



Reigate and Banstead Borough Council

Sustainable Energy Strategy

June 2009



Sustainable Energy Strategy

Executive Summary

Reigate & Banstead Borough has a growing population and careful management of resources is particularly important in the Borough as it develops, regenerates and grows. Sustainable energy is a vital piece of the jigsaw that makes up a thriving community and the Council is keen to demonstrate leadership in this area.

The challenge

Reigate & Banstead Borough Council has developed this Sustainable Energy strategic action plan to provide its response to the challenges of: -

- ensuring sustainable energy provision in the coming years,
- responding to fuel poverty,
- addressing climate change issues,
- responding to national, regional and local level policies and targets on carbon dioxide emissions reduction.

The Council has held a commitment to sustainable energy for several years now, and it has been a priority in the 'Caring for our Local Environment' theme of the Corporate Plan since 2006.

The vision

"Reigate and Banstead Borough Council will empower its local communities to achieve an 80% reduction in CO₂ emissions between 1990 and 2050.

The Council will be a focus for excellence in sustainability, ensuring that the energy needs of the growing community remain secure and affordable."

The key target

In order to achieve the Vision above, an annual Borough-wide reduction in CO₂ emissions is needed of 13,227 tonnes per year to 2050.

The approach

In the wider community the Council will focus resources by designating one geographical area at a time as a 'Green Action Zone', to integrate new development and infrastructure with maximized community partnership. The concept of a Green Action Zone was first proposed by SEEDA in 2008, so the Council will be leading the way in implementing this innovative approach.

The regeneration of Horley Town Centre will be the first focus for Green Action Zone activity. However, Redhill is best placed to be the Borough's first full Green Action Zone due to better energy infrastructure opportunities, a status as a recognized Regional Hub for economy and transport, and its early stage of regeneration planning, enabling the Green Action Zone to be integrated into designs from the outset.

The area of work with the most potential currently to make a difference to CO₂ emissions levels is retrofit of energy efficiency and conservation measures to existing homes. This will therefore be a priority in the Council's strategy.

With support from the Energy Savings Trust and Carbon Trust the Council will undertake active fund-raising for the programme and deliver projects within 5 'themes', or areas of work: -

Theme 1 - Providing community leadership

- informing and inspiring schools, residents, businesses and community organisation, promoting best practice and celebrating success,
- facilitating local energy projects that would not otherwise happen,
- leading the Gatwick Diamond local authorities in creating a wood fuel strategy for the economic sub-region,
- encouraging and facilitating implementation of renewable energy .

Theme 2 – Improving energy in Council buildings, fleet and services

(to report against National Indicator 185)

- CO₂ emissions reduced by 15% by 2012 from 2007 through energy conservation and efficiency, and renewable energy projects as appropriate and feasible,

Theme 3 – Sustainable energy in homes, businesses and social sector

(to report against National Indicator 186, with contributions also from Themes 1 & 4)

- An annual reduction achieved in CO₂ emissions of 13,227 tonnes per year in the Borough (baseline of 800k tonnes in 2005)
- Improvement of all residential properties to a minimum standard of efficiency (i.e. SAP 65) by 2016 to work towards elimination of fuel poverty,
- By 2012, have several successful community and business projects completed and ongoing within the Horley and Redhill Green Action Zones.
- Renewable energy installed towards generating 8% renewable electricity by 2016 (209MWe of installed capacity), increased from 71.7MWe at June 2007.

Theme 4 – Sustainable energy in new development

- Policy: Incorporate policies in Local Development Framework that promote sustainable energy and ensure successful implementation,
- Regeneration: Embed sustainable energy into regeneration schemes and enable sustainable energy solutions to help developers meet planning requirements,
- Support a selection of key and diverse case study energy projects within the Borough.

Theme 5 – Creating a fund for local energy projects

- Establish a fund to deliver sustainable energy projects, with income from developers, grants, and voluntary donations from businesses and individuals wishing to mitigate the impact of their activities.

The Energy Savings Trust provides advice to householders, business and public sector on energy measures and has provided support and advice during the production of this strategy. Advice on building improvements and grants can be obtained on 0800 512012.

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Background

There is growing concern about UK energy security due to undetermined future costs and the long-term availability and sustainability of oil and gas.

During 2007 and 2008 we saw unexpected and unpredictable variation in prices for energy leading to financial hardship for much of the nation's citizens, community organisations and businesses.

Prices for oil to date have doubled from rates in January 2007 and more than quadrupled since 2002. Throughout 2008 we saw oil prices rise to \$147 a barrel in July 2008 with respected analysts predicting that prices would rise to \$200 a barrel; however three months later in October 2008 prices had dropped to close around \$60 a barrel.¹

Prices for oil are subject to vulnerability due a variety of domestic and international foreign policy reasons such as political elections, war and terrorist threat. In both 2006 and 2009 Russia stopped the gas supply to Western Europe after a disagreement with Ukraine.

The International Energy Agency predicts that demand for oil will rise by an average of 2.2 million barrels a day next year (in 2010), compared with 1.5 million in 2007, beginning to outstrip the ability for supply.

The Government has made some progress towards meeting its target to end fuel poverty² in England by 2016³, despite rising energy prices in recent years. In 2006, there were still approximately 3½ million UK households in fuel poverty, an increase of around 1 million households since 2005. UK has a significantly growing older population, with a high number of older people aged over 85. Older people, pensioners, the poorest and most vulnerable people are, most likely to suffer financial difficulty leading to fuel poverty. People who cannot afford to pay energy bills may expose themselves to prolonged periods of cold temperature which causes around 30,000 deaths a year in the UK⁴.

Introduction

The Borough of Reigate & Banstead has begun a journey of significant change and regeneration as a result the borough has a modestly growing population, large scale additional housing growth, and significant investment in infrastructure. The rate and pace of change will present the Council, its partners, and the community with many exciting opportunities and challenges. The Council will work hard to ensure that these challenges are solved with innovative, creative and credible solutions.

¹ Source BBC October 2008

² Fuel poverty is defined as spending more than 10% of income on gas, electricity and heating oil.

³ The Warm Homes & Energy Conservation Act 2000

⁴ Source: BERR website Nov 2008.

The Council's commitment to maximizing the entire Borough's ability to reduce its carbon footprint whilst tackling sustainability and energy issues is communicated in the draft Corporate Plan 2009-12, and the Borough's Community Plan 2008-20. Both the Corporate and Community Plan have an environment theme with a number of improvement priorities aimed at taking action to reduce the effects climate change.

The draft Corporate Plan identifies that the Council has a role in managing and mitigating the environmental consequences of climate change. At the same time we need to promote more efficient use of energy in our homes, businesses and transportation. We are determined to ... play our part in the sustainable use of resources, reducing waste, using energy efficiently and improving air quality.

The Community Plan sets out the following aspirations for the Borough:

- Encourage sustainable lifestyles so that we all "live within our means".
- Help everyone to take responsibility for conserving water and energy.
- Reduce the Borough's impact on climate change by promoting zero and low carbon development in new and adapted buildings.
- Promote effective renewable energy sources to help combat climate change.
- Increase the efficiency of existing buildings to reduce the amount of water and energy wasted.
- Reduce pollution in the Borough to improve the quality of our environment.

We need to explore new ways of ensuring that energy will remain sustainable and affordable in the long-term to meet the demand for energy in the Borough, through minimising energy consumption and facilitating the availability of renewable energy sources in the Borough. The Council has endorsed this strategy in order to identify an action plan to maximise carbon reduction and optimise renewable energy in relation to:

Council buildings and services
Homes, businesses and social sector
New development and local production of sustainable energy
Creating a fund for local energy projects

The scope of this strategy is influenced by the areas of responsibility that the Council holds. Surrey County Council (SCC) holds responsibility for transport and highways, including street lights, and also for schools and education. Reigate & Banstead Borough Council will support and prompt SCC's work on sustainable energy and climate change mitigation but will focus its resources on priorities within its own sphere of responsibility.

This Strategy has been subject to a public consultation process before being formally adopted by the Council.

Vision, Aims and Themes

Vision

Reigate and Banstead Borough Council will empower its local communities to achieve an 80% reduction in CO₂ emissions between 1990 and 2050.

The Council will be a focus for excellence in sustainability, ensuring that the energy needs of the growing community remain secure and affordable.”

Aims

- Provide local energy security to support successful and thriving communities and business.
- Work towards eliminating fuel poverty in our Borough
- Reduce CO₂ emissions in the Borough to reduce air pollution, stabilise environmental conditions and mitigate climate change
- Achieve relevant sustainable energy and environmental national and local performance indicator targets

Sustainable Energy Themes

The Council is described in the 2006 Local Government White Paper ‘Strong and Prosperous Communities’ as a strategic leader and place shaper; therefore it will use its statutory local government powers to shape the Borough creatively promoting the general wellbeing of the community and its residents. The Council demonstrate community leadership through implementing best practice in sustainable energy in its own estate. Place shaping is highly effective when executed in partnership with stakeholders and in consultation with the community. A fundamental ambition of this strategy is to put in place an accessible and achievable sustainable energy framework which encourages and facilitates a community contribution to this agenda and therefore towards living more sustainable lives.

The Sustainable Energy Strategy has five themes which categorise the various different projects which contribute to achieving the vision and aims of this strategy.

1. Providing community leadership:

Inspiring change and demonstrating local leadership in the field of sustainable energy.

2. Improving energy in Council buildings, fleet and services:

Achievement of best practice sustainable energy projects on our own estate to reduce our own impact and as case studies to inspire others in our community.

3. Sustainable energy in homes, businesses and social sector:

Work towards elimination of fuel poverty in the Borough.

A key focus on retrofit of energy measures to existing building stock.

Implementing necessary policies, processes, research, feasibility studies and projects to position the community to invest confidently and knowledgeably in sustainable energy options.

4. Sustainable energy in new development:

The Borough's sustainable energy policies limit the impacts of development, and are robust and supported by practical and realistic delivery mechanisms.

Sustainable energy solutions in place in our regeneration areas and in key buildings in the Borough, acting as inspirational and exemplar case studies.

5. Creating a fund for local energy projects:

A fund established as a mechanism for flexibility in delivery for developers and an income stream to fund local sustainable energy initiatives.

The 'Green Action Zone' concept that is proposed initially for Horley and Redhill incorporates elements from the above themes.

Existing work and progress to date

Reigate & Banstead Borough Council has made good progress in developing new ways of sustainable working and management of its own estate. An important action within this strategy is to improve the communication internally and externally of the work that takes place. This will provide useful case studies to inspire the council's own staff and act as examples for other organisations. The work will be monitored and measured to demonstrate progress over time.

Reigate & Banstead Borough Council have already made achievements in sustainable energy initiatives as outlined below:

IT and printing

Comprehensive Council-wide implementation of flat screen technology to reduce energy consumption. A phased move towards thin client technology and reviewing opportunities within server technology. A detailed review of printer and photocopier use with a view to reducing energy demands.

Regeneration and development growth

A local policy has been put in place to implement the Surrey Structure Plan Policy SE 2 objective that a minimum of 10% of energy requirements from new developments should be through onsite generation of renewable energy. We are now building on this further by an implementation review to ensure best practice processes and training in order to achieve our aims.

