

REPORT TO : BEST VALUE SUB-COMMITTEE – 20 JANUARY 2003
REPORT ON : BEST VALUE REVIEW OF ENERGY MANAGEMENT
REPORT BY : CHIEF EXECUTIVE
REPORT NO: 99-2003

1.0 PURPOSE OF REPORT

- 1.1 To report the findings of the working group on the Best Value Review of Energy management.
- 1.2 To report initiatives that have been implemented.
- 1.3 To report a strategy and Action Plan for future implementation.

2.0 RECOMMENDATIONS

- 2.1 That the Council continues to address Energy Management on a corporate basis as per the attached Action Plan.
- 2.2 That objectives are agreed and targets set. Progress to be measured by carrying out a quarterly audit of the Action Plan.
- 2.3 That new initiatives are researched, developed and implemented, where feasible, on an ongoing basis.
- 2.4 That appropriate funding is identified at each annual review to finance energy management initiatives.

3.0 FINANCIAL IMPLICATIONS

- 3.1 The Director of Finance has stated that initiatives identified for 2002/03 can be funded from revenue or from the allowance of £30K in the 2002/03 Capital Budget for Energy Management.
- 3.2 The Director of Finance has stated that Energy Savings of £111,000, which have been identified through the best value review, will be reflected in the 2003/04 Revenue Budget.
- 3.3 The Director of Finance has stated that savings of £24K, identified through the Best Value Review of Water Monitoring at City Square, will be included in the Corporate Revenue Budget for 2003/04 and used to finance future energy saving initiatives.
- 3.4 The Director of Finance has stated that initiatives identified for future years will be considered at each annual review and, where appropriate, funding will be made available in Revenue or Capital Budgets.
- 3.5 Government funding through energy initiative grants is being addressed through the Energy Savings Trust and will continue to be accessed as and when new initiatives are identified. This funding is available for feasibility studies as well as nominated projects.

4.0 LOCAL AGENDA 21 IMPLICATIONS /...

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4.1 The following Key Themes of Local Agenda 21 are being addressed as an integral part of the Energy Management initiative:-

- Resources are used efficiently and waste is minimised
- Pollution is limited to levels at which natural systems can cope.
- The diversity of nature is valued and protected.
- Local needs are met locally.

5.0 EQUAL OPPORTUNITIES IMPLICATIONS

5.1 Design measures introduced to address energy management will also address the requirements of people with disabilities.

6.0 REPORT

6.1 **REVIEW AUTHORISATION:**

6.1.1 The Best Value Sub Committee, at its meeting on the 26th February 2002, approved the following:-

- That energy management will be reviewed in line with Best Value.
- Market testing and possible benchmarking are appropriate procedures to obtain the information required and to identify possible pilot projects.
- The review to cover all activities undertaken by the City Council in connection with energy use and costs.
- The best value review will be carried out by a working group consisting of relevant officers, elected members and will be chaired by the Chief Executive.
- The review to be completed by December 2002 and a final report to be submitted to the Best Value Sub Committee on completion.

6.2 **REVIEW JUSTIFICATION:**

6.2.1 The Best Value Sub-Committee agreed that this service should be reviewed with a view to addressing efficient use of resources. This included the following:-

- The review will be undertaken from the perspective that resources are used efficiently and waste is minimised. (Local Agenda 21 Key Theme)
- In an environment of increasing energy costs worldwide it is expedient to undertake a comprehensive examination of energy management within the City Council.

6.3 **REVIEW PROCESS:**

6.3.1 The review process will include an examination of the critical success factors in respect of energy consumption within the Council.

6.3.2 A performance review will also to be carried out against the critical success factors of the service based on data gathered by relevant performance indicators identified by the Working Group.

6.4 **REVIEW IMPLEMENTATION:**

6.4.1 The Working Group, chaired by the Chief Executive, met on 9 separate occasions between June and December 2002.

6.4.2 The /...

6.4.2 The Group considered trends in energy expenditure by each department and for specific buildings.

6.4.3 The Group considered the Council's current Energy Policy.

6.4.4 Each department gave a presentation to the Group outlining the action they are currently taking and proposing further action which could be considered as part of the energy management review.

6.4.5 The Group considered and reviewed all the information submitted, carried out an option appraisal and agreed a prioritised Action Plan for implementation.

