

REPORT TO: POLICY COMMITTEE ON 30 APRIL 2008

SUBJECT: SUMMARY OF ENERGY SAVING PROJECTS

BY: HEAD OF ESTATE SERVICES

1. REASON FOR REPORT

- 1.1 The Policy Committee at its meeting of 13 June 2007 (para. 4.1 of the Minute refers) agreed to allocate £507,000 to a range of measures to reduce energy costs. This report summarises the progress of these measures.
- 1.2 This report is submitted to the Committee in terms of Section A (42) of the Council's Administrative Scheme relating to ensuring that the organisation, administrative and management processes of the Council are designed to make the most effective contribution to achieving the Council's objectives.

2. RECOMMENDATION

- 2.1 It is recommended that the Committee notes the progress achieved in developing and implementing a programme of energy saving projects to Council buildings in support of the Climate Change Agenda.**

3. BACKGROUND

- 3.1 The Carbon Trust carried out an Assessment of Initial Energy Saving Opportunities Survey of Secondary Schools for the Council in April 2007. The report from this survey was produced to assist the Council to identify energy saving measures. Further surveys have been carried out to identify potential energy saving projects, not just specific to schools.
- 3.2 The current list of projects include:
- The re-lighting of schools with more effective and efficient lighting.
 - The installation of lighting controls.
 - The replacement, and in some cases the fitting, of insulation on heating pipes.
 - The installation of improved heating controls for both individual areas and sites that operate a Building Energy Management System (BEMS), and in many cases the installation of a BEMS.
 - An assessment of the current state of loft/roof insulation and if required the improvement/installation of insulation.
 - The upgrade of boilers, controls and air handling units as required.

APPENDIX 1 provides a detailed breakdown of completed projects, current and proposed projects to date.

- 3.3 Many of these projects will involve major work to the schools and the times available to implement them are limited to holiday periods to avoid disruption to staff and pupils. To make best use of the money and to produce the

quickest reductions in energy use, some of the larger projects will be carried out in conjunction with other planned major works.

- 3.4 Further detailed feasibility studies may be required on some of the projects identified to provide detailed background information and the results from these studies will provide the reference point for future possible projects.
- 3.5 The Moray Council is also a participant in the Scottish Government's smart metering pilot scheme that recommends the installation of 'smart meters' to automatically record the electricity consumption at sites throughout Moray. The project has recently been suspended while councils awaited information on Automatic Meter Reading provision within the recent electricity procurement tenders, National Procurement etc. It is hoped to progress this project very soon.

4. **SUMMARY OF IMPLICATIONS**

(a) Corporate Development Plan/Community Plan/Service Improvement Plan

The implementation of these projects will help to achieve the energy efficiency objectives of the Community Plan, the Corporate Plan and Service Plans.

(b) Policy and Legal

The implementation of these projects is consistent with a number of Scottish Government initiatives including Scotland's Climate Change Programme, achieving sustainable development through Best Value and the Local Government Act 2003.

(c) Resources (Financial, Risks, Staffing and Property)

Financial

All identified projects will be funded from the budget of £507,000 allocated for energy efficiency measures. It is highly unlikely that this budget will be fully spent by July 2008 and a carry forward will be sought to finance the outstanding and subsequent projects over the next year. Very tight timescales and a lack of specialist local contractors have caused delays and the cancellation of some projects but it is expected to have many of these projects completed during the school summer holidays. Future projects will be assessed for funding from the Central Energy Efficiency Fund if required. Projects will result in a reduction of energy consumption and costs. Future reports will be presented detailing project costs and expected carbon dioxide emission reductions.

Risks

All projects will be co-ordinated with the Property Services Section to identify areas of efficiency and to ensure that the energy works are integrated with the planned works to the buildings.

Staffing

There are no staffing implications on these projects.

Property

The implications for Council property would be the aim of achieving energy efficient buildings and reduction in energy consumption.

(d) Consultations

This report has been considered by the Chief Financial Officer and the Principal Solicitor (Commercial and Conveyancing) and any comments incorporated.

5. CONCLUSION

- 5.1 The implementation of these projects will assist in reducing the energy consumption and the energy bill of the Council and reduce carbon dioxide emissions in support of the Council's commitment to the Climate Change Agenda.**

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Background Papers: Assessment of Initial Energy Saving Opportunities For The Moray Council – April 2007

Ref: WA/JB/GEN/116/rep 080414

APPENDIX 1

Completed Projects

SITE	PROJECT	COST	CARBON DIOXIDE SAVINGS (est.) (Tonnes/year)	PAYBACK PERIOD
Buckie HS	Lamp replacement	£1,744	3.02	4.6 years
Milne's HS	Lamp replacement	£194	0.34	4.6 years
Keith GS	Thermostats and programmers	£3,000	9.54	2.6 years
Keith GS	Instantaneous water heaters	£521	10.42	2.6 years
Kinloss PS	Energy Management System	£18,640	20.71	2.5 years
Secondary schools	Loft insulation improvements (5 indiv projects)	£39,067	33.00	4.3 years
Various schools	Draught proofing improvements (21 indiv projects)	£47,378	117.50	4.2 years
Secondary schools	Automatic powering down of PCs	£1,250	8.03	1.1 years
Lossiemouth HS	Insulate pipes in corridors	£1,630	6.19	1 year
Speyside HS	Lamp replacement	£3,253	5.63	4.6 years
TOTAL		£116,677	214.38	

Payback periods and carbon dioxide savings based on Carbon Trust/Energy Savings Trust standards or calculated via Central Energy Efficiency Fund website.

Projects current ongoing

SITE	PROJECT	APPROX COST
Hythehill PS Lossiemouth	Automatic lighting controls	£9,000
Day Centres	Installation of lighting sensors	Awaiting final costs
New Elgin PS	Automatic lighting controls	Awaiting final costs
Roths Day Centre	Improve loft insulation	Awaiting final costs
Elgin CEC	Voltage reduction equipment	£13,000
Elgin Library	Voltage reduction equipment	£8,360

Projects currently under investigation

SITE	PROJECT
Forres Academy and Lossiemouth High School	Replace obsolete Building Energy Management Systems (BEMS) with modern systems
Primary schools	Installation of Thermostatic Valves as required
Primary schools	Installation of pipework insulation as required
Swimming Pools	Replacement of pool Air Handling Units with variable flow heat pumps and heat recovery systems
Various	Replacement of inefficient pumps and motors with Variable Speed Drive units
Various	Fit/replace/upgrade loft insulation to 10% above current minimum levels as required
Lossiemouth High School, Community Centre and Pool	Full lighting and lighting control assessment for efficiency and suitability. Will be rolled out to other 'campus' areas as required
Various	Installation of BEMS
Various	Connection of 'stand-alone' BEMS to BEMS Supervisor via Intranet system to allow remote access
Pinefield Park and Moray Resource Centre	Installation of destratification fans to allow better spread of warm air around building