# South Derbyshire District Council

**Climate and Environment Action Plan 2021-30**







# 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 industrial, commercial, domestic and transport 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**.

The second part of this Climate and Environment Action Plan is to develop 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 three categories of decarbonisation actions detailed in this plan are:

**Actions Taken (2019/20)** – the decarbonisation actions already taken 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.

**Service Plan Actions (2021/22)** – these actions predominately support, influence and lead to behaviour change across both in-house and District-wide activities resulting in smaller carbon emission reductions.

One of the major challenges is the cost of these actions, especially Transformative Actions that will be 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 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 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 decarbonisation of the **Council Housing Stock** requires specific mention as a big carbon emission source. For the purposes of this Climate and Environment Action Plan it lies outside of the in-house or District-wide carbon emission categories and the decarbonisation actions are a stand-alone Council project that is high-cost and will be ongoing until 2050.

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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# 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 intended as 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 around the green economy growth, 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.

# 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.

# Action Plan Objectives.

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 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).
* To deliver actions through annual Corporate Plan, Service Plans and Business Transformation Plans that lead and supports carbon emission reduction across the whole of the South Derbyshire region (District-wide actions).

# 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.

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 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.

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

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

|  |  |  |
| --- | --- | --- |
| **Category** | **Description** | **Example data used in this analysis** |
| **Scope 1** | Emissions that the Council is directly responsible for.  | * 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.
 |
| **Scope 2** | Indirect emissions that the Council has some control over.  | * Metered electricity data for buildings where SDDC pay the electricity bills.
* Employee business milage.
 |
| **Scope 3** | Indirect emissions that the Council has no direct control over but can exert an influence on.  | * Business that supplies goods to SDDC.
* Metered water use data.
* \*Estimated energy data for the SDDC housing stock.
 |

\*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).**

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

\*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 is still unquantified and currently not included in the Councils emission baseline. It is estimated that these Scope 3 emissions could be as much as 60% of the Council’s total carbon emissions and part of the planned actions for the future is these Scope 3 emissions are identified and monitored.

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 Councils total 2,500 tCO2e emissions.

Identifying these high carbon emitters illustrates the Councils 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 2. District-wide carbon emissions (ktCO2e) by sector.**

|  |  |
| --- | --- |
| **District-wide Sector** | **Carbon emissions (ktCO2e)** |
| Road Transport | 302.5 |
| Other Transport | 30.2 |
| Household heat (gas) | 100.9 |
| Household (other) | 28.8 |
| Commercial/Industrial heat (gas) | 72 |
| Commercial/Industrial heat (other) | 36.2 |
| Household electricity | 39.1 |
| Commercial/Industrial electricity  | 84.2 |
| Other | 1.2 |
| **Total**  | **695.1** |

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.

## 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.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Local Authority**  | **Total emissions (ktCO2e)** | **Population (000’s)** | **Emissions / head** |
| South Derbyshire | 695.1 | 104.5 | 6.7 |
| North East Derbyshire | 516.1 | 101.1 | 5.1 |
| High Peak | 2,832.9 | 92.2 | 30.7 |
| Erewash | 549.6 | 115.5 | 4.8 |
| Derbyshire Dales | 545.8 | 72.0 | 7.6 |
| Chesterfield | 459.7 | 104.6 | 4.4 |
| Bolsover | 1,030.1 | 79.5 | 13.0 |
| Amber Valley | 659.0 | 126.7 | 5.2 |
| Derby | 1,148.7 | 257.2 | 4.5 |
| **Derbyshire Total** | **7,288.3** | **796.1** | **9.2** |

*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.

# Reducing carbon emissions – Decarbonisation Actions.

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.

## 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** (H) which will lead to predicted carbon emission reductions and ‘**Soft’** measures (S) that will support behaviour change and engagement with the potential of carbon reduction. Soft (S) 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.

# Council In-house actions to achieve Carbon Neutral.

The in-house decarbonisation actions to achieve carbon neutral consist of:

**Actions Taken** (2019/20)

**Transformative Actions** (2021/30) required to tackle the high carbon emission sources.

**Service Plan Actions** (2021/22) that each Service will deliver on an annual basis to support the Climate and Environment Action Plan.

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).

In line with its Corporate Climate and Environment Strategy, the Council has already engaged in carbon emission reduction and environmentally sustainable measures as detailed below:

**Table 4. In-house Actions Taken (2019/20).**

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

**6.2 Transformation Actions 2021/30.**

As shown in Fig.1 the carbon emissions from Civic Offices, Greenbank and Etwall Leisure Centres and the Council vehicle fleet contribute to 91% of the total in-house carbon emissions. These high emitters require significant and high-cost decarbonisation actions and will require specific transformational project management to deliver. 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.**

|  |  |
| --- | --- |
| Committed Actions – costs included in existing Service Budget | Uncommitted Actions – costs unallocated.  |
| H – hard measures that lead to direct carbon emission reduction. | S – soft measures that will create opportunities or behaviours that will reduce emissions.  |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Action** | **Decarbonisation Actions.**  | **Total Indicative £Cost of Action**  | **Decarbon £cost of Action** | **Hours** | **Current tCO2e**  | **tCO2e** | **Start** | **Finish**  | **Co-benefit** |
| **Ref.** | **Reduction** |
| **T1** | H – Carbon Neutral Civic Hub  |   |   | 0 | 208 | 208 |   |   |   |
|  | 1.       Retrofit of existing Civic Way.  | 1. £2m-£3 m | 1. £1.2m - £1.8m | 2024 | 2030 | Reduce energy  |
|  | 2.       Energy efficient new build design.  | 2. £6 m-£8m | 2. £2.4m - £3.2m |   |   |
| **T2** | H – Carbon Neutral Greenbank Leisure Centre |   |   | 0 | 589 | 589 |   |   | Reduce energy  |
|  | ·         Energy efficient retrofit. | £750k | £750k | 2024 | 2030 |
|  | ·         Renewable energy source. |   |   |   |   |
| **T3** | H – Carbon Neutral Etwall Leisure Centre |   |   |  0 | 228 | 228 |   |   | Reduce energy  |
|  | ·         Energy efficient retrofit. | £280k | £280k | 2024 | 2030 |
|  | ·         Renewable energy source.  |   |   |   |   |
| **T4** | H – Decarbonisation of Council Vehicle Fleet |   |   | 0  | 722 | 722 |   |   |   |
| **T4A** | A.       Boardman Depot Waste Fleet |   |   |   |   |   |
|  | o    EV replacement of small vans. (38) | £1.3m | £325k |   |   |   |
|  | o    EV/Hydrogen replacement of trucks (13) | £5.2m | £2.6m |   |   |   |
| **T4B** | B.       Housing Fleet |   |   | 2021 | 2030 | Reduce fuel costs |
|  | o    EV replacement of small vans. (13) | £422k | £110.5k |   |   |   |
| **T4C** | C.       Other Fleet. |   |   |   |   |   |
|  | o    Other small vans. (6) | £204k | £51k |   |   |   |
|  |   |   |   |   |   |   |
| **T5** | H - Carbon neutral infrastructure for Boardman Depot |   |   |  0 | 75 | 75 | 2021 | 2030 | Reduce energy  |
|  | o    Renewable energy source - heating | £200k | £200k |   |   |   |   |   |   |
|  | o    Installation of Hydrogen/EV infrastructure | £120k  | £120k |   |   |   |   |   | Reduce fuel  |
|  | o    Potential Depot relocation  | £1m plus? | £1m plus? |   |   |   |   |   |   |
| **T6** | H - Carbon neutral infrastructure at Rosliston  |   |   |   |   |   |   |   |   |
|  | o    Biomass repair or replace | £117k | 0 | 0  | 102 | 102 | 2024 | 2030 | Reduce energy |
|  | o    Renewable energy for site | £? | £? | 0  | 36 | 36 | 2024 | 2030 |   |
|  | **T1 to T6 Transformative Totals.**  | **£10m-£15m**  | **£5.6m - £6.8m**  |  | **2,500** | **2,020** | **2021** | **2030** | **N/A** |
| **T7\*** | H - Develop a programme to decarbonise housing stock | £43m | tbc | 0  | 8,000\* | tbc | 2021 | 2050 | Reduce energy |
| **T8\*** | H - Develop a programme to decarbonise worst performing housing stock  | £3m | tbc | 0  | 1,200\* | tbc | 2021 | 2050 | Reduce energy |

