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BOROUGH COUNCIL

Southend Climate Change Review Addendum 2014

Southend Climate Change Review Addendum (2013)

This addendum provides an update to the Climate Change Review (the "Review") published in March 2011. The Review was prepared as part of the evidence base to inform the proposed low carbon development and efficient use of resources policy (Policy DM2) in the Southend on Sea Development Management DPD.

The Review, which this addendum should be read alongside, provided an evaluation of the national, sub-regional and local low carbon development policy context and national standards in order to support the policy approach set by Policy DM2, which builds upon strategic objectives and policies within the Council's adopted Core Strategy DPD to ensure that new development contributes to sustainable development.

This addendum has been produced in response to the changing national policy (and supporting guidance) context and update local evidence. The addendum therefore highlights the key evidence from the Climate Change Review (2011); reviews changes to national planning policy introduced by the National Planning Policy Framework (NPPF) and National Planning Practice Guidance; considers the Government's Housing Standards Review; outlines current guidance on the Code for Sustainable Homes; provides an overview of the 2013 update to Building Regulations Part L; highlights changes to the EcoHomes following the introduction of the BREEAM Domestic Refurbishment scheme in 2012; appraises the current position of neighbouring local authorities on this issue in regard to planning policy; updates the local policy context for Southend following the outcomes of the 2011 consultation on the proposed submission version of the Development Management DPD; provides an overview of other local documents including the Southend Combined Policy Viability Study (2013); and finally draws a number of conclusions based on this information.

Summary of Southend's Climate Change Review (2011)

The Review notes that climate change is a long-term global challenge, the costs of inaction against which are far outweighed by the cost of action now. Development Plan policies should, therefore, take account of environmental issues such as mitigation of the effects of, and adaptation to, climate changes.

It is highlighted within the Review that the Government intends to tighten building regulations to facilitate the move towards 'zero carbon' by 2016, and provides an overview of Part L Building Regulations (2010), setting out that these regulations required a carbon reduction of 25% for all new development over the preceding standards set out in the 2006 Building Regulations, which corresponds roughly with the trigger point for Code for Sustainable Homes Level 3, prior to 2010 (this addendum will consider the 2013 update to Part L of Building Regulations, due to come into effect from 6th April 2014).

The Review goes onto address the Code for Sustainable Homes, considering each component part within a Southend context. The key documents considered included *inter alia*:

- The Code for Sustainable Homes: Setting the Standard in Sustainability for New Homes (2008)
- Code for Sustainable Homes: Technical Guide – Version 2 (2010)
- Summary of Change to the Code for Sustainable Homes Technical Guidance (2010)

The Review also provided an appraisal of regional policy contained within the East of England Plan (Regional Spatial Strategy) together with an appraisal of the policy approach taken by neighbouring local authorities, Castle Point and Rochford, within their emerging local plans. Since the Review was published the East of England Plan has been revoked and the local planning policy context for Rochford and Castle Point has evolved, and this will be appraised late in this Addendum.

The Review concluded that Code for Sustainable Homes Level 3 and a BREEAM rating of 'Very Good' can be achieved within Southend. However, the Review noted that to ensure no undue burden is placed on the development industry to deliver planned growth; flexibility will need to be built into a development management policy that takes account of viability and feasibility.

Following the publication of the NPPF (2012) it has been necessary to review the policy approach set out within the Development Management DPD, including the approach to low carbon development. This has included a review of the evidence base and the production of additional evidence base documents as appropriate, including the Southend Combined Policy and Viability Study (2013) which assessed those adopted and emerging planning policies with potential cost implications.

The following sections of this addendum will provide an appraisal of the national planning context set by the NPPF and associated National Planning Guidance, the planning policy context for neighbouring authorities of Rochford and Castle Point on the issue of low carbon development, and the Southend Combined Policy Viability Study.

National Context

National Planning Policy Framework (NPPF) (2012)

This section sets out the national planning policy context in respect to climate change and low carbon development. The context was previously set by Planning Policy Statement 1: Delivering Sustainable Development (PPS1) and its supplement, however in March 2012 these documents were superseded by the NPPF, and it is this policy framework that is considered below.

The NPPF sets out the Government's planning policies for England and how these are expected to be applied. At its core is the presumption in favour of sustainable development, which should be seen as a golden thread running through both plan-making and decision-taking (paragraph 14).

Paragraph 15 states that policies in Local Plans should follow the approach of the presumption in favour of sustainable development so that it is clear that development that is sustainable can be approved without delay. All plans should be based upon and reflect the presumption in favour of sustainable development, with clear policies that will guide how the presumption should be applied locally.

At paragraph 17 the NPPF sets out the Core Planning Principles that should under-pin both plan-making and decision-taking. Included within these is the principle that the planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change, and encouraging the reuse of existing resources, including the conversion of existing buildings and the use of renewable resources (for example, by the development of renewable energy).

Section 10 of the NPPF provides the policy context for meeting the challenge of climate change, flooding and costal change. Paragraph 93 states that planning plays a key role in helping shape places to secure radical reductions in greenhouse gas emissions, minimising vulnerability and providing resilience to the impacts of climate change, as well as supporting the delivery of renewable and low carbon energy and associated infrastructure. The NPPF highlights that this is central to the economic, social and environmental dimensions of sustainable development.

Paragraph 94 states that Local Planning Authorities should adopt proactive strategies to mitigate and adapt to climate change, including taking account of water supply and demand considerations.

