

Derbyshire's Energy Trilemma:

Affordable | Reliable | Low Carbon

**<Developing Strong Leadership
through Climate Change Action
Planning>**

Richard Davies

Local Improvement Adviser

'Consult the genius of the place. The answers are all there. The trick is to find right question.' Alexander Pope, Poet 1688-1744

Good Morning

marches
energy agency



low carbon
enterprise





Proud to be recognised by
Social Enterprise Great Midlands



Agenda

The energy tri-lemma

Affordability

Reliability

Low
Carbon

Derbyshire's
Current
Position.....

Bright
spots

Why aren't
we making
more
progress

Plan



be

strategically

unreasonable

What
have future
generations
ever done
for us?



The energy tri-lemma

Affordability

***Low
Carbon***

Reliability

Affordability

Energy bills 'may double over next decade'

Consumer groups say Ofgem's cost to households of upgrading the UK's energy network – £6 a year – is the 'tip of the iceberg'

Rebecca Smithers

guardian.co.uk, Tuesday 5 October 2010 07:00 BST

Article history



According to consumer groups, household energy bills could reach £2,000 a year over the next ten years. Photograph: Steve Taylor/Getty Images

Householders face a massive price hike which could see their energy bills doubling over the next ten years to help pay for the £32bn cost of upgrading Britain's dilapidated energy network, they were warned today.

DAILY EXPRESS

THE WORLD'S GREATEST NEWSPAPER



www.express.co.uk

MONDAY JUNE 22, 2009 40p

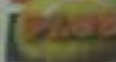
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MAGAZINE