**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 2021/30**

The Service Plan Actions are specific to the individual 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 2021/30.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |
| **Action****Ref.**  | **Decarbonisation Action** | **Total indicative £cost of Action** | **Decarbon £cost of Action** | **Hours** | **Current tCO2e**  | **tCO2e** | **Start** | **Finish** | **Co-Benefit**  |
| **Reduction** |
|  | **Buildings and Heat decarbonisation**  |   |   |   |  |   |   |   |   |
| **ISP1\*** | S - Housing Stock Efficiency Impact Assessment. | £80k | 0 | 0 | 9200\* | 0 | 2021 | 2021 | None |
| **ISP2** | S - Maintenance programme for all public building estate. | £300k | £150k | 0 | 152 | tbc | 2021 | 2022 | Energy reduction |
| **ISP3** | S - Embed carbon neutral in new SDDC Local Plan | 0 | 0 | 300 | tbc | tbc | 2021 | 2022 | None |
|  | **Transport and Fleet decarbonisation**  |   |   |   |  |   |   |   |   |
| **ISP4** | H – Delivery of Staff Travel Plan | £40k | 0 | 300 pa | 26 | 2 | 2021 | 2022 | None |
| **ISP5** | S – Review fleet Procurement to integrate decarbonisation. | 0 | 0 | 300 | 722 | 0 | 2021 | 2022 | None |
| **ISP6** | H – Route optimisation software for waste fleet | £57k | 0 | 0 | 441 | 131 | 2021 | 2022 | Fuel reduction |
| **ISP7** | H – Commission vehicle tracking device for all fleet | £10k | £10 | 0 | 722 | 72 | 2021 | 2022 | Fuel saving |
|  | **Energy decarbonisation**  |   |   |   |  |   |   |   |   |
| **ISP8** | H – Machinery decarbonisation on replacement - Boardman  | £250k | £125k | 0 |  tbc | 10 | 2021 | 2022 | Fuel saving |
| **ISP9** | S – Install Smart metering at all Council buildings | £5k | £5k | 0 | 477 | 48 | 2021 | 2025 | Electricity saving |
| **ISP10** | S - L/Centre electricity reduction and review | 0 | 0 | 50 | 216 | 22 | 2021 | 2022 | Electricity saving |
| **ISP11** | S – L/Centre maintenance plan for emission reduction | tbc | 0 | 50 | 1202 | 120 | 2021 | 2022 | Energy saving |
| **SPI12** | H – F gas replacement across Council buildings\* | tbc | tbc | 0 | 485 | 242 | 2021 | 2030 | None |
| **ISP13** | H –Introduce ‘Green Energy’ lease in void tenancies | 0 | 0 | 50 | tbc | 0 | 2021 | 2022 | Electricity saving |
|  | **Finance and Procurement decarbonisation**  |   |   |   |   |   |   |   |   |
| **ISP14** | S – Carbon review of tendering process | 0 | 0 | 30 | tbc | tbc | 2021 | 2022 | None |
| **ISP15** | S – Investment review to embed decarbonisation  | 0 | 0 | 50 | 0 | 0 | 2021 | 2022 | Higher returns |
| **ISP16** | S - Review of costings and financing of Transformative Actions | 0 | 0 | 500 | 0 | 0 | 2021 | 2024 | None |
| **ISP17\*** | S – Review of Housing Revenue Account (HRA) | 0 | 0 | 500 | 9,200\* | 0 | 2021 | 2024 | None |
|  | **Community Engagement** |   |   |   |   |   |   |   |   |
| **ISP18** | S – Mandated Carbon Literacy training | 0 | 0 | 400 pa | 0 | 0 | 2021 | 2022 | None |
| **ISP19** | S – Develop decarbonisation local partnerships across South Derbyshire | 0 | 0 | 300 pa | 0 | 0 | 2021 | 2022 | None |
| **ISP20** | S - Rosliston Exemplar Sustainable Hub Plan | 0 | 0 | 500 | 136 | 0 | 2021 | 2022 | Revenue channel |
|  | **Biodiversity** |   |   |   |   |   |   |   |   |
| **ISP21** | H – Alteration to grounds maintenance practices | 0 | 0 | 50 | tbc | tbc | 2021 | 2022 | Fuel/time reduction |
|  | **Performance and Governance**  |   |   |   |   |   |   |   |   |
| **ISP22** | S – Continuous Review of funding and grants | £1k | 0 | 100 pa | 0 | 0 | 2021 | 2022 | None |
| **ISP23** | S – Carbon review of suppliers (Scope 3) | 0 | 0 | 200 | tbc | tbc | 2021 | 2022 | None |
| **ISP24** | S – Monitoring and reporting of carbon emissions | 0 | 0 | 300 pa | 2,500 | 125 | 2021 | 2022 | Reduce energy |
| **ISP25** | S – Review of all Council policies/strategies to embed carbon neutral | 0 | 0 | 50 | 2,500 | 0 | 2021 | 2022 | None |
| **ISP26** | H - Create a new SDDC employee working model post COVID-19 | 0 | 0 | 500 | tbc | tbc | 2021 | 2022 | Reduce employee costs |
| **ISP27** | S – Annual review of SDDC Climate and Environment Action Plan (2021/30) | 0 | 0 | 50pa | 2,500 | 0 | 2022 | 2030 | None |
| **ISP28** | S – Implementation of the Waste Collection Service Review. | tbc | tbc | tbc | tbc | tbc | 2021 | 2023 | None |
|  | **Communications**  |   |   |   |   |   |   |   |   |
| **ISP29** | S – Develop a Climate and Environment Communication Plan  | 0 | 0 | 200 | 2,500 | 0 | 2021 | 2022 | None |
|  | **In-house Totals.**  | **£743k**  | **£290k****uncommitted** | **4,780** | **2,500** | **772** | **2021** | **2022** | **N/A** |

\*This estimate does not include the F gas replacement, for which an accurate figure is not yet available.

**Collectively the 29 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 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.**

## 7. Council District-wide actions to reduce carbon emissions.

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.