Paragraph 95 indicates how Local Planning Authorities should support the move to a low carbon future, including: plan for new development in locations and ways which reduce greenhouse gas emissions; actively support energy efficiency improvements to existing buildings; and when setting any local requirement for a building's sustainability, do so in a way consistent with the Government's zero carbon buildings policy and adopt nationally described standards.

Paragraph 96 refers to the determination of planning applications, stating that Local Planning Authorities should expect new development to comply with adopted Local Plan

policies on local requirements for decentralised energy supply unless it can be demonstrated by the applicant that this is not feasible or viable; and should take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption.

In order to increase the use and supply of renewable and low carbon energy, paragraph 97 states that local planning authorities should recognise the responsibility on all communities to contribute to energy generation from renewable or low carbon sources. They should:

- Have a positive strategy to promote energy from renewable and low carbon sources;
- Design their policies to maximise renewable and low carbon energy development while ensuring that adverse impacts are addressed satisfactorily, including cumulative landscape and visual impacts;
- Consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure the development of such sources;
- Support community-led initiatives for renewable and low carbon energy, including developments outside such areas being taken forward through neighbourhood planning; and
- Identify opportunities where development can draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers.

In determining planning applications, paragraph 98 sets out that local planning authorities should not require applicants for energy development to demonstrate the overall need for renewable or low carbon energy and also recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions; and approve the application, unless material considerations indicate otherwise, if its impacts are (or can be made) acceptable. Once suitable areas for renewable and low carbon energy have been identified in plans, local planning authorities should also expect subsequent applications for commercial scale projects outside these areas to demonstrate that the proposed location meets the criteria used in identifying suitable areas.

Paragraph 99 outlines that Local Plans should take account of climate change over the longer term, including factors such as flood risk, coastal change, water supply and changes to biodiversity and landscape. New development should be planned to 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.

Chapter 11 of the NPPF sets out policies for conserving and enhancing the natural environment. Paragraph 114 states that local planning authorities should set out a strategic approach in their Local Plans, planning positively for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure.

When determining planning applications, paragraph 118 outlines that local planning authorities should aim to conserve and enhance biodiversity by applying a number of principles, including encouraging opportunities to incorporate biodiversity in and around developments.

National Planning Practice Guidance (NPPG)

The National Planning Practice Guidance (NPPG) web-based resource was launched on 6th March 2014 by the Department for Communities and Local Government (DCLG), accompanied by a Ministerial Statement that included a list of the previous planning practice guidance documents cancelled when the site was launched. It is the Government's intention that the Guidance will be updated as needed.

The NPPG contains a number of categories of guidance, including a section on Climate Change which advises on how planning can identify suitable mitigation and adaptation measures in plan-making and the application process to address the potential impacts of climate change. The Guidance on Climate Change, Design and Renewable and Low Carbon Energy are considered below:

Climate Change

The NPPG states that, in addition to supporting the delivery of appropriately sited green energy, effective spatial planning is an important part of a successful response to climate change as it can influence the emission of greenhouse gases. In doing so, Local Planning Authorities (LPAs) should ensure that protecting the local environment is properly considered alongside the broader issues of protecting the global environment. It also recognises that planning can help increase resilience to climate change impact through the location, mix and design of development.

It is stated that addressing climate change is one of the core land use planning principles which the NPPF expects to underpin both plan-making and decision-taking. To be found sound, Local Plans will need to reflect this principle and enable the delivery of sustainable development.

Local authorities should also adopt proactive strategies to mitigate and adapt to climate change in line with the provisions and objectives of the Climate Change Act 2008, and cooperate to deliver strategic priorities which include climate change. It highlights that there is a statutory duty on LPAs to include policies in their Local Plan designed to tackle climate change and its impacts.

It further states that Section 19 (1A) of the Planning and Compulsory Purchase Act 2004 requires LPAs to include in their Local Plans policies designed to secure that the development and use of land in the LPAs area contribute to the mitigation of, and adaptation to, climate change, and that this will be a consideration when a Local Plan is examined.

In considering how the challenges of climate change can be addressed through the Local Plan, the Guidance states that there are many opportunities to integrate climate change mitigation and adaptation objectives into the Local Plan, including the provision of opportunities for renewable and low energy technologies, providing opportunities for

decentralised energy and heating, and promoting low carbon design approaches to reduce energy consumption in buildings, such as passive solar design. For adapting to a changing climate, it is stated that consideration could be given to the availability of water and water infrastructure for the lifetime of the development and design responses to promote water efficiency and protect water quality, and promoting adaptation approaches in design policies for development and the public realm.

In preparing Local Plans, the Guidance states that LPAs should pay particular attention to integrating adaptation and mitigation approaches. There are, it is stated, a number of ways of achieving this including:

- Maximising summer cooling through natural ventilation in buildings and avoiding solar gain
- Through district heating networks
- Through the provision of multi-functional green infrastructure

In regard to the Government's national standards for a building's sustainability and for zero carbon buildings, the NPPG states that when setting any local requirement for a building's sustainability an LPA should do so in a way that is consistent with the Government's zero carbon buildings policy and adopt nationally described standards. Local requirements, the NPPG states, should form part of a Local Plan following engagement with appropriate partners and will need to be based on robust and credible evidence and pay careful attention to viability. In this respect, LPAs will need to take account of Government decisions on the Housing Standards Review (this is considered in the following section of this addendum).

For non-residential buildings, the NPPG states that LPAs will need to consider if there are national described standards and the impact on viability of development.

