The Cranbrook Plan: Examination

Matter 16 Subject Specific Policies

Statement on Behalf of East Devon New Community partners

DAVID LOCK ASSOCIATES

Matter 16 – Subject Specific Policies

Issue 22: Is the policy for Self-Build Homes (CB12) justified and effective?

Q180. What is the justification for the allocation of 4% self-build homes?

1. As set out in our representation to the policy CB12 insufficient justification for 4% of the total number of dwellings in each expansion area to be custom and self-build plots has been presented by East Devon.

Q181. How would a flexible figure of 4% (reviewed on an annual basis) enable smaller scale developers to commit to land? Should provision be made to enable developers to work with individuals to custom build rather than selling on to a third party?

2. As above we think the requirement of 4% even if slightly flexible, is not justified.

Q182. How does the volume of provision align with the number of individuals currently on the Councils register?

Q183. What is the delivery mechanism for these self-build plots and how will this vary for the delivery of affordable housing self-build development?

AQ22. Are any Main Modifications proposed in relation to Issue 22?

3. It is for East Devon to suggest Main Modifications, however as outlined in our original representation we would suggest that policy CB12 is deleted or if to be retained in any form then it should be limited to the first paragraph only.

Issue 23: Is the policy for Zero Carbon (CB13) justified and effective?

Q184. To what extent is the policy consistent with National Policy?

1. No, it is not consistent with National Policy as we have set out in our representations. As explained in our response to matter 9 on infrastructure delivery, there is a collective and overlapping cost of (£27million) of Combined Heat and Power PLUS carbon reduction measures to accelerate construction standards over and above that set out in the Building regulations with their ever-enhanced standards. EDNCp has set out its concerns regarding the soundness of such policies in that statement but to reiterate these concerns:

    a) IDP and DPD makes it clear that to continue with CHP across the expansion areas as has been the case to date, an additional plant will have to be constructed

    b) In any event, the present system was heavily subsidised by grants and financial assistance – which will not be available in relation to any new system

c) the existing system continues to run off gas and is not – as was intended - run by the more sustainable pyrolosis process (using wood chip). The operator continues to assert that the system will continue to have to run off gas and is not therefore delivering the outputs that EDDC hoped to achieve. Nor will a future system given costs and technical issues.

2. The provision for CHP in the IDP and in the DPD should therefore be revisited to reflect the absence of an acceptable alternative and the present NPPF policy position namely that the units will need to be built in line with the Building Regs at the time of consent and that no additional policy expectation should be considered acceptable.

3. Further detail on this matter in our representations on this policy and in the attached appendix A to this statement prepared by Brookbanks Consulting. We will wish to discuss these further at the examination.

Q185. To what extent would the supply of energy be restricted by the requirement to connect to the local CHP provision?
Q186. Should the policy relate to carbon neutral rather than zero carbon?
Q187. Can all dwellings within The Grange (and other expansion areas) be within 400m of the basic facilities listed? Would Policy CB13 be effective in relation to the Grange expansion area?
Q188. Is the requirement for an energy standard above Building Regulations justified?
Q189. How will a low carbon town model be delivered?
Q190. Is the conversion of the existing CHP facility to renewable fuels realistic or achievable?
Q191. How might this policy hinder the delivery of otherwise policy compliant development in advance of infrastructure delivery?

AQ23. Are any Main Modifications proposed in relation to Issue 23?

4. It is for East Devon to set out the main modifications but as set out in our representations to this policy and in relation to viability policy CB13 should probably be deleted and started again.

5. If amendments to the policy are to be considered, then it is necessary to:

- clarify the first sentence to refer to all new development within the expansion allocations…
- introduce a requirement in all cases any measures must be demonstrable feasible and deliverable;
- delete the second paragraph since truly zero carbon is neither justified or clear;
- delete 1c)
- delete 2b)
- amend 3b to support not ensure connection to CHP - subject to feasibility

  delete section 4.

Issue 25: Is the policy for Suitable Alternative Natural Green Space (SANGS) CB15 justified and effective?

Q194. Is the SANG funding for maintenance justified and effective, given other green space does not attract funding?

1 The Country Park and other open space within Cranbrook is currently maintained by Cranbrook Town Council (CTC) through the Estate Rent Charge (ERC). Connecting the management of these existing open space areas with the SANG's provision provides a cohesive management approach and enhances the opportunity to create a viable asset.

Q195. Should the policy require that paths within SANGs retain a natural character? If so, should the policy be amended to make this clear?

