

Dover District Sustainable Construction and Renewable Energy Strategy

Adrian Fox
Principal Planning Officer



Programme

- Brief drafted Summer '08
- Commissioned September '08
- Published January '09
- Supporting publication of the Core Strategy



Context of the Strategy

- National policy
- Regional policy
- Local requirements
 - Understand local issues
 - Provide evidence
 - Shape and support local policy



Where is Dover?



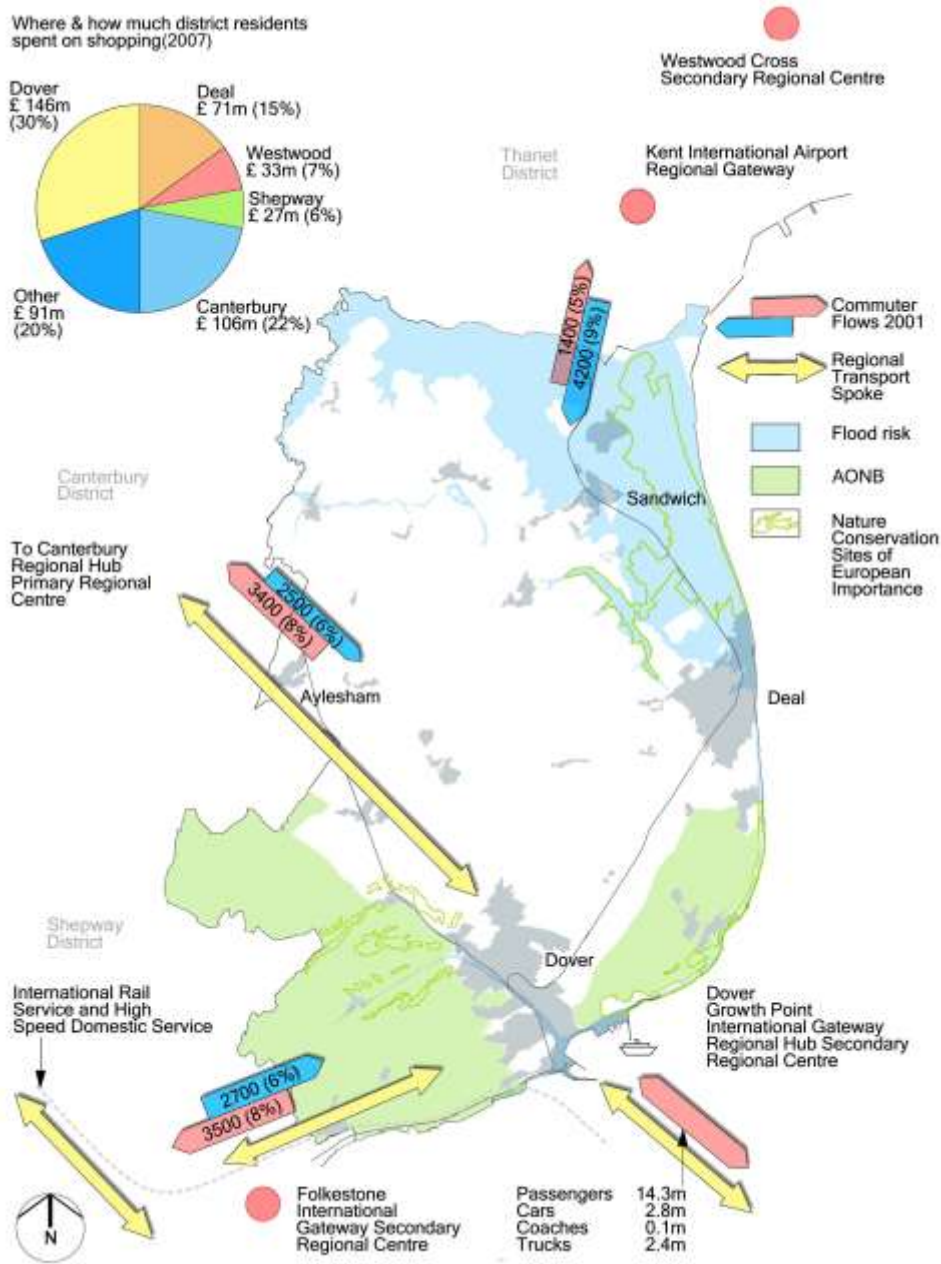
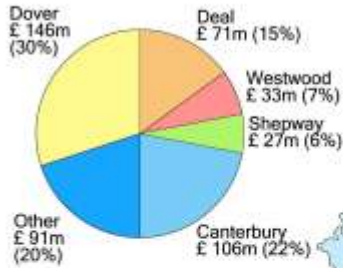