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 actions – Derbyshire County-wide strategies.**

The Derbyshire County Council Environment and Climate Change Framework sets out seven County-wide strategies that are interlinked with this SDDC Climate and Emergency Action Plan 2020/30.

|  |  |
| --- | --- |
| **DCC Strategy Categories**  | **Detail of DCC strategy.**  |
| Derbyshire Energy Strategy (2020 – 2030)  | The ambition to use 100% clean energy for power, heat and transport supporting strong and resistant communities.  |
| Low Emission Vehicle Infrastructure Strategy(2019 – 2029)  | To promote the uptake and deployment of low emission vehicles, including electric, hydrogen and e-bikes. The development of a public charging network to provide the confidence for low emission use in Derbyshire.  |
| Derbyshire Local Transport Plan(2011 – 2026)  | To achieve a transport system that is fair and efficient, promotes healthier lifestyles, safer communities, safeguards and enhances the natural environment and provides better access to jobs and services.  |
| Dealing with Derbyshire’s waste.(2013 – 2026)  | Work with the District Councils to reduce waste, reuse, recycle and compost as much material as possible and find the most sustainable solutions to deal with any waste produced.  |
| Air Quality Strategy(2020 – 2030)  | To facilitate travel behavioural change, reduce sources of air pollution and mitigate against health impacts of air pollution.  |
| Good Growth Strategy(2020 – 2030)  | To provide a framework to ensure economic growth is linked to protection of the natural environment, emission reduction and the generation of renewable energy.  |
| Natural Capital Strategy(2020 – 2030)  | To ensure the Natural Capital assets remain in good order to positively impact on the economy and residents and deliver clean air, clean water, food, and recreation. Examining opportunities for carbon capture and storage and increasing tree coverage.  |

**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 area combination of ‘hard’ and ‘soft’ measures. The individual District-wide Service Plan actions are detailed in Appendix 4 and a summary is shown below.

**Table 7. Council District-wide Service Plan Action Summary 2021/22.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Action** | **Decarbonisation Actions**  | **Total Indicative £costs of Action**  | **Decarbon £cost of Action** | **Hours** | **Current tCO2e** | **tCO2e** **Reduction** | **Start** | **Finish** | **Co-benefit**  |
|  **Ref.**  |  |  |  |
|   | **Energy decarbonisation**  |  |  |  |  |  |  |  |  |
| DSP1 | H – SDDC Healthy homes assistance funding programme for private domestic housing energy efficiency, retrofit and decarbonisation.  | £200k  | 0 | 2000 | Tbc | Heating decarbonisation | 2021 | 2022 | Reduce energy |
| DSP2 | H– Energy efficiency regulations – effective enforcement programme across private rented housing.  | 0 | 0 | 500 pa |  Tbc | Heating decarbonisation  | 2021 | 2022 | Reduce energy |
| DSP3 | S – Identify opportunities for Mine Water- District Heating Network for Swadlincote | £23.1k | 0 | 200 |  Tbc | Renewable energy sources | 2021 | 2022 | Eliminateenergy costs  |
| DSP4 | H- Green Home Grant/LAD funding delivery of retrofit measures to private and tenanted houses. | Phase 1= £568k Phase 2= £425k | 0 | 1,500 | Tbc | Renewable energy sources | 2021 | 2022 | Eliminateenergy costs |
|   | **Transport decarbonisation** |  |  |  |  |  |  |  |  |
| DSP5 | S – EV funding and infrastructure programme for South Derbyshire  | £100k | 0 | 200 |  Tbc | Transport decarbonisation | 2021 | 2024 | None |
| DSP6 | S – Promotion of broadband rollout to reduce business travel | 0 | 0 | 100 |  Tbc | Transport decarbonisation | 2021 | 2030 | Reduce fuel costs |
| DSP7 | S – Review of hydrogen fuel production and infrastructure across South Derbyshire | 0 | 0 | 500 |  Tbc | Renewable energy source | 2021 | 2022 | Share hydrogen refuelling costs |
|   | **Natural Capital** |  |  |  |  |  |  |  |  |
| DSP8 | H – Utilise Free Tree Schemes | 0 | 0 | 100 pa |  Tbc | Carbon sequestration | 2021 | 2022 | None |
| DSP9 | S – Develop a Nature/Biodiversity Plan for South Derbyshire. | 0 | 0 | 200 |  Tbc | Carbon sequestration  | 2021 | 2022 | None |
| DSP10 | S - Plan to support the National Forest as an exemplar sustainable environment | 0 | 0 | 100 |  Tbc | Carbon sequestration  | 2021 | 2050 | Increase tourism  |
|   | **Good Growth strategy** |  |  |  |   |  |  |  |  |
| DSP11 | S – 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 | 2021 | 2022 | Share costs |
| DSP12 | S – 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 | 2021 | 2022 | None |
| DSP13 | H - Create and promote a Sustainable Travel to work Plan for job creation (e.g., East Midlands Freeport) | 0 | 0 | 100 |  Tbc | Transport decarbonisation  | 2021 | 2025 | Improve economy |
| DSP14 | S – Freeport Plan for influencing, promoting, and partnering with local business to deliver green innovation and technology  | 0 | 0 | 200 |  Tbc | Transport decarbonisation  | 2020 | 2025 | Improve economy |
| DSP15 | S – Develop a business engagement programme to support decarbonisation projects . | 0 | 0 | 200 pa |  Tbc | n/a | 2021 | 2030 | None |
| DSP16 | S – Create a community engagement programme around Climate Change  | £20k | £20k | 500 |  Tbc | Carbon footprint reduction | 2021 | 2030 | None |
| DSP17 | S - Support the implementation of the community engagement programme (SD18)  | tbc | tbc | tbc |  Tbc | Carbon footprint reduction | 2021 | 2030 | None |
| DSP18 | S – Feasibility study to embed Active Travel in Swadlincote town centre access plan.  | 0 | 0 | tbc |  Tbc | Transport decarbonisation  | 2021 | 2025 | None |
|   | **District-wide Totals**  | **£1,346k** | **£20k** | **7,000** | **Tbc** | **N/A** | **2021** | **2022** | **N/A** |

**Out of the 18 District-wide Service Plan actions above, 14 are soft actions that will influence or support behavioural change across South Derbyshire stakeholders.**

**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. Performance Management of Climate and Environment Action Plan

**Table 8. Climate and Emergency Action Plan Performance Summary.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Actions**  | **Number of actions.**  | **Carbon reduction (tCO2e)**  | **Decarbonisation cost (£)** | **tCO2e reduction per £k** | **Employee hours**  |
| **Transformation Plans** | 6\* | 2,020 | £5.6m - £6.8m | 0.36 tCO2e/£1k | 0 |
| **In-house Service Plans** | 29 | 722 | £743k | 0.97 tCO2e/£1k | 4,780 |
| **District-wide Service Plans.**  | 18 | tbc | £20k | tbc | 7,000 |

\*excludes the Council Housing Stock decarbonisation programme.

The overall delivery of the Transformative and Service Plan actions will be monitored 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 2021/22.**

* All Service Plan Actions have been discussed with the 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 the decarbonisation action.
* Environmental Services as overall custodian of the Climate and Environment Action Plan will implement and manage a monthly review template that will be completed by the relevant Heads of Service.
* It is intended 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.

**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.
* The overall Council carbon emission Route Map to Carbon Zero will be updated on an annual basis.
* Any 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.

