivery of an annual carbon report</td>
<td>0</td>
<td>0</td>
<td>500 pa</td>
<td>2,500 125 2021 2023</td>
</tr>
<tr>
<td>ISP29</td>
<td>Review of all Council policies/strategies to embed carbon neutral</td>
<td>0</td>
<td>0</td>
<td>50</td>
<td>2,500 0 2021 2023</td>
</tr>
<tr>
<td>ISP30</td>
<td>Annual review of SDDC Climate and Environment Action Plan (2021/30)</td>
<td>0</td>
<td>0</td>
<td>50pa</td>
<td>2,500 0 2022 2030</td>
</tr>
<tr>
<td>ISP31</td>
<td>Develop a full equality, diversity and inclusion impact assessment of SDDC's Climate and Environment Action Plan</td>
<td>0</td>
<td>0</td>
<td>100 pa</td>
<td>0 0 2022 2023</td>
</tr>
<tr>
<td>ISP32</td>
<td>Waste</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISP33</td>
<td>Ongoing waste collection service review to support reduction in waste and increase in recycling and composted</td>
<td>0</td>
<td>0</td>
<td>100 pa</td>
<td>tbc 0 2022 2023</td>
</tr>
<tr>
<td>ISP34</td>
<td>Communications</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISP35</td>
<td>Develop an annual Climate and Environment Communication Plan</td>
<td>0</td>
<td>0</td>
<td>200</td>
<td>2,500 0 2021 2022</td>
</tr>
</tbody>
</table>

*This estimate does not include the F gas replacement, for which an accurate figure is not yet available.
Collectively the 30 Council In-house Service Plan actions have an indicative decarbonisation cost of £290k, reduce the carbon emissions by 772 tCO2e (30% of the Council’s total in-house carbon emissions) and have 4,780 employee hours allocated to them. Currently 16 In-house Service Plans are uncommitted with a Total Cost of £565k and 3,450 employee hours to deliver these actions are uncommitted.

6.4 Council Carbon Reduction Road Map.

The resulting carbon reductions of the Transformation and the Annual Service Plan Actions (ongoing through to 2030) can be plotted on the Carbon Reduction Road Map Calculator (see Carbon Reduction Roadmap in Appendix) and illustrated below to show the Council’s in-house journey from the 2018/19 carbon emission baseline to carbon neutral by 2030.

This shows the estimated cumulative carbon reduction from both Transformative and Service Plan Actions have the potential to deliver the Councils aspiration of Carbon Neutrality by 2030 with a total indicative decarbonisation cost of £5.8m - £7m and allocated employee hours of 4,780 hours.

The second part of the Climate and Environment Action Plan is to reduce District-wide carbon emissions resulting from activities across the whole of the South Derbyshire. The District-wide carbon emission baseline has been established as **695,100 tCO2e** (BEIS, 2018) and the main emission sources are heat and electricity for domestic, industrial, and commercial use and transport as shown below.

![Fig. 4 - 2018 South Derbyshire emission estimates (ktCO2e)](image)

To achieve the SDDC’s District-wide aspiration of reducing carbon emissions across South Derbyshire to achieve the UK Governments 2050 carbon zero target will require a collaborative approach from businesses, households, and communities along with Derbyshire County Council.

The District-wide decarbonisation actions need a measure of alignment to Derbyshire C strategies to ensure effectiveness of carbon reduction methods.

7.1 Derbyshire County Council’s Climate Change Strategy.

Derbyshire County Council has created a Climate Change Strategy that sets out what needs to be done to reduce emissions across the County to net zero by 2050 or sooner.

As well as reducing emissions across Derbyshire, delivery of the strategy will help to address the wider key issues facing society, including improving and future-proofing homes, business, infrastructure, and transport, reversing the decline in biodiversity, promoting community health and well-being, and the facilitation of a sustainable and robust low carbon economy, all of which are part of SDDC’s Climate and Environment Strategy and Action Planning.

The strategic vision of the Derbyshire Climate Change Strategy for net zero, includes five common priority areas to reduce carbon emissions by:

- Decarbonising Local Authority Estate, Operations and Services
- Strengthening the low carbon economy
- Decarbonising Derbyshire’s Housing
- Sustainable Transport, Travel, and Infrastructure
- Waste and Resources

All these five common priority areas align to South Derbyshire District Councils Climate and Environment Strategy and Action Plans (2021-30).
The strategy covers the period 2022 to 2025 and details that it is not intended to replace existing climate change strategies and plans in place with individual councils across Derbyshire, but instead will complement these and set out key common areas of collaboration.

It will enable the individual councils across Derbyshire to maximise their collective success in securing funding, support, and resource for the delivery of decarbonisation action and will utilise DCC’s links with central government to lobby for additional support for local government on this agenda and to secure investment for decarbonisation across Derbyshire.

With the increasing need to accelerate action on tackling climate change, through reducing County-wide emissions and the need to accelerate action on tackling climate change, the development and adoption of a joint or aligned climate change strategy has been identified as an opportunity to establish common ambitions and priorities, foster collaboration, and resource sharing, and provide consistency in delivery.

7.2 Council District-wide Service Plan Actions 2021/22

The Council District-wide actions to reduce carbon emissions across South Derbyshire are aligned to the main carbon emission sources (shown in Fig 4) and the DCC strategy categories detailed above.

In a similar way to the Council In-house actions, they are a combination of ‘hard’ and ‘soft’ measures. The individual District-wide Service Plan actions are detailed in Appendix 4 and a summary is shown below.


The 18 District-wide actions aligned to individual Council Services as part of their Service Plans for 2022/23 to support South Derbyshire achieve carbon neutrality by 2050.
### Biodiversity and Environment

<table>
<thead>
<tr>
<th>DSP8</th>
<th>Utilise Free Tree Schemes</th>
<th>0</th>
<th>0</th>
<th>100 pa</th>
<th>Tbc</th>
<th>Carbon sequestration</th>
<th>2021</th>
<th>2023</th>
<th>Tree canopy, flood resilience</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSP10</td>
<td>Supporting the promotion of green tourism throughout South Derbyshire</td>
<td>0</td>
<td>0</td>
<td>100</td>
<td>Tbc</td>
<td>Carbon sequestration</td>
<td>2022</td>
<td>2050</td>
<td>Increase tourism economy</td>
</tr>
</tbody>
</table>

### Climate Adaption

| DSP9 | Review and detail the climate adaptation actions (tree planting and flood resilience) that SDDC are taking across the District | 0 | 0 | 300 pa | Tbc | Adaption | 2022 | 2023 | Future proofing |

### Green Economic Growth

| DSP11 | Work in partnership with Derbyshire CC to create a collaborative pathway to carbon zero across Derbyshire | £10k | £0 | 500 pa | Tbc | Reduce all emission sources | 2022 | 2023 | Share costs |
| DSP12 | Partner with Derbyshire CC to engage with UK Government for resource, funding, and relevant powers to deliver Climate and Environment Plans. | 0 | 0 | 100 pa | Tbc | n/a | 2022 | 2023 | Collaboration of resource |
| DSP13 | Create and promote a Sustainable Travel to work Plan for job creation | 0 | 0 | 100 | Tbc | Transport decarbonisation | 2021 | 2025 | Improve economy |
| DSP14 | Freeport Plan influencing, promoting, and partnering with local business to deliver green innovation and technology | 0 | 0 | 200 | Tbc | Transport decarbonisation | 2020 | 2025 | Improve economy |

### Community Engagement

| DSP15 | Develop a business engagement programme to support decarbonisation projects. | 0 | 0 | 200 pa | Tbc | n/a | 2021 | 2030 | Improve economy |
| DSP16 | Create a community engagement programme around Climate Change | £20k | £20k | 500 | Tbc | Carbon footprint reduction | 2021 | 2030 | Community pride |
| DSP17 | Support the implementation of the community engagement programme (SD18) | tbc | tbc | tbc | Tbc | Carbon footprint reduction | 2021 | 2030 | Community pride |
| DSP18 | Embed Active Travel in Swadlincote town centre access plan. | 0 | 0 | tbc | Tbc | Transport decarbonisation | 2021 | 2025 | Active travel |

The decarbonisation costs associated with all District-wide Service Plan actions have a net indicative cost to the Council of £20k and 7,000 employee hours.

