### **HUNTINGDONSHIRE DISTRICT COUNCIL**

**Title/Subject Matter:** Re:Fit Programme – Energy Conservation

Measures for One Leisure

**Meeting/Date:** CMT – 23rd August 2016

Overview and Scrutiny (Performance and

Customers) – 7th September 2016 Cabinet – 22th September 2016

**Executive Portfolio:** Councillor Robin Carter – Executive Councillor

for Environment, Street Scene and Operations.

Report by: Alistair Merrick – Interim Head of Operations

Ward(s) affected: All Wards

# **Executive Summary:**

- 1. Delivering revenue savings through energy efficiency is a strategic objective for the Council. Consequently, as part of the Council's Corporate Plan, under the objective of becoming more business-like and efficient, the action of achieving a 2% year on year reduction in energy has been identified.
- 2. A planned programme of energy management measures can help the Council to achieve its' reduction in energy target of 2% year on year; protect the Council from future rises in fuel costs; improve the fabric of buildings; and enhance the experience of visitors at the One Leisure (OL) sites, e.g. through improved air quality and lighting. A planned programme will allow all equipment and controls to be properly integrated in order to realise the full range of benefits, both financial and environmental.
- 3. The Re:Fit Framework was established in 2008 by the Greater London Authority to allow public sector organisations to confidently invest in energy conservation measures that will deliver guaranteed savings.
- 4. Bouygues Ltd. were appointed, under the Re:Fit Framework agreement, as the Energy Service Company (ESCo) in Cambridgeshire, with the roll of providing the engineering expertise and project management for the delivery of the energy conservation measures and to guarantee the energy savings.
- 5. In 2015, Bouygues Ltd. delivered, at no cost to the Council, a Desk Top Assessment (DTA) of the energy conservation measures that would be appropriate for each of the One Leisure sites. The DTA also provided an estimate of the total cost of the measure and the value of the energy savings that could be made at each site.
- 6. The DTA identified a programme of investment totalling £930,370 with a ROI of 8.6 years and with savings guaranteed for 15 years. Following approval by the Finance Governance Board and Corporate Management Team, the Council signed a contract with Bouygues Ltd to undertake an Investment Grade Audit (IGA) of the One Leisure sites. This contract allowed Bouygues

Ltd to go to market and get, through the tendering process, accurate costs for all measures identified by the audit. A detailed analysis of current energy consumption and equipment costs was used to provide an accurate assessment of the energy savings achievable at each site, the payback period for the energy conservation measures identified and the details of the Measurement and Verification (M&V) process. Following the changes to the Feed-in Tariffs for solar PV, the scale of the PV, which had previously been identified in the DTA, was adjusted at each site, so as to meet the demand at the site and prevent the export of electricity to the local grid.

- 7. The Measurement and Verification process is an internationally recognised protocol by which energy savings are guaranteed. It also allows both the Council and Bouygues Ltd, to have a clear understanding on how the energy consumption will be monitored and savings calculated. The programme will continue for 15 years, ensuring that the Council will achieve payback on all measures installed.
- 8. Following the audit and extensive discussions with One Leisure managers, Bouygues Ltd provided the Council with an Investment Grade Proposal detailing the measures to be installed and the savings to be made. In summary, the energy conservation measures to be installed are as follows:
  - Upgraded lighting with LED's at all sites.
  - Improved insulation at all sites.
  - Installation of Building Energy Management system at all sites.
  - Photo voltaic panels at all sites except Sawtry.
  - Replacement boilers at St Ives indoor and outdoor and Ramsey.
  - Combined Heat and Power plant at St Neots.
  - Swimming pool filter and dosing control systems at all swimming pools
  - Solar thermal panels at Ramsey.
- 9. The difference between the energy conservation measures identified in the Desk Top Assessment and the Investment Grade Proposal can be summarised as follows:
  - Increased opportunity the upgrade to LED lighting.
  - Overall reduction in the photo voltaic capacity, together with the reduction in the feed in tariff available to the Council.
  - Addition of new controls for swimming pool filtration and dosing.
  - Addition of the Combined Heat and Power plant at St Neots.
  - Addition of a solar thermal system at Ramsey.
  - Additional heating and air handling/conditioning controls at Huntingdon.
- 10. The changes to the programme of measures has resulted in an increase in the overall cost of the project by £107,889 to a total of £1,038,259 and a small increase the payback period to 9.45 years.