Design

Contained within the 'Design' section of the NPPG is further detail on the role of planning in promoting the efficient use of natural resources. It is stated that the structure, layout and design of places can help reduce their resource requirements in terms of energy demands, water and land take, and help to sustain natural ecosystems. Having a mix of uses and facilities within a neighbourhood can, as the NPPG states, reduce travel demand and energy demand.

It is highlighted within the NPPG that the layout and design of buildings and planting can reduce energy and water use and mitigate against flooding, pollution and overheating. Further guidance is provided on passive solar design, which is described as: 'the siting and design of buildings to maximise the use of the sun's energy for heating and cooling'. The NPPG outlines that passive solar design takes advantage of natural characteristics in building materials and air flow to help reduce the additional energy needed for heating and cooling.

The Guidance states that policies can encourage sites to be planned to permit good solar gain to as many buildings as possible. The potential benefits of passive solar design can, it is stated, only be realised by careful siting and layout. Passive solar design principles can be applied equally effectively in housing and commercial developments, and the

Guidance comments that it is important that passive design considers the potential for overheating in the summer as well as reducing need for heating in the winter.

A range of design solutions can be considered to help avoid overheating and the Guidance draws reference to a number of these, including *inter alia*: maximising natural ventilation and high levels of thermal mass.

Renewable and Low Carbon Energy

The Guidance also focuses on assisting local council's in developing policies for renewable energy in their Local Plans, identifying the planning consideration for a range of renewable sources. The Guidance highlights that the UK has legal commitments to cut greenhouse gases and meet increased energy demand from renewable sources. Whilst local authorities should design the policies to maximise renewable and low carbon energy development, there is no quota which the Local Plan has to deliver.

Housing Standards Review consultation (DCLG, August 2013)

The Housing Standards Review (2013), published by the Department for Communities and Local Government (DCLG), looked at a rationalisation of the framework of building regulations and local housing standards with a key aim to investigate the potential to reduce the level of administration required and associated costs to house builders.

The purpose of the Housing Standards Review, as stated, is not to stop industry or other bodies bringing their own standards to the market for developers to utilise on a voluntary basis. It acknowledges that such standards can play an important role in providing information about performance and technical specifications, which can inform builders and home buyers alike. However, it considered that standards may cause a problem when they are not subject to any local cost benefit or viability assessment, or local needs assessment.

The Government's intention therefore is to produce 'nationally described standards' which may be adopted through local development plans and neighbourhood plans under current planning powers. With this approach local planning authorities would need to include a needs test, i.e. the evidence criteria that local planning authorities would have to demonstrate to Planning Inspectors if they wished to apply a particular standard to an area. The aim of these safeguards is to ensure that standards are adopted in plans only where there is a direct justified local need, and where standards would not hinder development.

Although Government currently considers that developing 'nationally described standards' is the best way forward in the short term, it wants to explore further in the longer-term the option of fully integrating all the proposed standards into Building Regulations and therefore invited views on this through the consultation. The Housing Standards Review also states that local planning authorities will be encouraged to bring their local plans up to date to align with the new standards, if implemented. The inclusion of any such standard in a Local Plan would be tested through the examination process therefore.

Water Efficiency

Included within the Housing Standards Review is an evaluation of water efficiency standards, and the Government recognised within the Review that to meet current and future need, it is essential that the demand for water is managed sustainably, as protecting our natural resources, promoting economic growth and improving the natural environment go hand in hand.

The Housing Standards Review notes that households use around half the water put into the public supply, and while new homes account for a relatively small amount of total water consumption, the additional demand they represent can be significant in areas where there is already water scarcity. Minimum water efficiency standards, as the Review notes, were introduced into the Building Regulations in 2010 and require that all new homes are designed so that their calculated water use is no more than 125 litres per person per day, which is equivalent to Code Level 1.

In providing an overview of existing standards, the Review states that standards over and above current mandatory Building Regulations can currently be required for new homes through the planning system. In practice, this has normally been done through a more wide-ranging local sustainability requirement to build to a specific level of the Code for Sustainable Homes (the Housing Standards Review recognises that this is most commonly Level 3) which includes water efficiency, rather than a water-specific local standard.

Through the Review the Government affirms that there remains a strong case for a minimum level of water efficiency in new homes, and that the baseline should be set out through a legislative requirement in Part G of the Building Regulations (i.e. 125 litres per persons per day including external water use).

When setting a water-efficiency standard, the Review comments that both the Code and Building Regulations use a 'whole-house' methodology to set a standard based on the estimated average water use of a house. Using this approach has the benefit therefore of already being in use and familiar to many. Additionally, as it sets an overall performance target it provides flexibility in the specification of the water fittings used. The Review recognises however that there are also negatives associated with this approach. For some, there can be process costs associated with preparing and submitting the calculation. An alternative approach, it suggests, would therefore be to set minimum water performance standards for all fittings, however the Review notes that the simplicity of this approach can also be a drawback, namely in terms of the reduced flexibility due to setting water efficiency performance targets for all fittings. The Housing Standards Review therefore puts forward a balanced approach which would see water efficiency standards being set in terms of the whole-house approach and one based on fitting standards.

When determining what level water efficiency standards should be set at nationally, the Review states that the Government believes that the existing Part G Building Regulations sets a reasonable level of water efficiency by ensuring that consideration is given to the water performance of fittings and proposed that this should remain the regulated national baseline.

At the local level, the Review acknowledges that water demand and supply varies significantly between different parts of the country, and by association the challenge that new housing represents to supply varies similarly. On this basis, it is stated that the Government does not have a preferred position on this matter but is seeking views as to whether a case exists for higher local standards where there is a clear local need and where that measure would form part of an effective strategy to manage demand locally. At the time of writing this addendum the outcomes of this consultation had not been published.

