

# Combating climate change

## *The power of local government*



Vancouver  
April 07

**Decentralized energy:**  
Micro-generation and CHP  
Towards 2016 and zero-carbon development



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London Borough of Merton



# WHY..?

## Levels of atmospheric CO<sub>2</sub>

Stabilization at 450 ppm

Currently 380 ppm

70 ppm to "tipping point"

Rising 3 ppm every year

$70 \div 3 \text{ ppm} = 23.3 \text{ years}$

2100

CO<sub>2</sub> (ppm)

700

650

600

550

500

450

400

350

300

250

200

150

?

Tipping point

Current

Natural cycle

400,000 Years

300,000

200,000

100,000

0



# Merton Climate Change Strategy

Cut CO<sub>2</sub> by 15% by 2015 – *How..?*

a) Cut the most CO<sub>2</sub>

b) Do so fastest – dependant on c)

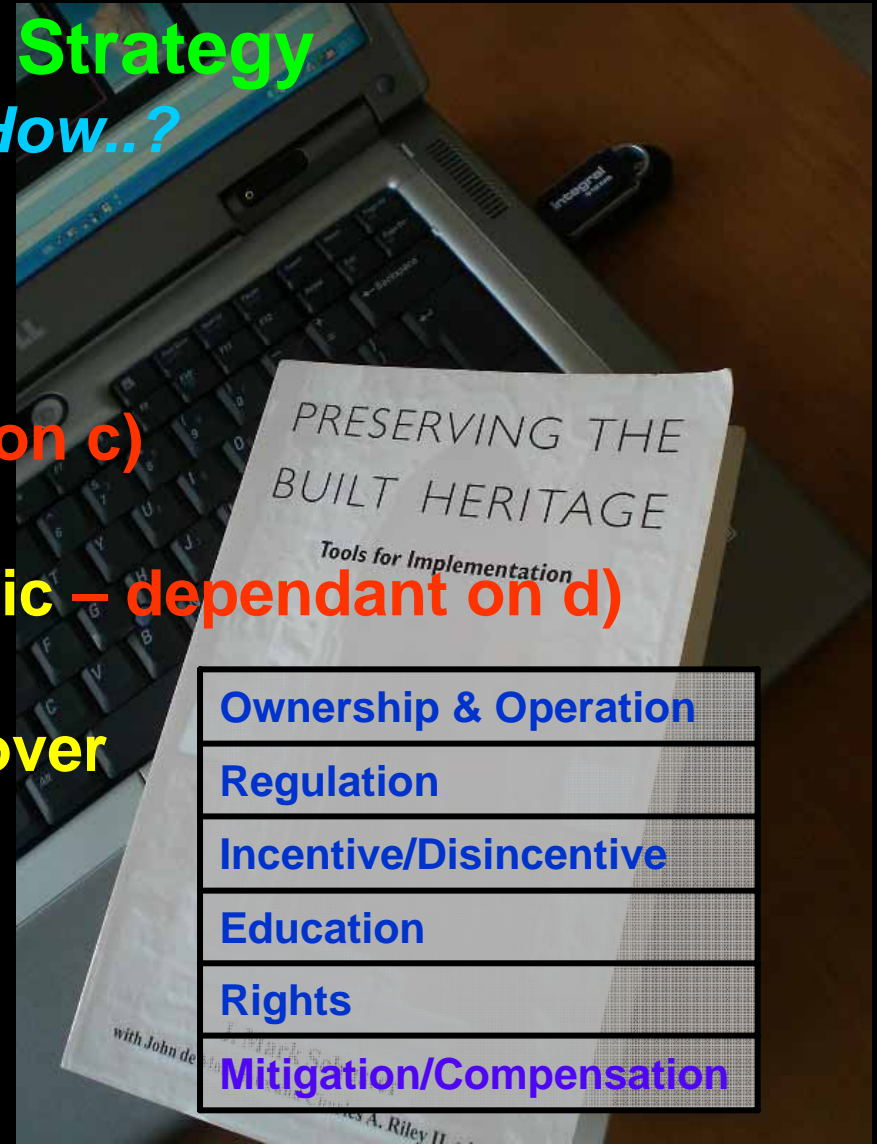
c) Have the most financial logic – dependant on d)