A new Core Strategy policy is being developed through the Local Development Framework (LDF) to require new construction to be carbon neutral.

Our regeneration plans for Redhill, Horley and Preston include a strong emphasis on ensuring sustainable provision of energy for the local area, with proposals for integrated renewable energy, heat networks and/or combined heat and power plant.

Community

Reigate & Banstead Borough Council has worked with schools, East Surrey Hospital and leisure centres to undertake studies, develop proposals and facilitate fundraising for renewable energy and combined heat and power schemes to retrofit community facilities.

A ground source heat pump has been installed in the recently built Priory Park pavilion.

Travel

The Borough Council has: -

- Produced a cycling strategy for the Borough,
- Bought and arranged for the installation of cycle racks and lockers at railway stations and in Town Centres,
- Implemented a Home Zone,
- Undertaken a 'Green fleet' review for the council's own fleet and made improvements
- Acted as a leader in Safe Routes to Schools schemes, initiating the 'Car-Free Fridays' scheme⁵ which led to a similar concept 'The Golden Boot Challenge' being rolled out across Surrey,
- Bid for and supported a Sustrans 'Bike-It' officer who has been working full time with schools in the Borough since 2006 to encourage cycling as the transport option of choice for young people,
- Worked with local companies under the Easit project to implement travel plans to reduce congestion and transport impact,
- Encouraged and facilitated provision of new rail and bus services,
- Maximised the use of Section 106 resources to implement additional sustainable transport initiatives linked to developments,
- Supported cycling days including promoting cycling, car-free shopping, cycle safety and maintenance.

Policy development

Reigate & Banstead Borough Council has taken the lead in the Gatwick Diamond economic sub-region initiative to develop a strategy for wood-fuel.

⁵ promoted sustainable school travel

Themes

Each theme will have a number of projects to support delivery, and there will be 'SMART' targets for each theme. We will work towards the aims of this strategy through achieving the following headline outcomes by 2012:

Providing community leadership:

- **Information:** energy information sources accessible to enable school, residents, businesses, community organisations to act and make sound decisions
- **Communications:** internal and external communications inspire action by others through promotion of best practice and celebration of success
- **Facilitation:** local energy projects happen that would not otherwise
- **Peer leadership:** The Council has led the Gatwick Diamond local authorities in creating a wood fuel strategy for the economic sub-region
- **Renewable energy:** 8% of installed electricity capacity from renewable sources by 2016 (209MWe of installed capacity), up from 71.7 MWe at June 2007 in the region of Thames Valley and Surrey within which the Borough sits.
- **External opportunities:** The Council will be in a position of making a credible bid for a prestigious sustainability awards and funding streams

Improving energy in Council buildings, fleet and services:

- CO₂ emissions reduced by 15% over three years from a baseline in 2008/9⁶

Sustainable energy in homes, businesses and social sector:

- A clear baseline and database established to give accurate ongoing information on our existing housing stock
- An annual reduction achieved in CO₂ emissions of 13,227 tonnes per year in the Borough, from 2005 to 2050 (from a baseline of 800k tonnes, or 6.2t per capita)
- Improvement of all properties to a minimum standard of efficiency (i.e. SAP65) by 2016 to work towards elimination of fuel poverty and to reduce CO₂ emissions. By 2012 we need to demonstrate that we are on track to meet this

Sustainable energy in new development:

- Implement policies in the Local Development Framework which require where appropriate:
 1. Carbon neutral development
 2. Incorporation of renewable energy
 3. 'Consequential improvements' on extension applications

⁶ exceeding the community target

- Embed sustainable energy principles into regeneration plans and policy for Regeneration Areas. Implement practical projects for sustainable energy for new development in the 'Green Action Zones'.
- Enable sustainable energy solutions for regeneration areas, helping developers to integrate planning requirements, particularly with the Redhill Green Action Zone where there is opportunity to incorporate an energy network in the town centre.

Creating a fund for local energy projects:

- Establish a fund and begin to deliver sustainable energy projects in the Borough with the income from developers, organisations and other individuals wishing to mitigate the impact of their activities⁷.

Green Action Zone:

- Put an action plan in place and implement several diverse and successful community and business projects within the first targeted geographical area, on renewable energy, energy efficiency and energy conservation in existing buildings, lifestyle and operations, linked to other sustainability measures.

⁷ Projects that entail costs will be assessed on a cost-benefit basis and will only be able to progress within the bounds of affordability in the financial circumstances at the given time.

Theme 1

Providing community leadership

The challenge of ensuring sustainable energy supply for the future is wide reaching and needs to involve the whole community. We need to show leadership, while encouraging and enabling other people and organisations to take action.

An example of an achievement in this area has been leading the Gatwick Diamond economic sub-region to develop a joint wood fuel strategy. The wood fuel strategy will identify the vehicle to establish the resources available and needed to for biomass technology. It also proposes a way forward to stimulate wood fuel supply chains leading to the provision of new installations.

The Council will facilitate or enable installation of renewable energy as a contribution towards South East region targets. Some projects that are relevant to delivering against this headline outcome also sit within themes 2, 3, 4 and 5.

Resources

We have confirmation of funding from the Gatwick Diamond group of local authorities for the first phase of the Gatwick Diamond Woodfuel Strategy study, with the likelihood of funding for further phases.

The majority of the other work within this Theme requires research of information, writing of communications material and printing and distribution. We will 'piggy back' on existing means of communication where possible. Examples include using the website, Borough News, sharing stands with the waste team, putting resources into schools alongside the Litter Free Schools project, and using Business-link networks. We will also use existing information sources such as the Energy Savings Trust and Carbon Trust to minimise the need to re-invent the wheel.

The majority of the other work within theme 1 involves creating and distribution of communication materials and methods. Where necessary, research⁸ will be undertaken to produce eye-catching facts. The communication strategy will maximise traditional methods to publicise the theme such as website articles, Borough News articles, ad hoc poster campaigns at community events and buildings alongside more personal methods such as building on existing relationships with schools and tapping into the Business-Link networks. Other sources of funding will be necessary in order to distribute specific materials more widely in the community on occasion.

There are several projects based within the community where the Council will have a facilitation or enabling role and officer time will be needed to support this. The Council currently has two dedicated officers, to support delivery of this strategy. Other specialist officers within the Council, or wider partnership will also contribute towards delivery when appropriate.

⁸ Existing information sources such as the Energy Savings Trust and Carbon Trust will be used to minimise the need for this

Theme 2

Improving energy in Council buildings, fleet and services

The Council recognises it has a vital role in furthering sustainable development and demonstrating leadership through good management of its own estate and through its procurement of buildings, goods, works and services.

This work is fundamental for the Council to gain credibility in the community, and to deliver the whole Sustainable Energy programme. It also contributes to the requirements of the Local Government Performance Framework National Indicator 185 relating to councils' own estates.

We are committed to using best endeavours to achieve implementation of policies to: -

- Promote and embed best practice for sustainable procurement across our offices and operations wherever reasonably achievable, and also influence our suppliers to adopt environmentally friendly processes and supply environmentally friendly goods and services,
- Ensuring that conditions are set against sale or development of council-owned land by others, requiring provision of the best practice sustainable energy standards reasonably achievable on that site,
- Incorporating sustainable energy into refurbishment or redevelopment that we undertake of leisure centres and pavilions,
- Aim to ensure that heating in Council offices does not raise temperatures above 20°C and cooling does not lower temperatures below 26°C⁹,
- Use whole life-cycle costing to ensure that energy efficiency is integrated both into new-build and refurbishment schemes and to clarify the long-term budget implications for decision-makers,
- Consider where energy savings can be made in service delivery, and reviewing service plans to ensure that such considerations are incorporated.

The Council has already undertaken several studies, listed in Appendix 3, that have established feasibility or clarified the needs for the action plan. Based on the findings of these studies the Council has delivered some excellent projects aimed at reducing the energy consumption within its own estate. These include:

- Renewable energy projects in the regeneration of Priory Park pavilion and scoping studies for the Town Hall, and Donyngs and Preston Leisure Centres,

⁹ Based on a moderate interpretation of the Workplace (Health, Safety and Welfare) Regulations 1992, amended 1999, Approved Code of Practice, which sets a reasonable range of working temperature in an office as 16°C-30°C degrees centigrade.

- A Green Fleet review which demonstrated energy saving measures in the usage of Council vehicles. Further improvement is being implemented through a review of waste services,
- Energy audits at the Town Hall, Earlswood Depot, Harlequin Theatre and off-street car park sites,
- Replacement of all cathode ray tube computer screens with new flat screen technology that use significantly less energy,
- A rolling programme for low-energy light-bulbs
- A change of vending contract at the town hall to use 26% less energy
- Installation of smart meters started in January 2009
- Display Energy Certificates (DECs) first undertaken in 2008.

More detailed work is needed in this theme as we need to develop a detailed, costed business plan for the potential projects on our own estate and consider each on a case by case basis. The Energy Savings Trust and the Carbon Trust will support the Council with this piece of work¹⁰. The Council will also create a 'Green Champions' programme to engage staff in the projects and encourage behaviour change. We will also arrange for training of staff and Council Members.

Display Energy Certificates (DECs)

DECs assess the energy efficiency of public buildings with a D rating being average for a building of the type that the Council manages. The results for DECs are below, with the Town Hall main building and the Earlswood Depot results being of concern.

Building	DEC result
Town Hall main building	F 136
Town Hall middle block	E 113
Town Hall south annex	C 63
Earlswood depot	G 174
Harlequin Theatre	C 75

Some of the issues are around insufficiency of data due to an identified need for better meters, but others will require physical energy conservation, efficiency or use of renewable energy systems to be implemented. Having identified the issues, the Council is prioritising the implementation of an action plan to improve these buildings under the programme set out in the Action Plan.

Green Tariff

Consideration has been given to the concept of subscribing to a 'Green' energy supply tariff. We have recently established contract with Laser (NPower) to supply all our electricity and gas. A significant proportion of this is from combined heat and power

¹⁰ Measures that are being actively pursued are listed in the Action Plan.

schemes, to which Climate Change Levy exemption applies, due to being over 80% energy efficient. The Council will explore further the possibility of a green tariff as a means of reducing CO₂ emissions.

Resources

Significant long-term financial savings are likely from this theme. However the Council will need to invest officer time and capital/maintenance investment in order to bring about the necessary changes to realise these benefits. Individual cost/benefit analyses will be brought forward on a case by case basis for each project.

The Council is eligible to apply for Salix match funding which will help to fund this work. The Energy Savings Trust and Carbon Trust will provide advice and consultancy analysis.¹¹

Theme 3

Sustainable energy in homes, businesses and social sector

The UK has the oldest housing stock in the developed world, with one in five homes built before 1918, and only 1% of our housing stock replaced every year. This leaves the majority of our housing stock with poor heat conservation and energy efficiency ratings. In 2002, the housing stock condition survey in the Borough gave an average Standard Assessment Procedure (SAP) energy rating of 45 and an energy rating for private housing stock of less than 40, placing us amongst the 22 worst local authority areas in the South East. Properties with a SAP rating of 35 or less have a likely presence of Category 1 hazard from excess cold.