Collectively the 18 proposed District-wide Service Plan actions have a total cost of £1.346 million, with all but £53.1k of these funded from government bids. They have an indicative employee time resource of 7,000 hours.

Currently 12 of these district-wide Service Plan actions are committed, with the majority funded from central government funding (indicative Council cost of £43.1k required) and 6,200 employee hours required to deliver.
8. Project Management of Climate and Environment Action Plan

The Project Management of the performance of the Climate and Environment Action Plan is aligned and part of the Council’s ISO14001 audited programme.

The Climate and Environment Action Plan and Project Management programme was part of the Councils overall ISO14001 audit in 2021 with commendation. The recommendations of the Audit form part of the Annual Review of the Climate and Environment Action Plan.

Table 8. Climate and Emergency Action Plan Summary.

<table>
<thead>
<tr>
<th>Actions</th>
<th>Number of actions</th>
<th>Carbon reduction (tCO2e)</th>
<th>Decarbonisation cost (£)</th>
<th>tCO2e reduction £k</th>
<th>Employee hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transformation Plans</td>
<td>6*</td>
<td>2,020</td>
<td>£5.6m - £6.8m</td>
<td>0.36 tCO2e/£1k</td>
<td>0</td>
</tr>
<tr>
<td>In-house Service Plans</td>
<td>30</td>
<td>722</td>
<td>£743k</td>
<td>0.97 tCO2e/£1k</td>
<td>4,780</td>
</tr>
<tr>
<td>District-wide Service Plans</td>
<td>18</td>
<td>tbc</td>
<td>£20k</td>
<td>tbc</td>
<td>7,000</td>
</tr>
</tbody>
</table>

*excludes the Council Housing Stock decarbonisation programme.

The overall delivery of the Transformative and Annual Service Plan actions will be part of a Project Management Programme to ensure progress is made, decarbonisation plans are on track and both the Councils in-house and District-wide carbon emissions reduce and the aspirations of SDDC Climate and Environment Strategy are met.

The performance management process for each element of the Action Plan will be specific:

8.1 Service Plan Actions 2022/23.

- All Service Plan Actions have been discussed with the Council’s Heads of Service prior to the sign off process for this Climate and Environment Action Plan.
- All Service Plan Actions have been allocated a SDDC Head of Service who is responsible for the implementation and delivery of their Annual Service Plan actions.
- Environmental Services as overall custodian of the Climate and Environment Action Plan will implement and manage a structured quarterly project management review with each Head of Service to determine the progress and challenges of each individual action.
- The Service Plan Actions have a yearly timeframe and on their annual review will be completed, renewed, or replaced as part of the normal Service Plan process.

8.2 Transformative Action Plans 2021/30.

- Each individual Transformative Action will be developed as a stand-alone corporate project to be included in the Corporate Transformation Plan. This will ensure that each of the Transformative Actions is supported by a clear project management framework with direct reporting line through to the Senior Leadership Team.
- The Project Management and delivery progress of the Transformation Actions will be part of the quarterly project management review.
8.3 Overall Climate and Environment Action Plan 2021 – 2030

The Climate and Environment Action Plan is intended as a working document that will evolve from 2021 through to the carbon neutral date of 2030. The ongoing upkeep and maintenance of the overall Action Plan will be managed by Environmental Health Service with an updated version produced annually.

- Corporate carbon emissions data will be updated on a quarterly and annual basis as part of the Annual Carbon Reduction Progress Report.
- All Transformation actions, Annual Service action and the Council’s carbon emission Route Map to Carbon Zero will be updated as part of the Annual Review of the Climate and Environment Action Plan 2021-30.
- Any progress, drift or divergence on Service Plan or Transformative Actions will be recorded as part of the quarterly Corporate Plan progress report to Environmental and Development Services Committee (EDS).
- An Annual report to EDS will be completed that will detail progress of the overall Climate and Environment Action Plan to reflect local and national changes.
- All Project Management, Annual Reports and Committee Reports on the Climate and Environment Action Plan will all form part of the ISO14001 governance.

8.4 Corporate Climate and Environment Strategy 2021 – 2030.

- Performance Indicators measured and monitored by Organisational Development and Performance Management.

9. Version Control

<table>
<thead>
<tr>
<th>Version</th>
<th>Changes</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Interim Action Plan</td>
<td>07/01/2019</td>
</tr>
<tr>
<td>2</td>
<td>Version 1 Climate and Environment Action Plan 2021 – 30</td>
<td>17/05/2021</td>
</tr>
<tr>
<td>3</td>
<td>Version 2 Climate and Environment Action Plan 2021 -30</td>
<td>30/7/2022</td>
</tr>
</tbody>
</table>
APPENDICIES

SDDC

Climate and Environment Action Plan
2021-30
Appendix 1

a) Table 4 - Actions Completed in 2019/20.

<table>
<thead>
<tr>
<th>Theme</th>
<th>Actions already started</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat</td>
<td>Accessing and administering Green Home Grants to support retrofitting private homes.</td>
</tr>
<tr>
<td></td>
<td>Delivering an on-line low carbon homes event to engage businesses with retrofit opportunities.</td>
</tr>
<tr>
<td></td>
<td>Ongoing limited retrofit of Council owned commercial property on tenancy renewal.</td>
</tr>
<tr>
<td>Transport</td>
<td>EV charging points (18) – funding and implementing in public car parks.</td>
</tr>
<tr>
<td></td>
<td>Implementing a Staff Travel Plan to change behaviour and reduce grey mileage.</td>
</tr>
<tr>
<td></td>
<td>Providing technology for mobile/home working for Council employees.</td>
</tr>
<tr>
<td></td>
<td>Promoting Environment week (2019) to promote walking/cycling to work.</td>
</tr>
<tr>
<td></td>
<td>Securing a low emission pool car partnership with NHS Derbyshire.</td>
</tr>
<tr>
<td></td>
<td>Purchasing and Electric utility vehicle for Rosliston.</td>
</tr>
<tr>
<td></td>
<td>Implementing a Fleet tracker on new HGV waste vehicles to reduce fuel consumption.</td>
</tr>
<tr>
<td></td>
<td>Delivering a Sustainable Delph day (2019) – open event to promote electric bikes and EV’s.</td>
</tr>
<tr>
<td>Electricity</td>
<td>Securing a Corporate Green Tariff across all Council buildings (excepting Leisure Centres).</td>
</tr>
<tr>
<td></td>
<td>Fitting LED’s at Greenbank and Etwell Leisure Centres.</td>
</tr>
<tr>
<td></td>
<td>Implementing behavioural change measures to reduce energy (heating, electricity, and water).</td>
</tr>
<tr>
<td></td>
<td>Installing a Biomass and Thermal Solar plant at Rosliston.</td>
</tr>
<tr>
<td>Natural Environment</td>
<td>Delivering a Carbon awareness briefing to Councillors.</td>
</tr>
<tr>
<td></td>
<td>Delivering Environmental training for all Council employees (mandated) and offered to Councillors.</td>
</tr>
<tr>
<td></td>
<td>Promoting Biodiversity week – actively engaging employees’ involvement in nature, biodiversity, and environmental sustainability.</td>
</tr>
<tr>
<td></td>
<td>Promoting World environment day (2020) - Social media campaign to raise awareness of environmental sustainability.</td>
</tr>
<tr>
<td></td>
<td>Delivering Community Tree Planting – free tree scheme to grow native species.</td>
</tr>
<tr>
<td></td>
<td>Implementing a wildflower planting pilot at four locations across the District.</td>
</tr>
<tr>
<td></td>
<td>Engaging local energy partnerships to support climate change action for parish councils.</td>
</tr>
<tr>
<td>Others</td>
<td>Installing a water filtration system to reduce ‘other’ emissions at Greenbank Leisure Centre.</td>
</tr>
<tr>
<td></td>
<td>Consolidating water suppliers to negotiate usage reduction and efficiency data.</td>
</tr>
<tr>
<td></td>
<td>Developing a Waste hub initiative in Civic Offices to reduce waste and increase recycling awareness.</td>
</tr>
</tbody>
</table>

