Basingstoke Local Development Framework – Public Examination November 10th 2015

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We hope to address these issues today

An apology

About me and Basingstoke Transition.

The dilemma we face. Not building homes is unfair and unjust; building them as we do now is unsustainable.

A focus on EM8 but it’s not just about climate change

Current policy, strategy, objectives and goals.

Is the current plan unsound?

Can we make it more sound?

Our impact on our environment

We use 150 litres of water per day per person and the same amount of effluent

We create 650kg of waste per household per year

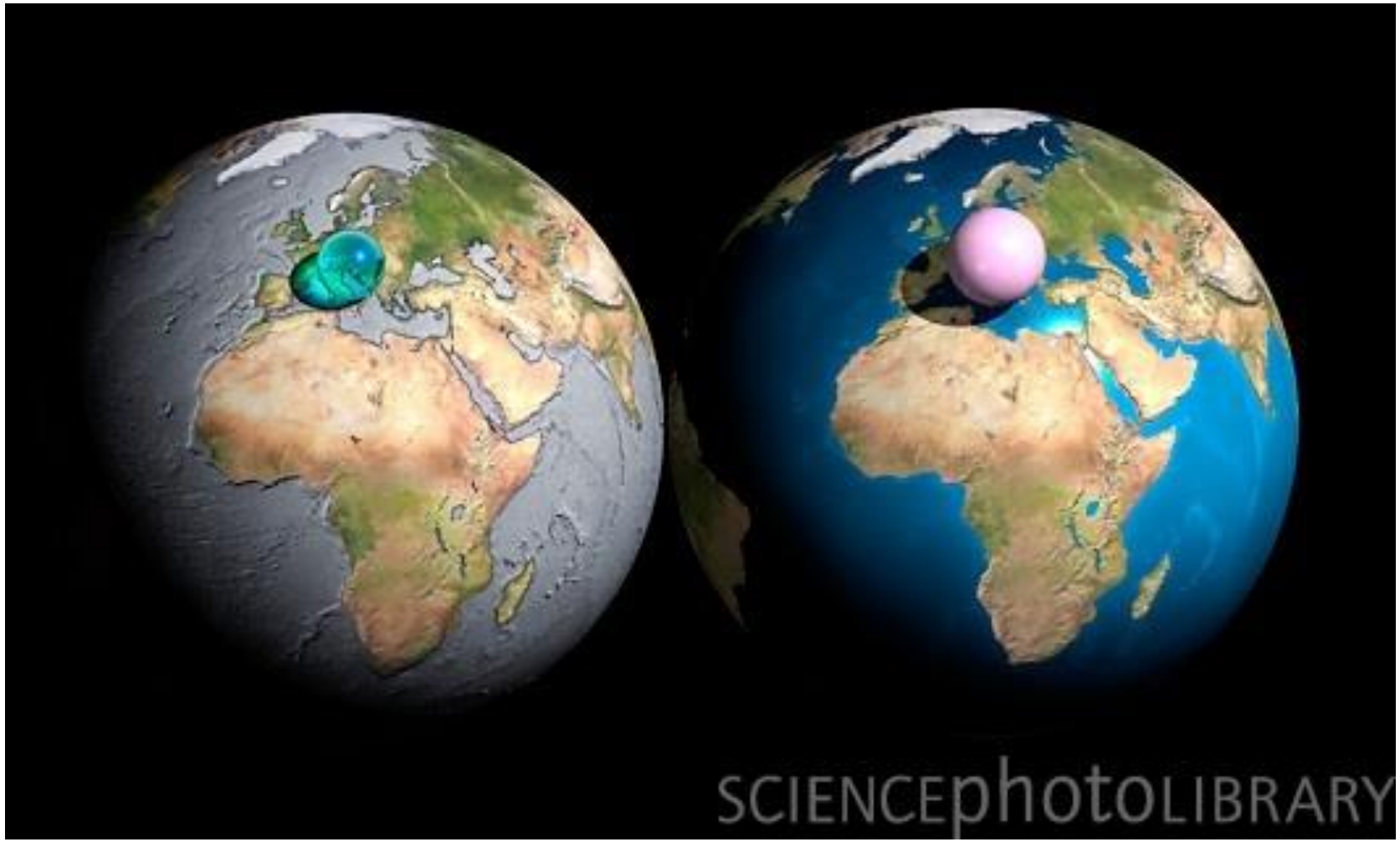
We emit 8,100 kgs of greenhouse gases per person per year

We produce NOx particulate matter from our cars

The results?

