

Report Title:	Energy Reduction Manager Update
Contains Confidential or Exempt Information?	NO - Part I
Member reporting:	Councillor Coppinger, Lead/Principal Member for Sustainability
Meeting and Date:	Sustainability Panel - 31 May 2018
Responsible Officer(s):	Andy Jeffs Executive Director & David Scott, Head of Communities, Enforcement & Partnerships
Wards affected:	None

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 report provides an update on the council's energy consumption 2017/18, on the sustainability strategy 2014-2018, on the energy and water strategy 2018-2022, on the schools energy saving competition, on the refill scheme and on the Braywick leisure centre solar project. It is recommended that the panel notes the report and the progress made.
3. Recommendations are being made because it is important that members provide comment and direction on the work being carried out so that the energy and water strategy targets are met.

1 DETAILS OF RECOMMENDATION(S)

RECOMMENDATION: That the sustainability panel notes the report and the progress made.

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

- 2.1 The council has just finished a four year Sustainability Strategy and it is currently writing a new Energy and Water Strategy which will run from April 2018 to March 2022.
- 2.2 The new strategy is expected to have four key work areas: projects, monitoring and targeting, value for money and legislation. Each year an action plan will be drawn up to drive the council forward towards its strategy aims and targets. This update provides a progress report for energy and water matters.

2.3 Table 1: Options

Option	Comments
(a) The Council does not work towards reducing the council's energy and water consumption. This is not recommended	(a) Failing to reduce energy and water consumption would mean the council would not be able to continually drive down energy costs and therefore would not be offering value for money for its residents. It would also not be helping to improve the environment.
(b) The Council works towards reducing the council's energy and water consumption. This is the recommended option	(b) The Council will be able to improve the local environment and provide value for money for its residents.

3 KEY IMPLICATIONS

3.1 Table 2: Key implications – expected targeted annual reductions 2018/19

Outcome	Unmet	Met	Exceeded	Significantly Exceeded	Date of delivery
Overall percentage reduction of annual gas and electricity consumption in council corporate buildings in 2018/19 compared to the 2017/18 baseline.	<1%	1-1.5	1.5 -2	>2%	31/03/19
Percentage reduction of water consumption in Council office buildings in 2018/19 compared to the 2017/18 baseline.	<0.5%	0.5-1	1-1.5	>1.5%	31/03/19

4 FINANCIAL DETAILS / VALUE FOR MONEY

4.1 No new funds are being sought through this paper.

5 LEGAL IMPLICATIONS

5.1 The council has the power to take the actions proposed. The draft energy and water strategy presented in this report highlights the relevant legislation that relates to the council in respect to energy management in the borough.

6 RISK MANAGEMENT

6.1 **Table 4: Impact of risk and mitigation**

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 savings commitments.	LOW
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 No timetable set at this time.
- 9.2 Implementation date if not called in: Immediately

10 APPENDICES

- 10.1 The appendices to the report are as follows:
- Appendix 1 – Electricity and gas data for 2017/18 (April to February)

11 BACKGROUND DOCUMENTS

Energy monitoring data

- 11.1 An update on the council's energy consumption data for corporate sites is presented in appendix 1. The data shown covers April 2017 to February 2018. The electrical data for March is not yet fully complete and so the full year saving can't be shown at this time.
- 11.2 Overall the data shows a total saving of 21% compared to the baseline year (2013/14) for the April to February period. This means, as the savings are likely to be maintained in March, that the saving target of 15% will be exceeded by at least 6%. Once the final figures for March have been received the final saving for the strategy will be calculated. This figure will then be presented in the Around the Royal Borough.

