

Public Document Pack



Helen Barrington
Director of Legal Services
County Hall
Matlock
Derbyshire
DE4 3AG

Direct Dial 01629 81538394
For further information contact: Juliette
Normington
Juliette.Normington@derbyshire.gov.uk

PUBLIC

To: Members of Improvement and Scrutiny Committee - Climate Change, Biodiversity and Carbon Reduction

Friday, 26 January 2024

Dear Councillor

Please attend a meeting of the **Improvement and Scrutiny Committee - Climate Change, Biodiversity and Carbon Reduction** to be held at **2.00 pm** on **Monday, 5 February 2024**; the agenda for which is set out below.

Yours faithfully

A handwritten signature in black ink that reads 'Helen E. Barrington'.

Helen Barrington
Director of Legal Services

A G E N D A

PART I - NON-EXEMPT ITEMS

1. Apologies for absence
To receive apologies for absence (if any)
2. Declarations of Interest
To receive Declarations of Interest (if any)

3. Minutes of Previous Meeting (Pages 1 - 6)

To confirm the non-exempt minutes of the Improvement and Scrutiny - Climate Change, Biodiversity and Carbon Reduction meeting held on 4 December 2023.

4. Public Questions (Pages 7 - 8)

30 minutes maximum in total for this item. Questions may be submitted to be answered by the Scrutiny Committee or Council officers who are attending the meeting as witnesses, on any item that is within the scope of the Committee. Please see the procedure below for the submission of questions.

5. Derbyshire Road Verges Project (Pages 9 - 18)

6. The Green Entrepreneurs Fund (Pages 19 - 24)

7. Improving Derbyshire's Bus Network an Update on the Bus Service Improvement Plan (Pages 25 - 34)

8. De-carbonising the Corporate Estate (Pages 35 - 62)

9. Work Programme (Verbal Report)

PUBLIC

MINUTES of a meeting of **IMPROVEMENT AND SCRUTINY COMMITTEE - CLIMATE CHANGE, BIODIVERSITY AND CARBON REDUCTION** held on Monday, 4 December 2023 at Committee Room 1, County Hall, Matlock.

PRESENT

Councillor W Major (in the Chair)

Councillors B Bingham, J Bryan, S Bull, D Collins and M Ford.

Apologies for absence were submitted for Councillor G Hickton, A Gibson, A Hayes and D Taylor.

30/23 DECLARATIONS OF INTEREST

There were no declarations of interest.

31/23 MINUTES OF PREVIOUS MEETING

RESOLVED – to confirm the non-exempt minutes of the meeting of the Improvement & Scrutiny – Climate Change, Biodiversity and Carbon Reduction committee held on 18 September 2023.

32/23 PUBLIC QUESTIONS

Question received from Mr Karl Barrow:

The Council's decision to cut costs and implement a 'pause on and reduction of project work relating to carbon reduction including feasibility work' seems perverse. Given the effects of the Climate Emergency already self-evident in Derbyshire, what will the impacts of this decision be in terms of outcomes to mitigate and adapt to climate change?

Response provided:

Due to the Council's current financial position, the Climate Change Programme, as with all other Council services, must implement cost saving measures for this financial year (2023-24) and identify cost saving options for the next financial year (2024-25). As a non-essential spend, this means that any new spend from the Climate Change Programme budget is currently paused while these cost saving options and opportunities are identified and assessed, and as the scale of the impact is fully understood.

Ensuring the Council is a net zero organisation by 2032, or sooner, and helping the county become net zero by 2050, requires significant financial

investment. The implication of any reduction in future investment is being considered in detail and different funding approaches are being explored, particularly for areas where high levels of investment are required, such as for decarbonising the heating systems in the Council's corporate buildings. This includes identifying where the Council can secure external funding for high-investment projects, such as through the Government's Public Sector Decarbonisation Scheme (PSDS), which has already been accessed by the Council to install a new low carbon heating system at Buxton Junior School.

Despite the current financial position, the Council remains focussed on its net zero ambitions and delivering its Climate Change Strategy. A range of no- and low-cost projects and interventions are ongoing, including energy reduction behaviour change initiatives, employee training, pilot projects in services that undertake high level of business mileage to reduce this mileage and increase the use of Electric Vehicles for business travel, the preparation of a Local Nature Recovery Strategy for Derbyshire, and strengthening the Council's understanding of, and approach to, climate change risk and resilience.

The Council is also involved in a range of externally funded projects with local authority partners across the region, focused on reducing Derbyshire's emissions through joint working. This includes collaboration across Derbyshire, Derby, Nottinghamshire and Nottingham (D2N2) through an Innovate UK funded two-year project to identify the most effective pathway to decarbonising each district across D2N2 and undertake consistent engagement and communication with residents and businesses on climate change matters. There is also a two-year project funded by the Department for Energy Security and Net Zero to facilitate the delivery of local approaches to home energy efficiency retrofitting advice and support. Projects such as these will ensure the Council continues to influence emission reductions across Derbyshire and maximises the opportunities offered through co-designing and co-delivering projects with its partners.

The following supplementary question was asked by Mr Karl Barrow:

The Leader admitted in the annual review that the Council would not meet emission targets and states a lack of finance being a factor. Have you looked at how other authorities have achieved this, and would you look at municipal bonds as other authorities have. As well as solar on your own buildings and solar farms to then generate income?

The response of the Chair of the Committee was:

Of course, we will do all we can to learn from best practice, we have looked at PV farms and the officers wanted a review. This has not worked in some areas and there is always a risk, and this is tax payers money. If you do

see best practice, please inform us and we will review. The County Council is committed to the net 0 energy agenda. These are challenging financial times and statutory duties take priority. The Council need to look at how we invest in net 0 and utilise the money it has got as well as look at other funding methods. It has to be careful with commercial investments and their risk profile. They will look at alternative methods of funding and other options. DCC is determine on net 0 emissions.

33/23 DERBYSHIRE COUNTY COUNCIL CLIMATE CHANGE STRATEGY: ANNUAL REVIEW OF PROGRESS (2023)

Caroline Toplis, Programme Manager for Climate Change, introduced the report, that gave an update to the Improvement and Scrutiny Committee for Climate Change, Biodiversity and Carbon Reduction on the Annual Review of Progress (2023).

The report was accompanied by a presentation that gave further detail into the Annual Review.

The Council had 500 street lights left to retrofit. They were hoping for completion in the next 12 months, there had been delays due to supply chain issues.

Corporate estate was a big topic of discussion within the Council. The estate was extensive to retrofit, and it was yet to be determined how to tackle effectively. There was wasted space and occupancy was under review. There was no update yet on the future use of County Hall.

RESOLVED to note:

- 1) the progress being made against the Council's net zero target of 2032, or sooner, and the county's net zero target of 2050, and the challenges being faced to reduce emissions from Corporate Property, streetlighting, core fleet and grey fleet;
- 2) the progress being made against each target and action within the Derbyshire County Council Climate Change Strategy: Achieving Net Zero (2021-2025); and
- 3) the other key projects, initiatives and schemes that are contributing to the Council's climate change and wider sustainability agenda and objectives.

34/23 REDUCING THE ENVIRONMENTAL IMPACT OF COUNCIL GREY FLEET MILEAGE

Alan Marsden, Head of Strategic Transport and Sustainable Travel, introduced the report, providing an update on the Council's Staff Travel

Policy, Council grey mileage trends, and setting out a forward plan of activities to further reduce carbon emissions associated with Council business travel.

The report was accompanied by a presentation that gave further detail into reducing the environmental impact of employee business travel.

The next piece of work officers would be doing was reviewing employees travel data and running pilots within children's services to better understand business travel requirements in areas of high grey fleet mileage. As well as the use of pool cars and their availability for all users.

Further development of an electric vehicle salary sacrifice scheme would be ready in the next financial year. The Council had also made it easy to arrange alternatives to travelling in your own car such as rail tickets being easy to access.

RESOLVED to note:

- 1) the current Staff Travel Policy in place and to how this is implemented to minimise grey fleet mileage;
- 2) the analysis of grey fleet mileage data and current trends; and
- 3) the proposed forward plan to further reduce carbon emissions associated with employee business travel.

35/23 BRIEFING ON THE DERBYSHIRE HIGHWAYS DECARBONISATION PROGRAMME

Neill Bennett, Assistant Director Highways Commissioning, introduced the report, providing the Committee with an update on the Derbyshire Highways Decarbonisation Project.

The report was accompanied by a presentation that gave further detail into the Derbyshire Highways Decarbonisation Project.

The committee had agreed that they wanted to do a workshop in the new year on adaption work & arrange a visit to the Highways Lab. Members were keen to learn more about adaptation work as this was an area they were questioned about from their constituents.

RESOLVED to

- 1) note the update on the Derbyshire Highways Decarbonisation Project provided.

36/23 WORK PROGRAMME 2023-24

Committee Members were encouraged to approach officers with suggestions for the work programme.

This page is intentionally left blank

Procedure for Public Questions at Scrutiny Committee meetings

Members of the public who are on the Derbyshire County Council register of electors, or are Derbyshire County Council tax payers or non-domestic tax payers, may ask questions of the Improvement and Scrutiny Committees, or witnesses who are attending the meeting of the Committee. The maximum period of time for questions by the public at a Committee meeting shall be 30 minutes in total.

Order of Questions

Questions will be asked in the order they were received in accordance with the Notice of Questions requirements, except that the Chairman may group together similar questions.

Notice of Questions

A question may only be asked if notice has been given by delivering it in writing or by email to the Director of Legal Services no later than 12 noon three working days before the Committee meeting (ie 12 noon on a Wednesday when the Committee meets on the following Monday). The notice must give the name and address of the questioner and the name of the person to whom the question is to be put.

Questions may be emailed to democratic.services@derbyshire.gov.uk

Number of Questions

At any one meeting no person may submit more than one question, and no more than one such question may be asked on behalf of one organisation.

Scope of Questions

The Director of Legal Services may reject a question if it:

- Exceeds 200 words in length;
- is not about a matter for which the Committee has a responsibility, or does not affect Derbyshire;
- is defamatory, frivolous or offensive;
- is substantially the same as a question which has been put at a meeting of the Committee in the past six months; or
- requires the disclosure of confidential or exempt information.

Submitting Questions at the Meeting

Questions received by the deadline (see **Notice of Question** section above) will be shared with the respondent with the request for a written response to be provided by 5pm on the last working day before the meeting (ie 5pm on Friday before the meeting on Monday). A schedule of questions and responses will be produced and made available 30 minutes prior to the meeting (from Democratic Services Officers in the meeting room).

It will not be necessary for the questions and responses to be read out at the meeting, however, the Chairman will refer to the questions and responses and invite each questioner to put forward a supplementary question.

Supplementary Question

Anyone who has put a question to the meeting may also put one supplementary question without notice to the person who has replied to his/her original question. A supplementary question must arise directly out of the original question or the reply. The Chairman may reject a supplementary question on any of the grounds detailed in the **Scope of Questions** section above.

Written Answers

The time allocated for questions by the public at each meeting will be 30 minutes. This period may be extended at the discretion of the Chairman. Any questions not answered at the end of the time allocated for questions by the public will be answered in writing. Any question that cannot be dealt with during public question time because of the non-attendance of the person to whom it was to be put, will be dealt with by a written answer.

Page 9

Derbyshire Road Verges Project

Report to Improvement & Scrutiny
Committee – Climate Change,
Biodiversity & Carbon Reduction

5 February 2024



The different challenges of urban and rural verge management

Page 10 Verges in the towns and villages would be cut fewer times, currently most are cut 6 times a year but some more than 12.

