

# SCRUTINY OF ANNUAL EMISSIONS

To -	Scrutiny Management Team
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Date of meeting – 21<sup>st</sup> November, 2017

Notes of - Strategic Director

## ANALYSIS OF 2016/17 PBC ENERGY TRENDS

### PURPOSE OF REPORT

To provide an overview of our annual 2016/17 energy data (building stock).

### INTRODUCTION

- 1. Initially instigated through the now redundant NI 185, we have a system in place to calculate our carbon footprint. This system has proved valuable for the preparation of our Annual Emissions Report, which we publish every July.
- 2. Our Annual Emissions report 2016/17 showed an overall increase of 5% and we did not meet our carbon reduction targets of 2% for our building stock. The purpose of this report is to provide a further breakdown of this energy data and to explore possible explanations for this increase.
- 3. The report focuses on the buildings within PBC control given that this is where the significant increases were noted. It does not include an analysis of our wider carbon footprint (which includes fleet emissions, staff travel, PLT & Liberata buildings and PLT& Liberata staff travel) as captured in our Annual Emissions Report.
- 4. In 2016/17, the emissions generated from PBC buildings totalled 473 tonnes of CO2, compared to 540 tonnes the previous year, an overall increase of 14%:

PBC	2015/16	2016/17	% Difference
Gas	232	287	23
Electricity	241	253	5
Building Stock Total	473	540	14%

#### **Energy Trends**

5. Although our electricity usage increased overall by 5%, reductions were recorded for our admin buildings, with Nelson Town Hall reducing its electricity consumption by 6% and Elliott House remaining the same. However, increases were noted in our pavilion stock, the most significant increases being:

Electricity usage by building category 2015/16 to 2016/17 (Kwh per annum)

Electricity	2015/16 KwH	2016/17 KwH	Difference %
Pavilions			
Alkincoats	5625	13606	142
Bullholme	7173	8251	15
Parsons Clough	1964	3041	55
Sough Park	1503	2164	44
Swindon	1937	2679	38
Thomas Street Bowls	987	4452	351
Trawden Sports	8705	11155	28
Victory Park	18039	23916	33
TOTAL			31

6. Our overall gas usage across our building stock increased by 23%. The main increases were seen in our admin buildings and pavilions, as indicated below:

Gas	2015/16	2016/17	Difference
	KwH	KwH	%
Admin buildings			
Nelson Town Hall	234704	307170	31
Elliott House	115211	147169	28
TOTAL			29
Pavilions			
Bullholme	47360	67135	42
Edge End	27366	29646	8
Holt House Pavilion	38832	51238	32
Swindon Pavilion	55353	80302	45
Victory Park Pavilion	58215	77452	33
TOTAL			35

7. We have no direct management of pavilion usage as they are very much demand led. Over recent years we have seen as increase in pavilion usage with various clubs using these facilities outside the usual football/ cricket usage of old. Property Services are working with Parks to discuss options to better manage energy use in our pavilions, looking at 'smart' on-line controls to see if these can be installed at relatively low cost.

- 8. In previous years, we have steadily tried to reduce the heating time periods in our admin buildings, along with dropping the operating temps in line with good practice. However, last year, following complaints from staff the heating times in Nelson Town Hall was extended by 1 hour from November onwards, from the previous year's settings.
- 9. There is a fine balance between conservation of energy and comfort and if Property Services are instructed to alter times and temperatures, they have to comply.
- 10. Due to the nature of the system the operating temperature of one of the zones in Nelson Town Hall has been increased to ensure heat gets round the planning section – this is an inherent problem due to single pipe system and not easily overcome without whole scale redesign of the system.
- 11. Elliott House has experienced similar issues and has increased its heating times by 30 minutes over the day.
- 12. Dates of when boilers are turned back on and any changes to heating times are now logged by Property Services.

#### Summary

13. Although fuel consumption from our building stock increased over the reporting period, possible reasons have been identified and actions will be taken to attempt to reverse the pattern over 2017/18.

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