



**Item 14**

# **Report to the Partnership for Urban South Hampshire Sustainability and Community Infrastructure Delivery Panel**

Date: **21 May 2009**

Report of: **Melanie Tapping, Southampton City Council**

Subject: **PUSH Sustainability Policy Framework – Responding to the Recession**

## **SUMMARY**

This report provides justification for maintaining, and not weakening, the policy framework for the sub region to ensure that the significant new development that will take place over the next 20 years within the PUSH area is built sustainably. It is strongly recommended, that in the current situation, PUSH's sustainability policy framework should continue to apply and PUSH authorities should use the framework to assist in creating a competitive advantage for sustainable technology in South Hampshire

## **RECOMMENDATION**

That the Joint Committee ENDORSES AND SUPPORTS the approach set out in this report.

## INTRODUCTION

1. GDP fell by 2.1% at the end of last year and is expected to drop 5% before things improve. Recovery from the last recession took 10 years. However developments are still occurring and the necessity to reduce their environmental impact has not diminished simply because our economy is faltering. There is a danger that critical debates over sustainability may be sidelined. There is a need to establish clear sustainability targets and for the industry to collaborate.
2. PUSH should continue with the framework for influencing individual authority Local Development Framework Core Strategies at an accelerated rate. This should be reviewed in 2012, and taking into account the strength of the market at that time, it may be considered necessary to slow down the acceleration to Code Level 6 in 2016. The review in 2012 would consider the practical approach to implementation of the policy, rather than the policy itself which will then form part of Local Authorities' Core Strategies. Other tradeoffs such as flexibility in thresholds could be considered at this time, and should be agreed universally across all Local Authorities in order to ensure that PUSH's objectives are not negated; consistency is crucial.

## REASONING

3. It is emphasized that the recommendation for the present is to stand by the common policy framework of principles. This robust approach is vital to the area for the following reasons:
  - The sub region is the largest and most densely populated urbanised area in the South East outside London, where a properly integrated approach to economic, social and environment assets poses particular challenges but is crucial to the achievement of sustainable development objectives.
  - The sub region is identified by the Environment Agency as being an area of serious water stress;
  - The sub region's coastal built heritage is worthy of protection in the national interest;
  - The sub region's coastal location is fundamental to its economy;
4. In the recent budget announcements, Central Government have not watered down carbon reduction targets and sustainability objectives. In addition, the Government have announced a package of measures to ease pressure on builders and stimulate green technology. Currently there is not a reason to reduce sustainability standards and this should not be done until there is compelling evidence to do so. In relation to energy, the Climate Change Act 2008 sets that UK greenhouse gas emissions to be reduced by at least 26% by 2020. The local low carbon economy remains at the forefront of government thinking. NI 186 (National Indicator) shows that there are high carbon footprints for the PUSH area and ambitious targets remain which must be met. Hampshire and Isle of Wight emissions for the latest year (2006) are 12,032 kt CO<sub>2</sub>. Improvement targets for Hampshire are 10.0%, Portsmouth 9.8%, and Southampton 9.5% for 2010/2011.
5. The Carbon Reduction Commitment also makes it important to achieve high levels of sustainability as many Local Authorities will be covered by the CRC,

which is a mandatory scheme for organisations with greater than 6000 Mwh consumption through HH electricity meters. CRC LA Participants will be required to report on energy (all fuels) related CO2 emissions for their estate (including schools) each year, buying CO2 emission allowances each year to cover their emissions, with the money returned depending on how well they perform in cutting CO2 emissions relative to others. With time the bonus/penalty between those who perform well against those who perform badly will increase, meaning that the financial and reputational penalty for not making emissions cuts will increase with time under the CRC. In addition with time the total number of emission allowances available each year will be capped and reduced leading to financial penalties for those who don't make savings.

6. As well as this, there is the requirement to meet certain sustainability standards from a number of other Government programmes; for example the UK Strategy for Sustainable Construction sets a requirement that there will be a 50% reduction in construction, demolition and extraction waste sent to landfill by 2012 compared to 2008. It is also important to note that DEFRA's targets for water consumption have not been reduced, and water stress remains a significant problem in the area.

