

Education, Children & Families Committee

10am, Thursday, 11 September 2014

Energy in Schools Report

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| Item number | 7.5 |
| Report number | Executive |
| Executive/routine | All |
| Wards | |

Executive summary

The Education, Children and Families Committee considered a detailed report on energy use in schools on 8 October 2013. The report provided information on school energy consumption together with an action plan of further planned work to improve the energy efficiency of the schools estate.

This report details school energy consumption for 2013/14 and provides a high level analysis of consumption trends. Information is also provided on progress made against the action plan presented in last year's Schools Energy Report.

Links

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

Energy in Schools Report

Recommendations

It is recommended that Committee:-

- 1.1 Notes the contents of the report.
- 1.2 Notes progress against the agreed action plan (Appendix 2) and the changes/amendments to plan.
- 1.3 Notes that an annual report will be submitted to committee on progress made against agreed action plan.
- 1.4 Notes the factors contributing to the poor operation of school heating including the current condition of school building management systems (BMS) and existing revenue strategy.

Background

- 2.1 The Council currently spends just under £11m a year on energy across its operational estate. The Children and Families estate is the largest in the Council and the highest energy user. It accounts for 38% of the estate and 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 more effectively.
- 2.3 The Education, Children and Families Committee considered a detailed report on school energy on 8 October 2013. The report provided an update on school energy consumption, together with an action plan of further planned work to improve the energy efficiency of the school estate.

The Committee noted the report and requested:-

- 1) An annual report be submitted updating on progress against the agreed action plan.
 - 3) An interim report be submitted to Committee in six months on the progress and outcomes of the Small Steps campaign pilot.
- 2.4 On 20 May 2014, the Education, Children and Families Committee considered a further report which provided an update on the six schools which took part in the Small Steps Energy Awareness Campaign pilot which ran from November 2013 to March 2014.

Main report

3.1 Services for Communities monitors the energy usage and energy efficiency of Council buildings. The information presented in Table 1 below details the school energy consumption for 2013/14. The percentage change listed is against the baseline consumption year (2010/11). The Table includes both Council and PPP2 schools, but not PPP1. The Council pays directly for energy consumed in PPP2 schools, but not in PPP1 which are managed by separate contract arrangements.

Table 1 Electricity, gas and oil usage 2013/14

| Property Type | 2013/2014 | | | | | |
|---------------------|-------------------|----------------------|---------------|--------------|--------------|----------------|
| | Electricity (MWh) | % Change Electricity | Gas (MWh) | % Change Gas | Oil (MWh) | % Change Oil |
| High Schools | 13,045 | -1.54% | 42,264 | -7.37% | | |
| Primary Schools | 10,305 | 3.31% | 37,307 | 4.57% | 1,900 | -21% |
| Nursery Schools | 843 | -3.00% | 2,327 | -18.72% | | |
| Special Schools | 1398 | 2.19% | 4,011 | 2.84% | 1,427 | 3% |
| Outdoor Centres | 714 | -1.43% | | | 397 | 15% |
| Total | 26,306 | 0.46% | 85,909 | -2% | 3,723 | -10% |
| | | | | | | |
| Degree Days* | | | 2400 | | | -12.25% |

*Degree days are a measure of the difference between a baseline temperature and actual outdoor temperature multiplied by the number of days. In the UK the standard baseline temperature is 15.5°C. The -12.25% is the percentage change in degree days based on the degree days in the baseline year 2010/11.

3.2 Following the introduction of smart metering across schools in 2010 and the reporting requirements set out under the mandatory Carbon Reduction Commitment Energy Efficiency Scheme (CRC), there has been a significant improvement in data quality. The baseline for the schools' energy usage has been set at 2010/11 aligning it with the first year of CRC reporting. This provides an audit trail on which to monitor future consumption in schools. An extended table showing consumption comparison for years 2010/11, 2011/12, 2012/13 and 2013/14 is included at Appendix 1. There has been a modest increase in

electricity consumption when compared to the baseline. Direct comparison with data for 2012/13 shows little change indicating that consumption is stable. The addition of new Gaelic school, Bun-Sgoil Taobh Na Pairce, along with new extensions at a number of schools has impacted total consumption. Since the baseline year, the increased use of electrical equipment in schools along with the use of supplementary electric heating will be major contributory factor in consumption increases. This is an issue which will be addressed under any future Building Management System upgrade where possible.