- Thames Gateway growth area
- Ashford growth area

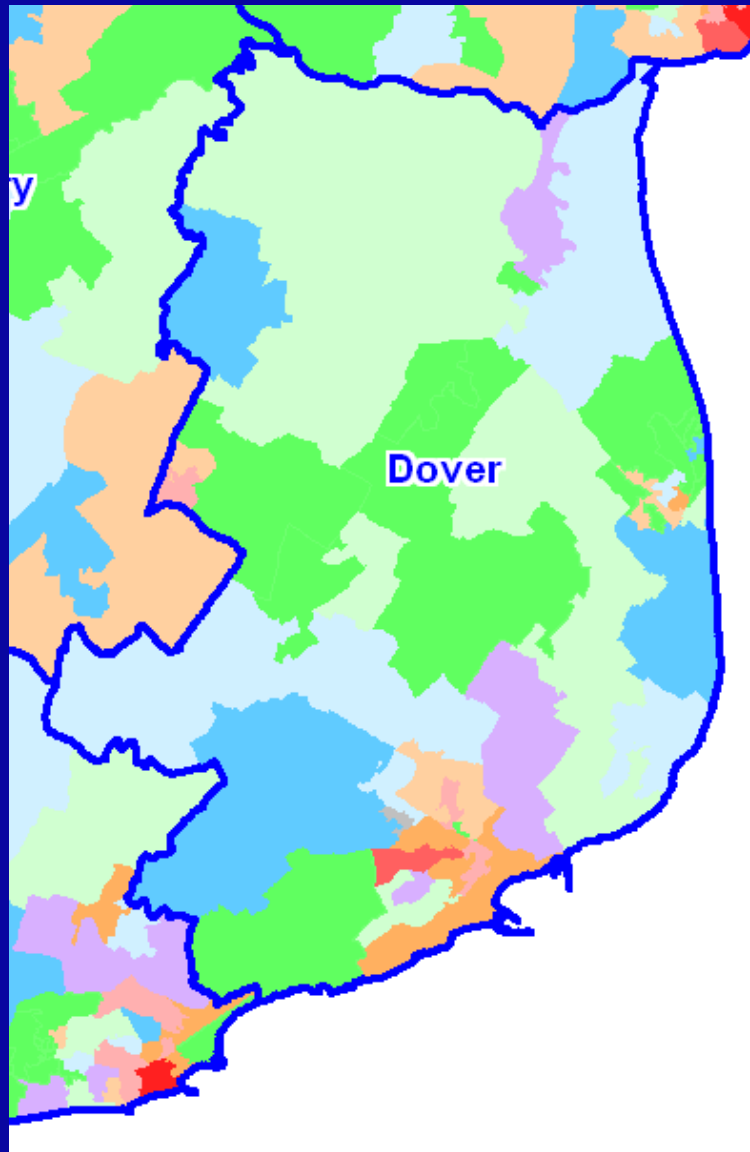
© Crown copyright. All rights reserved Dover District Council 100019780 (2009).



Where & how much district residents spent on shopping(2007)



Indices of Multiple Deprivation



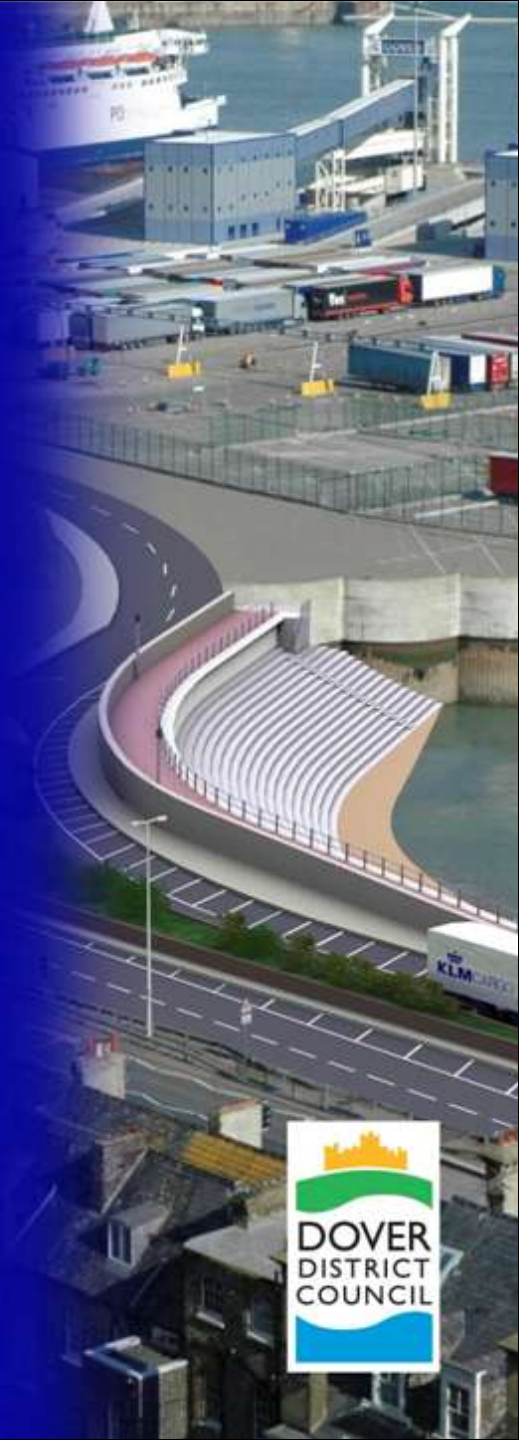
Objectives

- Assess District's potential
- Local justification for higher standards
- Specific Core Strategy opportunities
- Financial implications for delivery
- Justification for improvements in existing stock
- Place shaping and urban design issues