Data on 63.2% of the 55,481 homes in the Borough is held on the Energy Savings Trust's Homes Energy Efficiency Database. Known data for this Borough is: -

Detached or semi-detached	61%
Flats	15%
Owner-occupied	80.5%
Less than the 270mm loft insulation recommended	99% of those known.
Constructed before 1995	96%
Not fully double glazed	53%
Total electrical consumption	373.7 MW
Total gas consumption	1,379 MW

Loft insulation costs around £250 (figure after reduction by grant funding) to save 1 tonne CO₂ per year. Cavity wall insulation costs around £250 (after subsidy) to save 0.8 tonne of CO₂ per year. From the data above it is clear that there are significant gains possible to be made in CO₂ savings through a large scale project to retrofit insulation to existing housing stock. Novel finance methods will be investigated to achieve this.

The Council will also work with businesses and public agencies, as the energy use of these is high and there is significant interest amongst many in making their own improvement, given the right support. Information is needed about accessible changes and resource implications for energy use and sustainability improvements. Making small

¹¹ Measures that are being actively pursued are listed in the Action Plan.

adjustments to a large number of homes, businesses, organisations and services will have a considerable impact on the carbon footprint of the Borough.

Existing projects include:-

- Data management 2008/9 - The Council is working to produce a Home Condition Database to enable us to target our resources effectively.
- Community engagement – The Council has already worked with several schools within the Borough, East Surrey Hospital and leisure centres to undertake studies for renewable or efficient energy supply and conservation measures, and to develop proposals to retrofit buildings.
- Eco Schools - In 2009 work will commence on active promotion of the Eco-Schools award scheme within the Borough to encourage sustainability measures. The Council will work to deliver a similar promotion of sustainability initiatives to be undertaken with businesses.
- Existing social housing – this work is managed by Registered Social Landlord, Raven Housing Trust . Raven Housing Trust have invested in two new posts, a Sustainability Manager and an Energy Efficiency Officer to drive the work needed for this element of the theme.
- Existing private or rented homes – insulation grants and energy efficiency grants for heating and boiler improvements are available to people on benefits. In 2007 the Council received funding for a project which enabled home assessments.

Resources

Funding from the Carbon Emissions Reduction Target (CERT) pays for the HEAT Project to subsidise home insulation in private housing. Warm Front government grants fund energy efficiency improvements to heating/boilers for people on benefits.

Regional government funding for energy measures in privately owned housing in our Borough has been reduced from £250,000 per year to £67,000 per year from 2008-11.

Funding may become available from further grants from government or other external sources. The council will consider innovative funding mechanisms such as prudential borrowing if current obstacles around fairness and acceptability of this concept can be overcome in the future. Some private investors have shown interest in running Energy Services Companies, energy conservation and efficiency projects in order to profit from the billed savings. Officer time is needed to apply for grants and schemes to further the work in this theme.

Theme 4

Sustainable energy in new development

It is important that all new development is constructed in a sustainable way with technology which minimises the long term environmental impact of development. Sustainable energy requirements will be introduced through the planning process. It is paramount that the planning process leads this theme, due to the Borough's strategic approach to development and economic growth reflecting the Borough's New Growth Point Status. The Borough's accelerated housing provides an opportunity to integrate implementation of shared community energy facilities such as heating/cooling networks and CHP systems.

The Council's Development Management team is implementing the Surrey Structure Plan policy SE2 requiring renewable energy to be incorporated in new residential and commercial development. Developers will be required to implement energy efficiency measures in new development through policy requirements contained within the Local Development Framework Core Strategy¹².

The Council is investigating opportunities for the following: -

- sustainable energy for the new development in Horley,
- using the excess heat from the Biffa landfill site's electricity generating plant and other opportunities for sustainable energy production on that site,
- use of energy from landfill gas, a CHP, or a network of CHPs, in Redhill town centre that form an energy network to supply new development and existing key buildings,
- a CHP and energy network in the Preston regeneration plans,
- for sustainable energy systems in leisure centres, schools and the hospital,
- development of woodchip supply sites ,
- feasibility for community energy schemes.

Resources

Once the Core Strategy has been subject to an Examination in Public and subsequently approved; some officer time will be required to ensure officers are trained so that they can implement policies correctly. The Core Strategy will be subject to regular review which will form part of the Policy Team's day job. The Council will produce a Development Management and Site Allocations Development Planning Document to support implementation of the Core Strategy. This work will require some officer time to develop the supporting background and evidence documents.

¹² The Core Strategy contains a Sustainable Development policy (CS9) and a Sustainable Construction policy (CS10). The Core Strategy at the time of adoption of this strategy

Currently, when there are queries on energy statements submitted with planning applications, advice is sought from the Sustainable Energy team. It is likely that this system of working will continue, with a workload of approximately 5% of a full time member of staff required.

The investment in infrastructure for energy will require funding from existing private ESCOs, with the Council's role being that of initiator, facilitator and 'enabler'. As a Council we can invest in, and seek grants for, feasibility studies to give others the confidence to invest.

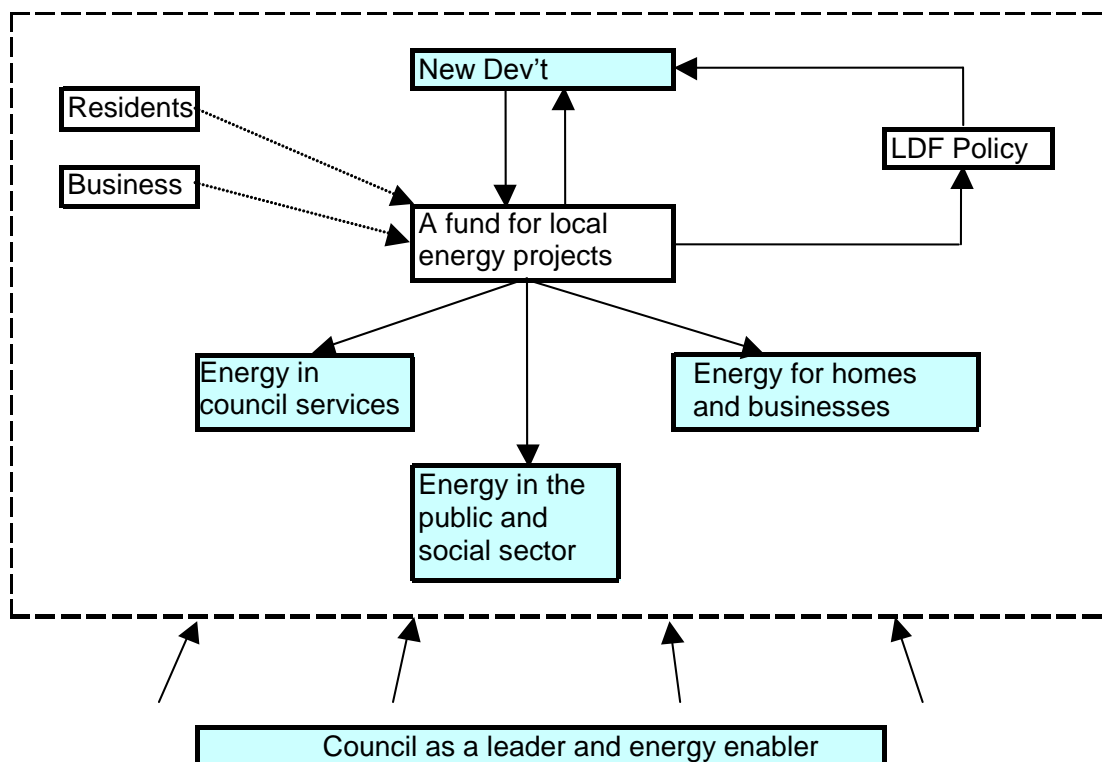
The Council will consider investment in ESCO projects only when a clear community benefit exists, and this will be supported with a robust and credible business case.

Theme 5

A local energy fund

This theme is essential to the overall sustainability framework as demonstrated in the diagram below. The objectives behind creating this fund are to:

- Offer developers flexibility in how they meet the requirements of the Core Strategy Development Plan Document and other Development Plan Documents. ,
- Enable businesses and individuals to mitigate their carbon impacts through contributions,
- Provide a means of funding sustainable energy projects to deliver projects in this strategy.



The Energy Centre for Sustainable Communities (ECSC) undertook a feasibility study in November 2007, looking at whether the Council should develop a fund to enable developers, businesses and individuals to make contributions in mitigation of their CO₂ emissions. The Study recommended the Council develop the fund following in the footsteps of;

- Milton Keynes, whose fund is already successfully operational and based on similar principles within development control policies.
- Eastleigh, whose fund is based solely on voluntary contributions from businesses and individuals, and
- Ashford,

Resources

This project will facilitate an income stream from developers, business and individuals in the community to enable implementation of energy projects. Significant and dedicated officer time is needed to develop the fund framework. In addition, there will be training, IT/website and communications costs in order to get the fund fully operational

Green Action Zones

A Green Action Zone is an area-based transformation scheme using integrated planning and high-quality infrastructure to support low-footprint and low-carbon living and working". Designating one geographical area a 'Green Action Zone' (GAZ) provides a resource-efficient approach to the sustainable energy programme; and makes integration with wider sustainability objectives and council aims and services more practicable.

NI 186 applies to all activities throughout the Borough in relation to the community and organisations. To ensure we are able to manage this as best as possible, we will introduce the concept of 'Green Action Zones', set out in SEEDA's "Reducing South East England's Ecological Footprint"¹³ -, which details how to implement sustainability policies locally.

The South East Plan Policy CC3 aims to stabilise the South East's ecological footprint by 2016 through

i Increased efficiency of resource use in new development

ii Adaptation of existing development to reduce use of energy, water and other resources

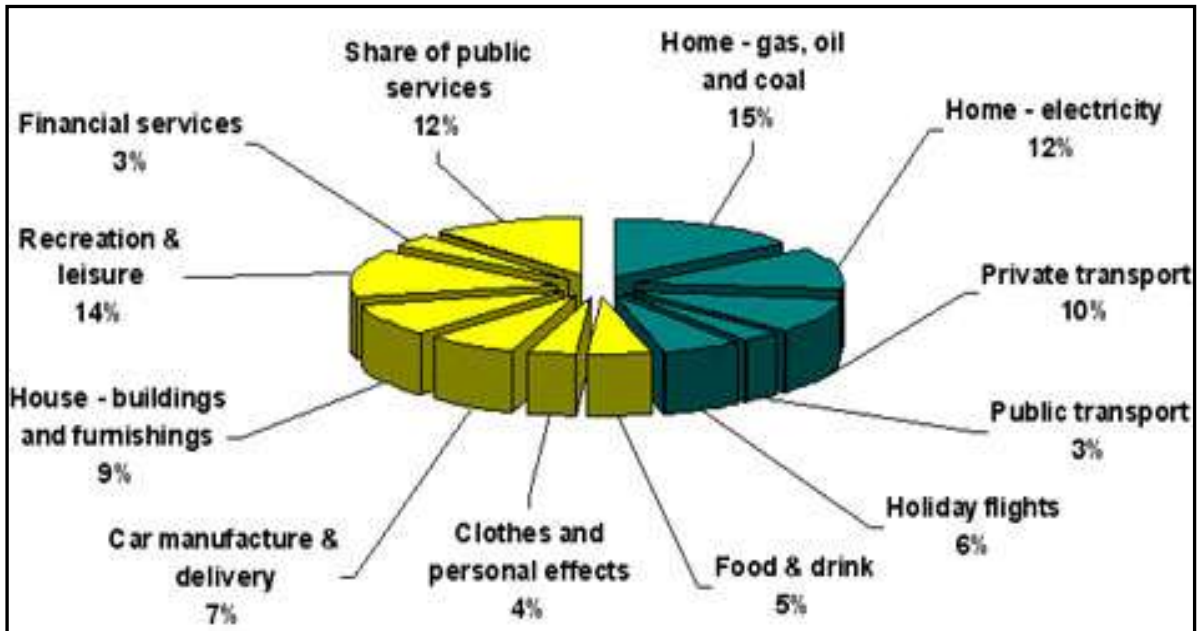
iii Complementary legislation and fiscal measures by Government

iv Changes in behaviour by organisations and by individuals.

