The City of Edinburgh Council

10am, Thursday, 28 April 2016

Energy Retrofit of Council Buildings

Item number	8.3
Report number	
Executive/routine	
Wards	

Executive summary

The Council is looking to embark on a programme of energy retrofitting nine of its largest buildings and has been evaluating the use of the London RE:FIT scheme which is designed to assist the public sector to make significant savings in energy. Matrix Control Solutions were appointed through a RE:FIT mini competition and are currently developing detailed proposals to deliver energy savings. These will be guaranteed to the Council through an Energy Performance Contract. Matrix has identified substantial energy and carbon savings and also significant financial savings in the order of £0.385m per annum. Funding now needs to be approved for the programme to enable the works to be carried out and formal approval given to appoint the contractors.

Links

Coalition Pledges	P50
Council Priorities	CP12
Single Outcome Agreement	SO4

Energy Retrofit of Council Buildings

Recommendations

1.1 The Council is asked to :

- approve the borrowing of £0.8m from Salix and £0.975m from Spend to Save to fund energy retrofit measures to nine Council buildings;
- subject to final figures, approve the appointment of the contractor Matrix Control Solutions Ltd (Matrix) to implement the works.
- delegate authority to the Director of Place to appoint Matrix to deliver any Phase 2 of the RE:FIT programme providing viable financial and sustainable efficiencies are identified; and
- note that additional works may be carried out under the project, funded through strategic asset management budgets and awarded in line with the Council's Contract Standing Orders and Scheme of Delegation.

Background

2.1 The Council's current energy costs for its buildings are around £12m per annum with costs incurred under the Carbon Reduction Commitment of approximately £1.2m per annum. The carbon emissions arising from this energy consumption also contribute significantly to the Council's carbon footprint. The Sustainable Energy Action Plan (SEAP) is committed to the reduction of carbon emissions with a key priority the energy retrofitting of non-domestic buildings across the city. The Council is looking to lead by example in this area by retrofitting its own buildings.

2.2 One innovative approach is the London RE:FIT scheme, designed to help public sector organisations in the UK achieve substantial financial savings, improve the energy efficiency of their buildings and reduce carbon emissions. This approach has been looked at for the Council's own estate as a means of delivering reductions in both carbon and energy costs.

2.3 This report provides an update on the work to date and seeks approval for the funding element and approval that the contractor Matrix Controls Ltd (Matrix) be appointed to progress the work to the delivery stage. The report also provides the costing for the investment, setting out the range of energy conservation measures that can be installed in each building.

Main report

3.1 The RE:FIT programme uses an OJEU compliant framework available to all public sector organisations in the UK. The framework streamlines the procurement process for energy services by providing pre-negotiated contracts that can be used with a group of pre-qualified energy contractors. These contractors are then responsible for the design and implementation of energy measures in the buildings selected for the programme.

3.2 RE:FIT operates through a number of stages. These are detailed in Appendix 1. The Council sought to appoint a contractor in accordance with, and to deliver, stages 4–7 of the programme by issuing a mini competition on 12 June 2015 to the Re:FIT Framework providers.

3.3 In the invitation to tender it was stated that the contract would be awarded on the basis of the Most Economically Advantageous Tender with 90% of the overall score being given to quality and 10% given to price. This larger ratio of quality versus cost was determined because the Council was seeking a contractor with the capability, understanding and technical expertise who could develop innovative and creative proposals as well as work in a partnership relationship with the Council.

3.4 Three bidders returned tenders on 24 July 2015. The three tender submissions received were evaluated individually by the members of the evaluation team to determine a score for quality. Eight evaluation criteria areas were identified, each having different weightings and being scored between 0 and 10 in accordance with the Evaluation Criteria Scoring Definitions included in the tender instructions issued to the bidders. Further details of the procurement process, including the members of the evaluation team and the eight quality evaluation criteria and their respective weightings, are provided in Appendix 2.

3.5 On completion of the individual evaluation process, a consensus meeting was attended by the members of the evaluation team and the contract administrator from Commercial and Procurement Services. Individual evaluation criteria scores were reviewed and debated and a consensus score reached for each bidder. The appropriate weighting was then applied to each of the individual evaluation criteria to arrive at a final quality score.