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20p
SEE PAGE 14



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ON YOUR SHOPPING AT

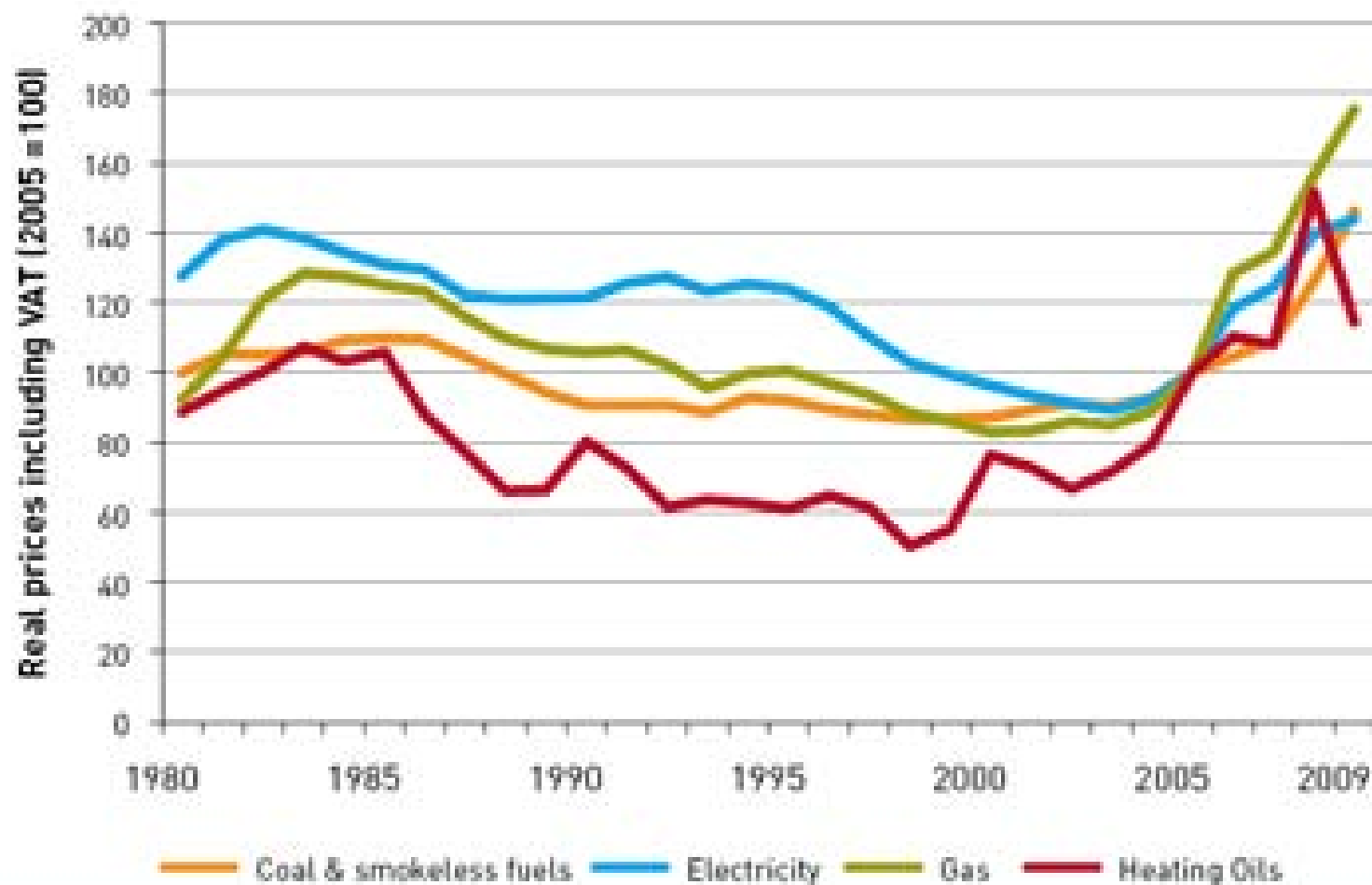
WHEN YOU SPEND £30 - SEE PAGE 14



ESSENTIAL WIMBLEDON GUIDE FREE INSIDE

£5,000 POWER BILLS SHOCK

Fuel price indices for the domestic sector, 1980 to 2009



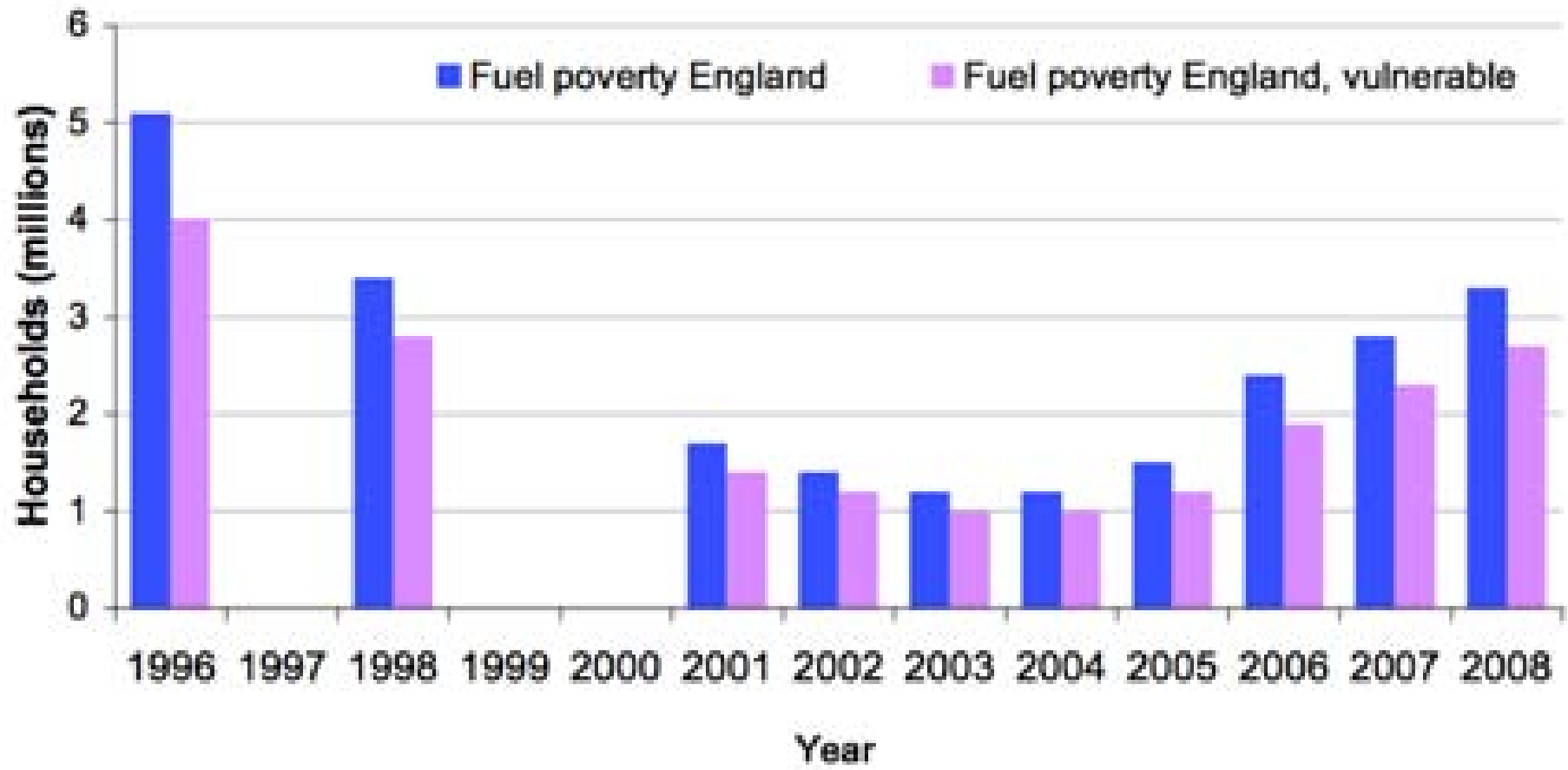


A National Statistics Publication



**ANNUAL
REPORT
ON FUEL
POVERTY
STATISTICS
2010**

Chart 3 – Fuel poverty in England, 1996-2008



How much money?!

c. 309,000 households in Derbyshire

GAS & ELECTRICITY average UK

household spends £1,141 per year


Earnst & Young 2010

= £353 million a

year in Derbyshire

(remember £1m/day)



A pink sticky note is shown at an angle, with the word "Reliability" written in bold black text. The note has a folded bottom-right corner, and the background is white.

Reliability

The Oil Crunch

A wake-up call for the UK economy

Second report of the UK Industry Taskforce on Peak Oil & Energy Security (ITPOES)

February 2010

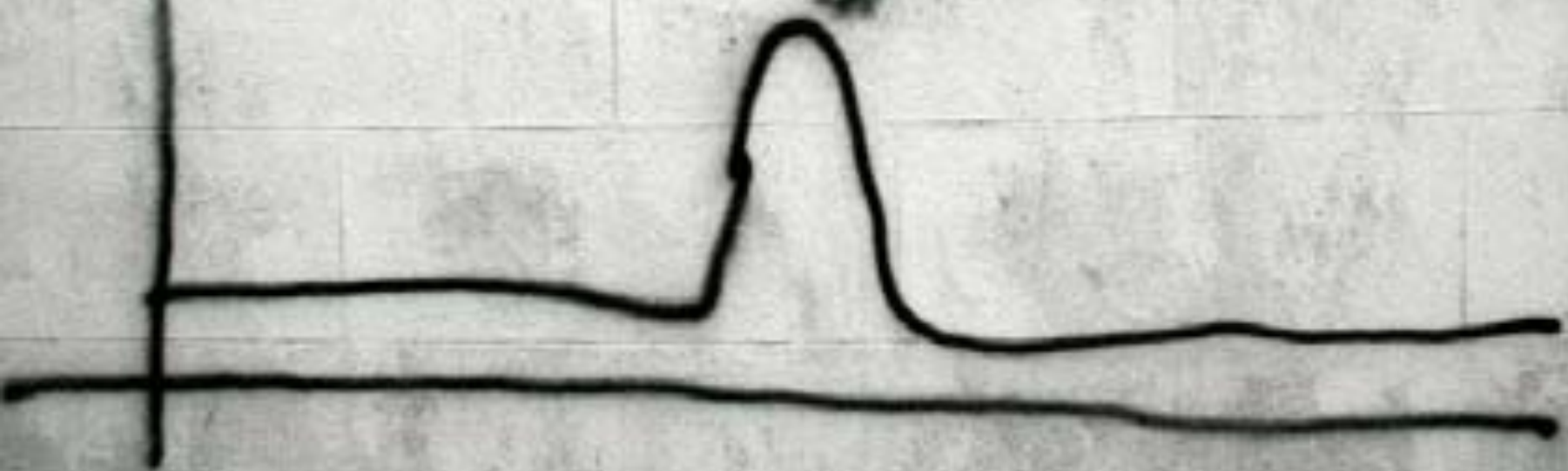


The next five years will see us face another crunch - the oil crunch. This time, we do have the chance to prepare. The challenge is to use that time well.

As we reach maximum oil extraction rates, the era of cheap oil is behind us. We must plan for a world in which oil prices are likely to be both higher and more volatile and where oil price shocks have the potential to destabilise economic, political and social activity.

The Oil Age

YOU ARE
HERE



Crude oil tipped to bubble over \$100 a barrel

By Javier Blas

Published: December 7 2010 19:26 | Last updated: December 7 2010 23:11

For the first time in two years, oil bulls are starting to outnumber bears.