The Loddon is one of the more polluted rivers in the UK in terms of nitrates and phosphates
Parts of our town are close to maximum permitted pollution levels
Our water system is under stress
Our climate is changing

Why Change?



So what is energy and how much do we use in Basingstoke?

- We use to do three things
  - Heat our homes
  - Move our cars
  - Power our machines and gadgets (TV, PC, Washing, Fridge, Phone….)
- 94.1% of it comes from burning stuff – fossil fuels (coal, gas, wood and oil) and rubbish.
- Only 7.0% comes from renewable sources (1.7% excluding nuclear energy).
- Basingstoke produces over 1,100,000 tonnes of CO_2 per year
  - 37% from electricity
  - 25% from heat
  - 37% from transport
  - 7.6 tonnes per person per year

Source NAEI and DECC NI186, DUKES 2015

1. ExcludesM3 and major trunk road emissions. Otherwise 51% and assume we don't drive outside the Borough

How much do we use

Officially it's 4,363.6[1] GWh (GigaWatt-hours) per year

Not at lot of help?

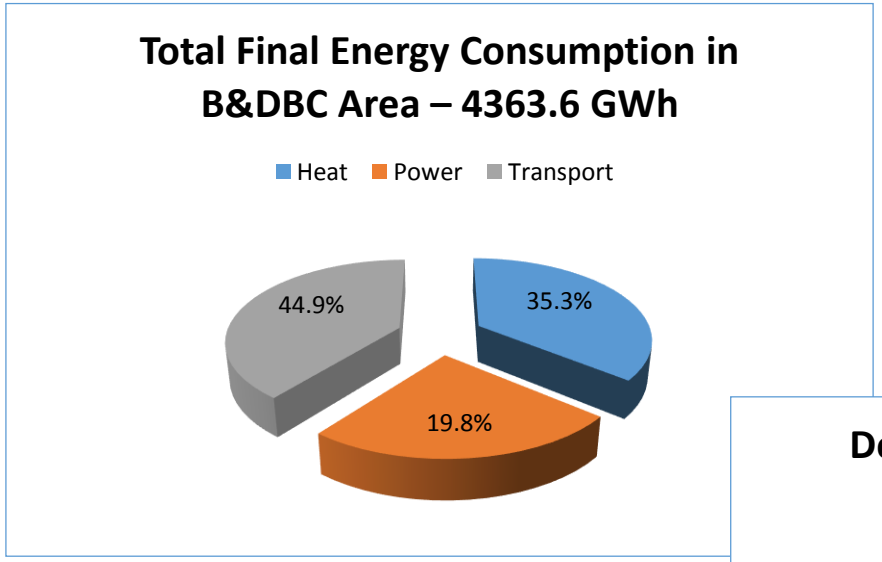
- Think of it as one of the (498 MW) reactors at Fukushima running full time 24 hours a day
- Or about 320,000 tonnes of oil per year
- Or 880 tonnes of oil per day

So what's that looks like……

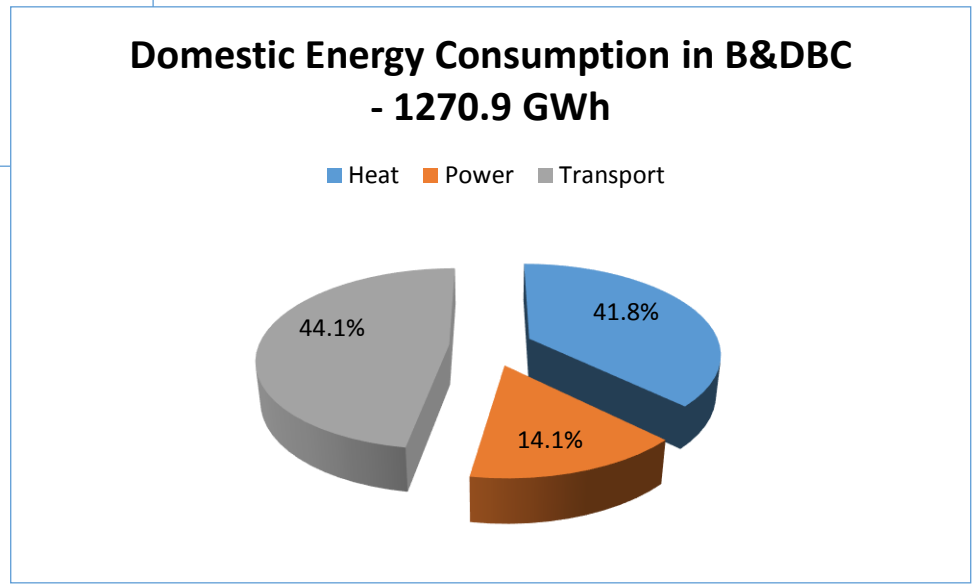
1. Source DECC 2015 2013 Data.

