

**POLICY AND RESOURCES COMMITTEE – 8 DECEMBER 2020**

**INFORMATION REPORT FOR THE PERIOD APRIL 2019 TO MARCH 2020**

**ENERGY ANNUAL REPORT 2019/20**

**1. INTRODUCTION**

- 1.1 This report presents the end of year status of the energy consumption, carbon emissions and expenditure on energy supplies for the Councils non-housing properties for 2019/20. Compared to the 2018/19 outcome it shows a 1.3% reduction in energy consumption and a 7% reduction in carbon emissions.

**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

Report No: 294/15, CORPORATE CARBON DIOXIDE AND ENERGY CONSUMPTION REDUCTION TARGETS, noted and approved by the Communities Committee at its meeting of 18 August 2015, adopted increased targets from 2016/17 to 2019/20. The carbon emissions target was increased from 2.5% to 3% per annum and the energy consumption target increased from 1.5% to 2.5% per annum, for the remaining four years.

Since both targets have been met, new targets based on the Scottish Governments Climate Change (Emission Reduction Targets) (Scotland) Act 2019 are to be agreed. In May 2019, the Scottish Government lodged an amendment to the Climate Change Scotland Act 2009 to increase the emissions target to 'net zero' by 2045. This was on the back of the Scottish Government declaring a 'Climate Emergency' in April 2019.

In September 2019 the Climate Change (Emission Reduction Targets) (Scotland) Act was passed; it amends the Climate Change (Scotland) Act 2009 target to 'net zero' CO<sub>2</sub> emissions by 2045 and sets interim CO<sub>2</sub> emissions reduction targets of 56% by 2020, 75% by 2030 and 90% by 2040 from the 1990 baseline for carbon dioxide, methane and nitrous oxide emissions. In order to deliver these requirements a committee report will be prepared in 2021 setting new annual targets, identifying how the Council will assist in meeting these ambitious figures and where required make the appropriate capital fund bids.

- 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 Director of Infrastructure.

- 2.4 Assets 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 2020 is detailed in Table 1 and **Appendix 1**, these figures reflect only the consumption made against presented invoices.

Table to follow showing Total Budget Consumption, Total Actual Consumption, Difference and percentage to budget by year. The table has 5 columns. First row has headings with 5 rows to follow, last row shows Change between years.

<b>Table 1</b>	Total Budget Consumption kWh	Total Actual Consumption kWh	Difference kWh	Percentage Consumption to Budget
2016/17	71,364,359	63,300,290	8,064,069	89%
2017/18	67,934,916	63,094,237	4,840,679	93%
2018/19	65,624,820	58,207,839	7,416,981	89%
<b>2019/20</b>	<b>64,919,188</b>	<b>57,473,453</b>	<b>7,445,735</b>	<b>89%</b>
<b>Blank</b>	Change between years	<b>-734,386</b>	<b>-1.3%</b>	<b>Blank</b>

End table.

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

- 3.2 Table 1 shows a 734,386 kWh reduction in energy consumption which equates to a 1.3% reduction compared with the previous financial year.
- 3.3 The performance by individual directorates is detailed in **Appendix 1**, notes have been added where there are significant differences between budgeted and the metered consumption.

#### Carbon Emissions

- 3.4 The carbon emissions status, as at 31 March 2020 is detailed in Table 2 and **Appendix 2**, these figures reflect only the carbon emissions associated with the consumption made against presented invoices.

Table to follow showing Total Budget Emissions, Total Actual Emissions, Difference and percentage to budget by year. The table has 5 columns. First row has headings with 5 rows to follow, last row shows Change between years.

<b>Table 2</b>	Total Budget Emissions kg	Total Actual Emissions kg	Difference kg	Percentage Emissions to Budget
2016/17	20,234,096	18,007,127	2,226,969	89%
2017/18	17,131,623	16,123,124	1,008,499	94%
2018/19	14,564,211	13,336,819	1,227,392	92%
<b>2019/20</b>	<b>13,670,692</b>	<b>12,408,631</b>	<b>1,262,061</b>	<b>91%</b>
<b>Blank</b>	Change between years	<b>-928,188</b>	<b>-7.0%</b>	<b>Blank</b>

End table.

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

- 3.5 Table 2 shows a 928,188 kg reduction in carbon emissions compared to the previous financial year. This equates to a 7% reduction. The reduction is due to a combination of reduced energy consumption and a reduction in the conversion factor for electricity as the electricity generation becomes more decarbonised.
- 3.6 The performance by individual directorates, is detailed in **Appendix 2**, notes have been added where there are significant differences between budgeted and actual emissions.

