London Road Decarbonisation Project

Scrutiny Committee Meeting

Appendix B

6 January 2026

Background

Background

In 2019 UDC declared a climate and biodiversity emergency and made a commitment to achieving net zero status by 2030.

In 2021 the Council approved its Climate Crisis Strategy 2021-30, which included a theme around council assets and operations.

These commitments and strategy are reflected in the corporate priority to protect and improve our environment by reducing the council's carbon footprint

Heat Decarbonisation Plans (HDPs) were developed for two key council sites (London Road and Little Canfield Depot & Workshop), alongside an Association of Public Service Excellence report which set out actions that the Council could take to achieve its carbon reduction aims. These were used to identify the most impactful action available to the council which was switching the waste collection fleet to a low-carbon fuel

In May 2025, the decision was taken to switch the waste collection fleet to Hydrogenated Vegetable Oil (HVO) fuel generating a saving of circa 1110 tCO_2e per annum. This project is now in delivery and expected to go live by end of March 2026.

In Autumn 2024 the Government announced a new round of the Public Sector Decarbonisation Scheme, which was open to local authorities whose building(s) had fossil fuel boilers which were more than 10 years old. The aim being to replace these boilers with low-carbon technology such as air source heat pumps.

The only UDC owned property that met the criteria was London Road and a grant application was prepared involving replacing the fossil fuel based heating system with a low-carbon technology, together with associated building fabric improvements and generation of renewable energy on-site. The scheme was expected to reduce operational carbon emissions by circa 2,000 tCO_2eLT (91 tonnes per year), in addition to a small saving in energy costs (£17k per annum) and deliver a demonstrator project to residents, the community and businesses.

In November 2024, Cabinet took a decision to submit the grant application and officers were asked to set aside funding for the applicant contribution. In Spring 2025, the Council learned that the grant application was successful and the project budget was set at £716,980 comprising external grant £626,299 and £90,681 match funding from UDC.

Original Risks & Benefits

The project identified a number of Risks, Assumptions and constraints:

- Constraints of time - the delivery of the project, and drawdown of associated grant funding, must be complete by September 2026.
- Any increase in costs incurred must be met by UDC as the grant funding allocation is fixed.
- Grant funding is limited to £140k in FY25/26 with the remainder in FY26/27.
- Building work will need to be completed with seasonal heating needs and accommodating of tenants in mind.
- Any request for change to project scope would be subject to Salix process and timeline for decision. For multi-year projects Salix have not yet set a deadline for change requests to be submitted.
- The project design has to achieve listed building consent and planning permission.
- We will be able to source the PV panels and ASHPs in line with the required capacity and specifications.
- Contractor services are available at the seasons required and within the cost envelope.
- Listed Building Consent and Planning process timelines.

The project was expected to deliver the following benefits:

- Expected annual energy bill reduction of c.£17k from installation of Energy Efficiency fabric measures and solar. However risk running cost of ASHP may lead to higher electricity fuel bill per annum, as subject to fuel tariffs. Increased cost may not be mitigated by solar
- 1988.72 tCO2eLT saving from all Energy Efficiency Measures incl ASHP (PSDS Application Form>Grant selection). The calculation for this expected benefit is drawn from the grant application process and applies measure specific lifetime and persistence factors to calculate individual carbon savings which are then aggregated
- 143,145 kWh/ 19.62 tCOe2 annual saving expected from Energy Efficiency Fabric Measures and Solar (PSDS Application Form>Carbon Saving Measures)
- Published public sector historic building retrofit case study enabling education and knowledge share to residents, businesses and other organisations (Comms, Climate Change and Planning)

Timeline & Time Constraints

Project Timeline

Spring 2024
Heat decarbonisation plans developed

Summer 2024
Outline designs developed. Soft Market testing completed

Autumn 2024
Grant application prepared

November 2024
Decision to submit grant application.
Initial funding contribution set aside for delivery

March 2025
Grant awarded

Spring/Summer 2025
Detailed project plan developed

End September 2025
Detailed technical designs and specifications developed

31 October 2025
Tenders submitted for evaluation

19 November 2025
Planning and Listed Building consent approved

End November 2025
Tender evaluation and moderation completed
Governance process initiated