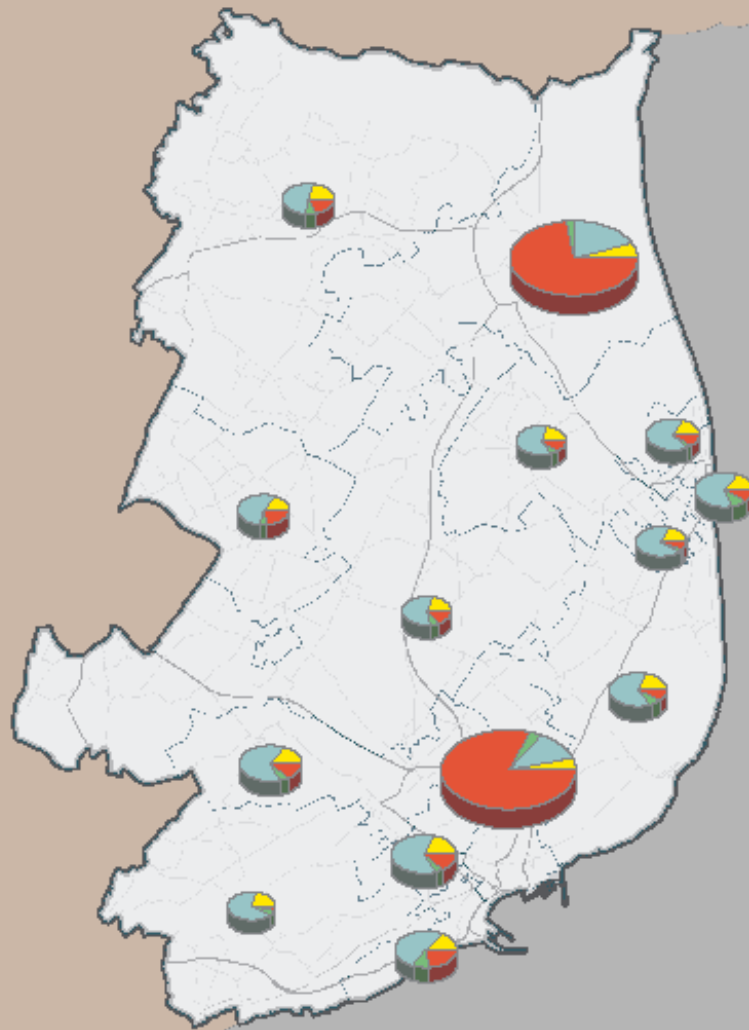
Findings

- Dover District particularly affected by climate change
 - Sea level change
 - Rainfall and temperature
 - Water scarcity
- Need to transform performance of existing ageing stock
- Disproportionate social impacts
- Costs of carbon reduction currently high
- District has potential sources of renewable energy
- Justifies policy standards higher than proposed Building Regs. changes





