

Calderdale MBC

Wards Affected: All

Economy and Investment Panel 9 February 2016

RE:FIT Energy Efficiency Investment Programme

Report of the Acting Director of Economy and Environment

1. Issue

- 1.1 The Council spends more on energy consumed in its corporate buildings than it does on repairing them.
- 1.2 Corporate Asset and Facilities Management (CAFM) has an energy budget for the year 2015/16 of £2,542,287 (excluding schools or any water and sewerage charges). Against this budget, there is a savings target of £464,110.
- 1.3 Energy costs are expected to rise significantly in the next five years due to 'electricity market reform', rising commodity prices and changes to energy taxation. Street lighting costs will increase by 8% next year and are approaching £2 million.
- 1.4 There is now local, national and international recognition that there is an urgent need to mitigate the consequences of climate change.
- 1.5 The Council has already set targets to reduce energy consumption and carbon emissions. Credibility depends on those targets being met.
- 1.6 The Council is responsible for around 31,000 street lights. In addition to being inefficient, a third of them are life-expired and need either replacing or significant structural changes whilst a further third are approaching the limit of their design life.

2. Need for a Decision

- 2.1 This report is presented now to give Members a timely understanding of the background to potential future requests for capital support.

3. Recommendation

It is recommended that:

- 3.1 the report is noted and any pertinent observations made therein.

4. Executive Summary

- 4.1 At CAFM Programme Board on 16 December, 2015, it was agreed to move forward with phase one of an investment programme through undertaking procurement activity utilising a public sector framework known as 'RE:FIT' to deliver energy efficiency improvements in an initial phase of 13 core Council buildings. This requires a £14,000 fee to be paid from existing budgets to a public sector organisation known as Local Partnerships (further details about Local Partnerships at 3.11). This covers Local Partnerships' support to the Council's project team in producing mini-competition tender documents in order to identify a preferred Energy Service Company (ESCo), specific energy efficiency improvements, the firm costs of implementing them and the associated energy savings guaranteed contractually. This information will then be contained within a Cabinet report that will be submitted for approval to enable implementation of the improvement works.
- 4.2 Feasibility and procurement work has already begun in line with the discussion during the CAFM Programme Board on 16th December 2015.
- 4.3 It is currently estimated that the cost of energy efficiency investments for the 13 buildings will be in the region of £1.25m to £1.5m. Once completed, it is expected that the result will be annual energy savings in the region of £150,000 to £250,000 with an average payback period of around 7 years.
- 4.4 The RE:FIT framework is also being utilised to explore the feasibility of siting renewable energy technologies on two parcels of Council-owned land. This will be an exploratory step towards deriving income from such sites. This income would be derived from the energy generated and any tariff support mechanisms that may be available to the Council.
- 4.5 The mini-tender documents issued through the RE:FIT framework will include for replacing approximately 11,000 street lighting lanterns with LED (Light Emitting Diode) lanterns. The cost of this is estimated to be about £5 million with a payback period of around 7 years and is subject to future approval.
- 4.6 The Council's Highways service continues to liaise with the Department for Transport, and continues to develop additional business cases in the event that use of the RE-FIT framework for street lighting might be complemented or superseded by a comprehensive approach across all 31,000 street lights.
- 4.7 Including buildings, street lights and/or land in the RE:FIT mini tendering process will not result in any obligation to progress further if the Council is not minded to do so in whole or in part.
- 4.8 If existing capital budgets are not available to pay for energy efficiency investments, future approval will be recommended to enable energy efficiency investment costs to be financed using a blend of interest-free loans from a government-backed facility (Salix), from prudential borrowing on an invest-to-save basis or other sources such as the Green Investment Bank.
- 4.9 Repayment of financing costs would be made from contractually guaranteed annual energy cost savings. This would necessitate existing energy budgets being adequately ring fenced to make repayments possible.