December 2025
Cabinet decision

End January 2026
Tender prices will expire
Value engineering and contract award

February 2026
Construction phase mobilisation
Satisfy pre-construction planning conditions

March 2026
End of Year 1 funding allocation

End September 2026
Current target end date for installation and commissioning

March 2027
End of Grant Agreement

Timeline constraints

- Timeline for Salix technical review of final design
- Expiration of tender price validity
- Ongoing increases in market and construction industry costs
- Fixed allocation of grant funding in financial year 2025-26 and in 2026-27
- Timelines for sourcing the key items of equipment
  - Air source heat pumps
  - Pipework
  - Solar panels
- Availability of specialists for satisfying planning conditions and installation works (where needed)
- Seasonality in planning for installation
  - Protected species
  - Transitional periods without heating
  - Weather conditions for external works

Project Budget Variance

Updated Project Budget

4 tenders were received within the range £1.090m - £1.182m with an outlier at £1.569m. The close range of tender responses demonstrate that the costings are likely to be robust and reflective of the market.

Tender A	Tender B	Tender C	Tender D	Tender E
£1.155m	**£1.090m**	£1.153m	£1.182m	£1.569m

Following initial evaluation, time was taken to raise and resolve a number of post-tender clarifications which resulted in an increase in pricing on Tender A and a small reduction in the price of Tender B (final pricing shown above). As a result, the preferred bidder is Tender B at a cost of £1.090m.

Together with costs to date, known costs and a 15% contingency allowance on the tendered price, the full cost of delivery is expected to be £1.343 million, which breaks down as follows:

Spend Area	Estimated value	Financial Year
Development of designs, planning application and listed building consent	£58,000	2025/26
Compliance with Planning conditions, oversight and additional works	£32,000	2025/26 2026/27
Supply and installation building fabric improvements and solar panels	£135,000	2025/26
Supply and installation ASHPs and associated works, commissioning and monitoring	£955,000	2026/27
Contingency	£163,000	
Total project cost	**£1.343 million**	

Budget Variance

- **Original project budget was set at £716,980** comprising external grant £626,299 and £90,681 match funding from UDC. **Revised budget is £1.343m** comprising external grant £601,499 and £741,373 contribution from UDC (excluding borrowing costs).
- Outline designs, costings and grant application were developed by a 3rd party consultant. Detailed review of the work has identified that
  - Original costs for sourcing, installation and commissioning were calculated based on soft market testing, typically taking the lowest estimate received. A 20% 'contingency' was added to sourcing and installation estimates and is included in the total budget figure of £716,980.
  - There was no allowance made for professional fees during the design and procurement phase (consultancies, surveys, planning application)
  - There was no allowance made for professional fees during the delivery phase (further surveys and reports to fulfil planning conditions, quality or quantity monitoring of delivery
  - Outline designs have proven not to be viable for a complex, historic listed building in a conservation area
  - Original cost estimates were based on individual packages of installation appointed to separate contractors, but this would have required UDC to take the role of prime contractor for the HSE
- Any changes to the scope of delivery originally agreed may result in a reduction in the original grant award.
  - Reduction from 96 to 64 solar panels – expected grant reduction of approx. £18,500
  - Revised design to descope installation of suspended ceilings in two rooms and replace with installation of loft insulation above the original ceiling and add additional radiators to each room – potential grant reduction of £6,300
- ONS figures show that construction costs have increased by an average of 3.3% over the first 6 months of this year compared to the same period in 2024.
  - The construction industry is highlighting both increases in material prices and labour costs, which is likely to be a factor in the significantly higher tenders when compared to the soft market testing undertaken in Spring 2024
  - It should be noted that retrofit projects are typically higher cost than decarbonisation or energy generation works on new build or clear sites. This is borne out in the broad range of carbon costs captured on the case studies published by Salix. Salix also advised UDC officers that viability issues are quite common and, for example, another PSDS project had been abandoned following cost increases and associated viability issues in November'25

Options Appraisal

Factors explored

Funding

- Grant funding
- Match funding
- Updated project funding requirement
- Funding approach