2006 Baseline Energy Demand



Baseline Energy



120



Residential Electricity



Residential Gas



Non-Residential Electricity



Non-Residential Gas



Dover District

GWh per Annum



61 - 75



76 - 120



121 - 376

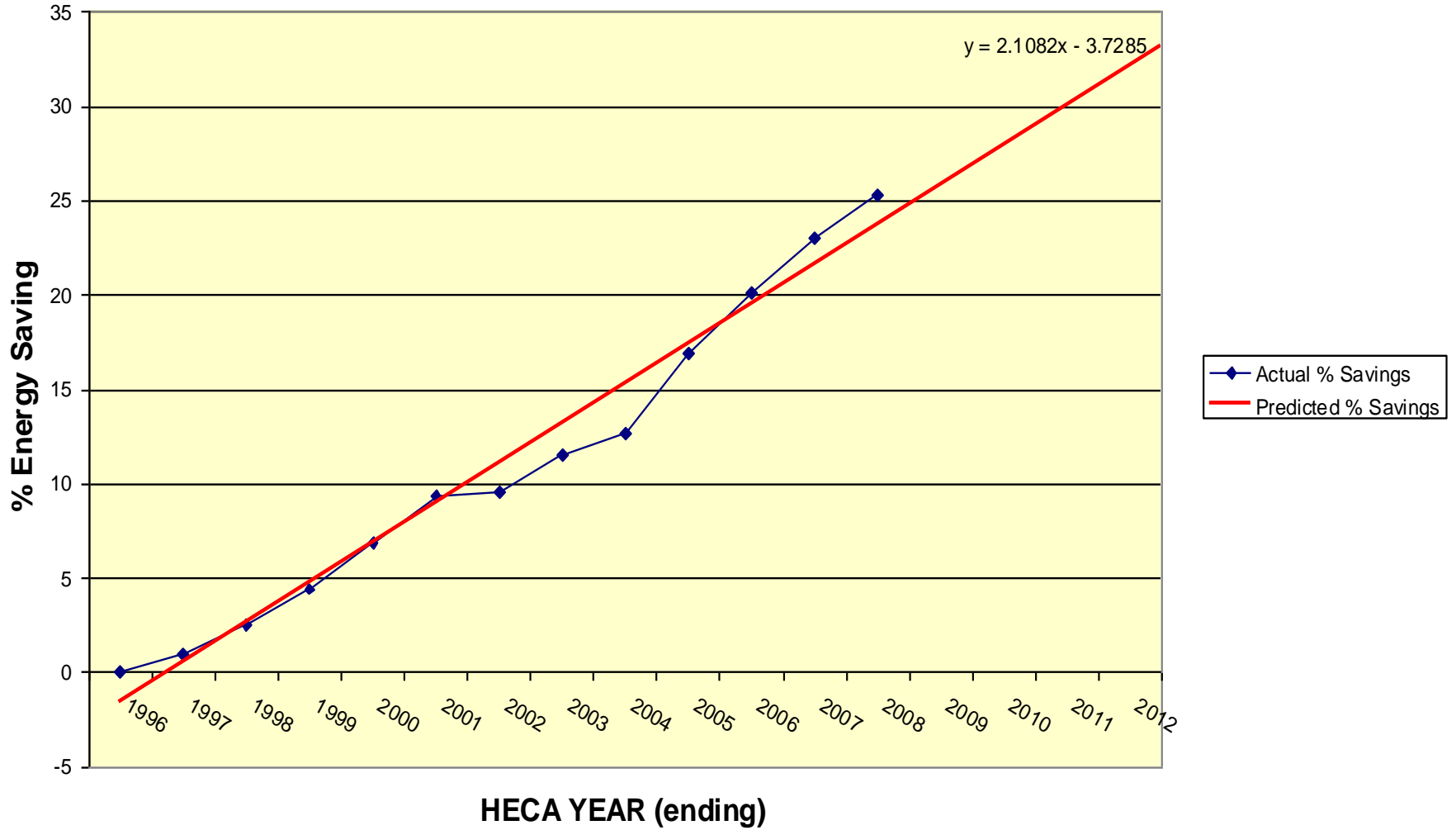
— A Road

— B Road

— Minor Road



HECA Energy Saving Trend Line





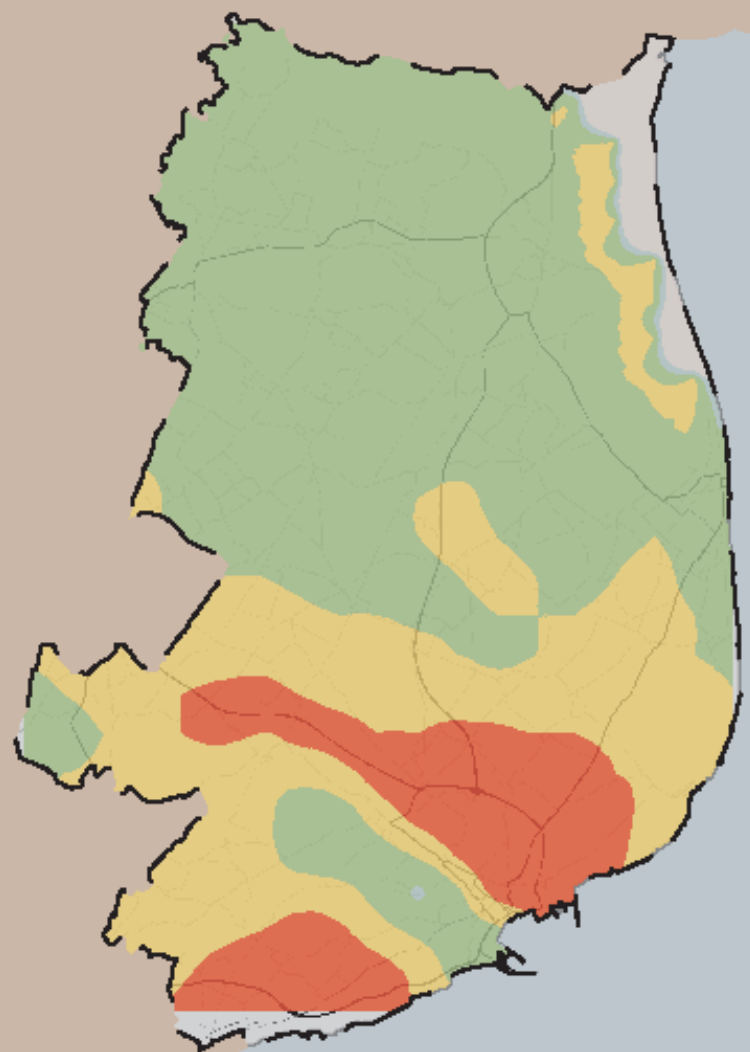
Dover

Wind Speed at 45m

Wind Speed (m/s)

