

FOR PUBLICATION

DERBYSHIRE COUNTY COUNCIL

Cabinet Member for Corporate Services

25/08/2022

**Approval of Allocation from the Feasibility Reserve
for projects on the Net Zero Programme**

1 Divisions Affected

1.1 County-wide

2 Key Decision

2.1 This is not a Key Decision

3 Purpose

3.1 To request Cabinet Member approval to allocate £115,000 from the Feasibility Reserve, to enable feasibility works to be undertaken on projects in 2022-23 as listed in this report to support the programme to deliver Net Zero.

4.0 Information and Analysis

4.1 On 7th April 2022 Cabinet approved the establishment of a Feasibility Reserve to enable assessment and viability work to be undertaken on Corporate, Investment and Regeneration initiatives.

4.2 Procedures have been developed by the Director of Finance and ICT to allow schemes to gain access to the funding. This includes responsibility to allocate resources up to £0.100m from the Feasibility Reserve being delegated to the Executive Director – Corporate Services and Transformation, amounts in excess of this to be approved by the Deputy Leader and Cabinet Member for Corporate Service and Budget.

4.3 Global warming is a widely recognised climate phenomenon. A global rise in temperature is due to an increasing atmospheric concentration of ‘greenhouse gases’ including methane and carbon dioxide.

The cause of this pollution is primarily the burning of fossil fuels which release carbon dioxide back into the atmosphere.

The UK is committed to reducing greenhouse gas emissions and achieving a balance between energy use and renewable energy generation. This balance is referred to as achieving 'Net Zero'.

4.4 The Council has a commitment to reduce carbon emissions and achieve Net Zero by 2032 or sooner.
This means reviewing our corporate buildings to identify the measures that are necessary to reduce energy use and achieve Net Zero.

4.5 The Strategic Planning approach includes:

- Assessment of the energy use associated with the corporate estate and setting SMART targets to reduce carbon emissions to a realistic and appropriate level. The initial target is to reduce carbon emissions from 9000 tonnes of CO₂ to approximately 7000 tonnes by 2030-32.
- A review of asset strategy across the corporate estate, identifying the buildings which are to be retained, and those which are under review or identified for demolition and disposal.
- Priority measures being targeted on the buildings which are to be retained. Further potential savings will be identified as and when the asset and service reviews are completed.
- Assessment of the performance of all corporate buildings to be retained and identifying a league table of relative performance.
- Identifying the worst performing buildings and an appropriate minimum performance target, with the aim to bring all buildings up to the minimum standard.
- seeking to improve the thermal performance across the estate.

4.6 The following priority measures have been identified as necessary to deliver the carbon savings:

- Installation of photo-voltaic panels on roofs
- Installation of remote monitoring kit to enable future energy management
- Installation of LED lighting
- Retrofits to upgrade the thermal insulation of walls and roofs.

These measures will achieve the quickest results and financial benefits.

4.7 As a result of progressing these priority measures project development work has generated the need for further investigations, energy audits and feasibility studies as detailed below:

22-05-09	Energy Audits for three of the worst performing buildings	Cost £32,000
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These audits assess three very different buildings all of which are to be retained long-term, but which all suffer from poor performance.

These buildings are:

- Hunloke Centre
- Chesterfield Library
- Alice's View Childrens Centre.

The studies assess energy use and the potential effectiveness of remedial measures.

Quotations have been sourced from a third-party consultant via Concertus Derbyshire in accordance with the approved policy.

The results of the assessments have served to identify the most cost-effective priority measures.

22-05-09	Feasibility assessment to install Photo-Voltaic panels on 7no school sites.	£22,000
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PV installations are suited on roofs which have been refurbished, where the condition of the roof is in good order, and structural defects have been addressed.

The sites are as follows:

- Buxton Infant
- Killamarsh Inf & Nursery
- Marlpool Junior
- Draycott Com Primary
- Melbourne Junior
- Holmesdale Infant
- Brigg infants

The purpose of the proposed feasibilities is to undertake a structural survey at each location to confirm suitability for pv installation; to produce a design layout; with a prediction of output and budget cost prior to obtaining additional project funding.

Quotations have been sourced from Concertus Derbyshire in accordance with the approved policy. The average cost is @£3k per site.

The cost of the feasibility should be recoverable from the project fee should the projects receive approval and capital funding.

22-06-22 **Feasibility for thermal upgrade of the Leys Resource centre, Ashbourne** **£3,000**

Feasibility to:

- Improve the thermal performance of building fabric
- Assess the lifespan and anticipated period to replace existing windows
- Prepare existing elevations
- Prepare existing roof plan
- Prepare proposed elevations for possible future planning submission.
- upgrade external elevations by applying external insulation
- Replace areas of single glazing
- Assess existing and proposed thermal performance
- Estimate cost

22-05-09 **Feasibility assessment to install Photo-Voltaic panels on 3no HOPs currently under refurbishment** **£10,000**

Refurbishment of 3no HOPs is currently on site at:

- Briar Close
- Rowthorne
- New Bassett House

The refurbishments will upgrade the thermal installation and provide new energy efficient building services installations.

The proposal is to add photo-voltaic installations, and the installation of remote monitoring kit which will enable future energy management.

PV installations are most suited on roofs which have been recently refurbished, where the condition of the

roof is in good order, and structural defects have been addressed.

