Communities and Housing Scrutiny Committee

Meeting date: Monday, 17 January 2022

EPC RATINGS ON NEW RESIDENTIAL DEVELOPMENTS

Report of the Director (Place Management)

1 INTRODUCTION

1.1 At its meeting on 22 November 2021, whilst considering the CAN report, the Chair of the Communities and Housing Scrutiny Committee requested that further information on EPCs (Energy Performance Certificates) be provided as follows:

EPC Ratings

The committee noted the information that had been included within the CAN report, however the Chair requested further information specifically on new homes that had been built and the EPC rating they were being delivered with. Specific reference was made to the example of flats built 5 or 10 years ago compared with those being built today.

1.2 This report provides the information requested together with an analysis and explanation of the results.

2 EPC RATINGS ON NEW RESIDENTIAL DEVELOPMENTS

2.1 EPC assessments were introduced by Government over 15 years ago to provide a 'whole house' assessment on the thermal efficiency/hot water and heating requirements of a property. The methodology behind the assessment was devised by the Building Research Establishment and considers a range of factors to create a numerical score, which for ease of understanding is then translated into an A-G rating, with A being the most efficient. It is important to note that the assessment focusses on thermal efficiency, ventilation and heating/hot water systems which take account of the cost of that fuel rather than the carbon production. EPCs are provided and registered on a centralised system for properties that are offered for sale or rent, or at key points associated with the installation of certain energy saving or carbon reduction measures such as the installation of cavity wall insulation. Once produced, EPCs have a 10 year 'life', although new assessments can be undertaken at any time. An EPC rating of A-C is generally accepted as being 'good'.

2.2 The following tables have been developed following analysis of Government published data on registered EPCs for new dwellings in Stockport over the last 5 years

Houses – EPC Certificates				
	A	**B**	**C**	**D-G**
2017	0.7%	98.0%	1.2%	0.0%

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2018	0.7%	97.8%	1.5%	0.0%
2019	2.0%	94.1%	3.9%	0.0%
2020	0.0%	97.1%	2.9%	0.0%
2021	5.4%	91.4%	0.5%	2.7%

This table clearly illustrates that for houses classed as a new dwelling, each year has consistently returned a grading of A or B for over 96% of the properties that have lodgements made. The 2.7% recorded as being below a C rating refers to 5 houses (please see 3.4 below).

Table 2

Flats – EPC Certificates				
	A	**B**	**C**	**D-G**
2017	0.0%	44.8%	28.7%	26.4%
2018	0.0%	47.6%	46.6%	5.8%
2019	0.0%	23.1%	30.9%	46.0%
2020	0.0%	59.9%	19.0%	21.1%
2021	0.0%	56.9%	24.1%	19.0%

The level of consistency recorded for houses has not been matched for flats as illustrated in Table 2. Whilst the majority of flats classed as new dwellings do achieve an A-C grading there has been significant fluctuation over the years with a low point in 2019 when 46% of units failed to reach an EPC rating of A-C (please see 3.3 below).

3 ENERGY EFFICIENCY REQUIREMENTS FOR NEW RESIDENTIAL DEVELOPMENTS

3.1 The requirements relating to the energy efficiency of new build residential developments are contained within the Building Regulations. The Building Regulation approach is to require an elemental approach to the structure, with maximum heat loss standards being allowed for each of the key components. These standards are referred to as ‘U’ values and are measured in watts/metre squared. The lower the ‘U’ value, the better the levels of insulation. Over the years, as Building Regulations have been updated, the elemental requirements have improved which in turn has resulted in more energy efficient homes being built. As a result, improvements in the energy efficiency of new dwellings tends to follow updates in Building Regulation requirements, although a very small number of dwellings are produced to much higher standards than regulations require (for example Passivhaus). The table below shows how changes in the Building Regulations have resulted in improvements in the energy efficiency of the different

elements. Please note, the highlighted cells indicate the first time the element was required to meet a set standard.

Component	1970	1980	1990	2000	2010	2013 (2016 amended)
Wall	1.6	1.0	0.60	0.45	0.30	0.18
Ceiling	1.5	0.68	0.40	0.35	0.20	0.13
Floor	1.2	1.2	1.2	0.51	0.22	0.13
Window/door	4.8	4.8	4.8	3.1	2.0	1.4

3.2 This difference in approach helps to explain the registered EPC ratings for new build dwellings. As there have been no increase in Building Regulation requirements related to energy efficiency of components since 2016, the standard of houses has remained fairly static over the last 5 years, with the vast majority meeting a rating of A-C. Further changes to Building Regulations related to energy efficiency and fuel use are proposed to be implemented in 2022 and again in 2025.

3.3 The position with flats is more complex, and in practice relates to the way that the assessment calculates the EPC score and rating. A significant proportion of flats developed over the last 10 years have relied upon standard tariff electric to heat the property (usually through fixed thermostatically controlled and programmable heaters) and to provide the hot water (usually through immersion heaters and hot water cylinders). Whilst for modern well insulated flats, with limited external surfaces, this is perfectly acceptable and affordable for occupants, the EPC assessment scores standard tariff electric for heating and hot water particularly poorly, with modern mains gas central heating scoring exceptionally well. The reason for this, relates to the origins of the EPC and affordability, and recognises that electricity is approximately four times more expensive than gas (per kwh). The EPC does not, of course, recognise the additional costs in providing, servicing and maintaining gas boilers which ultimately would add to the costs for residents, and offsets the additional cost of the electricity. As a result, the EPC results show a significant number of units with ‘poor’ EPC ratings despite the fact they are new and meet building regulation requirements.

3.4 Direct analysis of the published EPC assessments on the government’s website (https://www.gov.uk/find-energy-certificate) relating to the 5 houses with ratings below C, has confirmed that the reason for the low ratings, as with the flats, relates directly to the form of heating as follows:

- two are barn conversions in rural ‘off gas’ locations and have utilised LPG central heating systems. LPG also scores particularly poorly on the EPC assessment
- one is a conversion of an existing commercial building to create a ‘small’ house but with standard tariff electric heating
- two are adjacent new build small houses on a ‘gap’ site again using standard tariff electric heating

3.5 The EPC assessment methodology was last updated circa 2012, and it is understood the Building Research Establishment are currently reviewing the calculations and may release a further update in the near future. It is not known whether any proposed update will address the highlighted anomalies related to the use of fossil fuels.

4 RECOMMENDATION

4.1 Scrutiny Committee is asked to note and comment on the report.

BACKGROUND PAPERS

There are none

Anyone wishing to inspect the above background papers or requiring further information should contact Andy Kippax on Tel: 0161 474 4319 or by email on andy.kippax@stockport.gov.uk