**8.4 Corporate Climate and Environment Strategy 2021 – 2030.**

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

#  9. Version Control

|  |  |  |
| --- | --- | --- |
| **Version** | **Changes** | **Date** |
| 12 | Version 1 - Interim Action PlanClimate and Environment Action Plan 2021 - 30 | 07/01/201917/05/2021 |

**APPENDICIES**

# SDDC

**Climate and Environment Action Plan 2021-30**

# Appendix 1.

**Carbon Emissions (tC02e) from individual Council buildings (Scope 1, 2 and3).**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Location | Heat (Direct) | Refrigerant(Direct) | Fleet(Direct) | Electricity (Indirect) | Grey Fleet (Indirect) | Grid T&D\*\*(Indirect) | Heat(indirect) | Fuel(Indirect) | Waste | Water(indirect)  | Commuting(Indirect)  |
| Greenbank | 439 | 230 | 0 | 150 | 0 | 13.2 | 63.8 | 0 | 0.5 | 14 | 0 |
| Etwall | 162 | 155 | 0 | 66 | 0 | 5.8 | 23.1 | 0 | 0.5 | 3.2 | 0 |
| Civic Offices | 49 | 68 | 134 | 91 | 55 | 18.4 | 11.6 | 0 | 1.7 | 0.7 | 26 |
| Public Buildings | 33 | 0 | 0 | 119 | 0 | 23.8 | 0 | 0 | 0 | 0 | 0 |
| Rosliston | 102 | 0 | 0 | 34 | 0 | 3 | 22 | 0 | 0.2 | 7.8 | 0 |
| Boardman  | 26 | 32 | 588 | 17 | 0 | 1.5 | 3.7 | 167.7 | 0.5 | 0.9 | 0 |
| Total  | 811 | 485 | 722 | 477 | 55 | 41.9 | 124.2 | 167.7 | 3.4 | 26.6 | 26 |

\*\*Grid Transmission and Distribution emissions

# Appendix 2 – Transformative Actions

|  |  |  |
| --- | --- | --- |
|  | **Action Ref: T1** | **Embed decarbonisation in Civic Hub Project** |
| Timeframe | **2021 -2023** | **2024 - 2027** | **2028 - 2030** |
| Action | Continued review and decision of the two planned options (New build or Retrofit of existing). Carbon reduction measures identified for existing building:* Behavioural actions.
* Energy reduction initiatives
* Energy reduction investment
 | Planning of new build or retrofit. Cost/benefit analysis on carbon reduction measures embedded in plans. | Implement decision. New build or existing retrofit established with carbon neutral footprint.  |
| Reduction |  8-10% reduction on total emissions.  | 0 | 208 tC02e (100% reduction to carbon neutral) |
| Indicative Total Cost | 200 hours | 200 hours | Retrofit £2m - £3m. New build £6m - £8m |
| DecarbonisationCosts | 0 | 0 | Retrofit: £1.2m – £1.8m(Approx. 60% of total cost)New build: £2.4m - £3.2m(Approx. 40% of total cost). |

|  |  |  |
| --- | --- | --- |
|  | **Action Ref: T2** | **Greenbank Leisure Centre decarbonisation**  |
| Timeframe | **2021 -2023** | **2024 - 2030** |
| Action | Current Interim actions on reducing emissions. Feasibility study of renewable energy source options.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 | Interim actions = 8-10% emission reduction | Heating renewable source= 439 tC02e (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  |
| DecarbonisationCosts | 0 | £750k |
| Notes | Indicative costs based on similar project for Derbyshire Dales  | Included retrofit measures and installing renewable energy source.  |

|  |  |  |
| --- | --- | --- |
|  | **Action Ref: T3** | **Etwall Leisure Centre decarbonisation**  |
| Timeframe | **2021 -2023** | **2024 - 2030** |
| Action | Current Interim actions on reducing emissions. Feasibility study of renewable energy source options.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 tCO2eReduction of Interim actions = 31 tCO2e (8 -10%) | Current heating and electricity emissions = 228 tCO2e Refrigerant emissions = 155 tCO2eReduction from Transformation actions should lead to carbon neutral for Etwall |
| Indicative Total Cost  | 500 hours  |  £280k plus |
| DecarbonisationCosts | 0 | £280k plus |
| Note | 1. John Port School own Etwall Leisure Centre, so partnership approach required.
2. Understanding of technical capability of hydrogen/gas mix by 2027 and other renewable sources (Solar, ground or air source pumps, decarbonisation of grid, etc)
3. New equipment made be needed to integrate with renewable energy source.
 |

|  |  |  |
| --- | --- | --- |
|  | **Action Ref: T4A** | **Decarbonisation of Boardman Depot Vehicle Fleet.** |
| Timeframe | **2021 - 2023** | **2024 - 2027** | **2028 - 2030** |
| Action | Electrification – Phased replacement of depot vehicles (cars, vans, etc).  | Hydrogen Fuel mix conversion for refuse trucks = £45k/truck | Full electrification or 100% Hydrogen for refuse trucks + electrification of depot vehicles.  |
| Reduction | 100% reduction of depot vehicle emissions only. | 40% reduction of current refuse truck emissions only.  | 100% reduction of fleet emissions (588 tCO2e) |
| Total Indicative Cost | 38 EV vans = £1.22mEV charging points = £80kTotal cost = £1.3m | 13 x truck conversion = £585k Hydrogen filling station = £120k?Total cost = £705k | 13 x EV/Hydrogen trucks = £5.2mEV charge point = £50k Total cost = £5.2morHydrogen filling station =£120k plusTotal cost = £5.3m OrPotential Depot relocation? |
| Decarbonisation Cost | £325k  | £705k | £2.7m |
| Note | EV infrastructure required. | Depot Hydrogen refilling station  | Full EV or Hydrogen infrastructure.  |
| Challenges | Current site is viable for limited electric infrastructure. | Refuse truck hydrogen infrastructure not viable at current site.  | Current size of site is restrictive for hydrogen solution. Alternative is to invest with partners for a hydrogen refilling station or new larger depot required to accommodate.  |

|  |  |
| --- | --- |
| Action Ref: | T4B - Decarbonisation of Housing vehicle fleet.  |
| Emission Source |  Carbon emissions from Housing fleet fuel = 134 tCO2e  |
| Owned by | Head of Housing |
| Dates | Start: 2021Finish: 2030 |
| Emission Impact  | Complete electrification or hydrogen fuelled housing vehicle fleet = carbon neutral |
| Notes  | 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’. |
| Indicative Total Costs  | 13 x small EV vans = £422k + 10 x Charge points = £22kTotal costs = £444k |
| Decarbonisation Costs | EV vans = £110.5 + charge points = £22kDecarbonisation costs = £132.5k |

|  |  |
| --- | --- |
| Action Ref: | T4C – Decarbonisation of EH vehicle fleet.  |
| Emission Source  | Carbon emissions from other fleet (Environmental Health)  |
| Owned by | Head of Environmental Health  |
| Dates  | Start: 2021Finish: 2030 |
| Emission Impact  | Complete electrification or hydrogen fuelled small fleet by 2030. |
| Notes  | Electric infrastructures need for Civic Way Offices and Roslistion – awaiting decision on One public estate 2021/22 |
| Indicative Total Costs | 6 x EV vans = £204k + 2 x Charge point = £5kTotal costs = £209k  |
| Decarbonisation Costs | EV vans = £51k + charge points = £5kDecarbonisation costs = £56k |

|  |  |  |
| --- | --- | --- |
|  | **Action Ref: T5** | **Boardman Depot** |
| Timeframe | **2021 -2023** | **2024 - 2030** |  |
| Action | Current Interim actions on reducing emissions. Feasibility study of renewable energy source options.Decision made on emission reduction plan. Feasibility study of Hydrogen/Electric fuelling station &/or Depot relocation.  | Transition from natural gas to renewable source for heating and electricity. Installation of low carbon fuelling infrastructure (Hydrogen &/or EV)Potential Depot relocation.  |  |
| Reduction | Interim actions = 8-10% emission reduction | Heating and electricity renewable source = 42 tC02e (100% reduction) Installation of low carbon fuelling infrastructureDepot relocation – carbon neutral  |  |
| Total Indicative Costs | 500 hours  | £200k renewable energy source£120k plus for Hydrogen/EV fuelling station.£? Relocate depot |  |
| Decarbonisation Costs  | 0 | 100% of total costs and dependant on option  |  |