¹³ a Route Map", August 2008

In order to achieve reductions in CO₂ in the community to contribute towards carbon reduction, we need projects to improve efficiency in food, water and waste production, consumption and disposal, in addition to direct energy use and production. Surrey County Council is responsible for managing the transport strategy within the county, however the Borough Council also has a duty to support delivery.

A breakdown of typical UK CO₂ emissions is shown below¹⁴: -



The darker sections are 'direct' emissions from the burning of fossil fuels including domestic energy consumption and transportation. The lighter sections are 'indirect' CO₂ emissions from the whole lifecycle of products¹⁵. The illustration above does not demonstrate that UK water processing and 'delivery' creates 0.5% of those emissions¹⁶. Waste collection and processing is also high in CO₂ emissions.

The South East Plan Policy CC3 aims to stabilize the South East's ecological footprint by 2016. SEEDA proposes 'Green Action Zone's¹⁷ as a means to enable footprint reduction in an area. It should include the following elements

- enable more in-depth, deliverable and integrated work for resource efficiency,
- support successful regeneration plans and help developers in regeneration areas to deliver against the sustainable energy targets and policies by enabling community scale energy projects,
- build a momentum of and pride in projects, communications and profile within the pilot community,

¹⁴ Credit: Carbon Footprint website Nov 2008

¹⁵ those associated with their manufacture and eventual breakdown

¹⁶ Credit: Guardian, Matthew Sparkes, 8.2.07

¹⁷ "Reducing South East England's Ecological Footprint - a Route Map" August 2008

- maximise partnership potential through working in targeted areas,
- coordinate projects on Sustainable Energy with other initiatives, (eg waste-reduction, water-saving and sustainable transport projects) to make an integrated project.

The regeneration of Horley Town Centre will enable engagement with the Horley local community in the style of a Green Action Zone. However Horley town centre does not have the same infrastructure opportunities as Redhill does for an energy network.

The Council considers Redhill to have the right balance and context according to the above desirable criteria. It has therefore been selected to be the first full pilot Green Action Zone in the Borough because it is recognised as a:

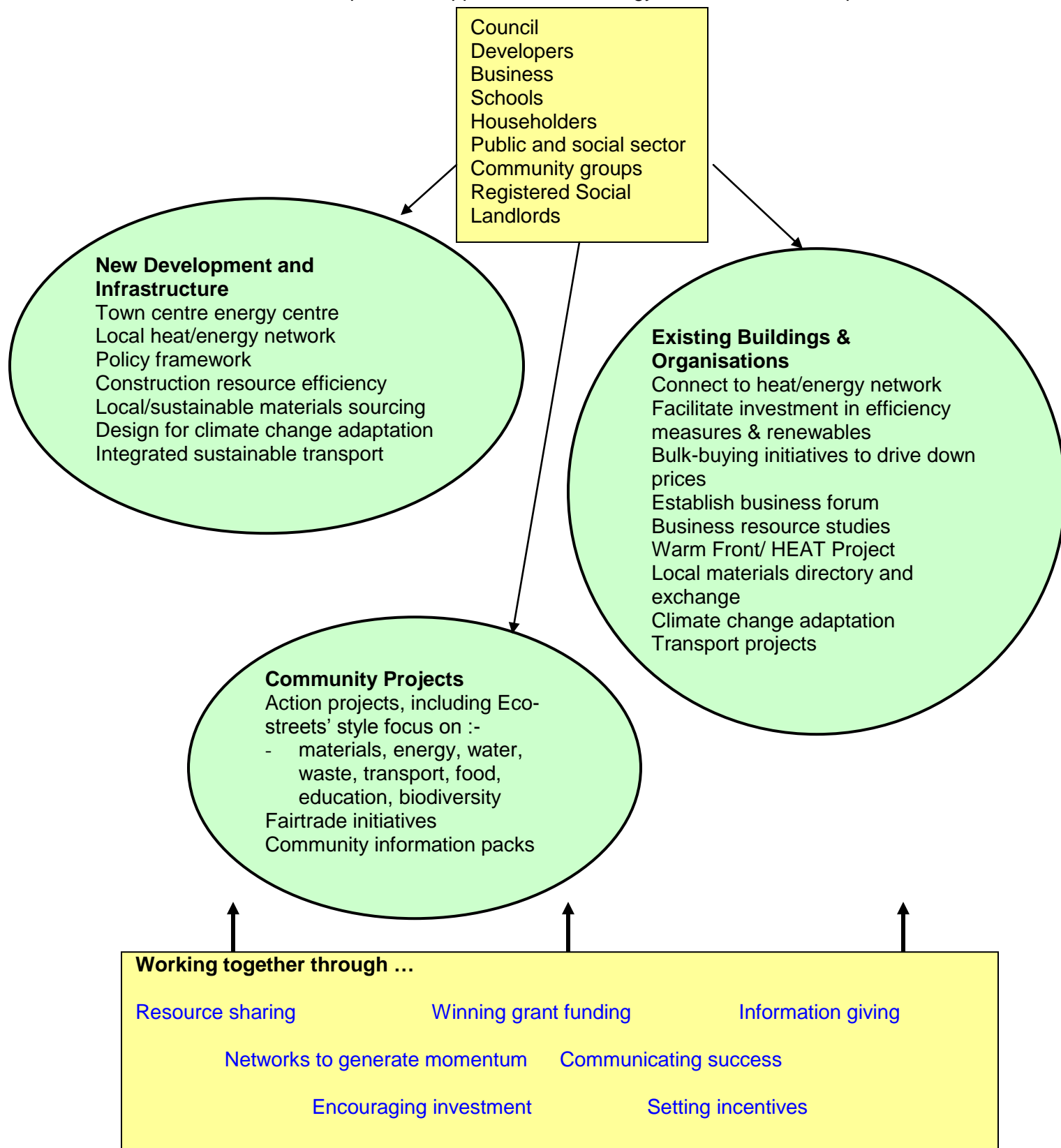
- o Regional Hub and Primary Regional Centre in the South East Plan (March 2006)
 - o Regional Hub in the Regional Economic Strategy (October 2006)
 - o Regional Transport Hub in the Regional Transport Strategy (July 2004) and as
 - o Strategic Centre for Eastern Surrey in the Surrey Structure Plan of December 2004
- It has unique possibilities for community energy provision using waste heat and possible anaerobic digestion from the Biffa landfill site,
 - Local availability of woodchip and good transport connections,
 - Support delivery of the Redhill Area Action Plan,
 - Raising the profile of Redhill as an attractive location in which to invest and locate business,
 - The high percentage of social housing in Redhill opens opportunities for partnership projects and grant funded community projects, addressing in addition fuel poverty issues,
 - Building on existing community awareness and momentum in Redhill eg from the businesses, churches, town centre forum and community groups,

Work in relation to GAZs in other key locations within the Borough will run alongside the pilot in Redhill to ensure that opportunities are not missed. For example in Horley north west and north east sector regeneration the Council will maximise opportunities to influence new development when appropriate.

An action plan will be developed with businesses and the community, bespoke to the needs of the designated area. The Green Action Zone will adopt an holistic approach to sustainability, not focusing solely on energy.

EXAMPLE VISION - 'GREEN ACTION ZONE' FOR REDHILL

Examples of projects, partners and methods from which to develop a bespoke plan for Redhill where there are particular opportunities for energy infrastructure development



Governance, Implementation and Monitoring

The following paragraphs set out how the work on the strategy will be managed and monitored.

- 1.1 CO₂ emissions data are the most robust metrics against which to measure the success of this strategy as they form a single measure to demonstrate : -
 - energy savings
 - the impact of a switch to sustainable energy sources, and
 - direct comparisons of the impacts of different fuel sources.
- 1.2 The Council has limited resources and budgets, therefore, as the programme progresses decisions may need to be made on prioritization of projects for resource allocation. Where this is necessary, a framework will apply to help the selection process and each project will be assessed and ranked against the factors below.
 - **Does the project supporting Council priorities?**
It is important that the project and be integrated within the current corporate priorities contributing to wider corporate aims, values and objectives.
 - **Does the project provide Value for money? :**

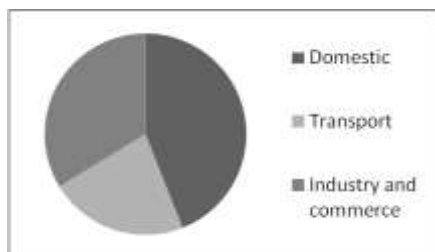
Delivering value for money projects for the community through actively pursuing partnership working and external funding sources. It is also important to consider the cost and benefit analysis in relation to performance management of the project. Is the reduction in energy use, and long-term costs worth the investment.
 - **Energy hierarchy:**
 1. Reduce the need for energy
 2. Maximise energy efficiency
 3. Supply energy from renewable
 4. Supply energy efficiently
- 1.3 **Partnership working** – The Council already works closely with Surrey County Council and the Surrey Climate Change Partnership of local authorities to deliver Climate Change mitigation and adaptation work. It is also committed to work in partnership with Raven Housing Trust and Sutton and East Surrey Water Company within the Local Strategic Partnership to optimise resources and maximise the impact of delivery of this work.

Target setting

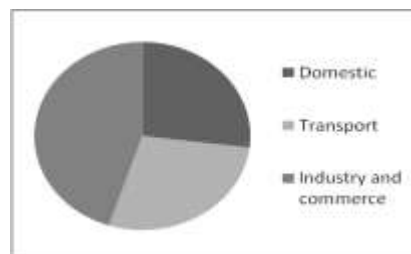
Existing CO₂ emissions

Breakdown of Reigate & Banstead Borough CO₂ emissions by end user			
(Units of CO₂ emissions = kT CO₂)	2005	2006	2006 - %
Domestic	348	354	44%
Transport	185	179	22%
Industry and commerce	266	271	34%
Total footprint	799	804	100%
Population	128,200	130,000	
Tonnes of CO ₂ per capita	6.2	6.2	

Breakdown of 2006 UK CO₂ emissions by end user	
Domestic	27%
Transport	28%
Industry and commerce	45%
Total footprint, kT CO₂	451,305
Population, thousand	60,588
Tonnes of CO ₂ per capita	7.4



Reigate & Banstead Borough emissions



UK emissions

Note:- These figures exclude aviation and shipping. Emissions from electricity generation and fuel processing are reassigned to end users.

