

Education, Children and Families Committee

10.00am, Tuesday, 13 December 2016

Energy in Schools Annual Report

Item number	8.3
Report number	
Executive/routine	
Wards	

Executive summary

This report provides an overview of 2015/16 energy use across the Council's School estate and provides an update on energy/carbon reduction projects. The report follows on from the [Energy in Schools Report](#) in October 2015.

Consumption across the school estate is largely stable. There has been a notable drop in energy consumption across the high school estate due to building refurbishments, building closures and a greater distribution of energy efficient plant. The ongoing projects detailed within this report will, once complete, deliver tangible and significant energy and carbon reductions across the school estate.

Links

Coalition pledges	P50
Council outcomes	CO18 CO25
Single Outcome Agreement	SO3 SO4

Energy in Schools Annual Report

1. Recommendations

- 1.1 That Committee:
 - 1.1.1 Notes the content of this report and, in particular, the positive progress made on key energy efficiency projects; and
 - 1.1.2 Notes that an annual progress report will be submitted to committee in 2017 on Energy in Schools.

2. Background

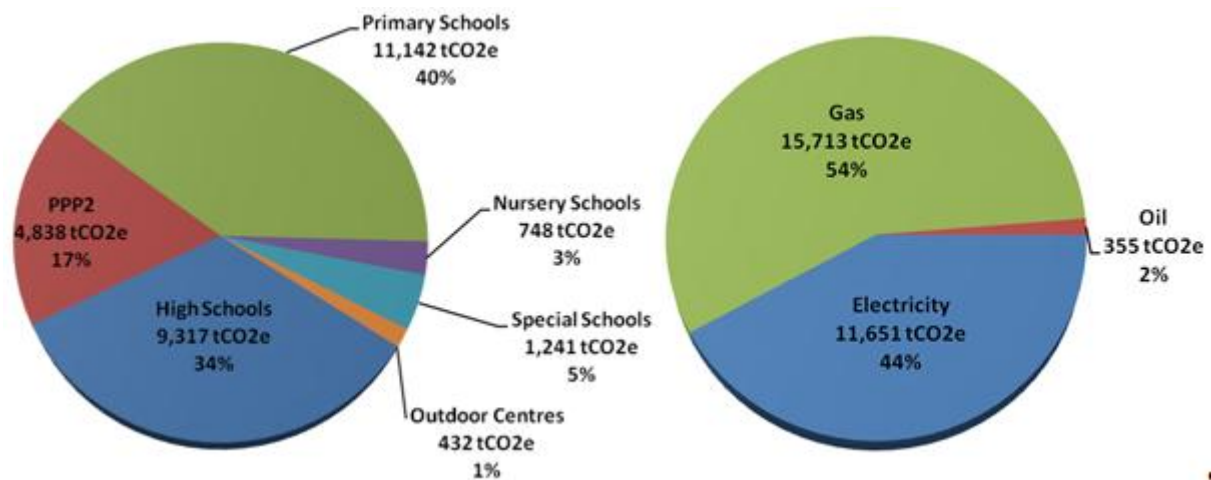
- 2.1 Council expenditure on energy across operational buildings in 2015/16 was over £9m.
- 2.2 Low oil prices during 2015/16 kept the whole-sale cost of electricity and gas low. This has resulted in a reduction in the rate charged for gas compared with 2014/15 rates. The charges associated with transmission and distribution of electricity, and other associated levies, continue to increase, resulting in a marginal year-on-year increase in electricity costs despite the lower wholesale cost. Moving forward, increasing oil prices and the continued low value of Sterling against the Euro and Dollar will impact on electricity and gas costs.
- 2.3 There are a number of legislative drivers for carbon reduction across the Council's estate. These include the [Carbon Reduction Commitment Energy Efficiency Scheme](#) (CRC) and the [Energy Performance in Buildings Directive](#) (EPBD). The Council also has a published [Energy Policy](#) which defines its approach to energy management.
- 2.4 This report details a number of projects that focus on energy and carbon reduction across the school estate. Updates are provided on three major projects: Edinburgh Community Solar Co-operative; RE:FIT; and the Building Energy Management System upgrade. Significant progress has been made since last year's report.
- 2.5 An [Energy in School Report](#) was considered by Committee in October 2015, and this report provides the 2016 review.

3. Main report

Consumption Monitoring

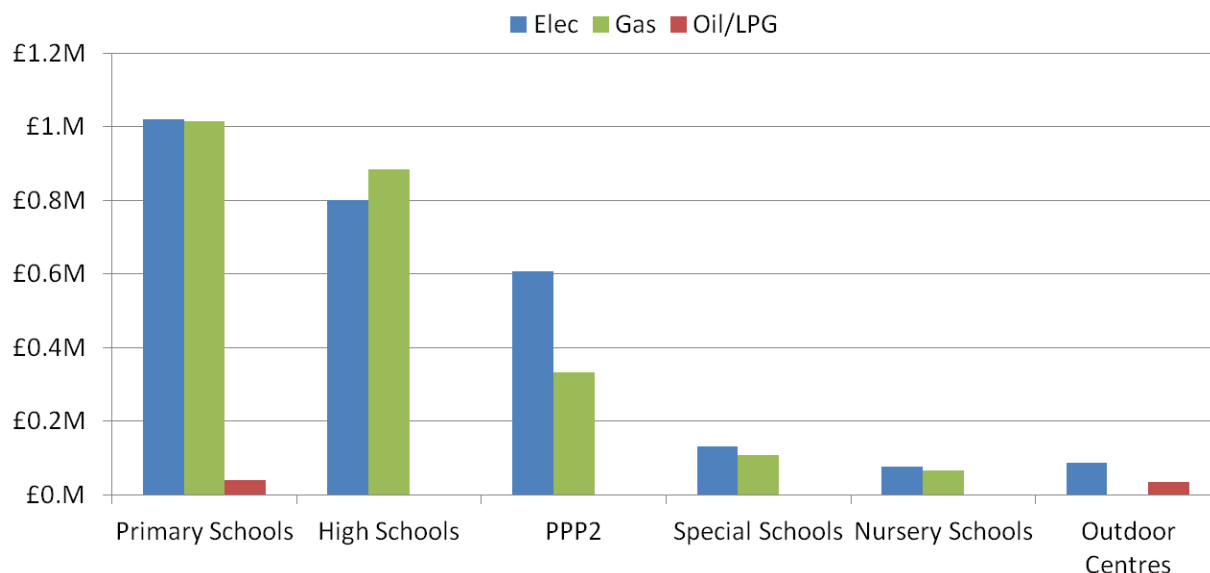
- 3.1 This section of the report gives an overview of energy consumption, and associated carbon emissions across the school estate. The data includes details on the Council's PPP2 estate, where the Council pays directly for energy consumed, but excludes details from Edinburgh Partnership schools.
- 3.2 Case study examples of energy reductions achieved in the school estate are listed in [Appendix 1](#). The reductions are a direct result of interventions carried out following energy audits by Property and Facilities Management.