Sustainability Strategy 2014-2018

- 11.3 The Sustainability Strategy 2014-2018 has recently ended and so it is a good time to reflect on some of the key pieces of energy and water saving work that have been carried out over the last four years. The strategy started out with some work on gas, electric and water automatic metering. This was to try and improve the accuracy of billing and to improve monitoring of the council's energy supplies. At the time all corporate supplies that could be upgraded were as well as being set up with online access.
- 11.4 During the strategy a number of projects were delivered around the borough that were either installed by the council or influenced by the council. These projects were designed to reduce grid consumption of electric and gas as well as to reduce water consumption. Projects that the council installed directly include the Town Hall solar

panels, RE:FIT performance contract in 6 buildings, LED lighting upgrades across 36 corporate sites, LED streetlighting across the whole estate, the Town Hall building management system, direct flush urinal controls, tap volumisers. A number of projects were carried out in the school estate to install biomass boilers and solar panels and the schools received support from the council on these.

- 11.5 Work was also carried out to improve awareness of energy consumption through the staff awareness campaign and the schools energy saving competition. Residents were encouraged to install renewable technologies and also to save money on their bills through the Energy Switch to Save scheme.
- 11.6 All this work has meant that the council has exceeded its energy and water targets (a 21% energy saving (15% target) and a 37% water saving (3% target)) and also met many of the further aims for the strategy. These further aims included items such as install 900 LED streetlights, complete coverage of electric and gas AMR, water loggers installed where viable, to install a renewable technology, to encourage residents and schools to install renewable technologies and to increase staff and school energy awareness. Following the last four year strategy the council is in a great position to start the new four year energy and water strategy. The new energy and water strategy will aim to consolidate the work that has happened and continue to reduce energy and water consumption even further.

Energy and water strategy 2018-2022

- 11.7 The new energy and water strategy is now complete as a first draft. Since the current Energy Reduction Manager is leaving, the strategy will be progressed to completion by the new post holder once they are recruited.
- 11.8 The new draft strategy is based around four work areas: projects, monitoring and targeting, value for money and legislation. It looks at what we have done over the last strategy, sets out the direction of work for the next four years and for the first time takes a look at what the longer term goal is for the council doing this work.

Schools Energy Saving Competition

- 11.9 The schools energy saving competition ran from the 23rd April to the 14th May. This year there were 7 schools taking part in the competition. This was slightly less than last year when 9 schools took part. Four of the schools taking part also competed in last year's competition.
- 11.10 The schools were asked to record their energy consumption for 2 weeks to form a baseline. They did this by taking weekly meter readings. Over the third week of the competition the schools were encouraged to make changes in the school to save energy. The schools were given an energy checklist both for staff and pupils to assist them. This was a simple form to highlight where energy might be wasted in a school.
- 11.11 The winning school was The Royal School. The prize giving was held on the 23rd May 2018. The winning school received the Schools Energy Saving Competition Cup and a winner's certificate. Photos were taken with the winning school and these will be used in an article about the competition in Around the Royal Borough.
- 11.12 Oldfield Primary were awarded a highly commended certificate due to the large savings they made and the improvement they made on last year. All other competing schools received a runners up certificate.

Refill scheme

- 11.13 The company leading on the Refill campaign, City to Sea CIC, has now provided some information and resources to the council. They still do not appear to be fully set up for a larger campaign across the UK though. This meant that some of the info provided wasn't up to date and they were not able to provide stickers/ information packs to hand out to businesses.
- 11.14 City to Sea were clear that they thought the campaign should come from local residents/ local community groups rather than directly from the council. It was felt that the ethos of the campaign should be that it is a community effort. This should therefore help to cultivate the image of any local business signing up as one that is contributing to the community.
- 11.15 The roll out of the Refill scheme in the borough was being held up as the council was waiting for stickers/ information packs to be made available for distribution to local businesses. City to Sea can't provide these campaign items at the moment and so they said to start recruiting businesses without them. Laxmi Seshaiyer, the local resident who highlighted the issue, has now been provided with some information about how to recruit local businesses. A trial will be run to see how receptive businesses are. All the businesses that are interested will be added to the Refill app and their location will become visible to anyone that uses the app for refilling their water bottle. Information about the scheme and the app will be added to the Around the Royal Borough once enough businesses have signed up to the scheme.
- 11.16 With regards to council sites, the council is looking to add four locations to the app initially – Maidenhead Library café, Windsor Library café, Maidenhead Town Hall café, Windsor Guildhall drinking water fountain. Unfortunately both the Town Hall café and the Maidenhead Library café have both very recently closed down. Once new café operatives are found they will be asked if they could offer a refill to residents.
- 11.17 It is interesting to note that prior to any additions from the council/ Laxmi Seshaiyer there are now 16 refill points in the borough. This is mainly due to chains such as Costa, Starbucks, Premier Inn, Fullers and Bills all signing up to the scheme nationally.

