

## ANGUS COUNCIL

## COMMUNITIES COMMITTEE – 16 AUGUST 2016

## ENERGY ANNUAL REPORT 2015/16

## 1. INTRODUCTION

This report presents the end of year status of the energy consumption, carbon emissions and expenditure on energy supplies for the Council non-housing properties for 2015/16. Compared to the 2014/15 outcome it shows a 2.6% reduction in energy consumption, an 8.2% reduction in carbon emissions and a £257,002 reduction in expenditure.

## 2. BACKGROUND

2.1 Report No: 668/10, THE ESTABLISHMENT OF MANAGEMENT ARRANGEMENTS TO FULFIL THE REQUIREMENTS OF THE CARBON REDUCTION COMMITMENT ORDER 2010. Noted and approved by the Strategic Policy Committee at its meeting of 7 September 2010. Recommended management arrangements for establishing and implementing continuing appropriate carbon reduction strategies.

2.2 Report No: 611/11, CORPORATE ENERGY CONSUMPTION AND CARBON EMISSIONS REDUCTION TARGETS, noted and approved by the Strategic Policy Committee at its meeting of 06 September 2011 adopted the following Council uncorrected weather based reduction targets:

- 22.5% carbon dioxide emissions reduction by 2020 compared to the 2010/11 base
- 13.5% energy consumption reduction by 2020 compared to the 2010/11 base

2.3 Service Directorates have provision within their budgets for energy costs. However responsibility for the overall management of these budgets and the provision of budget monitoring information rests with the Head of Technical and Property Services.

2.4 Technical and Property Services currently manages the fuel contracts for all non-housing properties within the Council and maintains an overview, in conjunction with the Corporate Improvement and Finance Services, of the rate of expenditure on the associated budgets.

## 3. CURRENT POSITION

## Energy Consumption

3.1 The energy consumption status, as at 31 March 2016 is detailed in Table 1 and **Appendix 1**, these figures reflect only the consumption made against presented invoices.

<b>Table 1</b>	Total Budget Consumption kWh	Total Actual Consumption kWh	Difference kWh	Percentage Consumption to Budget
2013/14	73,131,049	72,470,181	660,868	99%
2014/15	73,438,726	68,270,033	5,168,963	93%
<b>2015/16</b>	<b>71,920,236</b>	<b>66,493,247</b>	<b>5,426,989</b>	<b>92%</b>
	Reduction between years	-1,776,786	-2.6%	

See **Appendix 1** for the directorate breakdown of Table 1

3.2 Table 1 shows an encouraging 1,776,786 kWh reduction in energy consumption compared with the previous financial year. This equates to a 2.6% reduction which is very good

considering that according to degree days data the past winter was 10% colder than the previous one.

- 3.3 The performance by individual directorates is detailed in **Appendix 1**, where there are significant differences between budgeted and the metered consumption, notes have been added.

### Carbon Emissions

- 3.4 The carbon emissions status, as at 31 March 2016 is detailed in Table 2 and **Appendix 2**, these figures reflect only the carbon emissions associated with the consumption made against presented invoices.

<b>Table 2</b>	Total Budget Emissions kg	Total Actual Emissions kg	Difference kg	Percentage Emissions to Budget
2013/14	23,704,309	23,427,990	276,319	99%
2014/15	24,185,145	22,147,886	2,037,259	92%
<b>2015/16</b>	<b>22,103,827</b>	<b>20,339,102</b>	<b>1,764,725</b>	<b>92%</b>
Reduction between years		-1,808,784	-8.2%	

See **Appendix 2** for the directorate breakdown of Table 2

- 3.5 Table 2 shows an excellent 1,808,784kg reduction in carbon emissions compared to the previous financial year. This equates to an 8.2% reduction.
- 36 The performance by individual directorates, is detailed in **Appendix 2**, where there are significant differences between budgeted and actual emissions, notes have been added.