1,000 tonnes of oil a day going up in smoke

Most of our energy is for heat and transport….. so is most of the cost.



Only 30 GWh (0.7 %) comes from “renewables” generated in the Borough. Almost all from Chineham Incinerator.



Did you know?

Basingstoke spends £440 million a year on energy.

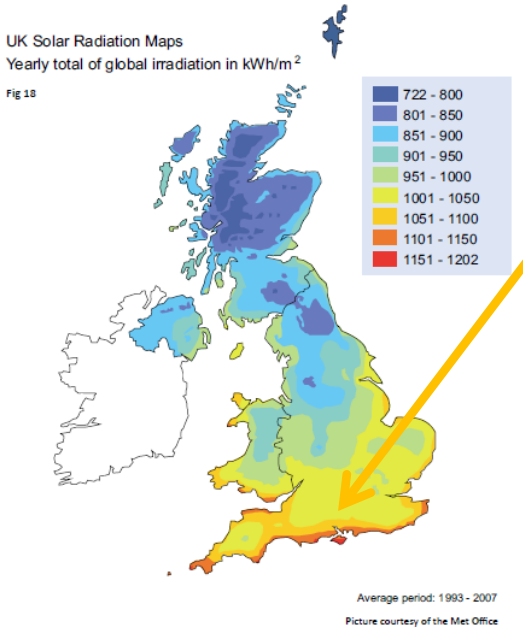
All most all is on coal, oil and gas.

Yet we are blessed with some of the best renewable resources in the country.

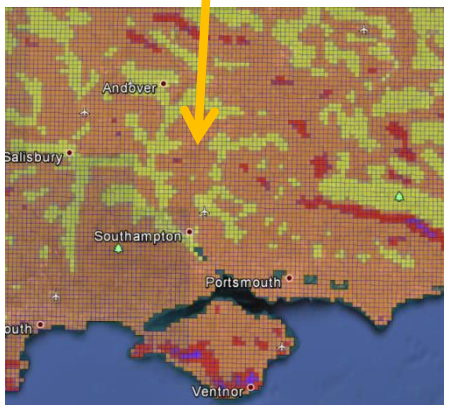
We can meet 20% of our needs here, ourselves, locally.

But we need to plan to do it. It won’t happen by accident.

Hampshire is sunny, wooded and windy



Sunny,



Windy,

Wooded,

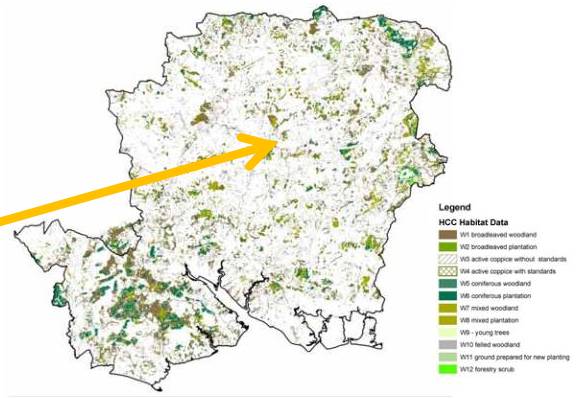


Figure 6.7: woodland in Hampshire by woodland type

SOURCE: FORESTRTY COMMISSION (2002) INVENTORY OF WOODLANDS AND TREES

Tidal

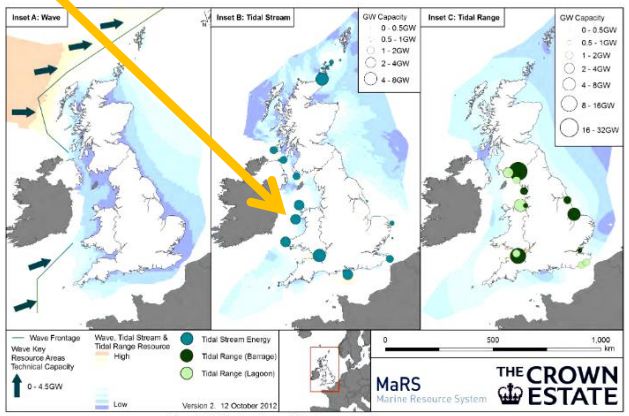


Figure 3: Distribution of wave, tidal stream and tidal range energy resources

Basingstoke is blessed with solar power opportunities.