- 3.3 There is a direct link between outside weather conditions and space heating requirements across the schools estate. As indicated by the 12.25% reduction in Degree Days relative to 2010/11, the weather in 2013/14 was milder than in the baseline year of 2010/11. The reduced need for space heating in 2013/14 is most evident across the High School estate where a reduction of over 7% has been achieved against the baseline. This is in line with the milder weather and does not necessarily indicate an efficiency saving. In contrast, gas consumption across the Primary School estate is higher than baseline. The opening of Bun-Sgoil Taobh Na Pairce in 2013 and the conversion of Gracemount Primary School from oil to gas heating in 2011 accounts for a proportion of the increase. However, the current condition of Building Management Systems and some heating plant are resulting in both poor operation and poor control of building heating which is leading to an increased use of gas.
- 3.4 As reported in the Children and Families Revenue Asset Management Priorities 2014 - 2019 to the Education, Children and Families Committee on the 4 March 2014, additional revenue works of £29.1m have been identified over the next five years with no budget allocation. Revenue strategy and priorities are based on an emergency first basis i.e. health and safety, wind and water tight. Maintenance, repair and upgrade/replacement of heating plant and controls are prioritised based on the requirement to meet statutory obligations. Taking this approach and based on available funding, this is resulting in properties operating less efficiently.
- 3.5 Whilst functional, a significant amount of mechanical plant and infrastructure is approaching the end of its serviceable life. There is value in extending equipment life to mitigate higher replacement costs. However, with some equipment such as boilers and controls, doing so can lead to further reductions in efficiency and increased energy consumption.
- 3.6 The remainder of this report sets out current action being taken to identify efficiency opportunities and reduce usage across the schools estate and informs on further works planned.

Council Energy Policy

- 3.7 In August 2013, the Council's Transport and Environment Committee approved a revised Council Energy Policy. The policy and its supporting procedures set

out an overarching statement on the Council's commitment to energy management and efficiency.

- 3.8 The policy provides clear guidance on the temperature ranges, employee responsibilities, consumption monitoring and reporting structures. The policy details the need for regular review of energy management practices with a focus given to continuous improvement.

Sustainability and Carbon Reduction Work Stream

- 3.9 Following the mainstreaming of the iPFM programme into Corporate Property, the Sustainability and Carbon Reduction work stream has been maintained as an active work stream within the Corporate Property division of Services for Communities.
- 3.10 This work stream provides an overview of current and proposed projects, delivered and targeted savings and investment and resource requirements. The revised policy provides the framework within which this work stream is developed and outcomes managed.

Building Management Systems (BMS)

- 3.11 A Building Management System (BMS) is a computer-based system that controls the main mechanical and electrical services within a building. The Council has an extensive portfolio of BMS including all High Schools and the majority of Primary Schools. The successful implementation and operation of a BMS allows improved building performance and can lead to substantial energy savings.
- 3.12 As detailed in previous Schools Energy Reports, the Council's BMS 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.
- 3.13 Last year, Corporate Property, with support from the Carbon Trust, commissioned a survey and strategic assessment of the Council's BMS. The survey identified significant opportunities for energy efficiencies and carbon reduction and outlined an implementation strategy aimed at modernising and standardising the Council's approach to BMS.
- 3.14 A central objective of the implementation strategy is to improve communication links with the BMS controllers located in school plant rooms. Communication links are important because they provide real-time feedback on current operation. This facilitates performance improvement and helps deliver both energy and maintenance efficiencies.
- 3.15 Current communication links are very slow and rely on dial up phone lines and modems. Connecting a BMS to an Ethernet Broadband connection would greatly improve communication speed and is a requirement for modern systems. The preferred solution for the Council's BMS is to integrate BMS communication

with the Council's existing ICT Networks. This would eliminate the costs associated with a dedicated Ethernet Broadband connection. In the majority of schools it would be straightforward to provide network access through the installation of a data port in the plant room. The key challenge to network integration is to establish a secure procedure for integrating 3rd party BMS systems within the Council's ICT infrastructure. Work is ongoing with ICT to establish the most appropriate solution to network integration.