2 Policy CB15 states paths should be 'available for use in all weathers all year around (this can include the introduction of boardwalks in wet sections)'. This would suggest surfacing on some routes is required. SANG's Guidance documentation such as for the Thames Basin Heaths Planning Zone, Natural England Guidance suggested people liked a mix of routes and surfaces, 'but not tarmac' with some routes suitable for pushchair use. Given the high number of families within Cranbrook it may also be advantageous for some provision of, for example, compacted gravel surfaced routes along with other alternative mown grassed path routes. This will also assist with linking routes with the existing compacted gravel routes within the Cranbrook Country Park.

Q196. How might the length of SANG walks be addressed given that at 2.3km falls short of the recognised length of 2.5km length walks identified in the HRA?

3 The South East Devon European Site Mitigation Strategy Report 2014 recommends routes of provided of between 2.3km to 2.5km with the possibility of larger linking routes and the Natural England guidance suggests that a choice of routes of' around 2.5km' in length should be provided. The Western Expansion SANG routes provide circa 3.9km of looped footways and will also link into the existing Country Park to provide a wide variety of longer route options.

Q197. To what extent is the SANG policy compliant with the EDLP policies 47 and 10?

4 No further comment.

Q198. To what extent is there justification for the SANG to be in place prior to first occupation of the dwellings?

5 The evidence that supports the policy is that a small number of people travel from Cranbrook to the SPA sites. A very small proportion of small number of occupations is not a sufficient basis for requiring all the SANG mitigation to be in place prior to the first occupation alone, unless negotiated through the submission of an outline planning application. It should therefore not be required in the policy and allowance should be made for a phased approach with some SANG available prior to the occupation of the first dwelling and some at a later date if appropriate.

Q199. Should SANGS be within or adjacent to the Clyst Valley Regional Park in order to be compliant with the HRA approach

6 It is not considered that the SANGS needs to lie within the Clyst Valley Regional Park as SANGS can be created from any land that can be converted into SANGS as well as other open spaces although they should not be created from land that is currently used for recreational purposes (unless such areas can be altered / enhanced to accommodate additional visitors). In any event, the majority of the SANGS already lies within the Clyst Valley Regional Park, while the areas that currently lie outside effectively extending the boundary of the Clyst Valley Regional Park given that they are linked.

Q200. To what extent should the level of SANGS contribution for a site (for example Farlands) be based on existing use value of the alternative land on which it will be provided together with an amount sufficient to accommodate any necessary modification and maintenance thereafter?

7 Not relevant to the Hallam / TW outline application area within the Bluehayes expansion area

Q201. To what extent should the reliance on other areas for SANG provision be avoided unless a mechanism of compensation/payment exists?

8 Not relevant to the Hallam / TW outline application area within the Bluehayes expansion area

Q202. Should the wider green infrastructure strategy to which EDDC is committed be provided prior to the implementation of the expansion areas in the plan?

9 The Western Expansion application provides its own Open Space and SANG provision and links into the existing country park and therefore would not require the wider green infrastructure strategy of EDDC's to be implemented prior to development commencing.

AQ25. Are any Main Modifications proposed in relation to Issue 25?

10 It is for the Council to propose main modifications.

11 For all the reasons set out above and in our original representations to Policy CB15 of the Cranbrook DPD, it should be amended as follows:

- para 2 be amended: *Residential development schemes shall only be brought forward where they can demonstrate that suitable mitigation is being made available to ensure that there is no likely significant effect on the integrity of the Pebblebed Heaths and Exe Estuary".*
- para 3 be amended as follows: "*As part of the required mitigation Suitable Alternative Natural Greenspace at a ratio of at least 8 ha per 1000 net new population must be provided on a phased basis to be agreed through the negotiation of each planning application ~~and made available for use prior to the first occupation of the residential dwellings in each respective phase~~"..*
- residential occupancy should be based not on 2.35 persons per household but 2.22 persons per household and the requirement for SANGs reduced

To ensure consistency with Natural England Guidance the following criteria should be amended as follows:

h) Paths must be easily used and well maintained but most should remain mostly unsurfaced to avoid the site becoming too urban in feel.

If the existing wording for H) is to be retained, we would suggest it is amended to say:

h) Paths that are suitably signposted and available for use in all weathers all year round (this can include the introduction of boardwalks in wet sections and some surfacing in some locations such as compacted gravel, suitable for pushchair use).

m) a natural space that is free from unpleasant intrusions (eg sewage treatment works smells etc)

With regard to parking, given the local provision of SANGS to meet local needs within a walking catchment criteria a) B) and C can be deleted to ensure compliance with Natural England Guidance.

