Appendix G

Saltash Housing Evidence Report: Heat Mapping Assessment Results

Introduction

This Appendix sets out the results of a brief desk based assessment of sustainable energy opportunities in relation to any future growth areas around the town of Saltash. The following table indicates an initial assessment of the potential for each cell to link into or support a potential decentralised energy or district heating network providing renewable or low carbon energy for both new and existing communities.

A heat map of Cornwall has been prepared. The heat map covers all of Cornwall's towns and shows the heat demand generated by domestic and (some) non domestic buildings e.g. industrial and public buildings such as schools. If the average heat demand or usage of parts of the existing urban area is over 3000kW/m2 then evidence demonstrates that there is sufficient heat demand or usage to enable a district scale heat network to be viable. By assessing the existing heat demand of built areas within the town and noting proximity between important anchor load buildings such as schools; industrial uses; leisure centres (which have a high heat demand) a picture can then be pieced together showing the potential for a heat network within a given area.

Evidence demonstrates that where new development is able connect to a decentralised heat main the costs of the requirements for developers to meet higher standards of the Code for Sustainable Homes and the increasingly stringent Part L of the Building Regulations is reduced – i.e. a community or neighbourhood scale approach to supplying renewable or low carbon energy is a cheaper solution than seeking an approach that focuses on individual properties.

This assessment and table sets out an initial assumption in relation to the location of each of the potential urban extension cell areas i.e. its proximity in relation to areas of existing high heat demand areas and so called 'anchor load' buildings (individual building with high demand for heat) within the built area of the town to determine whether a cell area has the following:

- Good opportunity to link into a potential district heat network
- Limited opportunity to link into a potential district heat network - unlikely but requires further assessment
- Poor or no potential to link into a potential district heat network - highly unlikely to be a viable area to support district heating due to low heat demand and or large distances between the new development and existing heat loads

The assessment is not seeking to discount any cells based on its potential or lack of, but will enable the information to be considered as a strength or a weakness of a cell which can be highlighted along with other considerations when consultation takes place regarding potential options for future growth of the town.

Related and more detailed work is being progressed by officers within the Planning and Regeneration Service to assess the potential for renewable or low carbon energy opportunities within Cornwall; a key element of which is exploring the potential for district scale heating networks to supply both existing and new development. This brief Town Framework Plan assessment is intended as providing a link into this more detailed work so renewable or low carbon energy opportunities can be explored at an early stage when determining potential locations for future growth within and adjoining Cornwall's towns.

Saltash Heat Mapping Assessment – Urban Extension Assessment Table & Map

Table 1 sets out the results of each cell using the following assessment criteria.

- Good opportunity to link into a potential district heat network – ***the cell is scored green***
- Limited opportunity to link into a potential district heat network - unlikely but requires further assessment – ***a cell is scored yellow***
- Poor or no potential to link into a potential district heat network - highly unlikely to be a viable area to support district heating due to low heat demand and or large distances between the new development and existing heat loads – ***a cell is scored red***

Figure 1 shows standalone buildings which are potential anchor loads and summary heat mapping assessment results.

Summary of Results

Cells which demonstrate greatest potential to support DH scheme
No Cells perform very well

Cells showing some potential but with limitations/constraints
Cells 5, 6, 9 and 10

Cells that would be unlikely to support/connect to a viable DH scheme
Cells 1, 2, 3, 4, 7 and 8.

Table 1: Heat Mapping Assessment Results

Cell No	Saltash - Commentary	Score
Cell 1	A large area. The A 38 runs south of the cell. There are no viable residential heat loads. Close by however are Saltash Parkways industrial estate and Moorlands trading estate (not pricked up on heat map) which may be worth investigating before discounting completely.	R
Cell 2	There are no viable heat loads in the vicinity. Tamar industrial estate wraps around the cell (not pricked up on heat map) but may be worth investigating before discounting completely.	R
Cell 3	There are no viable heat loads in close proximity. The cell is separated by the A38.	R
Cell 4	There are no viable heat loads in the vicinity.	R
Cell 5	A large area - there is a secondary school and a primary school directly adjacent at the north of the cell. There is also a small area of viable residential.	Y
Cell 6	There is a viable area of residential at the north of the cell – there is also a school, area may be worth further analysis?	Y
Cell 7	A large area peripheral form the main town – no viable heat loads in vicinity.	R
Cell 8	A large area peripheral form the main town – no viable heat loads in vicinity	R
Cell 9	There are two areas of viable heat load to the east of the cell – further analysis may be required.	Y
Cell 10	There is an area of viable residential east of the cell, the Saltash Parkway industrial Estate also in proximity – further analysis may be required.	Y

Figure 1: Map illustrating standalone buildings which are potential anchor loads and the heat mapping scores for each Cell.