Graph 1: 2015/16 Carbon Emissions by Property Type and Fuel Type



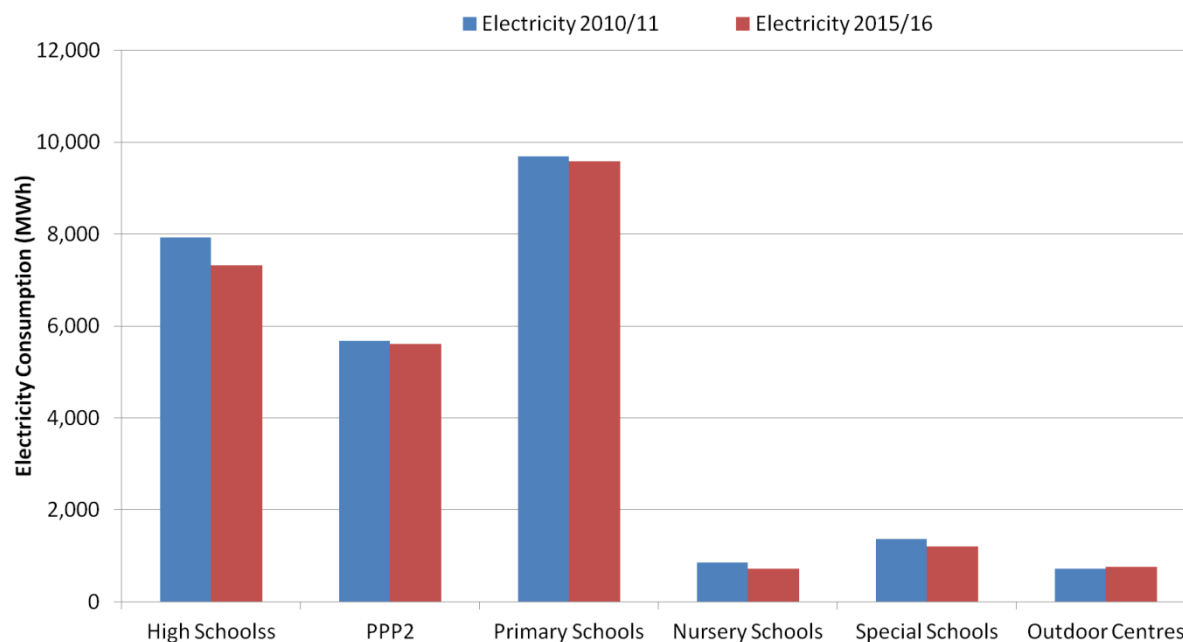
- 3.3 The two charts above provide a breakdown of energy related carbon emissions across the Council's school estate. In total, the school estate accounts for 27,718 tonnes of CO₂e representing 56% of the Council's CO₂e emissions from operational buildings. This is a reduction of 1,130 tonnes on 2014/15 with over half of this reduction due to electricity generation becoming cleaner in terms of carbon emissions produced.
- 3.4 Schools accounted for £5.2m of the total energy spend in 2015/16. An additional £0.45m was spent on the purchase of carbon allowances under the Carbon Reduction Commitment Energy Efficiency Scheme. A breakdown of spend by property group is included below:

Graph 2: Annual Energy Spend (in 2015/16) by Property Group



3.5 Across the majority of the schools estate, gas and electricity spend are similar. PPP2 properties have all been built within the last decade and have a far higher thermal efficiency and, therefore, a lower corresponding gas spend.

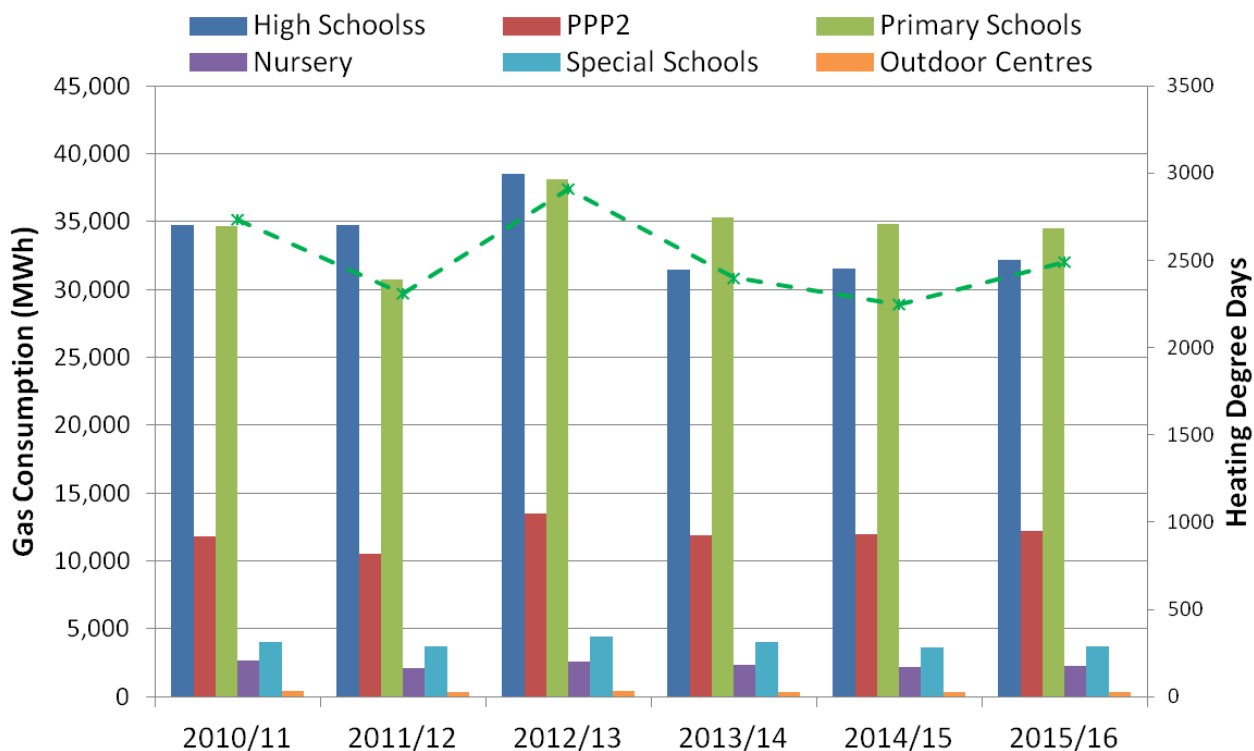
Graph 3: 2015/16 Electricity Consumption against 2010/11 Baseline



3.6 The graph above compares electricity consumption against the 2010/11 baseline. Electricity consumption has remained steady across most of the school estate with the majority of property groups showing a marginal reduction in consumption when compared to 2010/11. There has been an 8% decrease in electricity use across high schools. This reduction is in part due to the refurbishment of James Gillespie’s High School and the closure of Liberton gym hall. Energy efficiency works, including improved control of energy and the replacement of old plant and equipment with more efficient plant, will have had a positive impact.