Rural verges would be cut more often. Currently the full verge is cut once every three years.

In all cases the cut material would be collected, removed from site and disposed of elsewhere.

The identification of physical, economic, organisational, and perceptual barriers to change

Page 11 Just short of 600 people contacted the Verges Project Officer over the summer. 55 expressed dissatisfaction with the project and 527 wrote to support measures to improve biodiversity on Highway verges.

Key discussion areas, in both the for and against groups, were visual appearance, safety, biodiversity emergency and statutory duties.

The identification of physical, economic, organisational, and perceptual barriers to change

Page 12 Some Districts and Boroughs have already made changes despite the barriers

Others want to change but need help to do it, they have asked for

- Some flexibility to make local decisions
- Guidance on how to go about it
- Support with the financial implications

The identification of potential costs and savings within the framework of the Agency Agreements and what the implications may be of finer local control of verge management

Page 13

The Agency Agreements cover more than the management of grass verges

The Boroughs and Districts make the budget work by balancing the various outputs and by co-ordinating with their own green space management.

Cutting less frequently on urban verges does not create opportunity for savings without resolving the deposition problem.

An estimation of potential machinery needs, capabilities and costs required to change to a cut and collect system

Page 14
Purchase of cut-and-collect machinery

Solving the deposition problem

Which verges and how

Drivers for change

Derbyshire County Council Corporate Environment Policy

Page 15
Highway Network Management Plan

Enhanced Biodiversity Duty

Project recommendations

Page 16 Actions that can be enacted now by the Highways Service

Actions that require significant input from other services, specialist support or major financial implications.



Susan White

Derbyshire Road Project Officer

Conservation, Heritage and Design Service

susan.white@derbyshire.gov.uk

Glyn Dutton

Head of Network Planning

Highways Service

glyn.dutton@derbyshire.gov.uk

This page is intentionally left blank



FOR PUBLICATION

DERBYSHIRE COUNTY COUNCIL

**IMPROVEMENT AND SCRUTINY COMMITTEE - CLIMATE CHANGE,
BIODIVERSITY AND CARBON REDUCTION**

MONDAY, 5 FEBRUARY 2024

Report of the Executive Director - Place

The Green Entrepreneurs Fund

1. Purpose

- 1.1 To consider and review progress on the delivery of the Green Entrepreneurs Fund, including an update on the grants awarded and assessment of outcomes.

2. Information and Analysis

- 2.1 The Green Entrepreneurs Fund (GEF) was launched in March 2021 by Derbyshire County Council; the University of Derby was procured to act as the key delivery partner and managing the day-to-day operations of the programme.
- 2.2 On 11 February 2021, Cabinet approved an allocation of £2m to implement the GEF (Minute No. 27/21 refers) which will help businesses and communities fund innovation and support 'green recovery' on the back of COVID. The allocation also includes the cost of support being provided by the University of Derby to help deliver the programme through a service level agreement (SLA).
- 2.3 The GEF is a combination of revenue funding and capital funding; it started in April 2021 and is due to conclude this year on 31 March 2024. The scheme has been developed in collaboration with the University of Derby and supports businesses and other organisations to realise green growth through the programme's three strands.

2.4 The three strands are:

- Demonstrator projects - £1.2 million to support a small number of high-quality projects e.g. green, alternative energy, clean fuel, etc. Up to £200,000 available per project supported by a grant intervention rate up to 40%.
- Small grants - £500,000 available for grants between £6,000 - £20,000 with an intervention rate up to 40% (based on a minimum project spend of £15,000). Funding can support projects where the organisation is on a net-zero pathway.
- Skills and re-training - £100,000 available to support individuals (aged 19+) to gain skills required within the green economy (not supported by other funding streams). A maximum of £1,500 is available per person.

2.5 The fund is open to individuals, small to medium enterprises (SMEs,) partnerships, charities, formally constituted social enterprises and community partnerships based in the Derbyshire boundaries (excluding the Derby City Council boundaries) that meet the criteria of any of the three strands.

2.6 The planned outputs for the GEF were originally set as follows, although it should be noted that at the time the outputs were set, the grant scheme represented a new approach to business support; the take up levels within each strand were therefore largely unknown/untested:

- Demonstrator fund - 4 to 6 projects supported.
- Small Grant Fund – 25 businesses supported with 6 to be new start businesses less than 12 months old.
- Scholarship Fund - 67 Individuals supported.
- Combined estimated CO₂ saving of 1,544,089kg

2.7 At the start of the GEF programme, indicative allocations of funding were set for each of the three strands – and this is shown below in the second column. The actual award/ committed spend against that profile is shown in columns 6 and 7. It is clear that some strands have been more popular than others and initial allocations of funding (second column) haven't necessarily matched the demand from businesses:

2.8 Such is the success of the programme that only £137,306 remains unallocated from the original £2m.

Funding strand	Allocation	Pipeline - invited to submit full application	In Appraisal/for Board consideration	In Appraisal - scheme of delegation	Awarded to date (including due diligence)	Total - if all awarded	Funding available
Small Grants	£500,000	£66,755		£13,645	£645,805	£726,205	-£226,205
Demonstrator Grants	£1,200,000	£0	£0		£897,863	£897,863	£302,137
Scholarship Grants	£100,000	£0	£0		£38,626	£38,626	£61,374
Total	£1,800,000	£66,755	£0	£13,645	£1,582,294	£1,662,694	£137,306
							£137,306

2.9 A more detailed presentation will be provided to Scrutiny Committee at its meeting and will include information on:

- the type of businesses expressing interest in the scheme;
- the type of projects supported;
- the outputs being achieved; and
- contributions to tackling climate change.

3. Consultation

3.1 The GEF was developed in response to an identified need from local businesses and communities during the Covid-19 global pandemic and as an approach, was endorsed through the Derbyshire Economic Recovery Board. No specific public consultation was undertaken in developing the programme but the original need for support was identified through other areas of engagement with local businesses as part of the COVID recovery architecture.

4. Alternative Options Considered

4.1 Not relevant to this update report. Alternative options for business support were considered as part of the COVID Recovery Strategy - some of which (e.g. business start-up grant programme) were also initiated and remain in place.

5. Implications

5.1 Appendix 1 sets out the relevant implications considered in the preparation of the report.

6. Background Papers

6.1 None identified.

7. Appendices

7.1 Appendix 1 – Implications

8. Recommendation

That the Committee:

- a) Notes progress on the delivery of the Green Entrepreneurs Fund, including an update on the grants awarded and assessment of outcomes presented at the Committee meeting.

9. Reason for Recommendation

- 9.1 To ensure the Committee has the appropriate information to understand the progress made through the GEF in tackling climate change.

Report Author: Karl Apps

Contact details: Karl.Apps@derbyshire.gov.uk

Implications

Financial

- 1.1 The GEF is approaching the planned end and the balance of the original £2m reflects the time left within the programme. There is currently approximately £137,000 left in the GEF programme and it is anticipated this will be spent before the original March 2024 completion timescale.

Legal

- 2.1 None directly associated with this report. The expert input of Derby University in providing technical assessment of products and project proposals is covered by a signed Service Level Agreement (SLA) that sets out key deliverables and performance targets.

Human Resources

- 3.1 None directly associated with this report.

Information Technology

- 4.1 None directly associated with this report.

Equalities Impact

- 5.1 Not directly associated with this report. Individual project proposals present information on needs assessment and impact.

Corporate objectives and priorities for change

- 6.1 The Green Entrepreneurs Programme is a key priority of the Council's Place Directorate and helps deliver the following Corporate Plan priority of: 'A Prosperous and Green Derbyshire'.

Other (for example, Health and Safety, Environmental, Sustainability, Property and Asset Management, Risk Management and Safeguarding)

- 7.1 Driving environmental sustainability is at the core of the GEF scheme and a key criterion for grant funding.

This page is intentionally left blank



FOR PUBLICATION

DERBYSHIRE COUNTY COUNCIL

**IMPROVEMENT AND SCRUTINY COMMITTEE - CLIMATE CHANGE,
BIODIVERSITY AND CARBON REDUCTION**

MONDAY, 5 FEBRUARY 2024

Report of the Executive Director - Place

**Improving Derbyshire's Bus Network an Update on the Bus Service
Improvement Plan**

1. Purpose

- 1.1 To update the Committee on the implementation work undertaken on the various elements of the Bus Service Improvement Plan over the last 12 months and the plans for future works in the next phase of the project.

2. Information and Analysis

Background

- 2.1 On 15 March 2021, Government published the first National Bus Strategy for England. The main objective of the Strategy was to reverse the long-term decline in bus use nationally, which has been exacerbated by the impact of the Covid-19 pandemic. It aimed to achieve this by making bus services more frequent, reliable, better co-ordinated and cheaper. To enable this to happen, Government wanted to see major improvements in a variety of areas including bus priority measures, vehicle emission standards, the provision of service information, simplified ticketing arrangements and the joint marketing of services.
- 2.2 All Local Transport Authorities (LTAs) in England, such as Derbyshire County Council, had to produce a Bus Service Improvement Plan (BSIP) and submit this to Government as their formal response to

National Strategy by the end of October 2021. They also needed to agree to play a larger role than they had previously done in the way bus services operated in their area, by entering into either an Enhanced Partnership (EP) with their operators, or introducing bus franchising loosely based on the London model (that is, Transport for London (TfL) which oversee all fares, routes and timetables and competitive contracts awarded to operators to run services under the TfL brand). Derbyshire, like all the other LTAs in England, apart from Greater Manchester, agreed to enter into an EP. The purpose of an EP is to create a formal, collaborative agreement between LTAs and bus operators to deliver bus improvement objectives.

2.3 A considerable amount of work was undertaken to develop Derbyshire's BSIP during the summer and autumn of 2021, which involved consultation with a variety of stakeholders, including members of the public, bus user groups, local businesses, borough and district councils, the Peak District National Park Authority, as well as the bus operators themselves. To oversee this work, an EP Board was established. This included representatives from the Council, including the Cabinet Member - Highway Assets and Transport and the Executive Director - Place, as well as senior management from six different bus companies, which operate services in Derbyshire.

2.4 The EP Board is led by an independent Chair, Professor Margaret Bell, who is a prominent academic on transport matters and former resident of Derbyshire. From this process, a set of six overarching objectives for bus provision in Derbyshire were developed. These are that bus travel should be:

- The first-choice mode for existing and new customers for most journeys across Derbyshire.
- Available for more journeys and which grows to meet customer needs.
- Affordable to use.
- Environmentally sustainable.
- Welcoming and friendly for existing and new passengers.
- A connected network that helps reduce social isolation.

2.6 The BSIP, submitted to the Department for Transport (DfT) at the end of October 2021, set out 38 ambitious measures to achieve the above objectives and improve bus travel across Derbyshire. These included a mix of capital infrastructure improvements, such as traffic signal and road changes to improve bus reliability, and a network of transport hubs to improve connectivity between different bus services and other forms of transport. Other measures involved enhancements to bus services,

as well as new routes and more Demand Responsive Transport (DRT) and better value ticketing options.

