

CABINET

14 JANUARY 2025

***PART 1 – PUBLIC DOCUMENT**

TITLE OF REPORT: DECARBONISATION OF LEISURE CENTRES UPDATE

REPORT OF: Service Director Place

EXECUTIVE MEMBER: ,Environment, Leisure and Green Spaces

COUNCIL PRIORITY: SUSTAINABILITY

1. EXECUTIVE SUMMARY

To provide an update on the project to decarbonise the Council's leisure centres, including predicted growth in ongoing revenue costs, due to revised modelling of the impact of installing air source heat pumps at the facilities.

2. RECOMMENDATIONS

- 2.1. That Cabinet indicates which of the options outlined within the report at paragraphs 8.6.1 – 8.6.4 should be approved.

3. REASONS FOR RECOMMENDATIONS

- 3.1 To identify the most appropriate way forward for the leisure centre decarbonisation project, taking into account both the environmental benefits of the project and the impact on the Council's wider financial position.

4. ALTERNATIVE OPTIONS CONSIDERED

- 4.1. None. Four potential options are presented at paragraphs 8.6.1 – 8.6.4

5. CONSULTATION WITH RELEVANT MEMBERS AND EXTERNAL ORGANISATIONS

- 5.1. The Executive Member for Environment, Leisure and Green Spaces has been consulted.
- 5.2 A project board has been established for consultation on the leisure decarbonisation project. The project board includes senior officers and the Executive Member for Environment, Leisure and Green Spaces, Cllr Debenham and Cllr Ian Albert, Executive Member for Finance and IT. The Service Director – Place is Project Executive and a representative from SIAS (Shared Internal Audit Service) is also included to ensure good project management governance. An extraordinary meeting of the project board is due to take place after the papers for this meeting have been published (7 January) and a verbal update from that meeting will be provided to Cabinet.

6. FORWARD PLAN

- 6.1 This report contains a recommendation on a key Executive decision, which has not been notified to the public in the Forward Plan. It is not possible to defer consideration of this decision, because two of the options involve the need to order heat pumps by 15 January, to meet grant funding requirements. The Chairman of the Overview and Scrutiny Committee has been informed and notice of the recommendation has been available at the Council Offices in Gernon Road, Letchworth for three clear working days prior to the date of this meeting.