Water efficiency standards above the national baseline standard in Part G Building Regulations, the Review comments, are usually required as part of a more wide-ranging requirement to build new homes to Code Level 3 (this requires estimated internal water use of no more than 105 litres per person per day, equivalent to 110 litres per person per day including external water use). Many developers, it observes, already have experience of delivering homes that meet this requirement and homes built to this higher standard are estimated to deliver savings of 15 litres per person per day over Part G. This additional efficiency can be achieved at a relatively small cost to house builders and in the usability of fittings for the householder. On this basis, the Review proposes that local planning authorities should be able to require a local water efficiency standard equivalent to 110 litres per person per day (including external water use). It is stated that the Government proposes that no other different standard relating to water efficiency should be able to be required (although house builders would be able to provide higher standards voluntarily if they wish to).

It presents an alternative option to this, which would be to tighten the national baseline standard for all new homes. This, it is noted, would have the benefit of simplicity and certainty, but would introduce an additional cost across the board.

In requiring higher standards locally, the Government proposes that local plans should be based on consultation with the local water supplier, developers and the Environment Agency, and the local planning authority should be able to demonstrate at examination that the standard is required to address a clear need and as part of an approach to water efficiency as set out in the local water undertaker's water resources management plan.

Energy

The Review also considers energy, reiterating the Government's Carbon Plan (2011) which outlined a key priority for the Government as being to reduce energy demand and carbon emissions created both by new and existing homes. It reaffirms the Government's commitment to implement zero carbon homes from 2016, noting that the zero carbon standard is for the net carbon emissions from energy use, regulated under Building Regulations, to be abated over the course of a year (regulated energy use being the energy involved in heating, hot water, lighting, ventilation and other fixed building services). Changes to Building Regulations Part L, to come into effect in April 2014, require what is described in the Review as 'a modest but meaningful strengthening of these requirements'. The latest changes to Part L raise the national minimum requirements for all new homes to slightly in excess of Code Level 3, but below Code Level 4.

It is proposed by the Government that the Code has been doing a successful job and in light of this it is considered that there no longer needs to be levels or separate carbon and energy targets within the Code – and proposes that these standards should be met in Building Regulations and 2016 requirements. It is further discussed within the Review that the Government considers, alongside the levels and standards for carbon and energy, there to be other standards in the Code that have become or are becoming redundant due to other policy or technical developments. The Review outlines that the Government considers that, due to the progressive strengthening of Building Regulations, it is no longer appropriate for local plan policies to specify additional standards for how much of the energy use from homes comes from on-site renewables.

Part L Building Regulations (2013)

The Approved Documents for Part L of the Building Regulations were previously amended in
October 2010, and from 1st October 2010 Part L of the Building Regulations required a carbon reduction of 25% for all new residential development over the preceding standards set out in the 2006 Building Regulations, corresponding roughly with the trigger point for Code for Sustainable Homes Level 3, prior to 2010. Part L of the Building Regulations has subsequently been amended and the 2013 version will come into effect from 6 April 2014.

The 2013 update will require a 6% improvement over a dwelling built to the 2010 regulations and a 9% improvement for non-domestic buildings, although this will not be in line with Code
Level 4, it will be slightly above Code Level 3.

The update states that Regulation 25B 'Nearly zero-energy requirements for new buildings' will not come into force until 2019 at the earliest. Changes to Approved Documents L will be provided nearer to the time that this regulation comes into force.

Cost of building to the Code for Sustainable Homes: Updated Cost Review (August 2011)

The 2011 Southend Climate Change Review provided an appraisal of the 2008 and 2010 Cost Reviews for Building to the Code for Sustainable Homes. The Updated Cost Review (2011), produced by the Department of Communities and Local Government, updates these previous versions and is based on a much larger availability of market-tested industry data. The findings are based on a consultation with home builders combined with an analytical cost modelling exercise, this consultation took place between August and October 2010. The Review took the cost of constructing a Part L 2006 compliant building as the baseline from which extra-over costs are measured. The reason for this was that few dwellings had been constructed to the then recently introduced Part L 2010 standard.

The Updated Cost Review highlights that a significant proportion of the cost of building to Code standards are incurred under the Energy and CO2 category and the consultation with home builders revealed a generally homogenous approach to achieving the Code level 3 dwelling emission rate standard. Typically, the Updated Cost Review notes, meeting Code Level 3 requirements involved improvement of the building fabric in

combination with a solar thermal system or small pv array. The Code level dwelling emission rate can be met, it is outlined, through fabric improvement alone at a similar extra-over cost to strategies involving low carbon generation. The Updated Cost Review states that this may lead to a fabric only approach becoming the norm at Code Level 3 for dwelling emission rate standard as this becomes the minimum requirement of Part L (2010). The Updated Cost Review goes onto identify that the dwelling emission rate improvements required at the highest levels of the Code to be very challenging to achieve.

In regard to water consumption, the Review clearly states that the common mandatory water consumption limit at Code levels 3 and 4 of 105 l/p/d can be achieved by providing low-flow water fittings. However, when achieving Code Level 5 and 6 standards of 80 l/p/d this necessitates installation of a grey water recycling system which incurs a substantial additional cost.

EcoHomes and BREEAM Domestic Refurbishment

EcoHomes was initially launched in 2000 and became the mandatory standard for social housing in 2003. The Code for Sustainable Homes replaced EcoHomes for the assessment of new housing in April 2007. It was however continued to be used for refurbishment projects, such as change of use or conversions while the BREEAM Domestic Refurbishment scheme was being developed.