- 3.7 A graph showing the overall progress made towards achieving the Council's carbon reduction target is detailed in **Appendix 4**. The graph shows that the Council has achieved its target three years ahead of profile. This was due to a combination of reduced energy consumption and a large reduction in the conversion factor for the generation of electricity which takes account of the increased use of sources of renewable electricity generation.

The Climate Change (Emission Reduction Targets) (Scotland) Act passed in September 2019 set an interim CO<sub>2</sub> emissions reduction target of 56% by 2020 based on the 1990 baseline. The Council has achieved a 50.2% reduction from our baseline set in 2010/11 which exceeds the Scottish Government targets.

### Expenditure on Energy

- 3.8 The expenditure status, as at 31 March 2020 is detailed in Table 3 and **Appendix 3**, these figures reflect only the payments made against presented invoices and end of year accruals

Table to follow showing Budget Volume, Total Spend, Difference and percentage spend to budget by year. The table has 5 columns. First row has headings with 5 rows to follow, last row shows Change between years.

<b>Table 3</b>	Budget Volume £	Total Spend £	Difference £	Percentage Spend to Budget
2016/17	£5,174,562	£4,533,876	£640,686	88%
2017/18	£4,786,000	£4,542,256	£243,744	95%
2018/19	£4,971,464	£4,533,223	£438,241	91%
<b>2019/20</b>	<b>£5,085,402</b>	<b>£4,595,612</b>	<b>£489,790</b>	<b>90%</b>
<b>Blank</b>	Change between years	<b>£62,389</b>	<b>1.38%</b>	<b>Blank</b>

End table.

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

- 3.9 Table 3 shows an underspend compared to the budget of £489,790 for 2019/20 and an increase of £62,389 in energy expenditure compared to the previous financial year. This is due to the annual increase in energy costs.
- 3.10 The performance by individual directorates is detailed in **Appendix 3**, notes have been added where there are significant differences between the budgeted and spend amounts

## 4. FINANCIAL IMPLICATIONS

- 4.1 Table 3 and **Appendix 3** shows an underspend of £489,790 for 2019/20, compared to the budget, and an increase in energy expenditure of £62,389 compared to financial year 2018/19, 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.

**REPORT AUTHOR – Gavin Balfour – Service Leader Assets**  
**E-mail: Assets@angus.gov.uk**

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## Appendix 1 2019/20 Energy Consumption Status

### Actual Consumption per Fuel in kWh

Table to follow showing Consumption in kWh by Directorate each fuel identified separately with Total, Budget and percentage to Budget headings. The table has 10 columns. First row has headings with 13 rows to follow, row 8 contains sub-totals, row 12 contains sub-totals, last row contains totals.

Directorate	Electricity	Gas	Kerosene	Gas Oil	LPG	Biomass	Total (kWh)	Budget (kWh)	% to Budget
Schools & Learning and Children, Families & Justice	8,957,378	18,921,749	586,925	469,166	0	482,585	29,417,803	31,993,973	92%
Angus Health & Social Care Partnership	993,895	2,518,463	0	0	0	34,344	3,546,702	3,529,175	100%
Strategic Policy, Transformation, Infrastructure and Communities	4,494,292	6,487,815	71039	0	30,715	491,200	11,575,061	14,553,446	80%
HR, Digital Enablement & Business Support	300,959	0	0	0	0	0	300,959	353,179	85%
Legal & Democratic	0	46,262	0	0	0	0	46,262	43,652	106%
Facilities Management	1,585,415	2,075,031	0	0	0	0	3,660,446	4,573,197	80%
Other Services	4,035	0	0	0	0	0	4,035	39,432	10%
<b>Sub Totals</b>	<b>16,335,974</b>	<b>30,049,320</b>	<b>657,964</b>	<b>469,166</b>	<b>30,715</b>	<b>1,008,129</b>	<b>48,551,268</b>	<b>55,086,054</b>	<b>88%</b>
Common Good	20,207	0	0	0	0	0	20,207	24,216	83%
Communities - HRA	1,523,735	3,817,864	0	0	0	29,256	5,370,855	5,408,917	99%
Place Directorate - Street Lighting	3,531,124	0	0	0	0	0	3,531,124	4,400,000	80%
<b>Sub Totals</b>	<b>5,075,066</b>	<b>3,817,864</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>29,256</b>	<b>8,922,186</b>	<b>9,833,133</b>	<b>91%</b>
<b>Total</b>	<b>21,411,040</b>	<b>33,867,184</b>	<b>657,964</b>	<b>469,166</b>	<b>30,715</b>	<b>1,037,385</b>	<b>57,473,454</b>	<b>64,919,187</b>	<b>89%</b>

End table.

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.