## **VIABILITY**

7. Growth in house building delivery was suppressed pre Credit Crunch; the growing cost burden of regulation, affordable housing and s106/ CIL was already problematic. Significant viability issues arise, key determinants of viability being:
  - Development mix and density
  - Design standards/ unit sizes
  - Efficiency of land (Net to Gross); Brownfield or Greenfield, serviced or unserviced
  - Cost of offsite/ common infrastructure
  - Extent and nature of affordable housing
  - Environmental standards
  - S106/ CIL burden/ dwelling
  - Existing/ alternative use land values; agricultural, industrial plus relocation, alternative use value (real or perceived)

There may be pressures from developers over viability and the need for mitigation of costs. However it is important to remember that sustainability is one of a number of factors which may affect cost, and should not necessarily be the one that suffers. If developers are made to factor in sustainability costs from the outset, through integral measures such as thermal insulation or passive house techniques, rather than to be seen as an unnecessary "add on" cost, there is no reason why sustainable building cannot be viable. This is demonstrated by calculations such as Radian's "Code for Sustainable Homes Matrix," which analyses costs and effectiveness of different house types and sustainable construction solutions.

8. Sustainable construction and design is both necessary and desirable, more so now than ever before as a consequence of current economic turbulence. As the Stern review clearly argued, not completing the journey is not an option,

economically, socially or environmentally. In fact, enhanced sustainability is likely to bring benefits across these areas. The achievement of sustainable construction enhances value across the triple (economic, social and environmental) bottom line of projects.

9. Economically, it improves profitability and competitiveness by using more efficient construction systems, through enhanced workforce productivity, reducing raw materials consumed and waste generated, and protecting the value of the final product in a market where environmental performance is of increased concern to investors and occupiers
10. Environmentally, it improves the management of natural resources and reduces the impact of climate changing emissions, effluent and waste, all of which are increasingly costly to manage and which undermine the commercial value of places and property through degradation. Often the pursuit of higher standards of environmental quality saves significant capital costs on projects. Reducing waste and diverting any residual material from landfill is a good example, given that there is such a high cost associated with disposal. Sometimes, higher environmental standards such as thermal efficiency may require a capital investment in the project. This additional expenditure should be measured against the resulting value delivered across the triple bottom line of the project.
11. Socially, it improves relationships with stakeholders meaning that projects run with minimal disruption to satisfactory completion, minimising the risk of delays and abnormal costs.
12. Operational benefits for industry include enabling cost savings to be achieved through greater material efficiency and making greater use of recycled materials; reduce energy consumption and greenhouse gas emissions, leading to reduced liabilities under the Climate Change Levy and the forthcoming Carbon Reduction Commitment. Also reduces landfill disposal costs, transport costs by using local suppliers, avoids fines from water, land, air and noise pollution incidents through more effective environmental management systems and lead to more flexible building systems that are easier to refit and adapt to new technology.
13. Revenue generating benefits include enabling the company to become more attractive to clients that have corporate responsibility policies, or that offer preferential bid status to companies with good environmental management policies and practices. It produces more attractive, flexible properties with quicker occupier up-take, higher occupancy rates and protected or enhanced asset values 'Future-proof' investments assets are ensured, leading to enhanced financial performance over time compared to peers (Drivers Jonas, 2008).
14. Notwithstanding legal responsibilities, reducing energy and natural resource use makes good business sense, both in terms of avoiding unnecessary cost and enhancing reputation. Clearly, the benefits of sustainable design and construction are not simply environmental; they bring financial, risk management, publicity, health and well being benefits.