In the event that they are retained (contrary to this clear conclusion) then they should be amended as follows:

a) Adequate parking for visitors unless the site is intended for local use ie. within easy walking distance of the development linked to it (since the SANGS provision included in the plan is intended for local use, parking provision will be limited);

b) "Any carparks that are provided…"

c) Where provided and possible, car park locations should allow dogs to be safely taken from the car to the SANGS off the lead

The management requirement in relation to SANGS and covered appropriately in the penultimate para of CB15. The previous para commencing the management component shall demonstrate is therefore unnecessary and should be deleted.

Reference in the previous paragraph to timing of delivery should be amended as follows:

The delivery component of the strategy shall direct when ~~the establishment of~~ the SANGS are to be established to ~~ensure that it is available for use ahead of relevant occupations~~ (this should be agreed through the phasing strategy and the negotiation of each planning application) and include details of advertisement and publicity.

APPENDIX A : BROOKBANKS CONSULTING TECHNICAL NOTE, ISSUE 23 – POLICY FOR ZERO CARBON (CB13)

Cranbrook DPD

Independent Examination of the Cranbrook Local Plan

Issue 23 Technical Note

Brookbanks

Document Control Sheet

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Contents

1 Introduction

1.1 Brookbanks Consulting Limited has been appointed by Hallam Land Management Ltd and Taylor Wimpey to prepare a Supplementary Representation to the Cranbrook DPD EIP.

1.2 This report considers potential sustainability measures available to the development to meet national and local requirements while allowing for the practical implementation of the proposals in relation to the current and emerging building standards, including compliance with the UK Building Regulations. In doing so it seeks to address the emerging policy CB13 in the DPD and the questions raised by the Inspector under Matter 16, Issue 23, Q's 184-191.

1.3 The report therefore reviews technologies and systems that will ensure a sustainable development that encompasses measures meeting UK Building Regulations and accords with policy requirements.

1.4 Further to this, the report goes on to outline wider sustainability benefits for the application site, providing a commentary on a number of points including transport, waste and drainage.

2 Background Information

2.1 The Inspector has published her programme for examining the Cranbrook DPD and has raised several questions to be addressed at hearings in January 2020.

2.2 Issue 23 seeks answers to questions to determine if Policy CB13 is effective and justified.

3 Policy Review

National Policy

3.1 National Policy for Low Carbon and Renewable Energy technology is informed by:

- National Policy by way of the Energy White Paper (2003 & 2007), Renewable Energy Strategy (2009) and Climate Change Act (2008) published by the UK Government.
- NPPF (2019) published by the UK Government.
- Local Planning Policy
- Code for Sustainable Homes (2007 / 2010) published by Building Research Establishment (BRE).
- National Policy (2011 – 2015 updates)
- UK Building Regulations Part L (2010/2013/2016) published by the UK Government.

3.2 The main aim of these documents is to inform policy and provide guidelines to reduce UK CO_2 emissions, as this is currently considered to be the largest man-made contributor to climate change. The Climate Change Act 2008 (CCA08), is the first statutory legislation limiting CO_2 emissions anywhere in the world. CCA2008 mandates that carbon emissions are reduced by 80% by 2050 (against a 1990 baseline), with targets set at 34% by 2020 and 60% at 2030. It is this primary legislation that drives local planning policy.

3.3 The UK Government has set challenging targets for generating electricity from renewable sources. By 2015, 15% of electricity generation nationally must be from renewable sources and by 2020, a total of 20% (Energy White Paper: 2003).

3.4 In 2009 the UK Renewable Energy Strategy reviewed the current targets and reaffirmed the methodology for the UK achieving a 15% share of total energy from renewable energy sources by 2020. Within this document, renewable technologies for electricity, heat and transport were considered in meeting the 15% target.

National Planning Policy

3.5 The National Planning Policy Framework (NPPF) was first published in March 2012 and was last updated in February 2019. It defines the overarching aims of the Government's sustainable development strategy.

3.6 The NPPF outlines that local authorities should adopt proactive strategies to mitigate and adapt to climate change and that to support the move to a low carbon future new development should be planned in ways that:

- *'Avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure; and*
- *Can help to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings should reflect the Government's policy for national technical standards.'*

3.7 The NPPF stresses that the importance of sustainability in new developments is to ensure that during construction and operation the development minimises environmental impact. The Government is keen to limit the environmental impact of new construction projects through the reduction of CO_2 emissions. Consequently, it is imperative all new developments demonstrate sufficiently that no significant negative impact will be caused on what is regarded as the acceptable baseline, the UK Building Regulation standards, and how new developments will achieve this.