The bulls' push comes as the oil market is experiencing a "demand shock", with consumption growth this year accelerating to almost its highest rate in 30 years.

Low

Carbon

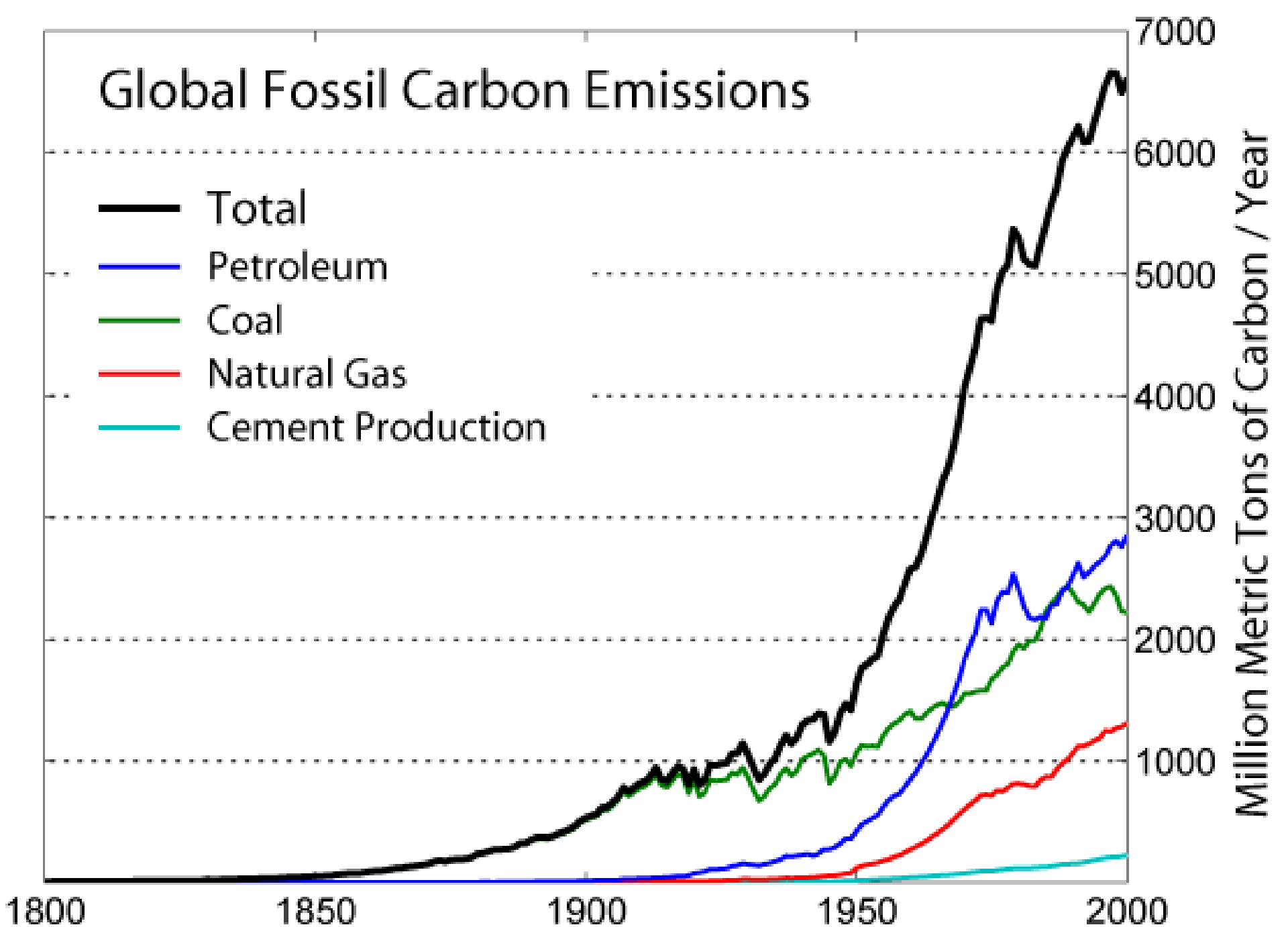


Svante Arrhenius 1859 -1927

If the quantity of carbonic acid increases in geometric progression, the augmentation of the temperature will increase nearly in arithmetic progression.

Global Fossil Carbon Emissions

- Total
- Petroleum
- Coal
- Natural Gas
- Cement Production





Positive proof of global warming.



**18th
Century**

1900

1950

1970

1980

1990

2006

***Derbyshire's
Current
Position.....***

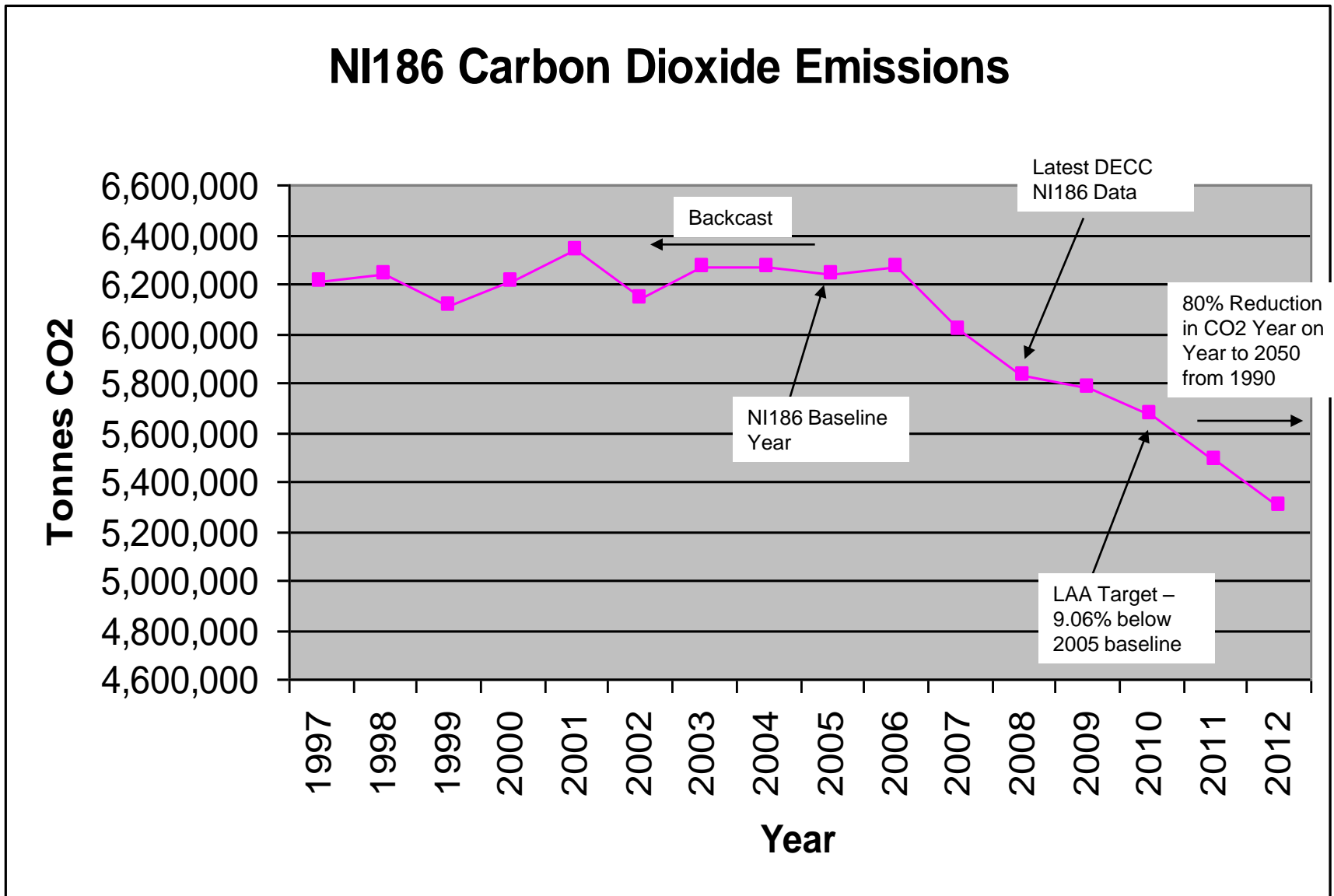
‘If you don’t know where you’re going, you’re almost certain to end up there.’