3.6 Following completion of the quality analysis, as all bidders had achieved the minimum threshold score of 50% for quality their pricing bids were opened and subject to a cost analysis. This cost analysis was based on a lump sum cost of producing proposals for energy measures to the nine buildings identified. These proposals, called Investment Grade Proposals (IGP), are the detailed energy proposals for each building setting out:

- the energy measures that will be installed in each building;
- the reduction in energy consumption; and
- the financial savings that will be guaranteed.

3.7 The lowest priced cost for the provision of the IGPs was received, which was awarded the maximum score of 10 for price. All other bids were then scored on a pro-rata basis against this lowest bid i.e. for each of the other bids the lowest bid price was divided by that bid price and multiplied by the maximum score of 10.

3.8 The quality scores were then combined with the scores from the cost analysis to derive an overall score for each bidder out of a maximum of 100. The results are detailed in Table 1 below.

Bidder	Quality Score	Price Score	Fee Bid	Total Score
Matrix	61.65	0.00	£49,303	61.65
Bidder 2	47.70	10.00	£0	57.70
Bidder 3	47.25	0.00	£34,900	47.25

Table 1: Outcome of RE:FIT Evaluation

3.9 Of the three fee bids, one of the bidders chose to not charge the Council for the creation of the IGPs. This resulted in 0 scores being applied to both other bidders for the pricing score.

The Edinburgh Project

3.10 There are two major advantages of the RE:FIT scheme. Firstly it allows a strategic approach to reducing energy consumption. Currently many Councils, including Edinburgh, focus on a small range of energy retrofit measures. RE:FIT draws on specialists across a range of technologies to facilitate a whole building approach to evaluating all the possible energy efficiency measures thus maximising savings and resulting in better more comfortable buildings.

3.11 The second major advantage of RE:FIT is that the scheme uses an approach called ‘Energy Performance Contracting’ (EPC). This is where the contractors guarantee the level of energy savings to an organisation thus offering it a secure financial saving over the period of the agreement. Savings are agreed in advance and the contractor has to show each year whether these savings have been met or not. If a shortfall is indicated, the contractor can either pay this or install further energy conservation measures, at their expense, to make up the shortfall.

3.12 The Council signed up to RE:FIT scheme in November 2014 and is the first Scottish local authority to do so. The Scottish Government provided £0.100m of grant funding to the Council allowing it to commission the RE:FIT consultants Turner and Townsend (T&T) to provide project management and technical support.

3.13 Using a combination of Council energy data and their own modelling framework (from actual RE:FIT case studies), T&T was able to benchmark a number of the Council's largest energy consuming buildings to determine the potential energy savings. This is seen as Phase 1. Table 2 below shows the final selected Council properties along with their size and RE:FIT building type category.

Building	Floor Area (m^2)	Building Type
Leith Academy	12,349	Schools and seasonal public buildings
Balerno Community High School	9,977	Schools and seasonal public buildings
Usher Hall	8,861	Cultural activities
Wester Hailes Education Centre	16,396	Schools and seasonal public buildings
City Chambers	20,581	Office-General
Sciennes Primary School	4,145	Schools and seasonal public buildings
Trinity Academy	11,741	Schools and seasonal public buildings
Currie High School	12,167	Schools and seasonal public buildings
St Thomas of Aquins	9,168	Schools and seasonal public buildings

Table 2: List of Selected Properties for Energy Retrofitting

3.14 These nine buildings have been selected on the basis of their potentially significant energy savings. Schools in particular are a priority, accounting for 50% of all building related energy consumption across the Council estate. Using the T&T benchmarking process, this has suggested minimum energy savings of 17% across all nine buildings.

3.15 Under the RE:FIT scheme, the next phase was to work towards the development of Investment Grade Proposals (IGP). These involve energy audits and site visits across all buildings. The IGPs provide the detailed business plans for each site identifying all the energy measures that can be carried out and the potential savings. These take around three-four months to complete.

