

Education, Children and Families Committee

10am, Tuesday, 20 May 2014

Schools Energy Report – Outcomes from Small Steps Awareness Campaign Pilot

Item number	7.9
Report number	
Executive/routine	Executive
Wards	All

Executive summary

A pilot energy awareness campaign in schools aims to raise awareness of energy use and target a positive change in behaviour that would result in a reduction in energy consumption.

The Small Steps Energy Awareness Campaign was launched in mid-November 2013 as a pilot across six schools and ran until the end of March 2014. The programme has been well received and supported directly by schools. This report evaluates the learning outcomes of the campaign and presents information on the wider roll out across the schools estate.

Links

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

Schools Energy Report – Outcomes from Small Steps Awareness Campaign Pilot

Recommendations

That Committee:-

- 1.1 Notes the content of this report and the significant work and collaboration which has been undertaken to develop the pilot awareness campaign.
- 1.2 Approves the approach to the roll-out of the campaign across the wider school estate.
- 1.3 Notes that the next phase of the campaign will launch after the schools return from the 2014 summer break.
- 1.4 Requests that an update on the campaign is submitted to Education, Children and Families Committee's Policy Development and Review Sub-Committee six months after the commencement of the campaign roll-out.

Background

- 2.1 The Council currently spends over £10m a year on energy across its operational estate. The Children and Families estate is the largest in the Council and the highest energy user accounting for half of the Council's total carbon footprint and energy spend.
- 2.2 With increasing energy costs, more stringent legislation and concern over climate change, the Council is seeking to manage its energy as effectively as possible. Whilst savings can be made through improving building fabric, heating plant and lighting, it is critical that building occupants use energy efficiently. A 20% reduction in energy consumption by 2020 is targeted across the Council's operational buildings¹. Technical interventions will play a significant role in delivering this saving, however all establishment users have a contribution to make in achieving this target.
- 2.3 At its meeting on 8 October 2013, Education, Children and Families Committee considered a report on energy in schools. It approved a pilot energy awareness

¹ This target is based on annual consumption data across the Council's operational property portfolio and is measured against a baseline of average annual consumption from 2009/10 to 2011/12.

campaign across six schools. The overarching objective of the campaign is to raise awareness of energy and target a positive change in behaviour towards energy efficiency. It would act as a test bed for developing campaign materials and inform the strategy for a campaign roll-out across the wider schools estate.

- 2.4 Committee requested an interim report after six months providing detail on progress and outcomes of the pilot energy awareness campaign, which is the purpose of this report.

Main report

- 3.1 Through the campaign the Council is targeting a holistic approach to energy efficiency across its buildings by creating an environment that encourages positive behavioural change and helps contribute to [Capital Coalition pledge 50](#) to meet greenhouse gas targets, including the national target of a 42% reduction by 2020. In addition, the campaign has the potential to contribute towards learning and teaching strategies.

Small Steps Energy Awareness Campaign

- 3.2 The Small Steps Energy Awareness Campaign was launched in mid-November 2013 as a pilot across six schools and ran until the end of March 2014. The schools involved were:
- Liberton High School;
 - St Thomas of Aquins' High School;
 - Gilmerton Primary School;
 - Liberton Primary School;
 - Prestonfield Primary School; and
 - Sciennes Primary School.
- 3.3 Consultation with the pilot schools started in June 2013 and focused on options for developing and integrating an energy awareness campaign into existing curricular activities. School head teachers nominated representatives to co-ordinate and manage the campaign within schools.
- 3.4 Over the 2013 school summer holidays, campaign materials and a toolkit were developed. These were presented to the pilot schools in the autumn term and developed into a campaign toolkit for the November launch. A selection of materials from the campaign toolkit has been included in Appendix 1. The resource pack for schools included:
- A campaign guide;
 - Case studies with suggested learning activities and discussion points;
 - Worksheets with suggested learning activities and discussion points;

- Fact sheets;
 - Campaign posters, stickers and labels;
 - Action plan templates;
 - Energy charter template;
 - Cost comparisons and checklists; and
 - Energy awareness training for FM staff.
- 3.5 As part of the campaign, a number of workshops were held to raise awareness about energy including:
- Smoothie bike workshop using pedal power to blend fruit;
 - Thermal camera technology to highlight different temperatures and heat loss in buildings;
 - Making personalised draught excluders; and
 - Energy audit 'walkround' to help identify opportunities for energy saving in a school.
- 3.6 In addition to the workshops and toolkit, bi-monthly meetings with school representatives were held and regular support was provided to schools by the energy team from Corporate FM and the Eco-Schools team within SfC's Parks and Greenspace team. Energy awareness training was also delivered to FM staff from across the campaign schools. This was a key element of providing an integrated whole school approach to raising awareness.