- 2.7 In line with DfT guidance, the BSIP programme was designed to be delivered over five years, starting in April 2022, with funding of £104.9m being sought from Government in addition to local contributions from the Council and other stakeholders. A copy of the full BSIP can be seen on the Council’s public transport website at [Derbyshire BSIP – Final 29-10-21.pdf \(derbysbus.info\)](https://www.derbyshire.gov.uk/media/1021/derbyshire-bsip-final-29-10-21.pdf)
- 2.8 Following the submission of the BSIP to Government, work to formally agree the terms of the EP began. Consultation on this was undertaken with bus operators and other stakeholders in January 2022, in line with DfT guidance. Taking account of comments received in this process, a revised version of the EP Plan and EP Scheme (both legally required documents), were produced and subsequently approved by Cabinet at its meeting on 10 March 2022 (Minute No. 66/22 refers). This formally “Made” the EP between the Council and bus operators, which began from 31 March 2022.
- 2.9 In April 2022, DfT made an announcement setting out the funding that would be available nationally to LTAs for BSIPs for the next three financial years, up until March 2025 (this was a shortening of the original timescales from five years). Of the 70 LTAs who submitted BSIPs, only 31 received indicative allocations with neighbouring authorities’ areas, such as Cheshire, Leicestershire, Staffordshire and South Yorkshire, receiving nothing. Derbyshire was given an initial allocation of £47m which was the second largest amount awarded nationally to a non-urban LTA.
- 2.10 Further discussions continued with the DfT in response to a number of specific questions it raised about the proposals. As a result of this, in August 2022, the DfT provided a detailed breakdown of the measures it would fund which are shown in the table 1 below and confirmed the funding settlement as £47,003,438. However, the first year’s funding was not received from the DfT until November 2022.

Table 1 Allocated BSIP funding from 2022-23 until 2024-25

Measures	Capital funding	Revenue Funding
Bus priority measures including traffic signal changes, improvements to the highway to	£19.27m	£0.79m

remove pinch points and roadworks management.		
Better value ticketing including promotional ticketing offers and reduced values for key groups.	0	£7.05m
Better bus services including transport hubs, improved timetables on existing services and new services to key locations, more DRT services. Also includes improvements to information and marketing.	£3.65m	£16.24m

2.11 Implementation

Since November 2022, work to implement the various elements of the BSIP, which the DfT has agreed to fund, has been gathering pace. These include:

Bus Priority Measures

- Traffic Management System (TMS) monitors the highway conditions from various sources and, when required, can make requests of the Urban Traffic Control (UTC) system for interventions to take place. This can vary depending on local conditions.
- Urban Traffic Control (UTC) is a cloud-based operating system that enables monitoring or control of multiple traffic signal-controlled sites within Derbyshire. The system provides two-way communications with the Derbyshire TMS in addition to the traffic signals across the County.
- Split Cycle and Offset Optimisation Technique (SCOOT) is an add on module of the UTC system which enables the regional control and optimisation of traffic signals in urban locations by continuously assessing traffic flows in the area and adjusting traffic signal timings as required to better suit the changing conditions.
- Microprocessor Optimised Vehicle Actuation (MOVA) is a local form of adaptive traffic signal control, similar to SCOOT, and is installed within the local traffic signal controller and applied to isolated sites. MOVA also acts as a fallback mode at sites under SCOOT control.
- Vehicle Actuation (VA) is a less flexible method of control than either SCOOT or MOVA. VA is used as a fallback mode when SCOOT or MOVA are not available.
- Pre-Emptive Traffic Management System (PTMS) takes near real-time traffic data and highlights intervention areas that an operator needs to assess. It is being upgraded to allow assessment of congestion related to traffic management and provide this information

to the TMS system. The TMS system will then be able to relay the information to bus operators.

- Traffic Signal Priority (TSP) utilises the bus on-board ticket machine (OBTM) to identify the vehicle location and associated position on the route vs timetable position. Once a vehicle has been identified as running late, a digital request is made active via various systems to the Derbyshire UTC system to apply traffic signal priority at junctions on the bus route network.

All these systems are being developed and implemented in parallel. The software and hardware on all sites on the public transport network have been assessed to identify what is required to achieve this in terms of installation/replacement/upgrade, etc.

The initial 120 sites requiring a mixture of either UTC, SCOOT or MOVA and TSP control requirements have been assessed. To enable these systems to be introduced 24 traffic signal controllers have already been built ready for associated software configurations to be tested and installed into these sites.

Transport Communications and Roadworks

Utilising the PTMS and TMS, the Council is developing an automatic alert system which sends information regarding roadworks or congestion to affected bus operators to notify them of where delays might occur. The modification to the TMS has been completed to allow for automated communications to be added through the strategic management within the system. The automated SMS, email communications, and social media feed have been tested and proven and work to introduce it into service is now underway.

Better Value Ticketing

- Improvements to the Wayfarer day rover ticket product have been introduced. This includes a new bus only version of the long standing bus/rail day ticket and a 7 day version of the Wayfarer available on a smart card.
- Improvements to the b_line young persons' concessionary scheme were introduced in November 2023. This means young people from 11-19 with a b-line card now only pay a flat £1.50 single fare for any bus journey starting or finishing in Derbyshire and Derby including cross boundary services into other local authority areas such as Sheffield and Nottingham.
- Free Sunday morning travel was introduced for the 6 weeks of the 2023 school summer holidays on any journeys starting in Derbyshire

Better Bus Services

- Enhancements to 24 existing commercial bus services across the County were introduced between March and October 2023. These enhancements were a mixture of improved frequencies with some services now running every 30 minutes rather than hourly, longer operating hours with services running earlier and later in the day and on weekends, and extended routes with services reaching new destinations. These routes have been chosen because it is believed that these improvements will become commercially self-sustaining by the end of the BSIP and therefore won't require ongoing Council funding.
- Introduction of open top bus service in the Bakewell/Chatsworth area from July to December 2023 aimed at reducing tourist car traffic in the area.
- Improvements to the Derbyshire Connect Shopping Bus service introduced in October 2023.
- 72 additional electronic Real Time Information screens installed at stops between June and October 2023 taking the total to 302 installations across the County.
- Transport hub infrastructure with the first new shelters being installed in Long Eaton, Bamford and Hayfield areas in late 2023 and early 2024.

2.12 A variety of other work has also undertaken to support these changes including:

- A series of targeted marketing campaigns.
- The development of a Travel Derbyshire brand.
- Introduction of Bus Champions to promote bus travel at events and to key groups, such as businesses and students.

Work planned for the next 12 months

2.13 Projects which require physical works to be undertaken have a long lead time. As a result, implementation on the bus priority measures will continue into 2024. Much of the work linked to the transport hubs scheme is also only now beginning to be delivered. A total of 15 hub sites are being delivered. Many of which are linked to other improvement schemes already underway, such as the Heanor Market Place Future High Street project and the Staveley and Clay Cross Town Deals. By combining BSIP money with these other sources of funding, it is anticipated that the Hub Programme will be able to deliver a more rounded and integrated solution at a number of locations.

3. Consultation

- 3.1 Detailed consultation took place during the development of the BSIP and EP Plan and EP Scheme. The EP Board continues to meet on a monthly basis to agree the implementation process for the BSIP and other issues. A wider BSIP Stakeholder Group has also been established which includes passenger users' groups, other transport operators, the borough and district councils and business organisations. Until recently, this group was chaired by Scott Knowles, the Chief Executive of the East Midlands Chamber of Commerce, the position is currently vacant and a replacement Chair is currently being recruited.

4. Alternative Options Considered

- 4.1 Not to implement the BSIP programme DfT have agreed to fund. The BSIP set out a programme of measures to improve bus services across Derbyshire. From these, the DfT made a decision which elements it was willing to fund. Failure to implement this revised programme would mean that bus services were not improved across Derbyshire. It would also impact the Council's ability to get funding from the DfT for future schemes including non-bus transport project. This option was therefore not considered appropriate.

5. Implications

- 5.1 Appendix 1 sets out the relevant implications considered in the preparation of the report.

6. Background Papers

- 6.1 Copies of the BSIP, BSIP progress report and EP plan and scheme can be seen on the Council's website:

[Derbyshire BSIP – Final 29-10-21.pdf \(derbysbus.info\)](#) [Derbyshire EPP 29.03.22 - final.pdf \(derbysbus.info\)](#)
[Derbyshire BSIP EP November 23 Progress Report FINAL.pdf \(derbysbus.info\)](#) [Derbyshire EPS 29.03.22 - final.pdf \(derbysbus.info\)](#).
[Derbyshire EPP 29.03.22 - final.pdf \(derbysbus.info\)](#)

7. Appendices

- 7.1 Appendix 1 – Implications.

8. Recommendations

That the Committee:

- a) Notes the work undertaken to implement the various elements in the Bus Service Improvement Plan over the last 12 months.
- b) Notes the work proposed for the coming year.

9. Reasons for Recommendation

- 9.1 A considerable amount of work has been undertaken over the last 12 months to implement Bus Service Improvement Plan schemes. While there have been challenges in certain projects, particularly in relation to human resources and material shortages linked to the bus priority project, progress has been made in all areas of the programme.
- 9.2 Projects which require physical works often require longer lead in times than more service related improvements. The Bus Service Improvement Plan programme has recognised this with much of the physical work on schemes such as the transport hubs being undertaken in the second year of the project.

Report Author: Chris Hegarty

Contact details: Chris.Hegarty@derbyshire.gov.uk

Implications

Financial

- 1.1 Derbyshire has been awarded £47,003,438 over three years through the BSIP process. Of this, £22,922,618 is capital funding to be spent on physical infrastructure and £24,080,820 is revenue funding for measures, such as better value ticketing and improved bus services.
- 1.2 The Council has a total of approximately £38m committed revenue expenditure per annum across all transport services, such as statutory Home to School (HTS), Special Educational Needs and Disabilities (SEND) and Adult Social Care Transport. This also includes around £10m of concessionary fare payments which is a statutory duty and £7m for local supported bus services. As part of the Enhanced Partnership (EP) Scheme, the Council has committed to continue to provide this funding. In 2023-24, the Council is also committing £1.4m from its capital Local Transport Plan programme on public transport infrastructure schemes.

Legal

- 2.1 Section 63(1) of the Transport Act 1985 places a duty on Derbyshire Council to secure the provision of *'such passenger transport services as the Council considers appropriate to meet any public transport requirement within Derbyshire which would not, in its view, be met, apart from any action taken by them for that purpose'*.

Human Resources

- 3.1 To support the implementation of the BSIP and EP extra staffing resource from external consultancies has been employed using funding from the programme. The implementation of the various measures in the BSIP are being overseen by a Programme Manager with additional Project Managers taking the lead on the individual work streams.

Information Technology

- 4.1 The new traffic signal priority measures being introduced such as MOVA and SCOOT all rely on various forms of information technology. This is also the case with the seven day Wayfarer ticketing smart card product.

Equalities Impact

- 5.1 Bus services are particularly important to a variety of disadvantaged groups, such as young people, older people, women, and those from economically deprived communities, all of which make a higher proportion of journeys by bus than the population as a whole. The introduction of the measures associated with the BSIP will not only enhance the quality of bus services available but will support the Council's wider 'levelling up' agenda across all communities and ambitions for driving 'good growth'. It will particularly improve the opportunity for these people to access a variety of key opportunities, such as education, employment and health care provision.

Corporate objectives and priorities for change

- 6.1 This proposal is helping deliver the following Council Plan priorities: Resilient, Healthy and Safe Communities; High Performing, Value for Money and Resident-Focused Services; A Prosperous and Green Derbyshire. Specifically, creation of the EP and the associated BSIP also enables the delivery of Place Directorate priorities around sustainable transport and travel.