Local Planning Policy

3.8 In order to align with wider UK renewable energy and sustainable development policies, Local Planning Authorities have often adopted local planning policies requiring minimum provisions of Code for Sustainable Homes compliance. Minimum levels of energy or carbon savings over energy baseline have also often been specified, these to be achieved by way of renewable or low carbon energy generation measures on-plot or within the development, or indeed through building fabric enhancements, where the policy allows. Renewable energy / carbon saving targets in the order of 10-30% are common place.

3.9 The Local Planning Authority for the Cranbrook DPD is East Devon District Council and the DPD policy CB13, Delivering Zero Carbon, informs the design of development at Cranbrook.

3.10 Policy CB13 within the Cranbrook DPD which is subject of the Independent Examination states:

Policy CB13: Delivering Zero Carbon

"All development at Cranbrook will be designed, constructed and perform to the highest practicable and viable whole life sustainability standards possible.

*Detailed Development proposals will be required to submit for approval a Carbon Reduction Plan that sets out how the development will deliver carbon savings contributing towards the overall plan vision to "**deliver a truly zero carbon new town"** in line with the **Energy Hierarchy**.*

Unless specified in the policy elsewhere, all developments which propose the construction of new homes or non-residential floor space must demonstrate that they:

1. ***Minimise the need to travel** and where necessary enable travel by low carbon means through:*
   - *a.) Designing neighbourhoods around 400m walkable zones so that occupiers are located within walking distance of basic services and facilities*;*
   - *b.) Being served by good quality walking and cycling links and regular public transport routes;*
   - *c.) Having high quality gigabit-capable digital connectivity in-built; and*
   - *d.) Being effectively masterplanned in accordance with active design principles.*

2. ***Minimise energy demand and carbon emissions** through:*
   - *a) Use of passive design, solar masterplanning and effective use of on-site landscaping and Green infrastructure;*
   - *b) Achieving a minimum **19%** carbon reduction improvement over Building Regulations Part L (2013) on a building-by-building basis through fabric energy efficiency measures and on-plot renewable energy generation, with preference being for a "fabric first" approach;*
   - *c) Use of low carbon solutions where additional energy is required for building services such as heating, ventilation and air conditioning.*

3. ***Maximise the proportion of energy from renewable or low carbon sources** through:*
   - *a) Exploring opportunities for, and implementing private wire arrangements from renewable sources where practical and viable;*
   - *b) Ensuring connection to the District Heating network delivers the necessary uplifts over and above the carbon reductions achieved through 3(a), to achieve **zero carbon** across the development; and*
   - *c) Ensuring that, where not provided as standard, the ability to install future Solar PV or Vehicle-to-Grid connections is not precluded.*

4. ***Ensure in-use performance** of buildings is as close as possible to designed intent through:*
   - *a) **Use of recognised quality regime** and consistent approach to calculating at design and in-use performance, which ensures that in-use performance is as close as possible to the at-design calculation: and*
   - *b) **Ensuring at least 10% of buildings deliver in-use energy performance and generation and carbon emissions data** to home owners, occupiers, developers and planning authority for a period of 5 years after first occupation clearly identifying regulated and unregulated energy use and any performance gap. Where a performance gap is identified in the regulated use, appropriate remedial action will be required.*

***Basic services and facilities are taken to refer to educational facilities (pre-school/nursery, primary and secondary schools), convenience shop, employment opportunities and open space/sports provision.*

Figure 3a: The Cranbrook Plan, CB13 Delivering Zero Carbon

Code for Sustainable Homes (CfSH)

3.11 As part of the UK's drive for delivering sustainable development, the BRE introduced various nationally led residential and commercial property standards. Becoming operational in March 2007, the Code for Sustainable Homes was launched by the Government as a national standard for rating and certifying the environmental performance of new homes.

3.12 A range of technical standards were published setting various mandatory and non-mandatory compliance criteria, providing step changes over a ten-year period to achieve zero carbon homes. The following implementation dates were specified for open market homes:

- 2010 Code 3
- 2013 Code 4
- 2016 Code 6

3.13 The Treasury Productivity Plan dated July 2015 has since stated that:

"The Government does not intend to proceed with the zero carbon Allowance Solutions carbon offsetting scheme, or the proposed 2016 increase in on-site energy efficiency standards, but will keep efficiency standards under review, recognising that existing measures to increase energy efficiency of new buildings be allowed time to become established".

3.14 The zero carbon Allowance Solutions are discussed further within this report, however, it should be acknowledged that further to the announcement of intention in the July 2015 Productivity Plan, the Government has formally abolished the zero carbon initiative.

3.15 The CfSH was not a mandatory implementation requirement, except on certain publically funded works, but rather sat alongside the UK Building Regulations as an enhanced standard, to be implemented where appropriate. It is common for minimum CfSH standards to be adopted as local planning policy.