Campaign Feedback

- 3.7 Obtaining feedback from the schools and campaign staff is critical to informing future direction. Information on the key successes of the campaign are detailed below.
- The workshops proved very successful with schools and have often kick-started involvement or raised the profile of campaigns. They enabled pupils to participate in visual learning, demonstrating energy use in real-life situations. Scheduling workshops throughout the duration of the campaign has been central to maintaining momentum.
 - Face-to-face communication between the campaign team and school staff (both curricular and FM) has reinforced campaign messages and objectives. Support included visiting schools, talking through the campaign, re-emphasising aims and objectives, discussing energy audits and providing information on energy consumption.
 - Presenting the Small Steps campaign at staff meetings meant that the whole school had access to the campaign and gave teachers an opportunity to become involved and question campaign project co-ordinators directly.
 - The campaign developed better in schools where the representatives had time to dedicate to it. There were clear tie-ins with the Eco-schools programme as there was already an established representative.

- Encouraging FM staff and campaign representatives to monitor consumption locally has helped keep the campaign focused on energy consumption and helped schools to complete wall charts showing energy consumption.
- The resource pack has been well received by each school and wider Council staff. At the outset of the campaign emphasis was placed on creating a strong identity for campaign materials. The look and feel of the campaign has given it credibility and has helped to encourage staff, pupils and senior managers to engage proactively.
- The campaign links well with the Eco-Schools programme and can also assist schools that are working towards the Eco-Schools Green Flag Award.

3.8 As well as gaining an understanding of what worked well, the pilot campaign helped identify areas for further development:

- Each school was set a target energy reduction of 3%. In practice it was very difficult to monitor the impact of the pilot campaign on energy consumption. Due to milder weather over the trial period, all schools witnessed a drop in consumption. This drop was also reflected across the wider estate. It was not possible to discern the impact of the milder weather from campaign activities.
- Some schools found it technically challenging to take meter readings and monitor consumption. The main objective of monitoring consumption was to make staff and pupils aware of how much energy they use and to increase the accuracy of energy data so changes in consumption can be monitored against set targets.
- Pupils and teaching staff have little control over a large portion of the energy used in a school. In many cases, a mixture of FM support and investment is required to resolve consumption problems. When engaging pupils through activities such as the pupil energy audits, this lack of influence over energy use was frustrating for the children.

Wider Roll-Out of Small Steps Awareness Campaign – Phase 2

3.9 The pilot campaign has been well received and supported by schools. There are clear lessons from the pilot campaign that need to be integrated into the strategy for the wider roll-out. Detailed consideration needs to be given to the scale of the roll-out and resource required to deliver the desired outcomes. It is evident that some schools will pick up on the campaign quickly and start raising awareness and running activities in the school straight away. Others will require more support, guidance and time to set up a campaign.

3.10 The learning outcomes from the pilot awareness campaign that will inform the wider roll-out of the Small Steps campaign are listed below:

- Schools with established and active Eco-schools groups and co-ordinators adopted the campaign with greater ease than schools that had less developed groups.

- The workshops were very useful in encouraging and providing a focal point for participation in the campaign.
- The response from schools can be broken in to three categories: schools that will move the campaign forward under their own initiative; schools that need prompting to progress the campaign; and, schools that need a lot of support and motivation to progress the campaign.
- In general, the primary schools were more successful at adopting the campaign. More support will be required in Phase 2 to establish a successful approach for managing the campaign in secondary schools.
- Many of the lesson plans are targeted at older children. The campaign worked particularly well with children at P6 and P7 level. It was possible during the campaign to modify/develop activities for younger children. Creating a forum that would allow for ideas to be shared with teachers at other schools would help the campaign evolve and develop.
- Many elements of the pilot campaign, such as co-ordinating the workshops, were resource intensive. It will be difficult to deliver this level of support across the whole school estate.

