

Appendix 1 – Civic Centre

Executive Summary

The Carbon Trust is grant funded by the Department for Environment, Food and Rural Affairs, the Department for Business, Enterprise and Regulatory Reform, the Scottish Executive, the Welsh Assembly Government and Invest Northern Ireland.

This report presents the results of an Opportunities Assessment survey of Gedling Borough Council carried out by Energy Management Solutions Ltd.

The agreed objectives of the Assessment were to identify and prioritise up to 15 actions, meeting a 5 year payback criteria that can be taken by the organisation to save carbon.

The Civic Centre site situated at Arnold covers the administrative buildings operated by Gedling Borough Council, along with a direct services depot.

A summary of the 15 point Action Plan is presented in the table below.

If all the prioritised measures are implemented, the aggregated savings from the measures identified represent a 22% reduction in energy consumption and a 27% reduction in cost or £14,518 which translates into direct cost savings. This is the equivalent of saving £39 per day.

The estimated 2006-2007 basic carbon footprint for Gedling Borough Council Civic Centre site is 4314.9 tCO_{2e} p.a.

The impact of the Climate Change Levy on Gedling Borough Council Civic Centre site is estimated as £1,926 / year.

Action Plan

The recommendations listed below are prioritised, according to payback, with energy management the first priority

Priority	Recommendations	Estimated annual savings					Estimated cost (£)	Payback period (years)	Timescale for implementation and by whom	May be eligible for ECA*
		(£)	CO ₂ (tonnes)	(kWh)						
		1	Turn off fridge, freezers & equipment when not in use (observed at Arnott Hill House)	387	3.2	7,358				
2	Manage the control & operation of office equipment	402	3.3	7,591	200	0.50				
3	Fit automatic controls to lighting at the Civic Centre, Jubilee House, Arnott Hill House and Depot	1,135	9.3	21,600	780	0.69		Yes		
4	Improve practice for identifying leaks on compressed air in depot areas.	473	3.9	9,000	350	0.74				
5	At Arnott Hill convert tungsten lights to compact fluorescent	40	0.3	768	60	1.49				
6	Improve energy management practices	4,034	36.8	118,702	6,375	1.58				
7	Improve control of electric heater in depot areas	189	1.5	3,600	360	1.90		Yes		
8	Convert fluorescent T8 switch start to T5 h.f with conversion kit at Jubilee House, Arnott Hill House and Depot	588	4.8	11,200	1,530	2.60		Yes		
9	Fit insulation to heating valves and joints at Civic Centre, Arnott Hill House and Jubilee House	43	0.5	2,625	150	3.46		Yes		
10	Convert discharge lighting by improving lamp type, fitting electronic ignition control gear at Depot and miscellaneous outside lighting	378	3.1	7,200	1,325	3.50		Yes		

Priority	Recommendations	Estimated annual savings					Estimated cost (£)	Payback period (years)	Timescale for implementation and by whom	May be eligible for ECA*
		(£)	CO ₂ (tonnes)	(kWh)						
		11	Replace 8' fluorescent batten fitting for T5 controller lens batten fittings at depot	607	5.0	11,550				
12	Fit thermostatic valves to radiators in Arnott Hill House	198	2.3	12,000	800	4.04		Yes		
13	Consider intelligent T5 office lighting to replace T8 switch start office lighting at the Civic Centre offices	5,674	46.4	108,000	28,000	4.93		Yes		
14	Plan to renew boiler at Jubilee House for condensing boiler	370	4.3	22,474	1,840	4.98		Yes		
TOTAL		14,518	124.6	343,668	44,055	3.03				

* Please refer to the Site Survey Publication for eligibility details or visit www.carbontrust.co.uk/loans and www.eca.gov.uk/etl