## **PUSH POLICY FRAMEWORK**

15. The policy framework is considered to be consistent with the Key Planning Objectives of the PPS1 supplement (Planning and Climate Change, 2007) (paragraph 41). Following guidance set out in the PPS, applications are assessed in terms of nationally described sustainable building standards, which in the case of housing relates to the proposal being delivered at a specific level of the Code for Sustainable Homes.
16. In “The Cost of Greening Development” (2005) English Partnerships Projects found that it is clear that there is a non-linear relationship between cost and energy performance. In the case of a house there is a major increase in cost to reduce CO<sub>2</sub> emissions to below 30 kg m<sup>2</sup> per year, while for the high rise apartment there is a high initial cost associated with carbon saving (reflecting the costs of moving from electric heating to gas fired communal heating system) but once this cost has been incurred it is possible to make further savings relatively cheaply. For water the relationship is more straightforward with a progressive increase in costs as water consumption is reduced. The materials analysis indicates that it is possible to use ‘A’ rated materials for the majority of the elements in all of the housing types without incurring additional costs.
17. The energy requirement in Code for Sustainable Homes is often cited by developers as one of the more difficult areas to meet. However in 2010, part L of the building regs will require a 25% reduction in carbon emission levels over the Target Emission Rate which corresponds to Code Level 3. The other aspects are often easier to achieve, and since the energy requirements will be mandatory, meeting the PUSH common policy framework will not place an undue burden on the developer.
18. Meeting Code Levels can, and in most cases is being achieved through improved performance of the passive elements of house design and the resulting buildings are modifications of existing house types; “All the housebuilders I speak to are developing initiatives to meet the Code for Sustainable Homes agenda – and in terms of development, are well ahead of schedule. All have designs that will meet Code Level 3 and probably 4” (Ian Exall, Chartered Institute of Marketing Construction Industry Group). While these Code Level 3 and 4 house designs are on the drawing board, few builders are prepared to volunteer to use them – and their construction is generally limited to areas where local authorities have demanded such performance levels.
19. There has been a mixed response from planning inspectorate in using Code Levels ahead of Government targets; for example appeal APP/D1780/A/08/2075482 saw retention of a Code Condition, whereas APP/D1780/A/08/2091648 saw removal of a Code condition.
20. Cyril Sweet was commissioned by English Partnerships and the Housing Corporation to consider the implications of the proposals contained within the Code for Sustainable Homes (the Code). It outlined the implications of meeting each Code level and is presented in comparison to the costs of a baseline home (a Building Regulations compliant home).

21. For the traditional house types, the costs for achieving the mandatory performance standards for energy can be summarised as:
- **Code level 3** – costs are variable depending on the carbon reduction route chosen. Costs range from around £1,600 (where wind turbines are used) to over £4,400 (where mechanical ventilation is used). For the high rise apartment the costs vary substantially from nearly £6,000 (where solar water heating is used) to as low as £1,700 where the apartments are included within a site wide CHP system.
  - **Code level 4** – costs increase to between £5,000 and £16,000 per home depending on whether a wind turbines or photovoltaics are used to achieve carbon savings. Achieving Code level 4 compliance if no wind energy can be used requires substantial use of photovoltaics (1 kW). The use of a site wide CHP system should also enable the level of performance to be achieved more cost effectively.
  - **Code level 5** – costs vary between £14,000 and £30,000 depending on house type. However, for the houses and low rise apartment the enhancements required to achieve Code level 5 (i.e. biomass heating systems) result in an over 100% improvement on Target Emission Rates of the Building Regulations (TER) (sufficient for Code level 6).
22. The analysis indicates that the compliance with Code Level 4 and 5 will require considerable amount of capital cost. However, the above costs are those that would be incurred to meet Code standards if they were specified today. Research suggests that the cost of the technologies will come down considerably.
23. Prominently, solutions which are currently emerging and other factors that might lead to cost reductions are:
- Innovation in design and specification within the housing sector
  - Emergence and development of new technologies/construction methods better suited to meeting the required performance standards
  - The impact of the £80m set aside for grants and bulk purchase agreements of micro generation by the Department for Trade and Industry
  - The involvement of an Energy Services Company (ESCO) in a development
  - Reduction in cost of existing products arising from their widespread adoption
  - Bulk purchasing of products
24. The widespread adoption of Code standards will stimulate the markets for technologies favoured by the standards (e.g. micro CHP and renewables). Research suggests that depending on the type of technology being specified, cost reductions will be significant once demand is guaranteed and manufacturers are in a position to supply the market.