Other (for example, Health and Safety, Environmental, Sustainability, Property and Asset Management, Risk Management and Safeguarding)

- 7.1 The following issues have also been considered: environmental sustainability and property.



FOR PUBLICATION

DERBYSHIRE COUNTY COUNCIL

**IMPROVEMENT AND SCRUTINY COMMITTEE – CLIMATE CHANGE,
BIODIVERSITY AND CARBON REDUCTION**

MONDAY, 5 FEBRUARY 2024

Report of the Director - Commissioning & Transformation

**REVIEW OF PROGRESS BEING MADE ON DE-CARBONISING
THE COUNCIL'S CORPORATE ESTATE AND THE FORWARD PLAN OF
ACTIVITIES**

1. Purpose

- 1.1 To report progress on the plans to decarbonise the council's estate and achieve Net Zero by 2032 or sooner.
- 1.2 To endorse the updated targets as noted in the proposed Carbon Reduction Strategy
- 1.3 To note the impact of the exceptional budget / cost control measures which will defer the delivery of carbon reduction and energy efficiency projects.
- 1.4 To endorse the proposal to progress the proposed solar farm at Williamthorpe.

2. Information and Analysis

2.1 Executive Summary

The Council has an objective to achieve Net Zero for the Corporate estate by 2032. This requires:

- a reduction in energy use;
- enhancing the energy efficiency of buildings;
- transitioning from fossil fuels to renewable energy, especially for heating
- measures to offset residual energy use and the associated carbon emissions by 2032.

Since 2022 the energy use associated with the corporate estate has been reduced by **14%** or 6.1 million kWh (from 45 million kWh to 38.9 million kWh).

Carbon emissions are reduced by 1700 tonnes CO2e since 2021.
(From 9171 to 7475 tonnes CO2e).

80% of this reduction is due to property rationalisation. 20% is due to other measures: energy management and planned projects to improve the energy efficiency of buildings.

Targets for future energy saving and carbon reduction have been reviewed as planned on an annual basis. **The target is to achieve a further 36% reduction in energy use / carbon emissions by 2032. (An total reduction of 50% from 2021)**

The strategic plan for reducing energy use includes property rationalisation as a priority measure. The scope of asset challenge is extensive and is a moving target.

Action plans to decarbonise the retained buildings focus upon microgeneration, energy management and retrofit projects.

Microgeneration by photo-voltaic panel. on roofs reduces energy demand at source. Energy management relies on day-to-day monitoring and corrective action. A pilot project to install remote monitoring for energy management is one of the measures which has been included within proposed project programmes. Retrofit projects may be small scale interventions or major refurbishments. Both measures, are included within proposed project programmes. Retrofit projects also include proposals to change heating systems from fossil fuels to alternative technologies using renewable fuels.

Proposed decarbonisation project programmes are submitted annually for potential funding award. Due to the current expenditure freeze all carbon reduction capital projects are on hold.

Offsetting requires major projects for renewable energy generation. The council has assessed the potential for solar farm and wind power. The project to develop the first solar farm is active. Funding is allocated and further progress is possible. The recommendation is to progress to submit for planning approval.

Targets have been reviewed and updated. The scope for reducing energy use by property rationalisation is increased. The scope to improve energy efficiency by delivery of projects is impacted by the current financial situation. The target for microgeneration by p.v. is reduced due to the expenditure freeze and further reviews of medium-term commitment to buildings. Targets are unchanged for energy management and retrofit projects, but this will require project funding. Using capital receipts to fund p.v. installations is a proposed initiative.

Further details of all of the above are as follows:

2.2 2020-23 Energy Consumption Data for Corporate Buildings

	kWh	tonnesCO2e
2020-2021	45,169,293	9,171

2021-2022	44,963,103	8,861
2022-2023	38,860,609	7,475

Energy use associated with corporate buildings in 2023 is 38.86 million kWh. This is equivalent to 7,475 tonnes of CO2 emissions.

2022-23 Energy Use by Service department

2022-23	kWh
Adult Care	13,706,003
Childrens Services (Non-Schools)	9,992,729
Chief Executives	7,726,121
Culture and Community Services	3,871,595
Place	3,564,161
Total	38,860,609

2.3 Property Rationalisation

The scope of the asset challenge and subsequent property rationalisation and disposal has increased since 2021.

It is assessed that Property Rationalisation will reduce energy consumption by 8.67 million kWh between 2022 and 2024. (1700 tonnes CO2e)

5.1 million kWh of savings were achieved by April 2023.

3.5 million kWh of further savings will be achieved by April 2024

	2023	2024
John Hadfield House	135,403	281,670
Chatsworth Hall	237,672	1,002,855
Long Close	450,878	80,326
HOPs	3,576,502	1,511,672
Other	709,785	687,048
Total	5,110,240	3,563,572

This further savings by 2024 will be equivalent to 685 tonnes CO2e.

Additional energy savings will result from the Chesterfield Area property rationalisation. Further energy savings will be confirmed when energy consumption in the new office can be assessed. The estimated future saving is 510,000 kWh which is equivalent to 100 tonnes CO2e.

2.4 Carbon Reduction Capital Project Programmes

Due to current financial pressures all carbon reduction capital projects are currently on hold. There is an expenditure freeze on non-essential expenditure. There is currently no access to funding for the programme of carbon reduction capital projects.

The 2022-23 £6m carbon reduction priority project programme identified priority projects to deliver 2.2m kWh of energy savings, with an overall payback of 12 years. Projects are subject to a prior review with Asset Management to ensure that buildings to be retained are prioritised. The relevant business case is submitted with the funding bid.

Funding was approved in February 2023 but it was approved based on the 'Invest to Save' funding model. Future financial savings resulting from improved energy efficiency would need to generate an annual budget saving to fund the cost of the project. However, whilst the shift from fossil fuels to renewable technologies will reduce carbon emissions, it is unlikely to generate a cost saving due to the increased use of electricity. Financial pressures may mean that future budgets will not be sustainable at levels which will generate a saving. The cost of energy is increasing. It would be simpler to fund projects by borrowing or capital receipts recognising that revenue savings will accrue, but without having to redistribute financial savings across hundreds of individual projects. The benefit of the energy efficiency measures will be to mitigate higher energy costs in the future.

Funding for the 2022-23 proposed £6m carbon reduction project programme funded by borrowing was approved in February 2023, but it was not possible to access the funding for more than eight projects. Access was placed on hold pending consideration of the above issue. Subsequently all projects were placed on hold as noted.

Funding for the 2023-24 proposed £2m carbon reduction project programme of further projects funded by borrowing was not approved. In 2023 the Council submitted bids to the Public Sector De-Carbonisation Scheme to seek alternative funding. These two bids were unsuccessful. The scheme is heavily over-subscribed.

To be successful projects ideally need to be 'shovel ready' with prior funding for design and procurement, and scheme has progressed to procurement stage. Any grant funding award will therefore only be contribution to a project not a substitute for council funding. There is also a significant cost to develop and submit bids.

It is proposed to submit a business case to use some capital receipts to fund p.v. projects with the paybacks of 7-10 years as noted below.

2.5 Remote Energy Monitoring and Energy Management

As a result of the above funding issues the pilot project to develop an Energy Management system by the installation of remote monitoring sensors in selected buildings could not be progressed as planned.

Installations of remote monitoring kit were completed in three buildings in 2023, and the development of the software energy management tool is in progress. However - in the context of financial pressure - it is now unlikely that the further roll out of this programme will be possible for the foreseeable future. The effectiveness of the measure will be assessed based for these three buildings.

An alternative strategy including day-to-day monitoring of energy use using existing half-hourly energy consumption data, and the creation of Energy Champions within service departments is in hand to deliver managed improvements and to encourage behavioural change.

Improvements in the energy efficiency of corporate buildings will be demonstrated by improved Energy Efficiency Ratings across the estate.

Three existing major refurbishment projects within residential care homes were completed in 2023. There has been a 30% reduction in energy consumption across the three sites. The improvement is confirmed by improved Display Energy Certificate (DEC) ratings in those buildings which have been reassessed so far.

These buildings are now 20-25% more efficient than the CIBSE benchmark.

	Nov 21	Nov 22	Nov-Dec 23
New Bassett House HOP	E 106	D 92	C 75
Briar Close HOP	E 112	D 81	D 78

Existing strategies to reduce energy consumption and carbon emissions include the installation of low-cost de-aeration equipment to improve the efficiency of existing heating systems in 20 buildings – targeting another 500,000 kWh of energy savings across the estate. 15 installations have been undertaken so far. Three more installations are in progress. The plan to extend this project to upgrade a further 20 buildings is currently on hold. The existing revenue funding allocation for small scale interventions has been withdrawn. There is a request for

The profile of Display Energy Certificate ratings indicates positive progress.

It is assessed that energy management and retrofitting projects have reduced energy consumption by 1 million kWh by April 2023. (195 tonnes CO2).

2.6 Installation of Photo-Voltaic Panels on buildings.

Action to reduce energy consumption and carbon emissions for existing buildings by the installation of photo-voltaic panels is a priority measure. Micro-generation of renewable energy on site may reduce the demand on the grid, reduce energy bills and provide green energy at source. The payback calculated on the most recent schemes to be designed is within 7-10 years.

As a result of the funding situation, the planned programme to install photo-voltaic on council buildings could not be progressed as planned. Plans to install pv installations in five residential care homes were placed on hold. Design development work was progressed sufficiently to establish that the proposed installations would generate at least 350,000 kWh of renewable energy.

Two small p.v. installations were completed as variation to the refurbishment of two residential care homes. Automatic metering is provided as part of this installation. It is estimated that these p.v. installations will deliver 20,000 kWh of renewable energy: 10% of the current Climate Change Strategy Target.

Feasibility assessments for 20 further potential installations have been undertaken. This will inform a new business case to be submitted for approval requesting allocation of project funding for priority projects from capital receipts resulting from property rationalisation. It is hoped that by the quicker return on investment of p.v. will be more attractive financially than a mixed programme of projects.

The disposal of larger buildings - including seven residential care homes –means that there is now less scope to install p.v.than was envisaged last year. Achieving the 200,000kWh target is viable. Exceeding this target is possible. Achieving 500k kWh is possible. Achieving1 million kWh is unlikely. Proposed project programmes will feature more smaller p.v. projects.

The Council has maintained dialogue with private sector companies looking to install p.v. panels on council buildings at their own cost in exchange for a Power Purchase Agreement (PPA) for the direct supply of the generated energy. This option only applies to larger buildings which exceed a specified electricity demand with a commitment to retain the building for at least 15 years. Schools may offer the most potential for implementation of this measure. Discussions are on-going.

It is not yet possible to automatically meter the energy generated from existing p.v. installations at this time. A current proposal to install meters on all existing arrays is subject to a current request for allocation of funding from the Climate Change Earmarked Reserve.

2.7 2023 Targets for Carbon Reduction / Energy Saving

The plans for future savings by priority measures are as follows.

	millions kWh
Projected Baseline 2023-24	35.0
Future Energy Savings Targets	
Further Property Rationalisation by 2032	8.00
Microgeneration / p.v.	0.50
Energy management / Retrofit	4.00
Target savings	12.5
Projected Residual Energy Use 2032	22.5

An estimation of the potential energy savings associated with assets currently under review informs a reasonable estimate of further potential savings from future rationalisation projects. It is reasonable to assume a further saving of 8 million kWh by 2032.