Campaign Approach – Phase 2

- 3.11 Elements of the pilot campaign required significant input and support from the campaign team. It will be necessary to streamline and re-focus aspects of the campaign to make the wider roll-out of the campaign sustainable. This can be achieved by structuring the campaign to allow individual schools to take greater responsibility for co-ordinating materials for workshops. Some targeted areas for change are highlighted below.
- 3.12 *Campaign Autonomy* – Having sufficient resource for campaign co-ordinators to spend face-to-face time with individual schools at key points will be an important aspect of the campaign roll-out. Creating the mechanisms that will empower and motivate teachers to take ownership over their own campaign will be a critical element of success. In addition to the campaign toolkit, this will be achieved by sharing progress and examples of best practice through communications, events and forums.
- 3.13 *Targeting the Campaign* – Schools will be left to define how they target their campaign within their own school. Guidance will be given on where the campaign worked best within the pilot schools. For example, within primary schools, P6 and P7 pupils responded best to campaign materials. Sign-up to the campaign will be open to secondary schools, however primary schools will be specifically targeted for sign-up over the short term until a more successful model of engagement with secondary schools has been established. There are specific challenges for the campaign in secondary schools due to exam/curriculum pressures and the periodic nature of lessons which will need to be addressed.
- 3.14 *Workshops* – All the tools necessary to run a successful workshop will be provided to the school. In the main, workshops will be arranged directly by the

school. Where it is beneficial to have an awareness officer present during workshops then this will be co-ordinated to allow other activities such as presenting to teaching staff or FM staff is arranged for the same day.

- 3.15 *Campaign Monitoring* – It is proposed that each school will monitor its campaign progress and success through a ‘milestone matrix’ where the campaign can be benchmarked against carrying out set activities and achievements or milestones. This will distinguish campaign success from the complexity and variables associated with monitoring energy consumption data.
- 3.16 *Campaign Determination* – It will be difficult for the campaign to be adopted successfully where there is little support or motivation within the school. Each school is required to sign-up to join the campaign and receive support. School head teachers and teachers will be targeted via a communications exercise and through senior management to encourage sign-up.
- 3.17 *Campaign Innovation* – The campaign will continue to develop an innovative approach to awareness raising to maintain interest and momentum over the longer term. This will include looking at how the Council’s outdoor centres could be used to provide key educational and awareness raising messages.
- 3.18 *School Energy Audits* – Pupils and staff in campaign schools will be given access to the current energy audits for their school. These will provide pupils and staff with information on the current energy performance of the school as well as presenting recommendations for energy efficient improvements. Campaign co-ordinators will work with school representatives to identify key areas in the audits for use as awareness raising and discussion points for children and staff and give an understanding of the physical characteristics of the building.

Campaign Resources – Phase 2

- 3.19 The financial support and resources required to roll-out the campaign is currently under review and will be informed by the experience gained during the pilot campaign.
- 3.20 Significant resource in the form of staff time has already been invested in the development of campaign materials for the pilot campaign. For the campaign roll-out it will be necessary to dedicate resource to refreshing and creating materials, however, the majority of time will be spent on promoting the campaign and engaging with schools. Therefore, the staff resource required to support the campaign will be proportional to the scale of roll-out. Successful delivery of Phase 2 will require continued support from the Council’s Eco-Schools Officer and Corporate Communications.

Timescales – Phase 2

- 3.21 The next phase of the campaign will launch after the schools return from the 2014 summer break. Communication and engagement will take place during the

summer term and prior to the holidays to make schools aware of the campaign and encourage sign-up. Prior to and during the summer break, contact will be made with local facilities staff within the campaign schools to help identify potential energy saving opportunities and provide guidance on their campaign role.

- 3.22 Once the campaign is live, each school will be able to sign-up for workshops and receive campaign support from the energy team. Face-to-face visits to campaign schools will be arranged both to provide support to local campaign staff and to help raise awareness across the school. A campaign timeline can be found in Appendix 2.

Conclusion

- 3.23 For energy awareness campaigns to be successful, they require appropriate resources and support, and an ability to refresh and reinvent. It is recognised that raising awareness of energy use and encouraging a positive response to energy reduction is a key tool in delivering on the Council's carbon reduction targets.
- 3.24 Studies and literature confirm that an awareness campaign will have a positive impact on energy reduction and behaviour change, however, the results are not necessarily directly visible in energy data. It has not been possible to attach a savings projection to the awareness campaign roll-out because on a wide scale it is difficult to discern reductions through awareness based intervention with any reliability. Similarly, not all reductions will be an immediate response to the campaign, but instead may be a result of cumulative awareness raising over a sustained period. Measuring behaviour change is also challenging and takes time. Establishing effective quantitative and qualitative measures of energy awareness levels will be targeted as part of the campaign.
- 3.25 The Council requires a coherent and sustained response, both to reducing its energy consumption as well as to rising energy prices. Ensuring that staff and building users have awareness of the drivers for reducing energy and the motivation and means to intervene is critical to achieving wider goals. The Small Steps Awareness Campaign supports the delivery of this goal and also has a wider educational and quality of life benefits for Edinburgh residents.