Braywick Leisure Centre Solar Project

- 11.18 Following the inclusion of solar panels on the Braywick Leisure Centre planning application a project is being developed for their installation. Since no funding is allocated to the roof solar project external funding is being sought.
- 11.19 There is also another potential solar project being developed adjacent the main leisure centre site. This project is to build a solar car port over a row of car parking spaces. There is potentially some funding available for this scheme but it may need to be topped up depending on the overall project costs.
- 11.20 Both the roof solar and the solar car port will provide electricity to the leisure centre. The solar car port would feed into the car charging network being developed as part of the leisure centre car park development. The charging network is fed from the leisure centre so any excess generated electricity from the car port would be used by the leisure centre.

- 11.21 At the moment private funding is being sought for the projects. As part of the offer the leisure centre and hence the council would receive reduced price renewable electricity from the solar panels. The fund would provide the investment and then receive their investment back including interest. For this to work the new leisure centre operator will need to agree to purchase the generated electricity from the finance provider/ the council. It has been confirmed that this can be stipulated in any new leisure centre contract. The complexity of working this scheme into the wider leisure centre build and the timeframes of the feed in tariff scheme may mean that this project becomes not viable. It will therefore need to be followed up by the new Energy Reduction Manager later in the year when they are in post.
- 11.22 There are essentially two key sources of funding that can be accessed for solar on a project like this. The first is using a finance from a specialist green investment fund and the second is using a cooperative fund. Both offer investment opportunities for their investors but whilst the green investment company is essentially investing for its own profits the cooperative approach allows direct investment from the local community to release profit within the local community.
- 11.23 Both sources of funding are being investigated to determine if either of them are financially viable and if so which is the better offer. The financial situation is likely to change at the end of March 2019, due to the end of the feed in tariff, and so it is likely that any solar panel system will need to be installed by then. This is purely due to the end of the feed in tariff at this date. Past this date it may well still be possible if the solar market lowers its prices further.

12 CONSULTATION (MANDATORY)

Name of consultee	Post held	Date issued for comment	Date returned with comments
Cllr Coppinger	Lead member for Sustainability	15/05/2018	
Cllr Mills	Chairman of the Sustainability Panel	15/05/2018	21/05/2018
Lisa Pigeon	Environmental Health Lead	30/04/2018	11/05/2018

REPORT HISTORY

Decision type: Non-key decision	Urgency item? No	To Follow item? No
Report Author: Michael Potter, Energy Reduction Manager, 01628 682949		

Appendix 1 – Electricity and gas data for 2017/18 (April to February)

Total electric and gas consumption (kWh) by month for the council's corporate buildings 2017/18

	April	May	June	July	August	September	October	November	December	January	February
Electric 13 14	444,318	425,230	403,450	428,198	402,684	409,366	449,374	472,349	517,312	491,408	443,937
Gas 13 14	127,323	73,856	21,757	15,038	15,917	35,558	75,232	158,388	188,144	235,059	185,281
	571,641	499,086	425,207	443,236	418,601	444,924	524,606	630,737	705,456	726,467	629,218
	April	May	June	July	August	September	October	November	December	January	February
Electric 17 18	297,216	305,721	295,134	304,072	305,184	334,581	325,066	313,572	324,029	342,194	333,712
Gas 17 18	86,825	60,994	35,379	18,927	29,338	39,420	66,989	164,205	208,021	206,939	206,171
	384,041	366,715	330,513	322,999	334,522	374,001	392,055	477,777	532,050	549,133	539,883
kWh Reduction	-187,600	-132,371	-94,694	-120,237	-84,079	-70,923	-132,551	-152,960	-173,406	-177,334	-89,335
Cumulative % reduction compared to baseline	-2.8%	-4.8%	-6.2%	-8.0%	-9.3%	-10.3%	-12.3%	-14.6%	-17.2%	-19.9%	-21.2%