The future target for savings by microgeneration / p.v. is 500,000kWh. The future target for savings by energy management / retrofit is 4 million kWh. The projected future residual energy use for the corporate estate is 22.5 million kWh.

2.8 Proposed Measures to Offset Residual Energy Use.

The UK is committed to reducing greenhouse gas emissions in accordance with COP26 commitment and the Climate Change Act 2008.

The Council is committed to achieving Net Zero for the corporate estate by 2032 or sooner. To achieve Net Zero for carbon emissions associated with property it will be necessary to match the residual energy use and carbon emissions with equivalent offsetting measures.

The current target for residual energy use by 2032 is 22.5 million kWh with a shift towards more renewable and sustainable technologies for heating buildings. It is anticipated that by 2032 grid energy will carry much reduced carbon emissions due to further progress in switching from fossil fuels to renewables. Measures are required to offset the remaining carbon emissions.

It is planned that proposed offsetting measures will include the development of solar farms and wind power. The proposed offsetting value will be measured in kWh rather than tonnes CO₂e. The target for renewable energy generation is 12 million kWh by 2032 in order to offset carbon emissions associated with property. These projects will also generate future income.

The Council will require additional offsetting capacity to offset other operational energy uses. The Council continues to review the potential for solar farm and wind power development. Funding has been secured for the first solar farm project – see below. Further capital allocation was declined for a second mini-solar farm due to the current financial position.

Preliminary feasibility studies have been progressed in 2023 to assess the potential of wind power developments. Two sites have been identified as being potentially suitable. 5 large wind turbines on two sites have the potential to generate 60 million kWh of renewable energy (subject to grid connectivity). A current proposal the next stage of feasibility assessment is subject to approval of allocation from the Climate Change Earmarked Reserve.

2.9 Proposed Solar Farm

The Climate Change Strategy includes the requirement to identify council land for the potential development of renewable energy generation facilities.

The 2022 feasibility review of sites for potential development as solar farms reviewed identified four preferred sites. One site at Williamthorpe Country Park was given priority status for development.

Planning permission for a proposed solar farm development at Williamthorpe was previously obtained in 2015. This approval has now lapsed, and a new planning application is required if this project is to progress. This site has the benefit of a secured grid connection. The project was allocated capital funding in April 2023.

The availability of funding was subsequently reviewed due to the current financial pressures.

This development will generate income to payback the cost of development. The preliminary business case was approved by Finance in December 2022. It is currently proposed to export energy to the grid. There be a further option to supply adjacent factories via private wire.

Subject to planning consent, the viability will be reassessed prior to any significant expenditure. Future negotiations will confirm the income tariff for exported energy. Procurement action will confirm the cost of the development.

Subject to approval to proceed, the development will generate 3.2 million kWh of renewable energy per annum. This may provide 25% of the offsetting capacity required for carbon emissions associated with property.

Further progress is limited in the context of emergency cost control measures. There is a recommendation to submit for planning approval. Planning consultants have been appointed. The necessary planning reports have been commissioned. There is no additional external expenditure required at present to submit for planning approval.

The development proposal is fundamentally unchanged from that previously approved in 2015. The council has taken measures to respond to any potential concerns regarding visual impact, and biodiversity loss. The perimeter will benefit from additional planting. Ecology consultants have calculated a Biodiversity Net Gain of 27.42%. The current proposal will have less visual impact than the scheme previously approved in 2015.

The application will be subject to site notices and neighbour notifications as part of the normal process. There will be additional prior notification to immediate neighbours and other stakeholders.

The Climate Change and Environment Board have endorsed the recommendation to proceed. Consultations with members are now planned. Progress thereafter will be dependent upon approval to expend allocated funding to place additional orders with consultants to enable the appropriate procurement of a contractor.

2.10 **Achieving Net Zero by 2032**

Achieving Net Zero for the Corporate Estate requires allocation of capital funding to enable the necessary projects to progress. If existing financial pressures are likely to endure then the Council may need to consider options to defer the 2032 target to achieve Net Zero. The current scientific advice is that action to reduce the impact of carbon emissions needs to happen in the next eight years.

3. **Consultation**

This report is informed by consultations with:

- the Climate Change group

- the Climate Change and Environment Board
- The Planning department
- Legal Services
- Finance comments received.
- HR

4. Alternative Options Considered

4.1 as described in the report.

5. Implications

5.1 Appendix 1 sets out the relevant implications considered in the preparation of the report.

6. Background Papers

6.1 none

7. Appendices

7.1 Appendix 1 – Implications

8. Recommendation(s)

That the Improvement and Scrutiny Committee:

- 1) Notes progress on the plans to decarbonise the council's estate and achieve Net Zero by 2032 or sooner.
- 2) Endorse the updated targets as noted in the proposed Carbon Reduction Strategy
- 3) Note the impact of the exceptional budget / cost control measures which will defer the delivery of carbon reduction and energy efficiency projects.
- 4) Endorse the proposal to progress the proposed solar farm at Williamthorpe.

9. Reasons for Recommendation(s)

9.1 To support the strategy and action to achieve Net Zero for the Corporate Estate

Report Author: David Beard

Contact details: david.beard@derbyshire.gov.uk

Implications

Financial

- 1.1 The current expenditure freeze places will restrict the ability to progress proposed carbon reduction projects.
- 1.2 The Director of Finance has confirmed the existing allocation of capital funding for the proposed solar farm.

Legal

- 2.1 The Director of Legal and Democratic Services will provide advice as necessary on a project specific basis.

Human Resources

- 3.1 HR provide input regarding any proposed building closures and any impact on human resources.

Information Technology

- 4.1 no issues

Equalities Impact

- 5.1 no issues

Corporate objectives and priorities for change

- 6.1 The corporate policy is to achieve Net Zero for the corporate buildings by 2032 or sooner.

Other (for example, Health and Safety, Environmental, Sustainability, Property and Asset Management, Risk Management and Safeguarding)

- 7.1 n/a

Appendix 2: Update on Corporate Targets within the Climate Change Strategy.

	Target	Note
	To achieve a 47% reduction in carbon emissions from 2005 to 2025 for <u>county wide emissions</u> .	Property contribution: Carbon emissions 2010 for property = 15,666 tonnes CO ₂ e Carbon emissions 2023 for property = 7475 tonnes CO ₂ e The 47% reduction target for Property is achieved.
T2	The Council will switch its existing electricity tariff to a 100% renewable electricity tariff by 2023 with an optional buy-in for schools.	Subject to annual assessment.
T3	Reduce emissions from heating buildings to less than 700tCO ₂ e by 2032	A residual energy use for heating equivalent to 700 tCO ₂ or 3.5 million kWh is not possible.
		The residual energy use for heating buildings is estimated to be @12million kWh in 2032 The carbon emission to be offset by renewable energy generation.
T4	Quadruple existing microgeneration of renewable energy on Derbyshire County Council's estate to 200 MWh by 2032. (Equivalent to 200,000 kWh of renewable energy)	Target may be achieved subject to allocation of funding. Funding withdrawn for projects to deliver 460,000 kWh of microgeneration by p.v. Propose Business Case to fund projects by capital receipts.

Appendix 3: Update on Property Targets from 2022

	Target	Note
CP01	2022: To deliver 1 million kWh of renewable energy by local microgeneration on site. 2023: Reduce target to 500,000 kWh	The target is reduced. There is potential to install 450,000 kWh of pv on buildings currently under review. Estimated cost £1m. The is potential to install 350,000 kWh of pv capacity on 16 other buildings. Estimated cost £800k.
CP02	2022: To reduce use of fossil fuel for heating by 5 million kWh	Carbon Reduction Projects on hold. No capital funding currently allocated.
CP03	2022: To achieve a minimum energy efficiency rating for each asset of 85 D A 15% improvement over CIBSE benchmark	As above.

Project funding

Allocation of approved funding for projects was placed on hold in 2023 pending a review of the funding mechanism. The 'Invest to Save' model for the approved £6m project programme requires future energy budgets to be maintained at levels which will permit a saving / surplus to be generated. Due to financial pressures this cannot be achieved. The £6m 2022 -23 project programme approved in Feb 2023 therefore cannot progress. Additional challenges pertain to the shift from cheaper fossil fuels to cleaner higher tariff fuels, and the rising cost of energy. The benefit of the energy efficiency measures may be lower, higher future costs.

A capital bid submitted in July 2023 for a proposed £2m carbon reduction project programme based on borrowing was unsuccessful due to the existing financial pressures.

There is currently no allocated or approved funding for capital projects for carbon reduction associated with property.

2022-23 Carbon Reduction Capital Programme

Estimated Cost £6m. Estimated energy saving 2.2million kWh. Estimated payback 12 years for a mix of measures.

		pv	EM	retrofit	total	pv	EM	retrofit	total	pv	EM	retrofit	
		annual save kwh	annual save kwh	annual save kwh	kwh	project cost £	project cost £	project cost £	project cost £	annual benefit pv	annual benefit EM	annual benefit Retrofit	
1	Bolsover Adult Education Centre	1037-01		12038	540	12578	0	36000	36000	72000		2528	113
2	Newbold Library	1098-01	6400	2,030	220	8650	34560	27000	36000	97560	1984	426	46
3	Ripley Library	1591-01		5,722	1100	6822	0	27000	36000	63000		1202	231
4	New Bassett House HOP	1604-01	16000	34200	3200	53400	86400	0	0	86400	4960		672
5	Briar Close House HOP	1608-01	24000	32400	1900	58300	129600	0	0	129600	7440		399
6	Grange HOP,	1621-01	16000	30000	14495	60495	86400	27000	54000	167400	4960	6300	3044
7	Rowthorne HOP	1637-01	16000	27600	3800	47400	86400	0	0	86400	4960		798
8	Thomas College HOP	1643-01	24000	24000	10040	58040	129600	27000	54000	210600	7440	5040	2108
9	Whitestones HOP	1647-01	40000	38200	14800	93000	216000	27000	54000	297000	12400	8022	3108
10	Brimington Hostel	1687-01	8000	17000	17436	42436	43200	36000	54000	133200	2480	3570	3662
11	Charnos Family Support Centre	1716-01	12000	4664	343	17007	64800	36000	36000	136800	3720	979	72
12	Alfreton Library	1842-01	6400	6,325	728	13453	34560	27000	36000	97560	1984	1328	153
13	Ilkeston Library	1872-01	3200	7,245	817	11262	17280	27000	36000	80280	992	1521	172
14	Staveley Library	1889-01		4,719	350	5069	0	27000	36000	63000			
15	Eckington Library	1891-01	6400	3,979	459	10838	34560	27000	36000	97560	1984	836	96
16	Chesterfield Library	2444-01	0	430,000	330900	760900	0	90000	180000	270000		90300	69489
17	County Hall	2642-00	24000	239,830	20000	283830	129600	54000	180000	363600	7440	50364	4200
18	Chesterfield Support Network	2725-01	16000	7847	600	24447	86400	36000	54000	176400	4960	1648	126
19	Petersham Centre	2754-01	8000	21363	2826	32189	43200	36000	54000	133200	2480	4486	593
20	Castle Court HOP	2777-01	40000	30000	13391	83391	216000	27000	54000	297000	12400	6300	2812
21	Lea Green Centre	2778-01	9600	51274	3608	64482	51840	90000	180000	321840	2976	10768	758
22	White Hall Centre	2781-01		26976	1879	28855	0	90000	180000	270000		5665	395
23	NE Derbys Area Social Services Office	2847-01	8000	9700	969	18669	43200	36000	54000	133200	2480	2037	203
24	Hasland Resource Centre	3167-01	16000	3941	432	20373	86400	36000	54000	176400	4960	828	91
25	Hunloke Centre	3374-01	8000	12650	7846	28496	43200	36000	90000	169200			