3.16 Consequently the IGPs provide the binding price for the contract and become the integral part of the EPC.

3.17 As part of the Edinburgh tender process, performance criteria were set by the Council which all contractors were asked to assess and agree to meet. For the Edinburgh buildings, the criteria was as follows:

	Performance levels that need to be achieved by the selected Service Provider			
Total expenditure approx	Maximum simple payback (yrs)	Minimum guaranteed energy savings (kWh)	Minimum Carbon savings (t CO_2)	Minimum Guaranteed Energy Savings per Annum (%)
£1,800,000	**8 Years**	**5,375,000**	**1,430**	**17.00%**

Table 3: Performance Criteria Set for the Edinburgh Buildings

3.18 The successful bidder Matrix confirmed they would meet the required benchmarks across all nine buildings as seen in Table 3. The costing for this investment has been estimated at £1.8m which is consistent with other similar RE:FIT projects. This would result in savings to the Council of approximately £0.245m per annum.

3.19 Matrix began the development of the IGP's in December 2015 and these were completed for the nine Council buildings at the end of March 2016. Across each building a range of energy saving measures has been evaluated and selected. Each measure has been carefully considered against the performance criteria set by the Council, including influence on guaranteed energy savings, the carbon reduction potential and the payback period. It has not been possible to support all measures such as where the capital investment is high or the payback longer than the required eight years. Any implications for Currie High School, which is part of the Community Solar Co-operative, have been taken into account.

Outcomes of the IGP Stage

3.20 These have been very positive. A workshop was held in February 2016 with Property and Facilities Management staff at which Matrix proposed their first list of energy measures in the nine Council buildings (IGP1). All the targets set by the Council were not only met but exceeded. In the course of the workshop there was further discussion around additional measures and the potential to align IGP1 with other works planned by Property and Facilities Management which would maximise the energy and carbon savings and provide additional financial benefits to the overall programme.

3.21 Given the longer payback on some of these additional measures, the RE:FIT project would part fund these on a spend to save basis with the remaining balance met from Asset Management Works. Consequently, Matrix then developed an IGP2 to include these additional works.

3.22 Table 4 below shows the outcomes of the IGP process. The original targets are shown as compared to IGP1, (the energy measures produced to meet the target) and IGP2, (the additional energy measures plus IGP1). The table shows the favoured option of IGP2 as it results in larger savings to the Council in both carbon emissions and energy savings but still within the required eight year payback.

	Upfront Investment	Guaranteed Energy Savings	Payback (years)	Carbon savings	Energy Saving %
Target	£1,800,000	5,375,000 kWh/yr	8	1430 tonnes	17%
IGP1	£1,795,432	5,847,021 kWh/yr	5.6	1560 tonnes	18.5%
IGP2	£2,513,188	6,247,789 kWh/yr	7	1773 tonnes	19.8%

Table 4: Outcomes of the IGP Process by Matrix

3.23 The energy saving, in particular from IGP2 is nearly a 20% reduction in consumption. A particular benefit is that the revenue savings which were originally projected at £0.245m per annum have increased significantly through the IGP2 exercise to £0.356m per annum.

3.24 While there might be some further refining, the IGP figures above should not significantly change (and certainly not increase) and will become the basis of the EPC contract thus assuring the Council of this level of savings over the duration of the project.

Funding the Programme

3.25 A number of routes for the funding the RE:FIT work has been explored including SALIX and the Central Energy Efficiency Fund (CEEF). SALIX was established in 2004 as an independent, publicly funded company, dedicated to providing the public sector with loans for energy efficiency projects. They deliver 100% interest-free capital to the public sector to improve their energy efficiency and reduce their carbon emissions. CEEF was set up by Scottish Government to provide funding for energy efficiency projects in local government. The Council has been using CEEF funding for a range of projects across the estate but currently there is £0.8m of unallocated funding.

3.26 Following the expiry of terms and conditions for the Council's existing CEEF on 31 March 2016, the Council entered into discussions with SALIX with a view to using the £0.8m to create a new combined fund operating under similar terms to CEEF. The Scottish Government, as the funding body for SALIX agreed to match fund the Council's contribution to create a total £1.6m fund for Council use. The fund operates on a recycling basis, with the savings generated through reduced energy consumption used to repay the initial investment and provide for investment in future schemes.

3.27 While termed a loan agreement, SALIX has indicated that for as long as the initial investment is recycled in this way, the monies remain available to the

Council to invest in subsequent schemes generating further savings and reductions in the Council's carbon emissions. The loan has, in addition, been provided on an interest-free basis.

3.28 The intention is to use this combined funding of £1.6m towards the RE:FIT project investment but it still leaves a shortfall of approximately £1.314m for the overall investment, project support, fees and contingency.

