

## **DUNDEE CITY COUNCIL**

**REPORT TO: POLICY AND RESOURCE COMMITTEE - 10TH NOVEMBER 2008**

**REPORT ON: ENERGY MANAGEMENT MEASURES 2008-10**

**REPORT BY: DIRECTOR OF ECONOMIC DEVELOPMENT**

**REPORT NO: 546-2008**

### **1.0 PURPOSE OF REPORT**

- 1.1 The report seeks approval for the City Architectural Services Officer to obtain offers, tenders or negotiate partnerships and for the Depute Chief Executive (Support Services) in conjunction with the Director of Economic Development to accept these offers, tenders or partnership agreements for the installation of energy management measures up to a total cost of £242,000.

### **2.0 RECOMMENDATIONS**

It is recommended that the Policy and Resource Committee:

- 2.1 Authorise the City Architectural Services Officer to obtain offers, tenders or negotiate partnerships for the installation of energy management measures detailed in Appendix 1.
- 2.2 Authorise the Depute Chief Executive (Support Services) in conjunction with the Director of Economic Development to accept, as recommended by the City Architectural Services Officer, these offers, tenders or partnership agreements for the works as undertaken by Dundee Contract Services and / or other contractors.

### **3.0 FINANCIAL IMPLICATIONS**

- 3.1 Expenditure of £214,000 in the financial years 2008/2009 and 2009/2010 shall be funded from the Renewals and Repairs Fund with £28,000 expenditure being funded from the Scottish Government's Central Energy Efficiency Fund.
- 3.2 Estimated annual savings of £24,000 will be reflected in the Provisional 2009/10 Revenue Budget and future years Revenue Budgets.

### **4.0 MAIN TEXT**

- 4.1 A continual review is carried out to maximise the efficient and effective utilisation of the Council's asset properties and to identify areas of potential reduction in the energy consumption.
- 4.2 As part of this review energy surveys were carried out to 20 non-education and 21 education highest energy-consuming properties. The survey of each property investigated a minimum of 41 energy saving initiatives (including renewable energy micro-generation), complete with a cost analysis, estimated payback periods, estimated energy consumption and greenhouse gas emissions savings. The surveys identified 140 energy saving measures deemed suitable to be progressed immediately and when implemented would reduce energy consumption by 2,000,000 kWh and carbon dioxide emissions by 610 tonnes a year.
- 4.3 Appendix 1 summarises the energy management measures identified by the energy surveys for the 20 non-education properties. The City Architectural Services Officer has estimated the cost of implementing these measures to be in the region of £242,000. It is estimated that the annual savings will be approximately £35,000 and 268 tonnes of CO<sub>2</sub>.

- 4.4 All the measures have been evaluated against the Scottish Government's Central Energy Efficiency Fund (CEEF) criteria. 37 of the 60 measures identified for non-education properties meet the CEEF's evaluation criteria. The City Architectural Services Officer has estimated the cost of implementing these measures to be in the region of £28,000. It is estimated that the annual savings will be approximately £14,300 and 110 tonnes of CO<sub>2</sub>.
- 4.5 The remaining 23 energy efficient measures, which are not suitable for funding from CEEF have the potential to realise annual savings of £21,000 and 160 tonnes of CO<sub>2</sub>. The City Architectural Services Officer has estimated the cost of implementing these measures to be in the region of £214,000.
- 4.6 A further 80 measures were identified for the 21 educational properties with an estimated cost of £500,000 to implement. The resultant annual savings are estimated to be approximately £52,000 and 442 tonnes of CO<sub>2</sub>. The Director of Education is considering these measures separately.

## **5.0 POLICY IMPLICATIONS**

- 5.1 This report has been considered against a number of policies, plans and strategies, which aim to achieve the Council's sustainable development and climate change commitments and to ensure these measures comply with the Best Value framework.
- 5.2 These climate change related policies, plans and strategies are the Council Plan, Departmental Service Plans, Sustainable Development policy and action plan, Climate Change Declaration, Energy Management Action Plan, and sustainable construction.
- 5.3 The measures shall contribute to the City Council's Carbon Management Plan and its current commitment to reduce green house gas emissions

## **6.0 CONSULTATIONS**

- 6.1 The Chief Executive, Depute Chief Executive (Support Services), Depute Chief Executive (Finance), Head of Finance and City Architectural Services Officer have been consulted in the preparation of this report.

## **7.0 BACKGROUND PAPERS**

- 7.1 None.