26	Swadlincote Learning Centre	3461-01	8000	8483	527	17010	43200	36000	36000	115200	2480	1781	111	
27	Shand House	3535-01	32000	42,909	11300	86209	172800	54000	90000	316800	9920	9011	2373	
28	Alice's View Children's Centre	3539-01	20800	7383	70650	98833	112320	36000	360000	508320	6448	1550	14837	
29	Outlook Centre	3598-01	16000	11124	1075	28199	86400	36000	54000	176400	4960	2336	226	
30	The Bungalow	3612-01	8000	18811	2159	28970	34560	36000	54000	124560	2480	3950	453	
31	Staveley Residential & Comm Care Centre	3631-01	24000	28400		52400	69120	27000	0	96120	7440	5964	0	
32	Peak Lodge, Chinley	3683-01	12800	13805	1833	28438	69120	27000	54000	150120	3968	2899	385	
33	Fairfield Community Centre	4109-01	16000	26526	861	43387	86400	54000	90000	230400	4960	5570	181	
34	Derbyshire Record Office	4118-01	16000	13,550	3470	33020	86400	54000	36000	176400	4960	2846	729	
			461600	1254693	544554	2260847	2423520	1242000	2358000	6023520	143096	263485	114356	520938
													total annual benefit	

NOTE

The total cost of the project programme is £6million. The total energy saving is 2.26 million kWh. The annual saving is £520k at current energy prices. The overall payback therefore is estimated to be 12 years.

This simple assessment does not include the cost of the loan, but nor does it include the increasing cost of energy.

5% interest over 12 years increases costs by a factor of x1.8

The increase in the cost of energy over 10 years rose at its peak in 2022 by a factor of x7.2

Since then, energy prices have fallen, but the overall rise as of April 23 was still a factor of x 2.12.

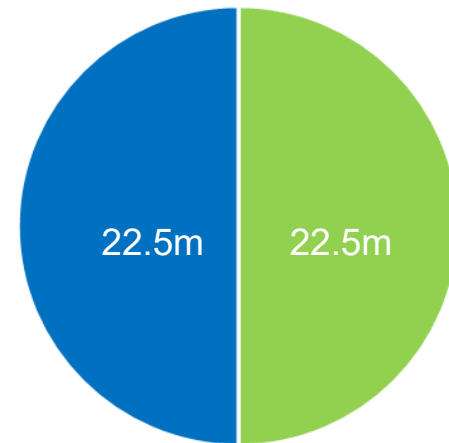
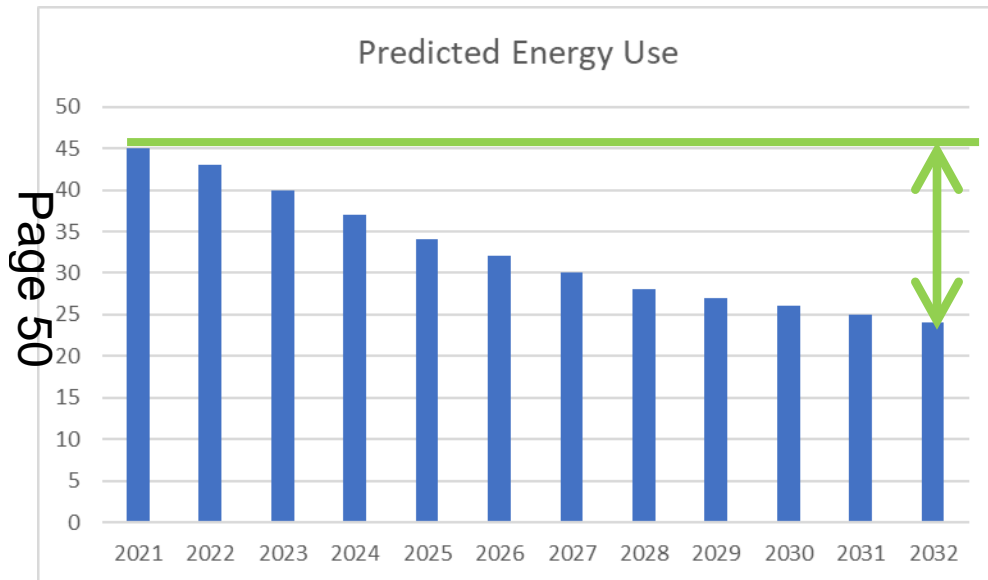
Any calculation model which seeks to factor in the additional cost of the loan should also include a factor for the increasing cost of energy.

And the increasing cost of energy > the cost of the loan

Decarbonising the Estate

Report to Scrutiny

Carbon Reduction Strategic plan



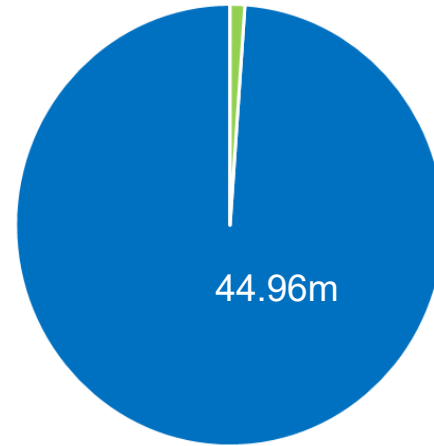
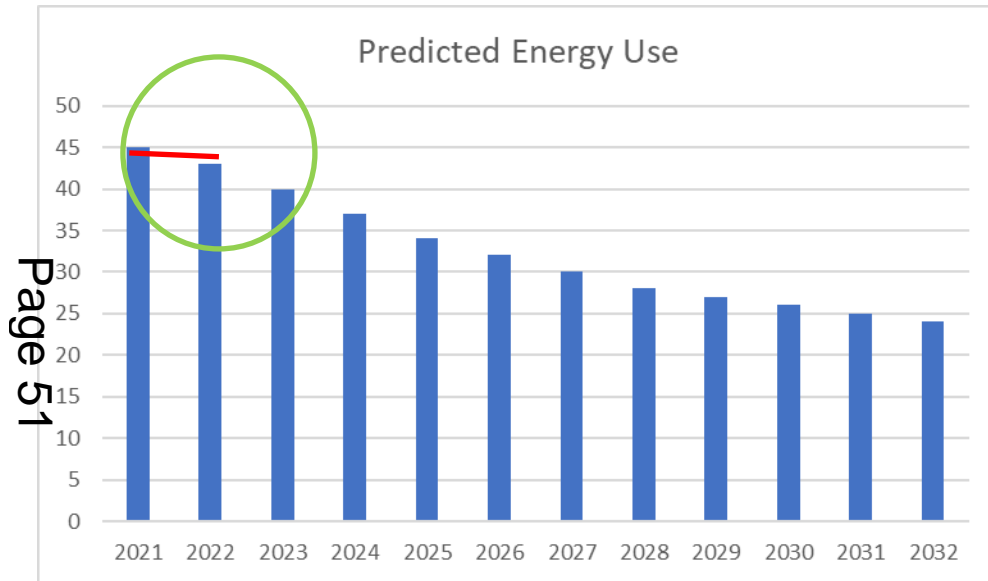
Reducing energy use by priority measures

- Planning to reduce energy consumption by 50%
- Improve Energy Efficiency of buildings
- Switch to alternative fuels

-50%

22.5 million kWh
4400 tCO₂e

Energy Use: 2022



	kWh	tonnesC02e
2020-2021	45,169,293	9,171
2021-2022	44,963,103	8,861

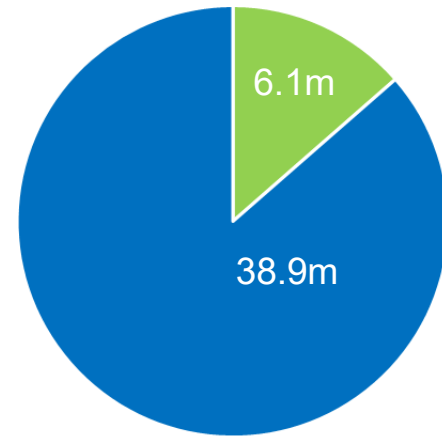
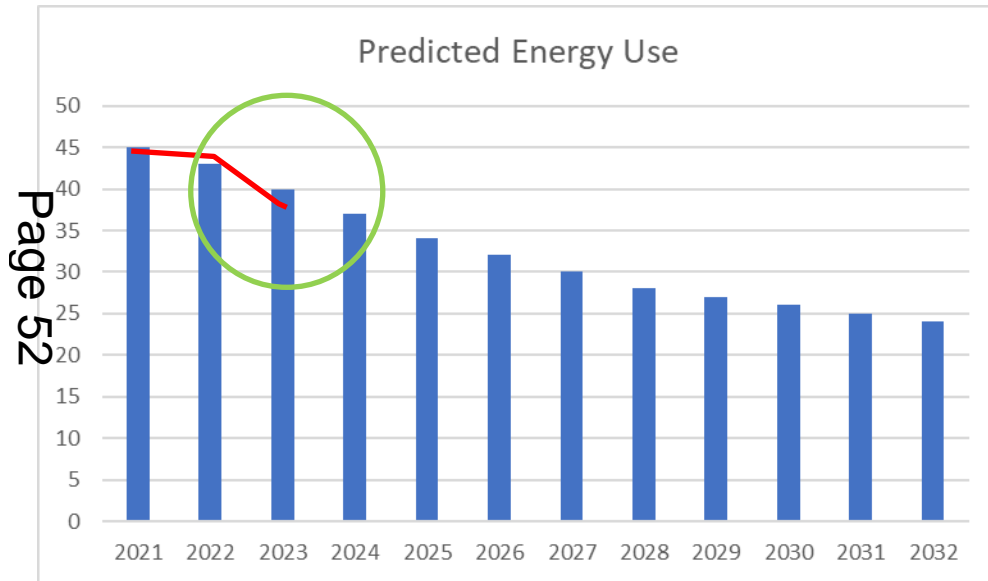
-0.5%

200k kWh saved

Small reduction

Last year we reported a small reduction in energy consumption and proposed targets / project plans

Energy Use: 2023



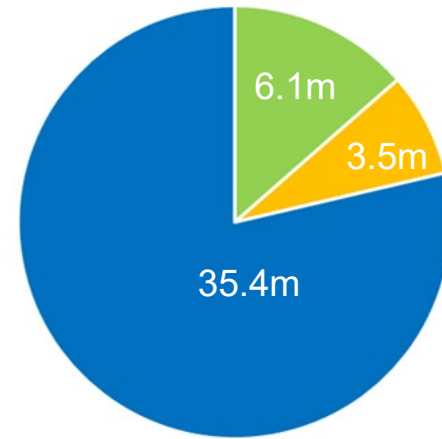
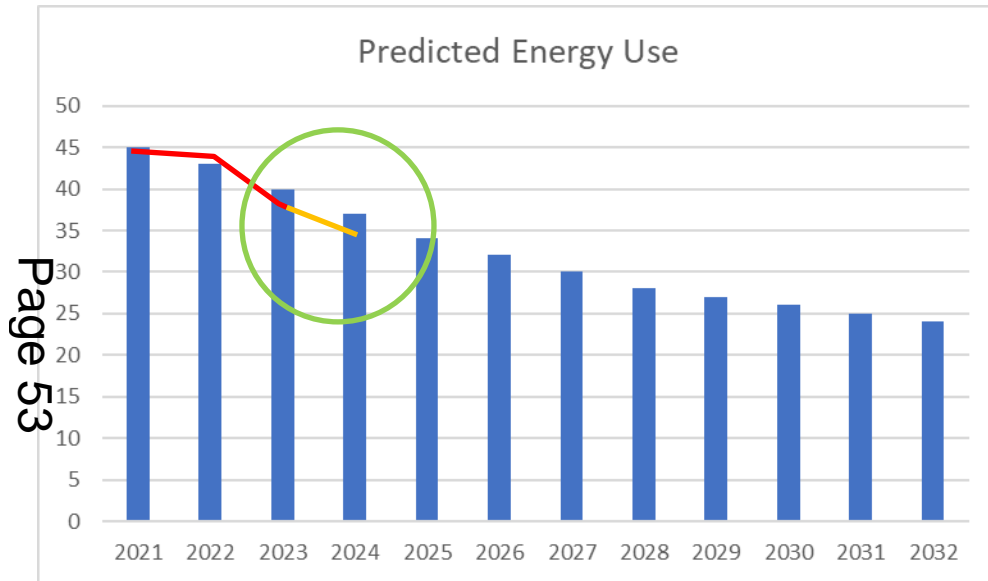
	kWh	tonnesC02e
2020-2021	45,169,293	9,171
2021-2022	44,963,103	8,861
2022-2023	38,860,609	7,475

-14%

**6.1 million kWh saved
1400 tC02e**

This year we can report a large reduction in energy consumption.