3.7 The rising school rolls programme and the corresponding increase in floor area across the primary school estate has contributed towards overall electricity consumption. In 2015/16 alone, around 5,500m² of floor area was added to the primary school estate. The use of efficient forms of electrically powered heating, such as air source heat pumps, in many of the new buildings has also increased demand for electricity.

Graph 4: 2010/11 to 2015/16 Gas Consumption correlated against Heating Degree Days



3.8 Gas use across the school estate is predominantly used for space heating. In a well controlled system, the requirement for space heating in a building is directly proportional to the severity of the weather. To allow for 2015/16 gas consumption to be reviewed in context it has been presented alongside historic gas consumption from 2010/11 onwards and correlated against heating degree days (HDD), which is a metric for quantifying the severity of weather conditions in relation to space heating requirements.

3.9 Since 2010, gas consumption across the school estate has largely followed weather conditions. There are some exceptions to this, such as the high school estate in 2011/12, which can be attributed to specific issues that caused higher than expected consumption. From 2013/14 there has been a sustained reduction in gas use in the high school estate. This can largely be attributed to the refurbishment of James Gillespie’s High School, the boiler replacement at Wester Hailes Education Centre and improved control across a number of high schools.

3.10 As with electricity, the increase of floor area across the primary school estate has resulted in increased demand for gas. Further increases in demand can be

attributed to the opening of Bun-Sgoil Taobh Na Pairce in 2013 and the conversion of Gracemount and Abbeyhill Primary Schools from oil to gas heating in 2011 and 2014 respectively.

- 3.11 The existing poor condition of many of the Council's Building Management Systems (which manage the control of heating and ventilation plant) continues to restrict the level of efficient heating control across the school estate. As detailed later in this report, Property and Facilities Management are addressing this through an upgrade programme.
- 3.12 A breakdown of 2015/16 energy consumption data against the 2010/11 baseline is available in [Appendix 2](#).

Edinburgh Community Solar Co-operative

- 3.13 In 2015, the Council signed an agreement with Edinburgh Community Solar Co-operative (ECSC) granting a licence to ECSC to install community-owned solar panels on Council-owned buildings. ECSC launched their public share offer on the 29 September 2015 to raise the £1.4m of capital required for installations. As part of the scheme, ECSC are creating a community benefit fund which will distribute up to £1m in grant funding over the 20 year duration of the agreement.
- 3.14 In September 2016, Edinburgh Community Solar Co-operative (ECSC) completed the installation of 1.4MW of solar PV panels across 24 Council owned buildings. 18 of the 24 buildings are schools. For a full of list of buildings included in the scheme please see [Appendix 3](#).
- 3.15 The panels are expected to generate 1,140MWh of electricity each year. It is estimated that 70% of this electricity will be used directly by the host buildings, displacing grid electricity and creating an associated carbon reduction of 356 tonnes of CO₂ a year. The total carbon reduction associated with the project, including exported electricity, is estimated at 508 tonnes of CO₂ a year.
- 3.16 Edinburgh Community Solar Co-operative were under pressure to complete installations by the end of September to qualify for previously secured [Feed in Tariff](#) rates. Credit is due to the host buildings for the positive role they played in supporting the delivery of the works.
- 3.17 Now that the panels are installed and generating, the Council will start to pay ECSC for solar generated electricity used on site. The price paid by the Council is fixed at 2014/15 electricity prices. The Council will receive an increased financial benefit from the scheme as electricity rates continue to rise.
- 3.18 There are direct benefits for schools involved. A portion of the community benefit fund will be made available to host buildings. Edinburgh Community Solar Co-operative are also surveying sites with a view to installing display boards showing PV output for educational purposes. Going forward, ECSC will be working with host schools and Council officers to develop educational and awareness raising materials relating to the project and wider environmental issues.

Building Energy Management Systems (BEMS)

- 3.19 A Building Energy Management System (BEMS) is a computer-based system that controls the main mechanical and electrical services within a building. The Council has an extensive portfolio of BEMS, including all High Schools and the majority of Primary Schools. The successful implementation and operation of a BEMS allows improved building performance and can lead to substantial energy savings.
- 3.20 As detailed in previous Schools Energy Reports, the Council's BEMS are in urgent need of upgrading/replacement. Many systems are ageing and not functioning correctly with some systems now obsolete, making it difficult to source replacement components. The existing poor level of communication with site BEMS means that there is no central overview or control of systems.
- 3.21 Property and Facilities Management is in the first year of a four year, £3.2m programme to upgrade the Council's BEMS. In the past, there has been no coordinated investment in Building Energy Management Systems across the Council and where there has been investment this has occurred on an ad-hoc/need be basis. A lack of a clear strategy governing the installation and set up of BEMS has resulted in a failure to maximise the benefits of upgrading the control set up.
- 3.22 Under the upgrade programme, Property and Facilities Management have developed a robust strategy for system upgrades and replacements including a detailed specification to ensure that upgraded control systems are delivered to a standardised set up and consistently high quality. The strategy will provide the platform from which to deliver the fundamental benefits of the upgrade programme, including improved control of environmental conditions, energy efficiency savings and improved/targeted maintenance of key plant.
- 3.23 A critical objective of the upgrade programme is to create a reliable communication network between the individual BEMS installations within buildings and the central BEMS control software. This will provide a central overview of system performance allowing for remote support of systems including remote fault identification and diagnostics, remote monitoring of operational performance and the delivery of energy efficiencies in line with [Council's Energy Policy](#).
- 3.24 Local staff will be able to access the BEMS remotely via the internet or onsite through keypads located in the plant room. Visuals and graphics for the BEMS software will be standardised across all systems to ensure that all buildings use the same software platform and are presented in the same way facilitating access to a range of users.
- 3.25 To date under the programme, the Building Energy Management Systems have been fully upgraded in line with the BEMS Strategy in seven primary schools and four nursery schools. A further five primary schools are scheduled to be delivered by the end of this financial year.

- 3.26 Discussions with CGI are ongoing regarding the use of the Council network to communicate to upgraded BEMS sites. In collaboration with CGI, we will shortly run a pilot to trial the use of the Council network for BEMS communication with a view to agreeing an approach with CGI for use on sites across the Council estate. At present, temporary 3G communications have been installed on upgraded sites for site monitoring.
- 3.27 BEMS works will continue next financial year with a number of sites currently under survey. BEMS upgrades to six High Schools and two Primary Schools will be delivered through the RE:FIT programme as detailed below.