- **There is 2.8 square kilometres on non-domestic roof space in the Borough**
- **40% is suitable for solar pv**
- **With a capacity of 90MW**
- **This could generate 80 GWh per year**
- **That is about the same as a 20 MW nuclear power station**
- **About 10% of the electricity demand of the Borough**
- **It would reduce electricity costs by 20%**

Solar and wind are only part of the opportunity

DECC Primary Fuel Type	Fuel Feedstock	Capacity (MW)	Average Power (MW)	Tonnes CO_{2e} Saved (T CO_{2e})		CH_4 Reduction (T CO_{2e})
				Max	Min	
Wind	Commercial Scale	40.0	12.0			
Plant Biomass	Managed Woodland for Combustion		4.7			
	Energy Crops for Combustion		5.2			
	Agricultural Arising for Combustion		17.6			
	Agricultural Arising and Waste for AD		7.1			
Animal Biomass	Wet Organic Waste for AD		5.1			
	Poultry Litter for Combustion		7.7			
Municipal Solid Waste	Landfill Gas		3.3			
	Sewage Gas		0.7			
C&I Waste	Waste Wood for Combustion		3.0			
Micro-generation	Solar PV	150.0	16.5			
Total			82.9			

North Hampshire Renewable Energy and Low Carbon Development Study (2010 Aecom)

Recommendations

1. Improvement to New Homes

2a Community Infrastructure Levy – Energy and CO_2. £100/tonne/per year

2b 15% reduction in all building emissions

3 Susutainable Design and Construction.

- All homes meet CSH3 then CSH4
- BREEAM very good from 2010

4. Renewable Energy. B&DBC. At least

- 166 GWh of renewable electricity by 2020 (20%)
- 195 GWh of renewable heat by 2020 (12%)