d) We have the most control over

Tools of  
Government  
action

## Buildings

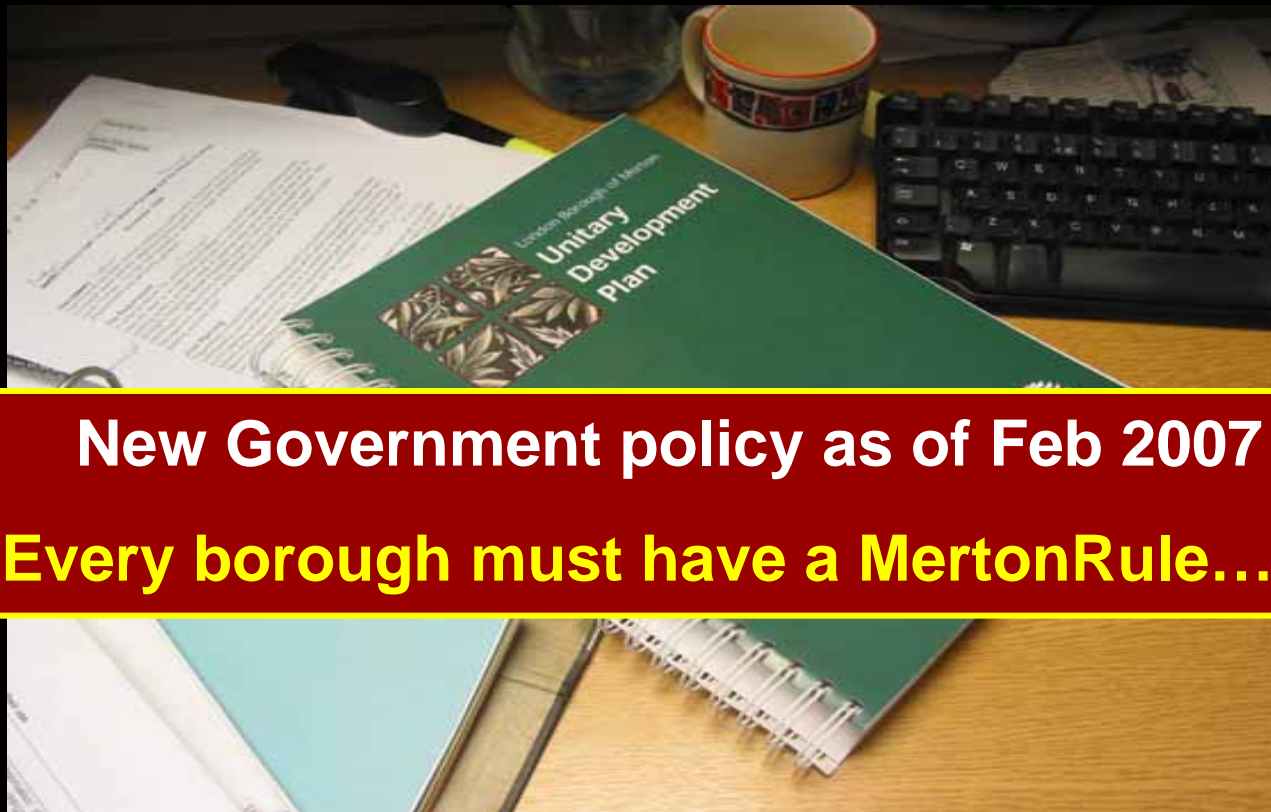
- Planning
- Energy



# The “MertonRule” – *Regulation tool*

Policy PE13 – Oct 2003 (revised May 2007)

“The Council will expect all new building development to incorporate renewable energy equipment to cut CO<sub>2</sub> emissions by at least 10%.”