RE:FIT

- 3.28 The Council is carrying out a £2.1m energy retrofit in 10 key Council buildings under the London [RE:FIT](#) framework. The RE:FIT scheme has been designed to help public sector organisations achieve substantial financial savings, improve the energy performance of their buildings and reduce their carbon footprint.
- 3.29 Under the framework, the Council have engaged Matrix, a specialist division of the energy company Eon, to identify and implement the energy efficiency measures. The savings from the project are guaranteed by Matrix.
- 3.30 The project will deliver financial savings in excess of £300k and reduce CO₂ emission by over 1,500 tonnes a year. The Council's [SALIX](#) recycling fund will finance the majority of project, with top up from the Council's spend to save fund and strategic asset management. The project is expected to pay back within eight years with savings during this period being recycled back in to SALIX and spend to save.
- 3.31 The buildings included in the project are:
- Balerno High School
 - City Chambers
 - Currie Community High School
 - Leith Academy
 - St Thomas of Aquins R.C. High School
 - Sciennes Primary School
 - Trinity Academy
 - Trinity Primary School
 - Usher Hall
 - Wester Hailes Education Centre
- 3.32 The project is currently at the design stage with works expected to start on site in January. Works should be fully completed and delivering savings by summer 2017. Table 1 below details the main energy retrofit measures for each building. In addition to delivering energy savings, the project will also improve the condition and internal environment of the buildings.

Table 1: Main Energy Retrofit Measures by Property

	BEMS Upgrade	Boiler Replacement	Combined Heat and Power	Internal Lighting (LED) Upgrade	External Lighting (LED) Upgrade
Balerno High School	x	x	x	x	x
City Chambers				x	
Currie Community High School	x		x		x
Leith Academy	x		x		x
St Thomas of Aquins	x				x
Sciennes Primary School	x				x
Trinity Academy	x				
Trinity Primary School	x	x			
Usher Hall				x	
Wester Hailes Education Centre	x		x		x

3.33 The Council is currently looking at the potential to include other buildings for a further phase of the scheme.

Small Steps Energy Awareness Campaign

3.34 The [Small Steps Awareness Campaign](#) is now in its fourth year. A [report](#) detailing the outcomes from the original pilot campaign was submitted to Education, Children and Families Committee in May 2014. This report provides background on the campaign approach and activities carried out.

3.35 Thirteen schools ran active campaigns during 2015/16 and 15 schools have signed up to take part in the 2016/17 campaign. In total 51 Council schools have now taken part in small steps helping the campaign to become well established.

3.36 The current Small Steps campaign retains much of form and structure of the initial campaign. The [resource kit](#), which contains a wide range of learning and teaching materials, events and activities, is available online as a resource for schools to draw on to run energy awareness campaigns in their school. Property and Facilities Management are continuing to promote the campaign to schools but encourage schools to take autonomy over delivery their campaign.

3.37 There are significant opportunities to link the Building Energy Management System Upgrade Programme with increased awareness of building operation and associated energy use. As upgraded controls are rolled out to schools, Property and Facilities Management will be working closely with facilities management staff and other building users to raise awareness on how best to operate systems to meet operational parameters and deliver energy efficiencies.

- 3.38 In addition Property and Facilities Management will also be working with Edinburgh Community Solar Co-operative to support the development of PV related awareness raising activities and linking these in with existing small steps materials. The Solar Co-op is very keen to engage with schools and help to raise the profile of renewable energy and other environmental issues.

Energy Efficiency Works

- 3.39 Following the expiry of terms and conditions for the Council's Central Energy Efficiency Fund (CEEF), the Council approved the transfer of the available CEEF balance of £0.8m to create a new SALIX fund which operates under similar terms to CEEF. The Scottish Government match funded the Council's contribution to create a £1.6m ring fenced energy efficiency fund for Council use. The fund operates on a recycling basis and therefore savings are paid back into the fund for future use. Loan repayments must be over a minimum period of four years and can be flexible up to a maximum of 8 years, dependent on the project payback.
- 3.40 All the available £1.6m SALIX budget has been committed to the Council's RE:FIT project therefore there has been no direct support available for other energy efficiency projects. Once the RE:FIT project is complete, repayments to the SALIX fund will provide some budget to pursue further energy reduction projects.
- 3.41 Energy efficiency improvements will be delivered through the Strategic Asset Management programme, including projects such as the fabric improvements at Wester Hailes Education Centre and the boiler conversion (oil to gas) at Fox Covert Primary School.
- 3.42 In addition to the projects listed in this report, Property and Facilities Management are actively investigating opportunities to improve the energy efficiency of our ICT estate, as well as looking a potential for Council owned solar panels.

4. Measures of success

- 4.1 The Council continues to meet legislative requirements as set out in the Energy Performance of the Buildings Directive.
- 4.2 The Council continues to meet the reporting requirements as set out in the mandatory Carbon Reduction Commitment Energy Efficiency Scheme.
- 4.3 The Council continues to maintain an accurate record of energy consumption across the schools estate.
- 4.4 The Council demonstrates a reduction in energy consumption across the school estate.

5. Financial impact

- 5.1 The cost of energy across the school estate is significant accounting for around half of the Council's total building related energy spend. The effective management of energy across the school estate is critical to the prudent management of Council energy budgets.
- 5.2 The projects and activities detailed within this report have the potential to make a significant contribution to the reduction of energy consumption and corresponding spend across the Council's school estate.

6. Risk, policy, compliance and governance impact

- 6.1 The implementation of a structured energy awareness programme is in line with the ethos of the Council's Energy Policy and Energy Policy Action Plan.
- 6.2 Legislation has been used as a means to drive forward change to reflect EU targets on emission reduction. Increasingly legislators are looking towards public bodies adopting a planned response for to energy efficiency and carbon reduction. It is important that the Council is receptive and reactive to the likelihood of increased legislation, and develops plans and strategies to improve the efficiency of its built environment.
- 6.3 Whilst the Council benefits from a competitive energy contract it is still subject to the energy price trends. There is an opportunity to mitigate exposure to price increases through increased awareness and energy efficiency.

7. Equalities impact

- 7.1 Appropriate energy management of school buildings will have a direct enhancement of rights. For example, appropriate management of indoor temperature will aid education and learning through improved thermal comfort.
- 7.2 Energy management within schools will focus on delivering environments that meet best practice guidelines as set out in the Council's Energy Policy. Thermal comfort is not a defined state. Some people will feel comfortable at certain temperatures whilst others may not.
- 7.3 The Small Steps energy awareness campaign has adopted a bespoke approach that allows schools to shape an appropriate campaign for their individual needs.