6.5 **OPTION APPRAISAL**

6.5.1 An Option Appraisal was carried out, based on the information available, and the following criteria were used to formulate the Action Plan:-

- Management procedures
- Energy Savings
- Renewable energy sources
- Environmental Considerations
- Capital Costs
- Revenue/Capital Funding
- Additional funding through Grant Aid
- Objectives
- Targets
- Timescales
- Priorities

6.6 **ACTION PLAN**

6.6.1 The Action Plan is detailed in Appendix 'A'. This provides information on possible actions, funding, targets, timescales and priorities. Where possible estimated costs of implementation and savings have been included.

6.6.2 A wide range of information was submitted to the Working Group and this was considered prior to formulating the final Action Plan.

This included the following:-

- British Research Establishment (BRE) Check List
- Benchmarking information produced by Government
- Energy Costs – per building, departmental and Corporate
- Water Costs
- Submissions by all Chief Officers
- Surveys of key buildings
- Report on IT good practice
- Website initiatives
- Recycling initiatives
- New technology
- Management issues
- Financial appraisals
- Council's Energy Policy

6.6.3 It was agreed that a quarterly audit of progress should be carried out and that this would be critical to the implementation of a successful Energy Policy. This Review meeting will be chaired by the Chief Executive and will include the Directors of Finance and Economic Development and City Architectural Services Officer.

7.0 **CONCLUSIONS /...**

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- 7.1 The Group considered that many measures and new initiatives had already been implemented throughout the Council and savings were already being made.
- 7.2 The Group also considered that by the implementation of the Energy Management Action Plan further good practices and new initiatives can be introduced over a planned period of time resulting in further savings.
- 7.3 The Group acknowledged that reductions in the use of natural resources, and the increased use of renewable energy sources, were paramount to a Sustainable Energy Policy and these objectives were incorporated into the Action Plan.

8.0 **CONSULTATION**

- 8.1 All members of the Best Value Energy Management Working Group and the Director of Support Services have been consulted on the contents of this report.

Alex Stephen
Chief Executive
29 November 2002

ENERGY MANAGEMENT ACTION PLAN

2002/2005

APPENDIX 'A'

PRIORITY	DESCRIPTION	ENERGY SAVING	COST	SAVING	NET SAVING	FUNDING	DEPT	TARGET/DATE
1.	Investigations and further Surveys to be carried out at Dundee Ice Arena to identify possible energy saving measures and costs.	To be identified				To be reviewed	Arch Finance L&A	Investigation complete December 2002
2.	Investigations and further Surveys to be carried out at DISC to identify possible energy saving measures and costs.	To be identified				To be reviewed	Arch Finance L&A	Investigation complete December 2002
3.	Install a pilot scheme for Waterless Urinals on Floor 11, Tayside House. Monitor savings over 3-month period.	10% water consumption	£300 (Pilot)	Based on all Tayside House converting £2.5K Yr 1 £4K Yr 2		Revenue EDD Budget	Arch EDD	Jan-April 2003
4.	Bulk Purchase low energy light bulbs and fluorescent tubes. All departments to access these for any replacement.	75% lighting costs	£30K 5000 lamps	£19K/Year	£65K over 5 years		ALL DCS	Jan 2003
5.	All departments to nominate ' Energy Champion '. Hold monthly meetings to co-ordinate policies, initiatives and carry out training for all staff.						ALL EDD Energy Mgr	Jan 2003
6.	Carry out in-depth survey of Hillside PS and Menzieshill HS to identify possible savings which could be applied to these and similar schools. Prepare prioritised programme and funding over 5 years.	20%				Capital 2003/2007	Educ Finance Arch	Feb 2003
7.	Guidelines to be issued to all staff regarding a ' Switch Off ' strategy for computer equipment.	10%		£60K PA	£60K PA		IT	Feb 2003

PRIORITY	DESCRIPTION	ENERGY SAVING	COST	SAVING	NET SAVING	FUNDING	DEPT	TARGET/DATE
8.	Replace oil fired boilers at Braeview and Menziesshill Schools with Gas.	20% fuel costs	£180K	£37.1K PA	5-year pay back	Capital £125K 02/03 £55K 03/04	Education Arch	Feb 2003
9.	Install Water Meters at City Square .		£5K	£28.7K PA	£23.7K PA	From savings	EDD	March 2003
10.	Review and update Energy Policy .						EDD	March 2003
11.	Design a Website to highlight energy strategy and new initiatives. Section on advice to householders should be considered.						Arch EDD NRD Chief Ex Councillors	March 2003
12.	Draught proof City Square Access Doors : Fit automatic closer at Nr 5 and refurbish or renew closers at 8, 14, 21.		£6.9K	£2K	£4.9K	Capital 2002/03	Arch EDD	March 2003
13.	Rationalise Water Charges for City Square and Tayside House .			£75K PA	£75K PA		EDD	Will be reflected in 2003/04 Revenue Budget in April 2003
14.	Convene quarterly meetings to co-ordinate and monitor progress on Action Plan. Chaired by Chief Executive.						Chief Ex CASO DOF Dir EDD	April 2003
15.	Investigate the installation of Solar/ Photovoltaic Panels at DISC, Olympia, Ice Arena, Central Library, Lynch, Maxwelltown .	15 – 30%				Seeking 75% grant aid funding Review Cap Plan	Arch L&A NRD Housing	July 2003/04