# Recommendation(s):

Following the approval of the business case by the Finance Governance Board for the whole package of measures in July 2016, Members are recommended to approve the commitment of the additional £107,889 to the project in order to realise the full potential of the programme to deliver significant savings for the Council.

# 1. PURPOSE OF THE REPORT

- 1.1 This report details the results of the Investment Grade Proposal (IGP) provided by Bouygues Ltd. The IGP is a detailed analysis the energy savings that can be made at all the One Leisure (OL) sites, based on an accurate analysis of the current energy use, fully tendered costs for measures and the guaranteed energy savings resulting from the installation of those measures.
- 1.2 This report provides an explanation of the differences between the measures, costs and savings first identified in the Desk Top Assessment (DTA) and those identified in the IGP, which has resulted in an increase of £107,889 in the budget requirement in order to deliver the programme of improvements best suited for the One Leisure facilities

# 2. BACKGROUND

- 2.1 Delivering revenue savings through energy efficiency is a strategic objective for the Council. The Corporate Plan has an objective of becoming a more efficient and effective council, with the target of achieving an annual 2% reduction in overall energy.
- 2.2 The Re:Fit Framework was established in 2008, by the Greater London Authority. It is designed to allow public sector organisations to invest in significant energy efficiency projects with the security of guaranteed savings.
- 2.3 The Re:Fit Framework is currently delivering projects successfully in a number of councils including Bedford Borough Council, Fenland District Council and Buckinghamshire County Council. The Framework provides a project managed programme of improvements, using pre-negotiated EU compliant contracts, managed by a pre-qualified Energy Service Company (ESCo). For Cambridgeshire authorities taking part in the Re:Fit Framework, the ESCo is Bouygues Ltd.
- 2.4 In 2015 Bouygues Ltd carried out a Desk Top Assessment (DTA), at no cost to the Council, of the Council's main sites; all One Leisure facilities, Pathfinder House and Eastfield House. With the agreement of the Chief Officer Management Team (CMT), both Eastfield House and Pathfinder House have now been excluded from the project as the savings at these sites would not be economical under the terms of the Re:Fit Framework.
- 2.5 The DTA identified a programme of £930,372 worth of energy conservation measures which would deliver a guaranteed minimum saving of £110,090 each year for 15 years and a ROI of 8.65 years
- 2.5 Following endorsement for the programme by Corporate Management Team, the Council signed a 'Call off Contract' which authorised Bouygues Ltd to undertake an Investment Grade Audit (IGA) and to go to the market, through a tender process, to get accurate costs for all measures identified by the audit. A detailed analysis of current energy consumption and equipment costs was used to provide an accurate assessment of the energy savings achievable at each site, the payback period for the energy conservation measures identified and the details of the M&V process. Following the changes to the Feed-in Tariffs for solar PV, the scale of the PV to be installed at each site was changed to meet the demand at the site and prevent the export of electricity to the local grid.
- 2.6 Following extensive consultation with One Leisure management and discussions with Bouygues Ltd, a full programme of measure has been

identified. Table 1 below summarises the energy efficiency measures for each site, which were agreed in consultation with One Leisure managers, together with the improvement as % of Baseline Energy Consumption

Table 1 - Recommended Energy Efficiency Measures.