3.29 The balance of funding has been identified from two sources. Firstly an allocation of £0.339m from Asset Management Investment has been included within the wider programme of mechanical and engineering upgrades across the corporate and school estate. This is drawn from the £24m of Asset Management investment (2016/17) as approved in the budget motion on 21 January 2016. The remaining required funding of £0.975m will be drawn from the Spend to Save fund, with details of this investment set out in Appendix 4. Council is asked to approve the provision of Spend to Save funding up to this level.

The Next Phase

3.30 The relationship with Matrix has been very productive to date. However under the terms of the RE:FIT programme, the final installation stage now requires formal approval from the Council to appoint the preferred contractor. Under the terms of the contract, Matrix would now progress to the delivery phase.

3.31 This final stage requires the installation of the energy measures in all the buildings and the approval between Matrix and the Council of an agreed Monitoring and Verification (M&V) Plan. This has been submitted and assessed by Council officers and independent third party M&V assessors. The M&V plan is the basis of the guaranteed energy and financial savings and consequently a crucial document in the programme going forward.

3.32 The installation works will commence as soon as the contract is awarded. The timescale is tight but the intention would be to complete the works in all the schools over the summer holidays with final commissioning during the October break. Any disruption will be minimised as far as possible. For the City Chambers, scheduling works can be more flexible, however for the Usher Hall, careful scheduling will be carried out to ensure no disruption for events and concerts and the festival period will be avoided.

3.33 There will be a full programme, timescale and risk register produced for the project which will fall under a construction programme. All appropriate construction, health and safety and statutory requirements will be complied with.

3.34 Following this, the programme will move to the M&V phase and a financial savings profile plan. In complying with the conditions of the contract, there will be ongoing and regular monitoring with clear governance arrangements in place between the Council and Matrix. A Project Manager will be appointed as part of

the project support funding from Spend to Save to oversee all work and provide the ongoing monitoring for a year after completion.

Benefits

3.35 The RE:FIT programme will be the largest energy conservation programme undertaken by the Council and signals a new approach to saving energy and money at a time when the Council is going through a major transformation programme. The benefits of progressing with the programme include:

- significant guaranteed energy savings;
- sound energy conservation measures installed and leverage with supply chains to ensure these solutions are competitive;
- the risks passed to the contractor;
- being able to work in a holistic and strategic way across the estate;
- the potential to align this work with the Low Carbon Jobs and Investment Framework and evaluate the potential for green jobs;
- relieving pressure on other property budgets; and
- better and more comfortable buildings for users.

3.36 The programme has a proven track record. At the end of February 2016, RE:FIT London had worked with over 200 organisations and supported the retrofit of over 600 of London's public buildings, generating around £92m in investment, saving around 103,000 tonnes of CO_2 and cutting energy bills by around £6m a year.

3.37 Using this programme will offer the Council a new innovative approach to many of the issues and challenges in retrofitting its operational estate. If successful, the programme will be extended across the estate.

3.38 In addition, early discussions with other public bodies indicated interest in the RE:FIT approach. There may be opportunities for collaborative approaches with partners in the city to carry out a larger programme of work. This would offer wider economic benefits. Finally the creation of the new Council ESCO offers an opportunity to look at public buildings as well as private sector buildings thus providing a commercial approach to retrofitting non-domestic properties across the city.

Measures of success

4.1 The RE:FIT contract will contain a number of KPIs which will be used as measures of success. These include:

- a 17% reduction in energy consumption across the nine buildings;
- a minimum carbon reduction target of 1,430tCO_2 across the programme; and

- a maximum 8 year payback.

4.2 As required by the RE:FIT scheme these will be closely monitored.

Financial impact

5.1 The RE:FIT works for IGP2 are calculated to cost £2.513m. Council fees and contingency are estimated at £0.401m, giving a total cost of £2.914m. This can be funded from the following sources:

- Salix loan - £0.800m
- Former CEEF fund - £0.800m
- Spend to Save - £0.975m
- Asset Management Works £0.339
  Total - £2.914m

5.2 The annual savings in Council utility budgets are calculated to be £0.356m. These will be required to repay Salix borrowing and to reimburse the former CEEF and spend to save funding. In addition due to the carbon savings projected, there will be savings on Carbon Reduction Commitment (CRC) costs of £28,550 per annum (for as long as the scheme lasts).