- 3.16 A key aim of the BMS strategy is to update and standardise the systems installed. Currently, the Council operates a diverse BMS estate with in excess of ten different proprietary systems. Historically, there has been limited control over the type of system installed and in some cases a building may have multiple systems installed. BMS systems are distinct from one another in that they have their own software configurations and require proprietary components. Having multiple systems across the Council estate makes the BMS infrastructure more challenging to manage, improve and maintain.
- 3.17 Corporate Property is in dialogue with Commercial and Procurement Services and ICT Solutions to progress the implementation of the BMS strategy. There are challenges with both the integration of BMS communications with the Council IT Network and the standardisation of systems. These areas are being prioritised to provide the foundation required to implement the BMS strategy.
- 3.18 The strategic assessment projected a cost and emissions reduction of 13.8% and 13.1% respectively and a pay-back period for investment of approximately four years. These are estimated figures based on the informed professional experience of the Carbon Trust consultant and are based on full adoption of the BMS strategy.

Small Steps Energy Awareness Campaign

- 3.19 The outcomes from the Small Steps pilot energy awareness campaign were the subject of a report to Committee in May 2014. Planning is well underway for Phase 2 of the campaign. In addition to the schools that took part in the pilot campaign, a further 20 have signed up to be part of the next phase. Sign-up to the campaign has been restricted to 20 schools to maintain a manageable group size and align the roll-out with existing resource levels.
- 3.20 Phase 2 of the campaign will be launched in early September 2014. Initial activities will be co-ordinated around giving school staff the necessary support and materials required to help tailor an appropriate campaign for each school. As was the case with the pilot campaign, each school will be able to sign-up for workshops and receive campaign support from the Energy Team within Corporate Property. Face-to-face visits will also be carried out to support local campaign staff and help raise awareness throughout each school.

School Energy Audits

- 3.21 The Energy Team recently produced high level energy audits for all school properties as part of the Schools Condition Survey Programme. They have been produced in-house and can be refreshed periodically, and therefore, remain as a live document providing an up-to-date view of property efficiency. The audits review current energy consumption as well as identifying areas for improvement through good housekeeping and investment in energy saving technologies.
- 3.22 The energy recommendations within the audits highlight the opportunity to invest in efficiency measures with a short to mid-term payback. Payback on investment ranges from 2-12 years depending on the technology type, scale of the opportunity and building use patterns. Further benefits including reduced maintenance and improvements to the internal environment can also be achieved through investment in efficiency measures.
- 3.23 The audits are high level documents intended to be used to direct focus on to specific properties or technologies. More detailed survey work is required to provide detailed cost and saving projections prior to the commissioning of specific works. It can be difficult to address energy efficiency works in isolation as they are intertwined with the overall building performance and operation. In addition to this, the payback period from existing funding streams can limit the scope of works. Therefore, in some instances, there is value in aligning energy efficiency projects with other improvement programmes.

Energy Efficiency Works

- 3.24 A number of works have been supported through the Central Energy Efficiency Fund (CEEF) this year. In total, £275,500 of CEEF funding has been committed to the schools estate during 2014/15 with a further £95,000 of projected investment pending project approval. Where possible, works have been aligned with other improvement works in schools to maximise benefits and funding opportunities.

Energy Retrofit of Council Buildings

- 3.25 The Council has embarked on a programme of retrofitting existing Council buildings which will see six major buildings piloted through the London RE:FIT scheme. The Council will be the first Scottish Council to sign up to this scheme. In parallel, the pilot will also evaluate other buildings for retrofit using a number of procurement options.
- 3.26 The programme is being designed to assess the best options for the Council in retrofitting the Council estate. The list of buildings for inclusion in the scheme has not been finalised but it is likely that it will include school buildings. The project is being financially supported by the Scottish Government with technical support from Scottish Futures Trust.

Solar PV Proposal

- 3.27 The Council is in dialogue with Edinburgh Community Solar Co-operative (ECSC) regarding the development of a community owned Solar Photovoltaic (PV) scheme on Council buildings. Under the scheme it is proposed that ECSC will procure, install and manage solar PV panels sited on the roofs of Council buildings.
- 3.28 The installation of the solar PV panels will be funded through a public share offer. The return on investment for the co-operative will be generated from Feed in Tariff (FiT) payments from OFGEM as well as from payments made by the Council (at a discounted rate) for electricity consumed by the building hosting the PV system. Any surplus generated by the co-operative will be re-invested into the local community through a community benefit fund.
- 3.29 Following an initial desktop review, ECSC have commissioned detailed solar PV surveys of 25 Council buildings including a number of schools. Work is also underway to shape proposals for community benefit, including specific benefits for schools hosting PV panels.
- 3.30 In December 2013, Corporate Policy and Strategy Committee approved the signing of a Memorandum of Understanding (MoU) between the City of Edinburgh Council and ECSC. The report was subsequently sent to Transport and Environment Committee in January 2014 for reference. The MoU set out the terms by which the Council and ECSC would work together in good faith to explore how the Council can reduce carbon emissions through solar energy generation on schools, public buildings and land.
- 3.31 The final proposal will be reported to the Transport and Environment Committee in early 2015 and will be accompanied by an appraisal for each building of alternate options for the adoption of solar PV.