“A journey of a thousand miles begins with a single step.”



Derbyshire NI186 Data + 'back-cast'

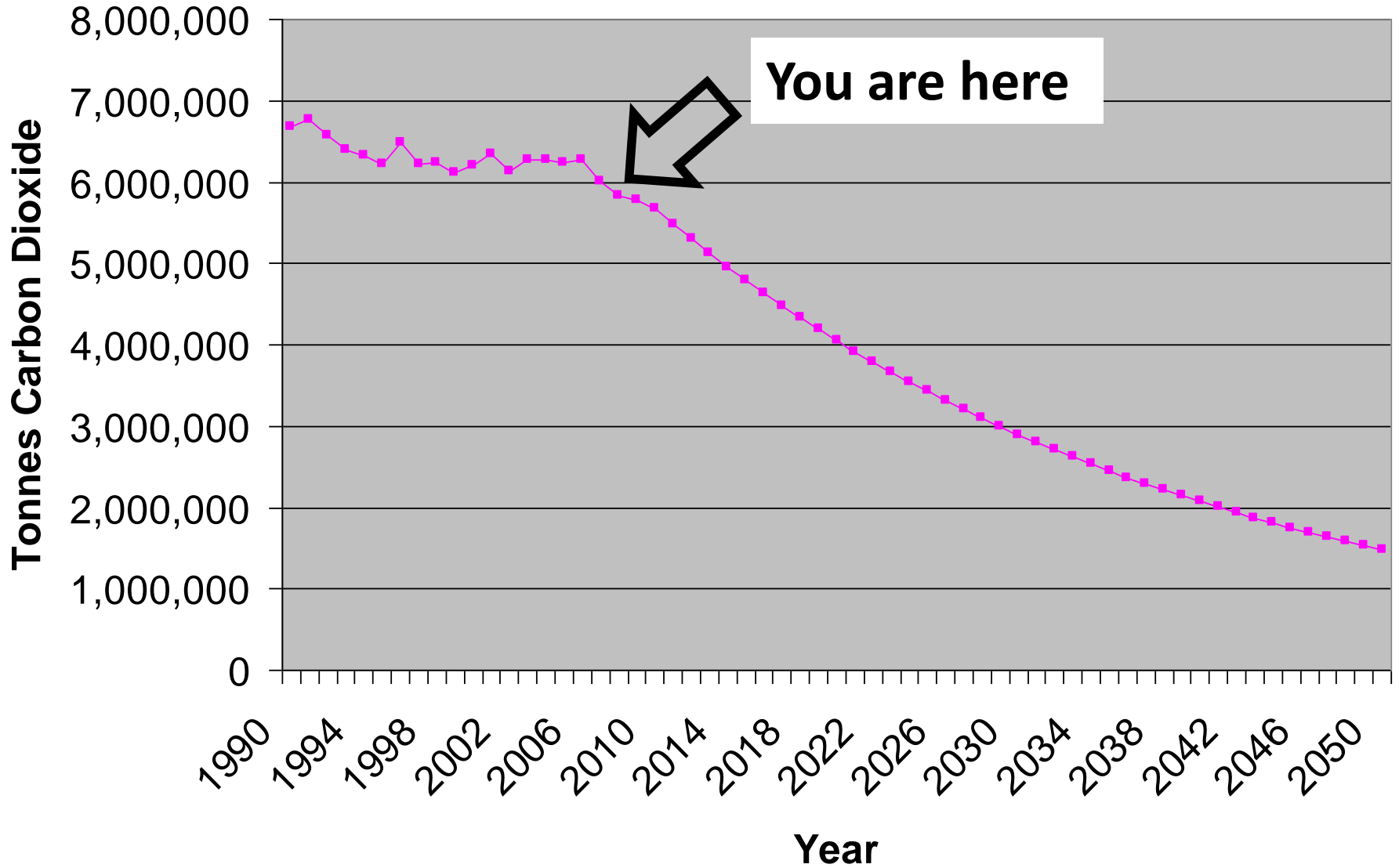


Meeting Carbon Budgets – ensuring a low-carbon recovery

2nd Progress Report to Parliament
Committee on Climate Change
June 2010

CO₂ emissions fell by only 0.6% annually in the period before the recession, relative to 2-3% annual cuts required in the period to 2020 to meet carbon budgets. Going forward, therefore, a step change in the pace of emissions reduction is needed.