3.16 Importantly, the CfSH standard was withdrawn as a result of the Deregulation Act 2015, which is discussed further below.

National Planning Policy (2011 – 2015 updates)

3.17 **The Plan for Growth:** As a result of the economic downturn, the elected coalition Government in 2011 published The Plan for Growth. This wide ranging document outlines the measures the Government would implement to reverse problems with the economy and help it flourish without unnecessary constraints as barriers for success.

3.18 The document states that a review will be undertaken to ensure that standards and requirements are assessed, based upon cost-benefit, with the intention of reducing any unnecessary duplication and inconsistency within planning policies and construction standards; and help to remove unfeasible targets that make developments financially unviable. The report states:

"2.296 The Government will work with industry experts to identify and reduce duplication, redundancy and inconsistency in construction standards, based on cost-benefit analyses.

9) The Government is announcing the regulatory requirements for zero carbon homes, to apply from 2016. To ensure that it remains viable to build new houses, the Government will hold house builders accountable only for those carbon dioxide emissions that are covered by Building Regulations, and will provide cost-effective means through which they can do this.

2.297 The UK needs to deliver carbon savings in order to meet the Carbon Budgets to which the Government is committed. This means that the carbon footprint of new homes cannot be allowed to add to overall carbon reduction burdens.

2.298 Building Regulations cover carbon dioxide emissions from energy use through heating, fixed lighting, hot water and building services. They do not cover emissions related to energy use from cooking or from plug-in electrical appliances such as computers, as these are beyond the influence of house builders and will be addressed by other policies, for example the EU Emissions Trading Scheme.

2.299 The Government will introduce more realistic requirements for on-site carbon reductions, endorsing the Zero Carbon Hub's expert recommendations on the appropriate levels of on-site reductions as the starting point for

future consultation, along with their advice to move to an approach based on the carbon reductions that are achieved in real life, rather than those predicted by models. This will be complemented by cost-effective options for off-site carbon reductions, relative to the Government's pricing of carbon, and Government will work with industry through consultation on how to take this forward."

3.19 It is clear, therefore, that The Plan for Growth recognised that the multitude of low carbon and renewable standards being driven through national and local planning policy caused "duplication, redundancy and inconsistency in construction standards".

3.20 **DCLG / Stephen Williams Announcement 13 March 2014:** Following the direction of travel announced in The Plan for Growth, The Government announcement advised ***"Currently, house builders face a myriad of different standards to implement each time they build new homes in an area - with the standards imposed varying between areas, and often leading to duplication and even contradiction."***

3.21 The Minister stated:

"The current system of housing standards is complicated and confusing and is ripe for reform. "

"That's why we're planning to make the whole system easier to understand and follow, consolidating housing standards so that all the requirements are in one place."

"This will enable councils and developers to better work together to build high-quality, sustainable and secure homes in communities across the country."

3.22 Other points raised in the announcement included:

"Today's measures will reduce 100 standards to fewer than 10; bringing down the numbers of remaining pages of guidance from 1,000 to fewer than 100, saving councils and developers both time and money.

Housing standards that will be abolished include:

- ***requirements for rainwater harvesting in places that don't suffer from water shortages***
- ***a requirement for more than 1 phone line to be installed - regardless of need***
- ***a requirement for compost bins and secure sheds in gardens***

The measures also include scrapping rules that require house builders to get the same work checked by a range of different organisations.

Currently, a builder may have to have the same work checked by the planning authority, a Code for Sustainable Homes Assessor, a building control organisation, the Homes and Communities Agency and independent standard assessors - under the new system technical requirements will be assessed by building control bodies alone."

3.23 This announcement also first recognised that only a few 'optional' building regulations will apply, 'where it is right to do so', stating:

"Under the changes, the new system will include "optional building regulations", which will only apply where it is right to do so, with councils deciding whether they apply to developments being built in their areas.

These could include:

- ***water efficiency - where a different standard may be available for areas facing water shortages - potentially saving households £100 a year in bills***
- ***accessibility - where different standards may be needed for homes to be accessible for older people and wheelchair users - with optional building regulations that developers would need to abide by where it was applied, to avoid them facing a range of different measures in different areas."***

3.24 In relation to energy, the announcement stated:

"Currently, in addition to existing building regulations councils can also impose locally-set targets for energy efficiency and renewable energy - imposing extra cost on new homes and leading to confusion and variation across the country. Instead, with a new zero carbon homes standard coming into force from 2016, building on strengthened energy efficiency requirements in building regulations in 2010 and 2013 national standards have been catching up and overtaking local targets. In the future energy efficiency standards will be set through national building regulations."