8. Sustainability impact

- 8.1 There is significant potential for sustainability benefits through appropriate energy management within the schools estate, including reduced consumption and associated carbon reduction.

- 8.2 The holistic approach to the Small Steps campaign provides a platform and structure that could be used to manage and deliver other sustainability messages.

9. Consultation and engagement

- 9.1 Representatives from Property and Facilities Management provide a regular updates on key energy projects to the Carbon Climate and Sustainability Member/Officer Working Group.
- 9.2 Consultation is regularly undertaken with the Sustainable Development Unit and other colleagues to collaborate on shared objectives.

10. Background reading/external references

- 10.1 [Energy Performance in Buildings Directive \(Scotland\) Amendment Regulations 2012](#) - This directive covers the requirements for Energy Performance Certificates in Scotland.
- 10.2 [Carbon Reduction Commitment Energy Efficiency Scheme \(CRC\)](#) – This website provides guidance on the CRC scheme.
- 10.3 Orb page on [Small Steps Campaign](#)
- 10.4 City of Edinburgh Council's [Energy Policy](#)

Hugh Dunn

Acting Executive Director of Resources

Paul Jones, Acting Energy and Water Manager

E-mail: paul.jones@edinburgh.gov.uk | Tel: 0131 469 3607

Links

Coalition pledges	P50 - Meet greenhouse gas targets, including the national target of 42% by 2020.
Council outcomes	CO18 - Green – We reduce the local environmental impact of our consumption and production. CO25 - The Council has efficient and effective services that deliver on objectives.
Single Outcome Agreement	SO3 - Edinburgh's children and young people enjoy their childhood and fulfil their potential. SO4 - Edinburgh's communities are safer and have improved physical and social fabric.
Appendices	Appendix 1 – Energy Reduction Case Studies Appendix 2 – Supporting Energy Data Appendix 3 – List of Properties included on ECSC's outline list

Appendix 1 – Energy Reduction Case Studies

From May 2014, Property and Facilities Management has been operating a programme to audit the operation of existing BEMS, with a view to making energy savings.

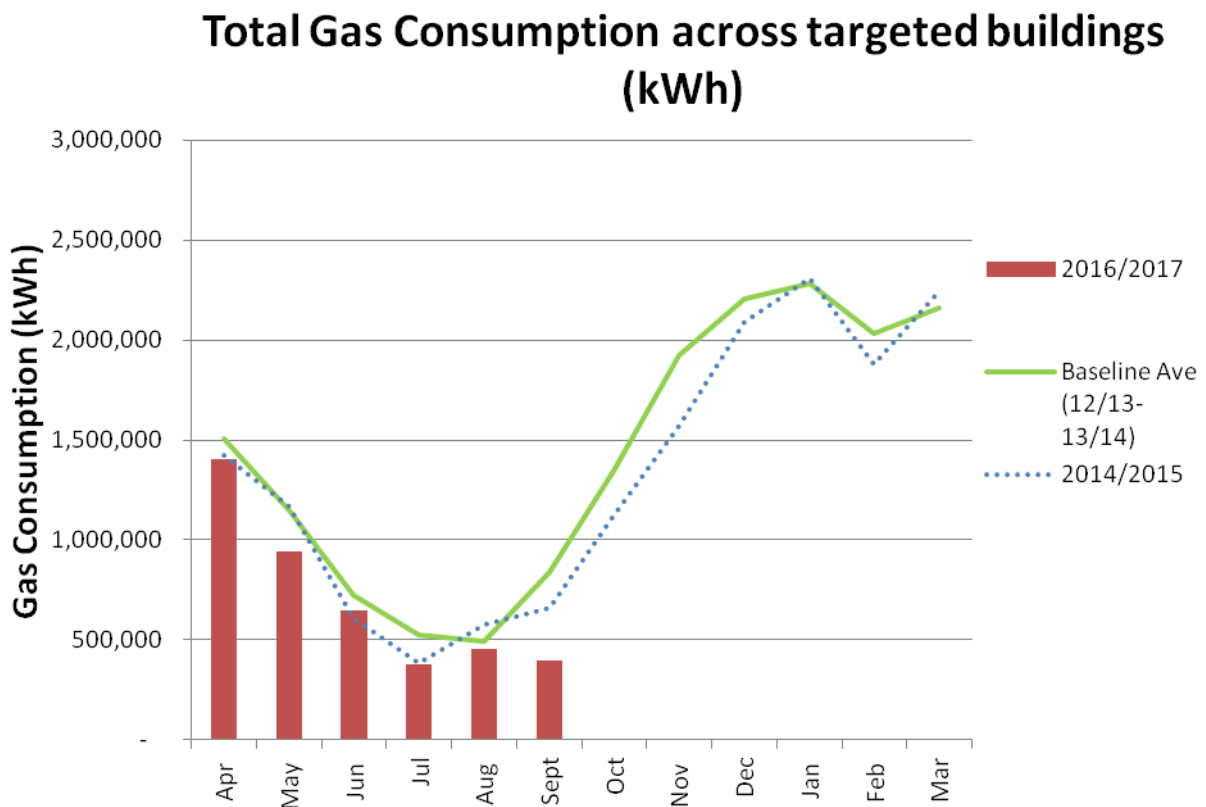
Buildings have been targeted using the following criteria:

- High energy consumption/benchmarks;
- Smart meter consumption data profiles which did not reflect the expected energy demand;
- Reliable smart metering, allowing feedback on the alterations and ongoing monitoring.

Consumption reductions are calculated by comparing energy consumption post intervention against average baseline energy consumption prior to intervention.