	St Ives	St Ives	Huntingdon	Huntingdon	Sawtry	Ramsey	St Neots
Proposed PV capacity/ % of BEC	50kWp 5.26%	Outdoor 24kWp 7.88%	30kWp 6.15%	11 kWp 5.55%		11 kWp 3.84%	30kWp 3.06%
Lighting as % of BEC	8.4 %	0.92%	11.1%	21.4%	12.9% 19.1%		8.4%
Building Automation	BEMS Integration with CHP+ Optimisation	BEMS Installation +controls	BMS Intergration	BEMS Intergration	BEMS installation	BEMS / AHU integration + upgrade controls	BEMS +Heating controls upgrade
Heating/ % of BEC	High efficiency boilers 2.7%	High efficiency boiler for DHW 17.0%				High efficiency boilers 15.0%	CHP 11.56%
System insulation	HVAC Insulation 0.83%	PW insulation 0.22%	HVAC Insulation 2.52%	PW Insulation 0.99%	PW insulation 1.63%	HVAC/PW insulation 0.49%	PW insulation 0.57%
New systems, added to scope post DTA % of BEC	Pool filter and dosing systems 0.28%	Thermostatic mixing valves 2.48%		Pool filter and dosing systems 1.94%	Pool and dosing systems 0.48%	Pool filter and dosing Systems/ Solar Thermal 4.75%	Pool filter and dosing systems 0.49%

**Key**: PW = pipework; BEMS = Building energy management system;

HVAC = Heating Ventillation and Air Conditioning; CHP = Combined Heat and Power AHU = Air Handling Unit DHW = Domestic Hot Water (Showers and hand washing)

BEC = Baseline Energy Consumption

2.7 The differences between the Desk Top Assessment and the Investment Grade Proposal are summarised in Table 2 below. The main reasons for the differences between the two reports include: an increase in the amount of LED lighting to be installed across the sites; the addition of pool filtration and dosing control for all pools; the inclusion of a Combined Heat and Power plant at St Neots; the replacement of boilers (rather than just the burners) at St Ives Indoor; and a reduction in the overall quantity of photo voltaic capacity to be installed due to the constrains imposed by the Distribution Network Operator (DNO), UK Power Networks.

Table 2 – Summary of the differences between the DTA and IGP

Criteria	DTA	IGP	
Project value	£930,370	£1,038,259	
Minimum Energy Savings kWh	1,009,500 kWh	1,031,373	
Savings against baseline (%kWh)	Electricity: 23%	Electricity: 22%	
	Gas: 10%	Gas: 6%	
Guaranteed minimum cost benefit per	£110,090	£102,591	
annum			
ROI	8.65 years	9.45 years	

### 3. OPTIONS ANALYSIS

3.1 The IGP has recommended a wide range of technologies to be installed.

The measures that are within the scope of the Re:Fit programme include:

- Replacement of existing, functional, but at end of serviceable life equipment with a more energy efficient equivalent, e.g. boilers at St Ives and Ramsey.
- Integration of new and existing equipment with new Building Energy Management Systems.
- New equipment which will improve the energy efficiency of the building
- Renewable energy systems.
- Monitoring of the energy consumption at each site for 15 years.
- A guarantee all sites will deliver the energy efficiency savings detailed in the IGP for 15 years.

Measures that are outside the scope of the Re:Fit programme:

- Planned maintenance/repair of all equipment installed under the Re:Fit programme.
- Replacement of any equipment, installed under the programme, beyond its planned site life during the 15 year M&V process.
- 3.2 Analysis of the measures to be installed:
- 3.2.1 **Photo Voltaics**: For most sites the amount of PV has been reduced due to the restrictions placed on the programme by the Distribution Network Oporator (DNO). For all sites a structural survey will be required to ensure suitability. The cost of the surveys is included in the project. Bouygues Ltd. have made the assumption that all sites will achieve an Energy Performance Certificate rating of D or higher. The cost of these surveys has been factored into the cost of the project. The average pay back of the PV is 10 years.