PRIORITY	DESCRIPTION	ENERGY SAVING	COST	SAVING	NET SAVING	FUNDING	DEPT	TARGET/DATE
16.	Replace lighting to staff areas at Central Library with energy efficient lamps and fittings.	45%	£32K	£6K PA	5-year payback	Review 2003/04	Arch NRD Finance	Review Capital Plan May 2003
17.	Complete Air Conditional/Heating Replacement Phases 3, 4 and 5 at Central Library .	20-25%	£400K	£9K PA	40-year Payback	Review 2003/04	Arch NRD Finance	Review Capital Plan May 2003
18.	Replace heating system at Caird Hall and City Square .	20%	£1.4M	£70K PA	20 year payback	Review 2003/04 2004/05	Arch L&A Finance	Review Capital Plan May 2003
19.	Priority Programme to carry out further investigations into energy efficiency measures, these to include:- <ul style="list-style-type: none"> • Management of systems • Joint controls • Zoning • Separate energy monitoring • Low energy lighting • Boiler efficiency • Control settings • Insulation 					To be reviewed	ALL	Agree Programme by May 2003 Programme to span period 2003-2007
20.	Review BRE Check List , update and circulate annually.						Arch	June 2003
21.	Investigate the installation of Geothermal Heat Pumps at Morgan, Baxter Park and Maxwelltown (Housing)	30% energy 40% Reduction Carbon emissions				Seeking 50-65% Grant Aid Funding Review Capital Plan	Arch	June 2003/04

PRIORITY	DESCRIPTION	ENERGY SAVING	COST	SAVING	NET SAVING	FUNDING	DEPT	TARGET/DATE
22.	Investigate possible replacement of Heating and Ventilation System at Tayside House and carry out Risk Assessment.	20-30%	£3M	£40K PA	60+ years Payback	To be reviewed	Arch EDD Finance	Complete Review by June 2003
23.	Investigate the installation of Wind Turbine Power Generators at suitable locations.	15-30%				Seeking 75% Grant Aid Funding Review Capital Plan	Arch	July 2003/04
24.	Carry out Benchmarking exercise on an annual basis. Compare with Government figures, identify high usage and target areas of concern. Monthly report to Management Team.						EDD	November 2003
25.	Make Application for Grant Aid Funding for new initiatives including Photovoltaics, Heat Pumps, Wind Turbines, etc.			Up to 65% funding		Initial funding from capital	Arch Finance	Ongoing to 2004
26.	Energy efficiency measures funded from Non-DSM Budgets would result in savings being retained by Council.						Education Finance	Ongoing
27.	Energy efficient light fittings and lamps to be installed on any refurbishment which requires the renewal of lighting installations	10-15%			5-year Payback Period	Capital budgets	ALL	Ongoing
28	Annual Energy Management Budget to be identified and reviewed to fund Research and Development and implementation of new initiatives in future years.	To be identified		To be identified	Self financing over payback period	Capital and Revenue Budgets 2003-2007	Finance	Annually

PRIORITY	DESCRIPTION	ENERGY SAVING	COST	SAVING	NET SAVING	FUNDING	DEPT	TARGET/DATE
29.	Buildings with High Energy use/costs to be identified by Director of Finance from current records. Priority List to be compiled and investigations carried out to identify possible savings.	To be identified		To be identified		Review of Capital and Revenue Budgets	Finance Arch EDD Others	2002 – 2007
30.	Reduce Corporate Energy consumption by 10% over 5 years.	10%		£350K	£350K	Various projects over 5-year period	ALL	10% Saving by December 2007
31.	Introduce incentive scheme to share energy savings with departments.	10%	£350K saving	<u>Incentive</u> 20% of saving	£280K	Self Financing	All	Ongoing to 2007

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