b) Table 4 - Actions completed in 2020/21

<table>
<thead>
<tr>
<th>Actions</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISP1 – Housing Stock Efficiency Impact Assessments</td>
<td>Completed by Nottingham City Council and used in the successful SHDF Wave 1 bid for a fabric first retrofit programme.</td>
</tr>
<tr>
<td>ISP17 – HRA to be part of the decarbonisation funding</td>
<td>HRA has been modelled as part of the funding for the delivery of retrofitting a fabric first programme for the Housing Stock.</td>
</tr>
<tr>
<td>DSP9 – Creation of a SDDC Action Plan for nature</td>
<td>An SDDC Action Plan for Nature has been developed and approved to maximise biodiversity and carbon sequestration across South Derbyshire</td>
</tr>
<tr>
<td>DSP6 – Promote rollout of broadband across South Derbyshire</td>
<td>SDDC has supported the promotion of broadband, in 2021/22 South Derbyshire is showing a 97.8% superfast fibre coverage which is above the UK average and second highest coverage in the Derbyshire CC area.</td>
</tr>
<tr>
<td>ISP23 – Review and quantify all SDDC Scope 3 emissions</td>
<td>SDDC Scope 3 emissions have been quantified and reported on in the Annual Carbon Review 2021/22</td>
</tr>
<tr>
<td>ISP6 – Commissioning of fleet mileage optimisation software</td>
<td>Operational fleet has the software installed</td>
</tr>
<tr>
<td>ISP13 – Implement a green lease void programme for housing stock</td>
<td>As part of the void process, the energy supplies are switched to Scottish Power tariffs which are 100% renewable</td>
</tr>
<tr>
<td>ISP26 – Create a hybrid/flexible employee working model post Covid</td>
<td>Hybrid working model has been created that aims to be relevant, effective, productive and will lead to carbon emission reductions</td>
</tr>
<tr>
<td>ISP28 – Waste collection review</td>
<td>Waste collection service review to increase recycling rates and reduce landfill waste disposal.</td>
</tr>
</tbody>
</table>
### Appendix 2 - Transformative Actions

#### Transformation Actions 2022/23 - IT and Business Change

<table>
<thead>
<tr>
<th>Action Ref: T1</th>
<th>Embed decarbonisation in Civic Hub Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timeframe</td>
<td>2021 - 2023</td>
</tr>
<tr>
<td>Action</td>
<td>Continued evolving review of the two decarbonisation options - New build or Retrofit of existing Civic Office.</td>
</tr>
<tr>
<td>Reduction</td>
<td>8-10% reduction in total emissions.</td>
</tr>
<tr>
<td>Indicative Total Cost</td>
<td>200 hours</td>
</tr>
<tr>
<td>Decarbonisation Costs</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Action Ref: T2</th>
<th>Greenbank Leisure Centre decarbonisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timeframe</td>
<td>2021 - 2023</td>
</tr>
</tbody>
</table>
| Action         | 1. Current ongoing interim actions to reduce emissions.  
 | | 2. Feasibility study of renewable energy source options.  
 | | 3. Decision made on emission reduction plan. | Transition from natural gas to renewable source for heating and electricity consumption. |
| Reduction      | Interim actions = 8-10% emission reduction | Heating renewable source= 439 tCO2e (100% reduction)  
 | | F Gas reduction = 148 tCO2e (64.5% reduction) | Heating and electricity renewable source = 589 tCO2e (100% reduction) |
| Indicative Total Cost | 500 hours | £750k |
| Decarbonisation Costs | 0 | £750k |

<table>
<thead>
<tr>
<th>Action Ref: T3</th>
<th>Etwall Leisure Centre decarbonisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timeframe</td>
<td>2021 - 2023</td>
</tr>
</tbody>
</table>
 | | 2. Feasibility study of renewable energy source options.  
 | | 3. Decision made on emission reduction plan. | Transition from natural gas to renewable source for heating. Or transition to renewable source for heating and electricity. |
| Reduction      | Current emissions = 383 tCO2e  
 | | Reduction of Interim actions = 31 tCO2e (8-10%) | Current heating and electricity emissions = 228 tCO2e  
 | | F Gas reduction = 155 tCO2e | F Gas reduction = 155 tCO2e |
| Indicative Total Cost | 500 hours | £280k plus |
| Decarbonisation Costs | 0 | £280k plus |
| Note           | 1. John Port School own Etwall Leisure Centre, so partnership approach. |

<table>
<thead>
<tr>
<th>Action Ref: T4A</th>
<th>Decarbonisation of Waste Vehicle Fleet.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timeframe</td>
<td>2021 - 2023</td>
</tr>
<tr>
<td>Action</td>
<td>Phased transition replacement of depot light vehicles (cars, vans, etc).</td>
</tr>
<tr>
<td>Reduction</td>
<td>100% reduction of depot vehicle emissions only.</td>
</tr>
</tbody>
</table>
### Total Indicative Cost

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>38 EV vans</td>
<td>£1.22m</td>
</tr>
<tr>
<td>EV charging points</td>
<td>£80k</td>
</tr>
<tr>
<td>Total cost</td>
<td>£1.3m</td>
</tr>
<tr>
<td>13 x truck conversion</td>
<td>£585k</td>
</tr>
<tr>
<td>Hydrogen filling station</td>
<td>£120k?</td>
</tr>
<tr>
<td>Total cost</td>
<td>£705k</td>
</tr>
<tr>
<td>13 x EV/Hydrogen trucks</td>
<td>£5.2m</td>
</tr>
<tr>
<td>EV charge point</td>
<td>£50k</td>
</tr>
<tr>
<td>Total cost</td>
<td>£5.2m</td>
</tr>
</tbody>
</table>

### Decarbonisation Cost

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>EV infrastructure required</td>
<td>£325k</td>
</tr>
<tr>
<td>Depot Hydrogen refilling station</td>
<td>£705k</td>
</tr>
<tr>
<td>Full EV or Hydrogen infrastructure</td>
<td>£2.7m</td>
</tr>
</tbody>
</table>

### Action Ref: T4B - Decarbonisation of Housing vehicle fleet.

<table>
<thead>
<tr>
<th>Emission Source</th>
<th>Carbon emissions from Housing fleet fuel = 134 tCO2e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owned by</td>
<td>Head of Housing</td>
</tr>
<tr>
<td>Dates</td>
<td>Start: 2021 Finish: 2030</td>
</tr>
<tr>
<td>Emission Impact</td>
<td>Complete electrification or hydrogen fuelled housing vehicle fleet = carbon neutral</td>
</tr>
<tr>
<td>Notes</td>
<td>EV infrastructure needed for home charging. Or change in work behaviour and EV’s ‘return to grid’ infrastructure’ requiring overnight parking. Partner with DCC on ‘on-street parking’.</td>
</tr>
</tbody>
</table>
| Indicative Total Costs | 13 x small EV vans = £422k + 10 x Charge points = £22k  
|                  | Total costs = £444k |
| Decarbonisation Costs | EV vans = £110.5 + charge points = £22k  
|                    | Decarbonisation costs = £132.5k |

### Action Ref: T4C – Decarbonisation of EH vehicle fleet.

<table>
<thead>
<tr>
<th>Emission Source</th>
<th>Carbon emissions from other fleet (Environmental Health)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owned by</td>
<td>Head of Environmental Health</td>
</tr>
<tr>
<td>Dates</td>
<td>Start: 2021 Finish: 2030</td>
</tr>
<tr>
<td>Emission Impact</td>
<td>Complete electrification or hydrogen fuelled small fleet by 2030.</td>
</tr>
<tr>
<td>Notes</td>
<td>Electric infrastructures need for Civic Way Offices and Roslistion – awaiting decision on One public estate 2021/22</td>
</tr>
</tbody>
</table>
| Indicative Total Costs | 6 x EV vans = £204k + 2 x Charge point = £5k  
|                  | Total costs = £209k |
| Decarbonisation Costs | EV vans = £51k + charge points = £5k  
|                    | Decarbonisation costs = £56k |

### Action Ref: T5

<table>
<thead>
<tr>
<th>Boardman Depot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timeframe</td>
</tr>
<tr>
<td>Action</td>
</tr>
<tr>
<td>Decision made on emission reduction plan.</td>
</tr>
<tr>
<td>Feasibility study of Hydrogen/Electric fuelling station &amp;/or Depot relocation.</td>
</tr>
<tr>
<td>Reduction</td>
</tr>
</tbody>
</table>
| Total Indicative Costs | 500 hours  
| Decarbonisation Costs | £220k renewable energy source  
|                      | £120k plus for Hydrogen/EV fuelling station.  
|                      | £? Relocate depot |
| Total Indicative Costs | 0  
| Decarbonisation Costs | 100% of total costs and dependant on option |

### Action Ref: T6

| Roslistion (Visitor Centre and Enterprise building) |
| Timeframe      | 2021 - 2023 |
| Action         | Feasibility study of renewable energy source options. |
| Decision made on emission reduction plan. |
| Feasibility study of Hydrogen/Electric fuelling station &/or Depot relocation. |
| Reduction      | Heating and electricity renewable source = 42 tCO2e (100% reduction) |
| Total Indicative Costs | £200k renewable energy source |
| Decarbonisation Costs | 100% of total costs and dependant on option |
### Current Interim actions on reducing emissions.
- Feasibility study of renewable energy source options.
- Decision made on emission reduction plan.