5.3 RE:FIT works through an Energy Performance Contract, with financial savings guaranteed to the Council through reduced energy bills for the duration of the contract. The upfront investment from SALIX and the Council will therefore be repaid in accordance with the agreed energy savings profile for the scheme. This will replenish the fund and allow further schemes to be supported. In addition, SALIX has indicated that for as long as the initial investment is recycled in this way, the monies remain available to the Council to invest in subsequent schemes generating further savings and reductions in the Council's carbon emissions.

5.4 The savings detailed in Appendix 3 will form the basis of the EPC and these will be guaranteed. However, it should be noted that due to the large difference in unit cost between electricity and gas, and also the inclusion of measures such as combined heat and power plants, there is not a direct correlation between guaranteed energy savings, carbon savings and payback.

Risk, policy, compliance and governance impact

6.1 The Council has made a number of pledges and commitments to energy and carbon and has approved its Sustainable Energy Action Plan (SEAP). In particular Pledge 50 commits the Council to the reduction of carbon emissions by 42% by 2020. Significant reductions in energy consumption will contribute to this Pledge and the Council SEAP. In addition, by implementing an energy efficiency programme this will assist in mitigating any risks of non compliance

with the Climate Change (Scotland) Act 2009. Mandatory reporting of carbon will also become a requirement for local authorities from October 2016.

6.2 Due to the approach of an Energy Performance Contract, most of the risk of delivery of savings and contract is passed to the contractor. A contingency on the total contract sum has been accounted for to cover any unforeseen Council liabilities. In addition, a full risk register is also required under the terms of the contract. This will be developed by the contractors and approved by officers overseeing the programme.

6.3 The costs associated with procuring this contract are estimated at up to £10,000.

Equalities impact

7.1 There are no equalities impacts from this report.

Sustainability impact

8.1 The recommendations in this report will lead to reduced energy consumption in a number of properties. This will contribute positively to meeting Council carbon and energy targets, the aims of the Council's Sustainable Energy Action Plan and Sustainable Edinburgh 2020 objectives. Better more efficient buildings can also improve environmental conditions and support better working environments for staff.

Consultation and engagement

9.1 There has been regular consultation and engagement with relevant service areas in Property, Legal and Finance. A RE:FIT Project Team was set up along with a Project Board. Regular updates have been provided to elected members through the Member Officer Working Group on Carbon Climate and Sustainability.

9.2 As part of the development of the IGPs, engagement has been carried out with building users for all the buildings included in the programme. Regular communication will be a key element of the programme of work going forward. In addition given the nature of some of the buildings i.e. the Usher Hall where there is a year round public use, careful attention will be given to the scheduling of works. This will also be the case with schools.

Background reading / external references

N/A

Paul Lawrence

Director of Place

Contact: Janice Pauwels, Sustainable Development Manager

E-mail: janice.pauwels@edinburgh.gov.uk | Tel: 0131 469 3804

Links

Coalition pledges	P50 Meet greenhouse gas targets, including the national target of 42% by 2020..
Council Priorities	CP12 A Built Environment to match our ambition
Single Outcome Agreement	SO4 Edinburgh's communities are safer and have improved physical and social fabric.
Appendices	Appendix 1: Background to the RE:FIT Programme Appendix 2 : Procurement Process Appendix 3: Summary of Energy Savings And Measures Under RE:FIT Appendix 4: spend to Save Application **(to follow from Finance)**