Breakdown of R&B Borough Council's own emissions under NI 185 for 2006/07			
(Annual figures from Carbon Trust, 2007)	Kilotonnes of CO₂	KWh	Cost, £
Electricity	1.33	2,469,355	212,659
Gas	0.46	2,246,528	45,143
Fleet	0.23		
TOTAL	2.01	4,715,883	257,802
Note: This is an indicative baseline calculated from headline energy use figures only, to be refined using the NI185 spreadsheet tool by 31 July 2009. There are also council-owned leisure centres, and football clubs in the Borough operated by others, whose emissions should be included.			

Target setting

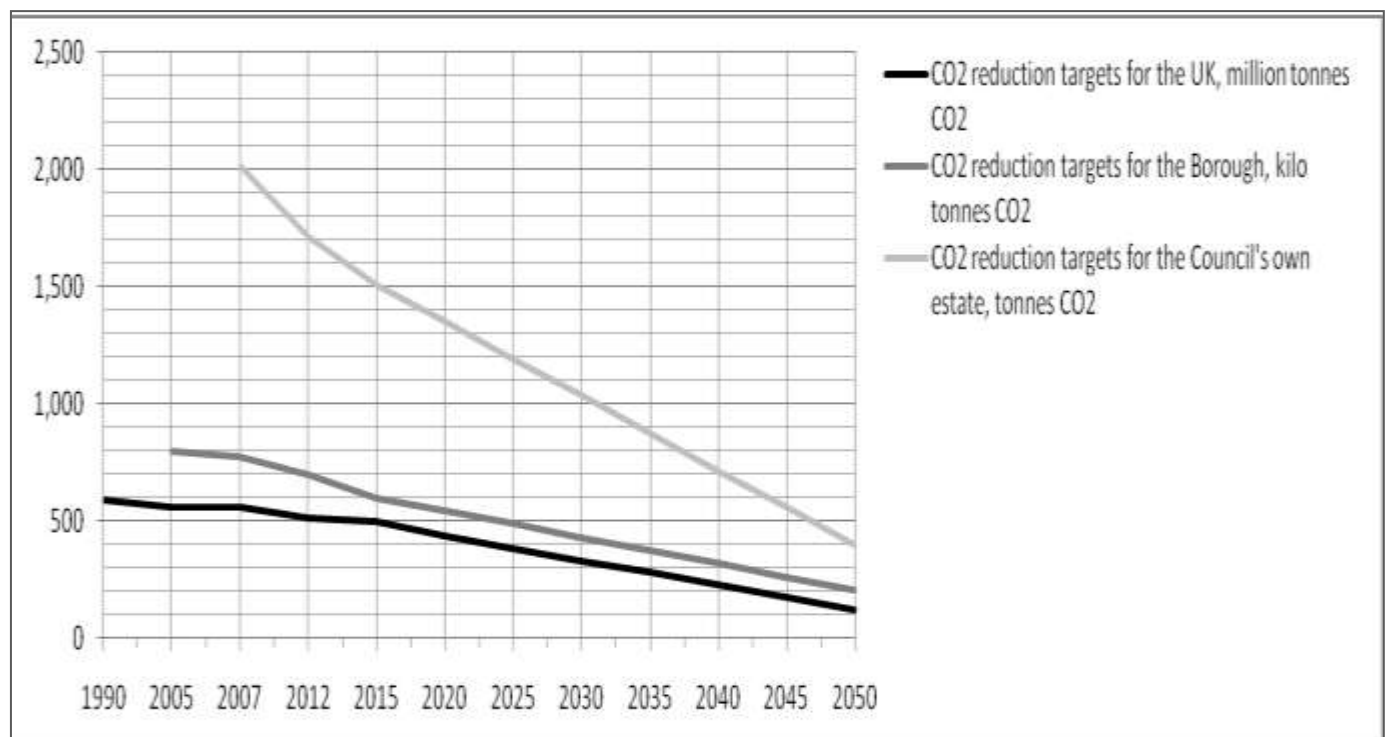
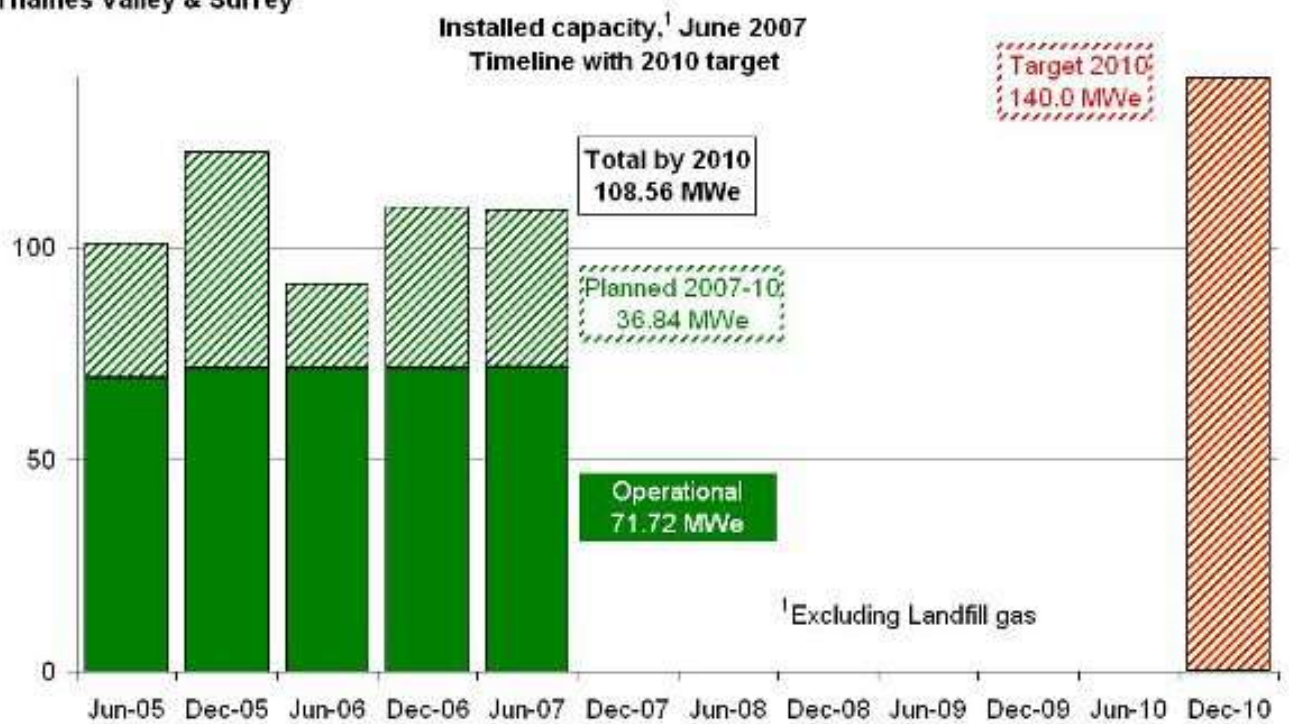
- 1.4 The latest confirmed DEFRA baseline statistics for NI186 are different to those in the Surrey Local Area Agreement. In October 2008 there was a new government commitment to achieving an increased CO₂ reduction. For this strategy we have set local targets by reference to the latest DEFRA figures and new overall UK targets.
- 1.5 The most recent UK target is for an 80% reduction in CO₂ emissions by 2050 against a baseline of 1990 levels, which stood at 590 million tonnes CO₂. In 2005 UK emissions stood at 557 Million tonnes CO₂, a reduction of 5.6% over 15 years, leaving us with a need to achieve a further 74.4% reduction by 2050 in order to achieve the full 80% reduction by 2050.
- 1.6 The best available Borough baseline is the DEFRA emissions figure from 2005 of 6.2t per capita. We cannot look further back at progress since 1990 because the data assessment methodology has been changed, so we will have to assume that we also need to achieve the 74.4% national reduction above by 2050. This gives our Borough target as:-

Achieve an annual reduction in CO₂ emissions of 13,227 tonnes per year in the Borough, from 2005 to 2050, from a baseline of 800k tonnes.

Note: this equates to 0.1t reduction per capita per year from a baseline of 6.2t per capita in 2005.

- 1.7 Checking against other policy targets, this gives a reduction in emissions which is also approximately comparable to the SEEDA/SEERA/GOSE targets of 20% reduction from 2003-2016.
- 1.8 The tables above show the relative contribution of CO₂ from different sectors. This shows that we can significantly reduce the amount of energy that we need to supply in the first place through energy efficiency and conservation measures in the business and residential sectors. For National Indicator 186, local authorities are expected to report 'proxy actions', ie projects encouraging or enabling emissions reduction by the wider community.
- 1.9 The South East region has a target to generate 5.5% of its electricity from renewable sources by 2010, 8% by 2016 and 16% by 2026. This equates to installed capacity of 140MW by 2010 and 209MW by 2016. Our progress towards 2010 targets shows a clear need for acceleration of installed capacity.
- 1.10 The Council will facilitate or enable installation of renewable energy as a contribution towards the South East region target. From the table below, at June 2007 there was only 71.7MWe installed capacity in the region of Thames Valley and Surrey within which the Borough sits.

SEE-Stats Renewable Electricity Thames Valley & Surrey



Graph of CO₂ reduction to meet policy targets, based on table below

CO₂ reduction targets for the UK, million tonnes CO₂		
1990	590	Baseline
2005	557	Reduction of 5.6% achieved over 15 years
2020	437	Climate Change Act 2008 - reduce emissions by 26% by 2020 from 1990 baseline
2050	118	Climate Change Act 2008 - reduce emissions by 80% from 1990 levels (equivalent to 74.4% from 2005)
CO₂ reduction targets for the Borough, kilo tonnes CO₂– linked to NI 186		
2005	800	Equivalent to 6.2t per capita
2015	600	South East Plan Policy CC2 – reduce CO ₂ emissions by 25% by 2015.
2050	205	Climate Change Act 2008 - reduce emissions by 80% from 1990 levels (equivalent to 74.4% from 2005 to 2050, 13,226 tonnes per year)
CO₂ reduction targets for the Council's own estate, tonnes CO₂– linked to NI 185		
2007	2,010	Indicative baseline calculated from headline energy use figures only - to be refined from NI185 spreadsheet tool by 31 July 2009
2012	1,709	CO ₂ emissions reduced by 15% from a baseline in 2007
2015	1,508	South East Plan Policy CC2 - reduce CO ₂ emissions by 25% by 2015.
2050	402	Reduce by 80% from baseline in 2007 to tie into Climate Change Act targets

Table of CO₂ reduction with key dates to meet policy targets

Appendix 1

Sustainable Energy Strategy Projects

The action plan associated with this strategy is set out in the following tables. This will inevitably be a 'working document' which will need annual review. Further information will become apparent on CO₂ savings, cost and practical feasibility as more detailed work is undertaken towards each project. Where investment is required there is a need to develop a business case for these schemes and obtain separate approvals on a project by project basis.