The purpose of the feasibilities is to undertake a structural survey at each location to confirm suitability for pv installation; to produce a design layout; with a prediction of output and budget cost prior to obtaining additional project funding.

Quotations have been sourced from Concertus Derbyshire in accordance with the approved policy. The average cost is £3k per site.

It is estimated that these panels could generate 50,000 kwh of electricity use per annum. This would result in an estimated annual saving of £7500 based on current tariffs.

22-05-09 **Feasibility assessment to install Photo-Voltaic panels at 5no HOPs to be retained.** **£18,000**

Work undertaken to analyse energy use across the estate has identified that HOPs are the highest users of energy. The buildings are in continuous operation unlike some other corporate buildings. This means that energy saving measures in HOPs have the most benefit, and quickest financial return.

The 5 buildings to be retained are:

- Castle Court
- Whitestones
- The Grange
- Thomas College
- The Leys Resource Centre

The first four newer buildings named above are built to good insulation standards, but electricity use exceeds the relevant CIBSE benchmark.

Understanding the reason for this is dependent on commissioning future energy audits and / or installing remote monitoring kit. The installation of pv will generate energy on site and reduce energy demand at source.

The Leys is a more complex building and ultimately it may be necessary to reconsider the asset strategy and alternative options.

The building has structural issues associated with a lack of bracing in the roof. Some areas have been repaired in 2016. Other areas remain problematic.

The purpose of the feasibilities is to undertake a structural survey at each location to confirm suitability for pv installation; to produce a design for pv installation with a prediction of output and estimated cost, prior to seeking additional project funding as necessary.

Quotations have been sourced from Concertus Derbyshire in accordance with the approved policy. The average cost is £3k per site.

The cost of the feasibility should be recoverable from the project fee should the projects receive subsequent approval and capital funding.

It is estimated that the installation of pv panels could generate up to 130,000 kwh of electricity per annum. This would result in an estimated annual saving of £19,500 based on current tariffs.

22-05-18	Feasibility Study for Alice's View Childrens Centre	£15,000
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Alice's View Childrens Centre is a building which has an unusually poor energy performance but is a good candidate for a flagship carbon reduction project.

The Energy Audit has identified that this building is ideally suited to the installation of an Air Source Heat pump (ASHP) in lieu of a gas fired boiler. This is because ASHPs – whilst having tremendous benefits in terms of reduced carbon emissions - will typically require the installation of a completely new heating system with larger emitters. However, this building already has underfloor heating which makes it ideal for conversion to ASHP.

The other potential downside of an ASHP is that it will increase the demand for electricity and the higher tariff of electricity v gas may undermine the viability of switching from gas to a renewable heat source. Installation of photo-voltaic panels has the potential to generate electricity to match demand.

The building has the potential to be a Net Zero refurb.

It is therefore proposed to undertake an appropriate feasibility study to progress this potential project. This would provide the necessary information for a subsequent capital strategy bid and potential application for Public Sector De-carbonisation grant funding.

To apply for this government funding – when available – it is necessary to have already developed a project which is ready to go, risk assessed, and able to meet project deadline requirements. It is also necessary to have detailed costings which demonstrate the additional costs associated with installation of an ASHP over and above a like for like replacement of a gas fired boiler.

Quotations have been sourced from Concertus Derbyshire in accordance with the approved policy.

The cost of the feasibility should be recoverable from the project fee should the projects receive subsequent approval and capital funding.

- 4.8** The total cost of the feasibility works which are proposed for approval in this report are £100,000 plus a contingency of £15,000 totalling £115,000.

5 Consultation

Consultation has been undertaken with the Climate Change Group, and Children's Services.

6 Alternative Options Considered

Do nothing - would mean the Council cannot progress the development of the programme necessary to meet the climate change objective.

7 Implications

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

8 Background Papers

None

9 **Recommendation(s)**

9.1 That Cabinet Member

- a) approve an allocation of £115,000 from the Feasibility Reserve in order to progress with feasibility and reviews for the above-mentioned schemes in order to progress the Councils commitment to Net Zero.

10 **Reasons for Recommendation(s)**

- 10.1 To move toward the plan necessary to achieve the Council commitment for Net Zero.

11 **Is it necessary to waive the call-in period?**

No

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Implications

1 Financial

- 1.1 The Feasibility Reserve was established to allocate revenue budget and allow projects to be implemented which will support the delivery of the outcomes identified in the Council Plan 2021-2025, these projects are aligned to the objective “A Prosperous and Green Derbyshire”.
- 1.2 Proposed feasibility studies would give a greater understanding of the future savings that could be generated and would help to determine the cost effectiveness of individual schemes.
- 1.3 Prior to any implementation of schemes, individual assessments would demonstrate the cost benefit analysis. In addition, further approvals will be sought in line with Financial Regulations prior to schemes going ahead.

2 Legal

- 2.1 There are no legal implications arising from the allocation of funding from the feasibility reserve, but the Director of Legal and Democratic services will provide advice as necessary in relation to specific projects

3 Human Resources

- 3.1 No implications

4 Information technology

- 4.1 No implications

5 Equalities Impact

- 5.1 Relevant consideration has been completed whilst developing the current and this proposal.

6 Corporate objectives and priorities for change

- 6.1 The Council has an objective to achieve Net Zero by 2032 or sooner.

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

- 7.1 Policy and procedures will be followed as required to deliver the programme of works.