3.25 The Stephen Williams announcement therefore provides further weight to the original intent of The Plan for Growth, that there would be a rationalisation of standards, to provide a single national standard, delivered through the UK Building Regulations. Furthermore, the announcement recognises that 'local targets' have been overtaken by the 'zero carbon homes' standard, which is an important consideration.

3.26 **DCLG / Rt Hons Eric Pickles Announcement 2015:** On the 25th March 2015, the Rt Hon Eric Pickles gave a Governmental update on progress with the proposed changes to the planning system, including the proposed changes in relation to Housing Standards and Zero Carbon Homes. This stated:

"New homes need to be high quality, accessible and sustainable. To achieve this, the government has created a new approach for the setting of technical standards for new housing. This rationalises the many differing existing standards into a simpler, streamlined system which will reduce burdens and help bring forward much needed new homes.

The new system will comprise new additional optional Building Regulations on water and access, and a new national space standard (hereafter referred to as "the new national technical standards"). This system complements the existing set of Building Regulations, which are mandatory.

To implement this new regime, this written ministerial statement sets out the government's new national planning policy on the setting of technical standards for new dwellings. This statement should be taken into account in applying the National Planning Policy Framework, and in particular the policies on local standards or requirements at paragraphs 16, 20 and 151 in both plan making and decision-taking."

3.27 The statement is therefore clear in confirming the revised national planning policy, making reference to the single source of national standards as part of national planning policy, emphasising the applicability in relation to the latest NPPF Paragraph 151, which relates to 'low carbon' development and Paragraphs 16 and 20, which relate to the delivery of local policies and standards. Equally clear is that the **optional elements of the Building Regulations hereon relate to water and access and do not include any provision on energy or carbon**.

3.28 Having specific relevance to the Inspectors questions of the Cranbrook DPD, the statement confirmed:

"From the date the Deregulation Bill 2015 is given Royal Assent, local planning authorities and qualifying bodies preparing neighbourhood plans should not set in their emerging Local Plans, neighbourhood plans, or supplementary planning documents, any additional local technical standards or requirements relating to the construction, internal

layout or performance of new dwellings. This includes any policy requiring any level of the Code for Sustainable Homes to be achieved by new development; the government has now withdrawn the code, aside from the management of legacy cases. Particular standards or requirements for energy performance are considered later in this statement.

Local planning authorities and qualifying bodies preparing neighbourhood plans should consider their existing plan policies on technical housing standards or requirements and update them as appropriate, for example through a partial Local Plan review, or a full neighbourhood plan replacement in due course. Local planning authorities may also need to review their local information requirements to ensure that technical detail that is no longer necessary is not requested to support planning applications."

"From the date the Deregulation Bill 2015 is given Royal Assent until 30 September 2015: The government's policy is that planning permissions should not be granted requiring, or subject to conditions requiring, compliance with any technical housing standards other than for those areas where authorities have existing policies on access, internal space, or water efficiency."

3.29 The Deregulation Bill 2015 was given Royal Assent on 27th March 2015. This resulted in a shift away from locally set sustainability targets to single national compliance requirements.

3.30 **Fixing the foundations: Creating a more prosperous nation 2015:** On the 10th July 2015, the Government announced that, in the productivity plan Fixing the foundations: Creating a more prosperous nation, the Government would:

"repeat its successful target from the previous Parliament to reduce net regulation on housebuilders. The government does not intend to proceed with the zero carbon Allowable Solutions carbon offsetting scheme, or the proposed 2016 increase in on-site energy efficiency standards, but will keep energy efficiency standards under review, recognising that existing measures to increase energy efficiency of new buildings should be allowed time to become established".

3.31 This decision places further emphasis on the rationalisation of standards, to provide a single national standard, delivered through the UK Building Regulations, which will in the future lead to further improvements in energy efficiency requirements.

3.32 proposals for the site, where appropriate in the context of the changes to national policy, as set out in this report.

4 Energy Strategy

National Policy

4.1 With the abandonment of the Code for Sustainable Homes and the Zero Carbon Homes along with the array of local policies on energy and sustainable development, national standards are now defined largely by the UK Building Regulations.

4.2 The Building Regulations outlined in Part L1A, relate to energy used in providing space heating and cooling, hot water and fixed lighting, and follow the energy hierarchy below in determining the methodology to reduce the energy demand and therefore carbon emission reductions necessary to comply with the Building Regulations.