|  |  |  |
| --- | --- | --- |
|  | **Action Ref: T6** | **Roslistion (Visitor Centre and Enterprise building** |
| Timeframe | **2021 -2023** | **2024 - 2030** |  |
| Action | Current Interim actions on reducing emissions. Feasibility study of renewable energy source options.Decision made on emission reduction plan.  | Biomass repair option Renewable energy infrastructure for complete Rosliston site (holiday homes, visitor centre, etc)  |  |
| Reduction | Interim actions = 8-10% emission reduction | Heating and electricity renewable source = 136 tC02e (100% reduction)  |  |
| Total indicative Costs | 200 hours | Repair of Biomass boiler = £117k Renewable energy source (solar pv or heat source pumps) = £100k  |  |

|  |  |
| --- | --- |
| Action Details | T7 – Develop a programme to decarbonise the SDDC housing stock through respecifying the existing Housing Maintenance and Heating Contract specifications. |
| Emissions Source | Council owned housing stock  |
| Owned by | Head of Housing |
| Dates | Start: 2021Finish: 2050 |
| Emission Impact | TBD |
| Cost  | £43m (based on £15k each for 3,000 properties)  |

|  |  |
| --- | --- |
| Action Details | T8 – Develop a specific programme to decarbonise the worst performing SDDC housing stock using the baseline data (Action S1) |
| Emissions Source | 200 of the worst performing Council owned housing stock  |
| Owned by | Head of Housing |
| Dates | Start: 2021Finish: 2050 |
| Emission Impact | TBD |
| Cost  | £3m (based on £15k each property)  |

Appendix 3 -Service Plan Actions by Service**.**

**Key:**

|  |  |
| --- | --- |
| Committed Actions  | Uncommitted Actions  |
| H = Hard actions  | S = Soft actions |
| 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.**

|  |  |
| --- | --- |
| Action Details | ISP4 - Delivery of current Staff Travel Plan  |
| Emissions Source | Employee vehicle commuting fuel emissions at all SDDC locations = 26 tCO2e  |
| Owned by | All Heads of Service |
| Dates | Start: 2021Finish: 2022 (review results)  |
| Emission Impact | Targeted reduction of H1 carbon emissions = 7% (1.8 tCO2e) |
| Cost  | £40,000 & 300 hours |

|  |  |
| --- | --- |
| Action Details | ISP24 – Reporting and monitoring of all carbon emission sources from Council in-house controlled activities and feedback of carbon reduction actions by Service.  |
| Emissions Source | All carbon emission sources: Heat, Refrigerant, Vehicle fuel and Electricity = 2,500 tCO2e |
| Owned by | All Heads of Service |
| Dates | Start: April 2021Finish: Ongoing |
| Emissions Impact | Estimated reduction of all carbon emissions = 5% (125 tCO2e)  |
| Cost | 300 hours  |

**Corporate Property - Service Plan Actions 2021/22**

**In-house actions**

|  |  |
| --- | --- |
| Action Details | ISP2 – Decarbonisation of Council public buildings aligned to the planned maintenance/retrofit programme as part of the Corporate Asset Management Strategy to achieve carbon neutrality of the overall SDDC property estate.  |
| Emissions source | Heat and electricity emissions from all Public and SDDC owned Commercial buildings.  |
| Owned by | Head of Corporate Property |
| Dates | Start: April 2021Finish: April 2030 |
| Emission Impact | Reduction of Public buildings emissions (152 tCO2e) to achieve carbon neutral  |
| Cost  | £300k – additional costs in addition to the ongoing maintenance programme.  |

|  |  |
| --- | --- |
| Action Details | ISP9 - Commissioning of smart metering for electricity usage and implementation in all Council owned buildings |
| Emissions Source |  Electricity emissions from all Council buildings |
| Owned by | Head of Corporate Property |
| Dates | Start: April 2021Finish: April 2025 |
| Emission Impact | Up to 10% reductions in energy use through accurate emission reporting, increased awareness, and accountability for carbon emissions from Council energy activities |
| Cost  | £5K |

|  |  |
| --- | --- |
| Action Details | ISP12 – F gas ongoing maintenance and update/replacement where necessary across the SDDC estate  |
| Emissions Source | Scope 1 refrigerant emissions at Greenbank Leisure centre, Civic Way and Boardman Road depot. |
| Owned by | Head of Corporate Property |
| Dates | Start: 2021Finish: 2030 |
| Emission Impact | 242 tCO2e based on a 50% reduction in total F gas emissions  |
| Cost  | To Be Confirmed |

**Cultural Services - Service Plan Actions 2021/22**

**In-house actions**

|  |  |
| --- | --- |
| Action Details | ISP20 – Roslistion Exemplar - Create an action plan to position Rosliston Forestry Centre as a pioneer of environmental sustainability education. To include renewables, carbon sequestration, biodiversity and improve natural capital.  |
| Emissions Source | Heat and electricity sources plus tree and plant carbon sequestration.  |
| Owned by | Head of Cultural and Community Services |
| Dates | Start: April 2021Finish: April 2022 |
| Emission Impact | To make Rosliston nett carbon positive  |
| Cost  | 500 hours  |

|  |  |
| --- | --- |
| Action Details | ISP10 – Complete ongoing energy reducing actions plans from the Active Nation Report.  |
| 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 2021Finish: April 2022 |
| Emissions Impact | Behavioural change heat and electricity emissions reductions of 120 tCO2e (10%) |
| Cost  | 50 hours |

|  |  |
| --- | --- |
| Action Details | ISP11 – Ongoing maintenance plan for reducing current carbon emissions at Leisure Centres from the Lifecycle Analysis (should include maintenance of existing plant, retrofit measures and investment requirements to reduce emissions).  |
| Emissions Source | Energy/heat/electricity at Greenbank and Etwall Leisure Centres = £1202 tCO2e |
| Owned by | Head of Cultural and Community Services |
| Dates | Start: April 2021Finish: April 2022 |
| 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 | ISP21 – Alteration of grounds maintenance practices to maximise biodiversity gain  |
| 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 2021Finish: April 2022 |
| Emission Impact | Improves biodiversity, which increase soil ability to sequester carbon.  |
| Cost  | 50 hours |

**District-wide Actions**

|  |  |
| --- | --- |
| Action Details | DSP8 – Utilise all Free Tree planting schemes |
| Emissions Source | Carbon sequestration from all sectors across South Derbyshire |
| Owned by | Head of Cultural and Community Services |
| Dates | Start: 2021Finish: 2022 |
| Emissions Impact | Estimated 6.2 tCO2e per year per hectare sequestered  |
| Cost  | 100 hours |

|  |  |
| --- | --- |
| Action Details | DSP9– Development of SDDC Action Plan for Nature to maximise biodiversity, carbon sequestration and climate adaption  |
| Emissions Source | Carbon sequestration from all sectors across South Derbyshire  |
| Owned by | Head of Cultural and Community Services |
| Dates | Start: 2021Finish: 2022 |
| Emissions Impact | TBD |
| Cost  | 200 hours |

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

**In-house actions**

|  |  |
| --- | --- |
| Action Details | ISP19 – Engage and develop local public/private partnerships to support the reduction of carbon emissions across South Derbyshire as part of the SDDC Economic and Development Growth Plan.  |
| Emissions Source | All In-house and District-wide emissions |
| Owned by | Head of Economic Development & Growth/Head of Env Health |
| Dates | Start: April 2021Finish: April 2025 |
| Emissions Impact | Engage public and private sector expertise to help deliver SDDC emissions reductions  |
| Cost  | 300 hours  |