5. Background

- 5.1 Council Policy: Full Council on 15th February 2012 set a target of 40% carbon emissions reduction by 2020 based on a 2005 baseline and leading to an 80% reduction by 2050. The Budget Council Meeting in 2015 set a target to reduce energy consumption in Council buildings by 20% through invest-to-save measures. This proposal also links to CAFM's Carbon Management and Energy Efficiency Plan.
- 5.2 UK CO2 Targets: UK target to reduce greenhouse gas emissions by at least 80% (on 1990 levels) by 2050 introduced through the Climate Change Act 2008. This is supplemented by carbon budgets that equate to target reductions of 35% by 2020 and 50% by 2025.
- 5.3 A Conference of Parties to the UN Framework on Climate Change (UNFCCC) took place in Paris in 2015 (COP21). It reached an international agreement on 12th December 2015, including the UK, to limit emissions of greenhouse gases such that global temperature is kept 'well below' 2 degrees Celsius and to drive efforts to limit the temperature increase even further to 1.5 degrees Celsius above pre-industrial levels.
- 5.4 Most Council buildings were built before the Council set, on 15th February 2012, its policy requiring new buildings to achieve an 'excellent' rating under the Building Research Establishment's Environmental Assessment Method (BREEAM), and refurbished buildings to achieve a 'very good' rating. Consequently, levels of insulation are often low. Many heating and lighting systems are also old and inefficient.
- 5.5 Market testing and feedback from external organisations shows that, as a general rule, 20-40% energy savings are achievable via retrofit work with a payback of 6-10 years. Once the investment has 'paid back' its own cost via the energy savings delivered, there is an ongoing saving.
- 5.6 When feasible, CAFM has improved the energy performance of heating, lighting and/or insulation as part of capital works such as for boiler replacements, lighting upgrades or re-roofing. However, such works have been relatively small in scale and limited in scope due to budget constraints.
- 5.7 Every building is unique and the interaction of systems and improvements needs to be considered carefully to ensure that investments maximise effectiveness. CAFM's current structure has not been established to undertake the technical delivery of retrofit intervention programmes on top of its existing workload. To proceed with an in-house designed and delivered programme it would be necessary to recruit additional staff. This would be costly and would delay the start of the works and realisation of the associated savings.
- 5.8 As energy efficiency offers a significant opportunity to cut costs in many organisations, frameworks have been developed to enable local government to buy in technical skills and assistance in a flexible way.
- 5.9 RE:FIT is the London Mayor's model for public bodies wishing to implement energy efficiency and local energy generation (renewable energy) measures to their

buildings or estate. Councils that have used the RE:FIT framework to deliver energy savings recently are Buckinghamshire, Cambridgeshire, Cardiff, Stoke, Kingston upon Hull, Coventry City, Fenland, Wycombe & Huntingdonshire District. Furthermore, government departments DECC and DEFRA utilised an earlier phase of RE:FIT.

- 5.10 RE:FIT can be used for a broad range of measures including, but not limited to, insulation and building fabric improvements, replacement or upgrading of mechanical and electrical services equipment, water saving devices and the installation of bespoke energy efficiency and renewable energy generation measures.
- 5.11 DECC has appointed Local Partnerships to provide mandatory support to organisations outside London that wish to utilise the RE:FIT framework. Local Partnerships can be procured by government departments and local authorities without a competition. As 80% of their work is carried out for its owners, Central Government and Local Government Association, a Regulation 12(4) exemption from the Public Contracts Regulations 2015 applies.
- 5.12 Once appointed through mini-competition, the selected ESCo will conduct detailed building audits and prepare an Investment Grade Proposal that includes the full details of solutions, confirms the tendered costs, confirms the guaranteed energy savings and associated payback periods. As part of the competitive process, the Council can specify a maximum payback period of 10 years in line with the advice received from the Head of Finance.
- 5.13 Critically, the risk of not meeting the guaranteed savings would be carried by the ESCo rather than by the Council. The guarantee would be backed by a robust measurement and verification plan and would be enforceable through an Energy Performance Contract with appropriate remedies to ensure that guarantees would be met or exceeded. This would minimise the risk of investments failing to deliver target levels of energy consumption reduction.
- 5.14 The full cost of the RE:FIT investment programme cannot be defined until the ESCo proposals have been evaluated. The estimates of cost and savings that are provided in this document are for guidance.
- 5.15 It has been suggested that the Council's RE:FIT programme may be structured such that the selected ESCo can be used by Calderdale schools under separate arrangements. The details of this have yet to be explored.
- 5.16 Social value will be built into the RE:FIT tender evaluation criteria by awarding marks for the use of local skills and labour, apprenticeships etc.
- 5.17 Although rationalisation of the estate is likely to occur within the 10 year energy saving payback time-frame, it would be financially and environmentally unwise to delay energy efficiency investments in core Council buildings. Buildings have been shortlisted for energy efficiency investments via the RE:FIT framework on the basis of high energy consumption as well as the likelihood that they will remain in the corporate estate for the foreseeable future. Even if a selected building becomes surplus to requirements in the future, there is increasing evidence that energy efficiency improvements will enhance asset values especially in the context of

legislation that requires minimum levels of energy performance in buildings being sold or let.

- 5.18 Officers have identified a portfolio of 13 key buildings that fit the above criteria and should therefore be priorities for a first phase of intervention. These are: Mulcture House, Brighthouse Pool, Todmorden Sports Centre, the Shay Stadium, Sowerby Bridge Pool, Park Wood Crematorium, Halifax Town Hall, Victoria Theatre, Higgins Close, Halifax Customer First, Queens Road Centre, Lower Edge Centre and Spring Hall Mansion & Museum Store.
- 5.19 The portfolio contains a varied mix of buildings – different ages of stock, different user groups, different uses and different locations. This presents a challenge but also an opportunity for great learning that can inform further phases of work on additional Council buildings.
- 5.20 Officers have identified two parcels of land that may offer opportunities for installing renewable energy technologies. One is grazing land at Dodd Naze in Hebden Bridge (around 6 Hectares) while the other is Moor End Quarries, Gibb Lane, Mount Tabor (around 2 Hectares).
- 5.21 To look at buildings, street lighting and land opportunities via the same mechanism is an efficient and effective use of officer time. It is also hoped that future phases of energy efficiency improvements using the RE:FIT model will be possible, subject to approval.
- 5.22 Based on experience elsewhere, savings of between £150,000 and £250,000 can be expected from energy efficiency investments in the 13 buildings in an initial RE:FIT phase. This is equivalent to between 20% and 33% of current energy bills in those buildings. A conservative estimate of the financial savings on energy bills over a 10 year period (without factoring in loan repayments, expected increases in energy prices or the net present value of money in the future) could be between £1.5m and £2.5m.