Other services: The large percentage underspend in Other Services was due to consumption for Christmas lighting being included in the street lighting budget.

## Appendix 2 2019/20 Carbon Emissions Status

### Actual Emissions per Fuel in kg CO<sub>2</sub>

Table to follow showing Emissions in kg CO<sub>2</sub> by Directorate each fuel identified separately with Total, Budget and percentage to Budget headings. The table has 10 columns. First row has headings with 13 rows to follow, row 8 contains sub-totals, row 12 contains sub-totals, last row contains totals.

Directorate	Electricity	Gas	Kerosene	Gas Oil	LPG	Biomass	Total (kg CO <sub>2</sub> )	Budget (kg CO <sub>2</sub> )	% to Budget
Schools & Learning and Children, Families & Justice	2,464,264	3,472,330	144,043	119,003	0	7,543	6,207,183	6,642,823	93%
Angus Health & Social Care Partnership	273,430	462,163	0	0	0	537	736,130	712,473	103%
Strategic Policy, Transformation, Infrastructure and Communities	1,236,425	1,190,579	17,434	0	6578	7677	2,458,693	2,835,994	87%
HR, Digital Enablement & Business Support	82,797	0	0	0	0	0	82,797	97,163	85%
Legal & Democratic	0	8,490	0	0	0	0	8,490	8,011	106%
Facilities Management	436,164	380,789	0	0	0	0	816,953	1,036,388	79%
Other Services	1,110	0	0	0	0	0	1,110	10,848	10%
<b>Sub Totals</b>	<b>4,494,190</b>	<b>5,514,351</b>	<b>161,477</b>	<b>119,003</b>	<b>6,578</b>	<b>15,757</b>	<b>10,311,356</b>	<b>11,343,700</b>	<b>91%</b>
Common Good	5,559	0	0	0	0	0	5,559	6,662	83%
Communities - HRA	419,195	700,616	0	0	0	457	1,120,268	1,109,846	101%
Place Directorate - Street Lighting	971,448	0	0	0	0	0	971,448	1,210,484	80%
<b>Sub Totals</b>	<b>1,396,202</b>	<b>700,616</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>457</b>	<b>2,097,275</b>	<b>2,326,992</b>	<b>90%</b>
<b>Total</b>	<b>5,890,392</b>	<b>6,214,967</b>	<b>161,477</b>	<b>119,003</b>	<b>6,578</b>	<b>16,214</b>	<b>12,408,631</b>	<b>13,670,692</b>	<b>91%</b>

End table.

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.

Other services: The large percentage underspend in Other Services was due to consumption for Christmas lighting being included in the street lighting budget.

## Appendix 3 2019/20 Expenditure on Energy Status

### Actual Expenditure per Fuel in £

Table to follow showing Expenditure in £ by Directorate/ Budget each fuel identified separately with Total, Budget and percentage to Budget headings. The table has 9 columns. First row has headings with 15 rows to follow, row 10 contains sub-totals, row 14 contains sub-totals, last row contains totals.

Directorate	Electricity	Gas	Oil	LPG	Biomass	Total (£)	Budget (£)	% to Budget
Centralised Energy Management						£48,345	£50,000	97%
SALIX - Energy Efficiency Fund	£109,398	£8,583				£117,981	£117,981	100%
Schools & Learning and Children, Families & Justice	£1,373,156	£573,244	£45,721		£55,036	£2,047,157	£2,185,828	94%
Angus Health & Social Care Partnership	£148,315	£71,286			£2,139	£221,740	£247,457	90%
Strategic Policy, Transformation, Infrastructure and Communities	£664,122	£191,818	£4,475	£2,575	£26,352	£889,342	£1,056,444	84%
HR, Digital Enablement & Business Support	£40,709					£40,709	£45,284	90%
Legal & Democratic		£2,471				£2,471	£1,785	138%
Facilities Management	£230,912	£63,208				£294,120	£390,973	75%
Other Services	£4,483	-£303				£4,180	£7,123	59%
<b>Sub Totals</b>	<b>£2,571,095</b>	<b>£910,307</b>	<b>£50,196</b>	<b>£2,575</b>	<b>£83,527</b>	<b>£3,666,045</b>	<b>£4,102,875</b>	<b>89%</b>
Common Good	£1,975	£371				£2,346	£4,451	53%
Communities - HRA	£250,230	£134,496			£1,822	£386,548	£375,616	103%
Place Directorate - Street Lighting	£540,673					£540,673	£602,460	90%
<b>Sub Totals</b>	<b>£792,878</b>	<b>£134,867</b>	<b>£0</b>	<b>£0</b>	<b>£1,822</b>	<b>£929,567</b>	<b>£982,527</b>	<b>95%</b>
<b>Total</b>	<b>£3,363,973</b>	<b>£1,045,174</b>	<b>£50,196</b>	<b>£2,575</b>	<b>£85,349</b>	<b>£4,595,612</b>	<b>£5,085,402</b>	<b>90%</b>