# Benefits:

- Renewable energy is generated on site.
- Revenue is generated from the Feed-in and Generation Tariffs for 20 years.
- Reduced mains electricity demands.
- Reduced carbon emissions.
- Improved corporate image, providing a visual demonstration of the corporate commitment to sustainability.
- 3.2.2 **Building Energy Management Systems (BEMS**): All sites will benefit from BEMS, in order to maximise the savings from new equipment and to ensure that the current equipment does not conflict, for example; heating and air conditioning on at the same time. It is proposed to install the same building energy management system at all sites in order to achieve comminality and networking across all sites. The selected system will be viewed via a web portal and will enable centre managers to control the heating systems throughout the site.

The main objective of the BEMS is to ensure that the correct conditions are maintained for the least energy expenditure. The new BEMS system will replace a number of analogue controls to ensure the centres stay comfortable for the users and remove the requirement for the current controls to be over-

ridden by centre staff, which can lead to energy wastage. The new system will allow trend logging and make the control of the heating, ventilation and air conditioning more efficient. The system will also allow the centre managers to spot issues arising, enhance the control of existing equipment (such as CHP's), improve the zone control of heating, and ensure new equipment runs efficently and in harmony with current equipment.

As well as the new dedicated BEMS system there will be a number of additional controls installed including:

- CHP load manager, at Huntigndon Wetside, to stop the CHP output when the heat load required at the site is lower than the output of the CHP.
- New air handling controls for the squash courts, Huntingdon Wetside, which will be demand driven.
- Air conditioning/heating interlocks at Huntingdon Dryside.

The average payback period for these measures is 10 years.

#### Benefits:

- Plant operates at optimum efficiency and performance at all times;
- Energy costs are minimised through reduced hours of operation and moderation of pumps and fans;
- Spaces are conditioned to the appropriate level based on temperature and occupancy profiles;
- Central user dashboard, accessible on networked devices;
- Plant fault alarm functions via text or email;
- Trend logging:
- Avoidance of heating/conditioning unoccupied spaces through demand lead control strategies;
- Optimised efficiency of new and existing equipment;
- Seasonal compensation for start and stop;
- Pre-programmed 365 day scheduling:
- Automatic seasonal adjustment.
- 3.2.3 Lighting Upgrades: Lighting upgrades are a major focus for improvements. The IGP identified significantly greater opportunities to upgrade to LED lighting than the DTA originally identified. In 2015/16 the Council spent £12.5k on lighting repairs and replacement at the One Leisure sites. Not only does replacing the existing tungstan and fluorescent lighing with LED lamps reduce the site energy costs, but due to the significantly longer site life, the Council will also benefit from reduced maintainnce costs. The lighting upgrades have a average pay back period of 6.4 years. For most of the sites it is anticpated that the lighting improvements will deliver 70% savings on current lighing costs.

**St Ives Indoor** – while the site already benefits from LED lighting, installed during the recent refurbishment, there are still significant spaces that require upgrading, notably Studio 2, Free Weights area, the 2<sup>nd</sup> floor office and significant parts of the Burgess Hall.

**St Neots** – the site already benefits from LED lighting, but areas including Studio 1, changing rooms and the office will be upgraded.

**Huntngdon (Wet and Dry)** – The majority of the wet site can be upgraded to LED lighting. The dance studio, main hall, creche and soft play area can all be upgraded on the dry side.

Ramsey/Sawtry - the majority of each site will benefit lighting upgrades.

#### Benefits:

- Reduced mains electricity demands;
- Reduced maintenance costs;
- Improved lighting levels for staff and members of the public;
- 3.2.4 **Boiler Replacements:** The status of the boilers at all the OL sites was investigated in order to ddetermine if there was a business case for replacing them.

**St Ives (Indoor)** – The burners within the boilers are 22 years old and the boilers themselves are older and very close to their end of site life. It is proposed to replace them with new high efficienteermcy boilers. The boilers had previously identified in the OL condition survey as requiring replacement.

**Ramsey** – The current boilers are approximantely 16 years old and show signs of leaks and wear. The boilers had previously identified in the OL condition survey as requiring replacement. The boiler providing domestic hot water will also be replaced with a high efficiency condensing boiler.