Measures of success

- 4.1 Increased awareness amongst staff, pupils and establishment users of energy use and the actions that can be taken to reduce energy consumption.
- 4.2 Positive attitude amongst staff, pupils and establishment users in relation to energy efficiency and reduction.
- 4.3 Increased communication and collaboration between schools staff, pupils and establishment users in targeting energy efficiency in schools.
- 4.4 Increased reporting of inefficient use of energy in schools.

4.5 Reduced energy use in schools.

Financial impact

- 5.1 The campaign has the potential to have a significant impact on the Council's energy spend within its school estate. Given the variables involved it is not possible to predict this with any certainty at this time. Achieving the target 3% energy reduction in the pilot schools would yield a saving of £10,000 per annum. Across the whole school estate this would yield a saving of £153,000 per annum.

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 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 current price increases through increased awareness and energy efficiency.

Equalities impact

- 7.1 The campaign team will work with appropriate partners and stakeholders within Children and Families to ensure that the campaign can be tailored to suit the specific needs of participants. This will include ensuring that there are campaign materials and workshops that are accessible to different user groups.

Sustainability impact

- 8.1 There is significant potential for sustainability benefits through the delivery of a successful energy awareness campaign. The holistic approach to energy reduction within Council property provides a platform and structure that could be used to deliver other sustainability messages.

Consultation and engagement

- 9.1 The six pilot schools were approached at an early stage of campaign planning. School representatives attended campaign meetings, where they had the opportunity to present progress and provide feedback on campaign materials

and activities. Members of the campaign team visited each school on a number of occasions to attend workshops and provide campaign support.

- 9.2 The Council's Eco-Schools Officer played a central role in supporting the campaign and ensuring that synergies with the existing Eco-Schools programme were maximised.
- 9.3 Children and Families were involved in campaign decision making through their attendance at campaign meetings. Presentations were also made to Children and Families SMT and the Head Teachers Executive.
- 9.4 The Communications Service was heavily involved in the campaign and the development of the campaign's communication strategy and campaign materials.

Background reading / external references

Orb page on [Small Steps Campaign](#)

John Bury

Acting Director of Services for Communities

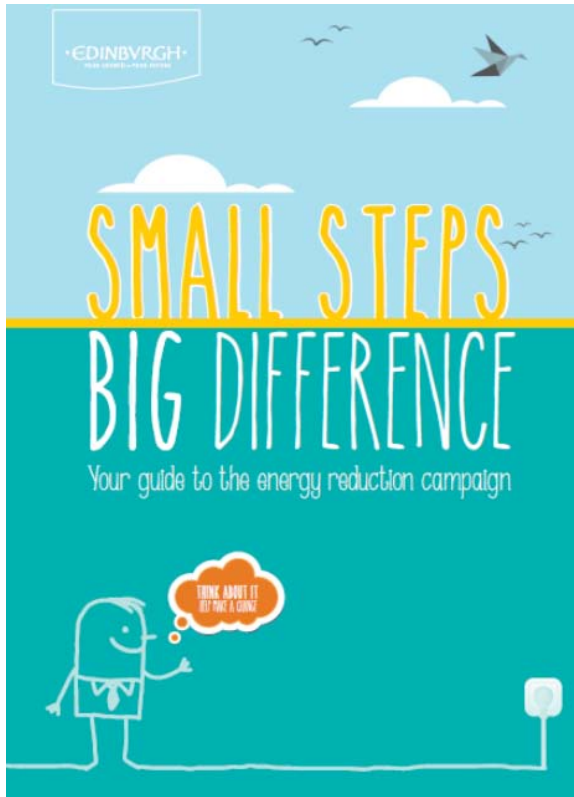
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Links

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 – Small Steps Toolkit Samples Appendix 2 – Campaign Timeline

Appendix 1 – Small Steps Tool-Kit Samples



Use this sheet to do a walk round of your school or classroom and list all the things that use energy. Think about when they need to be used and if there's anything you can do to make them use less energy. Think about what they are used for and how long they need to be switched on for. Do they need to be switched on all the time?