Knowledge Transfer Partnership

- 3.32 Corporate Property has entered into a Knowledge Transfer Partnership (KTP) with the Scottish Energy Centre at Napier University to help develop a strategic long term approach to energy management within its operational estate. The partnership will be part funded from Technology and Strategy Board – a UK public body.
- 3.33 Under the partnership, Napier University will employ a recently qualified Masters student to work full time as a KTP Associate within the Council. The KTP Associate will be embedded within the energy team in Corporate Property. In addition to the KTP Associate, the Council will have access to a 'Knowledge Base' team which comprises academics and research fellows at Napier University's Scottish Energy Centre. The Council will benefit directly from its expertise. The KTP will cost the Council £35k/year for three years and will be funded by Corporate Property with match funding provided by the Technology Strategy Board.

- 3.34 A recruitment process is currently underway to identify a suitable KTP Associate. Interviews are scheduled for early September with a view to starting the project towards the end of 2014. It is envisaged that the KTP will be of direct benefit to energy efficiency in the school estate over the coming years.

Measures of success

- 4.1 The Council continues to meet legislative requirements as set out in the Energy Performance of Buildings Directive.
- 4.2 The Council continues to meet the reporting requirements as set out in the mandatory Carbon Reduction Commitment Energy Efficiency Scheme (CRC).
- 4.3 The Council maintains the improved energy data quality realised through the processes adopted to manage the CRC reporting requirements.
- 4.4 The Council demonstrates a reduction in energy consumption across the school estate.

Financial impact

- 5.1 Although condition focused, energy improvement works are included within the £85m Asset Management works over the period 2014-19.
- 5.2 Energy saving targets for the Council have been aligned with wider Corporate Property (iPFM) targets and are detailed in the Sustainability and Carbon Reduction work stream.

Risk, policy, compliance and governance impact

- 6.1 A structured response to energy management in schools 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 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 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 is currently being rolled out to 20 schools. A bespoke approach has been taken to the campaign that allows schools to shape an appropriate campaign for their individual needs. One special school has signed up for the Phase 2 of the campaign.

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.

Consultation and engagement

- 9.1 Consultation is regularly undertaken with the Sustainable Development Unit to collaborate on shared objectives.
- 9.2 Consultation and joint working with Eco-schools representatives is ongoing as part of the Small Steps campaign.
- 9.3 Through the energy audit programme and the energy awareness campaign, the energy team has improved communication and engagement across the schools estate.
- 9.4 Children and Families were involved in the Small Steps campaign pilot. Children and Families SMT and the Head Teachers Executive were updated on both the Small Steps campaign and the energy audit programme.

Background reading/external references

[Energy Performance in Buildings Directive \(Scotland\) Amendment Regulations 2012](#) – This directive covers the requirements for Energy Performance Certificates in Scotland.

[Carbon Reduction Commitment Energy Efficiency Scheme \(CRC\)](#) – This website provides guidance on the CRC scheme.

Orb page on [Small Steps Campaign](#)

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Links

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| 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 – Consumption comparison abstract – 2010/11 to 2013/14. Appendix 2 – Action plan. |

Appendix 1 to School Energy Report – September 2014

| Property Type | 2010/11 | | | 2011/12 | | | | | | |
|---------------------|-------------------|---------------|--------------|-------------------|----------------------|---------------|---------------|--------------|--------------|----------------|
| | Electricity (MWh) | Gas (MWh) | Oil (MWh) | Electricity (MWh) | % Change Electricity | Gas (MWh) | % Change Gas | Oil (MWh) | % Change Oil | |
| High Schools | 13,249 | 45,627 | | 12,811 | -3.30% | 41,619 | -8.78% | | | |
| Primary Schools | 9,975 | 35,677 | 2,407 | 9,835 | -1.40% | 31,826 | -10.79% | 1,750 | -27% | |
| Nursery Schools | 869 | 2,863 | | 926 | 6.61% | 2,115 | -26.14% | | | |
| Special Schools | 1368 | 3,901 | 1,390 | 1331 | -2.75% | 3,709 | -4.92% | 1,070 | -23% | |
| Outdoor Centres | 725 | | 346 (E) | 718 | -0.85% | | | 400 (E) | 16% | |
| Total | 26,186 | 88,067 | 4,144 | 25,622 | -2.15% | 79,268 | -9.99% | 3,220 | -22% | |
| | | | | | | | | | | |
| Degree Days* | 2735 | | | 2308 | | | | | | -15.60% |

