

Title: <b>Energy Reduction Manager Update</b>
Contains Confidential or Exempt Information?: <i>NO - Part I</i>
Member reporting: Councillor Coppinger, Lead Member for Sustainability
Meeting and Date: Sustainability Panel - 30 January 2018
Responsible Officer(s): Andy Jeffs, Executive Director David Scott, Head of Communities, Enforcement & Partnerships
Wards affected: All

## REPORT SUMMARY

1. This report provides an overview of the progress being made to deliver the Council's energy and water reduction strategy.
2. This update report recommends that members note progress and comment on the proposed work plan for the next period. It provides an update on the energy and water strategy 2018-2022, Town Hall building management system upgrade, the LED lighting phase 2 project, electrical sub metering at the Town Hall, on the Energy Switch to Save scheme and the schools energy saving competition. A recommendation is made that the energy and water strategy 2018-2022 actions and scope are approved subject to member comments.
3. Recommendations are being made because it is important that Members provide comment and direction on the work being carried out and that the sustainability strategy targets are met.

## 1. DETAILS OF RECOMMENDATION(S)

**RECOMMENDATION:** That the Sustainability Panel notes the report, the progress made and comments on the proposed work plan over the next period as detailed in paragraph 11.18.

**RECOMMENDATION:** That the Sustainability Panel reviews the Energy and Water Strategy 2018-2022 topics, actions and scope and provide comment where required.

## 2. REASON(S) FOR RECOMMENDATION(S) AND OPTIONS CONSIDERED

2.1 The Council is currently working towards a four year Sustainability Strategy running from April 2014 to March 2018. The strategy focuses on 6 workstreams including: Sustainability, Energy, Water, Waste, Transport and Renewable Generation. The strategy has three key targets over the four year period which are:

1. Reduce energy use in the Council building estate by 15% in 2017/18 compared to a 2013/2014 baseline.
2. Reduce water usage in the Council's corporate office buildings by 3% in 2017/18 compared to a 2013/2014 baseline.
3. Recycling rates increased to 55% in 2017/18.

2.2 Each year an action plan is drawn up to enable the Council to meet these targets as well as other goals presented in the strategy documents. This update provides a progress report for the energy workstream.

2.3 After the first three years of the strategy the 2013/2014 energy baseline has been reduced by 15%. This equates to the Council avoiding just over £300,000 of energy costs over these three years.

### 2.4 Table 1: Report options

Option	Comments
(a) The Council does not work towards the sustainability strategy. <b>This is not recommended</b>	(a) Failing to work towards the sustainability strategy would mean the Council would not be able to meet its legislative commitments, would not be able to continually drive down energy costs and therefore would not be offering value for money for its residents.
(b) The Council works according to the current and any future sustainability strategy. <b>This is the recommended option</b>	(b) The Council will be able to meet all its legal requirements whilst improving the local environment and providing value for money for its residents. (Para 2.3)
(c) The Energy and Water Strategy 2018-2022 actions and scope are approved subject to any comments provided. <b>This is the recommended option</b>	(c) The Council will be able to meet its new targets and deliver relevant strategy actions over the next four years. Without the actions and scope being approved the structure of the new strategy would need to be revised.

### 3. KEY IMPLICATIONS

#### 3.1 Table 2: Target outcome following report

Outcome	Unmet	Met	Exceeded	Significantly Exceeded	Date of delivery
Overall reduction of annual gas and electricity consumption in Council buildings in 2017/18 compared to the 2013/14 baseline.	<15%	15-16%	16.1-17%	>17%	31 <sup>st</sup> March 2018
Reduction of water consumption in Council office buildings in 2017/18 compared to the 2016/17 baseline.	<3%	3.0-3.5%	3.6-4.0%	>4%	31 <sup>st</sup> March 2018

### 4. FINANCIAL DETAILS / VALUE FOR MONEY

4.1 No new funds are being sought through this paper.

### 5. LEGAL IMPLICATIONS

5.1 None.

### 6. RISK MANAGEMENT

#### 6.1 Table 4: Risks for Sustainability Strategy actions.

Risks	Uncontrolled Risk	Controls	Controlled Risk
Targets for overall energy and water reduction are not met.	High	By providing updates at each panel meeting, Members are able to keep track of overall progress to ensure the Council meets its annual projected reductions and	Low

<b>Risks</b>	<b>Uncontrolled Risk</b>	<b>Controls</b>	<b>Controlled Risk</b>
		savings commitments.	
Increasing energy and water costs for the council puts additional pressures on budgets.	High	By providing updates at Panel meetings on progress to reduce energy and water usage and progress on securing the best available energy contracts, Members will be able to assess the work that is taking place to ensure that cost increases are minimised as far as possible.	Low

## 7. POTENTIAL IMPACTS

- 7.1 This update contains content relating to the sustainable improvement of the Council's buildings and the information collated about them.
- 7.2 No equality impact assessment has been carried out.

## 8. CONSULTATION

- 8.1 None

## 9. TIMETABLE FOR IMPLEMENTATION

### 9.1 Table 5: Timetable

<b>Date</b>	<b>Details</b>
31/03/2018	Completion of current annual plan.