Derbyshire Carbon Descent





***Bright
spots***

ofgem E-Serve

Feed-in Tariff Update



FIT Installations Statistical Report

This report provides details of the following with regard to the Feed in Tariff (FIT) scheme:

Population TSO:

Continental area selected: (11000000) and (6100000)

tariff codes selected: (0)

Geographical Locations Selected:

Country Selected: (0)

Download (CSV) Report Selected: (See History)

Technology Type Selected: (0)

Derbyshire

Technology	Domestic Installations	Domestic Installations Installed Capacity (MW)	Commercial Installations	Commercial Installations Installed Capacity (MW)	Industrial Installations	Industrial Installations Installed Capacity (MW)	Community Installations	Community Installations Installed Capacity (MW)	Total Installations	Total Installed Capacity (MW)
Hydro	2	0.019	1	0.000	0	0.000	1	0.010	4	0.029
Photovoltaic	343	1.021	2	0.001	0	0.000	1	0.000	346	1.022
Wind	10	0.094	2	0.010	2	0.000	0	0.000	14	0.104
Total Installed Capacity (MW)		1.034		0.011		0.000		0.010		1.055
Total Installations	355		5		2		1		363	

FIT Installations Statistical Report

This report provides details of the following with regard to the Feed in Tariff (FIT) scheme:

Population TSO:

2% larger than

Derbyshire

Continental area selected: (11000000) and (6100000)

tariff codes selected: (0)

Geographical Locations Selected:

Country Selected: (0)

Download (CSV) Report Selected: (See History)

Technology Type Selected: (0)

Nottinghamshire

Technology	Domestic Installations	Domestic Installations Installed Capacity (MW)	Commercial Installations	Commercial Installations Installed Capacity (MW)	Industrial Installations	Industrial Installations Installed Capacity (MW)	Community Installations	Community Installations Installed Capacity (MW)	Total Installations	Total Installed Capacity (MW)
Hydro	0	0.000	2	0.006	0	0.000	0	0.000	2	0.006
Photovoltaic	292	0.826	0	0.000	0	0.000	1	0.004	293	0.830
Wind	3	0.018	2	0.021	0	0.000	2	0.000	7	0.039
Total Installed Capacity (MW)		0.844		0.027		0.000		0.004		0.875
Total Installations	295		4		0		2		301	

Greg Barker at Torrs Hydro

DECCgovuk

24 videos

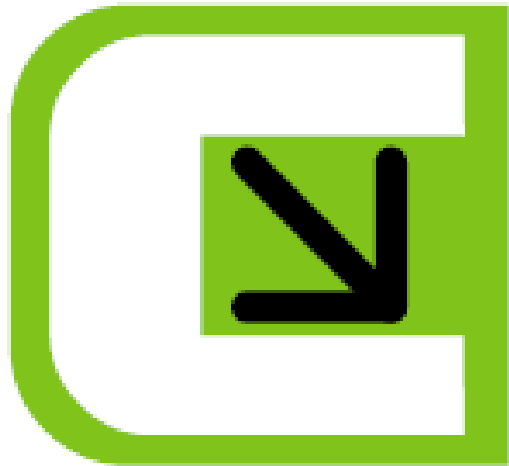
Subscribe



0:51 / 2:17

360p





Derbyshire
Low
Carbon
CO₂mmunity

Beeley Carbon Neutral
Bonsall Energy Group
Dales Area Renewable Group
Transition Grindleford
High Peak FOE
Little Green Space
Litton Hydro
Matlock Area Climate Action Forum
Middleton Environment Group
New Mills FOE
Sustainable Bakewell
Sustainable Edale
Sustainable Eyam
Sustainable Winster
Sustainable Wirksworth
Sustainable Youlgrave
Torrs Hydro New Mills Ltd
Transition Buxton
Transition Chesterfield
Transition Hope Valley

Transition Matlock
Hodthorpe Environment Acting Together
Brampton Community Band
Chesterfield Cycle Campaign
Derbyshire Green Party
Eagle Club, Chesterfield
Eckington UFI
Churches in Buxton Together
Hathersage Memorial Hall
Ilkeston 50+ Forum
Long Eaton 50+ Forum
Long Eaton U3A
Matlock 50+ Forum
Staveley Neighbourhood Management
Whaley Bridge Association
Clays Cross Environment Action group
Coombs Village Hall Trust
Denby Footpath group
Eggington Green Group
Glossop Central Methodist Church



CHART LSP



North East
Derbyshire
District Council

Affordable Warmth Strategy 2008/2012

for the CHART LSP Area

Prepared by:

*Chesterfield Borough Council
and North East Derbyshire
District Council*



STRATEGY

**Why aren't
we making
more
progress**

The fun and easy way[®] to go green
with eco-friendly tips to help you decide how green you'll go!

Climate & Energy Action for Derbyshire

FOR
DUMMIES

Yvonne Jeffery

Home, lifestyle, and sustainability writer

Liz Barclay

Consumer affairs expert, journalist, and BBC host

Michael Grosvenor

Sustainable transportation expert

A Reference for the Rest of Us!



FREE eTips at
dummies.com

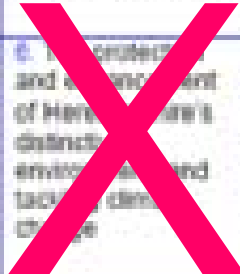
MAKE A GOOD
USE OF DESIGN
FOR HEALTHY
LIVING





OUR OBJECTIVES

Economic development and enterprise	Healthier communities and older people	Children and young people	Safer communities	Stronger communities	The environment	Organisational improvement and greater efficiency
1. Improve infrastructure and learning and employment opportunities, enabling business growth and sustainable prosperity for all	2. Improve people's health and well-being, and reduce health inequalities, enabling people to be independent and active and to contribute to their local communities	3. Maximise the health, safety, education, economic well-being, achievements and contribution of every child	4. Make Herefordshire an even safer place to live, work and visit	5. Stronger, vibrant, more inclusive communities in which people enjoy a good quality of life and feel they have influence over their lives and decisions that affect them	6. Protect and enhance Herefordshire's distinctive environment and tackle climate change	7. Being recognised as top-performing organisations that deliver value for money and ensure excellent services



'Green' Climate Policies:

- Probably unnecessary
- Certainly ineffectual
- Ruinously expensive



www.rogerhelmer.com



European Conservatives
and Reformists Group

A poster by Tory climate change sceptic Roger Helmer East Midlands MEP.
Photograph: rogerhelmer.com

