

<b>Subject:</b>	Renewable Energy Investment – Leisure Facilities	<b>Status:</b>	For Publication
<b>Report to:</b>	Cabinet	<b>Date:</b>	22 <sup>nd</sup> October 2014
<b>Report of:</b>	Head of Finance & Property Services	<b>Portfolio Holder:</b>	Portfolio Holder for Finance & Resources
<b>Key Decision:</b>	<input checked="" type="checkbox"/> Forward Plan <input checked="" type="checkbox"/>	<b>General Exception</b>	<input checked="" type="checkbox"/> <b>Special Urgency</b> <input type="checkbox"/>
<b>Equality Impact Assessment:</b>	Required:	Yes/No	Attached: Yes/No
<b>Biodiversity Impact Assessment</b>	Required:	Yes/No	Attached: Yes/No
<b>Contact Officer:</b>	Philip Seddon	<b>Telephone:</b>	01706 252465
<b>Email:</b>	<a href="mailto:philseddon@rossendalebc.gov.uk">philseddon@rossendalebc.gov.uk</a>		

1.	<b>RECOMMENDATION(S)</b>
1.1	That Members approve the investment of c. £107,000 (subject to tender) in a biomass energy boiler at Whitworth Leisure Hall.
1.2	That Members approve the investment of c. £146,000 (subject to tender) in solar energy at Marl Pits and Whitworth Leisure Hall & Pool.

## 2. PURPOSE OF REPORT

- 2.1 The purpose of the report is to seek approval from Members on the business case for investing c £107k into a biomass renewable energy scheme initially at Whitworth Leisure Hall, together with £155k in solar energy at Marl Pits and Whitworth Leisure Hall and Pool

## 3. CORPORATE PRIORITIES

- 3.1 The matters discussed in this report impact directly on the following corporate priorities:
- **Regenerating Rossendale:** This priority focuses on regeneration in its broadest sense, so it means supporting communities that get on well together, attracting sustainable investment, promoting Rossendale, as well as working as an enabler to promote the physical regeneration of Rossendale.
  - **Responsive Value for Money Services:** This priority is about the Council working collaboratively, being a provider, procurer and a commissioner of services that are efficient and that meet the needs of local people.
  - **Clean Green Rossendale:** This priority focuses on clean streets and town centres and well managed open spaces, whilst recognising that the Council has to work with communities and as a partner to deliver this ambition.

## 4. RISK ASSESSMENT IMPLICATIONS

- 4.1 All the issues raised and the recommendation(s) in this report involve risk considerations as set out below:
- Future reduction in the rate of the Governments Renewable Heat Incentive (RHI) payments before accreditation is received
  - Opportunity cost of losing a £30k pa net gain on current revenue costs
  - Opportunity cost of long term investment lost

- Energy cost inflation increases faster than rate of inflation
- Savings based on assumptions about future inflation and energy prices
- Security against damage

## 5. BACKGROUND AND OPTIONS

5.1 Whitworth Leisure Centre currently consumes £15k in gas and £5k in electricity, per annum, to heat the pool swimming water and Space Heating via two conventional gas boilers and shower provision/ domestic water heating via two electric direct immersion heated 80 ltr cylinders.

Given the projected rise in future fossil fuel cost and the environmental impact of such large consumption. The combined amounts account for 30% of the Leisure Centre current overhead costs and seen as a major negative impact to the long term future of the facility and are deemed out of the overall control of the CLAW Board.

The UK Government currently operates a scheme Non-Domestic RHI (Renewable Heat Incentive) with the objective to provide a long-term financial incentive, to significantly increase the proportion of heat generated from renewable sources. By driving change in a heat sector currently dominated by fossil fuel technologies, the RHI helps the UK meet EU targets to reduce carbon emissions and improve energy security.

Introduction of renewable energy solutions to reduce the reliance on fossil fuel will take away the inherent risks associated with the world fossil fuel market and have a 60% reduction in the carbon emissions generated by the leisure facility.

### Key Objectives of the proposal

To create a reliable more efficient method of generating heat from renewable heat source to maintain the pool swimming water, domestic hot water and space heating at current levels whilst extracting the financial incentive offered by the UK Government under the non-domestic RHI scheme. This scheme is intended to provide a long-term financial incentive to businesses to significantly increase the proportion of heat generated from renewable sources. By driving change in a heat sector currently dominated by fossil fuel technologies, RHI is intended to help the UK meet EU targets to reduce carbon emissions and improve energy security.