The council is working with both the Energy Savings Trust and the Carbon Trust during 2009-11 to analyse the data behind the action plan further and refine the plan. Additional projects may be identified during the course of that work which will be brought forward for approvals on a case-by-case basis.

Raising of funding for the whole programme from grants, investors, potential ESCOs, preferential loans, joint-working or other sources will be a key activity that will be ongoing throughout the course of the work. The availability of such funding will also have an influence on the final timeframes of delivery of projects and it is important to retain flexibility in order to avoid missing opportunities.

Appendix 1 Sustainable Energy Strategy Action Plan and Finance Estimates				FINANCIAL ESTIMATES	Totals of costs (£) and full time equivalent staff (%)		
Project description	2009-10	2010-11	2011-12	Items (not linked to items on left)	FY 09- 10	FY 10- 11	FY 11- 12
THEME 1 - PROVIDING COMMUNITY LEADERSHIP				THEME 1 - PROVIDING COMMUNITY LEADERSHIP			
Put an approved strategy in place and begin to implement sustainability appraisal of key decisions and projects	Complete			Agree strategy	10%		
Information: produce the necessary information and sources of advice to enable everyone in the community to play their part, including producing an attractive web presence	Produce locally relevant materials	Update and disseminate	Update and disseminate	Info/ promotional materials research, writing and design. Putting on web, Borough News etc. Some staff time from communications team	10%	10%	10%
Communications: create internal and external communications that inspire action by others through promotion of best practice and celebration of success, with a priority on Redhill Green Action Zone	Launch materials	Local case studies & promotion	Local case studies & promotion	Visiting schools, businesses, to promote change - accounted for below	n/a		
Lead the Gatwick Diamond local authorities in creating a wood fuel strategy for the economic sub-region	Strategy complete	Implementation phase	Implementation phase	Printing, design etc for comms materials	£10,000	£10,000	£10,000
Renewable energy: projects to contribute to the achievement of 8% of installed electricity capacity from renewable sources by 2016 (209MWe of installed capacity), up from 71.7 MWe at June 2007, in the region of Thames Valley and Surrey within which the Borough sits.	Input to development plans			Fund-raising, bid writing, seeking partners etc	10%	10%	10%
Identify potential sites for community renewable energy facilities, (eg through a Partnership for Renewables funded scoping study) and facilitate implementation of one such project.	Identify sites and begin to consult	Ongoing project development	Implementation	Staff time to encourage, facilitate and inform implementation of practical woodfuel projects		30%	30%
Put ourselves as a Borough Council in a position of making a credible bid for a prestigious sustainability award (such as Beacon Council status)	Funding attracted/saved= £100k	Funding attracted/saved= £100k	Funding attracted/saved= £100k	Gatwick Diamond Strategy consultants fees	£10,000		

Appendix 1 Sustainable Energy Strategy Action Plan and Finance Estimates	Years			FINANCIAL ESTIMATES	Totals of costs (£) and full time equivalent staff (%)		
Project description	2009-10	2010-11	2011-12	Items (not linked to items on left)	FY 09- 10	FY 10- 11	FY 11- 12
Key target - Undertake active fund-raising for the whole programme from external grants, investors, preferential loans etc. Achieve an income/savings through, and for, the programme of £300k by March 2012			Develop bid if strong case	Gatwick Diamond work project management	10%		
THEME 2 – IMPROVING ENERGY IN COUNCIL BUILDINGS, FLEET AND SERVICES				THEME 2 – IMPROVING ENERGY IN COUNCIL BUILDINGS, FLEET AND SERVICES			
FACILITIES AND ASSETS							
Key target - Achieve reductions of CO ₂ emissions of 15% from baseline in 2007 by 2012							
Implement actions on energy from the Carbon Trust (CT) Energy Management report	Implement existing work			See capital costs below			
Establish a system for monitoring energy data and set benchmark for year on year improvement. Use to review sustainable energy targets and to compare performance against external benchmarks	Establish system			Benchmark	10%	10%	5%
Investigate/manage loan funding	Investigate and apply	Manage ongoing		Bid for and manage loan funding and projects related to it	10%	50%	50%
Ensure that plans for updating pavilions in parks include sustainable energy, to include Year 1 Lady Neville, Years 2&3 Merstham, Tattenham Rec and Earlswood Lakes sites	Input to plans	Input to plans	Input to plans	Feasibility studies for pavilions	£2,000	£2,000	
Work with Carbon Trust (CT) to review and further develop our new detailed action plan, targets and projects - 10 month support programme	Develop plans			Draw up Carbon Trust business plans for improvements, and consequently detailed action plan:-	50%		
Implement projects on our own estate resulting from previous studies, the 2009-10 Carbon Trust work, new studies needed and from analysis of DEC results. Items will include:- Earlswood depot loading bay	Quick wins	Capital measures	Longer term projects	1. Capital costs of improvements to buildings	£99,000	£99,000	£0

Appendix 1 Sustainable Energy Strategy Action Plan and Finance Estimates	Years			FINANCIAL ESTIMATES	Totals of costs (£) and full time equivalent staff (%)		
Project description	2009-10	2010-11	2011-12	Items (not linked to items on left)	FY 09- 10	FY 10- 11	FY 11- 12
curtains, Town Hall, Harlequin and Horley Day Centre insulation, double glazing, lighting, solar shading, and voltage optimisers. Payback on this investment will be by Spring 2016, assuming payback period of 5.7 years from a mid-point of the programme of works. Year 3 works to be funded from ringfenced energy savings resulting from measures from previous years.	Studies for CT plans			2. Revenue costs of further studies	£15,000		
Review the 2001 Travel Plan and implement. Some measures related to car transport and parking implemented from April 2009, others to follow.	Review	Implement	Implement				
Savings from measures implemented:- From loan-related measures = £15k/yr, From non-loan capital measures = £16k/yr. Total = £31k, once all measures in place and operating.				3. Savings from measures implemented		-£10,000	-£20,000
IT AND PRINTING							
Implement thin client technology across the organisation by 2014	Helpshops	Across council	Across council	Accounted for in IT budget, no cost to this programme	n/a		
Virtualising the servers to consolidate from 100 to approx 20 servers and implement network faxing	Complete			Accounted for in IT budget, no cost to this programme	n/a		
Review policy on screen savers, monitor and shutdown. Implement changes	Complete			Analyse and write recommendations	5%		
Write printing strategy and review related policies re appropriate printing, double sided as default, using photocopier by preference, rationalising printers. Implement changes.	Complete			Accounted for under printing budget	n/a		
BEHAVIOUR CHANGE							
Set up and train Council-wide Green Champions network and implement internal comms. Arrange training in sustainable energy policies, strategies and technologies for Council staff and Members	Set-up, train, do comms			Running Green Champions projects. Staff time to manage project, plus the time of the 'Champions'	25%	5%	5%
Run Green Champions project ongoing to reduce energy use of lighting, office equipment and heating/cooling. Monitor and use case studies to promote successes. Review measures regularly to		Maintain momentum	Maintain momentum	Savings from this are often between 5-15% of energy costs, say 7% of £250k	-£17,500	-£17,500	-£17,500

Appendix 1 Sustainable Energy Strategy Action Plan and Finance Estimates	Years			FINANCIAL ESTIMATES	Totals of costs (£) and full time equivalent staff (%)		
	2009-10	2010-11	2011-12		Items (not linked to items on left)	FY 09- 10	FY 10- 11
incorporate ideas on transport, waste, water, materials/procurement and food							
Develop and coordinate provision of internal energy efficiency and renewables training and communications programme which could include :- - training incorporated into the induction programme for new staff and members, - training for existing staff and members in key roles	Develop materials & systems	Delivery ongoing	Delivery ongoing	Staff time to create training plan. External trainers to deliver part and staff deliver other parts	10%		
POLICY DEVELOPMENT				Cost of external trainers	£3,000		
Develop RBBC policies for:- - whole life cycle costing to ensure that energy efficiency is integrated into both new-build and refurbishment schemes and to clarify the longterm budget implications for decision-makers, - promote and embed best practice for sustainable procurement across our offices and operations wherever reasonably achievable - conditions for sustainable energy to be set against sale or development of RBBC land - limit operation of office heating to a restricted range of temperatures - sustainable energy to be included in the development or refurbishment of leisure centres and pavilions	Policy developm ent			Develop policies in consultation with internal teams. Ensure communication of policies and effective ongoing implementation	10%	5%	5%
THEME 3 - SUSTAINABLE ENERGY IN HOMES, BUSINESSES AND SOCIAL SECTOR				THEME 3 - SUSTAINABLE ENERGY IN HOMES, BUSINESSES AND SOCIAL SECTOR			
Key target - An annual reduction achieved in CO ₂ emissions of 13,227 tonnes per year in the Borough, from 2005 to 2050 (baseline of 800k tonnes)	13,227 t CO ₂ saved	13,227 t CO ₂ saved	13,227 t CO ₂ saved				

Appendix 1 Sustainable Energy Strategy Action Plan and Finance Estimates				FINANCIAL ESTIMATES	Totals of costs (£) and full time equivalent staff (%)		
Project description	2009-10	2010-11	2011-12	Items (not linked to items on left)	FY 09- 10	FY 10- 11	FY 11- 12
Identify stakeholders, establish business and community forums and link to existing groups. Formulate detailed action plan for the projects for Redhill Green Action Zone in the existing community, as below	Action plan in place			Develop plan in detail for Redhill	10%		
Initiate community and business projects in Redhill on renewable energy, energy efficiency and energy conservation in existing buildings and operations, linked to other sustainability projects such as on waste, water, materials, transport, food, biodiversity and fair-trade. Devise exit strategy to ensure that projects have continuing life of their own through community management by champions	Establish projects	Build momentum	Exit strategy	Time to develop projects in the community and stimulate action by others	60%	60%	60%
Identify stakeholders, consult and formulate detailed action plan for the projects for Merstham Green Action Zone in the existing community			Action plan in place	Develop plan in detail for Merstham			10%
Review the existing provision of energy efficiency & renewables advice to residents (so as to become more proactive) and make information available to householders to facilitate access to grants and implementation of their own projects (through partners where possible)	Create advice materials			Info/ promotional materials research and design included in 'leadership'			
Engage with schemes to supplement existing insulation schemes in the 'able-to-pay sector', from grants or Local Energy Fund	Ongoing as existing	Develop loan scheme	Ongoing	Loan scheme to enable business and household insulation and installation of renewables		20%	20%
Develop and support schemes to promote and implement sustainable energy to schools and other community facilities eg Royal Alexandra and Albert school (RAAS), East Surrey Hospital (ESH), Beacon School, Banstead infants and juniors (Bi&j), Wray Common (WC)	ESH, Beacon School	RAAS, Bi&j, WC	Others	Help to scope, encourage and facilitate funding bids, feasibility work, and implementation	5%	5%	5%
Develop a Green Business Programme, to build on our growing relationship with the business community and Surrey Business Link, launch in April 2010	Develop relations for Redhill work	Launch business programme	Engage and promote further	Establish forum and award scheme, info and publicity. Visit individual business to facilitate change towards carbon reduction		20%	20%