Energy Use: predicted



	kWh	tonnesCO2e
2020-2021	45,169,293	9,171
2021-2022	44,963,103	8,861
2022-2023	38,860,609	7,475

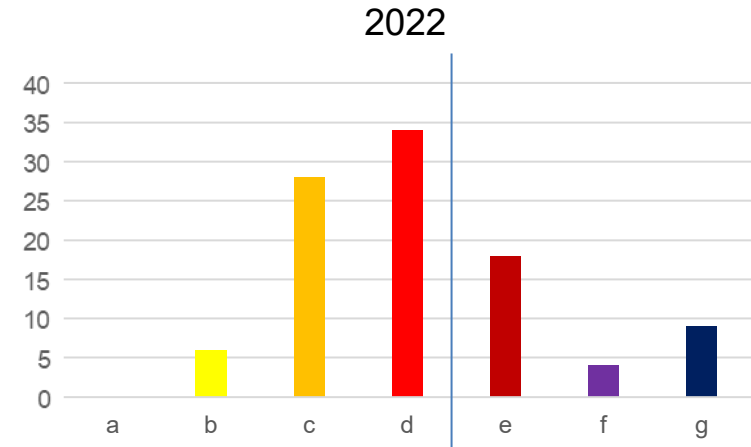
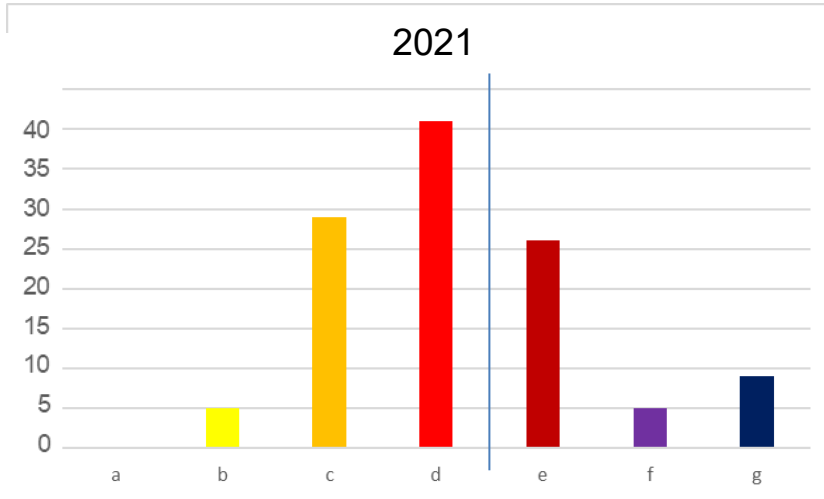
-22%

**9.6 m kWh min saving
1900 tCO2e**

Next year we anticipate report a further guaranteed reduction

Progress –Energy Efficiency of buildings

Page 54



DEC ratings A-G

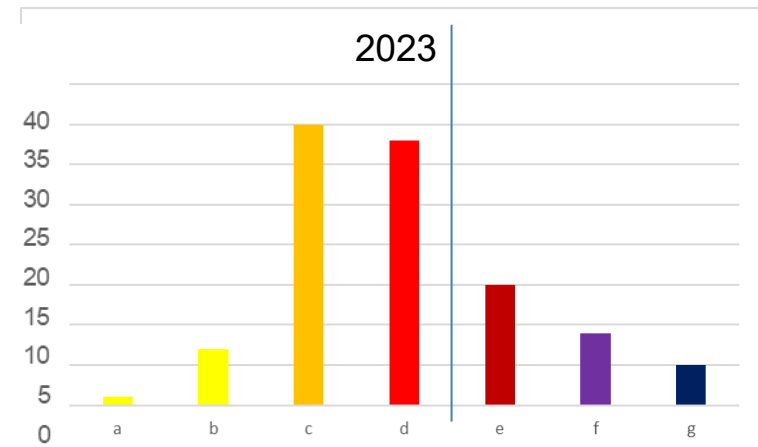
Buildings are rated A to G from good to poor

The CIBSE benchmark is the thin blue line

Improved ratings should show by the profile shifting to towards the left

Improving efficiency is indicated

The 2023 saving by Energy Management / retrofits is 1 million kWh



Progress – Fuel Use

2032 IDEAL TARGET
FUEL SPLIT



2032 REALISTIC TARGET
FUEL SPLIT

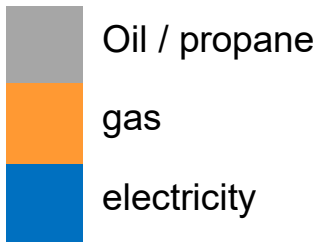


Plan to shift towards clean, renewables

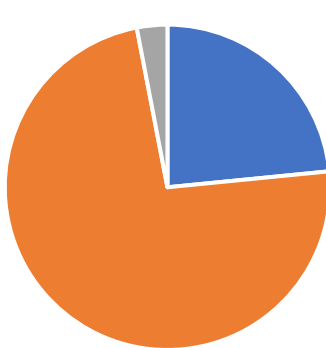
By 2032 Energy should be primarily 'Green' with low carbon emissions
Fossil fuels should be progressively replaced

Residual Emissions to be offset by renewable energy generation

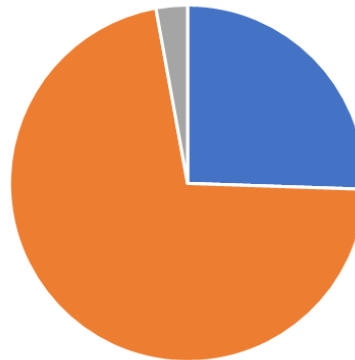
Page 5 of 7



2021

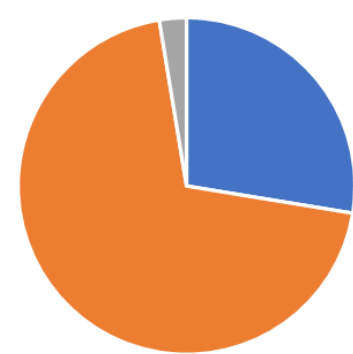


2022

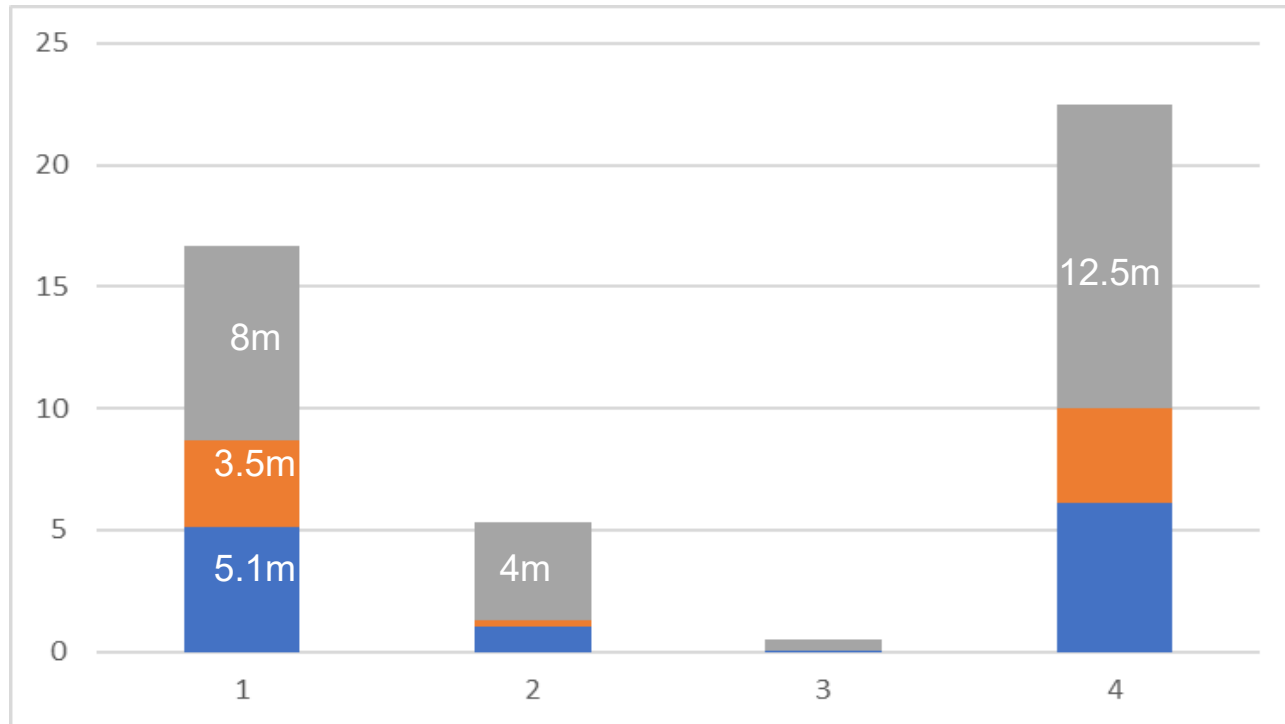
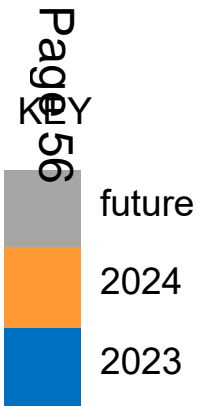