2000-2010

was the

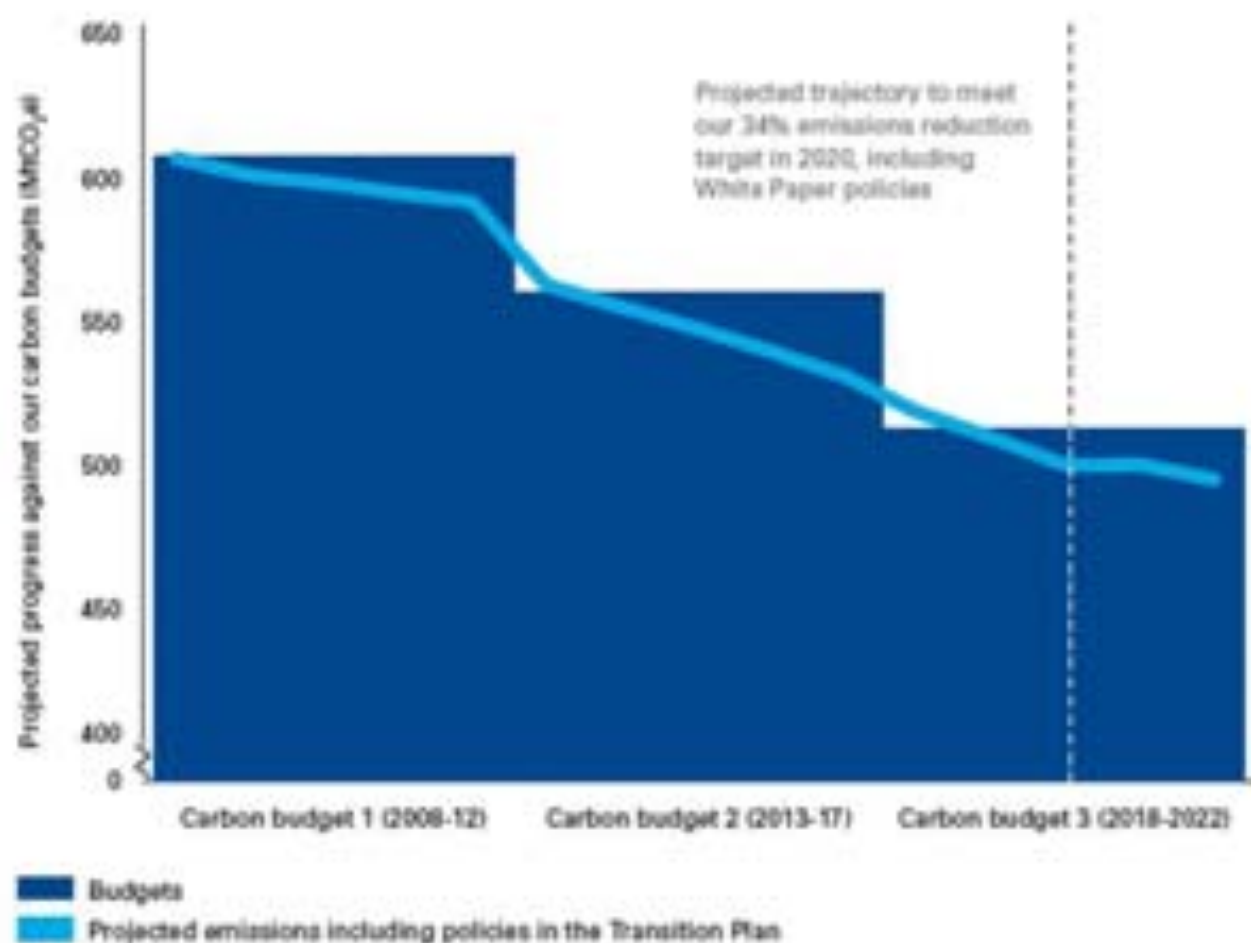
decade

of rhetoric

***2010-2020
will be the
decade
of delivery***

The Government will drive the transition to a low carbon UK using the world's first ever legally binding carbon budgets

The UK's carbon budgets are equivalent to a 34% cut in greenhouse gas emissions in 2020 on 1990 levels. The UK also has a target to cut emissions by at least 80% by 2050.