Appendix 1 Sustainable Energy Strategy Action Plan and Finance Estimates				Years	FINANCIAL ESTIMATES	Totals of costs (£) and full time equivalent staff (%)		
Project description	2009-10	2010-11	2011-12	Items (not linked to items on left)	FY 09- 10	FY 10- 11	FY 11- 12	
Bike-it and Eco-schools - work with groups of schools to promote cycling and the Eco-schools awards scheme. 6 new schools per year, plus support for previous programme members	6 new schools	6 new schools		Ongoing Bike-IT work and new Eco-schools programme	120%	120%	120%	
Promote to Surrey County Council the concept of switching off some designated street lighting late at night to save energy		Promote						
Support the development of car clubs in the community, including hosting on Council’s estate as part of pool car fleet where costs permit.	Review opportunities in pool car fleet							
STRIVE TO ELIMINATE FUEL POVERTY IN THE BOROUGH								
Establish a clear baseline and create a database (together with the Building Research Establishment, BRE) to give accurate ongoing information on our existing stock. Work in partnership with other adjacent local authorities to implement fuel poverty reduction projects using government grant funding.	Database completed			Create database. Housing contribute £9k, BRE contribute £25k of in-kind. Project management staff	20%	20%	20%	
Improvement of all properties to a minimum standard of efficiency (i.e. SAP65) by 2016 to work towards elimination of fuel poverty. By 2012 we need to demonstrate that we are on track to meet this. We aim to achieve this through large scale insulation and efficiency measures retrofit to existing homes, and will explore novel methods of finance that may be applicable to support this.	Ongoing work	Targeted action based on database	Targeted action based on database	Acceleration of programme above that possible from Govt funding.	LEF funding	LEF funding	LEF funding	
THEME 4 - SUSTAINABLE ENERGY IN NEW DEVELOPMENT				THEME 4 - SUSTAINABLE ENERGY IN NEW DEVELOPMENT				
Key target - Incorporate and implement policies for sustainable energy measures in new development through the LDF core strategy and LDDs :- - to support renewable and low-carbon energy projects, including through allocating and safeguarding sites - require Carbon Neutral development from 2010 - to promote sustainable energy in relation to extensions and	LDF policy development			Staff time to develop policy, working closely with policy and development management teams	20%	20%	0	

Appendix 1 Sustainable Energy Strategy Action Plan and Finance Estimates	Years			FINANCIAL ESTIMATES	Totals of costs (£) and full time equivalent staff (%)		
Project description	2009-10	2010-11	2011-12	Items (not linked to items on left)	FY 09- 10	FY 10- 11	FY 11- 12
conversions - to promote CHP, biomass systems and implementation of standalone renewables eg community wind turbine - which identify and enable the incorporation of sustainable energy opportunities e.g. for Holmethorpe, energy networks, energy from gas created by anaerobic digestion and landfill decomposition (not incineration) etc - which support and facilitate incorporation of sustainable energy projects into regeneration areas in Redhill, Preston, Horley and Merstham - to support the Green Action Zone in Redhill - to ensure that sustainable energy solutions are implemented in new leisure centres in Preston and Horley							
Review the implementation of the existing 'SE2 policy' for renewable energy to ensure that necessary training and effective systems are in place. Establish good processes for implementation of new sustainable energy-related policies in practice, initiating team training and external communications materials as necessary	Implement ation review			Falls within the Local Energy Fund project			
Ensure that sustainable energy advice is made available to all as part of the standard planning and building control processes to assist in understanding how to meet targets and guidance	Create advice materials			Work with Devt Man't team to review existing; research and develop new materials where appropriate and set dissemination methods in place	5%		
Support and facilitate the production of woodfuel locally	Work up proposals from strategy	Implement practical projects	Implemen t practical projects	Redhill energy work:	£3,500	£5,000	£5,000

Appendix 1 Sustainable Energy Strategy Action Plan and Finance Estimates				Years	FINANCIAL ESTIMATES	Totals of costs (£) and full time equivalent staff (%)		
Project description	2009-10	2010-11	2011-12	Items (not linked to items on left)	FY 09- 10	FY 10- 11	FY 11- 12	
Key target - Deliver workable proposals and outline agreement with delivery partners for an energy network in the regeneration area in Redhill	Create partnerships, policies and plans	Engage end users, facilitate implementation	Facilitate implementation	Staff time to facilitate, work up proposals, demonstrate feasibility, promote, and develop policies to support Redhill energy network	25%	25%	25%	
Support and facilitate a CHP and energy network in the Preston regeneration plans, sustainable energy systems where feasible in the Horley regeneration area, in leisure centres, park pavilions, industrial estates, schools and the hospital. Promote implementation of standalone renewables and energy from gas from anaerobic digestion and landfill where feasible.				Staff time to facilitate and enable community renewables on RBBC land.	5%	5%	5%	
THEME 5 - CREATING A FUND FOR LOCAL ENERGY PROJECTS				THEME 5 - CREATING A FUND FOR LOCAL ENERGY PROJECTS				
Key target - Establish a fund and begin to deliver sustainable energy projects in the Borough from the work streams above, with income from developers, and other organisations and individuals wishing to mitigate the impact of their activities	Establish governance and start fund	Promote to business	Promote to residents	Staff time to establish the fund, and long-term ongoing fund and project management	50%	50%	50%	
				Potential savings	-£17,500	-£27,500	-£37,500	
				RESOURCING SUMMARY				
				Total capital expenditure:-	£99,000	£99,000	£0	
				Total revenue expenditure:-	£43,500	£17,000	£15,000	
				Total staff required:-	4.50	4.05	4.10	
				Existing staff resources, PM, BO, EIO=.75 in 09-10 & FTE thereafter, LWYL= 0.2, FM=.75 for 09-10 & 0.5 after that, HO=0.1	=3.7 FTE	=3.7 FTE	=3.7 FTE	
Abbreviations LEF = funding from Local Energy Fund. PM = Project manager, EIO= Environmental Initiatives Officer, BO= Bike-It Officer, LWYL= Love Where you Live Officer, FM=Facilities Manager, HO = Housing Officer				Additional staff resource needed per year	0.8 FTE	0.35 FTE	0.4 FTE	

Finance assumptions:-	Total costs	FY	FY	FY
		2009-10	2010-11	2011-12
<ul style="list-style-type: none"> - To minimise the loan period, we will invest up-front in years 1 and 2. Yr 3 funding comes from ring-fenced savings resulting from projects in the preceding two years. - Savings from this programme are assumed to be ring-fenced to pay back the loans in the first 5-7 years and to fund the ongoing programme. By year 3 there should be additional savings on our energy bills of £16.1k from capital investment. ; - If projects on the Council's estate can be funded from the Local Energy Fund then savings and other funds for this programme will be transferred to/invested in that Fund as seed funding; - That the post of Project Manager for Sustainable Energy continues to be funded until the end of the 3 year programme from elsewhere; - That when the Bike-It officer post's current Sustrans funding finishes in March 2011, the Council will either increase S106 funding to that post or win additional funding from elsewhere to enable it to continue to the end of the Corporate Plan period. 	Our own estate NI 185	£119k	£101k	£0
	Of which, capital -	£99k	£99k	£0
	And revenue –	£20k	£2k	£0
	Wider Borough NI 186	£23.5k	£15k	£15k
	Of which, capital -	£0	£0	£0k
	And revenue –	£23.5k	£15k	£15k
	Staff (full-time equivalent, FTE, across the whole programme from various teams)	3.7FTE	3.7FTE	3.7FTE

Appendix 2**Evidence base, feasibility studies, National, Regional & Local Drivers**

The following is a summary table showing key policy.

National	<p>Climate Change Act 2008 Legally binding targets to reduce emissions by 26% from 1990 levels by 2020, and by 80% by 2050</p> <p>Warm Homes & Energy Conservation Act 2000 Commitment to eradicate fuel poverty by 2016</p> <p>Code for Sustainable Homes 2007 All new homes to be zero carbon by 2016</p> <p>Local Government Performance Framework: National Indicators (NI)</p> <ul style="list-style-type: none">• NI 185 - CO₂ reduction from local authority operations• NI 186 - Per capita CO₂ reduction in the Borough.• NI 187 - income benefit recipients in low energy efficiency rated homes.• NI 188 Adaptation to Climate Change												
Regional / Sub Regional	<p>The South East Plan Policy CC2 aims to reduce CO₂ emissions by 25% by 2015 Policy CC3 aims to stabilise the South East's ecological footprint by 2016 by:</p> <ul style="list-style-type: none">I. Increased efficiency of resource use in new developmentII. Adaptation of existing development to reduce its use of energy, water and other resourcesIII. Changes in behaviour by organisations and by individuals. <p>Regional Spatial Strategy for the South East (RSS9) Policy INF6: Minimum regional targets for electricity generation from renewable sources.</p> <table><tr><th><u>Year/timescale</u></th><th><u>Installed Capacity (MW)</u></th><th><u>% Electricity Capacity</u></th></tr><tr><td>2016</td><td>895</td><td>8.0</td></tr><tr><td>2020</td><td>1,130</td><td>10.0 (SE plan policy EN3)</td></tr><tr><td>2026</td><td>1,750</td><td>16.0</td></tr></table> <p>Surrey Structure Plan Policy SE 2 requires commercial and residential development to be designed so that a minimum of 10% of the energy requirement is provided by renewable resources.</p> <ul style="list-style-type: none">- The use of combined heat and power or similar technology will be encouraged, and for all developments in excess of 5,000 sq m floorspace such should be regarded as the norm.- "Retrofitting Existing Housing Stock in the SE - A strategy to reduce carbon emissions and alleviate fuel poverty 2008-2011" – sets fuel poverty targets, including achievement of SAP65 for all homes by 2016.- Re-energising the South East – sets out an action plan to reduce carbon emissions, increase renewables and alleviate fuel poverty 2008-2011	<u>Year/timescale</u>	<u>Installed Capacity (MW)</u>	<u>% Electricity Capacity</u>	2016	895	8.0	2020	1,130	10.0 (SE plan policy EN3)	2026	1,750	16.0
<u>Year/timescale</u>	<u>Installed Capacity (MW)</u>	<u>% Electricity Capacity</u>											
2016	895	8.0											
2020	1,130	10.0 (SE plan policy EN3)											
2026	1,750	16.0											

County and local	Surrey's Local Area Agreement 2008-2011 Performance indicators for NI 186 from a baseline in 2005, with milestones to be confirmed at Y1. <i>"Per capita reduction in CO₂ emissions in LA area reduced by 10% by 2010/11"</i>
Local	Reigate & Banstead Borough local baseline data for per capita CO₂ reduction in the Borough. The government (DEFRA) figures are: <ul style="list-style-type: none"> • 2005 6.2 t CO₂ emissions per capita, • 2006 6.2 t CO₂ emissions per capita. Draft Corporate Plan, 2009-2011 – Priorities: <i>"To assist residents in becoming energy efficient in existing and new dwelling including use of alternative energy sources. Encouraging the community to lead a more sustainable lifestyle to future proof the Borough. Areas of focus:</i> <ol style="list-style-type: none"> 1. <i>Develop a strategy to meet CO₂ emissions targets</i> 2. <i>Progress the role of the Council as an energy enabler</i> 3. <i>Investigate developing a Local Carbon Reduction Fund (also called Local Energy Fund) that is self financing</i> 4. <i>Promote ways to improve energy efficiency in existing and new private building stock</i> 5. <i>Improve energy efficiency in the Council's own buildings and operations."</i>