5. Deliver the Energy Opportunities Plan

Aecom identified the following

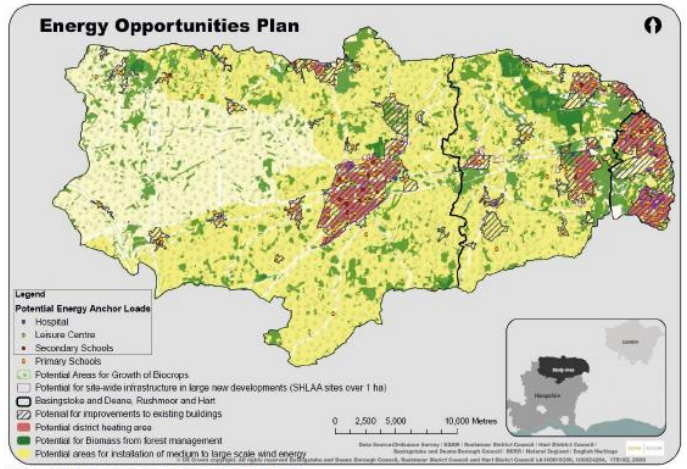


Figure E7: Energy Opportunities Plan for North Hampshire

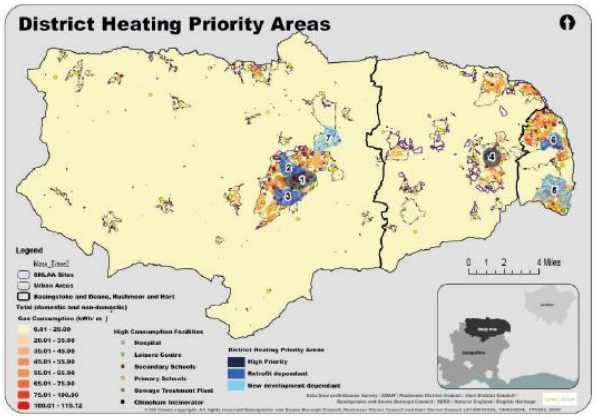


Figure E9: District heating priority areas

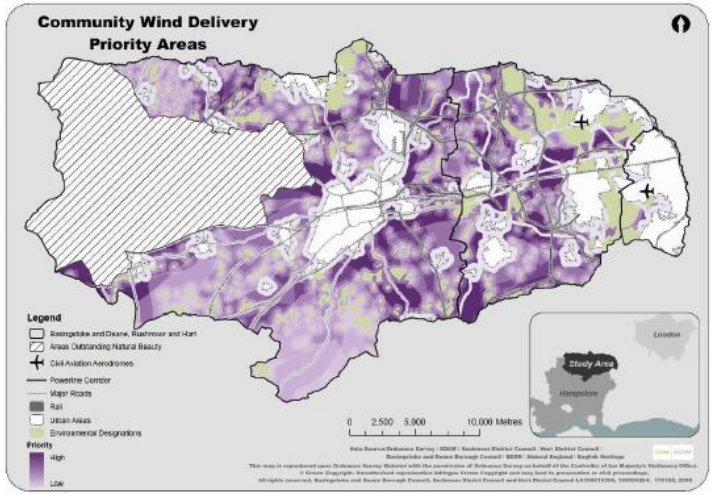


Figure E10: Community wind priority areas

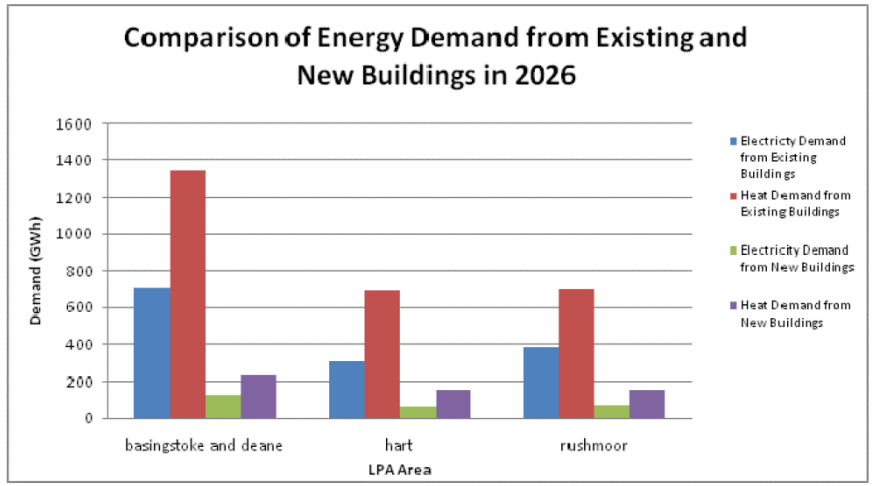


Figure E6: Comparison of energy demand from existing and new buildings

Aecom identified the following

Potential Sources of Renewable and Low Carbon Energy

This study assesses the scale of potential from different renewable energy sources across North Hampshire. The table below summarises the key renewable energy sources identified.

Technology	Resource in Basingstoke and Deane	Resource in Hart	Resource in Rushmoor
Large Scale Wind	Significant resource identified	Significant resource identified	Limited resource identified
Medium Scale Wind	Significant resource identified	Significant resource identified	Limited resource identified
Biomass for Direct Combustion	Significant resource identified across North Hampshire		
Biomass for Anaerobic Digestion	Significant resource identified across North Hampshire		
District Heating with CHP	Significant resource identified	Significant resource identified	Significant resource identified
Micro-generation in Existing Development	Significant resource identified	Significant resource identified	Significant resource identified
On-Site generation in New Development	Significant resource identified	Significant resource identified	Significant resource identified
Hydro Energy	No resource identified	No resource identified	No resource identified
Energy from Waste	Existing Utilisation	Consideration outside scope of this study	Consideration outside scope of this study
Energy from Sewage	Consideration outside scope of this study	Consideration outside scope of this study	Consideration outside scope of this study
Geothermal Energy	No resource identified	No resource identified	No resource identified

Table E2: Summary of low carbon and renewable energy resource in North Hampshire

The Council's Policy, Objectives and Goals

Pride in Our Place A Sustainable Community Strategy for Basingstoke and Deane 2011-2026 Our Shared Vision for Basingstoke and Deane to 2026

"We will be

- **environmentally responsible and distinctive** – where
  - we live and work in harmony with the natural elements and systems on which we depend, and are responding to the challenge of climate change
  - we insist on the highest quality design and environmental standards to demonstrate pride in our place".