### Options and Costs

CLAW (Community Leisure Association of Whitworth) have two proposals currently both proposals offer help with the OFGEM (The Office of Gas and Electricity Markets) accreditation required to receive the RHI payment, although the company offering Biomass Solution gives full completion of accreditation in the alternative option quotation for ground source heat recovery the offer allows for “significant help”

### Ground Source Heat Pump

Heat from the ground is absorbed at low temperatures into a fluid inside a loop of pipe (a ground loop) buried underground. The fluid then passes through a compressor that raises it to a higher temperature, which can then heat water for the heating and hot water circuits of the facility. The cooled ground-loop fluid passes back into the ground where it absorbs further energy from the ground in a continuous process as long as heating is required via a vertical loop down into the ground to a depth of up to 100 metres. Heat pumps have some impact on

the environment as they need additional electricity to run, but the heat they extract from the ground, is constantly being renewed naturally. Capital outlay c **£129k**. Full payback c **53** months

## **Biomass Boiler**

Similar in operation to conventional gas boilers. There is a storage area (hopper) where the wood fuel pellets are kept and then the actual boiler where the fuel is ignited. The wood fuel is automatically fed into the boiler from the hopper and then ignited by an auto start. The temperature is controlled via an electronic thermostat. The Grade 1 premium quality 6mm wood pellets are manufactured from virgin timber which is locally sourced within the UK and conforms to the European standard, ENplus. Capital outlay c **£107k**, full payback c **39** months.

### **5.2 Use of savings generated from the Biomass investment:**

- Payback of initial investment – This is currently estimated at c. **£30k** pa (increasing with inflation). For prudence the inflationary increase in anticipated savings has not been accounted for in the payback calculation.
- Members may wish to consider for the future a 60% / 40% split of the saving fixed at £18k / £12k (payback to RBC increasing by 2% pa repaying the capital investment in 6.56 years)
- Use within CLAW for other invest to save projects (eg: Water borehole, Gym extension) and general refresh. This gives the opportunity for a further review of the grant (currently £60k pa) over the medium term.

## **Tender Process**

CLAW have received one proposal for a Biomass System and are currently seeking other proposals and specifications. The quotation request from CLAW has been based on suppliers offering solutions to CLAW's energy problem. Once all are received a further request for a re-submission will be made should the specifications be significantly different, in particular the KW generation. Therefore final tender prices will be based on a common specification.

### **Other solar energy opportunities:**

- In total CLAW currently incur c £20k pa on electricity (£5k of which is accounted above in running the Shower provision and domestic water heating). The opportunity therefore exists to consider solar power to supplement and reduce the £15k currently incurred in other power requirements. In addition the annual electricity consumption at Marl Pits is c. £29k pa. Though Haslingden Sports Centre consumes c. £22k pa in electricity the roof configuration is thought not to suite solar panels. The business case (subject to Government tariff changes) has been proven at Futures Park.
- Indicative capital costs and their estimated return is as follows:
  - Marl pits swimming pool 50 kw panels should benefit around £ 9.4k per year with an investment of £55k (Payback 5.9 yrs)
  - Whitworth swimming pool 50 kw should benefit around £ 9.4 per year with an

investment of £55k system (plus £2.5 to remove the current tower). (Payback 5.6 yrs)

- Whitworth civic centre 30 kw should benefit around £ 6.2k per year with an investment of £33k (payback 5.3 yrs)

**COMMENTS FROM STATUTORY OFFICERS:**

**6. SECTION 151 OFFICER**

6.1 Financial matters are noted in the report.

**7. MONITORING OFFICER**

7.1 There are no legal implications

**8. POLICY IMPLICATIONS AND CONSULTATION CARRIED OUT**

8.1 There are no Human Resources implication

**9. CONCLUSION**

9.1 The project is a financially viable alternative to traditional energy sources and supports renewable energy objectives.

Background Papers

Document	Place of Inspection
Various estimates on the financial returns of the renewable energy systems.	Finance Department