**New Government policy as of Feb 2007**

**Every borough must have a MertonRule...!!!**



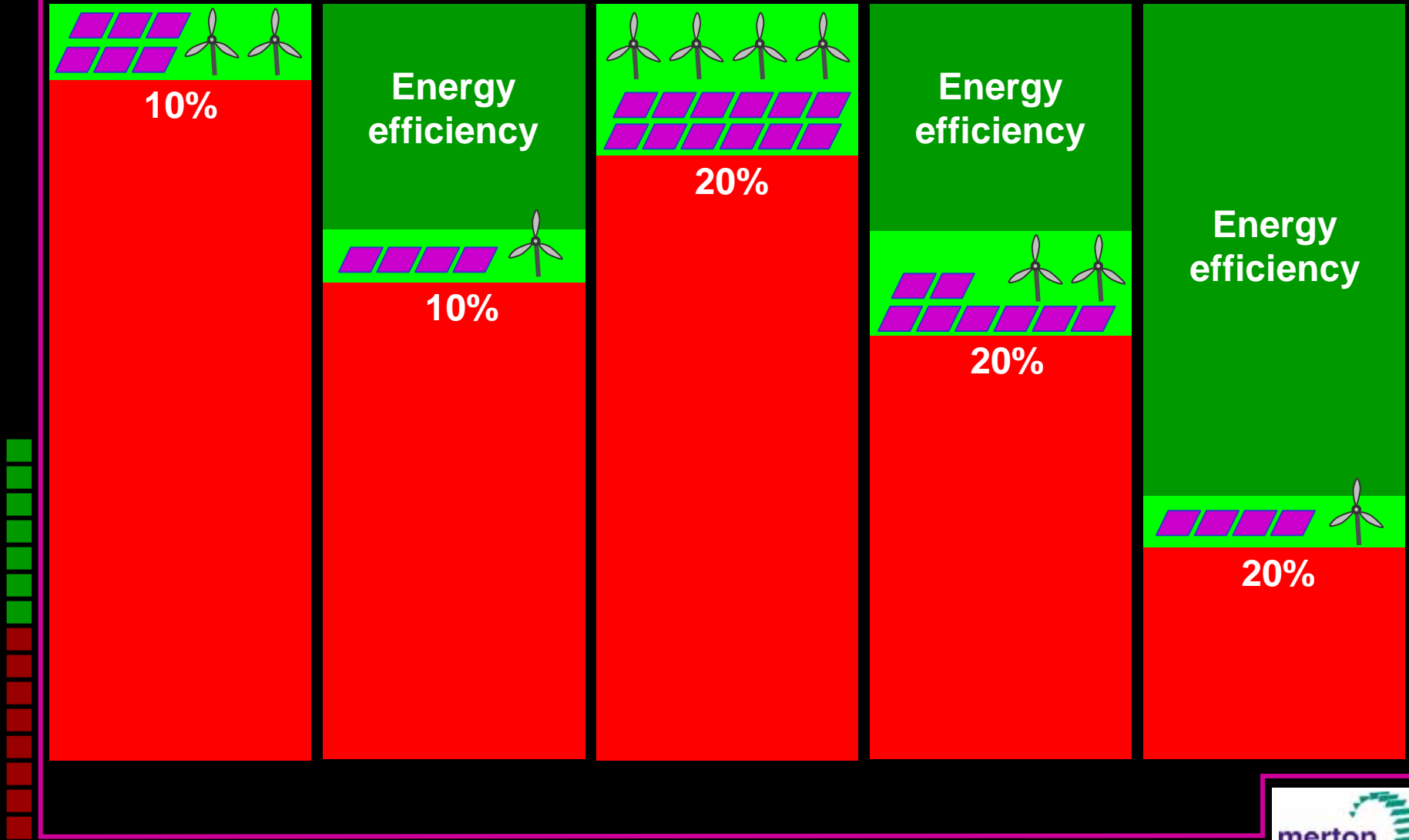
# Technologies



# Behaviour Change – awareness and ownership



# Energy efficiency and the MertonRule



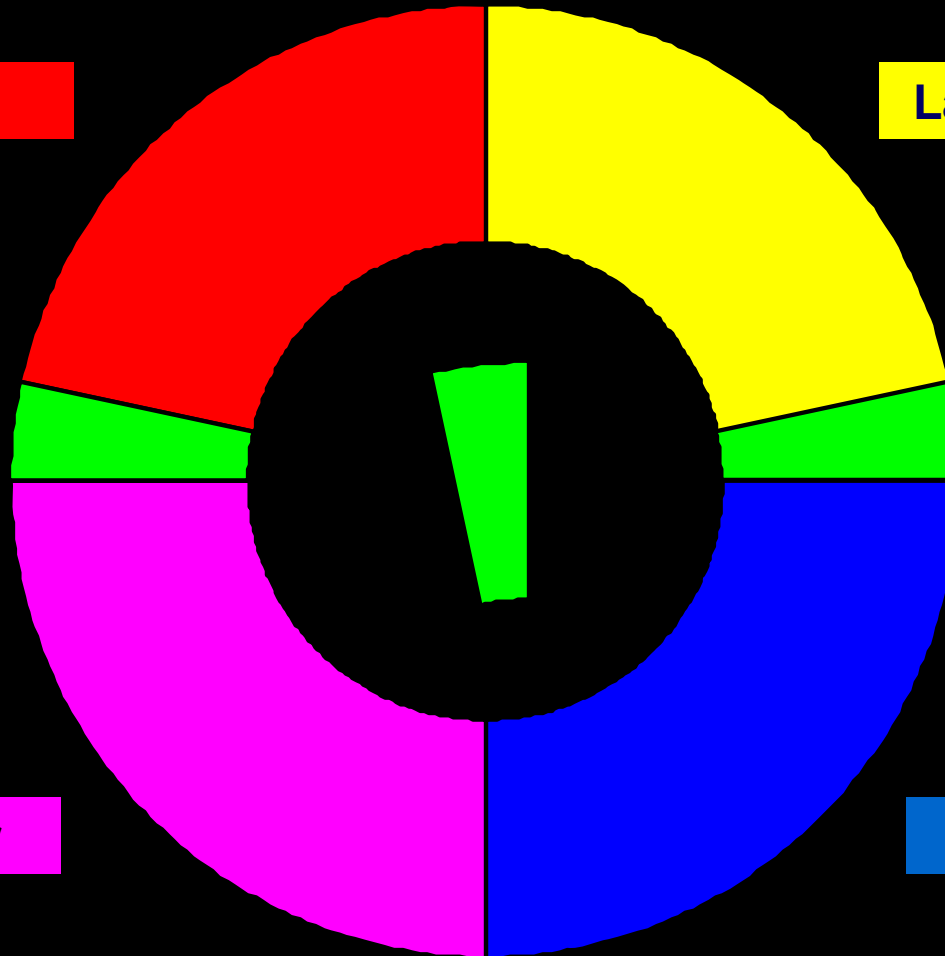
# The development financial cycle

Energy

Landowner

Occupier

Developer



**Ruskin**  
HOMES

A RAY OF SUNSHINE  
**Sola**  
115 SYDENHAM ROAD, CROYDON, SURREY CR9

A stylish project of twenty five apartments, built  
over four floors comprising a mixture of  
contemporary 1 & 2 bedroom properties built to  
an extremely high standard of energy efficiency.

Ready for occupation Summer 2006