- 0 - 5.5
- 5.6 - 6
- 6.1 - 6.5
- 6.6 - 7
- 7.1 - 7.6

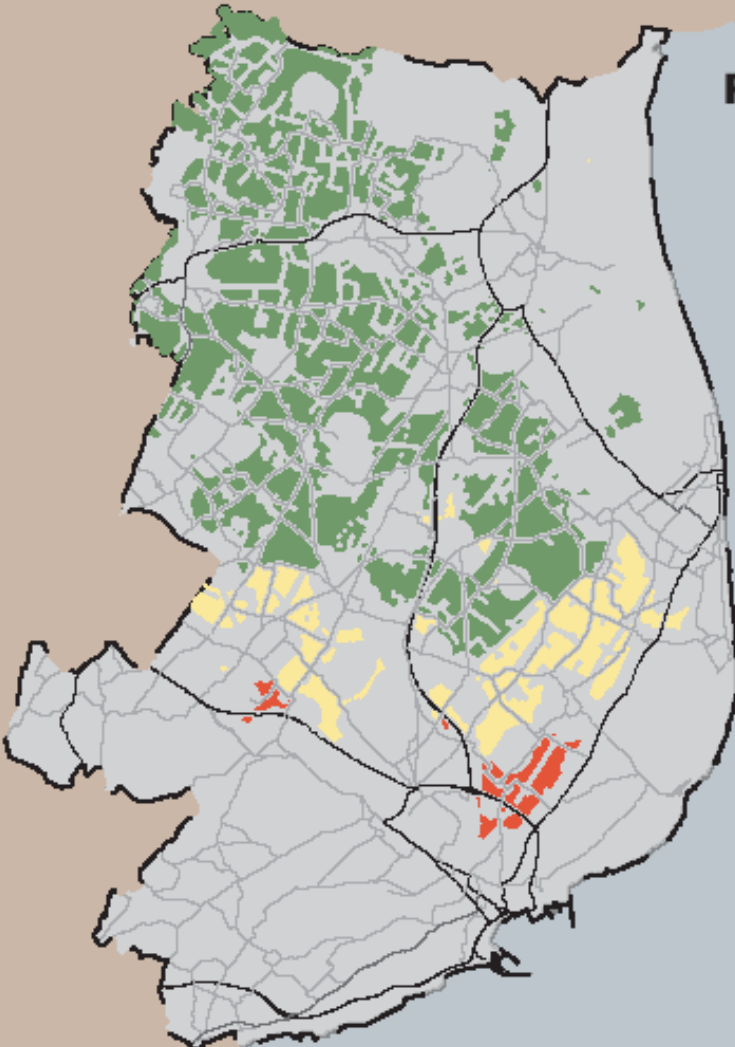
— A Road
— B Road
— Minor Road
Dover District