### Expenditure on Energy

- 3.7 The expenditure status, as at 31 March 2016 is detailed in Table 3 and **Appendix 3**, these figures reflect only the payments made against presented invoices and end of year accruals

<b>Table 3</b>	Budget Volume £	Total Spend £	Difference £	Percentage Spend to Budget
2013/14	£5,516,000	£4,956,348	£559,652	90%
2014/15	£6,055,000	£4,777,966	£1,277,034	79%
<b>2015/16</b>	<b>£5,736,000</b>	<b>£4,520,964</b>	<b>£1,215,036</b>	<b>79%</b>
Reduction between years		-£257,002	-5.4%	

See **Appendix 3** for the directorate breakdown of Table 3

- 3.8 Table 3 shows a reduction of £257,002 in energy expenditure compared to the previous financial year which can be attributed to a combination of a reduction in consumption by street lighting, through the introduction of new energy efficient light fittings, various energy conservation projects and careful management of the building management systems. This equates to a 5.4% reduction.
- 3.9 The performance by individual directorates is detailed in **Appendix 3**, where there are significant differences between the budgeted and spend amounts, notes have been added.
- 3.10 A graph showing the overall progress made towards achieving the Council's 2020 carbon reduction target is detailed in **appendix 4** It shows the outturn position for 2015/16 was significantly below the reduction profile which is extremely encouraging.

## 6. FINANCIAL IMPLICATIONS

- 6.1 Table 3 and **Appendix 3** shows an underspend of £1,215,036 for 2015/16 and a reduction in energy expenditure of £257,002 compared to financial year 2014/15, across the various

energy cost headings. This underspend has been progressed on a managed basis and absorbed within the cash limited budgets available to Council directorates.

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Appendix 1	2015/16 Energy Consumption Status
Appendix 2	2015/16 Carbon Emissions Status
Appendix 3	2015/16 Expenditure on Energy Status
Appendix 4	Overall Carbon Emissions Graph

## Appendix 1 2015/16 Energy Consumption Status

	Actual Consumption per Fuel in kWh						Total (kWh)	Budget (kWh)	% to Budget
	Electricity	Gas	Kerosene	Gas Oil	LPG	Biomass			
People Directorate	11,183,068	20,767,076	642,041	639,900		1,123,508	34,355,593	35,239,251	97%
Chief Executive	421,553	354,992			25,295		801,840	802,829	100%
Resources Directorate	889,869	664,349					1,554,218	1,792,955	87%
Communities Directorate	6,230,094	9,950,510	175,112		31,124	1,273,586	17,660,426	19,940,713	89%
Other Services	18,104						18,104	41,753	43%
<b>Sub Totals</b>	<b>18,742,688</b>	<b>31,736,927</b>	<b>817,153</b>	<b>639,900</b>	<b>56,419</b>	<b>2,397,094</b>	<b>54,390,181</b>	<b>57,817,501</b>	<b>94%</b>
Common Good	22,121						22,121	18,386	120%
Communities Directorate - HRA	1,553,439	3,547,642				303,232	5,404,313	6,084,349	89%
Communities Directorate - Street Lighting	6,676,632						6,676,632	8,000,000	83%
<b>Sub Totals</b>	<b>8,252,192</b>	<b>3,547,642</b>				<b>303,232</b>	<b>12,103,066</b>	<b>14,102,735</b>	<b>86%</b>
<b>Total</b>	<b>26,994,880</b>	<b>35,284,569</b>	<b>817,153</b>	<b>639,900</b>	<b>56,419</b>	<b>2,700,326</b>	<b>66,493,247</b>	<b>71,920,236</b>	<b>92%</b>

Notes:

Generally the reduction in consumption can be attributed to a combination of a reduction in the energy consumption associated with, street lighting, various energy conservation projects and adherence to the heating temperatures and times adopted by the Council.

- a** The large percentage underspend was due to budgetary provisions for Christmas lighting and the former Council Chamber in Kirriemuir not being required. The 2016/17 budgets have been adjusted accordingly.
- b** The additional energy consumption was due in the main a faulty time switch for the external lighting for the Balmashanner Memorial. The switch has since been replaced.