Comparison of electric consumption (kWh) for the period April to February for the current year, 2016/17 year and the 2013/14 baseline year

Site	13/14 Baseline (kWh)	2016/17 (kWh)	2017/18 (kWh)	Difference to last year (kWh)	% difference to last year	Difference to Baseline (kWh)	% Difference to Baseline
JUBILEE FOUNTAIN	13,310	112,461	63,563	-48,898	-43%	50,253	378%
BRAYWICK PARK SPORTS CENTRE	23,115	54,103	35,613	-18,490	-34%	12,498	54%
ST MARY'S HOUSE	14,796	24,958	25,328	370	1%	10,532	71%
WALDECK HOUSE	12,950	16,148	22,161	6,013	37%	9,211	71%
GRENFELL PARK FOUNTAIN	3,224	13,261	11,575	-1,686	-13%	8,351	259%
MILLHOUSE FAMILY CENTRE	4,128	6,308	12,450	6,142	97%	8,322	202%
AVIARY BLDG	11,110	21,883	18,624	-3,259	-15%	7,514	68%
VANSITTART SKATE PARK	80	5,880	5,956	76	1%	5,876	7345%
OAKLEY GREEN CEMETERY	12,169	16,768	17,960	1,192	7%	5,792	48%
Dedworth Road Sports Pav (aka Clewer Rec Ground)	14,249	19,037	19,566	529	3%	5,317	37%
RIVER STREET CAR PARK & TOILETS	3,136	3,958	7,592	3,634	92%	4,456	142%
ST MARY'S HOUSE	26,929	27,530	30,507	2,977	11%	3,578	13%
PUBLIC CONVENIENCE, HOME PARK	6,033	2,600	9,493	6,893	265%	3,460	57%
OAKLEY GREEN CEMETERY	8,734	1,083	11,427	10,344	955%	2,693	31%
SUNNINGHILL LIBRARY	6,077	8,926	8,448	-478	-5%	2,371	39%
OAKEN GROVE SPORTS PAVILLION	18,674	14,484	20,764	6,280	43%	2,090	11%
WINDSOR Y & C. CENTRE	27,254	26,681	29,280	2,599	10%	2,026	7%
MINSTER COURT- Berkshire Pensions Office	30,967	34,697	32,722	-1,975	-6%	1,755	6%
MILLHOUSE FAMILY CENTRE	3,900	7,859	5,021	-2,838	-36%	1,121	29%
ETON WICK YOUTH CLUB	12,076	11,213	13,103	1,890	17%	1,027	9%
MAIDENHEAD PROJECT CENTRE	34,898	37,737	35,618	-2,119	-6%	720	2%
YORK ROAD FLATS	154	912	834	-78	-9%	680	443%
BOURN DITCH KIOSK PUMPING STATION	763	1,096	1,095	-1	0%	332	43%
HOME PARK	3,247	4,013	3,565	-448	-11%	318	10%
STAFFERTON LODGE	5,908	13,362	6,104	-7,258	-54%	196	3%
CLARENCE ROAD PUMPING STATION	127	261	319	58	22%	192	151%
PRIDES CROSSING PUMPING STATION	143	540	327	-213	-39%	184	129%
WEST STREET PUMPING STATION	103	229	249	20	9%	147	143%
CLARENCE ROAD PUMPING STATION	202	276	289	13	5%	87	43%
SAINSBURY'S PUMPING STATION	71	193	136	-57	-30%	65	92%
ETON LIBRARY	2,290	2,735	2,331	-404	-15%	41	2%
BRIDGE ROAD PUMPING STATION	79	90	116	26	29%	37	48%
JUBILEE CLOCK TOWER	870	898	905	7	1%	35	4%
Shifford Crescent - Library Container Post	537	524	564	40	8%	27	5%
PUBLIC CONVENIENCE-CHRISTIAN SQUARE	6	5	7	2	40%	1	8%
TELEMETRY STATION	0	0	0	0	0%	0	0%
WINDSOR CEMETERY (Chapel & Depot)	0	0	0	0	0%	0	0%
FRASCATTI WAY PUMPING STATION	59	60	48	-12	-20%	-11	-18%
GARAGES-REAR OF STAFFERTON LODGE	297	214	251	37	17%	-46	-15%