### Biomass repair
- Renewable energy infrastructure for complete Rosliston site (holiday homes, visitor centre, etc)
- Creation of Rosliston Exemplar

### Action Details

<table>
<thead>
<tr>
<th>Action</th>
<th>Reduction</th>
<th>Total indicative Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>T7 – Develop a programme to decarbonise the SDDC housing stock through Government Funding and the Housing Revenue Account.</td>
<td>Interim actions = 8-10% emission reduction</td>
<td>200 hours</td>
</tr>
<tr>
<td>Emissions Source</td>
<td>Heating and electricity renewable source = 136 tCO2e (100% reduction)</td>
<td>Repair of Biomass boiler = £117k</td>
</tr>
<tr>
<td>Owned by</td>
<td>Renewable energy source (solar pv or heat source pumps) = £100k</td>
<td></td>
</tr>
<tr>
<td>Head of Housing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dates</td>
<td>Start: 2021</td>
<td></td>
</tr>
<tr>
<td>Finish: 2050</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emission Impact</td>
<td>TBD</td>
<td></td>
</tr>
<tr>
<td>Cost</td>
<td>£43m (based on £15k each for 3,000 properties)</td>
<td></td>
</tr>
</tbody>
</table>

| Action Details | T8 – Develop a specific programme to decarbonise the worst performing SDDC housing stock |
| Emissions Source | 200 of the worst performing Council owned housing stock |
| Owned by | Head of Housing |
| Dates | Start: 2021 |
| Finish: 2050 |
| Emission Impact | TBD |
| Cost | £3m (based on £15k each property) |
Appendix 3 - Service Plan Actions by Service.

Key:

<table>
<thead>
<tr>
<th>Committed Actions</th>
<th>Uncommitted Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>H = Hard actions</td>
<td>S = Soft actions</td>
</tr>
</tbody>
</table>

Types of proposed carbon neutral actions:
- T – Transformation Actions
- ISP – In-house Service Plan Actions
- DSP – District-wide Service Plan Actions

All Services – Service Plan Actions 2021/22.

These two actions are common to all Service areas.

<table>
<thead>
<tr>
<th>Action Details</th>
<th>ISP4 – Ongoing annual delivery of Sustainable Travel Plan and annual travel questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Source</td>
<td>Employee vehicle commuting fuel emissions at all SDDC locations = 26 tCO2e</td>
</tr>
<tr>
<td>Owned by</td>
<td>All Heads of Service</td>
</tr>
<tr>
<td>Dates</td>
<td>Start: 2021 \n                    Finish: 2024</td>
</tr>
<tr>
<td>Emission Impact</td>
<td>Targeted reduction of H1 carbon emissions = 7% (1.8 tCO2e)</td>
</tr>
<tr>
<td>Cost</td>
<td>£40,000 &amp; 300 hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Action Details</th>
<th>ISP24 – Ongoing quarterly monitoring and preparation of annual reporting of all carbon emission sources from Council in-house controlled activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Source</td>
<td>All carbon emission sources: Heat, Refrigerant, Vehicle fuel and Electricity = 2,500 tCO2e</td>
</tr>
<tr>
<td>Owned by</td>
<td>All Heads of Service</td>
</tr>
<tr>
<td>Dates</td>
<td>Start: April 2021 \n                    Finish: Ongoing</td>
</tr>
<tr>
<td>Emission Impact</td>
<td>Estimated reduction of all carbon emissions = 5% (125 tCO2e)</td>
</tr>
<tr>
<td>Cost</td>
<td>300 hours</td>
</tr>
</tbody>
</table>

Corporate Property - Service Plan Actions 2022/23

In-house actions

<table>
<thead>
<tr>
<th>Action Details</th>
<th>ISP2 – Embed decarbonisation of public buildings in the Corporate Asset Management strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions source</td>
<td>Heat and electricity emissions from all Public and SDDC owned Commercial buildings.</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Corporate Property</td>
</tr>
<tr>
<td>Dates</td>
<td>Start: April 2021 \n                    Finish: April 2030</td>
</tr>
<tr>
<td>Emission Impact</td>
<td>Reduction of Public Buildings emissions (152 tCO2e) to achieve carbon neutral</td>
</tr>
<tr>
<td>Cost</td>
<td>£300k – additional costs in addition to the ongoing maintenance programme.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Action Details</th>
<th>ISP9 – Commissioning SMART metering for electricity use across all public buildings.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Source</td>
<td>Electricity emissions from all Council buildings</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Corporate Property</td>
</tr>
<tr>
<td>Dates</td>
<td>Start: April 2021 \n                    Finish: April 2025</td>
</tr>
<tr>
<td>Emission Impact</td>
<td>Up to 10% reductions in energy use through accurate emission reporting, increased awareness, and accountability for carbon emissions from Council energy activities</td>
</tr>
<tr>
<td>Cost</td>
<td>£5K</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Action Details</th>
<th>ISP11 – Align ongoing maintenance plan to reducing current carbon emissions at Leisure Centres from the Lifecycle Analysis (existing plant, retrofit measures and investment requirements to reduce emissions).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Source</td>
<td>Energy/heat/electricity at Greenbank and Etwall Leisure Centres = £1202 tCO2e</td>
</tr>
</tbody>
</table>
Owned by: Head of Cultural and Community Services

Dates
Start: April 2021
Finish: April 2023

Emissions Impact: Reduction of current energy emissions of 120 tCO2e (10%)

Cost: 50 hours, Maintenance, retrofit, and investment requirements need to be costed as part of the plan.

Action Details: ISP12 – F Gas ongoing maintenance, update and replacement programme.

Emissions Source: Refrigerant emissions at Leisure Centres, Civic Way and Boardman Road depot.

Owned by: Head of Corporate Property

Dates
Start: 2021
Finish: 2030

Emission Impact: 242 tCO2e based on a 50% reduction in total F gas emissions

Cost: To Be Confirmed

District-wide actions

Action Details: DSP18 – Feasibility plan to embed Active Travel (walk/cycle pathways, EV infrastructure and public transport connectivity) into Swadlincote town centre access plans.

Emissions Source: Transport

Owned by: Head of Corporate Property/Head of Environmental Services

Dates
Start: 2022
Finish: 2023

Emission Impact: Transport reduction and increasing walking and cycling.

Cost: £40k & 100 hours

Cultural and Community Services - Service Plan Actions 2022/23

In-house actions

Action Details: ISP10 – Manage ongoing energy reduction actions plans for the Leisure Centres through Active Nations.

Emissions Source: Heat and electricity at Greenbank and Etwall Leisure Centres = 1,202 tCO2e

Owned by: Head of Cultural and Community Services

Dates
Start: June 2021
Finish: April 2023

Emissions Impact: Behavioural change heat and electricity emissions reductions of 120 tCO2e (10%)

Cost: 50 hours

Action Details: ISP20 – Rosliston Exemplar - promote Rosliston Forestry Centre as a pioneer of environmental sustainability education which includes renewable energy sources, low carbon emission technology, carbon sequestration, biodiversity and natural capital improvement.