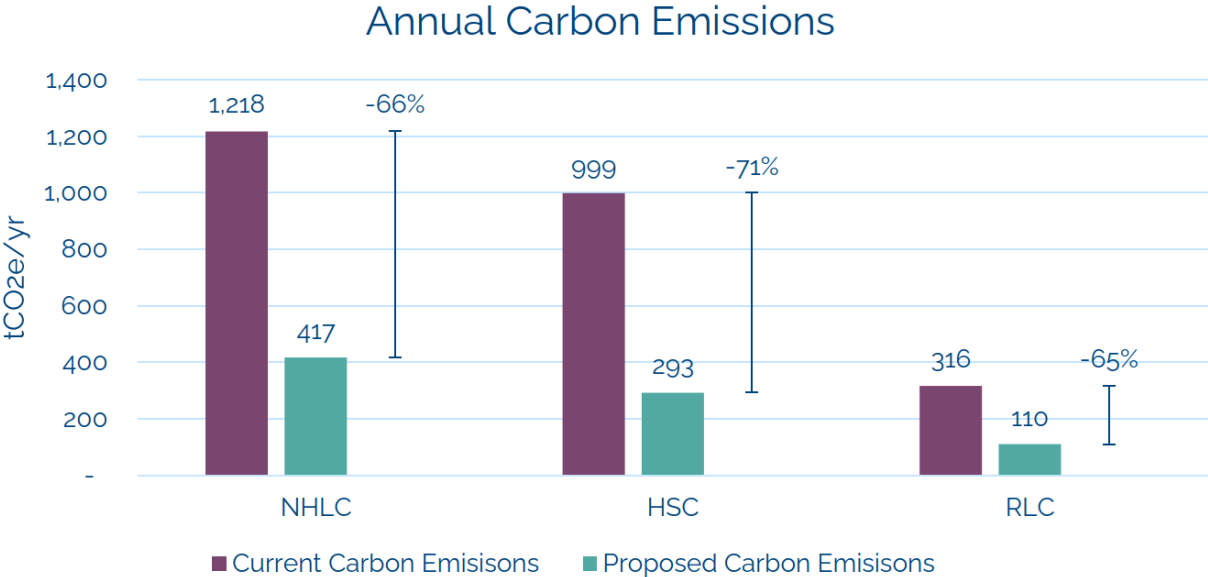
7. BACKGROUND

- 7.1 The Council's leisure centres are a significant source of the Council's operational carbon emissions. In 2022-23, gas use across the three leisure centres accounted for 1,428 tonnes CO₂e for gas use for three leisure centres - 45% of the Council's Scope 1-3 emissions.
- 7.2 In November 2023, the Council submitted an application for Phase 3c of the Public Sector Decarbonisation Scheme (PSDS). The application included details of existing buildings and heating systems and high-level proposals to enable substantial decarbonisation of the three major leisure centres.
- 7.3 In February 2024, the Council was advised its application was successful, securing £7.74m to assist in replacing end of life gas boilers with Air Source heat pumps and on-site generation of electricity through installing Solar PV panels. Other measures such as new air handling units and external and internal insulation also form part of the project at the three leisure centres; North Herts Leisure Centre (NHLC), Hitchin Swimming and Fitness Centre (HSFC) and Royston Leisure Centre (RLC).
- 7.4 In addition to the decarbonisation works, the project includes plans to build a gym extension at Royston leisure centre and refurbishment of the changing village at that site. The business case and capital budget for these works has already been approved.
- 7.5 During development of the PSDS application, costs were developed based on the findings of Heat Decarbonisation Plans which had been produced. At this stage, very early design stages were submitted. Additional costs incurred, such as preliminary costs were not incorporated into the application. Further capital was therefore secured to cover these additional costs, plus the Council's own match funding contribution required as part of the grant award criteria. The original total capital allocation for 2024/25 was £10,803,000 (including the grant).
- 7.6 During the detailed feasibility stage of the project, technical issues were identified, such as problems with insulating the underside of the roofs at the centres, resulting in additional costs being identified. Significant costs were also identified to terminate the agreements for the gas combined heat and power units (CHPs) which operate at NHLC and HSC. Therefore, at a meeting on 11 July 2024, Council resolved:
- (1) That Council approves an increase in capital expenditure of £2.4m into the capital programme for the decarbonisation work to the three leisure centres. The overall budget will be profiled across 2024/25 and 2025/26.

- (2) That Council approves an increase in the capital budget of £250k for the Royston Leisure Centre (RLC) gym extension, to ensure the extension is built to net zero carbon standards.
- (3) That Council approves revenue expenditure of up to £757k for termination and removal fees of the gas CHPs at North Herts Leisure Centre and Hitchin Fitness and Swimming Centre. This would be funded from General Fund reserves.

7.7 In August 2024, the Council signed a Pre-Construction Services Agreement with Willmott Dixon Construction Ltd, enabling the detailed design of the schemes to take place.

7.8 The annual carbon emissions before and after low-carbon interventions were calculated using the 2023 UK government carbon factors, published by DESNZ. The proposed carbon emissions include both the additional grid import due to the loss of CHP-generated electricity, and PV generation. After the decarbonisation measures, there would be over 60% reduction in CO2e emissions for all sites. There are still some carbon emissions for each site, partly due to residual emissions from energy consumption. These will reduce year-on-year as the UK's power grid transitions to renewable sources, in line with the Government's 2050 net-zero target. NHLC also has gas boilers for the learner pool which are not included in the project, due to the boilers not being eligible for funding in Phase 3C of PSDS, as they are not end of life (less than 10 years old). They have been included in our application for PSDS funding in the latest phase. At Hitchin, the emissions include those from the outdoor pool which also are not included in the project, due to the boilers being too new to qualify. The following graph demonstrates the carbon savings at each facility following completion of the decarbonisation project:



7.9 During the feasibility stage it was calculated that once the works are complete, there would be anticipated revenue savings from lower energy consumption, of approximately £32,000 per year (based on the leisure operator's current energy prices). Due to current low gas prices and the decarbonisation project leading to a higher reliance on grid electricity, the anticipated savings at that time were low. The July report included analysis of the impact of future changes in electricity and gas prices, and how that would affect

the net cost of the project. This information has been attached as a Background paper – (Energy cost modelling provided to Full Council July 2024).