**District-wide actions**

|  |  |
| --- | --- |
| Action Details | DSP6 – Promotion of the rollout of broadband to all locations in South Derbyshire and demonstrating data that shows the specific location needs.  |
| Emissions Source | Reduction in road transport and transport (other) by improving working from home.  |
| Owned by | Head of Economic Development and Head of Planning and Strategic Housing  |
| Dates | Start: 2021Finish: Ongoing  |
| Emission Impact | 1000 – 3000 tCO2 (based on a 0.3 to 1% saving in road traffic) |
| Cost  | 100 hours |

|  |  |
| --- | --- |
| Action Details | DSP14 – Plan on Influencing, promoting, and partnering with local business to deliver 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: 2021Finish: 2025 |
| Emission Impact | Creation of green technology hubs to reduce emissions |
| Cost  | TBD |

|  |  |
| --- | --- |
| Action Details | DSP13 – Create and promote a sustainable travel to work plan (public transport) for job creation/growth areas across South Derbyshire (e.g., East Midlands Freeport) |
| Emissions Source | Vehicle  |
| Owned by | Head of Economic Development and Head of Strategic Planning  |
| Dates | Start: 2021Finish: 2025 |
| Emission Impact | Reduce vehicle mileage and promote public transport  |
| Cost  | 100 hours |

|  |  |
| --- | --- |
| Action Details | DSP15 – Support the development of a business engagement programme that supports energy efficiency and decarbonisation projects and identifies funding.  |
| Emissions Source | All carbon sources  |
| Owned by | Head of Environmental Services/Head of Economic Development  |
| Dates | Start: 2021Finish: Ongoing  |
| Emission Impact | All sources across South Derbyshire  |
| Cost  | 100 hours  |

|  |  |
| --- | --- |
| Action Details | DSP10 – Supporting the promotion of Green Tourism throughout South Derbyshire and specifically National Forest as an exemplar sustainable environment  |
| Emissions Source | None |
| Owned by | Head of Economic Development |
| Dates | Start: 2021Finish: 2050 |
| Emission Impact | Increasing carbon offsetting across South Derbyshire.  |
| Cost  | 100 hours |

**Environmental Services – Service Plan Actions 2021/22**

**In-house Actions.**

|  |  |
| --- | --- |
| Action Details | ISP23 – Review of all ‘Scope 3’ third party carbon emissions to quantify the carbon impact of existing suppliers and supply chains.  |
| Emissions Source | All sources.  |
| Owned by | Head of Environmental Services |
| Dates | Start: April 2021Finish: April 2022 |
| Emissions Impact | Identify emission reduction opportunities with contractors and suppliers  |
| Cost  | 200 hours |

|  |  |
| --- | --- |
| Action Details | ISP14 – Monitoring the tendering process to implement carbon neutral supplier questions and carbon neutral scoring/awarding criteria |
| Emissions Source | All |
| Owned by | Head of Environmental Services |
| Dates | Start: April 2021Finish: April 2022 |
| Emissions 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 SDDC councillors, managers, and staff |
| Emissions source | All |
| Owned by | Head of Environmental Services |
| Dates | Start: April 2021Finish: Ongoing |
| Emissions Impact | Higher awareness for all staff of the importance of reducing personal and corporate carbon impact and carbon footprint  |
| Cost  | 400 hours  |

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

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

|  |  |
| --- | --- |
| Action Details | ISP7 - Commissioning and use vehicle tracking device for use in all fleet vehicles across Operational, Housing and 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 2021Finish: April 2022 |
| Emission Impact | Reduction in Council fleet fuel emissions through driver behaviour = 72 tCO2e (10%)? |
| Cost  |  £150 per year |

|  |  |
| --- | --- |
| Action Details | ISP27 - Annual review of SDDC Climate and Environment Action Plan (2021/30) to update and verify content using ASPE checklist for Council Plans and in alignment to ISO accreditation.  |
| Emissions source | All |
| Owned by | Head of Environmental Health and all Heads of service |
| Dates | Start Development: 2022Finish Development: 2022Implementation: ongoing on an annual basis.  |
| Emissions Impact | Ongoing support of reduction of all emissions from in-house and district-wide emissions  |
| Cost  | 50 hours  |

|  |  |
| --- | --- |
| Action Details | 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 and deniers), specific demographics, Businesses, other Local Authorities, and third-party organisations  |
| Emissions source | All |
| Owned by | Head of Organisational Development and Performance/Head of Environmental Health |
| Dates | Start Development: 2021Finish Development: 2022Implementation: ongoing.  |
| Emissions 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**

|  |  |
| --- | --- |
| Action Details | DSP4 – Green Homes Grant/LAD funding delivery of retrofit measures to private and tenant houses.  |
| Emissions Source | Domestic heating for private and tenanted houses  |
| Owned by | Head of Environmental Services  |
| Dates | Start: 2021Finish: 2022 |
| Emissions Impact | TBD |
| Cost  | Phase 1b=£568k, Phase 2 = £425k |

|  |  |
| --- | --- |
| Action Details | DSP1 – Healthy Homes Assistance Fund for private and tenant housing |
| Emissions Source | Domestic heating for private and tenanted houses |
| Owned by | Head of Environmental Services |
| Dates | Start: March 2021Finish: March 2022 |
| Emissions Impact | TBD |
| Cost  | £200k  |

|  |  |
| --- | --- |
| Action Details | DSP2 – Effective enforcement of the Energy Efficiency Regulations  |
| Emissions Source | Private rented housing stock  |
| Owned by | Head of Environmental Services |
| Dates | Start: 2020Finish: Ongoing |
| Emissions Impact | TBD |
| Cost  | 300 hours officer time  |

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| --- | --- |
| Action Details | DSP5 – Public EV infrastructure expansion – Planning and Implementing of EV charging points across the District, through OZEV funding  |
| Emissions Source | Non-HGV transport  |
| Owned by | Head of Environmental Services |
| Dates | Start: 2021Finish: 2024 |
| Emissions Impact | TBD |
| Cost  | £100k (depending on successful bid for external funding) & 200 hours |

|  |  |
| --- | --- |
| Action Details | DSP15 – Support the development of a business engagement programme that supports energy efficiency and decarbonisation projects and identifies funding.  |
| Emissions Source | All carbon sources  |
| Owned by | Head of Environmental Services/Head of Economic Development  |
| Dates | Start: 2021Finish: Ongoing  |
| Emission Impact | All sources across South Derbyshire  |
| Cost  | 100 hours  |

|  |  |
| --- | --- |
| Action Details | DSP12 - Work with Derbyshire Councils in partnership to call on the UK government to provide relevant powers and resources to enable the Climate and Emergency Plan. |
| Emissions Source | All |
| Owned by | Head of Environmental Services |
| Dates | Start: 2021Finish: Ongoing  |
| Emissions Impact | Unknown  |
| Cost  | 100 hours |

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| --- | --- |
| Action Details | DSP7 – A review of Hydrogen fuel production and distribution infrastructure development proposals across South Derbyshire.  |
| Emissions Source | Transport |
| Owned by | Head of Environmental Services |
| Dates | Start: 2021Finish: 2022 |
| Emission Impact | Reduction in fleet carbon emissions  |
| Cost  | 200 hours  |

|  |  |
| --- | --- |
| Action Details | DSP3 – Consultant feasibility review of Mine Water District Heating opportunities for Swadlincote.  |
| Emissions Source | Heating and energy sources  |
| Owned by | Environmental Services |
| Dates | Start: 2021Finish: 2022 |
| Emission Impact | Reduction of carbon emission through renewable energy sources |
| Cost  | Potential £23.1k of external funding (44% match from SDDC) |