St Ives (Outdoors) – The current calorifier system will be replaced with a new condensing boiler for domestic hot water for the showers and kitchen. The current system consists of inefficienct gas boiler, with the hot water stored in extremely large calorifiers. The improvements to the system will reduce the thermal losses, and the controls will ensure the system operates more closely to the occupancy patterns. In addition it is planned to install new thermostaic mixing valves which will reduce the amount of low temperature hot water stored in the pipe runs to the showers etc. and consequently reduce the amount of system flushing required as part of the *Leginella* prevention programme required with the current system.

# Benefits:

- Reduced gas demands;
- Reduced maintenance costs;
- Reduced water consumption;
- Improved resilience for the site as there is less chance of boiler failure.
- 3.2.5 Insulation: The audit of the OL sites identified areas on the exisiting HVAC systems where insulation had been removed due to maiantainance or could be improved. Insulation is a low cost and effective method of energy reduction, so it is intended that all the exposed pipework, valves and flanges will be insulated as part of the scope of work. Training will be given to site staff on how to remove and re-install the insulation jackets, to allow routine maintainance.

#### Benefits:

- Reduced heat waste from the heat distribution systems;
- Reduced demand on heat generation system;

3.2.6 Pool Pumping Systems: Swimming pools are extremenly energy instensive facilities due to the need to heat and condition the pool water and maintain specific conditions within the pool hall. While the pools at OL sites benefit from the use of variable speed drives to moderate the speed and power demands of the pool pumps, the systems are not demand lead and provides no integration of the management of dosing (of chlorine, pH modifier etc) filtration or temperature. The intention is to replace the existing dosing system controller at each of the OL pool facilities. The proposed system is capable of recording and storing all the monitoring data for 28 days, which helps to diagnose problems, alarms can be set for the upper and lower parameters required by the pool environment and the system allows site staff to over-ride dosing as required. In addition the system can interface with the BEMS, allowing the BEMS to record data and issue alarms by text and email. This will allow remote monitoring of the system by OL managers

### Benefits:

- Avoidance of excessive electrical demands associated with the pool circulation pumps;
- Improved pool condition monitoring;
- Accurate chemical dosing, filtration and thermal condition management;
- Improved user interface.
- 3.3 Summary of Costs and Savings: Table 3 below, details on a site by site basis, the current energy use; the projected capital costs for all the proposed energy conservation measures; the projected energy savings following the installation of all proposed measures; the projected percentage energy savings if all measures are installed, the projected annual financial savings from these measures; and the payback period for each site. It should be noted that the negative value for gas consumption at OL St Neots arises from the proposal the install a gas powered combined heat and power plant which will generate on-site electricity more cheaply than using grid-sourced electricity.

Table 3 – Summary of Costs and Savings

	St Ives	St Ives	H'don	H'don	Sawtry	Ramsey	St Neots	Totals
	Indoor	Outdoor	Dry	Wet				
Baseline								
Energy Cost per	£149,633	£36,089	£54,070	£57,649	£54,458	£43,971	£144,972	£540, 816
annum								
Total Capital								
cost of	£235,885	£129,152	£107,756	£78,827	£65,487	£221,916	£199,231	£1,038,259
measures								
Electricity								
Saving (kWh	17%	12%	22%	22%	13%	28%	32%	22%
pa)								
Gas Saving								
(kWh pa)	6%	26%	11%	8%	5%	24%	-8%	6%
Minimum								
annual cost	£19,329	£6,719	£11,850	£8,434	£11,944	£18,655	£25,660	£102,591
benefit								
Payback Period								
(years)#	11.16	15.5	8.32	8.34	5.33	10.46	7.96	9.45

**Key:** # The Payback Period is based on capital costs only and does not include any financing costs. The Payback period also takes into account projected fuel price rises, which were calculated by Bouygues Ltd.