- 7.10 The proposed PSDS works would see improvements to some of the building fabric (e.g. walls, glazing and roofing) at each of the leisure centres. These improvements may mean that future works to these areas are not required or can be significantly delayed. This could therefore mean that this investment is providing future capital savings. However, there is no capital budget currently allocated for any such works to the building fabric.
- 7.11 The PSDS grant conditions requires the funding to be spent over two years shown in the table below. It is a Salix condition that the funding is spent in the correct year, there can be no carry forward into the next year. There are, however, no restrictions on what year the Council spends its own capital allocation for the match funding element.

Amount of Grant (Year 1) - 2024/25	£6,165,264.00
Amount of Grant (Year 2) - 2025/26	£1,577,960.00

Salix require evidence of spend in the correct year, in order to draw down payment of the grant. This is usually in the form of a vesting certificate. A vesting certificate is a legal document that confirms ownership of assets, such as plant, machinery, or materials, that have not yet been delivered to site. The purpose of a vesting certificate is to provide protection of ownership rights; security and safety; and compliance to regulations for the goods acquired. However, if a vesting certificate cannot be provided, the Council can provide the following documents to make a valid claim; purchase order, suppliers purchase order acceptance, latest delivery communication from supplier and an accompanying invoice or other evidence to show the costs have been incurred.

8. RELEVANT CONSIDERATIONS

- 8.1 During the detailed RIBA Stage 3 / Stage 4 design phase, a review of the proposed air source heat pumps (ASHP) at all three leisure centres highlighted significant additional running costs, compared to previous estimates at detailed feasibility stage. Table 1 and 2 below shows the estimated monthly running costs of the centres currently and with the ASHP and solar PV installed, as well as the impact on the carbon produced. The table confirms that the carbon impact of replacing gas heating with ASHPs and solar PV is significant with the most conservative estimate being a 75% reduction in carbon at Hitchin Swim Centre, to the most positive being a 90% reduction at Royston.
- 8.2 Table 1 is based on an efficiency (seasonal coefficient of performance - SCOP) of 2.66 which relies on manufacturer data of how the units should perform if the system is working to provide hot water at 70 degrees and the outside temperature does not fall below -5 degrees. Table 2 is based on a more conservative view of how the heat pumps will operate from Willmott Dixon's MEP designers.
- 8.3 The impact on energy bills has been calculated based on the installation of the ASHP and solar PV as shown in both tables. The total combined additional cost of energy bills across all three sites ranges from £13k per month (£156k per year) (Table 1) to £27k (£322k per year) (Table 2). The actual performance relies on human behaviour in the building, outside temperature, hot water/heating demand, how the building is

performing thermally etc and therefore the utility costs will likely fall somewhere in between these figures, based on current design.

- 8.4 However, the figures quoted above do not currently take into account the substantial fabric improvements to the buildings which are taking place, which will have a positive financial impact on these figures (albeit an overall uplift in costs can still be expected across the three sites). At the time of writing the report we have the figures including fabric improvements for Royston only (as below), the NHLC and Hitchin figures are to follow. As demonstrated in table 2, once the thermal fabric improvements are included, both Table 1 and Table 2 show an overall reduction in energy bills at Royston by between £2k and £22k per year.

Table 1

ASHP SCOP at 2.66		Existing	ASHP + PV	ASHP + PV + Thermal Upgrades
Royston	Monthly Cost (£)	£4,977	£3,445 (-31%)	£3,076 (-38.19%)
	Annual Cost (£) (Change from existing (£))	£59,723 (n/a)	£41,342 (-£18,381)	£36,914 (-£22,809)
	Annual Carbon (kgCO ₂)	241,652	23,888 (-90%)	
North Herts	Monthly Cost (£)	£8,645	£16,461 (+90%)	To follow
	Annual Cost (£) (Change from existing (£))	£103,736 (n/a)	£197,532 (£93,796)	
	Annual Carbon (kgCO ₂)	667,752	117,264 (-82%)	
Hitchin	Monthly Cost (£)	£8,104	£14,800 (+83%)	To follow
	Annual Cost (£) (Change from existing (£))	£97,248 (n/a)	£177,600 (£80,352)	
	Annual Carbon (kgCO ₂)	592,295	105,506 (-82%)	

Table 2

ASHP SCOP at 2.00		Existing	ASHP + PV	ASHP + PV + Thermal Upgrades
Royston	Monthly Cost (£)	£4,977	£5,377 (+8%)	£4,801 (-3.5%)
	Annual Cost (£) (Change from existing (£))	£59,723 (n/a)	£64,524 (£4,801)	£57,612 (-£2,111)
	Annual Carbon (kgCO ₂)	241,652	37,762 (-84%)	
	Monthly Cost (£)	£8,645	£22,775 (+163%)	To follow