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| --- | --- |
| Action Details | DSP18 – Feasibility plan to embed Active Travel (walk/cycle pathways and public transport connectivity) for Swadlincote town centre access.  |
| Emissions Source | Transport  |
| Owned by | Head of Environmental Services |
| Dates | Start: 2021Finish: 2022 |
| Emission Impact | Transport reduction and increasing walking and cycling.  |
| Cost  | £40k & 100 hours |

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| --- | --- |
| Action Details | DSP17 – Support the development and implementation of the community engagement program (SD18) for Climate and Biodiversity across South Derbyshire supporting the decarbonisation of South Derbyshire.  |
| Emissions Source | All sources across South Derbyshire |
| Owned by | Head of Environmental Health and Organisational Development and Performance  |
| Dates | Start: 2021Finish: 2022 |
| Emission Impact | Encouraging carbon footprint reduction  |
| Cost  | TBD |

**Finance – Service Plan Actions 2021/22**

**In-house actions.**

|  |  |
| --- | --- |
| Action Details | ISP15 – Review of Council finance and investments to embed in carbon neutrality  |
| Emissions Source | De-investment in fossil fuel sector |
| Owned by | Head of Finance  |
| Dates | Start: April 2021Finish: April 2022 |
| Emission Impact | Investment in green economy  |
| Cost  | 50 hours plus a potential improved return on investment. |

|  |  |
| --- | --- |
| Action Details | ISP17 – Review of the Housing Revenue Account (HRA) and Business Plan for all Council Housing Stock to create a delivery finance model for carbon reduction programme.  |
| Emissions Source | Heat and electricity emissions across the SDDC housing stock.  |
| Owned by | Head of Housing Services/Head of Finance  |
| Dates | Start: April 2021Finish: April 2024 |
| Emission Impact | Current heat and electricity emission estimate is 9,200 – 13,200 tCO2e  |
| Cost  | 500 hours |

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| --- | --- |
| Action Details | ISP16 – Review of costing/finance of Climate and Environment Transformative actions to establish/verify current and future funding sources to implement these actions.  |
| Emissions Source | All high emission sources and locations identified. |
| Owned by | Head of Finance /Head of Environmental Health |
| Dates | Start: 2021Finish: 2024 |
| Emission Impact | All high emission sources.  |
| Cost  | 500 hours |

**Housing Services - Service Plan Actions 2021/22**

**In-house actions.**

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| --- | --- |
| Action Details | ISP1 – Complete the SDDC Housing Environmental Impact Assessment Project to acquire baseline energy data to assess energy efficiency of SDDC’s housing stock and identify potential future carbon reduction actions.  |
| Emissions Source | Heat and electricity - this is outside of the SDDC’s controlled emissions and not part of the 2030 carbon neutral target.  |
| Owned by | Head of Housing Services |
| Dates | Start: September 2020Finish: July 2021 |
| Emission Impact | Current heat and electricity emission estimate is 9,200 – 13,200 tCO2e  |
| Cost  | £80,000 |

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| --- | --- |
| Action Details | ISP17 – Review of Revenue Account (HRA) for all Council Housing Stock to create delivery model for carbon reduction using the above (Action S1) baseline data.  |
| Emissions Source | Heat and electricity emissions across the SDDC housing stock.  |
| Owned by | Head of Housing Services/Head of Finance  |
| Dates | Start: April 2021Finish: April 2022 |
| Emission Impact | Current heat and electricity emission estimate is 9,200 – 13,200 tCO2e  |
| Cost  | 500 hours |

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| --- | --- |
| Action Details | ISP13 – Implement a ‘Green Lease’ void programme where SDDC homes without tenancies move on to a green energy tariff as a default.  |
| Emissions Source | Electricity in void SDDC housing stock |
| Owned by | Head of Housing |
| Dates | Start: April 2021Finish: April 2022 |
| Emissions Impact | Reduction in electricity emissions as National Grid decarbonises to 2030.  |
| Cost  | 50 hours to implement.  |

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| --- | --- |
| Action Details | ISP7 - Commissioning and use vehicle tracking device for use in all fleet vehicles across Operational, Housing and Environmental Services.  |
| Emissions Source | Council vehicle fleet (petrol and diesel) = 722 tCO2e |
| Owned by | Head of Operational Services (supported by Head of Housing Services and Head of Environmental Services) |
| Dates | Start: April 2021Finish: April 2022 |
| Emission Impact | Reduction in Council fleet fuel emissions through driver behaviour = 72 tCO2e (10%)? |
| Cost  |  £150 per year |

**Operational Services - Service Plan Actions 2021/22**

**In-house actions.**

|  |  |
| --- | --- |
| Action Details | ISP8 – Continued phased replacement of plant (105 x mowers, grass-cutters, etc) at Boardman Depot with electric alternatives. |
| Emissions Source | Fuel at Boardman Road depot |
| Owned by | Head of Operational Services |
| Dates | Start: June 2021Finish: April 2022 |
| Emission Impact | Reduction of H2 carbon emissions = 10 tonne CO2e (estimated) |
| Cost  | £250,000 for completed replacement (indicative).  |

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| Action Details | ISP5 - Review of the Fleet Procurement Plan to identify and detail the options, cost, and timeframe to decarbonise the Council’s vehicle fleet at Boardman Depot (EV’s, Hydrogen/diesel mix and Hydrogen). This review will include the infrastructure and storage requirements of decarbonising the fleet.  |
| Emissions Source | Vehicle fuel (diesel) at Boardman Depot = 588 tCO2e |
| Owned by | Head of Operational Services |
| Dates | Start: April 2021Finish: April 2022 |
| Emission Impact | Reduction Operational fleet emissions to carbon neutral = 588 tCO2e |
| Cost  | 300 hours  |

|  |  |
| --- | --- |
| Action Details | ISP6 - Commissioning and use of route optimisation software for use in waste fleet vehicles  |
| Emissions Source | Waste truck fuel (diesel) at Boardman Depot = 441 tCO2e (75% of Operational fleet) |
| Owned by | Head of Operational Services |
| Dates | Start: April 2021Finish: April 2022 |
| Emission Impact | Reduction in waste truck emissions = 131 tCO2e (30%)? |
| Cost  | £57k for software.  |

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| --- | --- |
| Action Details | ISP7- Commissioning and use vehicle tracking device for use in all fleet vehicles across Operational, Housing and Environmental Services.  |
| Emissions Source | Council vehicle fleet (petrol and diesel) = 722 tCO2e |
| Owned by | Head of Operational Services (supported by Head of Housing Services and Head of Environmental Services) |
| Dates | Start: April 2021Finish: April 2022 |
| Emission Impact | Reduction in Council fleet fuel emissions through driver behaviour = 72 tCO2e (10%)? |
| Cost  |  £150 per vehicle = £10k  |

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| --- | --- |
| Action Details | ISP28 - Implementation of the waste collection service review to support the reduction in waste collected per head of population and to increase the percentage of waste recycled or composted. |
| Emissions Source | Waste,, household and transport carbon emissions |
| Owned by | Head of Operational Services |
| Dates | Start: October 2021Finish: October 2023 |
| Emission Impact | TBD |
| Cost  | TBD  |

**Organisational Development and Performance – Service Plan Actions 2021/22**

**In-house actions.**

|  |  |
| --- | --- |
| Action Details | 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  |
| Emissions source | All |
| Owned by | Head of Organisational Development and Performance/Head of Environmental Health |
| Dates | Start: 2021Finish: 2022 |
| Emissions Impact | Ongoing support of reduction of all emissions from in-house and district-wide emissions  |
| Cost  | 200 hours staff time per year |