## 10. APPENDICES

- 10.1 Appendix 1 – Energy and Water Strategy 2018-2022 actions and scope

## 11. BACKGROUND DOCUMENTS

### **New energy and water strategy 2018-2022**

- 11.1. The new energy and water strategy is currently in the process of being written up. Following the approval made over email in December the new strategy will focus purely on energy and water management. This increased focus may

allow the inclusion of some new topic areas which were not included in the previous Sustainability Strategy.

- 11.2. The proposed new topic areas with their corresponding actions can be found in appendix 1. It is proposed that there will be four different topic areas. These are:
- Projects – this includes efficiency, generation and storage projects as well as the surveying and auditing in order to identify the projects.
  - Monitoring and Targeting – this includes metering, targeting, reporting and record keeping.
  - Value for money – This includes improving processes and contracts as well as looking for ways to increase income.
  - Legislation – This includes current and any future legislation relating to the reporting of energy performance.
- 11.3. Each of these topic areas are linked to a number of actions that relate to the topic. These are the actions that the strategy will aim to cover over the next 4 years, however, it may be the case that not all actions are actually used. This will depend on certain opportunities arising and resources being available. Having all eventualities covered means that the strategy can be flexible and include a range of measures as they come up. Any new work being carried out will need to sit under a strategy action for it to be considered.
- 11.4. It is envisioned that the scope of the work will remain as it currently is with the corporate sites having an energy/ carbon reduction target and a water reduction target. Schools and residents will be supported to reduce their energy costs/ consumption too. This will be a lighter touch.

#### **Building Management System & LED lighting phase 2 projects**

- 11.5. The building management system (BMS) is now fully installed according to the original specification. The system is currently undergoing a number of snagging phases to ensure optimum performance.
- 11.6. The BMS project has highlighted a number of faults and issues at the Town Hall. Some items have already been dealt with and some may lead to future projects to improve the running of the building. For example, a broken valve, sensor and pump have already been picked up and replaced. Potential future projects and maintenance items have also been identified. One such possibility is that of using outside air to provide comfort cooling when the outside air temperature is below a certain temperature. This could potentially be carried out on the ground floor in areas currently cooled using the chiller. Energy savings could be made since the chiller could be turned off during these times. Dirty filters to the fan coils on the ground floor have also been identified as part of the works and the appropriate maintenance contractor has been notified.

11.7. The LED lighting project phase 2 is now complete. Everything was installed as expected except that there were a few lamps that could not be replaced at Maidenhead Library. This was because of access issues to the lamp fittings. Luckily this was only a small number of lights and should not hugely affect the savings. Overall the project is expected to reduce energy consumption by 60,000kWh/£7200 per annum overall.

#### **Electrical monitoring on the building management system**

11.8. Investigations are currently ongoing into the possibility of installing an upgraded electrical sub metering system to connect to the new building management system.

11.9. The sub metering system would split out the key areas of electrical usage at the Town Hall. This will help provide more information into where further energy savings may be made in the building. For example it will help to more clearly identify where in the building electrical usage is consumed overnight. This extra information will help to inform future investigations and enable an energy flow diagram of the building to be more accurately drawn up.

11.10. An energy flow diagram shows where and how energy is consumed in a building over time. It can be used to predict the expected consumption and compare to actual usage highlight issues.

#### **Energy Switch to Save Scheme**

11.11. The October Energy Switch to Save auction had 151 registrants provide a full registration. This is the highest number of registrations so far for an auction. It is thought that the wider roll out of fliers helped to increase the number of registrants. Those that ended up switching (43) went on to save on average £208 per household. Overall the switchers from this auction are expected to save just under £9000 per year.

11.12. Since the beginning of the Energy Switch to Save Scheme residents have saved an estimated £20,000 per annum. This is great news for the residents that have taken part in the three auctions.

11.13. It is proposed that the energy switch to save scheme is next run in October 2018. This will free up some time for other actions to be made and allow a bit of time to build up more interest.

#### **Schools Energy Saving Competition**

11.14. This year it is proposed that the Schools Energy Saving Competition will happen in the first half of the summer term starting on the 23<sup>rd</sup> April.

11.15. Maintained primary schools will be contacted shortly to see if they want to take part. If there is a sufficient number of schools wanting to take part then it will go ahead as proposed. The focus of the competition will be to reduce electrical consumption. Since the competition would be in the summer this year the schools will need to be careful with their air conditioning usage.

11.16. For this competition the schools will need to monitor their usage for two weeks and then try to reduce their energy consumption over a final week. They will

do this by making zero to low cost changes to their school during the third week.

11.17. Unfortunately during the competition last year a number of schools didn't manage to take a meter reading each week of the competition. This meant that they were disqualified since it was not possible to determine their energy saving. It is hoped by reducing the number of weeks the competition is running and by sending regular email reminders that schools won't be in the same situation at the end of this competition.

**Proposed work plan over the next period**

11.18. The work being carried out between now and the next Sustainability Panel will be:

- Writing up the new Energy and Water Strategy 2018-2022
- Schools energy saving competition set up
- Water saving project development and installation

**12. CONSULTATION (MANDATORY)**

Name of consultee	Post held	Date sent	Commented & returned
Cllr Coppinger	Lead Member for Sustainability		
Cllr Mills	Chairman of the Sustainability Panel		
Lisa Pigeon	Environmental Health Lead		

**REPORT HISTORY**

<b>Decision type:</b> Non-key decision	<b>Urgency item?</b> No
Report Author: Michael Potter, Energy Reduction Manager, 01628 682949	