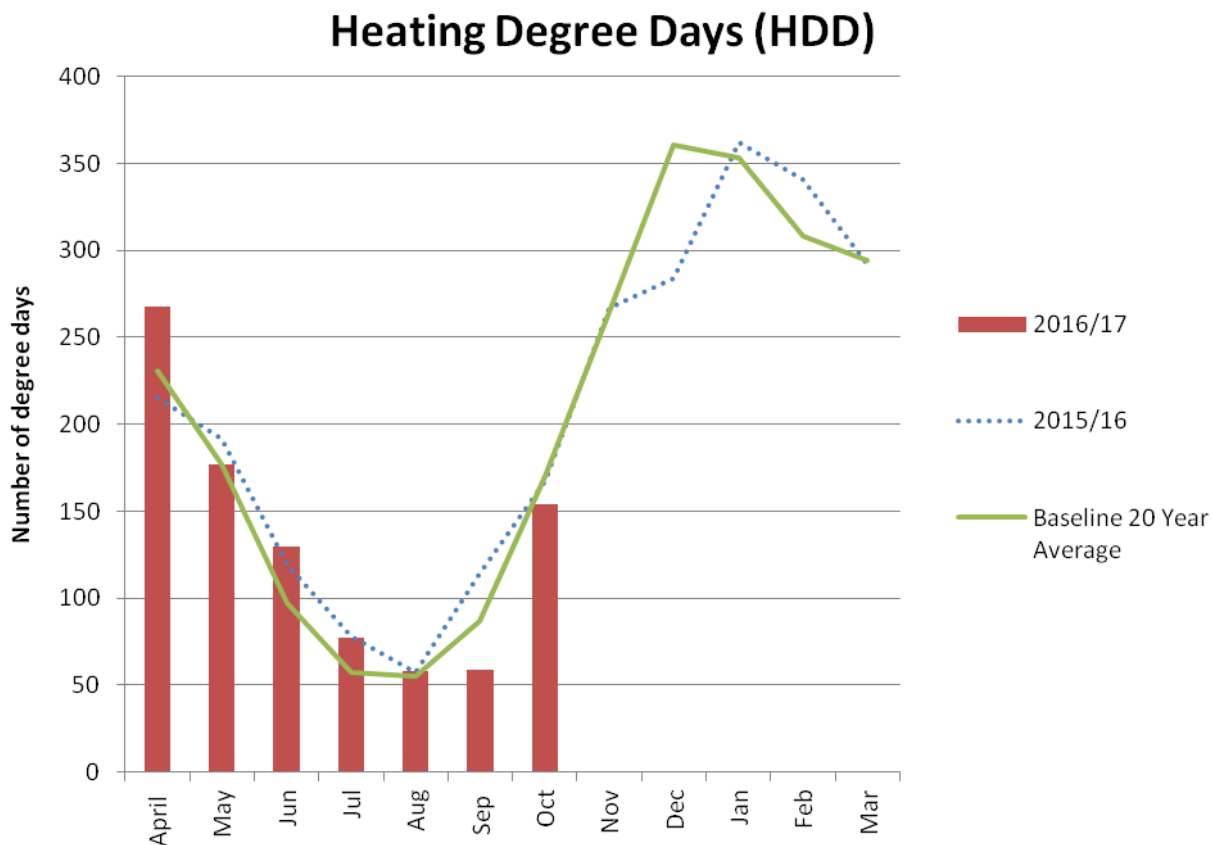
As part of audits, meetings with the building users were arranged to establish building usage (opening hours), any existing issues with the heating system to discuss possible solutions.

The graph below shows the reduction in gas use (when compared against baseline consumption) across all targeted properties since the programme began in May 2014.



Heating Degree Day Analysis

Heating degree days are a measure of the severity and duration of cold weather and are a good metric for assessing the influence of weather on consumption. The colder the weather is in a given month, the larger the degree-day values for that month will be and consequently the larger the requirement for space heating in buildings.

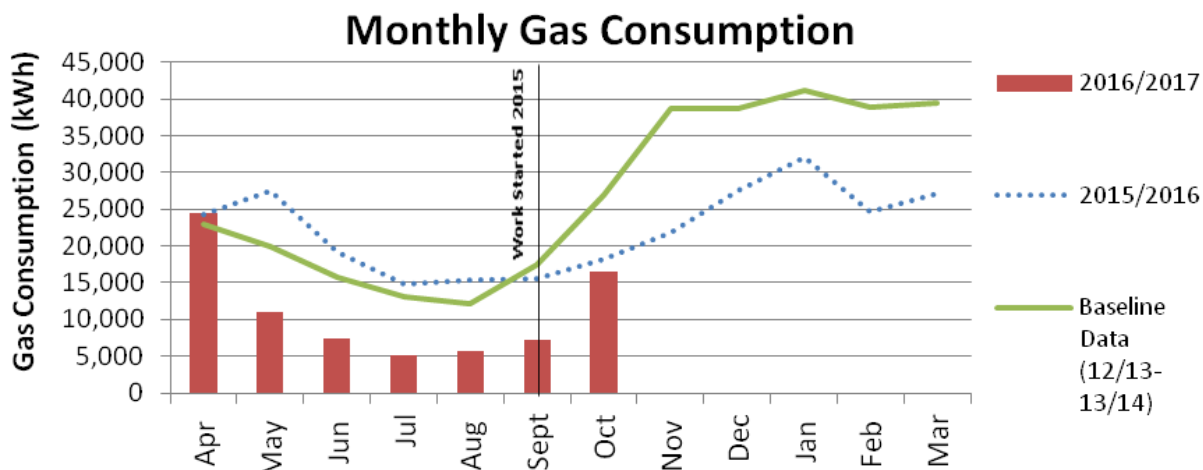


Over the course of 2015/16, the weather largely matched the 20 year average and therefore fell within expectations. The first four months of 2016/17 were colder than average which will have impacted on space heating requirements and consequently, gas use. The weather over the summer and autumn has been in line with expectations.

Case Studies

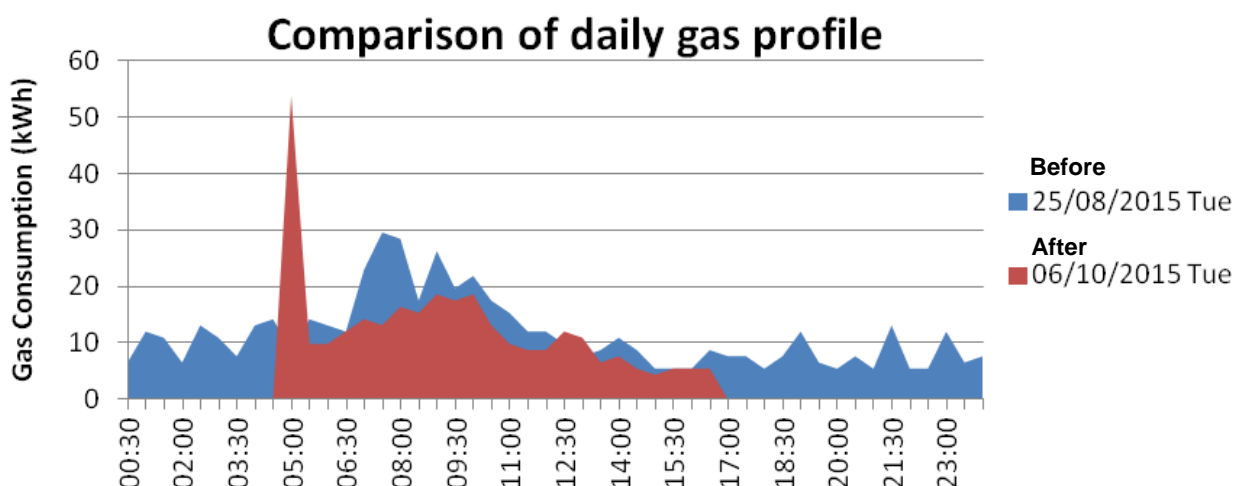
The following case studies have been presented to give an oversight of some of the problems encountered in the current estate, corrective works undertaken and the outcomes for the buildings. These case studies are in addition to the examples presented in Appendix 1 in last year's [Schools Energy Report](#). Energy savings from the BEMS Upgrade Programme will be tracked in a similar way.