Measures

- CO_2 equivalent saving
- Lifetime carbon cost of delivery
- Energy costs
- Payback period

Alignment

- Alignment with Local Government Reorganisation, climate duty and corporate priorities
- Fit with wider capital programme
- Structure for delivery of projects designed to reduce the climate impact of our estates and operations
- Learning derived from project from Inception to Procurement
- Engagement with and impact on building tenants and users

Methodology

- Financial evaluation of tender responses
- Initial Portfolio Holder briefing
- Briefing to Corporate Management Team and Informal Cabinet
- Detailed review of specification, scope, design and tender responses
- Completion of post-tender clarifications
- Engagement with funding body and sector advisors
- Update financial model and expected project budget
- Presentation of options to informal Cabinet to seek member steer
- Approach to Chair of Scrutiny and preparation of Cabinet papers

Option 1 - Stop

Option	Pros	Measures	Other Considerations
Decide not to proceed with delivery of the project in its current form.	• Reduced disruption to tenants and employees through reduced scope of delivery • Recipient contribution £90,681 could be ring fenced to climate capital delivery (note risk that Salix may not reimburse the full £52-58k invested to date) • Learning can be captured for future grant applications and feasibility studies • Initial costs of design and planning expected to be recoverable from funding body	• 0 tCO_2e saving • £0k p/a saving on energy costs	• **Public Sector Decarbonisation Scheme now stopped so £626,299 grant money will be lost and there is a clear message from present government that there will be no replacement funding scheme for projects like this.** • **There would be no demonstrable plan for how to remove fossil fuel boilers from the heating solution at London Road** and the associated scope 1 and 2 emissions • Salix may not reimburse costs to date in full (£52-58k) • Abandoning the project could negatively influence future funding applications to the government or other grant awarding bodies. • As a result of work to date, Council has well defined projects including detailed designs, planning consents (subject to Planning Committee decision 19 November) and insights gained from tender process, and allows for future delivery of part or all of the works if funding is available

Option 2 – Reduce scope

Option	Pros	Measures	Other Considerations
Reduce cost of the project by descoping the most expensive package (Air Source Heat Pumps with associated works: Pipework, Radiators). Retain Building Management System in scope.	• Utilises the detailed designs and planning consents in place for current design • Keeps project alive as part of Council decarbonisation plan and net zero commitment • Delivers an operational carbon saving • Delivers an expected saving in energy costs • Learning can be captured for future grant applications and feasibility studies • Building fabric is substantially improved to reduce heat loss • New renewable energy will be generated on-site • Initial costs of design and planning expected to be recoverable from funding body	• 357 tCO_2e saving over the lifetime of the installation (average 20 years) • 17.8 tCO_2e saving per annum • The lifetime carbon cost of delivery is £785/tCO2eLT • Expected £17k p/a saving on energy costs • Assuming £17k pa saving on energy costs and installation cost of £280,706, the payback period is around 16 years	• **Descoping the decarbonisation of the heating solution would result in loss of the external funding of over £626k** • **Reducing the scope means that there is no plan for how to remove fossil fuel boilers from the heating solution at London Road** and the associated scope 1 and 2 emissions • Salix may not reimburse costs to date in full (£52-58k) • UDC will be required to provide additional funding of around £190k via borrowing. The borrowing will require a revenue payment of circa £17k annually. Over a 15 year period, the cost of borrowing will be circa £66k. • The council will still incur some costs to satisfy planning conditions (these are allowed for in estimate of costs) • There is a risk that the preferred bidder will withdraw given reduction in scope and value, triggering a requirement to retender, a delay of at least four months and a requirement for further officer time to resource the tender process

