

## **REPORT TO SCRUTINY COMMITTEE - RESOURCES**

**Date of Meeting: 18 March 2015**

**Report of: Corporate Manager Property**

**Title: An Energy Neutral Council – A Renewables and Energy Efficiency Programme Update**

**Is this a Key Decision?**

No

**Is this an Executive or Council Function?**

No

### **1. What is the report about?**

This report provides an update on the Renewables and Energy Efficiency Programme work that has been undertaken during the first year of the programme and since the previous report to Scrutiny Committee Resources on 17 September 2015.

### **2. Recommendations:**

That Scrutiny Committee Resources note the progress made to date, the delivery of year one of the Renewables and Energy Efficiency Programme and feasibility work in progress for year two.

### **3. Reasons for the recommendation:**

This is an update report to Scrutiny Committee Resources

### **4. What are the resource implications including non financial resources.**

The programme is delivered by the Energy Team, made up of two full-time posts and this level of resource continues to be supported.

The speed of delivery of the programme has been a result of the Team's commitment and support given by others in the newly formed Corporate Property service. Some schemes have however been delayed due to the need to engage external structural engineering advice and by the fact that the City Council's procurement function is not yet fully developed.

In terms of the financial benefits of the programme, actual performance of previous PV schemes and savings made as a result of the early work carried out by the Energy Team is set out in table format at the end of this report. The table also lists new savings that will be made at the end of this financial year (31 March 2015). Income from energy savings and FIT payments/export to the grid, have exceeded expectation and the returns over the 20 year investment period are higher than projected. As new schemes within the programme are rolled out it is anticipated that they will continue to deliver similar energy savings and income generation.

### **5. Section 151 Officer comments:**

Each scheme has been subject to consideration of the effect on finances, noting the level of saving anticipated and comparing this against the cost to the Council of

financing the debt required to pay for the assets. So far all schemes have had a positive impact on the Council's budget.

**6. What are the legal aspects?**

There are no issues to raise on the content of this report.

**7. Monitoring Officer's comments:**

There are no issues to raise on the content of this report

**8. Report details:**

The report to Scrutiny Committee Resources on 17 September 2014 updated the Committee on the progress of year one elements of the Renewables and Energy Efficiency Programme. This report is intended to provide an update of the work completed in year one, work currently underway, and planned work for year two. A brief comment will be made on each individual project:

LED Bulb replacement – Mary Arches, Harlequins and Cathedral & Quay Car Park

The lights installed in three city centre car parks, have allowed the Council electricity savings of over £35,000 in the first year of operation. LED lighting is a proven energy saving tool, whilst at the same time providing a better standard of lighting, helping to improve safety in the car parks.

RAMM Solar PV System

A Solar PV scheme has been designed for the RAMM roof, planning and listed building consent secured together with an adequate Energy Performance Certificate (EPC) and Western Power Distribution (WPD) consent. However, the six separate roof types involved required extensive structural assessment; this work has delayed the project with the final outcome being that only four roofs were considered to be structurally adequate. Further concerns have arisen involving the fixing methods to be used, however a solution is being investigated which will enable a business case to be presented for approval in the near future.

Phoenix Art Centre Solar PV System

The feasibility of this project has been extensive and a final report will advise that a Solar PV installation will not provide sufficient return to the Council. Discussions will be starting with the Phoenix concerning other methods of delivery.

Car Park Canopy Solar PV Scheme (Mary Arches and John Lewis car park)

The contract for this project was awarded to Sungift Solar. Extensive structural engineering and canopy design work has meant the project start being delayed. Nonetheless the project continues to progress and work is due to commence in April. This scheme is a pioneering initiative and one that will attract much attention nationally.

Civic Centre LED Lights Replacement Programme

A programme of works began in earnest in October 2014, to combine with planned office relocations, to minimise out of hours work and associated costs. All offices are now complete in Phase II, with only two floors left to finish in Phase I. The LED lights have been well received, and improve the overall standard of office accommodation. The LED lights provide a more natural light and incorporate better controls; they dim and switch off completely when outside light levels are sufficient. The low wattage

energy consumption reduces carbon emissions and will enable the council to cut the Civic Centre's electricity bill by over £32,000 per annum (including for reduced maintenance as a result of extended bulb life).

#### Corn Exchange Solar PV System

Until the long term future of this building is confirmed it is not possible to prepare a business case to support this long term renewable investment.

#### Civic Centre Heating Load Review

A business case for a gas-fired boiler replacement of the current oil-fired heating system has been approved and a gas connection fee obtained. Design work, procurement and specialist engineering advice required is to be provided by North Somerset Council. North Somerset recently carried out a similar project at their offices at Castlewood, Clevedon and have the in-house skills required. It is hoped installation can be completed before the start of the new heating season in October this year. The savings will nearly halve the Civic Centre's current heating bill, saving £28,000 per annum.

#### Livestock Centre Solar PV Scheme

A favourable WPD connection offer has been secured for this building and a solar PV array of 1.5MW is proposed. This size of the array is significant; in comparison the Civic Centre solar PV array totals 70KW. This scheme will produce considerable carbon savings and the income generated will provide a return in excess of £3million. The project requires replacement of the dilapidated roof sheets, which is supported by a recent structural survey and the potential for extension of the auctioneers lease.

#### Quay Climbing Centre Solar PV System

A structural survey of the roof has highlighted some weaknesses, which can be overcome with a specialist solar panel fixing system, however this will be more costly. Further discussions with the building leaseholder will be held to see if it might be possible to agree a mutually beneficial power purchase agreement that can support a business case for this initiative.