Sustainable Development Unit



Saving Carbon, Improving Health



NHS CARBON REDUCTION STRATEGY FOR ENGLAND

January 2008

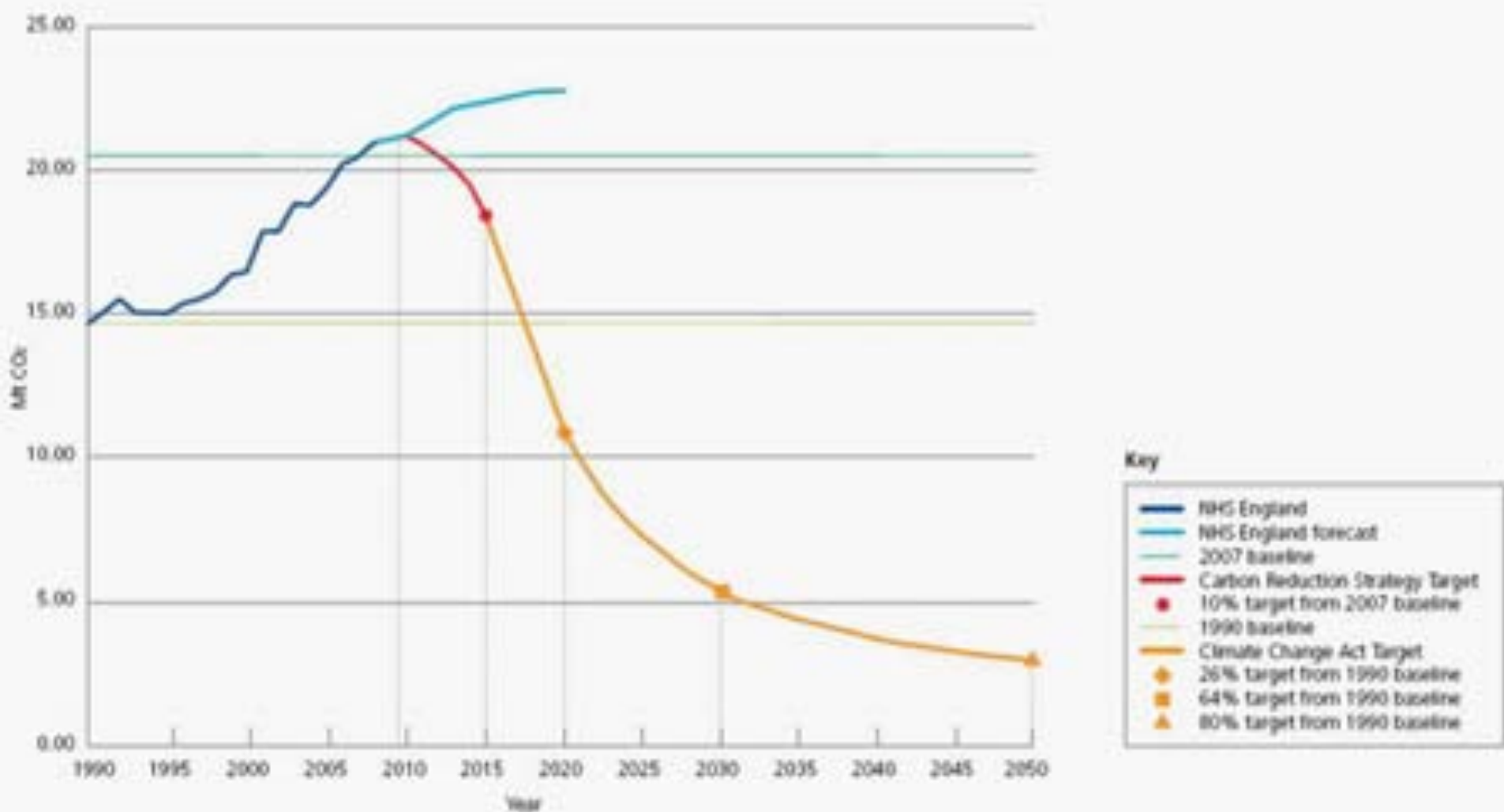


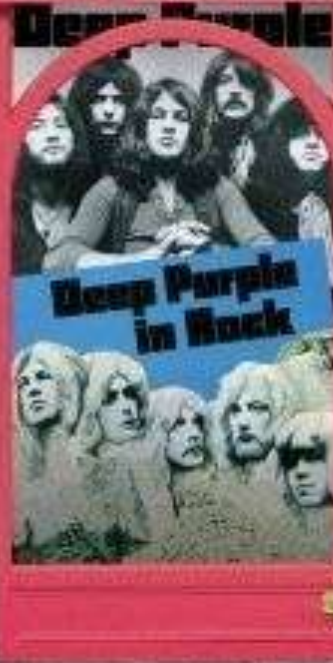
Figure 1: Graph of the NHS England CO₂ Emissions Baseline and Climate Change Act Targets

BBC MUSIC



1970

20 CLASSIC TRACKS FROM 1970



A purple, 3D-rendered sticky note is shown at an angle, giving it a sense of depth. The word "Vision" is written in a bold, black, italicized sans-serif font across the center of the note. The background is plain white.

Vision



You are here: [Home](#) > [Policies](#) > [Business sectors](#) > [Low Carbon Business Opportunities](#)

[Policies](#)[Business sectors](#)[Low Carbon
Business
Opportunities](#)

Low Carbon Business Opportunities

The transition to a low carbon world will transform our whole economy. It will change our industrial landscape, the supply chains of our businesses and the way we all live and work. The vast majority of, if not all, economic activity in Britain will have to reduce its carbon impact significantly.



derbyshire partnership forum

**Derbyshire's Sustainable
Community Strategy**

2009–2014

Working together for a better Derbyshire

Where do we want to be?

Derbyshire's priorities are to...

Improve and protect the local environment

So that ...

- Natural resources in Derbyshire are protected for the future
- People can access and enjoy Derbyshire's high quality landscape and heritage
- Communities are more resilient to climate change.

Support a thriving local economy and sustainable communities

- Businesses are competitive and make appropriate use of the resources Derbyshire has to offer
- People in Derbyshire have a good education, take part in learning opportunities, have the right skills to gain employment and can access high wages and skilled jobs locally
- People in Derbyshire have affordable and decent housing.

Provide well connected communities

- People in Derbyshire have the services they need and can get to where they need to go, e.g. shops, work, doctor, school, family and friends
- People in Derbyshire use their cars less by accessing car share schemes, using public transport, walking and cycling.

***The
Prize?***




What this means for jobs





This Strategy creates huge opportunities for British jobs and businesses. We estimate that the measures set out in this Strategy could lead to up to 65,000 people being employed in the installation of home insulation and microgeneration as well as providing home energy advice.

**Creating an
estimated 800
jobs across the
Derbyshire by
2020**





Choice

	Action	
	A	B
Global Warming	Significant Action Now	Little or No Action Now
False		
True		

Reference:





A light blue, rectangular sticky note is shown at an angle, giving it a three-dimensional appearance. The word "Plan" is written in a bold, black, sans-serif font, slanted to match the orientation of the note. The note has a slight shadow on its bottom edge, suggesting it is attached to a surface.

Plan

A. Industry & Commerce

1. Max. Service Providers
2. 80/20: BIG EMITTERS
3. SME' s
4. Local Enterprise Partnership
5. Tourism

B. Domestic

1. Max. Service Providers
2. Advice Target (32,000)
3. Installation Target (8,000)
4. Affordable Warmth Plan
5. Exemplar: Eco-home
6. Getting ready for the GREEN DEAL

C. Transport

1. Local Transport Plan
2. Partner Workplace Travel Plans
3. Partner Smarter Driving

D. LSP Partners

1. Each (major) LSP partner organisation to confirm a CO₂ reduction programme with measurable targets and savings, and to integrate this into their day-to-day activities/ business plans & report progress.

E. Communities

1. Establish & promote a Derbyshire Low Carbon Community Network
2. Encourage, support & champion 40 existing + 40 new individual 'Low Carbon Communities'

F. Civil Society

1. Collaborate with civil society to promote sustainable & affordable energy; carbon reduction; volunteering and maximise the social benefits of an integrated programme

G. Renewable Energy

1. Larger Scale
2. Hydropower
3. Community Ownership
4. Microgeneration (Feed in Tariff & Renewable Heat Incentive)

H. Planning

1. Housing (Code for Sustainable Homes)
2. Non-Domestic
3. Merton Rule (% on site renewable energy)
4. Renewables Target from Evidence Base

I. Land Use & Food

1. Low Carbon Farms
2. Energy Crops
3. Farm based renewables
4. Local food

J. Keeping Score

1. Capture the implications of all significant sustainable energy initiatives in the county and monitor savings/outcomes
2. Climate Change Sub-Group 'Scrutiny'

K.

Publicity/Communication

1. Publicity and awareness campaign to ensure that organisations, communities and individuals throughout the county are aware of sustainable energy/low carbon opportunities

L. Securing Funding

1. Utilities (Beauty Parade)
2. Climate Change Skills Fund (c. £1 million East Midlands 2011)
3. Regional Growth Fund (£1.4 billion for England)
4. Other: Trusts, Green Investment Bank, RHI, FiT

***3Ps: Policies,
Programmes
Powers***

Press Release



R/16

4 October 2010

BRITAIN NEEDS REWIRING TO THE TUNE OF £32 BILLION

- **Britain needs to be rewired in a smarter way to secure sustainable energy supplies for consumers**
- **Vital investment in pipes and wires must increase by 75 per cent in the next ten years to meet this challenge**