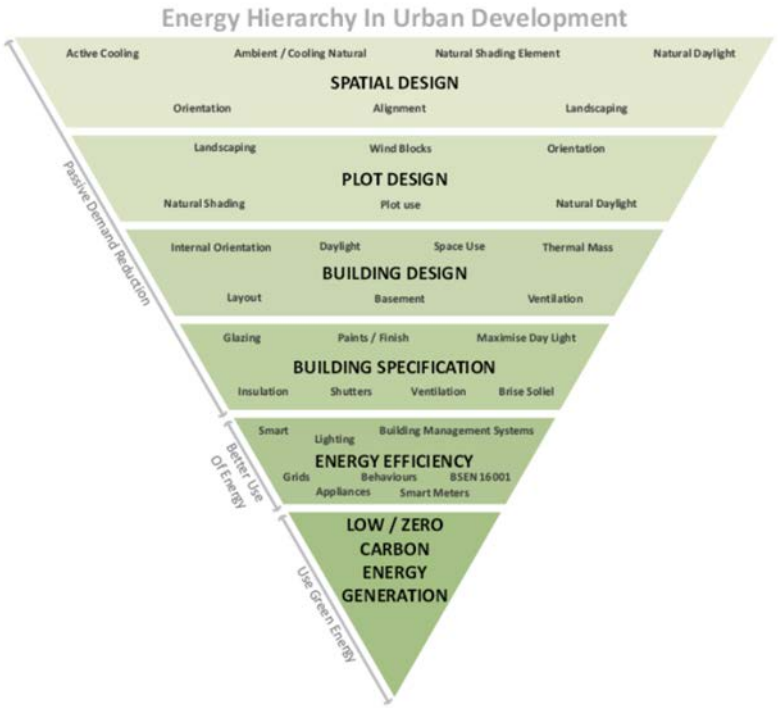

Figure 4a: Energy Hierarchy in Urban Development

4.3 To meet the first principles of the hierarchy (i.e. reducing demand) passive design principles could be considered through spatial planning, green infrastructure provision, etc. Removing unwanted heating/cooling effects and the promotion of positive impacts in the development context will involve the positive use of green infrastructure.

4.4 Such issues do not contribute to the carbon emissions reduction calculations under the Building Regulations but can play a large part in reducing the energy demands of a property. The methodology for assessing carbon emissions through the Building Regulations is undertaken by the Standard Assessment Procedure (SAP) for residential properties and Simplified Building Energy Model (SBEM) for non-domestic dwellings. Both these models consider a limited number of criteria to address carbon emission reduction. When planning for carbon mitigation via building design the critical design issues focus on the buildings themselves, rather than the environment or the setting that they are placed into.

4.5 Passive measures are design features from architectural and building fabric selection that inherently reduce the building energy requirement. Post occupancy behaviour change also comes within the 'passive' category. Active measures associated with the specification, control and use of building services that will increase the efficiency of the energy used, hence reducing the building energy requirements.

4.6 The following passive design measures could be incorporated into the design of the buildings to reduce energy requirements:

- Reducing the air permeability and thermal bridging coefficient of the building envelope.
- Optimising the U-Values of the external fabric to enable a reduction in energy loss, e.g. through providing additional insulation.
- Incorporating thermal mass to support "free cooling" during summer months.
- Enlarging window areas to maximise the use of natural daylight.
- Locating any plant rooms away from the southern elevation to avoid excessive heat gain and to allow maximum plant efficiency.
- Providing passive shading to avoid overheating.
- Provision of post occupancy training material.

4.7 The following active design measures could also be considered for incorporation into the mechanical and electrical elements of the buildings:

- Highly efficient boilers.
- Controls to optimise and compensate for heating variations.
- Zonal control of heating to supply different parts of a building via a building management system.
- Time and thermostat control of hot water.
- Variable speed drives fitted to those pumps and fans that will benefit from speed control.
- High efficiency lighting.
- Installation of electricity check meters.
- Include daylight and passive infra-red motion detection systems to lighting to common areas in order to ensure they are only operated when required.
- Ensuring white goods, where supplied, are suitably rated or alternatively, information is provided on selecting energy rated appliances.
- Reject heat capture and re-use, especially from HVAC systems and (yet to be defined) commercial/industrial activities.

4.8 However, it is important to recognise that there are a number of different approaches to achieving the required carbon and energy targets. As a result, rather than defining a definitive approach that may not be resilient to changes in technology, policy and market conditions, it is important that the approach to energy supply considers all viable options and opportunities at the time when detailed design is being developed.