HIGH STREET FEEDER PILLAR	203	559	124	-435	-78%	-79	-39%
WINDSOR CEMETERY (Chapel & Depot)	773	397	642	245	62%	-131	-17%
GEORGE V MEMORIAL	5,806	5,348	5,601	253	5%	-205	-4%
PUBLIC CONVENIENCE - IMPERIAL PARK	477	912	135	-777	-85%	-342	-72%
RAWCLIFFE HOUSE (Industrial Unit)	4,283	4,975	3,708	-1,267	-25%	-575	-13%
PUBLIC CONVENIENCE - Sunninghill	2,354	3,315	1,499	-1,816	-55%	-855	-36%
WEST STREET CAR PARK	4,691	5,011	3,816	-1,195	-24%	-875	-19%
WALDECK HOUSE	27,579	29,652	26,549	-3,103	-10%	-1,030	-4%
PUBLIC CONV. SUTTON ROAD	2,980	1,785	1,823	38	2%	-1,157	-39%
RAY MILL ISLAND KIOSK	17,088	16,361	15,923	-438	-3%	-1,165	-7%
OLD WINDSOR LIBRARY	5,289	4,858	4,009	-849	-17%	-1,280	-24%
WINDSOR LIBRARY	58,940	53,646	57,419	3,773	7%	-1,521	-3%
PUBLIC CONVENIENCE-ASCOT	6,092	3,932	4,549	617	16%	-1,543	-25%
PUBLIC CONVENIENCE-ETON COURT	6,182	4,466	4,548	82	2%	-1,634	-26%
Public Convenience - Batchelors Acre	13,406	11,051	11,188	137	1%	-2,218	-17%
Canoe Centre/Hurley Lock Amenity Building	8,627	7,732	6,172	-1,560	-20%	-2,455	-28%
BRAYWICK NATURE CENTRE	8,336	5,410	5,484	74	1%	-2,852	-34%
PINKNEYS GREEN Y & C.CENTRE	10,861	7,333	7,666	333	5%	-3,195	-29%
The Lodge House	17,653	20,934	13,526	-7,408	-36%	-4,127	-23%
BATCHELORS ACRE FOUNTAIN	22,047	19,848	17,881	-1,967	-10%	-4,166	-19%
RAWCLIFFE HOUSE (Industrial Unit)	15,411	12,278	10,895	-1,383	-11%	-4,516	-29%
OAKBRIDGE DAY CENTRE	34,888	32,815	30,274	-2,541	-8%	-4,614	-13%
MANOR YOUTH CENTRE	15,099	11,107	9,809	-1,298	-12%	-5,290	-35%
ETON LIBRARY	11,198	6,384	5,810	-574	-9%	-5,388	-48%
ALMA ROAD CAR PARK	10,477	5,424	4,517	-907	-17%	-5,960	-57%
COOKHAM LIBRARY	25,824	19,501	18,849	-652	-3%	-6,975	-27%
Larchfield Community Centre	25,713	17,179	14,549	-2,630	-15%	-11,164	-43%
WINDSOR GUILDHALL	63,956	39,862	45,612	5,750	14%	-18,344	-29%
WINDSOR COACH PARK	65,630	43,790	44,202	412	1%	-21,428	-33%
TINKERS LANE DEPOT	388,179	349,938	363,182	13,244	4%	-24,997	-6%
MAIDENHEAD LIBRARY	287,618	254,125	239,389	-14,736	-6%	-48,229	-17%
NICHOLSONS CAR PARK	426,989	416,022	367,327	-48,695	-12%	-59,662	-14%
VICTORIA STREET CAR PARK	157,117	115,289	86,225	-29,064	-25%	-70,892	-45%
STAFFERTON WAY CAR PARK	373,636	265,859	250,190	-15,669	-6%	-123,446	-33%
TOWN HALL	1,123,474	871,636	854,866	-16,770	-2%	-268,608	-24%
HINES MEADOW CAR PARK	555,284	188,088	191,535	3,447	2%	-363,749	-66%
HINES MEADOW CAR PARK	780,803	327,091	297,077	-30,014	-9%	-483,726	-62%
STREETLIGHTING	5,552,522	5,514,698	4,334,322	-1,180,376	-21%	-1,218,199	-22%
	10,440,148	9,191,594	7,814,803	-1,376,790	-15%	-2,625,345	-25%