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| --- | --- |
| Action Details | ISP26 - Review and create a different SDDC employee working model that is relevant, productive and leads to both carbon and working time efficiencies post Covid-19.  |
| Emissions Source | Vehicle travel, building space, energy, and heat. |
| Owned by | Head of Organisational Development and Performance  |
| Dates | Start: 2021Finish: 2022 |
| Emission Impact | Ongoing emission reductions of Civic Offices.  |
| Cost  | 500 hours |

**District-wide Actions**

|  |  |
| --- | --- |
| Action Details | 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.  |
| Emissions Source | All sources across South Derbyshire |
| Owned by | Head of Organisational Development and Performance  |
| Dates | Start: 2021Finish: 2030 |
| Emission Impact | Encouraging carbon footprint reduction  |
| Cost  | £20k + additional 0.5 FTE  |

|  |  |
| --- | --- |
| Action Details | DSP17 – Support the development of the community engagement program (SD18) for Climate and Biodiversity Change across South Derbyshire supporting the decarbonisation of South Derbyshire. |
| Emissions Source | All sources across South Derbyshire |
| Owned by | Head of Environmental Health and Organisational Development and Performance  |
| Dates | Start: 2021Finish: 2022 |
| Emission Impact | Encouraging carbon footprint reduction  |
| Cost  | TBD |

**Planning and Strategic Housing Services – Service Plan Actions 2021/22**

**In-house actions.**

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

**District-wide actions.**

|  |  |
| --- | --- |
| Action Details | DSP6– Promotion of the rollout of broadband to all locations in South Derbyshire and demonstrating data that shows the specific location needs.  |
| Emissions Source | Reduction in road transport and transport (other) by improving working from home.  |
| Owned by | Head of Economic Development and Head of Planning and Strategic Housing  |
| Dates | Start: 2021Finish: 2030 |
| Emission Impact | 1000 – 3000 tCO2 (based on a 0.3 to 1% saving in road traffic) |
| Cost  | 100 hours |

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

|  |  |
| --- | --- |
| Action Details | DSP14 – Plan on Influencing, promoting, and partnering with local business to deliver 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: 2021Finish: 2025 |
| Emission Impact | Creation of green technology hubs to reduce emissions |
| Cost  | TBD |

# Appendix 4

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  | **Emissions (tonnes C02e)** |  |
| **Area** | **Source of Emissions** | **Key Action** | **Actual emissions (2018/19)** | **Projected emissions (2021-23)** | **Projected emissions (2024-27)** | **Projected emissions (2028-30)** | **Emission reductions** **(2021-30)** |
| Direct & Indirect emissions | Direct & Indirect emissions | Direct & Indirect emissions | Direct & Indirect emissions | % of reduced emissions  |
| Civic Way | **Civic Way Offices** | Behavioural change programme  | 139.9 | -7.0 | -4.2 | -2.8 |  |
| Retrofit or Civic Hub new build. (100% renewable energy heat + electric) |  |  | -125.9 |  |
| Refrigerant reduction scheme(average 64.5%) | 68.4 | 3.4 | 3.4 | -48.7 |  |
| **Total tCo2e.** |   | 208.3 | 204.7 | 203.9 | 26.5 | **-87.3%** |
| **"Other" Public Buildings, car parks, etc** | Behavioural change programme  | 151.8 | -3.0 | -7.6 | -4.6 |  |
| Renewable energy (75% heat + electric) |  |  | -98.7 |  |
| **Total tCo2e.** |   | 151.8 | 148.7 | 141.2 | 37.9 | **-75.0%** |
| **Overall Council buildings Sub-total tC02e** | **360.0** | **353.43** | **345.06** | **64.49** | **-82.1%** |
| Depot | **Boardman****Depot Building** | Behavioural change programme  | 42.7 | -1.3 | -1.3 |  |  |
| Renewable energy (100% heat + electric) |  | -40.1 |  |  |
| Refrigerant reduction scheme (average 64.5%) | 32.4 | -8.4 |  | -15.5 |  |
|   | **Total tCo2e.** |   | 75.1 | 65.4 | 24.0 | 8.5 | **-88.7%** |
| **Overall Boardman Depot Sub-total tC02e** | **75.1** | **65.42** | **66.70** | **8.48** | **-88.7%** |
| Rosliston | **Visitor Centre** | Behavioural programme | 134.8 | -4.0 | -4.0 | -4.0 |  |
| Biomass repair option (10%) |  |  | -13.5 |  |
| Renewable energy (100% heat + electric) |  |  | -122.67 |  |
| **Total tCo2e.** |   | 134.8 | 130.8 | 126.7 | 0.0 | **-100.0%** |
| **Enterprise building** | Behavioural programme | 1.11 | -0.03 | -0.03 | -0.03 |  |
| Biomass efficiency | 0.07 | 0.07 | 0.07 |  |
|   | **Total tCo2e.** |   | 1.1 | 0.03 | 0.03 | 0.03 | **-100.0%** |
| **Overall Rosliston Sub-total tC02e** | **135.9** | **130.79** | **126.75** | **0.03** | **-100.0%** |
| Leisure Centres | **Greenbank** | Behavioural programme | 589.3 | -17.7 | -17.7 | -17.7 |  |
| Energy efficiency programme  | -29.5 | -88.4 |  |  |
| Renewable energy (100% electric + heat) |  |  | -447.8 |  |
| Refrigerant reduction scheme(average 64.5%) | 230.1 | -56.5 |  | -112.4 |  |
| **Total tCo2e** |   | 819.5 | 715.86 | 609.78 | 31.91 | **-96.1%** |
| **Etwall**(Note: John Port School owns this facility) | Behavioural programme | 228.0 | -6.8 | -6.8 | -6.8 |  |
| Energy efficiencies |  | -11.4 |  |  |
| Renewable energy (100% electric + heat) |  | -65.7 | -162.3 |  |
| Refrigerant reduction scheme(average 64.5%) | 154.5 |  |  | -100.0 |  |
| **Total tCo2e** |   | 382.5 | 375.66 | 291.76 | 22.62 | **-94.1%** |
| **Overall Leisure Centres Sub-total tC02e** | **1202.0** | **375.66** | **280.36** | **22.62** | **-98.1%** |
|   | **Use of fuel for grounds and cleansing** | Renewables (e.g.,100% heat + electric) | 50.9 | 0.5 | 1.5 | -53.0 |  |
|  | **Total tCo2e** |   | 50.9 | 51.46 | 52.99 | 0.00 | **-100%** |
| Transportation | **Operational Fleet** | Route Optimisation programme | 536.6 | -67.1 |  |  |  |
| Zero emission Vehicle(Electric and/or hydrogen) |  | -164.3 | -305.2 |  |
| **Housing Fleet** | Dynamic Tool System (Phase 2 of Route Optimisation) | 67.1 |  | -8.4 |  |  |
| Zero emission Vehicle(Electric and/or hydrogen) |  | -23.5 | -58.7 |  |
| **All other fleet** | Zero emission Vehicle (Electric and/or hydrogen) | 67.1 | -20.1 | -23.5 | -47.0 |  |
|  | **Total tCo2e** |   | 670.7 | 583.52 | 410.81 | 0.00 | **-100%** |
| **Overall Fleet Sub-total tC02e** | **721.7** | **634.98** | **463.80** | **0.00** | **-100%** |
|   |   |   |   |   |   |   |  |
|  |  **Council Emission Source Totals** | **Direct and indirect Emissions tC02e** | **2494.7** | **1133.2** | **949.3** | **73.0** | **-97.1%** |
|  | **% emission reduction** |  |  | **-54.6%** | **-38.1%** | **-7.7%** |  |