Sustainability Appraisal and Strategic Environmental Assessment – Non Technical Summary Draft for public consultation - August 2013

- ***an environmental role*** *– contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy'.*
- **Climate change:** it is expected that the impacts of climate change will be more pronounced for South East England than any other UK region, with potential implications across the borough in terms of water resources, flooding, agriculture, greenhouse gas emissions, biodiversity, landscape character and historic buildings, and health.
- Section 4.5 Objectives "3. To reduce and minimise emissions of greenhouse gases and manage the impact of climate change"

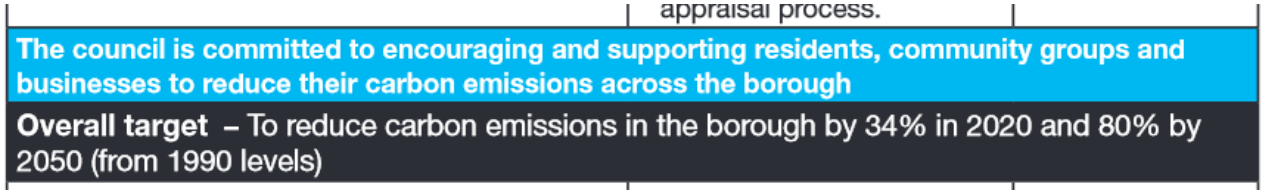
Climate Change Strategy for Basingstoke and Deane Borough Council April 2014

- Climate Change is one of the most important challenges that we face in the next 50 years. The overwhelming evidence from the Scientific Community supports the hypothesis of Climate Change.
- Through the implementation of (these pledges), we are aiming to match the UK targets for carbon reduction and renewable energy generation, including: 34% reductions by 2020 (from 1990 levels) and 80% reductions by 2050 (from 1990 levels); - 15% of energy demand from renewable sources by 2020.

Council Plan 2013 to 2017

The Council Plan identifies the following as one of the council's priorities and proposals:

Take action to reduce energy use and introduce renewable energy, both for our own premises and the borough.


appraisal process.

The council is committed to encouraging and supporting residents, community groups and businesses to reduce their carbon emissions across the borough

Overall target – To reduce carbon emissions in the borough by 34% in 2020 and 80% by 2050 (from 1990 levels)

Planning Policy – The current status, the Inspectors questions

Question: Renewable energy and climate change :Is policy EM8 sufficiently focused to provide meaningful guidance on the Plan's requirements for renewable/low carbon energy generation? Should the policy be amended in view of the Written Ministerial Statement (WMS) on new considerations to be applied to proposed wind energy development, which came into effect on 18 June 2015?

Response: The primary evidence for the policy approach is the North Hampshire Renewable Energy and Low Carbon Development Study (ENV10). This study identifies the main opportunities for renewable energy in the borough and locations where these opportunities would be viable;

- paragraph 3.11 of the Submission Local Plan(incorporating proposed modifications), which states that "Climate change mitigation and adaption and minimising carbon emissions will be key for the future success of the borough; our approach will therefore embrace cleaner and smarter growth that focuses on productivity gains which do not compromise the quality of the environment." Also, as noted in paragraph 6.2 (of chapter 6: Environmental Management and Climate Change),the Local Plan aims to achieve a reduction in carbon dioxide emissions and minimise the impacts of climate (change).

20.4.2The council is committed to helping to tackle the issue of climate change, and adopted anew Climate Change Strategy (ENV13) in April 2014 which commits to matching the following national targets:

- Carbon reductions of 34% by 2020 and 80% by 2050 (from 1990 levels); and
- The provision of 15% of energy demand from renewable sources by 2020
- 20.4.3 The council is proposing the following proposed modifications to paragraph 6.58 of the Submission Local Plan to update the position and refer to the council's adopted Climate Change Strategy:

The council's Climate Change Strategy commits to matching the following national targets:

- Carbon reductions of 34% by 2020 and 80% by 2050 (from 1990 levels); and
- The provision of 15% of energy demand from renewable sources by 2020.

The Local Plan aims to reduce CO2 emissions (by mitigation) through:

- its spatial strategy, the pursuit of objective K, and policy CN9 which seeks to reduce the need to travel, where possible;
- minimising energy consumption through sustainable approaches to design (policy EM10);its policy framework for the development of commercial renewable/ low carbon energy infrastructure (policy EM8);its approach to green infrastructure (policy EM5 and paragraph 6.31)
- site specific criteria in policies SS3.1 to SS3.13; and sustainable water use policy (EM9)