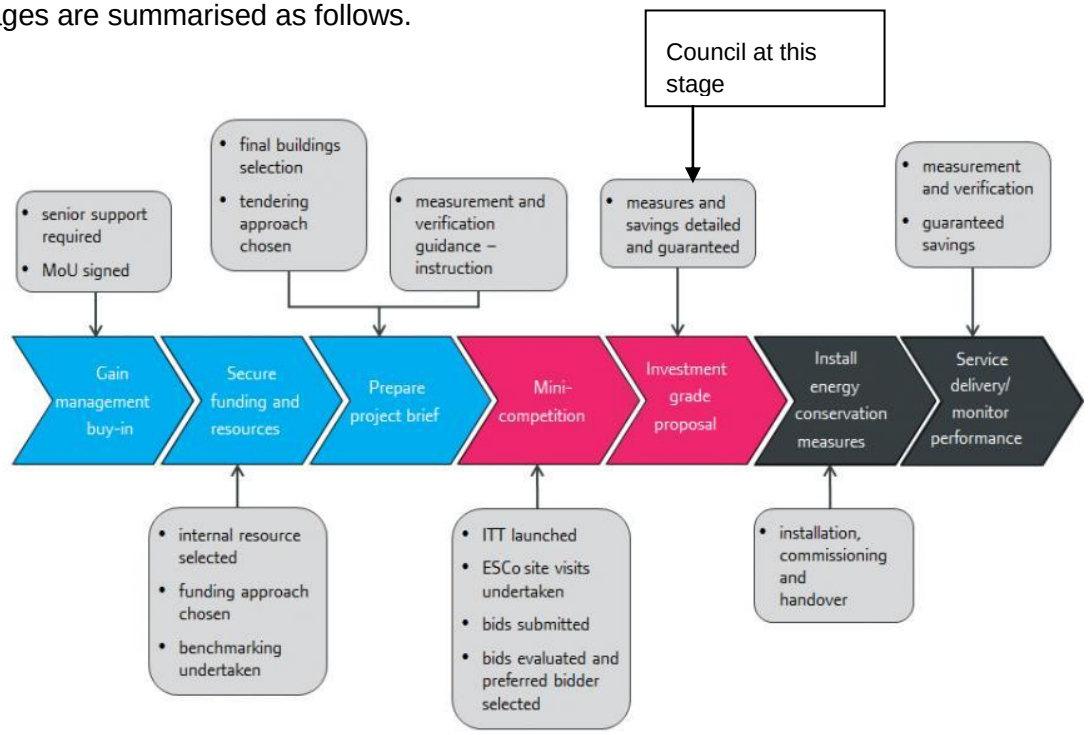
Appendix 1

How RE:FIT Works

There are a number of stages in the RE:FIT programme.

- Stage 1 seeks buy in and management approval.
- Stage 2 involves the organisation evaluating sources of funding which can either be internal or external sources. In some cases the contractor can access funding or investment.
- Stage 3 involves benchmarking the properties that will have the energy measures installed. Using a range of energy information, industry standards and other property data, the buildings can be assessed for their optimum energy and financial savings. This sets the project brief and specification, for the buildings, the targets and financial savings and selects the best buildings to be included.
- Stage 4 involves the drafting of an ITT and running a mini competition. A number of contractors will bid, conduct site visits and present their proposals for the energy savings and the guaranteed financial savings. At the end of this stage a preferred bidder will have been selected.
- Stage 5 will appoint the contractor who will now proceed with the detailed business plans called Investment Grade Proposals (IGP). These set out the ECMs to be installed, the tonnes of carbon to be saved per year, the payback period and the monitoring plan for the financial savings. The IGPs involve detailed energy audits.
- Stage 6 appoints the contractor to progress with the installation of measures and at this point work begins on the actual buildings. Close liaison with building users is required.
- The last Stage 7 is the ongoing monitoring and measurement of the energy savings and performance of the building. This is usually carried out through an agreed Monitoring and Verification (M&V) Plan.

These stages are summarised as follows.



Appendix 2: Summary of Tendering and Tender Evaluation Processes

Contract	RE:FIT Project Mini Competition
Contract period	8 years
Contract value	£1.8m
EU Procedure chosen	Use of OJEU Compliant Framework Agreement
Tenders returned	Three
Tenders fully compliant	Three
Recommended supplier	Matrix
Primary criterion	Most economically advantageous tender to have met the qualitative and technical specification of the client department
Evaluation criteria and weightings	1. Relevant Experience – 20% 2. Project Delivery Team – 15% 3. Implementation Strategy – 20% 4. Approach to Measurement and Verification – 10% 5. Communication Plan – 10% 6. NEC3 Approach – 10% 7. Health and Safety – 10% 8. Community Benefits – 5%
Evaluation Team	Sustainable Development Manager Acting Energy & Water Manager Turner & Townsend Technical Advisor