Telephone 020 8688 8839 for details

**Townends**  
Land and New Homes

83 - 85 High Street <sup>SHATAH</sup>  
Croydon Surrey CR0 1QF  
Tel: 0208 680 8585



# Exponential growth in the industry

Every borough must  
have a MertonRule x 425



8kW-15kW Turbines	25	x 425	10,000	£30,000	£300,000,000
kWp PhotoVoliac	200	x 425	85,000	£5,000	£425,000,000
CHP/Bio/GSH/Solar = m2 Solar thermal	5,750	x 425	2,500,000	£400	£1,000,000,000

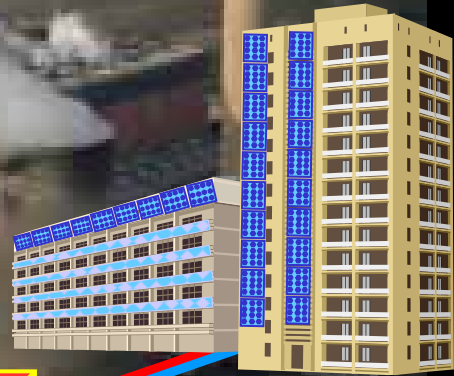
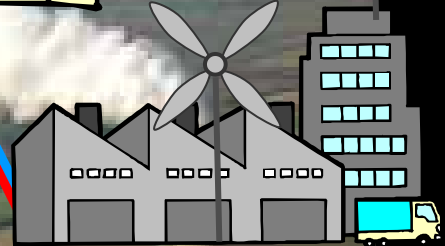
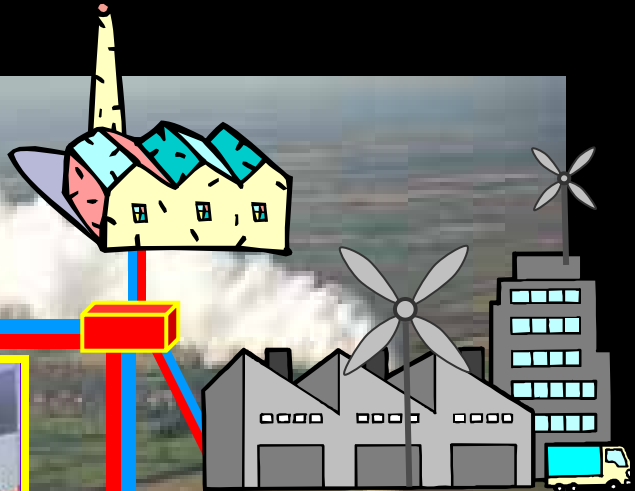
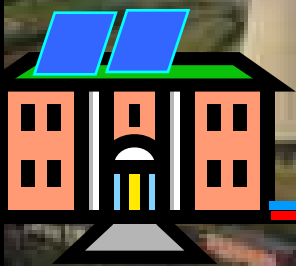
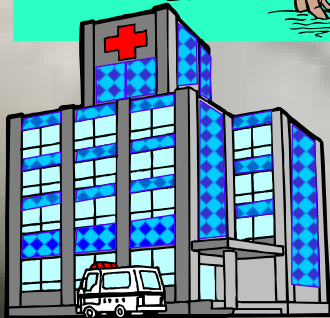
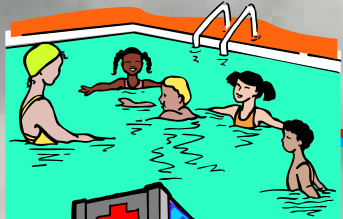
£1,725,000,000