*Degree days are a measure of the difference between a baseline temperature and actual outdoor temperature multiplied by the number of days. In the UK the standard baseline temperature is 15.5°C.

| Property Type | 2012/13 | | | | | | 2013/2014 | | | | | |
|---------------------|-------------------|----------------------|---------------|--------------|--------------|--------------|-------------------|----------------------|---------------|--------------|--------------|----------------|
| | Electricity (MWh) | % Change Electricity | Gas (MWh) | % Change Gas | Oil (MWh) | % Change Oil | Electricity (MWh) | % Change Electricity | Gas (MWh) | % Change Gas | Oil (MWh) | % Change Oil |
| High Schools | 13,024 | -1.70% | 50,450 | 10.57% | | | 13,045 | -1.54% | 42,264 | -7.37% | | |
| Primary Schools | 10,344 | 3.70% | 38,677 | 8.41% | 2,380 | 95% | 10,305 | 3.31% | 37,307 | 4.57% | 1,900 | -21% |
| Nursery Schools | 892 | 2.66% | 2,451 | -14.39% | | | 843 | -3.00% | 2,327 | -18.72% | | |
| Special Schools | 1279 | -6.51% | 4,410 | 13.05% | 1,299 | 21% | 1398 | 2.19% | 4,011 | 2.84% | 1,427 | 3% |
| Outdoor Centres | 759 | 4.75% | | | 425 (E) | 23% | 714 | -1.43% | | | 397 | 15% |
| Total | 26,298 | 0.43% | 95,987 | 8.99% | 4,104 | -1.0% | 26,306 | 0.46% | 85,909 | -2% | 3,327 | -10% |
| | | | | | | | | | | | | |
| Degree Days* | | | 2908 | | | 26.0% | | | 2400 | | | -12.25% |

Please note that % change comparisons are with the base year of 2010/11.

Appendix 2 to School Energy Report – September 2014

| No. | PROJECT | ACTION | TIMESCALE | LEAD RESPONSIBILITY | UPDATE/COMMENTS | OTHER LINKED PROGRAMMES, PROJECTS OR ACTIONS |
|-----|--|--|---------------------|---------------------------------|---|--|
| 1 | Council Energy Policy: Project Register Procedure | Record, update and validate all energy consumption and carbon impacts of building projects | Ongoing | Corporate Property | Validation carried out under CRC reporting. Progress report on Energy Policy due to go Corporate Policy and Strategy later in 2014. | Energy Policy All projects |
| 2 | BMS Upgrade | Quick wins programme | Sep - 13 Ongoing | Corporate Facilities Management | BMS engineer appointed to energy team. Work ongoing to address issues, implement efficiencies and identify opportunity for savings. | BMS Strategy Repairs & Maintenance |
| | | Options appraisal, business case and report to Finance & Budget Committee | Dec - 14 | Corporate Property | Currently awaiting feedback regarding ability to integrate BMS communications with Council network. | Energy Policy ICT Solutions iPFM Asset Management capital |

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| | | | | | | programme. |
| | | BMS upgrade strategy implementation | Apr -15 (2-3 year programme dependant on option chosen) | Corporate Property | Funding currently being sourced for delivery of an asset register for BMS. This is essential for competitive procurement. | As above Project 2 Project 3 Project 4 |
| 3 | Property Specific energy consumption and target reduction plans. | Site validation of energy audits | Complete | Corporate Facilities Management | School energy audits now complete. | Project 1 Project 3 Project 4 Project 5 Asset Management capital programme Repairs and Maintenance |
| | | Pilot group of 6 schools (2 x High Schools) (4 x Primary Schools) | Nov - 14 | Corporate Facilities Management | Targets were set for the six pilot schools as part of the small steps campaign. This was of limited success due to the number of variables that impact on energy consumption. Work is being carried out to | |

