

Title: Energy Reduction Manager Update
Contains Confidential or Exempt Information?: <i>NO - Part I</i>
Member reporting: Councillor Coppinger, Lead Member for Sustainability
Meeting and Date: Sustainability Panel - 3 rd July 2017
Responsible Officer(s): Andy Jeffs, Interim Strategic Director of Communities Craig Miller, Head of Community Protection & Enforcement Services
Wards affected: All

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Royal Borough
of Windsor &
Maidenhead

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 Annual Energy Consumption Figures 2016/17, Town Hall Water Reduction Project, Schools RE:FIT programme and Building Management System & LED lighting phase 2 projects. A recommendation is made to approve the installation of tap volumisers in the Town Hall subject to a positive trial. If the trial is positive then delegated authority has been requested to install volumisers at the Town Hall. There is also a recommendation that the Council holds a workshop with schools to discuss the Schools RE:FIT programme further.
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 approves the installation of volumiser tap flow regulators at the Town Hall subject to a positive trial of the technology.

RECOMMENDATION: That delegated authority is provided to the Lead member for Sustainability and the Head of Community Protection and Enforcement to decide whether the volumiser tap flow regulators are installed at the Town Hall if the trial is positive.

RECOMMENDATION: That the Sustainability Panel approves a workshop being held with schools to raise awareness of the Schools RE:FIT project, consolidate initial interest and help to convince hesitant schools to sign up.

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. This is not recommended	(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. This is the recommended option	(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.
(c) The Council installs tap volumisers in the Town Hall subject to a positive trial of the technology. This is the recommended option	(c) The Council will be working towards its target to reduce water consumption in corporate office buildings. This recommendation is subject to a positive trial of the technology.
(d) The Council holds a schools RE:FIT programme workshop for interested schools This is the recommended	(e) The Council will be progressing its proposal for a schools RE:FIT project with schools in order to gain their sign up. Initially there

Option	Comments
option	will need to be further discussions with the Procurement Team before a workshop can be held.

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 st March 2018
Reduction of water consumption in Council office buildings in 2017/18 compared to the 2013/14 baseline.	<3%	3.0-3.5%	3.6-4.0%	>4%	31 st 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	Low

Risks	Uncontrolled Risk	Controls	Controlled Risk
		of overall progress to ensure the Council meets its annual projected reductions and 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

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

10. APPENDICES

10.1 Appendix 1 – 2016/17 annual consumption figures.

11. BACKGROUND DOCUMENTS

Annual Energy Consumption figures 2016/17

- 11.1. The final 2016/17 annual energy consumption figures show that the Council reduced the energy consumption of its corporate sites by 15% compared to the 2013/14 baseline. The target for the year was 11% so this was well exceeded. In fact the 15% reduction was the target set for 2017/18 and so this has been met a year early. A breakdown of the monthly gas and electric figures can be found in appendix 1. It should be noted that any Council sites which have been removed from the Council portfolio since the baseline have also been removed from this calculation.
- 11.2. Over the three years of the current sustainability strategy £300,000 of savings have been created. The majority of these savings have been created through electricity savings and not gas savings. In fact gas consumption increased compared to the baseline in 2016/17 which meant that costs also increased. This is a step in the wrong direction since 2016/17 was a warmer year than the baseline year. A large part of this increased consumption was at York House due to a fault in the control system. Similarly the Town Hall saw a large rise in consumption due to its lack of control. 4 Marlow road and Tinkers Lane also saw increases. The York House refurbishment will look to resolve any issues with its control system and the Town Hall controls will hopefully be replaced shortly.
- 11.3. The largest increase in the electricity accounts was the Jubilee fountain in Windsor. The increase on this site was very large (109,297 kWh). The main reasons for this were that during the baseline year the fountain billing was very underestimated and also that a large rebill was settled during the 2016/17 year. Braywick Sports Centre had the second largest increase in consumption and this was due to the biomass boiler breaking down and electrical backup being used.
- 11.4. The challenge over the next year will be to maintain and improve upon the energy savings achieved in 2016/17. Although the target was met there is no room for error in the 2017/18 year. Furthermore since the consumption figures are not adjusted for temperature if there is a cold winter in 2017/18 this could adversely affect the figures. The energy consumption of all sites will need to be closely monitored to identify any issues.
- 11.5. 14 buildings are due to move away from the Council energy portfolio in the 2017/18 year. This includes Optalis and Action for Children sites. 4 Marlow Road is due to move to Parkwood Leisure. York House will be undergoing refurbishment. This means monitoring of these sites will stop at the point of their handover.

Town Hall water reduction

- 11.6. The increased water consumption, following the initial reduction after the urinal project, has now almost been reduced back to where it should be. The increased usage was due to loos continuously flushing. Their flush mechanisms have now been replaced but there does seem to be another

intermittent flow that is causing a small amount of wastage. A further survey will be carried out to try and pick up what is causing this.