North Herts	Annual Cost (£) (Change from existing (£))	£103,736 (n/a)	£273,300 (£169,564)	
	Annual Carbon (kgCO ₂)	667,752	162,602 (-76%)	
Hitchin	Monthly Cost (£)	£8,104	£20,405 (+152%)	To follow
	Annual Cost (£) (Change from existing (£))	£97,248 (n/a)	£244,860 (£147,612)	
	Annual Carbon (kgCO ₂)	592,295	145,756 (-75%)	

- 8.5. Part of the reason for the increase in running costs is due to the need to order smaller, modular heat pumps, which can be bought off the shelf, as these are the only type we have been advised by Willmott Dixon, we can feasibly order within the timeframes to meet the 2024/25 spend and vesting requirements for our Salix grant, as per paragraph 7.11. The larger, bespoke heat pumps have a 26 week lead in time. It was not possible to order heat pumps any earlier in the year, due to the need to go through the design process and calculate the impact of the fabric improvements first, before calculating the load of the heat pumps. Unfortunately, the smaller heat pumps are between 15 and 20% less efficient than the larger bespoke units.
- 8.6 Given the information provided at paragraphs 8.1-8.4, Cabinet are asked to consider four options:
- 8.6.1 **Option 1: Continue with the scheme for all three leisure centres and accept the increased running costs of the buildings.** The benefit to this would be that the Council would benefit from £7.74 million of funding to help meet our net zero targets. Taking action to replace gas heating for our leisure centres with low carbon alternatives is the single most effective action we can take towards reducing carbon use. However, the financial impact on current estimates could be increased running costs of up to £314k per year (based on current energy prices), although a further update will follow once calculations have been received on the impact of the fabric improvements at the centres. The design is also not optimal in terms of the total energy use that could be achieved.
- 8.6.2 See the implications detailed in paragraph 9.1 which may inhibit Cabinet's ability to choose this option without onward referral to Full Council. In that scenario, the deadline for ordering the heat pumps could not be met.
- 8.6.2.1 **Option 2: Abandon the project (apart from the Royston Gym extension and change village) and aim to resubmit a bid to a future round of PSDS.** The benefit of this would be planning a programme which allowed more time to secure the appropriately sized heat pumps. In the meantime, the termination costs of the CHPs at NHLC and Hitchin Swim Centre would continue to decrease each month, meaning a reduced revenue impact for the council. However, there are significant risks to this approach – firstly the boilers at all three leisure centres are end of life and are encountering regular maintenance issues. If we install new gas boilers at any of the sites (which may become a necessity if they fail), we will not be eligible for future rounds of PSDS funding. The council will also need to commit its own capital expenditure to install the air source heat pumps (or similar) at a later date. There is an option that the council could complete

scaled back energy efficiency works and install solar PV using its own capital and not change the heating source from gas, however this would not help the council in meeting its decarbonisation objectives.

8.6.2.2 If Cabinet took this decision, we would have to return all of our grant funding and pay for all of the works incurred to date. The total spent to date on pre-construction works at end of December was £770k, this is forecasted to increase to £902k by 15 January 2025. The Intellectual property on the designs belongs to the Council and therefore we would be able to re-use these details on a future scheme, however there is likely to be a significant element of costs which we cannot recoup if we were to revisit the scheme at a later date. The costs incurred would become a revenue cost as there would not be a capital scheme they could be applied to.

8.6.2.3 There is also no guarantee that we would receive future funding from PSDS, or similar schemes and the eligibility criteria (including capital contribution required from the applicant) can change from round to round of funding.

8.6.3 **Option 3: Proceed with the decarbonisation project at Royston Leisure Centre only.** The reason for this option is because as per Tables 1 and 2, even the more conservative estimate shows ongoing running costs reducing, compared to current monthly costs. There are also efficiencies on preliminary costs, due to the works already scheduled to take place to complete the gym extension and change village being scheduled for the same time as the decarbonisation works. However, Salix would have to agree to the change and therefore we would have to order the heat pumps at risk on 15 January to guarantee the necessary lead in time. Other equipment such as air handling units also needs to be ordered asap. Willmott Dixon have calculated what our likely grant value would be just for a Royston scheme and this would be £1.496m. However, this is only an indication and is based on the information from our original application and therefore would need updating as some of the scheme details have subsequently changed. The downside to this approach is that from a carbon perspective, Royston has the lowest emission of all three sites and therefore we would not be tackling our two sites with the highest emissions.