## Appendix 2 2015/16 Carbon Emissions Status

	Actual Emissions per Fuel in kg						Total (kg)	Budget (kg)	% to Budget	
	Electricity	Gas	Kerosene	Gas Oil	LPG	Biomass				
People Directorate	5,550,829	3,822,597	157,067	162,894		29,211	9,722,598	9,957,014	98%	
Chief Executive	209,242	65,343			5,418		280,003	270,410	104%	a
Resources Directorate	441,695	122,287					563,982	692,863	81%	
Communities Directorate	3,092,369	1,831,590	42,839		6,666	33,113	5,006,577	5,443,465	92%	
Other Services	8,986						8,986	20,725	43%	b
<b>Sub Totals</b>	<b>9,303,121</b>	<b>5,841,817</b>	<b>199,906</b>	<b>162,894</b>	<b>12,084</b>	<b>62,324</b>	<b>15,582,146</b>	<b>16,384,477</b>	<b>95%</b>	
Common Good	10,980						10,980	9,126	120%	c
Communities Directorate - HRA	771,065	653,014				7,884	1,431,963	1,739,344	82%	
Communities Directorate - Street Lighting	3,314,013						3,314,013	3,970,880	83%	
<b>Sub Totals</b>	<b>4,096,058</b>	<b>653,014</b>				<b>7,884</b>	<b>4,756,956</b>	<b>5,719,350</b>	<b>83%</b>	
<b>Total</b>	<b>13,399,179</b>	<b>6,494,831</b>	<b>199,906</b>	<b>162,894</b>	<b>12,084</b>	<b>70,208</b>	<b>20,339,102</b>	<b>22,103,827</b>	<b>92%</b>	

Generally the reduction in consumption can be attributed to a combination of a reduction in the energy consumption associated with, street lighting, various energy conservation projects and adherence to the heating temperatures and times adopted by the Council.

- a The additional carbon emissions can be attributed to a greater than anticipated heating demand in the offices at the Cross.
- b The large percentage underspend was due to budgetary provisions for Christmas lighting and the former Council Chamber in Kirriemuir not being required. The 2016/17 budgets have been adjusted accordingly.
- c The additional energy consumption was due in the main a faulty time switch for the external lighting for the Balmashanner Memorial. The switch has since been replaced.

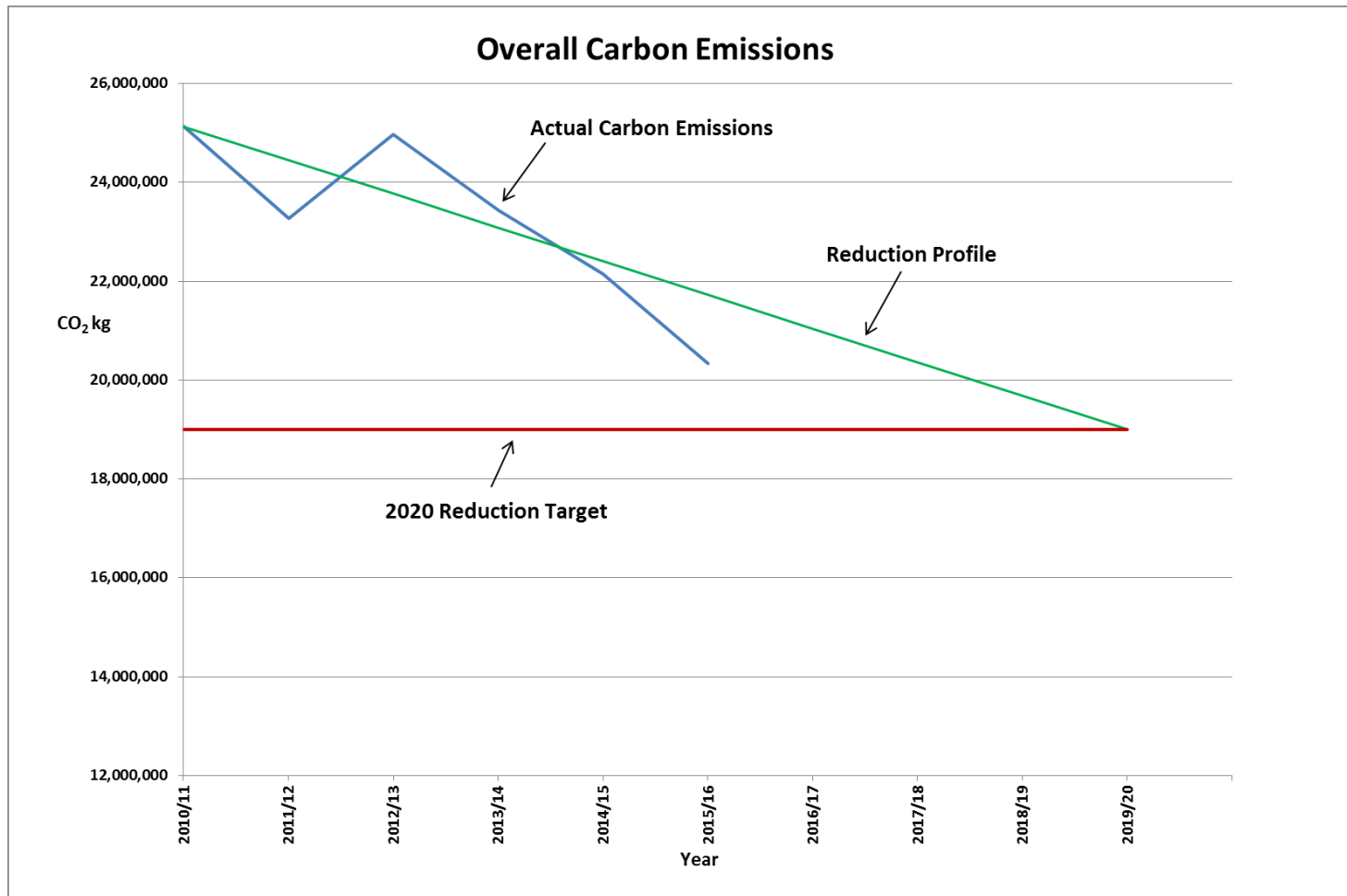
## Appendix 3 2015/16 Expenditure on Energy Status