- 11.7. A new product has been presented to the Energy Reduction Manager called a volumiser. This product is similar to an aerator in that it fits into the end of the tap but it is different as it reduces the volume of water dramatically compared to an aerator. It does this through a 'targeted molecular cone'. This causes the tap to provide a fine spray that you can wash your hands in. The volumiser can bring the flow rate of the tap down to 0.12L/min from about 5 L/min (assuming a well controlled tap is in place otherwise the tap could provide water at 10-15 L/min).
- 11.8. Furthermore since the tap flow rate is so tiny it means the thermal mass of the water is very small compared to hands. The consequence of this is that the tap water doesn't need to be heated for the water to feel warm. This could mean that the hot water cylinders supplying hot water to the taps could be turned off/ bypassed creating an energy saving.
- 11.9. In principal this device is quite revolutionary, in practice it may not work as stated. Our water contractor have asked to put one in as a trial so that it can be tested. It has now been installed in the gents public toilet in the Town Hall café area.
- 11.10. The Town Hall has 64 taps, if all of them had a volumiser installed then the Council could save in the region of 1500m³/ £3150 a year of water. The project would payback in less than half a year without taking into account any energy savings. The total cost of the volumiser units would be roughly £1200. At the current time the trial in the gents toilet will need to determine the next steps. Should the trial be successful it is proposed that the volumisers are rolled out quickly in order to maximise savings in the current financial year.

Building Management System & LED lighting phase 2 projects

- 11.11. The Town Hall Building Management System tender has now been completed and a contractor has been appointed. The project programming and initial start up meetings will commence once the contracts are in place.
- 11.12. The LED project phase 2 contracts have now been signed and initial start up discussions have commenced. A small trial of the new LED lamps in Maidenhead Library is currently being discussed. This is to provide some reassurance to the library service that the LED lamps are appropriate for use at Maidenhead Library.

Schools RE:FIT programme

- 11.13. Following the agreement of the panel in March, a schools information document regarding the proposed Schools RE:FIT programme was drawn up. This document was then sent to schools to gauge their interest and to receive some general feedback.
- 11.14. 20 out of the 67 schools replied to the RE:FIT proposal email. Schools were asked to provide their level of interest in the scheme. Of the 20 schools, 8 schools stated that they were extremely interested and the remaining 12 schools stated that they were interested but were also slightly hesitant.

- 11.15. Schools made a number of comments about the scheme. Some schools were hesitant about taking on a loan given how tight their budgets currently are. Some schools were slightly sceptical regarding the guarantee and one school went on to say that it must be a 'cast iron' guarantee. Many schools wanted more information before committing to anything further i.e. the savings and the costs. It was also highlighted that governors may be a stumbling point since they may not understand the contracts. A couple of schools thought maybe they were a bit too advanced, in terms of what they had already done to save energy, to take part. There were also some queries regarding the academisation process.
- 11.16. Overall it was a good response from schools with 30% of schools responding. It was encouraging that a good number of schools had considered the scheme. To ensure a successful RE:FIT project the Council would need roughly 10-15 schools fully on board. Unfortunately at the moment the response suggests that there is not quite enough support for the scheme to take it forward. However, if the issues highlighted above are addressed then perhaps more schools may be interested enough to take the project forward. This in turn may mean that the Council has just enough schools for one phase depending entirely on the drop out rate. Essentially a 50% drop out rate would still mean that there is potentially a project to take forward.
- 11.17. The key things that would need to be addressed are the energy saving guarantee, explaining how the contracts work in a simple way and ensuring that the schools have a good saving potential in the first place. Schools may feel better about the guarantee if they can take a look at the terms of the guarantee so this should be made available so long as this is possible at this stage. Further work will be needed to go through the contracts point by point with schools. A document could be drawn up to go through this, otherwise face to face meetings could be arranged in due course. The final point to address is the need to ensure that there is a good amount of energy saving work available in the schools before they sign up. This could be gauged through an initial site survey questionnaire.
- 11.18. Some schools wanted to see what their savings/ costs would be before making a decision to go forward. This is not going to be possible at the initial sign up stage since this information will only become available following the tender site surveys. This maybe partially resolved by providing case studies to schools so that they can see what is possible. Although not ideal, it has been confirmed that schools can back out after the tender mini competition process. The programme does need committed schools that are happy with the contracting route up front though and so the only reason a school might need to drop out is because there is a particular issue with their survey e.g. the survey shows that the energy saving potential of a school is limited or has too long a payback. Schools dropping out may have an effect on the rest of the tender so it should be avoided if at all possible.
- 11.19. Local partnerships have provided an access agreement to the RE:FIT framework and a facilitation fees document. There are no costs to access the framework, however, there are fees to check over documentation at the

relevant stages and this is mandatory. The facilitation fees document sets out the costs to take the borough through the process from start to finish – the Council can decide to use their facilitation services or not. The costs of these services will need to be factored into the project if it is decided the Council needs them.

11.20. Local partnerships have suggested that the Council holds a workshop for the currently interested schools to build upon and consolidate the initial interest. Initial discussions with procurement suggest that a number of things need to be worked through before we hold a workshop though.

Proposed work plan over the next period

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

- LED lighting upgrade programming/ project planning/ installations
- Building Management System upgrade programming/ project planning
- Investigating the Schools RE:FIT programme
- Staff awareness campaign planning
- Energy Switch to Save planning

12. CONSULTATION (MANDATORY)

Name of consultee	Post held	Date sent	Commented & returned
Cllr Coppinger	Lead Member for Sustainability	20/06/17	
Cllr Mills	Chairman of the Sustainability Panel	20/06/17	21/06/17
Lisa Pigeon	Environmental Health Lead	08/06/17	17/06/17

REPORT HISTORY

Decision type: Non-key decision	Urgency item? No
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