Appendix 3: Summary of Energy Measures and Savings Proposed Under RE:FIT

SITE	Description of Works	CAPEX	Financial Savings £/yr	Payback	Energy Savings KWh/yr	Carbon Savings in tonnes
Balerno	BEMS Upgrade	£26,516	4,119	6.4	136,070	29
Balerno	CHP Install	£165,582	20,075	8.3	120,200	69.2
Balerno	External Lighting Upgrade	£12,154	1,064	11.4	11,088	5.9
Balerno	Internal Lighting Upgrade	£172,810	4,604	37.5	47,959	25.6
Balerno	Pump Set Replacement	£32,281	1081	29.8	11,265	6
Balerno	CHP Install	£376,282	18,013	20.9	187,638	100
City Chambers	Internal Lighting Upgrade	£157,091	12,834	12.2	138,000	73.6
City Chambers	Pump Set Replacement	£25,965	445	58.4	4,781	2.5
City Chambers	Boiler Replacement	£283,228	18,329	15.5	197,684	105.1
St Thomas	BEMS Upgrade	£32,948	5,262	6.3	188,933	38
St Thomas	Kitchen Canopy Control Upgrade	£3,145	414	7.6	4,456	2.4
St Thomas	External Lighting Upgrade	£13,818	1,192	11.6	12,821	6.8
Currie	BEMS Upgrade	£21,642	7,853	2.8	295,335	57.5
Currie	CHP Install	£165,582	22,512	7.4	206,556	71.7
Currie	External Lighting Upgrade	£33,102	2,366	14.0	24,392	13.0
Leith	BEMS Upgrade	£83,931	15,006	5.6	374,880	98
Leith	CHP Install	£165,582	27,027	6.1	265,025	83.0
Leith	Kitchen Canopy Control Upgrade	£2,953	355	8.3	3,775	2.0
Leith	External Lighting Upgrade	£24,042	2,429	9.9	25,835	13.8
Sciennes	BEMS Upgrade	£8,159	875	9.3	12,876	1
Sciennes	Internal Lighting Upgrade	£57,965	8,905	6.5	86,054	45.9
Sciennes	Voltage Optimiser Install	£8,198	3,097	2.6	29,926	16.0
Usher Hall	Internal Lighting Upgrade	£70,741	10,608	6.7	108,249	57.7
Usher Hall	Voltage Optimiser Install	£36,201	15,504	2.3	158,202	84.3
Usher Hall	BEMS Optimisation	£5,368	9,798	0.5	286,036	66.0
Usher Hall	Internal Lighting Optmisation	£11,309	1,142	9.9	11,648	6.2
Usher Hall	Auditorium Lighting Upgrade	£54,526	6,579	8.3	67,137	35.8
Trinity	LTHW/DHWS De-couple	£81,172	35,107	2.3	1,364,873	251.2
WHEC	BEMS Upgrade	£62,098	17,711	3.5	532,628	121
WHEC	Pool Cover Install	£18,105	12,584	1.4	410,572	88.3
WHEC	CHP Install	£224,509	64,908	3.5	873,612	169.5
WHEC	Kitchen Canopy Control Upgrade	£2,038	255	8.0	2,684	1.4
WHEC	External Lighting Upgrade	£31,368	1,745	18.0	18,371	9.8
WHEC	Install VSD to Pool Circ Pumps	£2,298	2,739	0.8	28,829	15.4
All Sites	M&V - Year 1	£40,479	0	0.0	0	0.0
TOTAL		**£2,513,188**	**£356,537**	**7**	**6,247,789**	**1,773**

Appendix 4:

Spend to Save - Energy Retrofitting of Buildings

Project	Description	Outcome	Coalition Pledges and Council Outcomes	Funding	Risk	Payback Period
Building energy efficiency retro-fitting	Significantly improving the energy efficiency of seven schools, the Usher Hall and City Chambers through installation of tailored building-specific measures	Expected decrease in energy consumption for in-scope buildings of at least 17%, with resulting contractually-committed annual savings of around £0.345m, alongside a reduction of £0.029m in the Council's Carbon Reduction Commitment liability. Improvements in user comfort whilst contributing to statutory reporting requirements.	**Pledge 50** - meet greenhouse gas targets, including the national target of 42% by 2020 **CO18 Green** – we reduce the local environmental impact of our consumption and production	Up to £975k	Low	No longer than 7 years