	<i>Actual Expenditure per Fuel in £</i>					<i>Total (£)</i>	<i>Budget (£)</i>	<i>% to Budget</i>	
	<i>Electricity</i>	<i>Gas</i>	<i>Oil</i>	<i>LPG</i>	<i>Biomass</i>				
<i>Centralised Energy Management</i>						£95,835	£148,000	65%	a
<i>Central Energy Efficiency Fund</i>	£49,883	£18,685	£964	£42		£69,574	£69,000	101%	
<i>People Directorate</i>	£1,308,980	£593,028	£39,545	£0	£76,950	£2,018,503	£2,462,000	82%	
<i>Chief Executive</i>	£51,957	£10,919		£2,198		£65,074	£74,000	88%	
<i>Resources Directorate</i>	£107,039	£19,960				£126,999	£179,000	71%	
<i>Communities Directorate</i>	£746,040	£287,363	£5,222	£2,758	£55,238	£1,096,621	£1,392,000	79%	
<i>Other Services</i>	£3,050					£3,050	£7,000	44%	b
<b>Sub Totals</b>	<b>£2,266,949</b>	<b>£929,955</b>	<b>£45,731</b>	<b>£4,998</b>	<b>£132,188</b>	<b>£3,475,656</b>	<b>£4,331,000</b>	<b>80%</b>	
<i>Common Good</i>	£2,813	£63				£2,876	£5,000	58%	c
<i>Communities Directorate - HRA</i>	£179,739	£104,245			£15,240	£299,224	£408,000	73%	
<i>Communities Directorate - Street Lighting</i>	£743,208					£743,208	£992,000	75%	
<b>Sub Totals</b>	<b>£925,760</b>	<b>£104,308</b>			<b>£15,240</b>	<b>£1,045,308</b>	<b>£1,405,000</b>	<b>74%</b>	
<b>Total</b>	<b>£3,192,709</b>	<b>£1,034,263</b>	<b>£45,731</b>	<b>£4,998</b>	<b>£147,428</b>	<b>£4,520,964</b>	<b>£5,736,000</b>	<b>79%</b>	

### Notes:

- a The Centralised Energy Management overall budget is £148,000 of which £50,000 was allocated to cover unforeseen in year increases in the pass through charges. Taking this into account the percentage spend on the remaining budget was 98%.
- b The underspend was due to budgetary provisions for Christmas lighting and the former Council Chamber in Kirriemuir not being required. The 2016/17 budgets have been adjusted accordingly.
- c The lower than anticipated percentage spend is due to utility bills not being submitted prior to the end of the financial year.

## Appendix 4 Overall Carbon Emissions Graph



The graph shows good progress is being made towards achieving the 2020 carbon reduction target.