Strategy

4.9 Given the significant changes in national sustainable development and zero carbon resulting from the Deregulation Act 2015, the adoption of locally set targets is no longer permissible, which is made clear through the legislation and the Government announcements. The Cranbrook DPD obligations for development design must therefore comply with the new national framework, which is being delivered through the UK Building Regulations.

4.10 At this stage, the performance level criteria as defined in the Building Regulations Part L 2013 provides the present day obligations. Development at the Site will comply with these requirements and any future amendments enforced through the Building Regulations. The Cranbrook Plan should therefore look to comply with national policy.

5 Cranbrook DPD District Heating

5.1 Current heat and hot water is provided to the initial phases of Cranbrook via a Combined Heat and Energy Centre (CHP) located at the neighbouring Skypark. It is proposed that this decentralised energy network is continued throughout the expansion of the town.

5.2 To achieve the Zero Carbon aspirations of the DPD, Policy CB13 states that the CHP will require the migration of the network from gas CHP (as is currently the case) to renewable sources including waste heat such as from the proposed FAB Link Converter Station.

5.3 It further states that “should technical/viability evidence arise which, demonstrates that a zero carbon solution cannot be delivered through connection to the network, then an alternative solution which still achieves the same vision to “deliver a truly zero carbon new town” will be considered in line with the Energy Hierarchy.”

5.4 The current network has been sized to accommodate the future demands from the expansion areas as part of the delivery of 6,551 dwellings. The network will be required to expand considerably to supply the expansion areas and it is likely that there will be a need for further Energy Centres and booster stations to provide for the expansion of the network to ensure its efficient running.

5.5 The current CHP system is currently running several Combined Heat and Power (CHP) units powered by natural gas through the existing DH network. In 2018 the existing CHP provision was expanded with the installation of a new $2MW_E$ reciprocal CHP engine.

5.6 From the inception of the system and the Energy Centre, it was anticipated that there would be flexibility to allow the heat sources to be changed as renewable heat technologies developed. To that extent the Government has recently announced that it would be looking to phase out the supply of natural gas networks to new developments. In parallel to this, proposed changes to Part L of the Building Regulations have also been published, which aspire to reduce the carbon emissions of all new dwellings from 2025. In this process, the viability of CHP and District Heating from Natural Gas alone has diminished as new homes have improved fabric efficiencies, with a reduced heating demand to match.

5.7 The provision of biomass heat sources in Cranbrook could be problematic, with a shortfall of suitable fuel sources locally and the need to locate sufficient storage for the materials, along with the need for regular deliveries to meet the demand. In 2010, 0.6 million tonnes of wood pellets were imported, compared to 7.8 million tonnes in 2018. It is anticipated that this figure will continue to rise, with 82% of the wood pellets currently imported to the UK from the USA and Canada. With this trend, the commercial pressure on biomass may make this a commercially unattractive proposition, especially when considering the recent investment in a new CHP engine.

5.8 A quicker and potentially more efficient way to provide the required carbon savings across the development with the potential introduction of heat pumps and the proliferation of Photovoltaic (PV) cells for the individual dwellings in conjunction with improvements to the building fabric to reduce the energy demand of the dwellings.

6 Summary

6.1 This document sets a range of sustainability measures that could be identified within the Cranbrook DPD to meet national and local policy requirements in accordance with the guidelines in the NPPF and Deregulation Act 2015.

6.2 The report outlines measures in which the Cranbrook DPD can incorporate low carbon measures and increase efficiency in line with national and DPD policy. The proposed Cranbrook DPD aims to achieve a minimum carbon reduction of 19% over current Building Regulations. It is noted within this report that this requirement is at odds with National Policy and the emerging changes to Building Regulations Part L, announced in October 2019.

6.3 The existing DH network at Cranbrook has been delivered with the intention of supplying the expansion areas. However, changes to Government policy over the intervening 9 years since the initial delivery of the original Energy Centre and DH network, the flexibility of an alternative strategy to meet the reduction in carbon emissions should be investigated as the continual improvements to building fabric, reduces the heating demand for houses and impacts the viability of the delivery of the next phase of DH for Cranbrook.

7 Limitations

7.1 The conclusions and recommendations contained herein are limited to those given the general availability of background information and the planned usage of the application site.

7.2 Third party information has been used in the preparation of this report, which Brookbanks Consulting Ltd, by necessity assumes is correct at the time of writing. While all reasonable checks have been made on data sources and the accuracy of data, Brookbanks Consulting Ltd accepts no liability for same.

7.3 The benefits of this report are provided solely to Hallam Land Management Ltd and Taylor Wimpey to inform their supplementary representations to the Independent Examination of the Cranbrook Local Plan.

7.4 Brookbanks Consulting Ltd excludes third party rights for the information contained in the report.