Owned by: Head of Cultural and Community Services

Dates
Start: April 2021
Finish: April 2023

Emission Impact: To make Rosliston nett carbon positive

Cost: 500 hours

Action Details: ISP21 – Ongoing planning and delivery of alteration to grounds maintenance practices to maximise biodiversity

Emissions Source: Carbon sequestration from all sectors across South Derbyshire

Owned by: Head of Cultural and Community Services/ Head of Operational Services

Dates
Start: April 2021
Finish: April 2023

Emission Impact: Improves biodiversity, which increase soil ability to sequester carbon.

Cost: 50 hours

Action Details: ISP26 – Monitoring Biodiversity net gain – mapping all green spaces owned by SDDC.
<table>
<thead>
<tr>
<th>Emissions Source</th>
<th>Carbon sequestration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owned by</td>
<td>Head of Culture and Community Services</td>
</tr>
<tr>
<td>Dates</td>
<td>Start: 2022, Finish: 2023</td>
</tr>
<tr>
<td>Emission Impact</td>
<td>Carbon sequestration</td>
</tr>
<tr>
<td>Cost</td>
<td>500 hours</td>
</tr>
</tbody>
</table>

**Action Details**

ISP28 – Create and develop a methodology to estimate the carbon sequestration of council owned green areas across South Derbyshire.

<table>
<thead>
<tr>
<th>Emissions Source</th>
<th>Carbon sequestration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owned by</td>
<td>Head of Environmental Health Services/ Cultural and Community Services</td>
</tr>
<tr>
<td>Dates</td>
<td>Start: October 2022, Finish: October 2023</td>
</tr>
<tr>
<td>Emission Impact</td>
<td>TBD</td>
</tr>
<tr>
<td>Cost</td>
<td>300 hours</td>
</tr>
</tbody>
</table>

**District-wide Actions**

<table>
<thead>
<tr>
<th>Action Details</th>
<th>DSP8 – Utilise all Free Tree planting schemes across the District and monitor tree planting increases.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Source</td>
<td>Carbon sequestration from all sectors across South Derbyshire</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Cultural and Community Services</td>
</tr>
<tr>
<td>Dates</td>
<td>Start: 2021, Finish: 2023</td>
</tr>
<tr>
<td>Emission Impact</td>
<td>Estimated 6.2 tCO2e per year per hectare sequestered</td>
</tr>
<tr>
<td>Cost</td>
<td>100 hours</td>
</tr>
</tbody>
</table>

**Economic Development and Growth Services - Service Plan Action 2021/22**

**In-house actions**

<table>
<thead>
<tr>
<th>Action Details</th>
<th>ISP19 Embed carbon emission reduction into the new Economic Development Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Source</td>
<td>All In-house and District-wide emissions</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Economic Development &amp; Growth/Head of Env Health</td>
</tr>
<tr>
<td>Dates</td>
<td>Start: April 2022, Finish: April 2025</td>
</tr>
<tr>
<td>Emission Impact</td>
<td>Engage public and private sector expertise to help deliver SDDC emissions reductions</td>
</tr>
<tr>
<td>Cost</td>
<td>300 hours</td>
</tr>
</tbody>
</table>

**District-wide actions**

<table>
<thead>
<tr>
<th>Action Details</th>
<th>DSP10 – Support the promotion of Green Tourism throughout South Derbyshire and specifically National Forest as an exemplar sustainable environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Source</td>
<td>None</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Economic Development</td>
</tr>
<tr>
<td>Dates</td>
<td>Start: 2021, Finish: Ongoing</td>
</tr>
<tr>
<td>Emission Impact</td>
<td>Increasing carbon offsetting across South Derbyshire.</td>
</tr>
<tr>
<td>Cost</td>
<td>100 hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Action Details</th>
<th>DSP13 – Promote sustainable travel to work plans (public transport) for job creation/growth development areas across South Derbyshire.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Source</td>
<td>Vehicle</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Economic Development and Head of Strategic Planning</td>
</tr>
<tr>
<td>Dates</td>
<td>Start: 2021, Finish: 2025</td>
</tr>
<tr>
<td>Emission Impact</td>
<td>Reduce vehicle mileage and promote public transport</td>
</tr>
<tr>
<td>Cost</td>
<td>100 hours</td>
</tr>
</tbody>
</table>
### Action Details

**DSP14** – Influencing, promoting, and partnering with local business to embed green innovation and technology at the East Midlands Inter-Modal Park ‘Freeport’.

**Emissions Source**

Road and Rail transport

**Owned by**

Head of Economic Development/Head of Planning and Strategic Housing Services

**Dates**

Start: 2021
Finish: 2025

**Emission Impact**

Creation of green technology hubs to reduce emissions

**Cost**

TBD

---

**Action Details**

**DSP15** – Support local businesses across South Derbyshire in their development of energy efficiency and decarbonisation projects and the identification of suitable green funding.

**Emissions Source**

All carbon sources

**Owned by**

Head of Economic Development/Head of Environmental Health

**Dates**

Start: 2021
Finish: Ongoing

**Emission Impact**

All sources across South Derbyshire

**Cost**

100 hours

---

### Environmental Health Services - Service Plan Actions 2022/23

#### In-house Actions.

**Action Details**

**ISP6** – Create and develop a Low Carbon Homes Team that supports household decarbonisation across the whole of South Derbyshire

**Emissions Source**

Household heating

**Owned by**

Head of Environmental Health Services/Housing Services

**Dates**

Start: 2022
Finish: 2023

**Emission Impact**

Reduction household heat emissions

**Cost**

4000 hours

---

**Action Details**

**ISP7** – Commissioning vehicle optimisation software for fleet vehicles across Environmental Services.

**Emissions Source**

Council vehicle fleet (petrol and diesel) = 722 tCO2e

**Owned by**

Head of Operational Services (supported by Head of Housing Services, Head of Environmental Services, Cultural Services and Corporate Services)

**Dates**

Start: April 2022
Finish: April 2023

**Emission Impact**

Reduction in Council fleet fuel emissions through driver behaviour = 72 tCO2e (10%)?

**Cost**

£150 per year

---

**Action Details**

**ISP14** – Quarterly monitoring of the SDDC tender process to establish carbon neutral supplier questions and carbon neutral scoring/awarding criteria

**Emissions Source**

All

**Owned by**

Head of Environmental Services

**Dates**

Start: April 2022
Finish: April 2023

**Emission Impact**

Increase the importance of carbon accounting and reduce carbon emissions through future procurement decisions and supplier selection.

**Cost**

30 hours

---

**Action Details**

**ISP18** – Ongoing environmental training (Climate and Biodiversity) for Councillors, Parish Councils and SDDC employees.

**Emissions source**

All

**Owned by**

Head of Environmental Services

**Dates**

Start: April 2021
Finish: Ongoing

**Emission Impact**

Higher awareness for all staff of the importance of reducing personal and corporate carbon impact and carbon footprint

**Cost**

400 hours
### District-wide Actions

<table>
<thead>
<tr>
<th>Action Details</th>
<th>ISP22 – Continuous identification of funding and grants, identifying carbon reduction opportunities for the Council and Partners.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions source</td>
<td>All</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Environmental Services</td>
</tr>
</tbody>
</table>
| Dates                              | Start: April 2021  
Finish: Ongoing                                                             |
| Emissions Impact                  | Funding decarbonisation actions                                                                                       |
| Cost                              | £1,000 and 100 hours                                                                                                   |

<table>
<thead>
<tr>
<th>Action Details</th>
<th>ISP23 – Annual review of SDDC ‘Scope 3’ Supply Chain emissions, quantify their carbon impact and develop an appropriate draft supply chain guidance for approval.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Source</td>
<td>All sources.</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Environmental Services</td>
</tr>
</tbody>
</table>
| Dates                              | Start: April 2022  
Finish: April 2023                                                             |
| Emissions Impact                  | Identify emission reduction opportunities with contractors and suppliers                                                                 |
| Cost                              | 200 hours                                                                                                              |

<table>
<thead>
<tr>
<th>Action Details</th>
<th>ISP25 - Review all internal SDDC policies and strategies to embed carbon neutral considerations into them at their next review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions source</td>
<td>All</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Environmental Services</td>
</tr>
</tbody>
</table>
| Dates                              | Start: April 2021  
Finish: Ongoing                                                             |
| Emissions Impact                  | Align corporate strategies, policies, and actions with carbon neutral target.                                                                 |
| Cost                              | 50 hours                                                                                                                |