8.6.4.1 **Option 4: Instruct Willmott Dixon to design and order the larger, bespoke heat pumps.** This option has previously been discounted due to the timeframe involved in designing the heat pumps, as they are bespoke to the centres, vs the smaller modular heat pumps which are off the shelf. As per paragraph 7.11, Salix place strict conditions on payment of the grant funding, requiring evidence of spend in the correct year, usually in the form of a vesting certificate, as this shows proof of ownership of the asset. However, an option being tested with Salix is in the absence of a vesting certificate there is an option for the Council to pay up front for the heat pumps (but they would be delivered later), which Salix should accept as proof of ownership. This could enable further work on heat pump design to take place, to ensure we are maximising their efficiency and ensure that running cost increases are kept to a minimum. At the time of writing the report, Willmott Dixon are considering if we can incorporate this change into the programme, as there is a 26 week lead in time for the heat pumps (including design) and they would need to be ordered well in advance of 31 March 2025. An update will follow on this option.

8.6.4.2 The risks to the Council with this approach needs to be considered, due to paying up front approximately £3.59 million. For example, if Willmott Dixon Construction were to become insolvent prior to the Council receiving the heat pumps, there is a risk that we

would not be able to recoup the spend. However, officers have previously been issued with information on Willmott Dixon's financial position which would mean that the actual risk of this happening would be low. We would also look at ways to ensure that the assets would transfer to the Council. There is also a risk that the capital costs of the scheme may increase, due to the larger heat pumps being bespoke. However, the programme is currently within budget and there is also a tolerance on the overall capital budget of 5%.

8.6.4.3 The table below (Table 3) shows the impact of an alternative designed heat pump. There would still be an overall increase in monthly costs of just under £6,000 or around £69k per year (excluding fabric improvements), but this is much less significant than the increases shown in Table 1 and Table 2. Information on the impact of these figures when taking into account the fabric improvements of the buildings is to follow.

Table 3

ASHP SCOP at 3.2 (euroklimat R290)		Existing	ASHP + PV
Royston	Monthly Cost (£)	£4,976.88	£2,469 (-50%)
	Annual Carbon (kgCO ₂)	241,652	16,881 (-93%)
North Herts	Monthly Cost (£)	£8,644.66	£13,272.42 (+54%)
	Annual Carbon (kgCO ₂)	667,752	94,366 (-86%)
Hitchin	Monthly Cost (£)	£8,104.08	£11,969 (+48%)
	Annual Carbon (kgCO ₂)	592,295	85,118 (-86%)

9. LEGAL IMPLICATIONS

9.1. Cabinet's Terms of Reference (at paragraph 5.7.8) include "to monitor quarterly revenue expenditure and agree adjustments within the overall budgetary framework". This means that Cabinet can agree (usually through the quarterly budget monitoring reports) to increases in forecast spend. Where these have an ongoing impact, these are then incorporated into budgets for future years. However, such decisions are required to be in the context of the budgetary framework and that must consider the degree to which there is an element of choice and the financial value. If Cabinet were minded to proceed with option 1 at the current forecast increases in costs, then that is clearly a choice that Cabinet could choose not to make. It is also significant in the context of the Council's financial position. Accordingly, and acknowledging the timing implications that this creates, the advice of the Service Director: Resources (as Chief Finance Officer) is that such a decision should be referred to Full Council for approval. This advice may change if the financial impact reduces.

10. FINANCIAL IMPLICATIONS

10.1. The current capital forecast for the project (excluding the gym extension) is £13.451 million. On current forecasts, it is not anticipated that there will be a need for an increase in the capital budget for the programme.

10.2. Cabinet should note the additional costs to the Council that were agreed in the July report. These arose from the additional capital spend creating a revenue cost of capital from interest costs and Minimum Revenue Provision. This was an additional annual cost budgeted at around £400k.

- 10.3. From the Medium-Term Financial Strategy and subsequent budget reports (including one on the agenda for this meeting), Cabinet will be aware of the financial pressures facing the Council. Increases in spend will mean that greater savings will need to be found from other services and budgets.
- 10.4. The Council has sufficient General Fund reserves for a decision that would see expenditure that was expected to be capital, now needing to be treated as revenue expenditure. This happens when a capital project is not completed and an asset is not created or enhanced. This means that options 2 and 3 are financially viable.