Kaimes School (Secondary Building – K2)

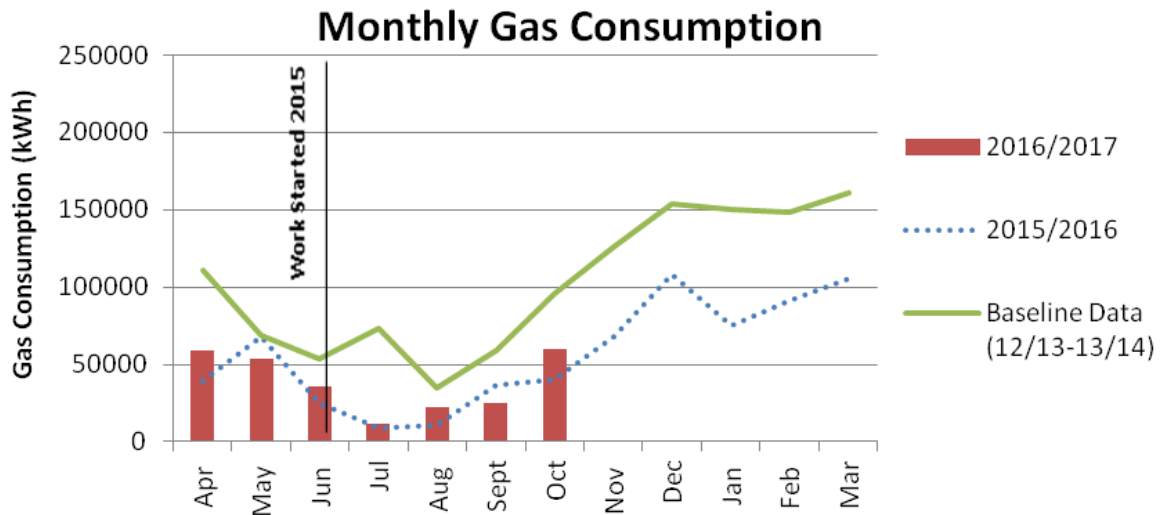


Issue:	24/7 gas consumption in the secondary school building due to a malfunctioning controller resulting in significant overheating
Action Taken:	The controls set up was upgraded with faulty equipment replaced and additional internal sensors installed to offer better control
Result:	Significant reduction in gas consumption reducing overheating and associated complaints
Comments:	Project demonstrates the value of modern maintained controls

Annual Gas spend (£)	£4,436	Annual Gas Consumption (kWh)	325,009
Estimated Annual Savings (£)	£1,435	Estimated Savings (kWh)	114,728
Estimated Savings (Consumption)	35%		



Leith Primary School

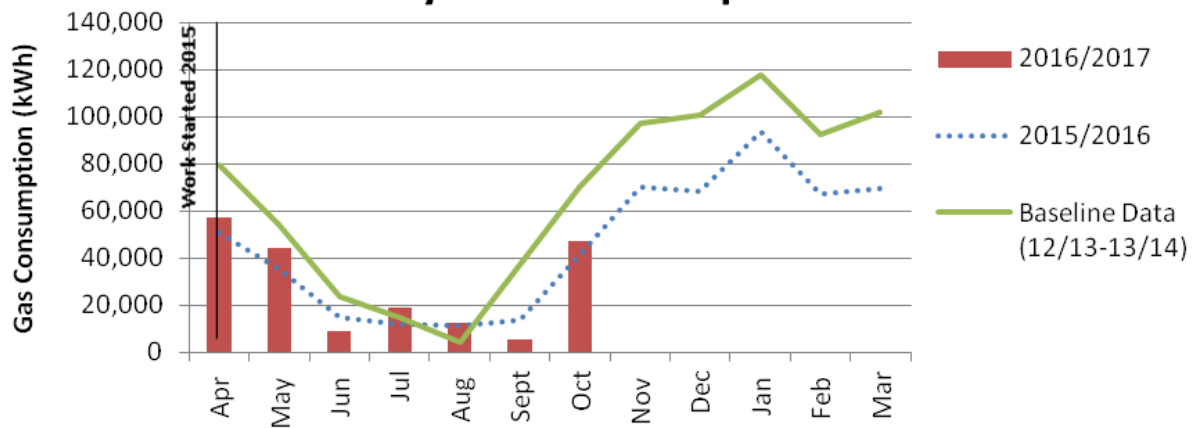


Issue:	Near 24/7 gas consumption in the primary school due to poor controls set up.
Action Taken:	Unnecessary heating schedules were removed and automated control to actuators was restored
Result:	Significant reduction in gas consumption.
Comments:	Total savings are not solely attributable to the above actions, due to the closure of Duncan Place Resource Centre which is no longer being provided with heating. Savings figures presented below have been adjusted to reflect this.

Annual Gas spend (£)	16,888	Annual Gas Consumption (kWh)	1,237,248
Estimated Annual Savings (£)	2,012	Estimated Savings (kWh)	106,752
Estimated Savings (Consumption)	22%		

Fort Early Years Centre (Gas Case Study)