<table>
<thead>
<tr>
<th>Action Details</th>
<th>ISP27 - Annual review of SDDC Climate and Environment Action Plan (2021/30) to update and verify in line with ISO accreditation and other audits.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions source</td>
<td>All</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Environmental Health and all Heads of service</td>
</tr>
</tbody>
</table>
| Dates                              | Start: July 2022  
Finish: ongoing on an annual basis.                                                                                      |
| Emissions Impact                  | Ongoing support of reduction of all emissions from in-house and district-wide emissions                                  |
| Cost                              | 50 hours                                                                                                                |

<table>
<thead>
<tr>
<th>Action Details</th>
<th>ISP28 – Create and develop a methodology to estimate the carbon sequestration of council owned green areas across South Derbyshire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Source</td>
<td>Carbon sequestration</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Environmental Health Services/ Cultural and Community Services</td>
</tr>
</tbody>
</table>
| Dates                              | Start: October 2022  
Finish: October 2023                                                             |
| Emission Impact                   | TBD                                                                                                                      |
| Cost                              | 300 hours                                                                                                               |

<table>
<thead>
<tr>
<th>Action Details</th>
<th>DSP1 – SDDC Healthy Homes Assistance Fund for private and tenant housing energy efficiency and supporting fuel poverty reduction.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Source</td>
<td>Domestic heating for private and tenanted houses</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Environmental Services</td>
</tr>
</tbody>
</table>
| Dates                              | Start: March 2021  
Finish: March 2023                                                             |
| Emissions Impact                  | TBD                                                                                                                      |
| Cost                              | £200k                                                                                                                    |

<table>
<thead>
<tr>
<th>Action Details</th>
<th>DSP2 – Effective enforcement of the Energy Efficiency Regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Source</td>
<td>Private rented housing stock</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Environmental Services</td>
</tr>
</tbody>
</table>
| Dates                              | Start: 2020  
Finish: Ongoing                                                             |
| Emissions Impact                  | TBD                                                                                                                      |
| Cost                              | 300 hours officer time                                                                                                 |
## Action Details
DSP3 – Develop a database of existing and approved renewable energy sources across South Derbyshire which can be used in future policy considerations to support decision making around sustainable renewable energy developments within the planning policy. Thereafter track the overall renewable energy production capacity of South Derbyshire. Secondly identify opportunities to support local businesses to develop their own renewable energy sources.

<table>
<thead>
<tr>
<th>Action Details</th>
<th>Emissions Source</th>
<th>Owned by</th>
<th>Dates</th>
<th>Emission Impact</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSP3</td>
<td>Energy Sources</td>
<td>Head of Environmental Health Services/Head of Planning and Strategic Housing</td>
<td>Start: 2022, Finish: 2023</td>
<td>Reduction of carbon emission through renewable energy sources</td>
<td>200 hours</td>
</tr>
</tbody>
</table>

## Action Details
DSP4 – Green Homes Grant/LAD funding delivery of retrofit measures to private and tenant houses.

<table>
<thead>
<tr>
<th>Action Details</th>
<th>Emissions Source</th>
<th>Owned by</th>
<th>Dates</th>
<th>Emission Impact</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSP4</td>
<td>Domestic heating for private and tenanted houses</td>
<td>Head of Environmental Services</td>
<td>Start: 2021, Finish: Ongoing</td>
<td>TBD</td>
<td>TBD</td>
</tr>
</tbody>
</table>

## Action Details
DSP5 – Public EV infrastructure expansion – Planning and Implementing of EV charging points across the District, through OZEV and partnership funding

<table>
<thead>
<tr>
<th>Action Details</th>
<th>Emissions Source</th>
<th>Owned by</th>
<th>Dates</th>
<th>Emission Impact</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSP5</td>
<td>Non-HGV transport</td>
<td>Head of Environmental Services</td>
<td>Start: 2021, Finish: 2024</td>
<td>TBD</td>
<td>£100k (depending on successful bid for external funding) &amp; 200 hours</td>
</tr>
</tbody>
</table>

## Action Details
DSP7 – A review of Hydrogen fuel usage, production and distribution infrastructure development proposals across South Derbyshire.

<table>
<thead>
<tr>
<th>Action Details</th>
<th>Emissions Source</th>
<th>Owned by</th>
<th>Dates</th>
<th>Emission Impact</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSP7</td>
<td>Transport</td>
<td>Head of Environmental Services</td>
<td>Start: 2022, Finish: 2023</td>
<td>Reduction in fleet carbon emissions</td>
<td>200 hours</td>
</tr>
</tbody>
</table>

## Action Details
DSP9 – Review and detail the climate adaption actions (tree planting and flood resilience plus others) that SDDC are taking across the District.

<table>
<thead>
<tr>
<th>Action Details</th>
<th>Emissions Source</th>
<th>Owned by</th>
<th>Dates</th>
<th>Emission Impact</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSP9</td>
<td>Carbon sequestration from all sectors across South Derbyshire</td>
<td>Head of Environmental Health Services</td>
<td>Start: 2022, Finish: 2023</td>
<td>TBD</td>
<td>200 hours</td>
</tr>
</tbody>
</table>

## Action Details
DSP11 Work in partnership with Derbyshire County Councill to create a collaborative pathway to carbon zero across Derbyshire.

<table>
<thead>
<tr>
<th>Action Details</th>
<th>Emissions Source</th>
<th>Owned by</th>
<th>Dates</th>
<th>Emission Impact</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSP11</td>
<td>All</td>
<td>Head of Environmental Services</td>
<td>Start: 2021, Finish: Ongoing</td>
<td>Unknown</td>
<td>100 hours</td>
</tr>
</tbody>
</table>

## Action Details
DSP12 Partner with Derbyshire County Council to engage with UK Government for resource, funding and relevant powers to deliver Climate and Environment Plans.

<table>
<thead>
<tr>
<th>Action Details</th>
<th>Emissions Source</th>
<th>Owned by</th>
<th>Dates</th>
<th>Emission Impact</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSP12</td>
<td>All</td>
<td>Head of Environmental Services</td>
<td>Start: 2021, Finish: Ongoing</td>
<td>Unknown</td>
<td>100 hours</td>
</tr>
</tbody>
</table>
**Finance - Service Plan Actions 2022/23**

**In-house actions.**

<table>
<thead>
<tr>
<th>Action Details</th>
<th>ISP15 – Review of Council finance and investments to embed in carbon neutrality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Source</td>
<td>De-investment in fossil fuel sector</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Finance</td>
</tr>
<tr>
<td>Dates</td>
<td>Start: April 2021</td>
</tr>
<tr>
<td></td>
<td>Finish: April 2023</td>
</tr>
<tr>
<td>Emission Impact</td>
<td>Investment in green economy</td>
</tr>
<tr>
<td>Cost</td>
<td>50 hours plus a potential improved return on investment.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Action Details</th>
<th>ISP16 – Ongoing review of costing/finance of Climate and Environment Transformative actions to establish/verify current and future funding sources to implement these actions.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Source</td>
<td>All high emission sources and locations identified.</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Finance / Head of Environmental Health</td>
</tr>
<tr>
<td>Dates</td>
<td>Start: 2021</td>
</tr>
<tr>
<td></td>
<td>Finish: 2024</td>
</tr>
<tr>
<td>Emission Impact</td>
<td>All high emission sources.</td>
</tr>
<tr>
<td>Cost</td>
<td>500 hours</td>
</tr>
</tbody>
</table>