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| | | | | | identify ways to incorporate more effective target plans in phase 2 of the campaign. | |
| | | Phase 2 (High Schools) | Apr – 15 | Corporate Facilities Management | | |
| | | Phase 3 (Roll out across School Estate) | Aug – 15 | Corporate Facilities Management | | |
| 3 | Awareness and Good Housekeeping | Pilot school-staff engagement | Nov – 14 | Corporate Facilities Management Corporate Communications | A CPD training event was held in Nov 2014 for teachers taking part in the small steps campaign. Further events are planned for phase 2. | All Projects |
| | | Pilot FM staff-engagement | Nov – 14 | Corporate Facilities Management Corporate Communications | An awareness raising event was held in Nov 2014 for FM staff talking part in the small steps pilot campaign. Further events are planned for phase 2. | |
| | | Draft proposals and Toolkit to pilot group (School staff and | Complete/ Ongoing | Corporate Facilities Management Corporate | A toolkit was prepared as part of the small steps pilot. This will continue to evolve as the campaign | |

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| | | FM staff) for review | | Communications | progresses. | |
| | | Implementation of training and action programme, site-specific monitoring, recording, reporting | Ongoing | Corporate Facilities Management | | |
| | | Phase 2 engagement with school staff and FM | Sept – 14 | Corporate Facilities Management Corporate Communications | 20 additional schools have signed up to phase 2 of the campaign. | |
| | | Phase 2 implementation | Sept - 14 Ongoing | Corporate Facilities Management | Phase 2 of the campaign will launch in Sept 14. | |
| | | Phase 3 engagement with school staff and FM | TBC | Corporate Facilities Management Corporate Communications | | |
| | | Phase 3 implementation | TBC | Corporate Facilities | | |

| | | | | Management | | |
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| 4 | Efficiency projects | Analysis of energy audits and identification of projects | Complete | Technical Support Team | Recommendations from the school energy audits have been collated and have been used to prioritise efficiency works. | Project 1 Project 2 Project 5 |
| | | Scope, specify and submit business cases to iPFM Board | ongoing | Technical Support Team Building Programme Team (BPT) | Project commissions for summer 2014 works were carried out within Corporate Property and funded through CEEF. | In consultation with Asset Management, BPT and Children and Families. |
| | | Tender & procurement process (overlapping projects but may be bundled into small number of packages) | Ongoing | Technical Support Team Building Programme Team (BPT) | Project tenders for summer works completed by Building Programmes Team. | |
| | | Projects site works. Note programme and timescales are dependent | Ongoing | Technical Support Team Building Programme Team (BPT) | Works carried out during summer holidays with proposals in place for further works in October break. | In consultation with Asset Management, BPT and |

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| | | on size, ability to carry out during heating and school terms. | | | | Children and Families. |
| 5 | Insulation programme (Pipe-work, valves and flanges) | Identification of pilot and phase 1 group (12 initial schools.) | On hold | Technical Support Team | Pilot pipe-work insulation project carried out at Gracemount Primary School in full compliance with Council Asbestos Procedures. During the pilot project it became clear that the programme would regularly encounter pipe-work contaminated with asbestos when removing or joining on to old insulation. Whilst not insurmountable, the potential associated costs for asbestos removal would increase paybacks significantly and therefore could not be funded solely on a spend-to-save basis. Rather than running a programme of insulation works, individual projects will be progressed when appropriate. | Project 2 Project 3 |
| | | Pilot school project | On hold | Technical Support Team | | |
| | | Phase 1 Group | On hold | Technical Support Team | | |
| | | Phase 2 Group | On hold | Technical Support Team | | |
| | | Phase 3 Group | On hold | Technical Support Team | | |

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| 6 | <p>Replacement of Electric Heating at Stockbridge Primary.</p> <p>To be used as pilot for similar properties and projects</p> | <p>Scoping, specification and options appraisal taking holistic and whole-life costing approach to school heating requirements</p> | <p>On hold</p> | <p>Asset Management Building Programme Team (BPT)</p> | <p>A detailed assessment of improvements to the current electric heating system and building fabric at Stockbridge Primary School was completed in Nov 2014. Replacing the electric heating system with a gas-fired system has a predicted payback of around 27 years once reinvestment costs have been considered. At present the heating replacement remains on hold until funding is identified.</p> | <p>All projects</p> <p>In consultation with Children and Families.</p> |
| | | <p>Outcomes to be considered for Asset Management funding 2014/15 or later dependant on priorities.</p> | <p>Apr – 14</p> | <p>Asset Management</p> | <p>Proposals are currently in place to upgrade the electric heating system at Nether Currie PS with Air Source Heat Pumps. This is currently scheduled to take place in the October break.</p> | <p>In consultation with Children and Families.</p> |