*And jobs in –*

*Planning, BSE, Architecture, Marketing, R&D, Legal, etc*



**Renewable energy**



**Combined Heat and Power**



**Energy ownership:  
TV, cars, computers,  
cell-phones**

“Emergence”

Rowan Crescent

Dahlia Drive

MertonRule

Green conver

Conservatory

addition

Urban eco

store

ne

Acacia Avenue

Municipal energy co

The Acacia Avenue scenario  
in 10 – 15 – 20 – 25 years

Beech Close



# Wouldn't it be better to do all this through Central Government ?

**NO** - Local initiatives are the best approach:

Central Government is inflexible and it takes a long time to change things

Create pride and recognition at a local level – *community ownership*

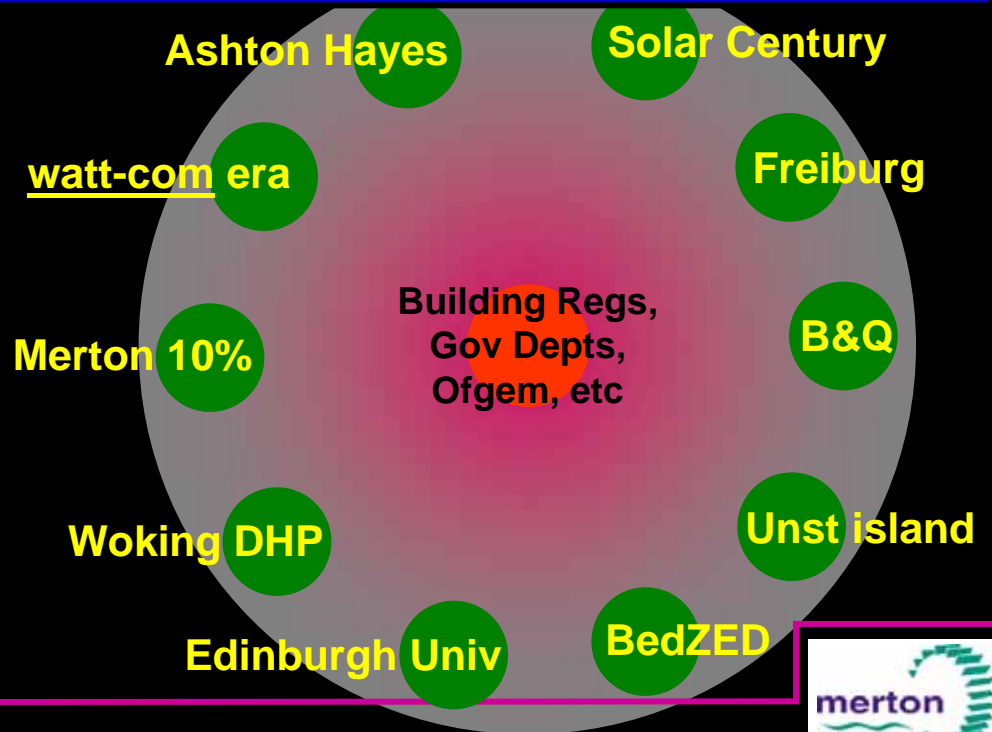
Enthuse the next generation of planners, engineers and activists

Stimulates competition between boroughs – drives innovation & ambition

Preserves imagination and initiative at a local level – new paradigms - new ideas

Can't explore the climate change frontier from behind a central Government desk.!!

The Government should recognize and support globally replicable ideas



# Why

- Climate change
- Political electoral pressure
- New industries – new engineering
- Oil topping point

# wait?



# Mobilizing to combat climate change



Marshal Georgi Zhukov



General George C Marshall

“To mobilize we must develop a technique and methods so simple that the citizen of good common sense can readily grasp the idea.”



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