The BREEAM Domestic Refurbishment scheme was put in place on 2nd July 2012. It provides a rating of 'Pass' to 'Outstanding', evaluating the environmental credentials of refurbishment projects. The scheme allows developers, designers and Green Deal advisors to demonstrate their environmental credentials, promote better design, and give confidence to customers. It has been designed to be used when developing refurbishment packages and specifications and to guide refurbishment designs by identifying the sustainability issues that should be taken into account, help tackle fuel poverty, support initiatives to enhance the health and wellbeing of occupants.

The Carbon Plan: Delivering our Low Carbon Future (2011)

The Plan sets out the government's approach to making the transition to a low carbon economy. It recognises the contribution buildings make to carbon emissions within the UK and highlights that by 2050 all buildings will need to have an emissions footprint closer to zero. To achieve this, buildings, it states, will need to become better insulated, use more energy-efficient products, and obtain their heating from low-carbon sources. Energy efficiency is highlighted to be an immediate priority and the Plan also recognises a need to support, in the next decade, ways of heating buildings without emitting carbon.

UK Renewables Energy Roadmap

The 2009 Renewable Energy Directive set a target for the UK to achieve 15% (up from 3%) of its energy consumption from renewable sources by 2020. The Southend Climate Change Review (2011) provided an appraisal of the UK Renewable Energy Strategy, outlining that this document sets the action plan for delivering renewable energy, explaining the path to 2020 and the fuels and technologies that are most likely to achieve the Government's goal. Since Southend Borough Council published the Review in 2011, the Government has published the UK Renewables Energy Roadmap, which was

subsequently updated in 2012 and again in 2013. The Roadmap sets out the plans for accelerating the deployment and use of renewable energy to help meet the 2020 target.

The Roadmap recognises that while renewable deployment across all technologies will be important, there are eight technologies for specific focus that have either the greatest potential to help the UK meet the 202 target in a cost effective and sustainable way, or offer great potential for the decades that follow. These 8 technologies are: Onshore Wind; Offshore Wind; Marine Energy; Biomass Electricity; Biomass Heat; Ground Source and Air Source Heat Pumps; Renewable Transport. The Roadmap includes key actions for each of these technologies.

Sub-Regional Context

It is important to consider Southend's neighbouring local authorities as both Rochford and Castle Point contribute to the wider Southend urban area and are therefore intrinsically linked economically, socially and physically with the Borough. The Review (2011) provided an appraisal of the local planning policies for these local authorities, however these strategies have moved forward since the Review was published, and the following provides an overview of the current adopted and emerging local planning framework for Rochford and Castle Point:

Castle Point Borough Council

In 2011, Castle Point Borough Council resolved to withdraw its Core Strategy from the examination process, and commence work on a new local plan. The emerging Core Strategy contained policies on energy and water efficiency in new buildings.

The Draft New Local Plan (2014) is currently out to public consultation between 24th January and 21st March 2014. Section 17 sets out the Council's approach to meeting the challenge of climate change. Strategic Policy CC1: Responding to Climate Change, encourages greater levels of sustainability through development and by putting in place measures that encourage individuals within the community to be more sustainable.

This will be achieved by: identifying development locations with good access to services and public transport; delivering improvements to public transport, footpaths and cycle paths; delivering multi-functional green infrastructure; seeking high quality sustainable design that promotes energy and water efficiency; encouraging the provision of renewable energy and decentralised energy as part of development proposed as appropriate.

Within the Draft New Local Plan, Development Management Policy CC7: Sustainable Buildings (New Builds) requires that the design of all new development should incorporate measures for achieving high levels of water and energy efficiency, and the use of decentralised energy sources. Development will be expected to demonstrate how its design, siting and layout has maximised opportunities for solar gain, daylight penetration, the re-use-recycling of water, and the use of decentralised energy sources.

As a minimum, Policy CC7 sets out that residential developments should seek to achieve water and energy efficiency consistent with CFSH Level 4, increasing in line with Building Regulation requirements over time. Non-residential developments should seek to achieve

water and energy efficiency consistent with BREEAM Very Good, increasing in line with Building Regulation requirements over time. Materials used during construction should be sustainable in terms of the energy that has been expended in their production, and the energy that is required to transport them to the location of the development. For water consumption this equates to 105 litres per person per day.

The policy further sets out that the waste resulting from the construction of all new buildings should be managed in a way that maximises the re-use and recycling of materials, on-site where possible. Sustainability measures installed and sustainable materials must be consistent with the overall architectural approach for the development, forming an integral part of the development.

In terms of the policy approach to existing buildings, Policy CC8: Sustainable Buildings (Existing Buildings) requires that materials used in the construction of extensions and alterations to existing buildings should be sustainable in terms of the energy that has been expended in their production, and the energy that is required to transport them to the location of the development, unless it can be demonstrated that appropriate materials to complement the existing building cannot be sustainably sourced.

For existing buildings, Policy CC8 requires that site waste is managed in a way that maximises the re-use and recycling of materials, on-site where possible. Applicants will also be encouraged to consider whether opportunities exist to make improvements to the energy and water efficiency of the existing building alongside the construction works required to deliver the proposed extension or alteration.

The current policy context for energy efficiency is set within the Borough Local Plan (1998) saved policies. Saved Policy E6 – Energy Efficiency of the Borough Local Plan requires proposals for new development to have regard to energy conservation in their siting, orientation, layout and design.