- 3.4 The installation of all the measures will be fully project managed by Bouygues Ltd. The HDC project manager and OL managers are in regular contact with Bouygue Ltd to ensure the installation will be carried out with as little disturbance to the public as possiblle.
- In order to take advantage of the tariffs associated with the solar PV as much as possible, the installation of the PV panals at each site has been prioritised. Subsequently the lighting will be upgraded at all sites, with the exception of Huntingdon dry-side, where the lighting will be upgraded once all the refurbishment of the site has been completed. The installation of the remaining measures will be planned in as appropriate to ensure ease of integration of the systems, with the new Building Energy Management Systems.
- 3.6 Contractual Arrangements: Follow the endorsement of the project by the Corporate Management Team, the Council signed a contract (Call off Contract 1) with Bouygue Ltd to deliver the Investment Grade Proposal. The cost of the proposal is absorbed into the capital cost of the scheme. The project management cost of the implimentation and the Measuring and Verification process, which guarentees the savings, are also included into the capital cost of the scheme. The Council is currently negotiating the Call off Contract 2 with Bouygues Ltd for the implementation of the programme of improvements to the value of the original Desk Top Assessment, £930,370. Once approval has been given for the additional bugdet of £107,889, then the Council with sign a Variation, to allow for the remaining measures and monitoring to be implimented.

# 4. COMMENTS OF OVERVIEW & SCRUTINY PANEL

4.1 Comments from the Overview and Scrutiny Panel (People and Performance) will be circulated following the meeting on 7<sup>th</sup> September 2016

# 5. KEY IMPACTS AND RISKS

# 5.1 **Key Risks:**

- Cost over runs Full EU compliant tendering by Bouygues Ltd should ensure that the best prices are obtained for the measures.
- There is a £72,000 contingency cost within the project that will only be drawn down with approval from HDC on as needed basis.
- Energy savings not realised the Measuring and Verification process will guarantee the energy savings for the Council. Staff training will also be required to ensure that the energy savings continue to realised and equipment is used to the best advantage. In addition, planned maintenance will be carried out to ensure equipment is functioning correctly and efficiently.
- Equipment failure prior to the installation of the new energy efficiency measures e.g. lighting failures prior to the installation of the LED lighting; ensuring that any temporary replacements are on a 'like for like' basis so as not to compromise the new upgrades and the return on investment.
- The current leases or the One Leisure sites have either expired or will
  expire in the near future. The Council is currently in negotiations with
  various authorities regarding the renewal of these leases. There is
  significant risk to the investment if any of those authorities pull out of the

arrangements. Legal Services and the Commercial Estates Team are currently working on all the lease agreements.

# 5.2 **Key Issues:**

- The current version of the Investment Grade Proposal is using an indicative cost only for the installation of the thermostatic mixing valves at OL St Ives (Outdoor).
- Confidence in the savings identified. The Measuring and Verification Process will be carried out in accordance with the International Performance Measurement and Verification Process. Ensuring transparency for both HDC and Bouygues Ltd.
- Co-ordination of the Re:Fit improvements to OL Huntingdon in conjunction the plan refurbishment of the site. The HDC Project Board consists of managers from OL and this will ensure that the Project management takes into account the requirements and timings of both projects.

# 6. TIMETABLE FOR IMPLEMENTATION

Detailed below is the implementation timetable, being the work required to deliver the project.

6.1

- Completion of Investment Grade Audit April 2016.
- Delivery of Investment Grade proposal Mid June 206.
- Refinement of IGP following discussions with HDC and OL managers early July 2016.
- Presentation to and approval of the Business case for full cost of the measures identified in the IGP by Finance Governance Board – 19 July 2016.
- Draft project plan for installation received from Bouygues Ltd August 2016.
- Site surveys for health and safety for the contractor completed 11 August 2016.
- Sign Call off Contract 2 for the original DTA identified cost of £930,370 end August 2016.
- Sign Variation to Call off Contract 2 for the additional £107,889 funding, following Cabinet approval – September 2016.
- Start of installation of measures on site end of September 2016.