Dover

Potential Turbine Sites by Wind Speed



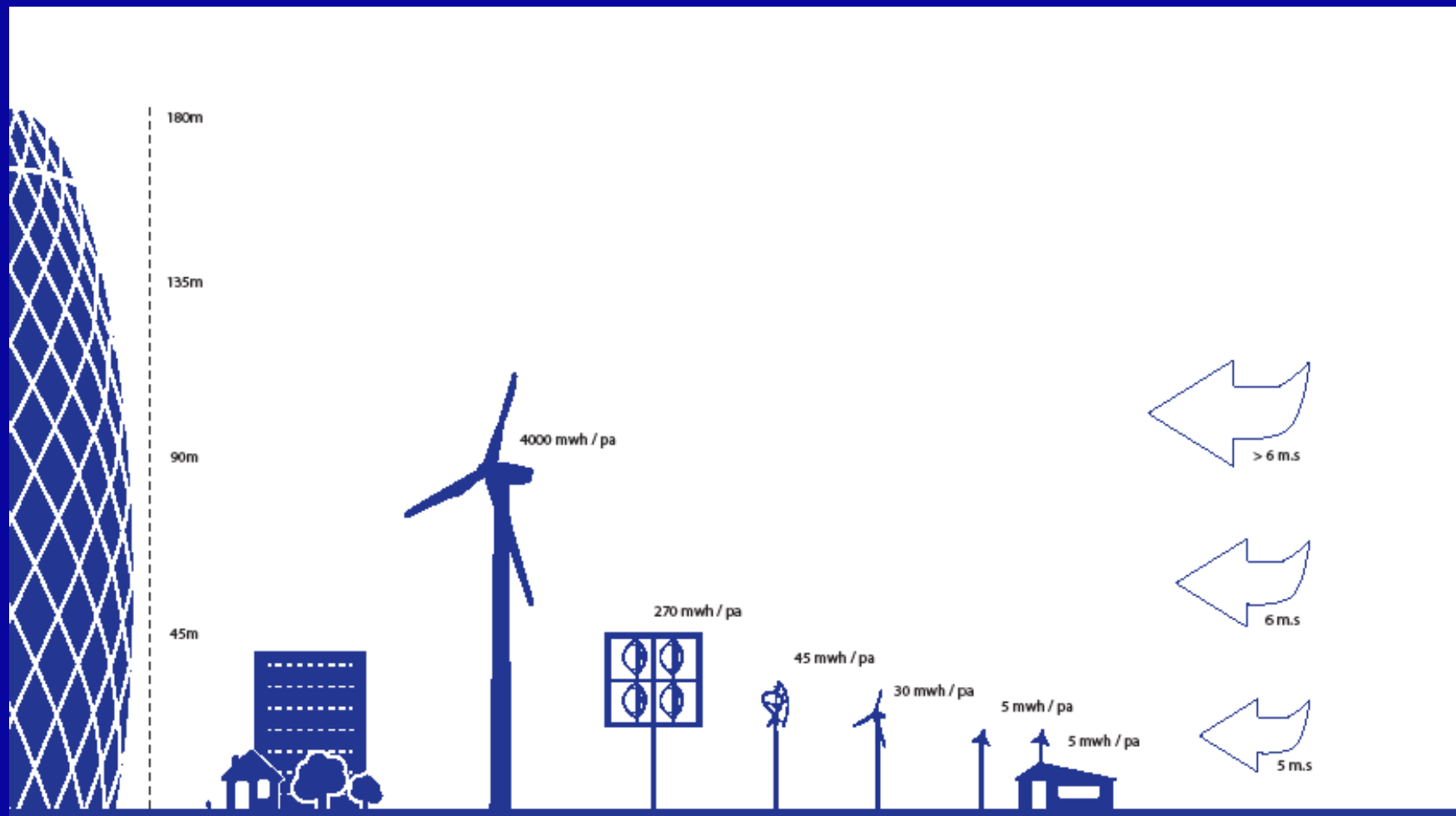
Wind Speed (m/s)