## ISSUES & IMPLICATIONS

25. Economic boosts are often connected to new technical developments. The

promotion of green technologies can help to restore the economic situation. The speeding up of investments that are already planned can help preventing job losses and help to overcome acute problems. But also these investments must contribute to a long term positive effect for employment and the environment. R&D and Green technologies are just two sectors that have a big potential.

26. There is support for strengthening area based components of carbon reduction and fuel poverty programmes. A household in fuel poverty is commonly defined as one that needs to spend in excess of 10% of its disposable income in order to maintain a satisfactory level of heating. Whilst sustainable requirements such as CfSH have obvious environmental benefits, the standards set by the code also give important benefits to tenants. Homes built to CfSH standards will have lower running costs through greater energy and water efficiency, which will help to reduce fuel poverty.
27. The supplement to PPS1 on planning and climate change allows planners to set targets in advance of the building regulations. Reliance on building regulations targets alone is not feasible as while planning has always found it difficult to shape existing communities, the building regulations are even less well equipped. By focusing on design, layout and density, spatial planning can have a dramatic effect on communal energy performance (Planning 3 April 2009).

## **CONCLUSION**

28. The Policy framework principle provides a sound basis from which all PUSH authorities can develop their LDF policies. Whilst the recession has raised some concerns over the viability of these sustainability targets, the points raised in the report support the position of standing firm on these principles at this time, with the possibility of future review of the economic situation in 2012. It is emphasized that sustainable design and construction will in both the short and longer term, enhance value across the 'triple bottom line' of projects – environmentally, economically and socially. By offsetting water and fuel costs, people may be prepared to pay more for a more sustainable home or premises.
29. The continued growth and demand for housing in the PUSH region means that it is in a better position than many other areas to absorb the economic impacts of making development more sustainable. In times of economic slowdown, it is important to remember that, whilst developing against sustainability criteria requires an investment that may seem burdensome now, in terms of future-proofing developments and whole life cost it will in fact prove to be money well spent.
30. It is strongly recommended, that in the current situation, PUSH's sustainability policy framework should continue to apply and PUSH authorities should use the framework to assist in creating a competitive advantage for sustainable technology in South Hampshire

## **RECOMMENDATION**

That the Joint Committee ENDORSES AND SUPPORTS the approach set out in this report.

**Background/Reference Papers:**

PUSH Sustainability Policy Framework – Report to PUSH Joint Committee March 2008

Code for Sustainable Homes (December 2006 & February 2008)

South East Plan

Planning Policy Statements 1, 3, 9, 22 & 25

Climate Change Act 2008

Planning & Energy Act 2008

The Cost of Greening Development (2005) English Partnerships

Code for Sustainable Homes Matrix (Radian)

**Enquiries:**

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## ANNEX: COMMON POLICY FRAMEWORK OF PRINCIPLES

Local Development Frameworks within the PUSH area should include policies to deliver all of the following principles:

- The LDF Sustainability Policies will apply to all development<sup>1</sup>; and the scale and density of development is matched by its level of accessibility to the necessary social, environmental and economic infrastructure, especially by walking, cycling or by public transport, as demonstrated through the design and access statement; and
- All new development will incorporate best practice principles of urban design and ensure that the completed development creates and contributes to a high quality public realm including green infrastructure for the local community; and
- Adequate land or funding has been provided for waste management infrastructure; and
- It meets the sequential and exception test (where required) in relation to PPS25 and the findings of the PUSH Strategic Flood Risk Assessment; and
- It protects and enhances the natural and built environment. Where development unavoidably has an adverse impact on the natural or built environment, mitigation measures will be required; and
- It contributes to the delivery of xx MW of new renewable energy by 2020 and carbon neutrality in the authority
- Where it is part of a major area of development, it either links to existing or produces its own local renewable energy and also maximizes resource efficiency opportunities; and
- When permitted it meets the following minimum Code for Sustainable Homes threshold level, and equivalents for non-residential development, as set out below:

All residential development achieves at least the following level of the Code for Sustainable Homes		All non-residential developments with a floor space of over 500 m <sup>2</sup> achieve at least the following BREEAM standards.
from adoption (2010)	Level 3	BREEAM 'very good'
from 2012	Level 4	BREEAM 'excellent'
from 2016	Level 6	BREEAM 'excellent'