

Decarbonisation programme phase 2 proposals

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Purpose of the Report

1. This report recommends a second phase of decarbonisation works to council owned properties as a significant contribution towards the council's commitment to achieving carbon neutrality.

Public Interest

2. As part of its Environmental Strategy and its aspiration to be carbon neutral across operations by 2030, South Somerset District Council (SSDC) is aiming to reduce the greenhouse gas (GHG) emissions of its operations. A major focus for this is emissions from operational buildings. The intention is to phase work over several years. This report recommends a project to deliver a significant phase of improvements in 2022-23.

Recommendations

3. That Full Council agree to:-
 - a. Approve the programme of decarbonisation works recommended in this report.
 - b. Approve an increase to the capital budget of £2,760,000 to be funded from borrowing.
 - c. Approve an increase to the council's revenue budget of circa £53,960 per annum to fund the financing costs arising from the borrowing required.

Background

4. The South Somerset Environment Strategy was formally adopted and approved by Councillors of South Somerset District Council in October 2019. The strategy sets out both the immediate actions and long-term goals for the district achieve a significant reduction in SSDC's carbon emissions.



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5. A significant proportion of its current GHG emissions is within its built estate and the focus of this project is on the technical aspects of reducing emissions from this source. It is expected that a programme of decarbonisation of council operational buildings will be continued over a number of years.
6. A first project of decarbonisation works is being progressed at council owned leisure centres. This report recommends a second phase of works which have been specifically targeted at operational buildings with significant service plant that is near the end of operational life and thus requires replacing in any event.
7. SSDC appointed an expert consultancy now called EQUANS to carry out energy audits/surveys on a selection of ten of our larger buildings to determine their pathway to net zero carbon. Following this initial work, the same adviser provided detailed technical design and specification work for various packages of work at a series of buildings which would all contribute to reducing emissions from those buildings.
8. From that assessment, work at several building has been prioritised as forming a proportionate scale of project to deliver in 2022-23 and also to address buildings where normal service use of the building is vulnerable to disruption due to existing services plant being at the end of its design life and therefore with increased risk of failure.

Proposed works

9. The overall assessment of packages provided by EQUANS included installation of air and ground sourced heat pumps, chiller replacement, roof mounted solar PV and improvements to glazing and lighting. From this assessment, a single year priority programme has been drawn up.
10. The rationale for this has been to select items which were amongst the packages provided by EQUANS but target also items which are also priorities for replacement of existing building services plant with high risk of short-term failure due the plant being at the end of its functional life expectancy.
11. Three buildings have been selected on this basis – Westlands venue (boiler risk), John O'Donnell Pavilion (boiler risk) and the Council Offices at Brympton Way (chiller). In addition, lighting improvements to move to LED lighting and Solar PV also at several buildings. These categories have been selected as there should be economies to be gained by carrying out work at multiple locations under one contract and both offer direct benefit of energy cost savings as well as emissions reductions.
12. The categories proposed by building are shown in the table below:

Table 1

| Category | Westlands | JOD Pavilion | Brympton Way | LIGHTING Remaining sites: Brympton Lufton Petters YIC Crematorium | SOLAR Remaining sites: Lufton Petters YIC Yeovil Country Park Ham Hill |
|----------------------|-----------|--------------|--------------|---|---|
| Air Source Heat Pump | X | X | | | |
| Lighting | X | X | X | X | |
| Solar PV | X | X | | | X |
| Insulation | X | | | | |
| Glazing | X | | | | |
| Chiller | | | X | | |
| EC Fans | | | X | | |

13. The budget estimate for the supply and installation of these packages is £2,215,000. Allowance has been added for contingency, fees and CDM requirements with an allowance of 20%, with a further spot allowance for additional design fees of £100,000. The total sum requested in terms of additional capital for this programme is £2,760,000.

14. Options that have been considered are:

- 14.1. Do nothing – this would result in no reduction in SSDC’s carbon emissions for 2022-23, failing to meet our Environmental Strategy. It would also leave significant risk of operational disruption at key buildings as heating equipment is in need of replacement.
- 14.2. Restrict works to direct replacement of functionally obsolete service plant at Westlands, John O’Donnell Pavilion and Brympton Way. This could be achieved for a lower capital spend. The lowest cost approach would be to replace gas fired boilers with current design new gas boilers. This would be cheaper and more simple. The reduction in carbon emissions would be much less. Reflecting the capital budget already approved for Westlands, the additional capital would be c£850,000.
- 14.3. Implement this programme of works shown in Table 1 above. This delivers an effective series of packages that will achieve significant reductions in carbon emissions, upgrade service plant and equipment at key operational buildings, improve the working environment and extend the economic life of assets.

Financial Implications

15. The potential expenditure is estimated to be £2,760,000. There will be indirect financial benefits as this expenditure will replace significant items of building services plant that are at risk of failure, and thus protect the council from that expenditure.



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16. This expenditure will need to be financed from borrowing which means that additional charges will be made to the council's revenue budget estimated to be in the region of £53,960 per year.
17. There will be savings in energy costs achieved by some of the packages of works. The use of Air Sourced Heat Pumps enables heating by electricity rather than gas. This is an effective route to using sustainable fuel but of itself involves a higher cost per unit of heating. This should be mitigated by other improvements in the budget.
18. Appropriate allowance for project contingency has been included to avoid the risk of project overspend due to unforeseen costs.

Council Plan Implications

19. The current Council Plan demonstrates the council's commitment to keep South Somerset green, clean and attractive and respond to the climate and ecological emergency. The first area of focus under this theme is to continue the delivery of the Environment Strategy action plan reducing our carbon emissions by 10% every year, to reach carbon neutrality by 2030.
20. The approach recommended also supports the council plan theme of protecting core services by recognising the synergy of prioritising packages that both reduce carbon emissions but also address operational vulnerabilities.

Carbon Emissions and Climate Change Implications

21. The primary aim of the recommendation is to contribute to reducing the greenhouse gas.

Equality and Diversity Implications

22. An Equality Impact Assessment relevance check was completed and it is determined that a full Equality Impact Assessment is not required at this stage, but may be required once we develop specific actions.

Privacy Impact Assessment

23. A Data Protection Impact Assessment has been completed and identified that the data risk is very low.

Background Papers

- SSDC Environmental Strategy