Comparison of gas consumption (kWh) for the period April to February for the current year, 2016/17 year and the 2013/14 baseline year

Site	13/14 Baseline (kWh)	2016/17 (kWh)	2017/18 (kWh)	Difference to last year (kWh)	% difference to last year	Difference to Baseline (kWh)	% Difference to Baseline
TINKERS LANE DEPOT	79,011	109957	121,682	11,725	10.66%	42,671	54.01%
TOWN HALL	262,532	295054	262,878	-32,176	-10.91%	346	0.13%
WINDSOR GUILDHALL	78,437	54394	76,053	21,659	39.82%	-2,384	-3.04%
OAKBRIDGE DAY CENTRE	102,981	111470	126,210	14,740	13.22%	23,229	22.56%
BRAYWICK NATURE CENTRE	10,284	25729	29,254	3,525	13.70%	18,970	184.46%
WALDECK HOUSE	36,118	51629	37,320	-14,309	-27.72%	1,202	3.33%
TOWN HALL	66,968	89161	77,306	-11,855	-13.30%	10,338	15.44%
Charters Youth & Community Centre	6,949	7447	8,551	1,104	14.82%	1,602	23.05%
ST MARY'S HOUSE	26,028	39338	31,954	-7,384	-18.77%	5,926	22.77%
DATCHET Y. & C. CENTRE	9,927	9646	9,837	191	1.98%	-90	-0.91%
ETON WICK YOUTH CLUB	15,038	16770	15,534	-1,236	-7.37%	496	3.30%
MILLHOUSE FAMILY CENTRE	13,805	9360	10,895	1,535	16.40%	-2,910	-21.08%
PINKNEYS GREEN Y. & C. CENTRE	47,844	49926	40,599	-9,327	-18.68%	-7,245	-15.14%
SUNNINGHILL LIBRARY	10,343	5742	10,343	4,601	80.13%	0	0.00%
MAIDENHEAD PROJECT CENTRE	71,155	65442	67,130	1,688	2.58%	-4,025	-5.66%
WINDSOR COACH PARK	82,307	57546	65,522	7,976	13.86%	-16,785	-20.39%
WALDECK HOUSE	33,385	32402	22,054	-10,348	-31.94%	-11,331	-33.94%
COOKHAM LIBRARY	50,110	42665	28,992	-13,673	-32.05%	-21,118	-42.14%
WINDSOR LIBRARY	81,055	68906	57,420	-11,486	-16.67%	-23,635	-29.16%
MINSTER COURT- Berkshire Pensions Office	47,276	27144	23,674	-3,470	-12.78%	-23,602	-49.92%
	1,131,553	1,169,728	1,123,208	-46,520	-3.98%	-8,345	-0.74%