The following is a list of available background studies that form the evidence behind the current work programme: -

Council's own estate and operations: -

- Biomass CHP Advice Report - Feasibility Study for Town Hall, November 2006, Briar Associates, funded by Carbon Trust
- Carbon Reduction Management Report, March 2007, Energy Centre for Sustainable Communities (ECSC) funded by the Energy Savings Trust - to improve the Council's own energy management
- Green Fleet Review, July 2007, Energy Savings Trust
- Energy Management and Opportunities Assessment, July 2007, Briar Associated, funded by the Carbon Trust – a multi-site survey to identify potential energy savings measures
- CHP advice report for Donyngs Leisure Centre, May 2007, Briar Associates, funded by the Carbon Trust

Local energy fund: -

- Local Carbon Reduction Fund Feasibility Study Proposal, December 2007, Energy Centre for Sustainable Communities (ECSC)

- Balance Trading Feasibility Study And Pilot Project: Contribution To Core Strategy Policy 11 Evidence Base, October 2008, Eaga Plc /SECBE.
- Accelerating Progress Towards Zero Carbon Housing In Reigate And Banstead: A Proposal To Assess The Feasibility Of A Low Carbon Development Partnership And A Pilot Balance Trading Project, May 2008, Professor Mike Gibson, eaga plc

Regeneration: -

- Towards Zero – Carbon Development In Reigate & Banstead. A review of potential sustainable energy measures, July 2007, Savills and AEA Energy and Environment - a review of planning policy
- Priory Park Ground Source Heat Pump Assessment , April 2006, Energy Centre for Sustainable Communities (ECSC)
- Redhill Town Centre Development - CHP Screening Analysis, May 2007, Atkins Ltd
- Redhill Landfill Gas CHP/DH Project – Options Appraisal, December 2004, PB Power
- North East Horley Phases 1&2 Feasibility of CHP, November 2006, Cyril Sweet
- North East Horley Phases 1&2 Feasibility of Renewable Energy, November 2006, Cyril Sweet
- North West Horley 10% Carbon Reduction Options Appraisal, April 2006, XCO2
- Preston Regeneration, Sustainable Energy Feasibility Study, April 2007, Energy for Sustainable Development
- Developing a Low Carbon Energy Strategy for Preston Regeneration, April 2008, Energy for Sustainable Development

Biomass: -

- Opportunities for Short Rotation Coppice biomass fuel at Horley, BioRegional Development Group, December 2006
- Availability of woodfuel within Reigate and Banstead's own estate, BioRegional Development Group, January 2008
- 2 studies undertaken by South East Woodfuels into the feasibility and business plan for operating a woodfuel facility from Moat Farm in Horley
- a study of a biomass facility at East Surrey Hospital
- study of potential for renewable energy solutions for several individual schools, 2008.

Appendix 3 Glossary

Biomass - as a renewable energy source for use within the Borough, refers to the use of wood as fuel to generate electricity or produce heat. It is defined as 'renewable' due to the fact that the plants absorb the equivalent amount of CO₂ while growing that they emit when processed for their energy.

Carbon Neutral - This refers to achieving net zero carbon emissions through a combination of energy conservation, efficiency, and renewable energy. Any remainder is balanced by a contribution to CO₂ emissions reduction projects elsewhere.

CO₂ emissions - the carbon dioxide (CO₂) emitted in the course of human activity, particularly related to energy production and use, but also linked to transport, food production, waste collection and disposal, water processing, materials usage etc.

CT – Carbon Trust, a government funded organisation that helps others to deliver CO₂ savings. See <http://www.carbontrust.co.uk/default.ct>

CHP – Combined Heat and Power. A technology that produces efficient local electricity and also makes use of the heat associated with the processes. Even Gas-fuelled CHPs can reduce CO₂ emissions by up to 40%.

Energy network An energy network is a network that distributes electricity, heat or cooling that has been produced locally, to nearby end users. If the energy is in the form of electricity it can also be linked to the national grid to enable net import or export.

EST - Energy Savings Trust. A government funded organisation that helps others to deliver CO₂ savings. See <http://www.energysavingtrust.org.uk/>.

Energy Services Companies (ESCOs) These companies invest to establish and run energy/heat facilities and then sell the electricity and/or heat to the end user or the grid.

Feed-in Tariffs - where the Government fixes a level of tariff to be paid for each renewable technology with a set length of contract. It was announced by the Government in October 2008. Regional or national electricity utilities are obligated to buy renewable electricity at above market rates. The higher price helps overcome the cost disadvantages of renewable energy sources..

Fuel poverty - The definition of fuel poverty is when a household needs to spend more than 10% of their household income on all domestic fuel use including appliances to heat their home to an adequate level of warmth.

Heat network - A network system that enables hot water produced by a CHP, or large-scale boiler to be shared by piping it into different buildings. Heat gets lost in transmission, so the buildings need to be within a small geographical area, ideally less than 1 km. This makes this solution most practicable in a dense town centre setting with lots of new development happening within a reasonably short time frame, e.g. Redhill, Preston.

NI 185, 186 and 187 - National Indicators – relevant targets from the Local Government Performance Framework.

Renewable heat, energy or electricity Heat, energy or electricity from sources that are naturally replenished sources such as solar thermal, solar photovoltaics, wind power, biomass, and geothermal power

Standard Assessment Procedure (SAP) - SAP is the Government's recommended system for energy rating of dwellings. SAP rating is used to fulfill requirements of the Building Regulations to notify and display an energy rating in new dwellings

Sustainable energy - Meeting present energy needs without compromising the ability of future generations to meet their needs.

Zero carbon – emitting no carbon

Appendix 4

Communications Plan

This communications plan aims to identify the actions and measures needed to ensure that the Sustainable Energy Strategy vision, aims and objectives are mainstreamed through the Council and Borough. Some projects identified within the strategy as specified in Appendix 1 will have separate communications plans to support its delivery.

Aims of the external communications campaign

To engage residents, organisations and businesses to implement new facilities, and to change ways of living and working, that impact on energy use in order to achieve capita carbon emissions reductions. We will do this by:-

- providing the necessary information and sources of advice to enable everyone in the community to play their part
- creating internal and external communication campaigns that inspire behaviour change through offering incentives, promoting best practice and celebrating success
- Leading the Gatwick Diamond local authorities in creating a wood fuel strategy for the economic sub-region

Target audience and what we want them to do as a result of the communications?

- **Within the Borough** - Borough businesses, other organisations and individual residents:
We want residents, businesses and other organisations to install measures and adopt habits that will reduce carbon emissions. Examples include switching to energy saving light-bulbs, driving cars in a fuel efficient way, insulating homes/workplaces, switching to public transport or walking, implementing renewable energy technologies or transport schemes.
 - Those who already have engaged with the issue to a great extent to act as champions / advocates.
 - Those who have engaged with the issue to some degree to take further steps.
 - Those who are currently not engaged with the issue to understand the benefits of change and to make those changes.
- **Outside the Borough** - Other authorities within the Gatwick Diamond and Surrey Council Council area to engage with projects that we initiate (eg wood fuel strategy) and assist through shared resources and joint working.

1. The key communications messages

Vision statement from the Sustainable Energy Strategy

“Reigate and Banstead Borough Council will be empowering its local community towards achieving an 80% reduction in CO₂ emissions between 1990 and 2050. The Council will be a focus for excellence in sustainability both by setting its own

example, and by helping others to do the same. It will be ensuring that the energy needs of its dynamic and growing community remain secure and affordable.”

Main Communications Messages:

- 1. Reducing energy use helps us make our energy more secure for the longer-term.
- 2. Carbon emissions are produced when we burn fossil fuels to produce energy. When we reduce the amount of fossil fuel based energy we use, we reduce our carbon emissions, which also helps us manage climate change – and can save you money!
- 3. Changing your behaviour, buildings and systems can benefit you financially and by keeping you warmer. It will also benefit you through supporting a secure independent energy supply, improving the environment and mitigating climate change.
- For example:
“if every person in x (eg. Redhill) did y it would result in z”
What you can do? How we will help you do that? What do you get out of it?

2. How to communicate?

- In order to optimise resources, we aim to make use of existing communications routes wherever possible, engaging with existing groups and schemes rather than inventing new ones,
- Direct contact is important where resources permit, eg visiting/telephoning businesses, direct contact to named individuals, running events and awards,
- Use of the internet is a cost-effective low carbon way of reaching some key audience types,
- Use of Borough News and newspapers, Surrey Mirror etc,
- Leafletting only where absolutely necessary due to waste issues,
- There is no evidence to show that hard to reach audiences have a different attitude towards climate change issues that would need us to use different or particular channels to reach them on this issue.

3. Potential issues/problems to take into account or prepare for?

Possibility of ‘climate change fatigue’ with the audience not believing the evidence of climate change or being tired of the issue and therefore not engaging. However, if we focus on the cost saving benefits and the need for increased energy security, this could counteract that.

4. How will success of the communication activity be measured?

The majority of the targets of the communications campaign are the same as those of the overall Sustainable Energy strategy ie an annual reduction in CO₂ emissions across the Borough from 2005 to 2050 of 13,227 tonnes.

Other indicators of success will arise from statistics such as the increase in the numbers of homes installing insulation resulting from project-specific campaigns. Within the lifetime of the campaign the number of people and organisations engaging with projects and campaign activities will also give an indicative measure of success. We will seek to ensure that we have at least 85% positive or neutral press coverage.

Communication Plan Actions	Years			Cost estimates (£)		
	2009-10	2010-11	2011-12	FY 09-10	FY 10-11	FY 11-12
Focus on leadership amongst Council staff. Develop comms materials for the 'green teams' project	Launch April 09	End Mar 10	'Maintenance'	£3,000	£1,000	£0
Produce communications materials for residents, schools and organisations	Produce materials			£2,000	£1,000	£1,500
Develop project with Youth Forum, eg websites, Facebook, in secondary schools and colleges	Consult youth forum	Develop and run project		£0	£2,000	£0
Eco-schools – engage with schools via packs, visits, speaking etc. Tie into waste and Bike-It teams' work	Produce materials and run	Expand to other schools	Expand to other schools	£2,000	£0	£0
Engage with businesses via packs, visits, speaking at events, business breakfasts, award schemes etc to encourage reduction of energy use. Work with Business Link, Town Centre Groups, Chamber of Commerce etc	Create plan, develop partnerships	Produce materials and run		£2000	£0	£2,000
Colleges, other public and voluntary sector – East Surrey College, YMCA, RNIB, churches etc – engage via packs, visits, events, awards etc.		Produce materials and begin	Engage more widely	£0	£2,000	£0
Local Energy Fund – promotional materials to ensure that developers are engaged. Later, campaign for businesses to donate 'carbon offset'-style contributions	Produce developers materials	Promote to business		£1,000	£0	£1000
Run promotional residents' project with competing streets as part of Green Action Zones. Work closely with the local press to create high profile activity. Fundraise to offset costs	Planning and fundraising towards project	Run project	Review and replicate		£4,000	£5,500
				£10,000	£10,000	£10,000
				Total costs		