- 6.0 - 6.5
- 6.5 - 7.0
- 7.0 +

— A Road
— B Road
— Minor Road

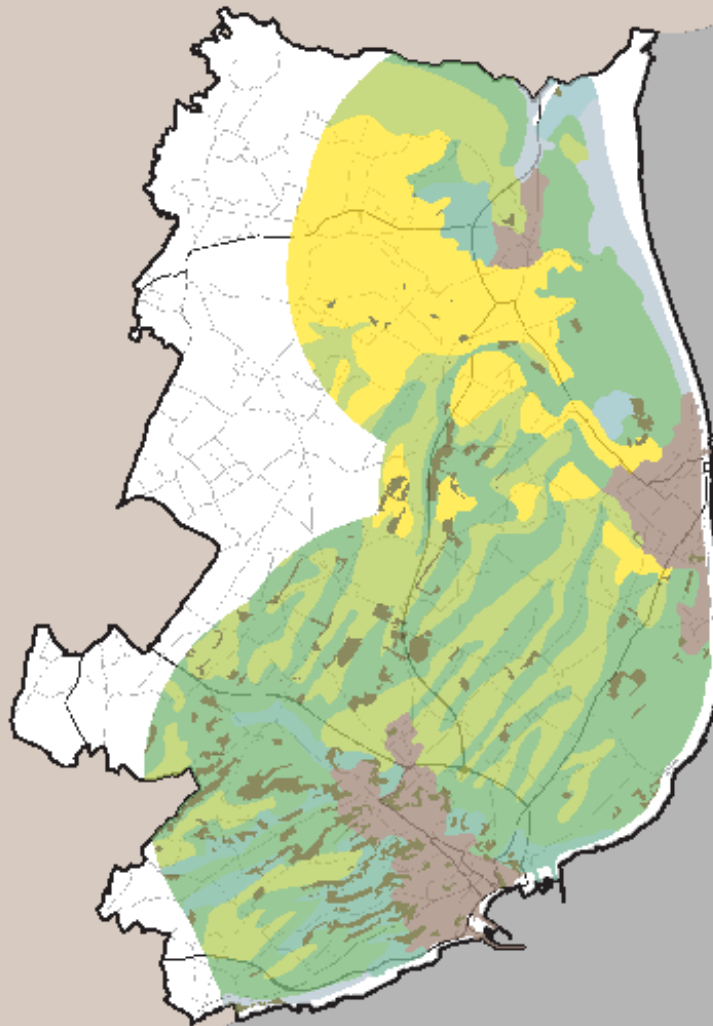
□ Dover District





1600 Homes; or 2700 Flats 120 Homes; or 180 Flats 20 Homes; or 30 Flats 12 Homes; or 20 Flats 2 Homes; or 3 Flats

Potential Biomass Sites Agricultural and Woodland



Within 5km of Urban Areas

Woodland

GRADE 1

GRADE 2

GRADE 3

GRADE 4

GRADE 5

NON AGRICULTURAL

URBAN

A Road

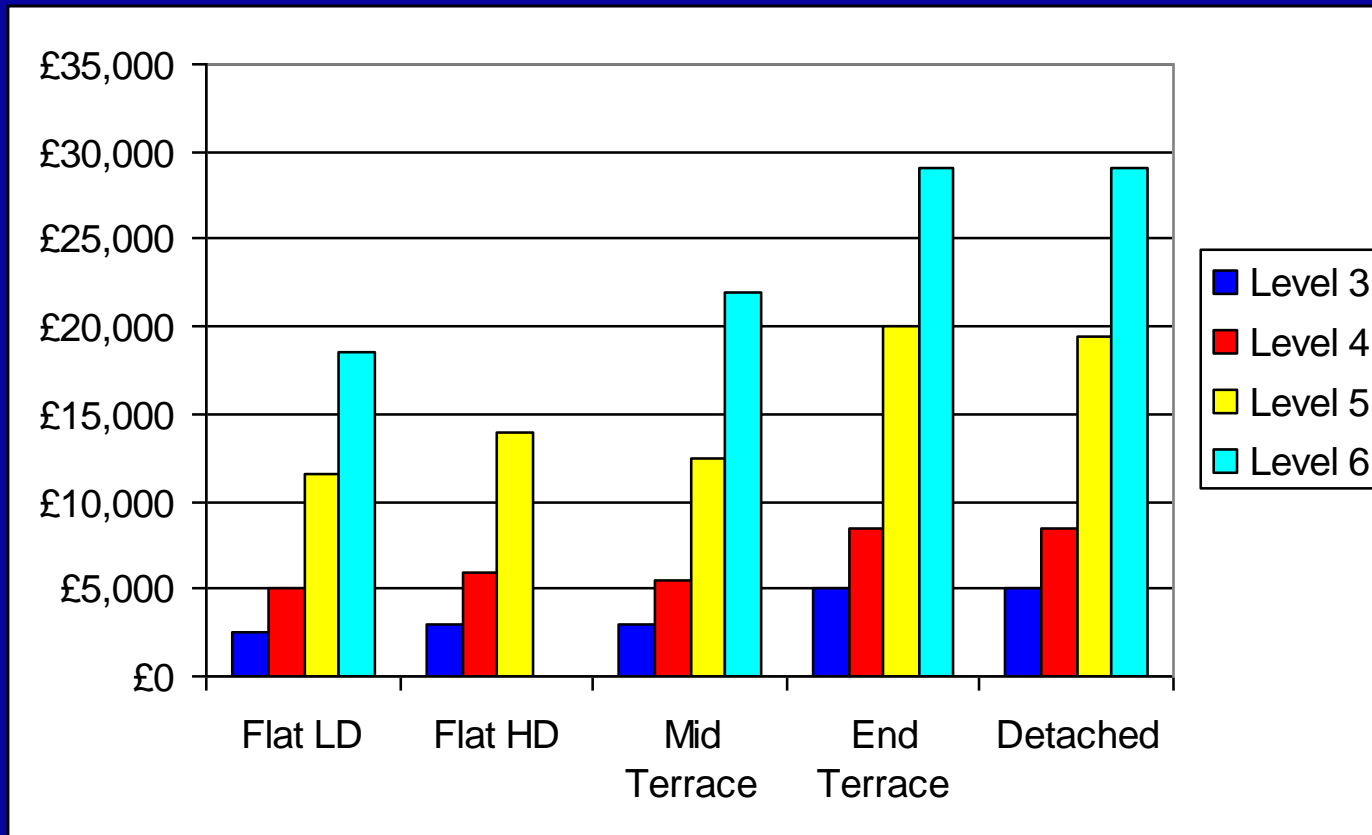
B Road

Minor Road

Dover District

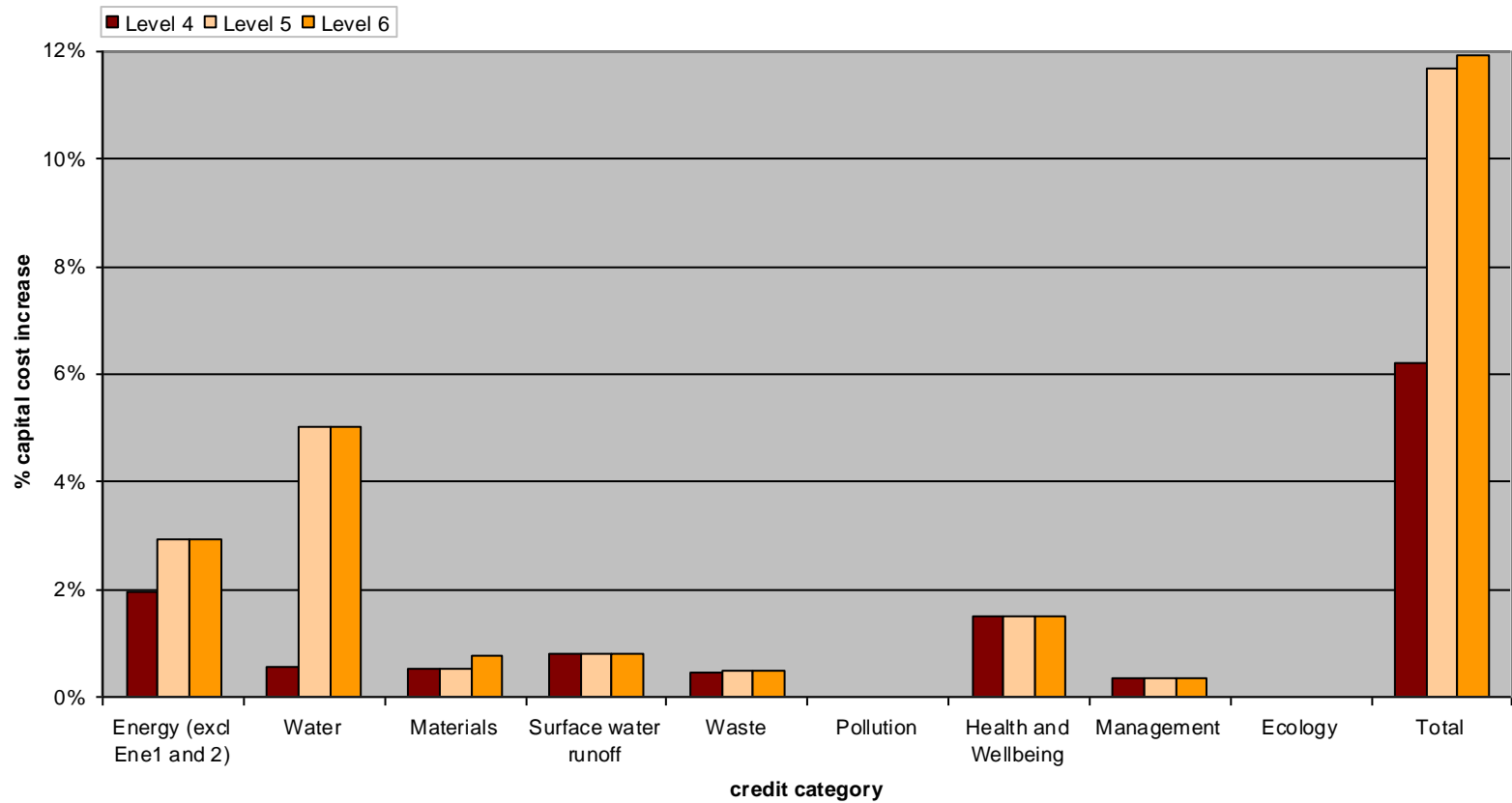


Cost Implications - Energy



Cost Implications – Remainder of Code

Percentage cost increase (over base construction cost) for Code credits (exc. Ene 1, 2 & 7) - House.



General Recommendations

Policy CP5

Sustainable Construction Standards

New residential development permitted after the adoption of the Strategy should meet Code for Sustainable Homes level 3 (or any future national equivalent), at least Code level 4 from 1 April 2013 and at least Code level 5 from 1 April 2016.

New non-residential buildings over 1,000 m² gross floorspace permitted after adoption of the Strategy should meet BREEAM very good standard (or any future national equivalent).

Where it can be demonstrated that a development is unable to meet these standards, permission will only be granted if the applicant makes provision for compensatory energy and water savings elsewhere in the District.

The Council will encourage proposals for residential extensions and non-residential developments of 1,000 m² or less gross floorspace to incorporate energy and water efficiency measures.



Specific Recommendations

- Individual requirements for Strategic Allocations
- Major urban expansion to achieve Code Level 4 and non-residential BREEAM Excellent
- District heating system to be included in mixed use Waterfront development, BREEAM Excellent and residential to achieve 75% of Code sound insulation credits
- Residential redevelopment of former Barracks to incorporate district heating system and at least 80% of Code ecology credits.



Carbon Reduction

Carbon Reduction (tonnes) 2026 Compared with 2006 Baseline		
	Trend	Policy
Saving – Existing Stock	75,166	140,703
Addition – New Build	54,127	54,127
Net Saving	21,039	86,576

Urban Design

- Energy and cost considerations push towards higher density and away from detached homes
- Wind turbines and CHP plants have siting requirement and visual impact
- Large developments over long timescale need an energy and water strategy at outset – fundamental implications for urban design
- Potential conflicts with place shaping and regeneration objectives
- Can we design developments that are locally appropriate, meet Code requirements, are economically viable and desirable to live in?