#### Solar PV Field

Feasibility work is underway to secure basic elements of this proposal so Members can agree if this will proceed. This is an opportunity to secure a substantial long term income stream. It is supported by a key essential element, a viable WPD connection offer but the site will require planning approval. The development costs for a large solar field are currently being established. The scheme would be between 3 and 5MW, involving a large procurement exercise, legal works, scheme design and project management.

#### Parkwood Assets (Riverside Leisure Centre, Wonford Leisure Centre, Exeter Arena and ISCA Centre Solar PV Systems)

This opportunity will be explored when the long term future of the asset has been clarified as part of the Leisure Feasibility Review.

#### Further LED Light Replacement

High electricity users such as the RAMM and car parks will be surveyed in 2015/16.

#### EV Chargepoint Project

The final sponsorship imbursement will be paid by Westerly BMW in March. The chargepoint usage is currently low, however the infrastructure serves to promote EV use and has the capacity to accommodate growth in this sector. The cost of energy

used at public chargepoints during the first six months of operation is £72.00, the pool car chargepoint at the Civic Centre cost £114.00.

**9. How does the decision contribute to the Council's Corporate Plan?**

The delivery of the programme is an essential part of the Council's capital programme over the next few years. The energy savings and income generated will assist us in our overall efficiency and income generating agenda as well as contributing to the reduction of our carbon footprint, making the city as a whole a more pleasant live and work.

**10. What risks are there and how can they be reduced?**

The programme has been approved and resourced in order to secure delivery of viable schemes. There will always be challenges to viability in this area as a result of changes in energy costs, Feed in Tariff regimes, structural building condition, etc. The mechanism we have put in place to approved business cases and viability should ensure that we do not embark on schemes that will not perform in accordance with our requirements.

The recent price changes in the energy market are noted, and to clarify what effect this may have on future and predicted savings of this work an independent view has been sought from the Council's energy broker. The following guidance is given: Looking forward the average change in fully delivered electricity costs is an annual increase of between 6.5 and 9.5%, between 2 - 4% for Gas and Oil averaging at around 3% up to 2020.

**11. What is the impact of the decision on equality and diversity; health and wellbeing; safeguarding children, young people and vulnerable adults, community safety and the environment?**

No decision is sought, but it should be noted that the reduction in the City Council's carbon footprint does go some way to improving, or at least mitigating, our adverse impacts of energy use on the environment.

**12. Are there any other options?**

The nature of the programme appraisal and approval arrangements are that the Energy Team is constantly considering alternative approaches and other avenues of investment in this area.

**Michael Carson**  
**Corporate Manager Property**

**Local Government (Access to Information) Act 1972 (as amended)**

**Background papers used in compiling this report:**

None

Contact for enquires:

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Financial Benefits - Savings 2012 - 2015

<b>2012/2013</b>	<b>FIT Income</b>	<b>Gross Saving</b>
<b>Water Saving Project</b>		
2012/13 Savings		£23,025
<b>TOTAL SAVING 2012/13</b>		<b>£23,025</b>
<b>2013/2014</b>		
<b>Water Saving Project</b>		
2013/14 Savings		£20,420
<b>PV Arrays (Civic, Ark, MRF, Oakwood, Belle Isle)</b>		
Income & Savings	£24,512	£47,984
<b>TOTAL SAVING 2013/14</b>		<b>£68,404</b>
<b>2014/2015</b>		
<b>Water Saving Project</b>		
2014/15 Savings		£21,000
<b>PV Arrays (Civic, Ark, MRF, Oakwood, Belle Isle)</b>		
Income & Savings	£24,811	£48,633
<b>NEW PROJECTS :</b>		
<b>Civic Centre LED Project</b>		
Civic Centre (part)		£7,684
<b>Hand Dryer Project</b>		
Installation of efficient hand dryers & removal of paper towels		£5,200
<b>Car Park LED Project</b>		
LED bulb replacement - Cathedral & Quay Car Park		£14,720
LED bulb replacement - Harlequins Car Park		£5,450
LED light replacement - Mary Arches Car Park		£14,940
<b>Car Park Total</b>		<b>£35,110</b>
<b>TOTAL SAVING 2014/15</b>		<b>£117,627</b>

Financial Benefits - Projected Savings 2015/16

<b>2015/2016</b>	<b>FIT Income</b>	<b>Gross Saving</b>
<b>Water Saving Project</b>		
Savings		£21,000
<b>PV Arrays (Civic, Ark, MRF, Oakwood, Belle Isle)</b>		
Income & Savings	£24,811	£48,633
<b>Civic Centre LED Project</b>		
Civic Centre		£32,184
<b>Hand Dryer Project</b>		
Installation of efficient hand dryers & removal of paper towels		£5,200
<b>Car Park LED Project</b>		
LED bulb replacement - Cathedral & Quay Car Park		£14,720
LED bulb replacement - Harlequins Car Park		£5,450
LED light replacement - Mary Arches Car Park		£14,940
<b>Car Park Total</b>		<b>£35,110</b>
<b>NEW PROJECTS :</b>		
<b>Car Park Canopy PV</b>	<b>£27,100</b>	<b>£51,630</b>
<b>Civic Boiler Replacement</b>		<b>£28,000</b>
<b>Livestock Centre PV (part/50%)</b>	<b>£92,000</b>	<b>£92,000</b>
<b>Quay Climb Centre (PPA)</b>	<b>£3,757</b>	<b>£5,465</b>
<b>PROJECTED TOTAL SAVING 2015/16</b>		<b>£319,222</b>