Rochford District Council

The Rochford Core Strategy was adopted on 13 December 2011. Policy ENV6 considers large scale renewable energy projects. This policy states that planning permission for large-scale renewable energy projects will be granted if the development is not within, or adjacent to, an area designated for it ecological or landscape value, or if it can be shown that the integrity of the sites would not be adversely affected, and there are no significant adverse visual impacts.

Policy ENV7 considers small-scale renewable energy projects. This policy states that small-scale renewable energy development will generally be considered favourably.

Policy ENV8 considers on-site renewable and low carbon energy generation. This policy states that developments of five or more dwellings or non-residential developments of 1,000 square metres or more should secure at least 10% of their energy from decentralised and renewable or low-carbon sources, unless this is not feasible or viable.

Policy ENV9 requires as a minimum, Level 3 of the Code for Sustainable Homes for all new residential developments. It is also stated that the Council will ensure that there are

real improvements in key areas such as carbon dioxide emissions and water efficiency. The policy states that the Council will expect developers to go beyond Code Level 3 for developments between–2010 and 2013, particularly in terms of water conservation measures, unless such requirements would render a particular development economically unviable. From 2013, Code level 4 will be required as a minimum, and from 2016 developments will be expected to meet the zero carbon target.

Policy ENV10 requires new non-residential buildings, as a minimum, to meet the BREEAM rating of 'Very Good', unless such requirements would render a particular development economically unviable. This policy states that where it is considered appropriate to relax the requirement to meet the BREEAM rating of 'Very Good' due to viability issues, the Council will still expect development to meet as high a BREEAM rating as is economically viable.

Paragraph 37 of the Inspectors Report states, '*These policies do not seek to anticipate national standards to any significant extent, meeting the zero carbon target is not expected until 2016, which is in line with Government targets. The Essex Thames Gateway Water Cycle Scoping Study found that the Thames Gateway authorities are reliant on water imported into the area, and in this context, the stress in Policy ENV9 on water conservation measures is justifiable. There is little evidence regarding impact on the viability of development, although the Affordable Housing Viability Study (AHVS) concludes that achieving Code Level 4 would be unlikely to prevent land coming forward at the top of the market, although at the bottom the impacts are more significant. Nonetheless, both policies allow for economic viability to be taken into account and there is no material conflict with the PPS1 Supplement on Climate Change. The CS is sound in relation to this issue*.'

Summary

Both the neighbouring districts of Castle Point and Rochford have sought to secure sustainable development both for residential and non-residential development. This will be achieved, for both Council's, through the obtainment of specific standards of the Code for Sustainable Homes and BREEAM as appropriate. For both Council's, non-residential development is expected to achieved a BREEAM rating of Very Good, subject to viability.

For residential development, within the emerging Draft New Local Plan, Castle Point require this type of development to seek to achieve water and energy efficiency standards that are consistent with Code for Sustainable Homes Level 4, increasing with Building Regulation requirements over time, although the holistic obtainment of Code Level 4 is not required.

For Rochford, the adopted Core Strategy Policy ENV9 requires Code Level 3 as a minimum, with Code Level 4 required as a minimum from 2013, and zero carbon standards met from 2016. This approach was found sound by the Planning Inspector as the policies allowed for economic viability to be taken into account and there was no material conflict with the then current PPS1 Supplement. Rochford's Core Strategy was adopted in 2011, and this was prior to the introduction of the NPPF and the changing national planning policy context. Southend's Development Management DPD will be considered in the context of the NPPF.

Local Context

The Review (2011) provided an appraisal of relevant Southend Borough Council policies in respect to low carbon development in terms of both the adopted and emerging local planning framework. The local policy context has not changed substantially since this time, although the following section considers the representations received during the (superseded) proposed submission consultation on the Development Management DPD (2011); appraises the evidence provided by the Southend Combined Policy and Viability Study (2013); and considers the Council's approach to low carbon development as set out within it Low Carbon Energy Strategy (2012-2014).

Development Management DPD (Superseded) Proposed Submission Consultation (2011)

The Review (2011) provided a summary of the consultation responses received during the Issues and Options consultation on the Development Management DPD (June 2010). This identified a number of issues from representations received, including *inter alia*: a respondent felt there is a need to place greater emphasis on reduction in energy use and consumption through good design and construction; another respondent commented that leaving the policy to rely on national policy and building regulations along will mean that development is open to challenge; all developments should aspire to incorporate community water harvesting and reuse systems, which are needed to achieved water use of less than 95l/head/day; the policy may need to consider carbon use in the construction supply chain, including reuse of construction materials on and off site.

The (now superseded) consultation on the Proposed Submission Development Management DPD took place between 18th March and 29th April 2011. The purpose of the consultation was to publicise the draft DPD to establish whether it was soundly based and legally compliant. This was extremely valuable and provided the Council with a number of helpful suggestions that may improve the plan. In regard to Policy DM2: Low Caron Development and Efficient Use of Resources, a total of 7 responses were received, which included *inter alia*:

- Provide reference to Parklands Vision (2008);
- As the Code for Sustainable Homes includes water efficiency as a mandatory requirement at each level why does the policy require water efficiency at part 2(iii) when Code for Sustainable Homes requirements have already been set out in part 2(ii);
- Support policy but concerned that waste efficiency has been removed from the policy. This has also been identified in the Sustainability Appraisal;
- Part 2(ii) of the policy should be revised to reflect paragraph 2.14 that outlines the circumstances where the Council will consider exceptions to the Code for Sustainable Homes target based on viability and feasibility;
- The policy should be less prescriptive, not repeat other legislation and not include policies that date quickly upon adoption, particularly the Code for Sustainable Homes.