**DOUGLAS A.A. GRIMMOND**  
**DIRECTOR OF ECONOMIC DEVELOPMENT**

**29TH OCTOBER 2008**

**APPENDIX 1****ENERGY MANAGEMENT MEASURES 2007/2009**

Project Number	Department	Buildings	Measure	Funding		Estimated Annual Savings	
				Estimated	Source	(£)	CO2
				Cost (£)			(tonnes)
08/001	Leisure & Communities	Douglas Sports Centre Menzieshill NRC + Library Central Library Ardler NRC	Replace existing lamps with low energy lamps.				
	Social Work	Craigie House RHE					
			Total	£4,960	CEEF	£5,588	43.92
08/002	Leisure & Communities	Douglas Sports Centre	Install automatic lighting controls				
	Waste Management	Marchbanks Complex					
08/003			Total	£11,250	CEEF	£2,650	20.86
	Leisure & Communities	Mitchell Street Centre Ardler NRC Douglas Sports Centre	Fit photo electric cell switching internal and external lighting and extract fans				
	Social Work	MacKinnon Centre Craigie House RHE					
			Total	£2100	CEEF	£666	5.25
08/004	Leisure & Communities	Dundee International Sports Complex Central Library Douglas Sports Centre	Modify control system to utilise free cooling when ambient temperature is below 14 Deg C Switch Off run around coil pumps when the exhaust air temperature is above the ambient Re-commission zone controls ensuring that all are operational Fit time control to cooling units.				
			Total	£1,800	CEEF	£4,231	25.32
08/005	Leisure & Communities	Mitchell Street Ardler NRC	Insulate valves & flanges in the boiler house				
			Total	£800	CEEF	£191	1.91
08/006	Leisure & Communities	Central Library					
			Total	£500	CEEF	£172	1.40

Project Number	Department	Buildings	Measure	Funding		Estimated Annual Savings	
				Estimated	Source	(£)	CO2
				Cost (£)			(tonnes)
08/007/8 /9/10/ 11	Leisure & Communities	Ardler NRC Central Library Dundee International Sports Complex Menzieshill NRC + Library Mitchell Street	Install 5kw electric to 12kW Gas CHP unit				
			<b>Total</b>	<b>£100,000</b>	<b>R&amp;R</b>	<b>£7920</b>	<b>62.37</b>
08/012	Social Work	Craigie House RHE	Install CHP Unit estimated load 75kW				
			<b>Total</b>	<b>£17,000</b>	<b>R&amp;R</b>	<b>£2,880</b>	<b>22.68</b>
08/014	Social Work	Turriff House RHE	Install CHP Unit estimated load 75kW				
			<b>Total</b>	<b>£17,000</b>	<b>R&amp;R</b>	<b>£2,880</b>	<b>22.68</b>
08/015	Leisure & Communities	Ardler NRC Douglas Sports Centre Kirkton NRC	Fit Draught Stripping				
	Social Work	MacKinnon Centre					
	Waste Management	Marchbanks Complex					
			<b>Total</b>	<b>£1,900</b>	<b>CEEF</b>	<b>£233</b>	<b>2.33</b>
08/016	Leisure & Communities	Dundee International Sports Complex Douglas Sports Centre Kirkton NRC Lochee Swimming Pool and Library Menzieshill NRC + Library					
	Social Work	Craigie House RHE Friarfield House MacKinnon Centre Turriff House RHE					
	Waste Management	Marchbanks Complex					
			<b>Total</b>	<b>£5,000</b>	<b>CEEF</b>	<b>£602</b>	<b>7.49</b>
08/017	Leisure & Communities	Lochee Swimming Pool and Library	Install heat recovery system				
			<b>Total</b>	<b>£3,500</b>	<b>R&amp;R</b>	<b>£205</b>	<b>2.05</b>

Project Number	Department	Buildings	Measure	Funding		Estimated Annual Savings	
				Estimated	Source	(£)	CO2
				Cost (£)			(tonnes)
08/018	Leisure & Communities	Ardler NRC Central Library Kirkton NRC Lochee Swimming Pool and Library Menziesshill NRC + Library Mitchell Street	Replace existing fluorescent tubes & fittings with a new lighting scheme				
	Social Work	Craigie House RHE MacKinnon Centre					
			Total	£67,250	R&R	£5,149	40.55
08/019	Leisure & Communities	Douglas Sports Centre	Install automatic controls to selected areas to switch off lighting when not occupied				
	Social Work	Craigie House RHE					
	Waste Management	Marchbanks Complex					
			Total	£9,200	R&R	£1,480	9.61
OVERALL TOTAL				£242,260		£34,847	268.42

CEEF – Scottish Executive Public Sector Energy Efficiency Initiative Central Energy Efficiency Fund  
R&R – Renewals & Repairs