# 7. LINK TO THE CORPORATE PLAN

As part of the Council's Corporate Plan, under the objective of becoming more business-like and efficient, an action of achieving a 2% year on year reduction in energy use has been identified. In the financial year 2014/15 the Council spent £12,218,851 on energy. In order to meet this 2% target, the Council must save over £244,000 worth of energy. By investing in the measures identified, the Council could, potentially save 8.% of its energy costs per annum, based on the total energy spend in 2014/15. The project allows the Council to deliver a programme of continuous savings, protecting the Council against rising energy prices, while maintaining services to the public.

# 8. LEGAL IMPLICATIONS

- 8.1 Cambridgeshire County Council ran a mini procurement exercise to allow county-wide access to the Re:Fit framework. Bouygues Ltd were the successful bidder and became the Energy Services Company (ESCo) for Cambridgeshire. Consequently the Council does not need to tender for services or equipment as under the Framework the ESCo is responsible for carrying out EU compliant tendering processes.
- 8.2 The Council will sign the contract, Call off Contract 2, for the installation of measures and monitoring to the value of £930,370; the current level of approved funding. This allows Bouygues Ltd to enter into contracts with their suppliers and to move forward with the installation of measures such as the PV panels, which will generate an income for the Council. Following approval from Cabinet for the additional funding of £107,889, then the Council will sign a Variation to the contract for the remaining measures and monitoring.
- 8.3 The Measuring and Verification process will isolate and measure the actual energy used by the energy conservation measures installed under the programme, and once any variations have been accounted for, such as weather compensation, the energy use will then be compared witht eh expected energy use detailed in the Investment Grade Proposal. Any shortfall in the savings will be the subject of the guarantee. This will be the mechanism by which the Council can be assured of making the savings it requires.

### 9. RESOURCE IMPLICATIONS

9.1 Project management of the programme is drawn from the existing officer resources in the Council.

# 10. OTHER IMPLICATIONS

10.1 The introduction of new Building Energy Management systems at all sites requires integration with the Councils ICT network. The project and full details of the system proposed have been registered with the 3C ITC Development Manager so that the Project manager and Bouygues Ltd can ensure the system and user interface can be integrated with the HDC network and used to its full potential.

# 11 REASONS FOR THE RECOMMENDED DECISIONS

- 11.1 In summary, the reasons for recommending the increase in budget by £107,889 to allow for the installation of all the measures recommended in the Investment Grade Proposal from Bouygues Ltd are as follows:
  - By implementing the full programme of recommended measures the Council will be achieving the best value for money and will be protecting itself against future increases in energy costs.
  - The recommended programme of improvements demonstrates the Council's commitment to becoming more business-like while improving the sustainability of the facilities and maintaining services to the public.

# 13. LIST OF APPENDICES INCLUDED

Appendix 1 – Re:Fit Acronym List

# **CONTACT OFFICER**

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# Appendix A - Re-Fit Acronym List

AHU Air Handling Unit

BEC Baseline Energy Consumption

BEMS Building Energy Management system
BYes Bouygues Energy and Services Ltd

CoC Call off Contract

CHP Combined Heat and Power

CMT Chief officers Management Team

CWS Cold Water System

DEC Display Energy Certificate

DHW Domestic Hot Water

DNO Distribution Network Operator, UK Power network, who is responsible for

the local network electrical infrastructure

DTA Desk Top Assessment

EPC Energy Performance Certificate

ESCo Energy Service Company GIFA Gross internal floor area

HVAC Heating, Ventilation and Air Conditioning

IGP Investment Grade Proposal

LED Light Emitting Diodes LP Local Partnerships

MLEI Mobilising Local Energy Investment

M+V Measurement and Verification

OL One Leisure PV Photo Voltaic

RHI Renewable Heat Incentive TMV Thermostatic Mixing Valves