Once you've completed the walk round you should create an action plan to save energy for your class or school.

Item	What type of energy does it use?	When does it need to be switched on?	Is there anything you can do to reduce how much energy this uses?



Reporting faults and repairs can help to save money and energy in the long run

To help with ventilation the window in the kitchen of a Victorian building sometimes needed to be left open. However, the rope control for opening and closing it was broken and this meant the windows were left open all year round, leaving the room cold in the mornings.

To counteract this, electric heaters were brought in to heat the room and the fault went unreported. It would have cost £500 to replace the controls for opening and shutting the windows, saving £480 per year on energy. The payback period for these repairs would have been 12.5 months.

Reporting faults and repairs can help to save money and energy in the long run. As well as saving money it also helps to reduce our carbon footprint.



SCHOOL NAME

DATE RANGE OF THIS PLAN

ACTION PLAN CHECK LIST

EDINBURGH
2014-2015

Action	Who's in charge?	When will it be done by? (if ongoing, when did it start?)	How can we monitor it?	How will we know when we're successful?	How much will it cost?	Did it work? Any ideas for the future?
Our overall aims for this action plan are to:						

ABC OF ENERGY

A ALWAYS turn off the lights when you leave a room.	B Be aware of how you can save some energy at home.	C CREATE lots of different ways to save energy.	D DON'T waste time making an save energy pledge today.	E ELIMINATE unnecessary use of energy.
F FLUORESCENT light bulbs save energy.	G GET involved with your ECO club.	H HELP make a difference.	I INVOLVE yourself and others about how to save energy.	J JUMP into action when you think you can save energy.
K KEEP doors closed to keep it heat.	L LEARN as much about saving energy that you can.	M MINIMIZE energy use by sleep that less.	N NEVER leave windows open when the heating is on.	O ONLY turn on lights when you need them.
P POP along to the ECO SCHOOL events at your school.	Q QUIT using air conditioners when there will do.	R REMEMBER to turn the lights off when you leave a room.	S SHOWER showers save water and energy.	T TURN off taps when not in use.
U UNPLUG use and computers when not in use.	V VOLUNTEER to help reduce energy in your school.	W WALK around your school to see how many things use energy.	X X-rank your risk to reduce energy.	Y YOUR help can really make a difference to our future.
Z ZAP away wasteful actions.	 THINK!			



Get help from members of the energy team

Several years ago the remote control that operated the cover of a swimming pool was thrown into the water. The cover helped to preserve significant amounts of heat and energy when the pool wasn't in use.

At a cost of £200 for a new remote control, it was decided not to replace it. Unfortunately this meant the pool lost heat for eight years at an estimated cost of £1,500 per year in wasted energy.

The payback period for replacing the remote would have been 48 days.

Taking time to seek energy advice can help identify environmentally friendly solutions that will also save money.



COSY UP

Keeping doors and windows closed in the winter helps keep the heat in.

SMALL STEPS. SMALL FOOTPRINT
If we all play our part we can all help reduce the council's environmental footprint and save the council money too!

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PSSSSSSST

Did you remember to turn off the lights?

SMALL STEPS. BIG DIFFERENCE
It's the little things we do that can make a big difference to our carbon footprint

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Appendix 2 – Campaign Timeline

Feb-14	Mar-14	Apr-14	May-14
Inception, Review of Phase 1 and Proposal Creation			
Creation of proposal document			
	Review of proposal document		
		Present proposal to stakeholders	
		Appoint Project Leader	
		Decision making and Planning	
		Select schools engagement strategy	
		Review of resources	
		Develop communications plan	
		Develop milestone matrix	
		Recruit participating schools for Phase 2	
			Preparation for the campaign
			Review existing resource pack
			Prepare pre campaign questionnaire
			Finalise resource pack changes
			Start schools recruitment communications

Jun-14	Jul-14	Aug-14
Recruit participating schools for Phase 2		Campaign Launch
Schools Engagement		
Sign up schools at Eco Schools event		
Assist schools in planning for campaign		
Continue recruitment Comms and start engagement Comms		
Reps/Champions appointed		
	Campaign Planning	
	Finalise plan of cluster rotation and bookings for workshops	
	Develop a framework for schools to coordinate their own workshops	
	Plan campaign launch communications	
	Print resource packs/posters and distribute	