Option 3 - Continue

Option	Positives	Measures	Other Considerations
Continue with the project	• Council demonstrates it is fulfilling its duty under the Climate Change Act • Council benefits from over £626k grant money awarded • Council completes a project that will achieve significant carbon emission reduction on estate and decarbonises the heating solution at London Road • Council may realise a small saving in energy costs • Council sets an example and provides case study for wider district • Learning can be captured for future grant applications and feasibility studies • Building fabric is substantially improved to reduce heat loss • New renewable energy will be generated on-site	• 1988 tCO_2e saving over the lifetime of the installation (average 20 years) • 91.62 tCO_2e saving per annum • The lifetime carbon cost of delivery has increased by around 88% to around £675/tCO2eLT • The expected £17k p/a saving on energy costs is now expected to reduce to £13k p/a savings • In line with the project cost doubling, the original payback period has increased by a similar ratio.	• A wider estates and operations decarbonisation delivery plan should be developed and the project costs and carbon savings assessed in context of that plan. This wider plan should be governed by the Blueprint 2.0 Programme and Board. • Council could consider opportunities for investment in solar renewable energy on other sites to mitigate reduction in solar panels at London Road. This could return the renewable energy generation to earlier design levels, but would require investment by UDC or further grant applications to another funding source. To add another site or use other grant funding, Salix will need to agree. • £140k of the grant must be spent by end FY25/26 which may be put at risk if the contract award and project 'start' is delayed • Following Salix guidance the project Grant Carbon Cost must not exceed £510/tCO2e (current projection is a grant carbon cost of £491.03 £/tCO2eLT) • Savings on energy costs are dependent on effectiveness of overall solution design and energy price movements. • Savings on carbon emissions are based on estimates provided in the HDPs • Funding body still to technically assess and approve updated energy efficiency modelling and funding award to reflect change to original design • UDC will be required to provide c £740k additional funding via borrowing (including the £90,681 already committed). The borrowing will have an annual revenue cost of around £60k. Over 15 years, the cost of borrowing will be around £286k

Note: As part of testing the 'Continue' option, the detailed design and specification of the most costly element (the Air Source Heat Pumps) was reviewed to determine if cost savings could be identified through design engineering, but the current design was found to be the most appropriate.

Key Learning Points

Learning Points

- Future carbon reduction plans and provision for feasibility / scoping work to be managed through the Blueprint 2.0 Programme Board.
- Independent assessment of consultants' work prior to grant funding submissions to ensure assumptions and expected costs are validated – such as by use of an independent quantity surveyor
- Contingency to be over and above all known and expected costs
- Establishing a project methodology at concept stage

Questions and discussion

Appendix

Reference Case Studies

1. **Salix case studies:**
   - Lighting project saves Aberdeen city council £300k in energy bills LED lighting. Project cost £2.7m, annual carbon saving 356 tonnes. Carbon cost = £303 £/tCO2e
   - Trailblazing decarbonisation in Liverpool's transport sector Mixed project similar to ours. Project cost £2,062,567, annual carbon saving 355 tonnes. Carbon cost = £290 - £232 £/tCO2e. Also made revenue savings
   - Rescue service on the way to net zero thanks to grant | Salix Finance project very similar to ours. Grant £823700 but total project cost not stated, assume £1.89 tonnes p/a. £75k revenue savings. £562 £/tCO2e based on 20 year ASHP lifetime.
2. **The carbon cost of other UDC projects are estimated as:**
   - the HVO project will save 1,114 tCO_2e per annum and achieves a 34% reduction in total council operational emissions. Costing £152k p/a, this equates to a carbon cost of only **£146.45 tCO_2e** per annum
   - the replacement of lighting in London Road offices will save circa 6.6 tCO_2e per annum. Costing £100k to deliver, this equates to a carbon cost of **£606 tCO_2e** over the lifetime of the equipment. The installation will also **save around £22k per annum resulting in a payback of 4.5 years**
   - the installation of solar PV in London Road offices could save circa 6 tCO_2e per annum, introduce local renewable energy production and improve our resilience by reducing our exposure to market fluctuations. Costing around £63k to deliver, this equates to a carbon cost of **£441 tCO_2e** over the lifetime of the equipment. This is based on installation on the complex historic site at London Road. The installation will also **save around £13k per annum resulting in a payback of less than 5 years.**
3. **An example project in Essex** is Braintree DC's installation of solar at Witham Leisure Centre saving around 1,882 tCO_2e over the lifetime of the installation (assuming the energy would otherwise have been generated through traditional fossil fuel basis). Costing £442,655 to install, the **lifetime carbon cost per tonne is circa £235**. There is also an annual saving/income of £83k resulting in a payback of 5 years.