6. Consultation

- 6.1 Discussions have been held between: Corporate Asset and Facilities Management, Highways, Legal Services, Finance, Corporate Procurement, Environmental Management and Corporate Projects. These discussions will need to continue with advice being sought from colleagues within the Council as the programme develops.
- 6.2 The Cabinet member for Skills and the Environment has been consulted over the structure and goals of the programme.

7. Financial

7.1 Options for funding are described below. Officers recommend that, in dialogue with the Head of Finance, a blend of (a), (b) and possibly (c) be utilised:

- (a) Salix interest-free loans. The Department of Energy and Climate Change's Salix fund can be used to cover investments with a maximum payback period of 5 years. The interest-free loans are repayable over four years and can provide base funding that could be topped up from other sources to cover other aspects of the investment with a longer payback period.
- (b) Prudential borrowing - Public Works Loan Board (PWLB) loans - on an invest-to-save basis. Investments funded this way will typically have payback periods of between 5 and 10 years although longer payback periods might be considered when there is a compelling case to do so. A relatively low interest rate applies to these loans.
- (c) Green Investment Bank (GIB). The GIB was established by the government to support non-domestic energy efficiency projects in the public and private sector including building retrofits (e.g. lighting, insulation, and glazing) as well as on-site generation (e.g. renewable heat). The GIB provides funding to government and local authorities through specialised products such as its Green Loan (a long term loan that can be shaped around savings from energy efficiency projects) either as direct investments by the GIB or through its fund managers for smaller scale projects.
- (d) ESCo funding. This is when the ESCo finances and undertakes the energy efficiency improvements and then recovers the cost plus interest (7-10%) from the savings made. Interest rates will be higher than for PWLB loans and so this approach is unlikely to be used.
- (e) Savings shared with the ESCo. This differs from the previous option in that the ESCo receives an agreed share of the savings achieved from the investment. Therefore, the ESCo is likely to receive significantly higher returns over the lifetime of the building or installation than if the ESCo merely receives capital and interest repayments. Again, this source of funding is unlikely to be used due to complexity and reduced return on investment for the Council.
- (f) European Regional Development Fund (ERDF) 50% grant funding. A 'Low Carbon Call' for Public Sector retrofit bids under ERDF Investment Priority 4c is expected to be made in 2016. However, it has been ruled out as an option for contributing to the cost of the initial phase of the RE:FIT programme because of a mismatch in the timing of data requirements and data availability.

8. Equality and Diversity

8.1 Tender documents will specify that suppliers and contractors used for delivery of this programme have appropriate policies and procedures in place to support equality and diversity.

9. Contribution to population outcomes

9.1 This programme will make a strong contribution to the following population outcomes:

9.1.1 Efficiency –

- Establishing clear financial plans to meet future challenges; and
- Managing and effectively maintaining our public assets.

9.1.2 Resilience –

- Taking forward our "Energy Future" agenda.

9.1.3 'Sustainability' -

- Promoting income maximisation.

10. Corporate implications

10.1 The CO₂ emissions reduction resulting from the first phase of improvements to 13 buildings will amount to between 1,700 and 2,800 tonnes of CO₂ each year. This is equivalent to the emission reductions that would result from taking 350 – 580 cars off the road each year and represents reduction in the overall Council carbon footprint of at least 6%. Upgrading nearly 11,000 street lighting lanterns will reduce the Council's carbon footprint by approximately 2,400 Tonnes per year and this will increase the reduction in the Council's carbon footprint from around 6% to around 14%. These reductions would be significant steps towards meeting the Council's target of a 40% reduction by 2020.

10.2 Investment in the first phase of this programme will deliver significant cost savings as indicated elsewhere in this report. Savings made will contribute to budget savings targets set by the Council and are fully aligned with the target set at the Budget Council Meeting in 2015 to reduce energy consumption in Council buildings by 20% through invest to save measures.

10.3 This work will improve thermal comfort and amenity of the buildings within the programme to the benefit of over 1000 customers, employees and visitors.

10.4 This programme will reduce air pollution: greenhouse gases, nitrous oxide and other pollutants. In particular, phasing out the coal boiler at Lower Edge Centre / Highbury School will offer a localised air quality benefit.

11. Conclusions

11.1 This programme is fully aligned with existing the Council's objectives and targets.

11.2 Further phases of energy efficiency investments will be the subject of future reports.

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The documents used in the preparation of this report are:

1. Corporate Assets and Facilities Management (CAFM) Transformation Programme Project Initiation Document (PID) 9 December 2016
2. RE:FIT Supporting Documentation November 2015

The documents are available for inspection at:

Corporate Asset & Facilities Management, First Floor, Northgate House, Halifax