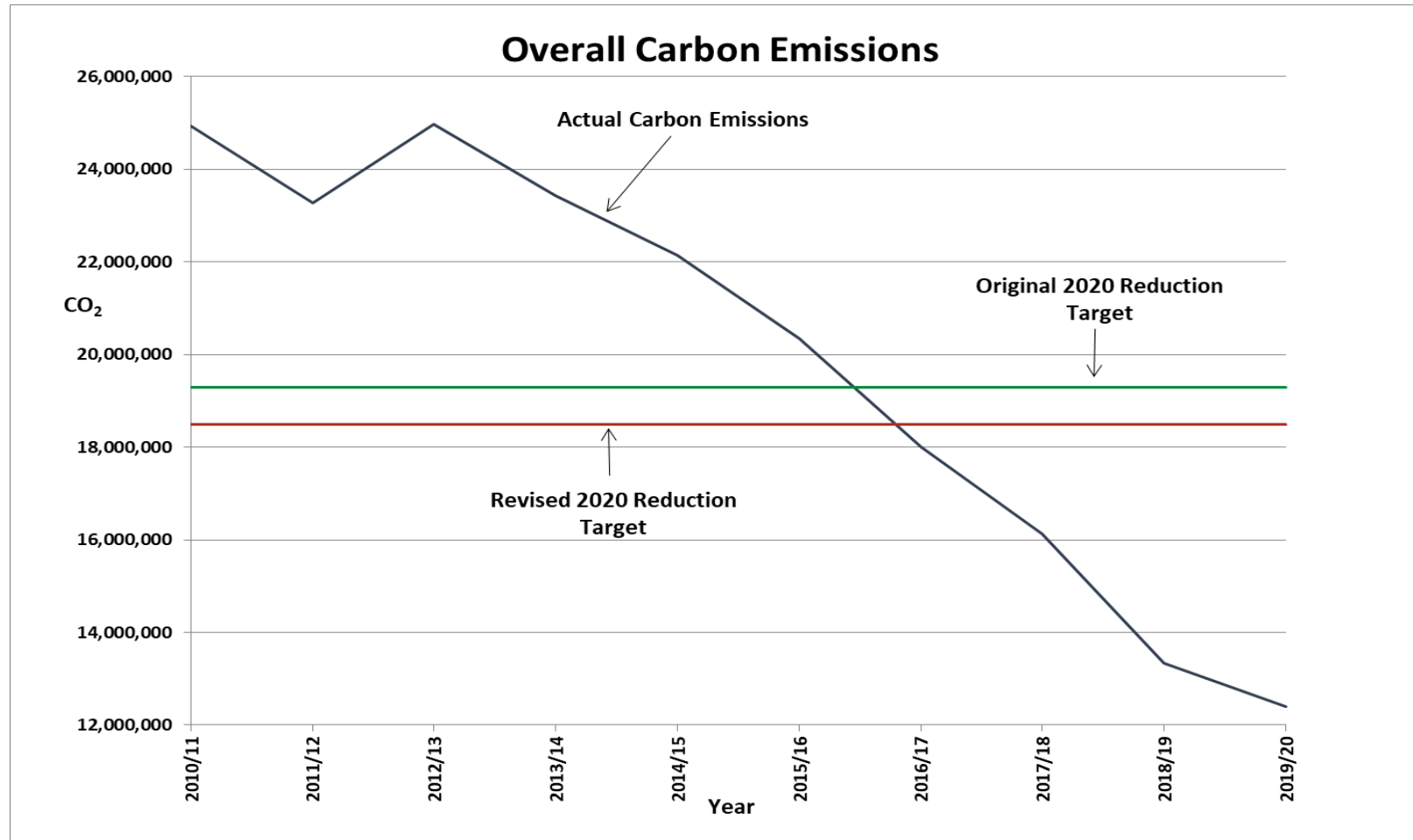
End table.

Notes:

Legal and Democratic – Digital Reprographics Unit. Higher than budgeted consumption led to increase costs.

Other Services and Common Good – Reduction in on use on small budget areas resulting in minor underspends.

## Appendix 4 Overall Carbon Emissions Graph



The graph shows that the 2020 carbon reduction target has been achieved. The rapid reduction was due to a combination of reduced energy consumption and the large reduction in the conversion factor for the generation of electricity which takes account of the increased use of sources of renewable electricity generation.