11. RISK IMPLICATIONS

- 11.1. Good Risk Management supports and enhances the decision-making process, increasing the likelihood of the Council meeting its objectives and enabling it to respond quickly and effectively to change. When taking decisions, risks and opportunities must be considered.
- 11.2. The decisions contained within this report cannot be made solely on a financial basis, due to the capital costs involved and projected increase in running costs of the facilities. The decision needs to therefore be based on relative priorities, whilst also considering risk. Risks that would favour making a decision to continue with the decarbonisation works are:
- By not progressing we will lose access to the substantial PSDS funding, and (due to the potential need to replace the boilers) may not have access to any such funding in the future.
 - The work by Willmott Dixon and the Quantity Surveyor may identify capital cost savings, although as the project progresses this is less likely.
 - Gas prices may increase by more than projected, which makes the move to electricity more economically viable (note: this improves the business case but doesn't actually help the Council's budget)
 - Electricity prices may drop by more than projected, which helps reduce the cost of heating generated by electricity.
 - As we approach national net zero targets (which we're not currently on track to achieve), one aspect that may drive behavioural change, may come in the form of a carbon tax, which could financially penalise bodies for carbon emitted over baseline/benchmark values. However, this is not a current policy direction which has been set by Government.

Risks that would **not** favour making a decision to continue with the decarbonisation works are:

- We have already seen cost increases, and there is the potential that further capital or ongoing revenue cost increases could be identified.
- Gas prices may increase by less than projected (or even fall), which makes the move to electricity relatively even more expensive.
- Electricity prices may not drop as much as projected (or could increase) which increases the relative cost of heating generated by electricity.
- There is a low risk that alternative, non-fossil fuel-based heating sources, such as hydrogen, will emerge as commercially viable options in the long term. However, the UK Government has indicated that the use of technologies such as

heat pumps will be “the primary means of decarbonisation for the foreseeable future.”

12. EQUALITIES IMPLICATIONS

- 12.1. In line with the Public Sector Equality Duty, public bodies must, in the exercise of their functions, give due regard to the need to eliminate discrimination, harassment, victimisation, to advance equality of opportunity and foster good relations between those who share a protected characteristic and those who do not.
- 12.2. There are no equalities implications resulting from this report.

13. SOCIAL VALUE IMPLICATIONS

- 13.1 As the recommendations in the report relate to a contract above £50,000, Social Value will be incorporated in the procurement process.
- 13.2 The Public Services (Social Values) Act 2012 imposes an active duty on relevant contracting Authorities to consider the economic, environmental and social benefits that can be achieved through commissioning. It does so by requiring consideration of the improvements of economic, environmental and socio-economic of the procurement to wider society.
- 13.3 The Council will be using the SCAPE Procure Regional Construction Framework for the procurement and social value is integral to SCAPE’s approach and operations. Utilisation of the Framework ensures Social Value outcomes; for example, utilising a 'go local' approach to spend which benefits the local economy.
- 13.4 SCAPE unlocks social value at scale, through procurement solutions and innovative joint ventures, which engender long-term collaborative relationships with framework delivery partners and with the Council, creating scope to plan sustainably and invest for the future. SCAPE generates social value both directly, through its activities; and indirectly, by regulating supplier behaviour through procurement and thought leadership.

14. ENVIRONMENTAL IMPLICATIONS

- 14.1. Whilst there are carbon costs associated with construction, the project is solely focused on improving the energy efficiency of the sites and implementing renewable energy solutions to substantially decarbonise the sites. This should lead to an overall reduction in operational carbon emissions as identified at the graph at 7.8. Section 7.10 identifies that fabric work (glazing, new roofing, cladding etc) may prolong the life of the buildings, reducing the risk of needing to demolish and replace buildings, which may have a higher carbon cost.

15. HUMAN RESOURCE IMPLICATIONS

- 15.1 To ensure resource can be appropriately managed, a Project Manager has been appointed to support the project alongside a quantity surveyor to represent the Council’s interests.

16. APPENDICES

16.1 Appendix 1 – Energy cost modelling provided to Full Council July 2024.

17. CONTACT OFFICERS

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18. BACKGROUND PAPERS

18.1 None