Southend-on-Sea Combined Policy Viability Study (2013)

The Southend-on-Sea Combined Policy Viability Study (hereafter referred to as 'the Study') was commissioned by the Council to contribute towards its evidence base to inform the production of emerging development plan documents, including the Development Management DPD. The Study assesses the viability of the Council's draft planning policies and standards, alongside the adopted Core Strategy and other relevant national policies, in line with the requirements of the NPPF and the Local Housing Delivery Group Guidance 'Viability Testing Local Plan: Advice for planning practitioners' (June 2012).

While the Study examines adopted and emerging planning policy requirements it does not test specific sites or detailed proposals, rather it tests a range of development typologies. As a Borough-wide study, this assessment makes overarching conclusions about the viability of local planning policy. The Study does not account for, or make judgements about, individual site circumstances and in this regard is not to be relied upon for individual site applications. It adopts a standard residual valuation methodology, using locally-based assumptions, in the context of testing the impact on viability of the Council's planning policies across the Borough.

A sifting exercise was undertaken in order to identify which policies might have cost implication for developments. This sifting exercise identified requirements for good design/layout as essential element of any development, which should be factored into normal development costs. The Study tests the viability of the cumulative impact of the existing and emerging policies and therefore focuses on added costs where the emerging policies set requirements that exceed Building Regulations or what might otherwise be considered to be acceptable in planning terms. The main added costs relate to sustainable design standards and the likely Section 106 requirements, including affordable housing.

The Study allows for an allowance of 1.4% above the base BICS costs to allow for uplift from Building Regulations Part L (2010) to meet Code for Sustainable Homes Level 3; an additional 6% of base build costs is included as an allowance across all housing tenures for meeting Code for Sustainable Homes Level 4; and when testing Code for Sustainable Homes Level 6, an additional 50% is added to the base build costs. These assumptions are based on the August 2011 CLG Study 'Code for Sustainable Homes: Updated Cost Review'. As Policy KP2 of the Core Strategy requires a minimum of 10% energy needs to come from on-site renewable sources, for the purposes of the Study is was taken that the 10% renewables contribution is covered through S106 contributions factored into the appraisal (and all/an element of the renewables requirement is covered by the uplifts for Code Level 3).

The appraisal results presented within the Study indicate that achieving Code for Sustainable Homes Level 4 is possible in some cases, and particularly in the higher value parts of the Borough. The Study recommends that in determining planning applications however, the Council will need to weigh competing objectives such as sustainability against the need for affordable housing and other policy requirements. To this end, the Study recommends that the Council considers adopting a flexible approach to Policy DM2 as this will allow the Council to achieve a suitable balance in development coming forward across the Borough and over the lifetime of the Plan. Achieving zero carbon

standards by 2016, in accordance with Government requirements, is however identified by the Study as being ambition and requiring a significant reduction in costs in comparison to today's estimates.

The Study also highlighted that a flexible approach to costs affecting commercial developments, particularly in the Central Area, is essential. The Study recommends that in particular Policy DM2 applies the requirements for developments to meet BREEAM standards flexibly. Notwithstanding this, the Study notes that the results presented, which identify certain commercial development as unviable, do not mean that sites will not be development within the Borough for these uses, as viability is only one of many factors which affect whether a site is developed.

Southend Low Carbon Energy Strategy (2012-2014)

The Southend 'Low Carbon Energy Strategy' (the 'Strategy') has been produced by Southend Borough Council to provide an up to date response to low carbon developments and practices within Southend, that are set out in the Southend Climate Change Action Plan 2010-2013, which was appraised as part of the 2011 Climate Change Review. The Strategy has six key objectives for promoting the low carbon agenda in Southend:

- To reduce the carbon emissions associated with Southend Borough Council's property estate;
- To begin work to reduce the carbon emissions associated with Southend Borough Council's services and operations;
- To encourage the development of renewable energy throughout the Borough;
- To help local residents reduce energy usage in domestic properties;
- To begin developing a low-carbon and more sustainable transport infrastructure; and
- To identify how Southend Borough Council can facilitate the growth of the low-carbon economy throughout the Borough.

The Strategy is the Council's first step in becoming a leading local authority on the low-carbon agenda in the East of England. It recognises the leading role local authorities have to play in promoting the growth of the low-carbon economy locally, offering the unique opportunity to make a real contribution in delivering local objectives and ensuring that low-carbon and sustainable considerations are embedded into the Council's strategy and policy framework.

The six key objectives listed above, will be targeted over the course of the Strategy to allow the Council to develop best practice in terms of promoting sustainability and implementing carbon reduction measures, allowing more robust and long-term carbon reduction targets to be set out in the Council's next Low Carbon Energy Strategy, to be published in 2015.

The planning system has an important role to play in delivering the strategy. In January 2008 the EU published its Climate and Energy Package setting out proposals to achieve a 20% reduction in EU greenhouse gas emissions by 2020. As part of this package, the UK has a target to deliver 15% of its energy from renewable sources by 2020.

Through the implementation of Policy KP2 of the Council's adopted Core Strategy DPD, a minimum of 10% of the energy needs of new development is required from on-site renewable options, such as those set out within the Design and Townscape Guide SPD1. The implementation of this policy, together with complementary policies contained within the emerging Development Management DPD (Policy DM2: Low Carbon Development and Efficient Use of Resources) are intended to encourage sustainable, low-carbon development, supporting the growth of micro-renewable technologies in new development, making it easier for residents, business and communities to generate their own electricity.