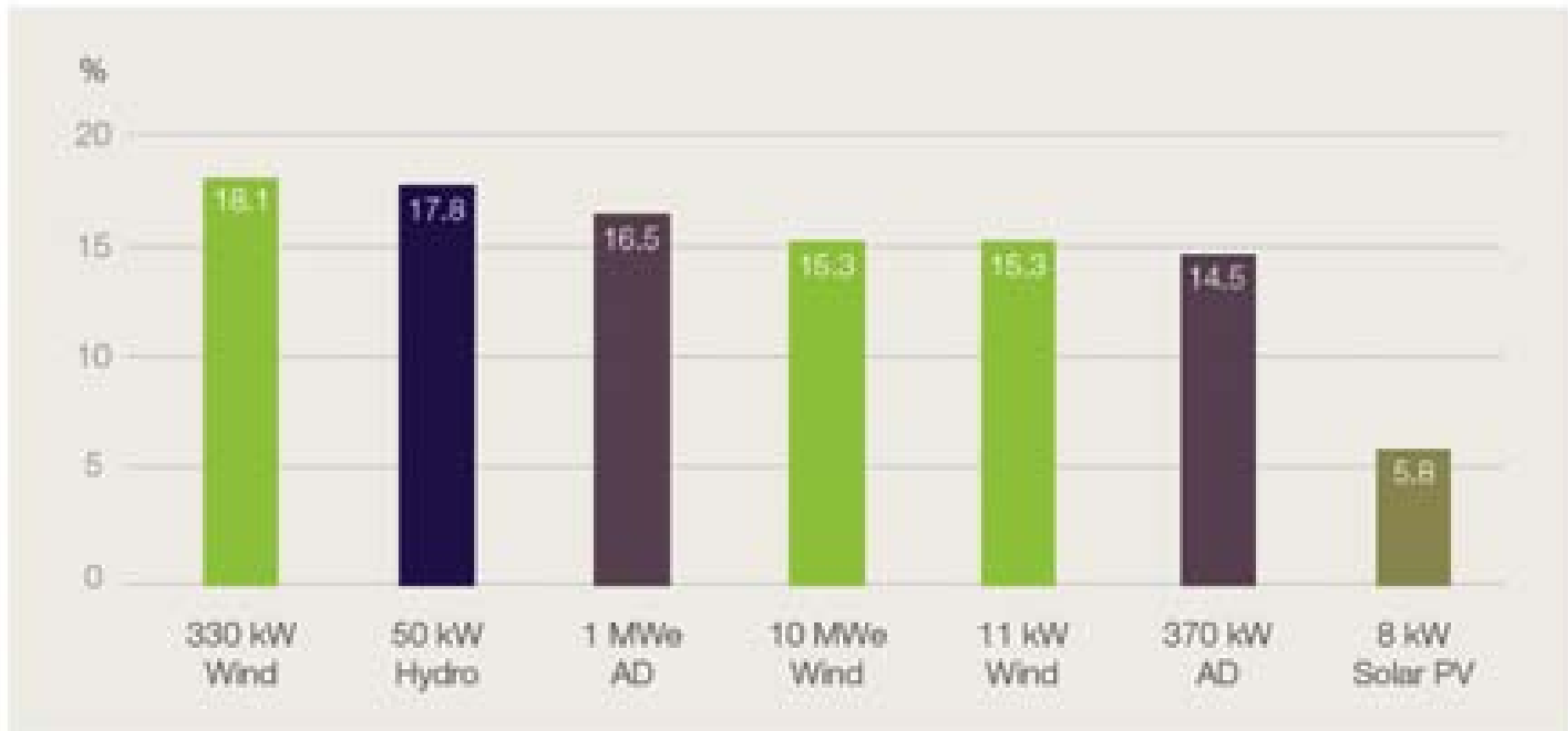
Ofgem estimates over **£200 billion** needs to be spent in the next 10 years to secure supplies for consumers and to move to a low carbon economy. Of this, around **£32 billion** will need to be spent on pipes and wires against an industry worth **£43 billion** today, an increase in value of **75 per cent** – and a doubling of the rate of investment from the previous 20 years.

Derbyshire (excluding 'City') has 1.26%
of UK population.

A fair share (1.26%) of £200
billion is £2.5 billion or £21
million/month for the next 10
years

Energy Index

Internal Rate of Return Analysis



Latest Developments




Energy Bill published - 09 December 2010

The Energy Bill 2010 / 2011, published today, has three principal objectives: tackling barriers to investment in energy efficiency, enhancing energy security, and enabling investment in low carbon energy supplies.

In particular it sets out for the first time how the Green Deal will work, the Government's new and radical way of enabling private companies to make energy efficiency available to all. Bill payers, in households or business, will get energy saving improvements without having to front up the cash. Instead, businesses will provide the capital, getting their money back via the energy bill. Millions of Britain's properties will be made warmer, cosier and cheaper to run.

Energy and Climate Change Secretary Chris Huhne said: "I'm confident the Green Deal will catch on with the public. It'll make upgrading our nation's draughty homes a no brainer..."

- [Find out more about the Energy Bill content](#)
- [Read the Press release](#)
- [View the full Bill on the Parliament website](#) 

Minister outlines Green Deal details

24 November, 2010 | By Allister Hayman

Councils will be expected to take “strategic ownership” of the national roll-out of the government’s flagship energy efficiency programme, the climate change minister Greg Barker has said.

[Renewable heat](#)[Renewable Heat Incentive \(RHI\)](#)[Renewable Heat Incentive \(RHI\) proposals](#)[Supply curve for renewable heat](#)

Renewable Heat Incentive (RHI)

As announced on 20 October 2010, as part of the [Spending Review](#), the Renewable Heat Incentive (RHI) will go ahead in 2011. We believe the RHI Scheme is the first of its kind in the world and will therefore be a world-leading scheme to provide long term support for renewable heat technologies, from household solar thermal panels to industrial wood pellet boilers. The RHI will represent over £850m of investment over the spending review period, driving a more-than-tenfold increase of renewable heat over the coming decade and shifting renewable heat from a fringe industry firmly into the mainstream.

Heat production is responsible for around half (49%) of the final energy demand consumed in the UK and roughly half of all UK's carbon emissions. Taking action now to switch from fossil fuels to cleaner and more sustainable green sources of energy will reduce the impact that our heat requirements have on the environment and help ensure the UK has an energy supply that is safe, secure and reliable.

Quick links

- [Renewables Obligation](#)
- [Feed-in tariffs \(FITs\)](#)

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Action

Suggestions (what do we do on Monday).....

Climate change & energy 'out of the silo' please

Be clear about who's accountable and for what

Job, jobs jobs – put the eco in economic

Don't let Derbyshire lose out to the Cities

Knowledge & leadership – key to success

“What we think,
or what we know,
or what we
believe is, in the
end, of little
consequence.
The only
consequence is
what we do.”

John Ruskin



'If future generations are to remember us more with gratitude than contempt, we must leave them more than the miracles of technology. We must leave them a glimpse of the world as it was in the beginning, not just after we got through with it.'

Lyndon B. Johnson



For more information

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07941 155538