**Housing Services - Service Plan Actions 2022/23**

**In-house actions.**

<table>
<thead>
<tr>
<th>Action Details</th>
<th>ISP1 – Improve the data content, quality and quantity of the Social Housing Stock Condition Survey data.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Source</td>
<td>Heat and electricity - this is outside of the SDDC’s controlled emissions and not part of the 2030 carbon neutral target.</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Housing Services</td>
</tr>
<tr>
<td>Dates</td>
<td>Start: 2022</td>
</tr>
<tr>
<td></td>
<td>Finish: July 2028</td>
</tr>
<tr>
<td>Emission Impact</td>
<td>Current heat and electricity emission estimate is 9,200 – 13,200 tCO2e</td>
</tr>
<tr>
<td>Cost</td>
<td>500 hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Action Details</th>
<th>ISP7 – Feasibility of housing dynamic scheduling software to support fleet mileage optimisation and reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Source</td>
<td>Council vehicle fleet (petrol and diesel) = 722 tCO2e</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Operational Services (supported by Head of Housing Services and Head of Environmental Services)</td>
</tr>
<tr>
<td>Dates</td>
<td>Start: April 2022</td>
</tr>
<tr>
<td></td>
<td>Finish: April 2023</td>
</tr>
<tr>
<td>Emission Impact</td>
<td>Reduction in Council fleet fuel emissions through driver behaviour = 72 tCO2e (10%)?</td>
</tr>
<tr>
<td>Cost</td>
<td>£150 per year</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Action Details</th>
<th>ISP13 – Create and develop a programme to educate and inform residents/public on using low carbon heating sources effectively</th>
</tr>
</thead>
</table>

**Notes:**
- **Emissions Impact:** Unknown
- **Cost:** 100 hours
- **Cost:** 200 hours
- **Cost:** 500 hours
- **Cost:** £150 per year
## Operational Services - Service Plan Actions 2022/23

### In-house actions.

<table>
<thead>
<tr>
<th>Action Details</th>
<th>Emissions Source</th>
<th>Owned by</th>
<th>Dates</th>
<th>Emission Impact</th>
<th>Cost</th>
</tr>
</thead>
</table>
| ISP5 - Review of the Fleet Procurement Plan to identify and detail the options, cost, and timeframe to decarbonise the SDDC Waste vehicle fleet (EVs, Hydrogen/diesel mix and Hydrogen). This review will include the infrastructure and storage requirements of decarbonising the fleet. | Vehicle fuel (diesel) at Boardman Depot = 588 tCO2e | Head of Operational Services | Start: April 2021
Finish: April 2023 | Reduction Operational fleet emissions to carbon neutral = 588 tCO2e | 300 hours |
| ISP7 - Commissioning and use of fleet mileage optimisation software for use in all fleet vehicles across Housing and Environmental Services. | Council vehicle fleet (petrol and diesel) = 722 tCO2e | Head of Operational Services (supported by Head of Housing Services and Head of Environmental Services) | Start: April 2022
Finish: April 2023 | Reduction in Council fleet fuel emissions through driver behaviour = 72 tCO2e (10%)? | £150 per vehicle = £10k |
| ISP8 - Continued phased replacement of grounds maintenance machinery (105 x mowers, grass-cutters, etc) with electric alternatives. | Fuel at Boardman Road depot | Head of Operational Services | Start: June 2021
Finish: April 2023 | Reduction of carbon emissions = 10 tonne CO2e (estimated) | £250,000 for completed replacement (indicative). |
| ISP30 – Ongoing waste collection service review to support the reduction in waste and increase in recycling rates and composted rates | Waste collection | Head of Operational Services | Start: April 2022
Finish: April 2023 | Reduction in waste emissions | 100 hours |
### Organisational Development and Performance - Service Plan Actions 2022/23

#### In-house actions.

<table>
<thead>
<tr>
<th>Action Details</th>
<th>ISP17 – Develop a full equality, diversity and inclusion impact assessment of SDDC’s Climate and Environment Action Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Source</td>
<td>All</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Organisational Development and Performance</td>
</tr>
</tbody>
</table>
| Dates | Start: April 2022  
Finish: April 2023 |
| Emission Impact | All |
| Cost | 500 hours |

<table>
<thead>
<tr>
<th>Action Details</th>
<th>ISP29 – Develop and create a Climate and Environment Communication Plan to inform, educate and make all stakeholders aware of Environmental Sustainability, Climate Change, Carbon emission sources, decarbonisation measures and carbon neutral journey. Stakeholders – SDDC employees, Councillors, Residents (climate activists, pragmatists, and deniers), specific demographics, Businesses, other Local Authorities, and third-party organisations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions source</td>
<td>All</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Organisational Development and Performance/Head of Environmental Health</td>
</tr>
</tbody>
</table>
| Dates | Start: 2021  
Finish: Annual ongoing |
| Emission Impact | Ongoing support of reduction of all emissions from in-house and district-wide emissions |
| Cost | 200 hours staff time per year |

#### District-wide Actions

<table>
<thead>
<tr>
<th>Action Details</th>
<th>DSP16 – Create a community engagement program for Climate Change across South Derbyshire that will engage and consult with different sectors and communities with the SDDC’s carbon neutral journey and the specific actions that are required to deliver the 2030 target.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Source</td>
<td>All sources across South Derbyshire</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Organisational Development and Performance</td>
</tr>
</tbody>
</table>
| Dates | Start: 2021  
Finish: 2030 |
| Emission Impact | Encouraging carbon footprint reduction |
| Cost | £20k + additional 0.5 FTE |

<table>
<thead>
<tr>
<th>Action Details</th>
<th>DSP17 – Support the development of the community engagement program (DSP16) for Climate and Biodiversity Change across South Derbyshire supporting the decarbonisation of South Derbyshire.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Source</td>
<td>All sources across South Derbyshire</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Environmental Health and Organisational Development and Performance</td>
</tr>
</tbody>
</table>
| Dates | Start: 2022  
Finish: 2023 |
| Emission Impact | Encouraging carbon footprint reduction |
| Cost | TBD |
Planning and Strategic Housing Services – Service Plan Actions 2022/23

In-house actions.

<table>
<thead>
<tr>
<th>Action Details</th>
<th>ISP3 – Embed carbon neutrality in the new SDDC Local Plan.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Source</td>
<td>Energy efficiency, Gas, electricity, and water supply from all sources and into all buildings. Includes Heat, electricity, and transport emission sources.</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Planning and Strategic Housing</td>
</tr>
<tr>
<td>Dates</td>
<td>Start: 2021 Finish: 2024</td>
</tr>
<tr>
<td>Emission Impact</td>
<td>Reduction in carbon emissions in all new build</td>
</tr>
<tr>
<td>Cost</td>
<td>300 hours</td>
</tr>
</tbody>
</table>

District-wide actions.

<table>
<thead>
<tr>
<th>Action Details</th>
<th>DSP13 – Create and promote a sustainable travel to work plan (public transport) for job creation/growth areas – East Midlands Freeport</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Source</td>
<td>Vehicle</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Economic Development and Head of Planning and Strategic Housing</td>
</tr>
<tr>
<td>Dates</td>
<td>Start: 2021 Finish: 2025</td>
</tr>
<tr>
<td>Emission Impact</td>
<td>Reduce vehicle mileage and promote public transport</td>
</tr>
<tr>
<td>Cost</td>
<td>100 hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Action Details</th>
<th>DSP14 – Plan on Influencing, promoting, and partnering with local business to deliver green innovation and technology at the East Midlands Inter-Modal Park ‘Freeport’.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Source</td>
<td>Road and Rail transport</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Economic Development/Head of Planning and Strategic Housing Services</td>
</tr>
<tr>
<td>Dates</td>
<td>Start: 2021 Finish: 2025</td>
</tr>
<tr>
<td>Emission Impact</td>
<td>Creation of green technology hubs to reduce emissions</td>
</tr>
<tr>
<td>Cost</td>
<td>TBD</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Action Details</th>
<th>DSP3 – Develop a database of existing and approved renewable energy sources across South Derbyshire which can be used in future policy considerations to support decision making around sustainable renewable energy developments within the planning policy. Theretofore track the overall renewable energy production capacity of South Derbyshire. Secondly identify opportunities to support local businesses to develop their own renewable energy sources.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Source</td>
<td>Energy Sources</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Environmental Health Services/Head of Planning and Strategic Housing</td>
</tr>
<tr>
<td>Dates</td>
<td>Start: 2022 Finish: 2023</td>
</tr>
<tr>
<td>Emission Impact</td>
<td>Reduction of carbon emission through renewable energy sources</td>
</tr>
<tr>
<td>Cost</td>
<td>200 hours</td>
</tr>
</tbody>
</table>

Legal and Demographic Services

District-wide actions.