Overview and Conclusions

This addendum to the 2011 Southend Climate Change Review has reiterated key evidence from the original paper; considered the changes introduced by the NPPF and NPPG; assessed up to date information relating to the costs of achieving Code for Sustainable Homes standards, BREEAM Domestic Refurbishment, and Building Regulations Part L; reviewed the current planning policy context of neighbouring local authorities within the sub-region; and has considered updates to the Southend context, including the evidence provided by the Combined Policy Viability Study (2013). This final section will provide an overview of Southend's policy approach to ensure low carbon development and the efficient use of resources remains valid and justified in the long term.

The Southend Combined Policy Viability Study is of particular relevance in this regard. The evidence presented within this Study, which was commissioned by the Council in line with the requirements of the NPPF, identifies that in general, development in Southend can suitably accommodate the policy requirements of Policy DM2. However, the Study recommends that Council considers adopting a flexible approach to Policy DM2 as it considers that this will allow a suitable balance to be achieved in development coming forward across the Borough and over the lifetime of the Plan.

The issue of viability was recognised within the 2011 Southend Climate Change Review, which concluded that 'to ensure that no undue burden is placed on the development industry, flexibility will need to be built into a development management policy that takes account of viability and feasibility'.

This is addressed within Policy DM2 of the Revised Proposed Submission version of the Development Management DPD, which strives to support Southend's transition to becoming a low carbon economy through the planning system by providing a policy context that enables sustainability standards (including Code for Sustainable Homes and BREEAM) to be realised, tempering this with a flexible approach that will allow developers to demonstrate as necessary, to the Council's satisfaction, where there is clear evidence that the obtainment of such standards would undermine the viability of a development. This approach would be consistent with that taken by the neighbouring authorities of Rochford, within their adopted Core Strategy, and Castle Point, within their emerging New Local Plan, whereby flexibility has also been built in to have regard to viability. It also shows a coherent and flexible approach to new development in the sub-region across three adjoining authorities of the five that comprise the Thames Gateway South Essex partnership.

While the update to Building Regulations Part L 2013, due to come into effect in April 2014, will see standards for the conservation of fuel and power required slightly in excess of those levels set by Code Level 3, this update doesn't go as far as was at one time anticipated and as such does not bring regulations fully in line with Code Level 4. Within Policy DM2, the Council is seeking a holistic approach to energy efficiency and low carbon development to be taken through requiring the obtainment of Code Level 3 as a minimum, unless it can be demonstrated that this is not viable or feasible, although higher standards are encouraged and Policy DM2 (1.iii) makes provision for the move towards zero carbon by 2016 for residential development, thereby taking account of future updates to Building Regulations and corresponding levels of the Code.

By requiring development to achieve Code for Sustainable Homes Level 3, moving towards zero carbon standards by 2016, the Council is seeking to set local sustainability standards that are consistent with national standards. While the government's Housing Standards Review consultation (2013) indicates an intention to move away from the Code for Sustainable Homes, to date this has not been implemented. It is considered that requiring the obtainment of Code Level 3 as a minimum therefore, is consistent with the NPPF approach, and indeed the approach taken by neighbouring authorities who are requiring developments to meet Code for Sustainable Homes / BREEAM standards (with Rochford's Core Strategy requiring Code Level 3, Code Level 4 from 2013, and zero carbon from 2016, subject to viability, and Castle Point's emerging Draft New Local Plan requiring Code Level 4 for energy and water efficiency only, increasing over time in line with Building Regulations, subject to viability and feasibility), and that sufficient flexibility has been introduced to DM2 to allow for national changes to be adapted to.

The approach to water efficiency set out within the Development Management DPD Policy DM2, which requires 105 lpppd (which equates to 110 lpppd including external water consumption) is also consistent with neighbouring authorities, recognising the evidence presented by the Essex Thames Gateway Water Cycle Scoping Study (as highlighted by the examining Inspector for the Rochford Core Strategy, 2011), which identified that the Thames Gateway authorities are reliant on water imported into the area and as such setting maximum levels for water consumption for new dwellings is justifiable locally. Indeed, this approach has been consulted upon at both Issues and Options and Proposed Submission stages in the production of the Development Management DPD, and no objections were received on these grounds.

The neighbouring local authorities of Rochford and Castle Pont have taken a similar approach. Rochford, within its Core Strategy, is requiring the obtainment of Code Level 4 from 2013, subject to viability, which equates to 110 lpppd water consumption (internal and external). Castle Point, in recognition of local evidence, have set water efficiency standards within their emerging Draft New Local Plan in line with Code Level 4 (subject to viability) which is, as Code Level 3, 105 lpppd internal water consumption (which equates to 110 lpppd when including external water consumption).

Policy DM2 also acknowledges the potential existing dwellings have in contributing to low carbon development and the efficient use of resources. Policy DM2 (2) sets out that high standards of energy and water efficiency in alterations and extensions to existing

development will be supported wherever possible through retrofitting meeting, where viable and feasible, a BREEAM Domestic Refurbishment 'Very Good' rating, which includes a holistic range of environmental issues, including water and energy use.

This addendum has provided an update on the current national context, which includes the NPPF and NPPG. The NPPF requires LPAs to adopt a proactive strategy to mitigate and adapt to climate change, including taking account of water supply and demand considerations. In setting a policy for low carbon development locally, including policy requirements for water efficiency standards to manage the impact of new development on local water resources, Southend Borough Council is fulfilling its obligation to support this transition by setting standards that will allow this to be achieved, allowing for a flexible approach that takes the viability of a scheme into account.