PROGRESS

2023



Progress: towards savings targets



44%

Property Rationalisation

16.7

Energy Management and Retrofit

5.3

PV

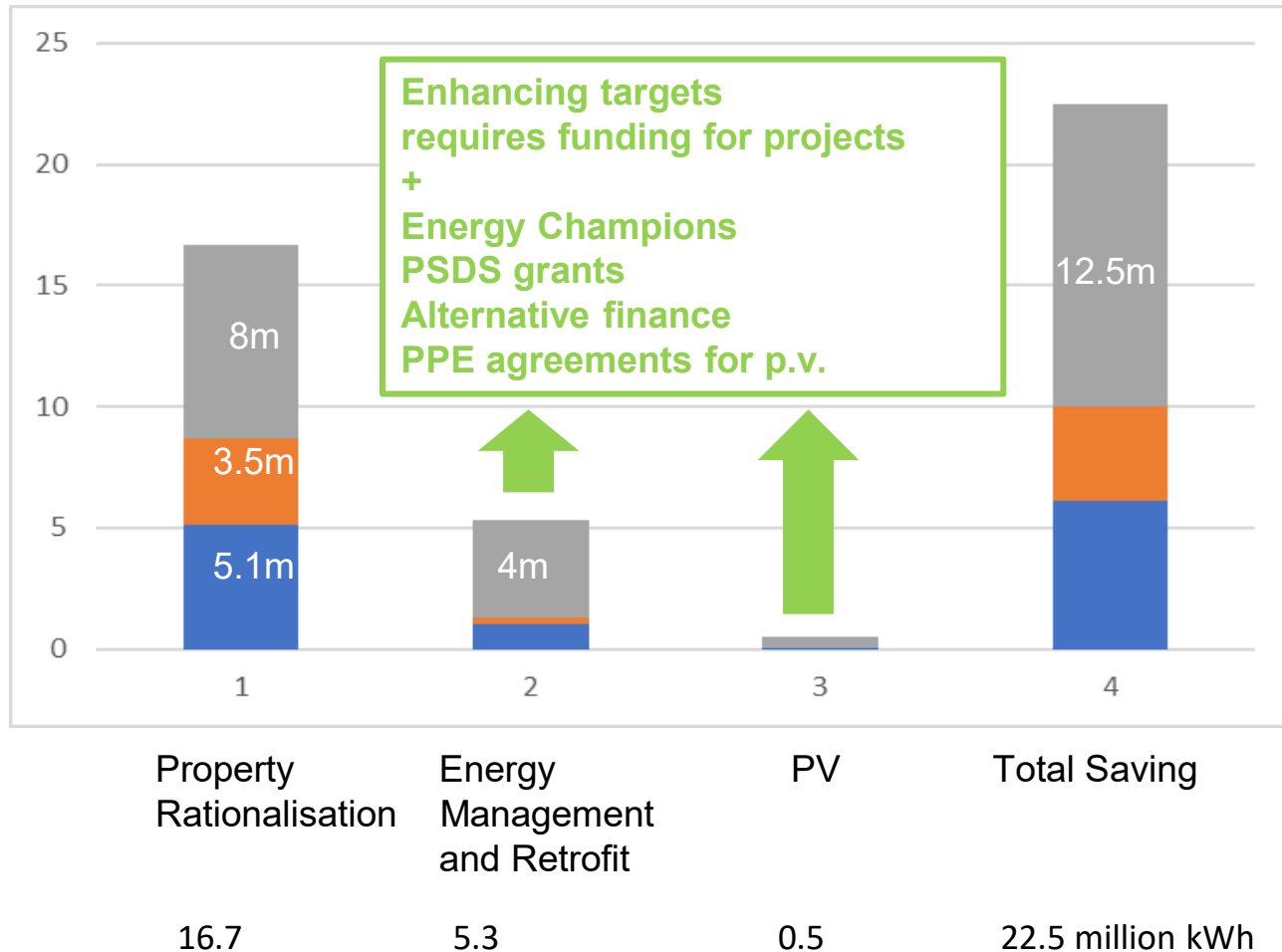
0.5

Total Saving

22.5 million kWh

Progress: Future Initiatives

Page 57
 future
 2024
 2023



Progress – Annual Project Plans

Page 58

		pv	EM	retrofit	total	pv	EM	retrofit	total	pv	EM	retrofit	
		annual save kwh	annual save kwh	annual save kwh	kwh	project cost £	project cost £	project cost £	project cost £	annual benefit pv	annual benefit EM	annual benefit Retrofit	
1	Bolsover Adult Education Centre	1037-01		12038	540	12578	0	36000	36000	72000		2528	113
2	Newbold Library	1098-01	6400	2,030	220	8650	34560	27000	36000	97560	1984	426	46
3	Ripley Library	1591-01		5,722	1100	6822	0	27000	36000	63000		1202	231
4	New Bassett House HOP	1604-01	16000	34200	3200	53400	86400	0	0	86400	4960		672
5	Briar Close House HOP	1608-01	24000	32400	1900	58300	129600	0	0	129600	7440		399
6	Grange HOP,	1621-01	16000	30000	14495	60495	86400	27000	54000	167400	4960	6300	3044
7	Rowthorne HOP	1637-01	16000	27600	3800	47400	86400	0	0	86400	4960		798
8	Thomas College HOP	1643-01	24000	24000	10040	58040	129600	27000	54000	210600	7440	5040	2108
9	Whitestones HOP	1647-01	40000	38200	14800	93000	216000	27000	54000	297000	12400	8022	3108
10	Brimington Hostel	1687-01	8000	17000	17436	42436	43200	36000	54000	133200	2480	3570	3662
11	Charnos Family Support Centre	1716-01	12000	4664	343	17007	64800	36000	36000	136800	3720	979	72
12	Alfreton Library	1842-01	6400	6,325	728	13453	34560	27000	36000	97560	1984	1328	153
13	Ilkeston Library	1872-01	3200	7,245	817	11262	17280	27000	36000	80280	992	1521	172
14	Staveley Library	1889-01		4,719	350	5069	0	27000	36000	63000			
15	Eckington Library	1891-01	6400	3,979	459	10838	34560	27000	36000	97560	1984	836	96
16	Chesterfield Library	2444-01	0	430,000	330900	760900	0	90000	180000	270000		90300	69489
17	County Hall	2642-00	24000	239,830	20000	283830	129600	54000	180000	363600	7440	50364	4200
18	Chesterfield Support Network	2725-01	16000	7847	600	24447	86400	36000	54000	176400	4960	1648	126
19	Petersham Centre	2754-01	8000	21363	2826	32189	43200	36000	54000	133200	2480	4486	593
20	Castle Court HOP	2777-01	40000	30000	13391	83391	216000	27000	54000	297000	12400	6300	2812
21	Lea Green Centre	2778-01	9600	51274	3608	64482	51840	90000	180000	321840	2976	10768	758
22	White Hall Centre	2781-01		26976	1879	28855	0	90000	180000	270000		5665	395
23	NE Derbys Area Social Services Office	2847-01	8000	9700	969	18669	43200	36000	54000	133200	2480	2037	203
24	Hasland Resource Centre	3167-01	16000	3941	432	20373	86400	36000	54000	176400	4960	828	91
25	Hunloke Centre	3374-01	8000	12650	7846	28496	43200	36000	90000	169200			
26	Swadlincote Learning Centre	3461-01	8000	8483	527	17010	43200	36000	36000	115200	2480	1781	111
27	Shand House	3535-01	32000	42,909	11300	86209	172800	54000	90000	316800	9920	9011	2373
28	Alice's View Children's Centre	3539-01	20800	7383	70850	98833	112320	36000	360000	508320	6448	1550	14837
29	Outlook Centre	3598-01	16000	11124	1075	28199	86400	36000	54000	176400	4960	2336	226

12_{yr}
Payback
Business Case

Submit proposed annual project programmes with Business Case support
The target buildings have been asset challenged
Proposed projects are for p.v. installation, Energy Management system, retrofits.

Progress – Annual Project Plans

Page 59

		pv	EM	retrofit	total	pv	EM	retrofit	total	pv	EM	retrofit	
		annual save kwh	annual save kwh	annual save kwh	kwh	project cost £	project cost £	project cost £	project cost £	annual benefit pv	annual benefit EM	annual benefit Retrofit	
1	Bolsover Adult Education Centre	1037-01		12038	540	12578	0	36000	36000	72000		2528	113
2	Newbold Library	1098-01	6400	2,030	220	8650	34560	27000	36000	97560	1984	426	46
3	Ripley Library	1591-01		5,722	1100	6822	0	27000	36000	63000		1202	231
4	New Bassett House HOP	1604-01	16000	34200	3200	53400	86400	0	0	86400	4960		672
5	Briar Close House HOP	1608-01	24000	32400	1900	58300	129600	0	0	129600	7440		399
6	Grange HOP,	1621-01	16000	30000	14495	60495	86400	27000	54000	167400	4960	6300	3044
7	Rowthorne HOP	1637-01	16000	27600	3800	47400	86400	0	0	86400	4960		798
8	Thomas College HOP	1643-01	24000	24000	10040	58040	129600	27000	54000	210600	7440	5040	2108
9	Whitestones HOP	1647-01	40000	38200	14800	93000	216000	27000	54000	297000	12400	8022	3108
10	Brimington Hostel	1687-01	8000	17000	17436	42436	43200	36000	54000	133200	2480	3570	3662
11	Charnos Family Support Centre	1716-01	12000	4664	343	17007	64800	36000	36000	136800	3720	979	72
12	Alfreton Library	1842-01	6400	6,325	728	13453	34560	27000	36000	97560	1984	1328	153
13	Ilkeston Library	1872-01	3200	7,245	817	11262	17280	27000	36000	80280	992	1521	172
14	Staveley Library	1889-01		4,719	350	5069	0	27000	36000	63000			
15	Eckington Library	1891-01	6400	3,979	459	10838	34560	27000	36000	97560	1984	836	96
16	Chesterfield Library	2444-01	0	430,000	330900	760900	0	90000	180000	270000		90300	69489
17	County Hall	2642-00	24000	239,830	20000	283830	129600	54000	180000	363600	7440	50364	4200
18	Chesterfield Support Network	2725-01	16000	7847	600	24447	86400	36000	54000	176400	4960	1648	126
19	Petersham Centre	2754-01	8000	21363	2826	32189	43200	36000	54000	133200	2480	4486	593
20	Castle Court HOP	2777-01	40000	30000	13391	83391	216000	27000	54000	297000	12400	6300	2812
21	Lea Green Centre	2778-01	9600	51274	3608	64482	51840	90000	180000	321840	2976	10768	758
22	White Hall Centre	2781-01		26976	1879	28855	0	90000	180000	270000		5665	395
23	NE Derbys Area Social Services Office	2847-01	8000	9700	969	18669	43200	36000	54000	133200	2480	2037	203
24	Hasland Resource Centre	3167-01	16000	3941	432	20373	86400	36000	54000	176400	4960	828	91
25	Hunloke Centre	3374-01	8000	12650	7846	28496	43200	36000	90000	169200			
26	Swadincote Learning Centre	3461-01	8000	8483	527	17010	43200	36000	36000	115200	2480	1781	111
27	Shand House	3535-01	32000	42,909	11300	86209	172800	54000	90000	316800	9920	9011	2373
28	Alice's View Children's Centre	3539-01	20800	7383	70650	98833	112320	36000	360000	508320	6448	1550	14837
29	Outlook Centre	3598-01	16000	11124	1075	28199	86400	36000	54000	176400	4960	2336	226

12_{yr}
Payback
Business Case



RISK

No current allocation of project funding due to current financial pressures

MITIGATION

Investigate alternative funding options

Request use of capital receipts to fund p.v. programme

Offsetting Measures

Offsetting of residual energy use by renewable energy generation

Project: Williamthorpe Solar Farm

3.2 million kWh output.

Allocated capital funding in Feb 2023

Recommend planning submission
early March 2024

Page 60



This page is intentionally left blank