<table>
<thead>
<tr>
<th>Action Details</th>
<th>DSP6 – Develop a feasibility study to support the transition of South Derbyshire private taxi hire service to low carbon emission vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Source</td>
<td>Reduction in transport sector carbon emissions</td>
</tr>
<tr>
<td>Owned by</td>
<td>Head of Legal and Demographic Services</td>
</tr>
<tr>
<td>Dates</td>
<td>Start: 2022 Finish: 2023</td>
</tr>
<tr>
<td>Emission Impact</td>
<td>Tbc</td>
</tr>
<tr>
<td>Cost</td>
<td>100 hours</td>
</tr>
</tbody>
</table>
## Appendix 4

### Council In-house Carbon Reduction Road Map Calculator - Carbon Neutral by 2030.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Civic Way Offices</td>
<td>Behavioural change programme</td>
<td></td>
<td></td>
<td>-7.0</td>
<td>-4.2</td>
<td>-2.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Retrofit or Civic Hub new build. (100% renewable energy heat + electric)</td>
<td>139.9</td>
<td></td>
<td></td>
<td></td>
<td>-125.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Refrigerant reduction scheme (average 64.5%)</td>
<td>68.4</td>
<td>3.4</td>
<td>3.4</td>
<td>-48.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total tC02e.</td>
<td>208.3</td>
<td>204.7</td>
<td>203.9</td>
<td>26.5</td>
<td>-87.3%</td>
<td></td>
</tr>
<tr>
<td>Civic Way Offices</td>
<td>&quot;Other&quot; Public Buildings, car parks, etc</td>
<td>Behavioural change programme</td>
<td></td>
<td>-3.0</td>
<td>-7.6</td>
<td>-4.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Renewable energy (75% heat + electric)</td>
<td>151.8</td>
<td></td>
<td></td>
<td></td>
<td>-98.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total tC02e.</td>
<td>151.8</td>
<td>148.7</td>
<td>141.2</td>
<td>37.9</td>
<td>-75.0%</td>
<td></td>
</tr>
<tr>
<td>Overall Council buildings Sub-total tC02e</td>
<td></td>
<td></td>
<td>360.0</td>
<td>353.43</td>
<td>345.06</td>
<td>64.49</td>
<td>-82.1%</td>
</tr>
<tr>
<td>Depot</td>
<td>Boardman Depot Building</td>
<td>Behavioural change programme</td>
<td></td>
<td>-1.3</td>
<td>-1.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Renewable energy (100% heat + electric)</td>
<td>42.7</td>
<td></td>
<td></td>
<td>-40.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Refrigerant reduction scheme (average 64.5%)</td>
<td>32.4</td>
<td>-8.4</td>
<td>-15.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total tC02e.</td>
<td>75.1</td>
<td>65.4</td>
<td>24.0</td>
<td>8.5</td>
<td>-88.7%</td>
<td></td>
</tr>
<tr>
<td>Overall Boardman Depot Sub-total tC02e</td>
<td></td>
<td></td>
<td>75.1</td>
<td>65.42</td>
<td>66.70</td>
<td>8.48</td>
<td>-88.7%</td>
</tr>
<tr>
<td>Rosliston</td>
<td>Visitor Centre</td>
<td>Behavioural programme</td>
<td></td>
<td>-4.0</td>
<td>-4.0</td>
<td>-4.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Biomass repair option (10%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-13.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Renewable energy (100% heat + electric)</td>
<td>134.8</td>
<td></td>
<td></td>
<td></td>
<td>-122.67</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total tC02e.</td>
<td>134.8</td>
<td>130.8</td>
<td>126.7</td>
<td>0.0</td>
<td>-100.0%</td>
<td></td>
</tr>
<tr>
<td>Rosliston</td>
<td>Enterprise building</td>
<td>Behavioural programme</td>
<td></td>
<td>-0.03</td>
<td>-0.03</td>
<td>-0.03</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Biomass efficiency</td>
<td>1.11</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total tC02e.</td>
<td>1.1</td>
<td>0.03</td>
<td>0.03</td>
<td>0.03</td>
<td>-100.0%</td>
<td></td>
</tr>
<tr>
<td>Overall Rosliston Sub-total tC02e</td>
<td></td>
<td></td>
<td>135.9</td>
<td>130.79</td>
<td>126.75</td>
<td>0.03</td>
<td>-100.0%</td>
</tr>
<tr>
<td>Leisure Centres</td>
<td>Greenbank</td>
<td>Behavioural programme</td>
<td></td>
<td>-17.7</td>
<td>-17.7</td>
<td>-17.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Energy efficiency programme</td>
<td></td>
<td></td>
<td>-29.5</td>
<td>-88.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Renewable energy (100% electric + heat)</td>
<td>589.3</td>
<td></td>
<td></td>
<td></td>
<td>-447.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Refrigerant reduction scheme (average 64.5%)</td>
<td>230.1</td>
<td>-56.5</td>
<td>-112.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total tC02e</td>
<td>819.5</td>
<td>715.86</td>
<td>609.78</td>
<td>31.91</td>
<td>-96.1%</td>
<td></td>
</tr>
<tr>
<td>Etwall (Note: John Port School owns this facility)</td>
<td>Behavioural programme</td>
<td>-6.8</td>
<td>-6.8</td>
<td>-6.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
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<td>---</td>
<td>---</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Energy efficiencies</td>
<td></td>
<td></td>
<td>-11.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Renewable energy (100% electric + heat)</td>
<td>228.0</td>
<td></td>
<td>-65.7</td>
<td>-162.3</td>
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</tr>
<tr>
<td></td>
<td>Refrigerant reduction scheme (average 64.5%)</td>
<td>154.5</td>
<td></td>
<td>100.0</td>
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</tr>
<tr>
<td>Total tCO2e</td>
<td>382.5</td>
<td>375.66</td>
<td>291.76</td>
<td>22.62</td>
<td>-94.1%</td>
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<td></td>
</tr>
<tr>
<td>Overall Leisure Centres Sub-total tCO2e</td>
<td>1202.0</td>
<td>375.66</td>
<td>280.36</td>
<td>22.62</td>
<td>-98.1%</td>
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<tr>
<td>Use of fuel for grounds and cleansing</td>
<td>Renewables (e.g., 100% heat + electric)</td>
<td>50.9</td>
<td>0.5</td>
<td>1.5</td>
<td>-53.0</td>
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<tr>
<td>Total tCO2e</td>
<td>50.9</td>
<td>51.46</td>
<td>52.99</td>
<td>0.00</td>
<td>-100%</td>
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<tr>
<td>Transportation</td>
<td>Operational Fleet</td>
<td>Route Optimisation programme</td>
<td></td>
<td>-67.1</td>
<td></td>
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<tr>
<td></td>
<td>Zero emission Vehicle (Electric and/or hydrogen)</td>
<td>536.6</td>
<td></td>
<td>-164.3</td>
<td>-305.2</td>
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<tr>
<td></td>
<td>Dynamic Tool System (Phase 2 of Route Optimisation)</td>
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<td>-8.4</td>
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<tr>
<td></td>
<td>Zero emission Vehicle (Electric and/or hydrogen)</td>
<td>67.1</td>
<td></td>
<td>-23.5</td>
<td>-58.7</td>
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<tr>
<td></td>
<td>All other fleet</td>
<td>Zero emission Vehicle (Electric and/or hydrogen)</td>
<td></td>
<td>-20.1</td>
<td>-23.5</td>
<td>-47.0</td>
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<tr>
<td>Total tCO2e</td>
<td>670.7</td>
<td>583.52</td>
<td>410.81</td>
<td>0.00</td>
<td>-100%</td>
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<tr>
<td>Overall Fleet Sub-total tCO2e</td>
<td>721.7</td>
<td>634.98</td>
<td>463.80</td>
<td>0.00</td>
<td>-100%</td>
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<tr>
<td>Council Emission Source Totals</td>
<td>Direct and indirect Emissions tCO2e</td>
<td>2494.7</td>
<td>1133.2</td>
<td>949.3</td>
<td>73.0</td>
<td>-97.1%</td>
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<tr>
<td></td>
<td>% emission reduction</td>
<td>-54.6%</td>
<td>-38.1%</td>
<td>-7.7%</td>
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</table>