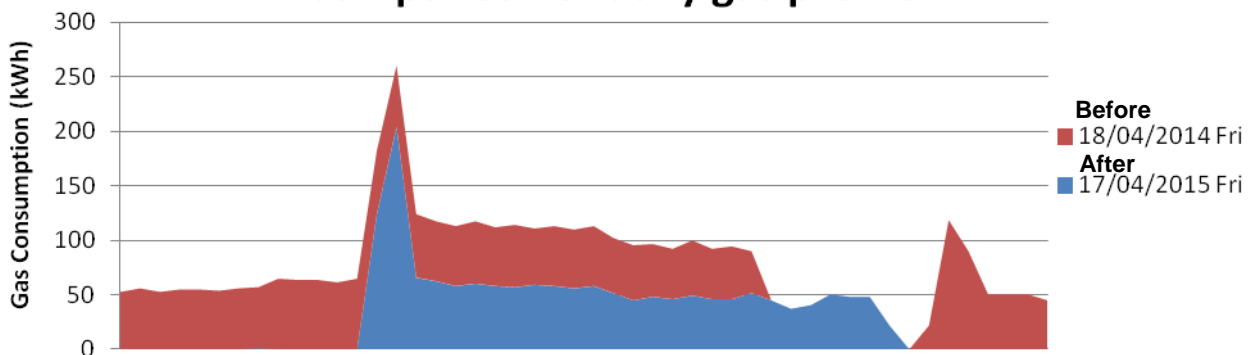
Monthly Gas Consumption



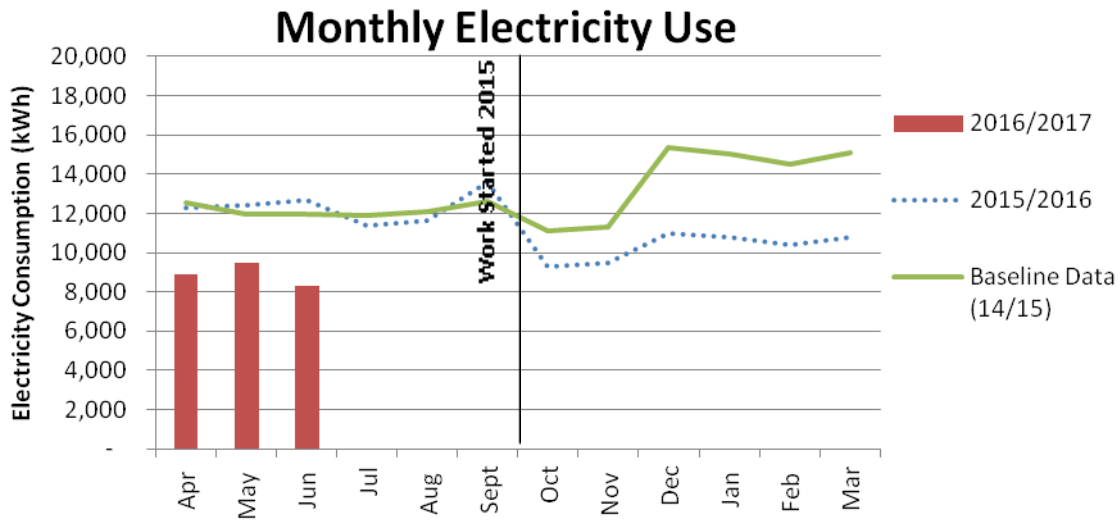
Issue:	24/7 consumption due to poor configuration of hot water setting.
Action Taken:	BEMS was reprogrammed and optimised.
Result:	Reduction in gas consumption
Comments:	There were additional issues with the domestic hot water system which resulted in increased electricity use. This has subsequently been addressed as detailed in the next case study.

Annual Gas spend (£)	10,831	Annual Gas Consumption (kWh)	793,489
Estimated Annual Savings (£)	3,344	Estimated Savings (kWh)	244,987
Estimated Savings (Consumption)	31%		

Comparison of daily gas profile

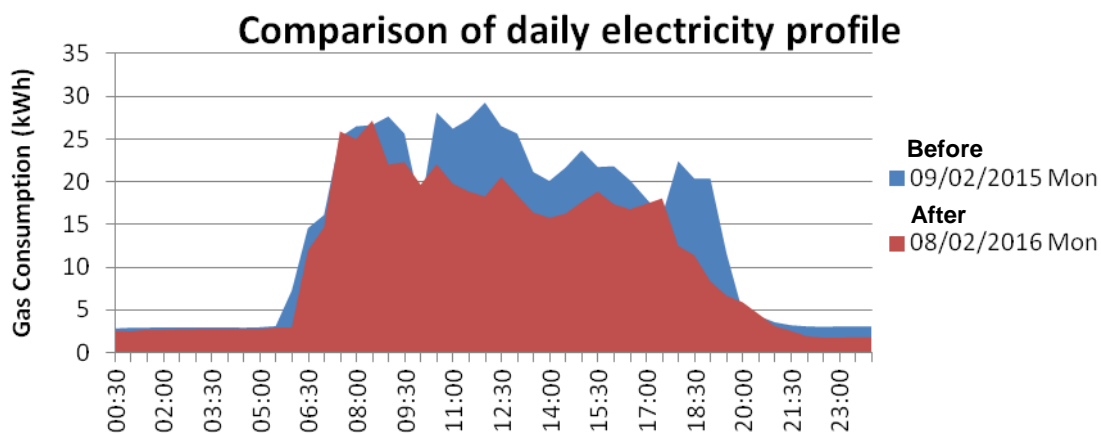


Fort Early Year Centre (Electricity Case Study)



Issue:	Hot water requirements were being supplemented through an electric immersion due to a faulty valve and poorly configured BEMS
Action Taken:	The faulty valve was replaced and the BEMS was reconfigured
Result:	Significant reduction in electricity consumption
Comments:	Electricity is around 5 times more expensive than gas hence the preference to use gas as the primary source for hot water provision

Annual Electricity spend (£)	16,928	Annual Electricity Consumption (kWh)	159,491
Full Year Savings (£)	4,482	Estimated Savings (kWh)	42,122
Estimated Savings (Consumption)	26%		



Appendix 2 – Supporting Energy Data

Property Type	2015/16						Heating Degree Days	
	Electricity		Gas		Oil			
	MWh	% Change (Baseline)	MWh	% Change (Baseline)	MWh	% Change (Baseline)		
High School	7,322	-8%	32,167	-7%	-	-	2010/11	2735
PPP2	5,603	-1%	12,189	3%	-	-	2015/16	2488
Primary Schools	9,584	-1%	34,526	0%	-	-54%		
Nursery Schools	727	-15%	2,232	-17%	-	-		
Special Schools	1,209	-12%	3,702	-8%	-	-100%		
Outdoor Centres	764	5%	370	-9%	37		% Change : -9%	
TOTAL	25,208	-4%	85,187	-4%	1,105	-70.90%		

Appendix 3 - List of Properties with Solar Panels installed by Edinburgh Community Solar Co-operative

Site	Size kWp	Commissioning Date
<i>Ainslie Park Leisure Centre</i>	100	09/09/16
Blackhall Primary School	15	27/07/16
Buckstone Primary School	100	29/08/16
<i>Cameron House Community Centre</i>	20	30/08/16
Canal View Primary School	100	23/07/16
Carricknowe Primary School	50	08/07/16
<i>Carrickvale Community Centre</i>	30	13/07/16
Clermiston Primary School	21	18/08/16
<i>Craighall Day Centre</i>	30	29/07/16
Currie Community High School	133	22/09/16
Currie Primary School	45	19/08/16
Davidsons Mains Primary School	35	30/06/16
Dean Park Primary School	83	31/08/16
<i>Drumbrae Leisure Centre</i>	50	16/06/16
East Craigs Primary School	50	25/07/16
Gylemuir Primary School	30	04/08/16
Liberton Primary School	45	30/08/16
Oaklands Special School	125	24/06/16
Prospect Bank School	35	14/07/16
Ratho Primary School	70	15/09/16
Redhall School	50	05/08/16
<i>Tumbles at Portobello</i>	125	22/09/16
Wardie Primary School	30	19/08/16
Woodlands School	20	29/07/16